

The Mark Williams Story



The history of Mark Williams Enterprises, Inc. can be traced back to the early 1960s, when the firm was founded as a race car chassis shop. The firm was responsible for building a large number of National event-winning cars in a variety of classes. MW got into the driveline components business out of necessity in the early '70s when available products did not meet Williams' high

standards. Subsequently, MW introduced the industry's first guaranteed forged steel axle. As Williams devoted more time to developing new products, the firm evolved into a full-time manufacturing facility. By the mid-70s MW had stopped producing complete race cars, and offered the "kit car" for dragsters and funny cars. MW also has many handy tools, etc. for home race car builders. The end of complete car building at MW's marked the beginning of the most sophisticated computer controlled manufacturing facility for premium quality racing equipment. From its humble beginnings, MW Enterprises, Inc. has grown to become one of the industry's most progressive and respected manufacturers. An expansion in 1996 increased the MW facilities in the Colorado Technical Center, located in the Denver suburb of Louisville, to 32,000 square feet. With highly sophisticated computer controlled machining centers linked with networked production control, MW's shop is a textbook example of contemporary manufacturing efficiency. What's more, nobody has invested as much in dedicated equipment for building flange-type axles than Mark Williams. In addition to making a full line of premium quality products, MW has earned a reputation for providing all customers, for over 40 years, with an exceptionally high degree of service. This extends all the way from initial sales assistance through diligent follow-through of orders. Our self sufficient philosophy combined with continued equipment investment is unparalleled in the industry. The slogan, "Designed, tested and manufactured in house.... in the USA", is just our way of doing things.

WHEN YOU CALL MARK WILLIAMS ENTERPRISES YOU'LL BE PUT IN TOUCH WITH CONSCIENTIOUS, KNOWLEDGEABLE PERSONNEL.



sales@markwilliams.com

Monday-Friday
8:00 AM to 5:00 PM (MST)
765 S Pierce Ave Louisville, CO 80027

...."Although we are dedicating a great deal of time and energy to new products, we are keenly aware that the most important product we produce is customer satisfaction. We will continue to strive to meet your expectations, for we realize that the most important element in our business is YOU!"

www.markwilliams.com

800-525-1963

Toll Free Nationwide

303-665-6901

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24 Hour Fax

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Catalog 27



Est.

1964

\$3.00

TERMS & CONDITIONS

TERMS C.O.D. or Credit Card. Axles and special built products require a deposit as do items requiring shipment by methods other than UPS. Credit Card usage will expedite order processing. We accept money orders, certified checks or official bank checks only for C.O.D. orders. UPS will no longer accept cash for C.O.D. shipments. If a C.O.D. delivery is refused we will not ship C.O.D. on future orders; prepayment will be required. We accept Visa, Master Card, American Express and Discover. All credit card orders must be shipped to the billing address of the card only.

AXLE ORDERING In the catalog there is a sample of the dimensions needed to place an axle order. Before phoning, read this carefully and familiarize yourself with the terminology and how measurements are to be taken. This will allow us to accurately complete your order, and lessen the chance of a costly mistake.

SHIPMENTS F.O.B. Louisville, Colorado (Denver-Boulder Metro Area). Unless otherwise specified UPS will be utilized.

FOREIGN SHIPMENTS Unless restricted by law, MW will ship to foreign customers. Full purchase price (in U.S. currency) must accompany order. No C.O.D. shipments. Name of desired freight carrier, and shipping method must be included with order. Unless specified UPS World Ship will be used.

CLAIMS Claims for damages, open or concealed, or shortages must be made within five (5) days of receiving an order. Damage claims should be made with the freight company first and shortage claims with Mark Williams Enterprises. In the event of a damaged package, keep all packaging boxes and materials. All shipments are accurately weighed before shipping. If there is a part shortage check the shipment weight to see if it matches the shipping weight. This is the first step to determining if parts were lost in transit.

RETURNS Axles, driveshafts, housings and specially produced parts cannot be returned! Other merchandise requires permission and is subject to a 15% handling charge. Shipping charges on returned items must be prepaid. MWE does not allow returns after 90 days.

ORDERING All orders are processed on an in-house computer. Customer numbers are generated from your zip code plus 2 computer assigned numbers. If possible, please use catalog part numbers and your customer number. Toll free order lines are open weekdays from 8:00 AM to 5:00 PM mountain time. Parts can be ordered 24 hours per day on line at www.markwilliams.com.

BACK ORDERS All back orders will be shipped as soon as the item is restocked. If a back order is no longer wanted please call 1-800-525-1963 or 303-665-6901 and cancel the item(s).

PRICES Prices are subject to change without notice.

WARNING Modification of your car’s chassis or driveline to enhance performance with the parts identified in this catalog may create a dangerous condition which could cause serious bodily injury. The buyer hereby expressly assumes all risks associated with any such modifications.

DISCLAIMER OF WARRANTY Seller disclaims any warranty express or implied with respect to the parts sold hereby whether as to merchantability, fitness for particular purpose, or any other matter.

SPECIFICATIONS Non-critical specifications are subject to change without notice.

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LEADING THE INDUSTRY

QUALITY - Whether you are in the market for axles, brakes, a driveshaft or chassis components you can rest assured that every part from Mark Williams Enterprises has been designed and manufactured to the highest standards. This includes researching the proper material and manufacturing processes (see below). MW quality is assured by performing designing, testing and manufacturing in-house, including heat treating and our high speed driveshaft balancing.

CUSTOMER SERVICE - Mark Williams Enterprises provides unmatched customer service. From the time you place your order, through manufacturing, to shipping, everyone at Mark Williams Enterprises is committed to completing orders on time and to making sure that everything is right the first time. There are a couple of areas that help make this happen. First, MW sends a confirmation sheet, by fax. e-mail or UPS overnight letter, on all custom axle orders to verify dimensions. Second, MW components all have part numbers on them for trace ability and easy identification (custom axles have a serial number).

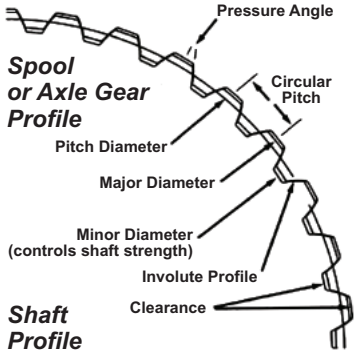
TECHNICAL ASSISTANCE - Mark Williams’ sales staff are some of the most knowledgeable in the industry and can help with just about any question you might have. We provide ordering and tech assistance on our toll free lines (800-525-1963). You can also visit our full service website www.markwilliams.com any time to place an order or e-mail tech questions to sales@markwilliams.com.

COMMITMENT - For over Fifty Years we have strived to be a responsible company that supplies the best quality products. Our investment in testing and quality assurance equipment is unparallel in the hi-performance industries. We are committed to a continued process improvement program in an effort to supply you with the best products on the market.

DETAILS MAKE THE DIFFERENCE

Axle Manufacturing The ability to produce a quality racing axle requires more than meets the eye. We have learned from our 50+ years that the improvement process never stops. We are constantly making improvements to assure that every axle produced incorporates the latest technology. Axles are our primary product and as such we have a considerable investment in dedicated CNC and other equipment for the production of race axles. In addition, Mark Williams Enterprises is the only company in the racing axle business that has both induction and thru hardening in-house heat treating capability. This allows us total control over the most important operation in the manufacturing process. One example of the details that make MW "Hi-Torque" axles superior is the CNC grinding of the axle flange face and bearing seat/shoulder with a freshly-dressed true radius grinding wheel. The radius at the bearing shoulder is the most critical part of an axle because it's the focal point of the bending moment (where the most force is concentrated). To insure the accuracy of this radius the grinding wheel is dressed prior to grinding each axle with CNC precision. By dressing the wheel for each axle it also eliminates the chance of embedded contaminants causing friction-induced surface cracks. MW's extra efforts in manufacturing pay huge dividends in reliability.

AXLES SPLINES A key factor to consider when purchasing axles is the axle spline. Naturally, if the axles you are purchasing are to be mated to existing components you will need a similar replacement spline. Accordingly, MW manufactures axles with all popular spline configurations, including Dana 60, 12-bolt Chevy, 9" Ford, etc., plus splines compatible with after-market products from other manufacturers. If you have a choice of splines, as in the case of a new axle/spool combination, it is highly recommended that you utilize MW's special 35 or 40 spline. This is especially important since locked (spool-equipped) rear ends are subject to as much as twice the torsion load of standard open-type differentials. For most applications the MW 35 spline with a 1.500" diameter and 45 degree pressure angle is adequate. In comparative shear strength, the MW 35 spline is 61% stronger than the Chevrolet 12-bolt with 30 spline, 45% stronger than a 9" Ford with 31 spline, and even 3% stronger than the Dana 35 spline which has a 30 degree pressure angle. These calculations are based on the physical dimensions of the spline itself, and do not take into consideration the extra strength benefits of MW's Nickel Chromium Molybdenum alloy forging and austempering heat treating process. For those applications requiring maximum strength axles MW offers a big 1.708" diameter 45 degree pressure angle 40-tooth spline that is 51% stronger than the 35-tooth MW spline. Get the MW Hi-Torque axle with the spline that's best suited to your needs.



PART NUMBER TRACE ABILITY Every Mark Williams produced part carries a visible part number. Our part numbering system uses a revision letter at the end of the part number that indicates the design change. Example: A spool with part number 53133-H indicates there have been 8 changes to this part (A through H) since it was first introduced. Anytime a part is re-designed to the point it is would no longer be interchangeable with earlier versions, it is assigned a new part number. Parts that are produced from castings may have two revision letters. Our 9" thirdmember housing 57448 is on the U casting revision and the V machining revision, (at the time of this publication printing). This system allows trace-ability of our parts and can assist identifying the age of parts in the field. All axles and driveshafts are serialized allowing us to access the build information. Other parts have recorded production batch numbers that allow trace-ability. All raw materials used to produce MW products are certified from the mills and are traceable to the individual products.



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QUESTIONS & ANSWERS

1. ARE ALL AXLES WITH SIMILAR SPLINE COUNTS INTERCHANGEABLE?

No! For example, an OEM 35-spline Dana axle and a special MW 35 spline axle are not interchangeable because the MW spline features a 45-degree pressure angle, which differs from stock Dana 30-degree configuration. Mark Williams does, however, offer Hi-Torque forged steel axles with OEM type splines. Please read additional spline text on page 3.

2. WHY DO MW HI-TORQUE AXLES HAVE A REDUCED DIAMETER AFTER THE SPLINE?

In order for a splined shaft to carry its maximum torsional load it is necessary to have a working shaft diameter smaller than the major spline diameter. The reduced section after the spline works in the same manner as a torsion bar allowing the rotational wind up to occur over a longer area. This prevents the axle from experiencing permanent set. Axles that are not undercut will twist at the end of the spline engagement and eventually fail at this point.

3. WHAT TYPE OF AXLE RETENTION IS REQUIRED?

Most race-sanctioning organizations require some type of positive retention. The OEM C-clip does not meet these requirements. Accordingly, MW offers a special C-clip eliminator kit to provide the necessary retention. However, it is advisable to change to weld-on housing ends if your plans call for narrowing the axle housing. MW can supply weld-on ends, with oversize bearings and retainers for most popular brake applications.

4. WHY IS THE SPLINE AREA ON MW AXLES SHORTER THAN OTHERS?

Most manufacturers do not make custom axles for each order. Instead, they gang-run axles in certain lengths and make them with very long splines. When an order comes in, they simply cut off the excess spline. MW axles are manufactured to the correct length to insure 100% engagement in the spool spline. Excessive unused spline length reduces the torsional capability of an axle.

5. SHOULD I GET 35 OR 40-SPLINE AXLE-SPOOL COMBINATION?

For many applications the 1.500" diameter 35-tooth special MW spline axles are more than adequate. For "bulletproof" reliability there's no question the 40-spline setup is preferred. We've found

these big 1.708" diameter axles to also prolong housing life and wheel alignment because of their ability to handle increased torsion as well as bending (toe in) loads. If your rear end will accept a 40 spline spool we recommend using it.

6. WHY ARE MW AXLES SHORTER THAN MY "OLD" ONES?

This question is often asked by customers who replace an OEM axle/differential or another brand axle/spool combination with a MW setup. The reason is that the spline location in most MW spools is positioned further outboard to allow a larger spline. As a result, the axles can be shorter and as an added bonus are slightly lighter.

7. IS A 3-1/4" BORE 9" FORD CASE NEEDED TO RUN 35 SPLINE AXLES?

Not with MW axles. Unlike our competitors, we manufacture a 35 spline spool that fits in the stock 9" Ford cases (2.893" or 3.062" bore). MW spools have been designed to position the splines at the outboard end of the spool on both sides. This is an exclusive MW feature that has been used for over 30 years. This same feature applies to 10 and 12-bolt G.M. spools which are also limited to stock carrier bearing sizes.

8. WHY DO I SEE AXLES ADVERTISED AS "ALLOY AXLES" SO CHEAP?

These axles are actually produced by an OEM axle forging company whose main business is making axles for the truck and construction industry. The material used is a carbon steel, common to OEM axles. It is not usually regarded as an alloy steel as advertised. The manufacturer produces the axle blank and the advertiser cuts the axle to length and splines it. These axles are made from the same material as stock axles and receive the same heat treatment. The only difference is that they are available in shorter lengths and with different splines.

9. WHICH HOUSING END SHOULD I USE?

We recommend choosing the ends to match the brakes you want to use. If you are going to use disc brakes we recommend the symmetrical housing ends. This will allow the best designed Disc Brake kit and eliminates confusion about wheel stand outs. We do not recommend using the small Ford housing ends. The wheel bearing is too small and delicate.

WARRANTY & SERVICES

AXLE CONFIRMATION

Mark Williams Exclusive!

MW has created a special form to verify all custom axle orders. Within two days of placing your order you will receive a letter, e-mail or fax a confirmation form that shows exactly what is being manufactured. If there are any questions or discrepancies, please contact the MW sales department immediately.

PRIORITY-*Service*

For those racers who need axles in a big hurry, Mark Williams Enterprises offers priority service for a nominal extra charge. Axles purchased under these terms are guaranteed to ship within 5 WORKING DAYS for an additional charge of \$100.00

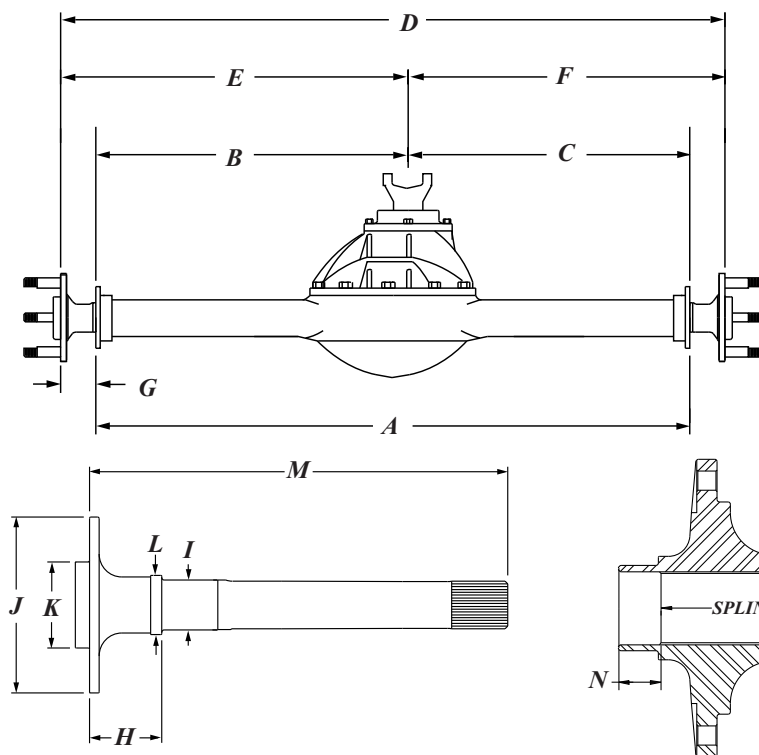
MARK WILLIAMS ENTERPRISES, INC. warrants against breakage of our special 35 or 40-spline spool combination axles for a period of five years. **UNDER NO CIRCUMSTANCES WILL MARK WILLIAMS ENTERPRISES, INC. BE HELD RESPONSIBLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM OR IN CONNECTION WITH, THE INSTALLATION OR USE OF ANY M-W PRODUCT.** This warranty shall not apply to any product which has been improperly installed, or repaired in any manner which affects the strength of the axle or any axle that has been involved in an upset or collision, including welding lock rings on axles, Warranty applies for drag racing applications only. Any other application not covered.

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www.markwilliams.com

How To ORDER AXLES

Every set of Mark Williams axles are custom built to meet each customer's requirements. This requires accurate information to insure that the axles are a perfect fit. You will need to provide as many of the dimensions shown as possible for your application. A simplified version of this order form can be downloaded from www.markwilliams.com, click > [Service Bulletins](#), click > [SB0077.pdf](#).



- A - Housing flange to flange
- B - Driver side housing flange to pinion center
- C - Passenger side housing flange to pinion center
- D - Axle flange to axle flange width
- E - Axle flange (driver's side) to pinion center
- F - Axle flange (passenger side) to pinion center
- G - Axle flange to housing flange (brake stand-out)
- H - Flange to bearing seat
- I - Bearing journal diameter
- J - Flange diameter
- K - Brake drum register
- L - Seal diameter (optional)
- M - Overall axle length (right & left)
- N - Driver side spline relief
- O - Passenger side spline relief
- P - Bolt Circle
- Q - Cord measurement between two studs

STARTING FROM SCRATCH The following steps have proven to be the most accurate method for determining the width of the rear end assembly when building a new car.

- 1) Obtain a set of the widest tires and wheels (with appropriate offset) to be used.
- 2) Remove the stock rear end housing and make modifications to inner fender wells as required.
- 3) Position the tires/wheels under the car, and through the use of jack stands, etc. place the car in the desired running attitude.
- 4) With wheels in position, measure from wheel mounting surface to the opposite wheel mounting surface. This will give you the proper axle flange to axle flange dimension (D). Allow for brake hats or drums.
- 5) Also supply the (E & F) distance or indicate if the pinion is centered or the amount of pinion offset required and the direction. Offset toward the passenger side is normal and toward the driver side is abnormal.

MEASURING AN EXISTING HOUSING Measure the distance to the outside of both housing flanges (A). Not all pinions are centered, so it is also essential to measure the distance from the housing flange to the center of the pinion on both driver and passenger side (B & C).

MEASURING EXISTING AXLES Provide as many measurements as possible. Use of a MW 35 or 40 spline spool will change axle lengths in relation to axles with stock splines. A Mark Williams salesman can help with questions about changes in axle lengths.

SPOOLS All spools are not manufactured the same. If the spool to be used is a MW spool, the part number on the spool will give us the required information. If the spool is from another manufacturer, please check the spline count and location of the spline as measured in the illustration above (N & O values).

BOLT CIRCLE If you do not know the bolt circle (P value) of a 5-bolt application, measure the center-to-center distance (Q) between two adjacent wheel studs and reference the table below.

- 4-1/2" B.C. = 2.645" normal later Ford pattern
- 4-3/4" B.C. = 2.792" normal Chevrolet pattern
- 5" B.C. = 2.939" normal older Olds-Pontiac
- 5-1/2" B.C. = 3.233" normal early Ford and T/F wheel pattern

MARK WILLIAMS Enterprises®

HI-TORQUE AXLES

MW STANDARD "HI-TORQUE" AXLES: MW standard forged steel axles have set the quality standard in the industry for racing axles. The standard axles will normally be used in applications where weight is not a large factor for your car. The standard axle is the heavy duty version in the MW "Hi-Torque" axle line. Each MW axle order is custom manufactured per application with all axles designed to accept an axle bearing with the largest diameter possible for the particular housing end being used, then each axle shaft is tapered from bearing journal to spline. This combination of the large bearing diameter and tapered shaft increases torsion and bending capacity. All Mark Williams "Hi-Torque" axles are available in any spline and bearing combination with the bolt pattern or patterns of your choice and either 1/2" or 5/8" tapped stud holes. Dual patterns available without an extra charge. Flange lightening option available on standard axles for an additional charge. (weight 32 lbs*)

50100696.00 pair

SUPERLIGHT 35 SPLINE "HI-TORQUE" AXLES: Rears that are limited to 35 spline spools can take advantage of MW 35 spline gun drilled axles. These axles are pocket lightened and "gun drilled" where the center of the axle shaft is bored (11/16" dia.) the entire length to resemble a gun barrel. This process is performed in house and allows us to control the bore finish assuring a quality product. This results in a superior product, fully capable of handling the shock loads of the heavier Super Stock cars that are limited to 35 splines! These operations result in a weight savings of roughly 19% over a pair of standard 35 spline MW "Hi-Torque" axles. (weight saving is 6.88 lbs on a pair of 35 spline 24" long axles)

50550798.00 pair

SUPERLIGHT 40 SPLINE "HI-TORQUE" AXLES: The next step in the high strength light weight axles would be the Mark Williams SUPERLIGHT 40 spline "Hi-Torque" axles. In an effort to reduce rotating and un-sprung weight, these axles have been gun drilled to a 7/8" bore along with extensive milling of the axle flanges. This in conjunction with the additional machining behind the MW name plate and revised axle profile, result in a weight savings of approximately 35% over the standard MW axles. 40 spline axles are recommended for all race cars that can utilize a 40 spline spool. (19.9 lbs*)

50500853.00 pair

ULTIMATE "HI-TORQUE" AXLES: It doesn't get any better than this. The MW ULTIMATE "Hi-Torque" axles represent the latest in axle and material technology. The axle profile and flange lightening are carried over from the SUPERLIGHT axles. The use of aircraft 300M alloy forgings make it possible to enlarge the diameter of the gun drill bore to 1" diameter without sacrificing strength. This represents a savings of 2.6 pounds per pair! You won't find lighter axles. Anywhere!!! (weight 17.3 lbs*)

508001252.50 pair



*Axle weights are per pair for 40 spline axles less bearings and studs to fit a 31" wide housing.

DRAG RACE AXLE BEARINGS



56003

57803

58503

58504

58505

58507

58508

58509

58519

CB-58509

MW drag race axle bearings are special size ball and roller bearings. Many feature an "O" ring seal around the outside of the bearing. These are designed to utilize our wide selection of mating housing ends that will allow largest inside diameter, increasing the axle strength. Our technical representative can recommend the best bearing/housing end combination based on your brake requirements.

56003 Mopar Non-Adjustable Axle Bearings (pr) ..111.71
2.875" O.D., 1.562" I.D. for stock ends w/spiral lock.

57803 Small Ford Axle Bearings(pr)91.55
2.835"stock O.D. with larger than stock 1.562" I.D. stock Mustang end.

58503 Axle Bearings, 1-17/32" (pr)86.60
Sealed bearings 3.150" O.D.,1.532" I.D. stock Ford/Olds size.

58504 Axle Bearings, 1-5/8" (pr)104.00
Sealed bearings 3.150" O.D.,1.625" I.D. used for C-Clip eliminator.

58505 Axle Bearings, 45 mm (pr)114.00
Sealed bearings 3.150" O.D., 1.774" I.D. used for 40 spline axles

CB-58505 Axle Bearings, 45 mm (pr)546.00
Ceramic bearings, Sealed bearings 3.150" O.D., 1.774" I.D.

58507 Axle Bearings, 1-9/16"(pr)98.77
Sealed bearings 3.150" O.D., 1.564" I.D.

58508 Axle Bearings, 3.347 X 45 mm, wide (pr) .303.00
Double row sealed ball bearings 3.347" O.D., 45 mm I.D. For 58595/58598 Heavy Duty Symmetrical ends (o-ring is in housing end).

58509 Axle Bearings, 3.347 45mm I.D. narrow (pr)217.54
Narrow bearing for 58599 Symmetrical Pro-Stock ends.

58519 Axle Bearings.3.347 x 45mm, wide (pr) ...300.75
Wide single row bearings for deep 58595/58598 Heavy-Duty ends.

CB-58509 Axle Bearings,3.347 x 45mm (pr)624.48
Ceramic bearings, narrow, for 58599 Symmetrical Pro-Stock ends

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PRO STREET COMPONENTS



For those performance enthusiasts building sophisticated "Pro Street" type vehicles with narrowed rear ends, MW offers premium quality driveline components engineered specifically for daily street use, not "after market OEM" type axles. These are designed for those who want the BEST custom-made axles money can buy. MW "Pro Street" axles overcome the problem commonly encountered when using OEM or drag-type units: flange breakage. In fact, Mark Williams warrants each axle flange against breakage for two years when used in conjunction with a MW Pro Street housing end kit with Timken® 45mm bearings. Increasing axle shaft diameter and flange strength

are critical factors when deciding on axles for high powered street machines (which often weigh more and operate on more harsh surface conditions than their race-only cousins). Add serious muscle to any heavy street machine and you can bet the OEM driveline can't provide the necessary reliability. Why settle for anything less than premium quality MW components?

PRO STREET AXLES

MW Hi-Torque Pro Street axles are custom built per order and are manufactured from the same Tri-Alloy forgings as our drag race axles, featuring 45mm bearings and thicker flanges for street use.

50400 Pro Street Axles, (pr)696.00

For use with any MW weld-on or bolt-on end kits on this page that incorporate the heavy-duty Timken® unit bearings

PRO STREET AXLE BEARINGS

MW's Pro Street axle bearing features a large 45mm (1.774") I.D. and is unique in that it can take thrust in either direction. This tapered roller bearing exceeds the radial capacity of common O.E.M. ball and roller bearings. Axle bearing assembly includes bearings, seals and MW produced press on bearing lock rings. Requires matching MW housing ends.

58506S Unit Axle Bearing Assembly (pr)256.00

For MW Pro Street Axles, Timken® unit bearings with seals and press on lock rings.



58506S

WELD-ON HOUSING END KITS

The preferable method to obtain a reliable axle and bearing combination for Pro Street applications is the installation of our weld-on housing ends. MW has designed ends that accept the 45 mm bore Timken® bearing and a heavy-duty seal. A slightly bent housing can be corrected when installing new Pro Street weld-on ends. A variety of kits are available that accommodate the most popular brakes. If you are going to use disc brakes we recommend using the 58780 Symmetrical end kit that accepts the best designed brake kits and can incorporate a parking brake



68700 Weld-On Housing Kit for GM
10 & 12 Bolt Ends

58780 Housing End Kit, Disc Brakes421.00

For use with MW Disc Brake Kits with symmetrical bolt pattern. Includes Timken® wheel bearings, seals and backing plate bolts.

66700 Housing End Kit, Mopar Brakes436.89

For Mopar brakes. Includes Timken® bearings, retainers, seals and backing plate bolts.

67700 Housing End Kit, Small Ford435.07

For small Ford brakes. Includes Timken® bearings, retainers, seals and backing plate bolts

67750 Housing End Kit, Large Ford476.98

For large Ford brakes (w/1/2" bolts). Includes Timken® bearings, retainers, seals and backing plate bolts.

68700 Housing End Kit, Small GM477.00

For GM small brakes (Camaro, Chevelle, Nova). Includes Timken® bearings, retainers, seals and backing plate bolts.

67870 Housing End Kit, New Style Ford447.00

For New Style Ford. Includes Timken® bearings, retainers, seals and backing plate bolts..

MARK WILLIAMS Enterprises®

BOLT ON RETAINER KITS

MW bolt-on retainer kits allow you to easily use MW "Pro-Street" axles in G.M. and Ford rear end housings without replacing housing ends. All bolt-on kits utilize a heavy duty Timken® unit bearing that can take thrust from either direction and exceeds radial and axial load capacity of common ball and roller bearings. Bolt-on ends are recommended if housing can not be narrowed. Weld-on kits should be used rather than this kit, when narrowing a housing.



67760 Bolt-On Adapter Kit, Large Ford286.90

Allows the use of 50400 MW Pro Street Axles without changing the stock housing end. Must have large Ford ends with 3.150" O.D. bearings, 1/2" backing plate bolts. Includes bearings & seals.

67770 Bolt-On Adapter Kit, New Style Ford312.06

Allows the use of 50400 MW Pro Street Axles without changing the stock housing end. Must have New style large Ford ends with 3.150" O.D. bearings, 3/8" backing plate bolts. 3 9/16" x 2" pattern. Includes bearings & seals.

68800 Wheel Bearing Adapter Kit, Small GM374.76

Allows the use of 50400 MW Pro Street Axles without changing the stock housing end. Must have GM small car brake (Camaro, Chevelle, Nova). Includes bearings & seals should be used when narrowing housing.



HOUSING END SEALS AND BACKING PLATE BOLT KITS

An Exclusive benefit of using MW Housing ends is the ability to utilize a inboard seal. No more fighting with leaking wheel bearing by installing these seals.

MW offers 3 different inner axle seals for all MW 2" long housing ends. These seals are designed to ride on the axle shaft just inboard of the axle bearing lock ring.

MW stocks both 3/8" and 1/2" backing plate bolt kits as well as the stud kit required for the HD housing ends. 3/8" bolts feature quick start ends with serrations under the heads to hold them securely in the housing ends. 1/2" size are special modified fasteners. All kits also include self locking nuts.



58515



58514



58516



58572



58570



58575

58514 Housing End Seal for 1.625 dia. Axle16.89

58515 Housing End Seal for 1.774 dia. Axle17.25

58516 Housing End Seal for 1.562 dia. Axle16.65

58570 Backing Plate Bolt Kit (set of 8)39.00
3/8" with nuts for MW housing ends (except large old style Ford)

58570A Backing Plate Bolt Kit (set of 10)41.25
For Mopar type ends that require 10 bolts.

58572 Housing End Stud Kit (set of 8)51.00
3/8" studs, nuts and washers for Pro Mod housing ends or MW modular end bells.

58575 Backing Plate Bolt Kit (set of 8)35.00
1/2" with nuts for large Ford ends

PRO STREET LOCKERS

MW offers a Locker type differential that accepts larger than stock spline 1.5" diameter 35-spline axles for the 9" Ford rears. Axles must be manufactured specifically for this Locker. The spline and length are different from the MW spool spline.

We also offer a 40 spline locker for the Dana 60™ rears. The spline and location is the same as the MW 40 spline spool axles.

187S-35C 35 spline, Locker, 9" 3.25 Ford Case854.00
Requires 3.250 or 3.812 bore case.

225S-40A 40 spline, Locker, Dana 60™ 3.73-4.10 Ratio699.00

225S-40B 40 spline, Locker, Dana 60™ 4.56-7.17 Ratio699.00



225S-40A



187S-35C

toll free
800-525-1963

on the web
www.markwilliams.com

WHEEL STUD KITS

MW drive studs are recommended in all drag racing applications using after-market wheels. The Drive Stud is designed so the 11/16" dia. shoulder on the stud is used to center the wheel, rather than the lug nut used with smaller studs. This system dramatically increases shear strength and eliminates bent wheel studs. MW drive studs require a 5/8"-18 thread holes in the axle flange. Studs are then secured in the flange with a jam nut. Wheels are held in place with an open end flanged lug nut and an aluminum washer that prevents marring the wheel. A standard MW drive stud kit comes complete with 10 steel drive studs, 10 self locking jam nuts, 10 aluminum washers, (specify thickness) and 10 steel Snap-Lock™ flanged lug nuts. Titanium drive studs are also available and listed below. The following page has lug nut options available at an additional cost. For applications using OEM steel wheels MW also offers high strength 1/2-20 screw-in type wheel studs.



STEEL DRIVE STUD KITS

51500 Drive Studs 11/16" dia. (complete set)154.00

A=3-1/2" B=1-3/16" C=1-1/2" D=13/16"

51540 Drive Studs 11/16" dia. (complete set)154.00

A=2-11/16" B=1" C=7/8" D=13/16"

51560 Drive Studs 11/16" dia. (complete set)154.00

A=4" B=1-3/16" C=2" D=13/16"

51580 Drive Studs 11/16" dia. (complete set)154.00

A=2-7/8" B=7/8" C=1-3/16" D=13/16"

51590 Drive Studs 11/16" dia. (complete set)154.00

A=3-7/16" B=7/8" C=1-3/4" D=13/16"

Drive Stud Kit w/ MW Aluminum Lug Nuts250.80

Add "A" to Part Number (specify c-bore depth 1/8 or 3/8").

TITANIUM DRIVE STUD KITS



Reduce rotating weight with the addition of a titanium stud kit. All studs are carefully manufactured to insure concentricity with the stud threads. All kits include titanium studs, self locking jam nuts, and choice of MW hard anodized aluminum lug nuts (51520 or 51521).

41540 Titanium Drive Studs 11/16" dia462.00

A=2-11/16" B=1.00" C=7/8". Save 1.2 lb (Specify nut)

41560 Titanium Drive Studs 11/16" Dia473.00

A=4" B=1 3/16" C=2" Save 1.2 lb (Specify nut)

41580 Titanium Drive Studs 11/16" Dia462.00

A=2-7/8" B=7/8" C=1-3/16" Save 1.2 lb (Specify nut)

SCREW-IN WHEEL STUDS

MW offers 1/2-20 screw-in wheel studs in two standard lengths. The latest MW 2" and 3" studs feature a special thin 12 point head to help with brake component clearance. The stud features a small quick start on the threaded end. The G.N. wheel studs are made of 8740 aircraft quality material with 5/8-18 threads and they also have a quick start end. All stud kits include aircraft washers to help prevent the threads from wedging on the imperfect threads by the head.

51200 1/2-20 x 3-1/2" Wheel Studs, 12 point head (10)75.00

51250 1/2-20 x 2" Wheel Studs, Allen head (10)38.90

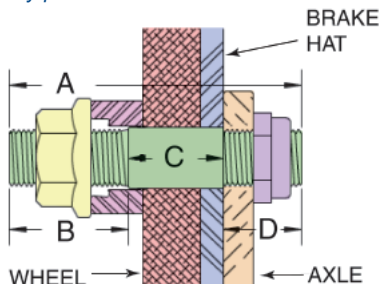
51255 1/2-20 x 2" Wheel Studs, 12 point head (10)67.50

51260 5/8-18 Grand National Axle Studs, (10)193.00

Threaded to head (2-5/8" overall length.) 2" of thread

51270 5/8-11 Grand National Axle Studs, (10) not shown87.99

Coarse thread threaded to head (3-3/8" overall length.) 3" of thread. Note: MW axles are normally produced with fine thread. Axles must be special ordered with 5/8"-11 threads.

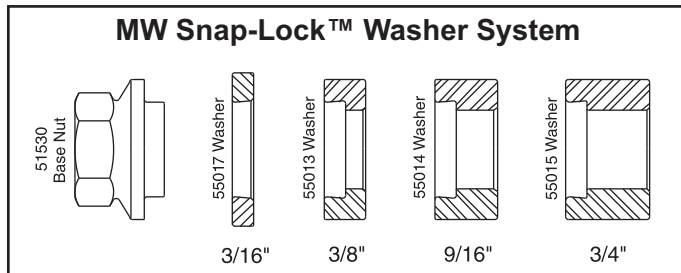


SELECTING THE PROPER DRIVE STUDS

The most important factor when selecting the proper drive stud is that the drive shoulder of the stud be fully engaged in the wheel. It is recommended that the "C" length on the stud be slightly greater than the combined thickness of the brake hat or drum and the wheel. These two dimensions should be specified when ordering a MW drive stud kit. Washer thickness must be greater than the portion of the shoulder of the stud that extends past the face of the wheel.

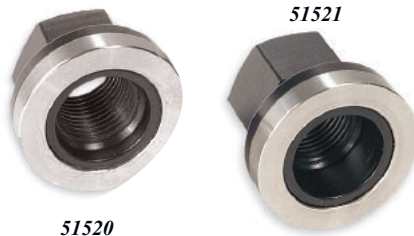
WHEEL STUD NUTS & STUD INSTALLER

With our Mark Williams stud nuts, an aluminum spacer washer attaches with a SnapLock™ over the base nut. The washer spins freely, but will not separate from the nut, this prevents marring of the wheels and losing washers. The aluminum washers are available in different thicknesses (3/16" to 3/4") to compensate for different wheel and brake hat combinations. This makes the nut a dimensionally and visually superior part. The thread pitch diameter is held extremely square with the flange which results in even pressure loading against the wheel and stud threads. MW also builds special integral billet aluminum lug nuts that are hard anodized for durability (see below). These nuts are sold with special thin aluminum washers and are standard nuts in MW titanium drive stud kits.



51530	Steel MW Snap-Lock™ Base Nut	.....	5.03
	<i>Replaces old 55016 standard flange steel nut</i>		
55017	Aluminum Washer, Snap-Lock™ 3/16"	.....	3.43
	<i>For use with MW base nut, stainless or standard nut, 3/16" thick.</i>		
55013	Aluminum Washer Snap-Lock™ 3/8"	.....	3.95
	<i>For use with MW Stainless Steel or 51530 nut, 3/8" thick.</i>		
55014	Aluminum Washer, Snap-Lock™ 9/16"	.....	4.25
	<i>For use with MW base nut, stainless or standard nut, 9/16" thick.</i>		
55015	Aluminum Washer, Snap-Lock™ 3/4"	.....	6.41
	<i>For use with MW base nut, aluminum or standard nut, 3/4" thick.</i>		

INTEGRAL ALUMINUM NUTS



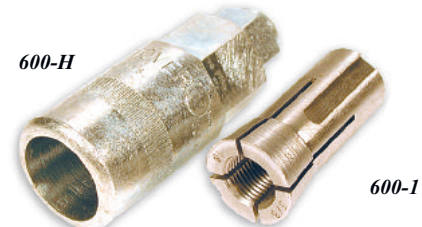
The MW integral aluminum lug nuts are for applications where every ounce of weight is critical. The part is produced from 7075-T6 aluminum alloy with a durable anodized hard coat finish. The integral aluminum washer snaps on to the nut and spins freely but will not separate from the nut, preventing accidental loss. The nuts have fixed counter bore depths of 1/8" and 3/8" that make them equivalent to using a standard nut and washer combination of equal thickness. These nuts come standard with all MW titanium drive stud kits for the lightest possible combination. Can also be used with steel drive studs.

51520	Encapsulated MW Nut, 1/8" grip (ea)	.....	15.95
	<i>1/8" grip, threads relieved 1/8" on wheel side of nut</i>		
51521	Encapsulated MW Nut, 3/8" grip (ea)	.....	15.95
	<i>3/8" grip, threads relieved 3/8" on wheel side of nut</i>		

STUD INSTALLATION TOOL

The MW stud installation tool utilizes a threaded collet that clamps evenly on the threads of the stud to properly install and tighten drive studs in the axle flanges or other parts. This type of system eliminates possible damage to either the threads or stud shoulder that can happen without the proper installations tools.

600-H	Housing for stud install collet	.....	125.00
600-1	5/8-18 stud install collet	.....	59.00
600-2	1/2-20 stud install collet	.....	59.00
600-3	7/16-20 stud install collet	.....	59.00
600-4	3/8-24 stud install collet	.....	59.00
600-5	5/16-24 stud install collet	.....	59.00



SAFETY WIRE AND PLIERS

Use with any drilled bolt head to provide vibration proof positive bolt retention. MW 9" & 12 Bolt ring gear bolts are drilled for safety wire locks. Pliers are a Quality Made in America Tool.

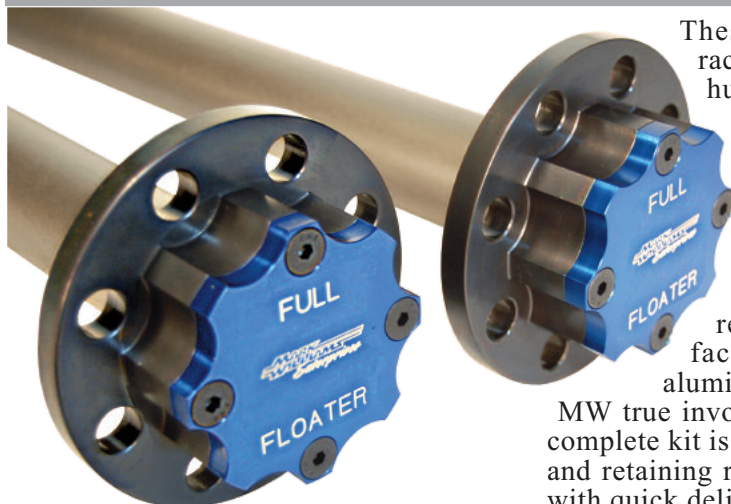


300-1	Safety Wire, 1 lb, .032 stainless	...	19.62
300-2	Safety Wire Twist Pliers 9"	.....	92.00

toll free
800-525-1963

on the web
www.markwilliams.com

OFF ROAD DRIVE PLATE AXLES



These axles are designed for off road and circle track racing applications with Wide 5 (3/4 to 1 ton truck type hubs), Dana 60/70 (and most Dana 80) hubs, and 14-Bolt style full floating hubs. The 40-spline drive flanges are manufactured using aircraft quality alloy steel and are heat-treated and black oxide coated.

The axles are available in standard 4340 steel or high strength 300M steel. Both receive shot peening to increase the durability and longevity. The center section spline is available for any spool / carrier requirements. These parts are designed to work with factory axle hub bolts or studs. Covers are anodized aluminum with low-profile sealing o-rings. All sets feature MW true involute splines, and are heat-treated, and polished. The complete kit is comprised of shafts, flanges, caps, fasteners, o-rings, and retaining rings. Custom produced for each specific application with quick delivery.

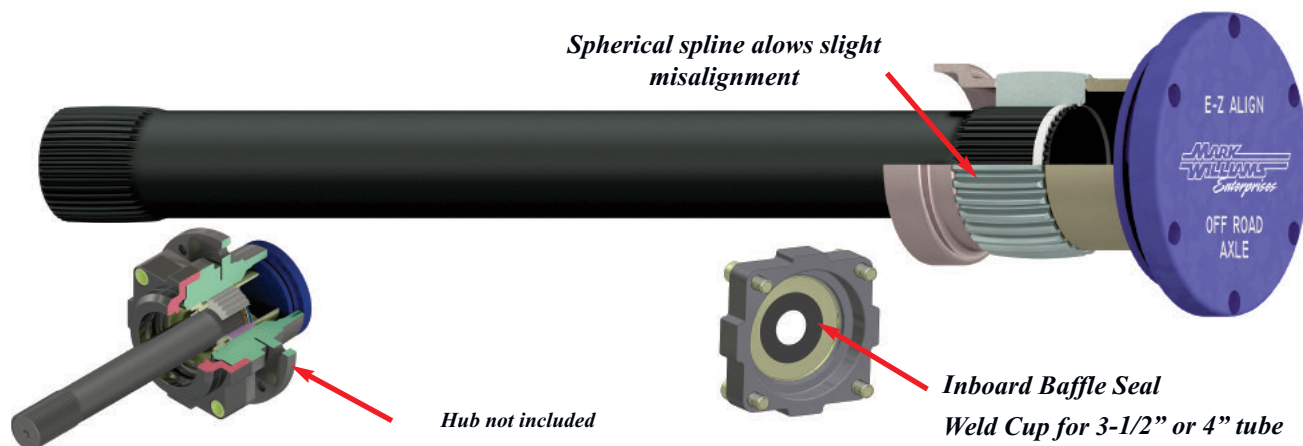
50250 Truck Floater Axles 14 Bolt Drive Flange .1590.00
Austempered & Shot Peened 4340 40 (Spline drive flange) (1/2" bolt)

50270 Truck Floater Axles Dana 60/ 70 Flange . . .1590.00
Austempered & Shot Peened 4340 Dana 60 type flange 7/16" (bolt)

50260 Truck Floater Axles 14 Bolt Drive Flange . . .1990.00
300M material & Shot Peened 40 (Spline drive flange) (1/2" bolts)

50280 Truck Floater Axles Dana 60/ 70 Flange . .1990 .00
300M material & Shot Peened 40 (Spline drive flange) (7/16" bolts)

E-Z ALIGN AXLE DRIVE ASSEMBLIES



The F350 Unit hub is an economical and bulletproof way to upgrade from a conventional truck floater. MW offers axles with the Donut Spline Adapter and cover that are made to fit the OEM hub. Our EZ-Align splines are manufactured with a slight crown that allows some misalignment without bowing the axle shaft. This bowing creates forces on the housing's center section that will eventually destroy gears and bearings.

To attach the F350 Unit Hub a Weld Cup is first welded to the housing for the Hub to bolt on. Weld Cups are available for 3-1/2" and 4.0" tube housings. Similar to a traditional housing end, cut the OEM housing spindle is removed and the cup is welded on to the axle tube. The end comes with a baffle seal to retain the lube in the housing.

50255 Axles, F350 Hub, EZ-Align Donut & Cover 1560.00
Through Hardened 4340 (Any center spline to match spool)

50265 Axles, F350 Hub, EZ-Align Donut & Cover 2315.00
300M Aircraft Alloy (Any center spline to match spool)

50290 Weld Cup for F350 Hub 3-1/2" (ea)310.00
Alloy steel for 3-1/2" tube (with baffle seal)

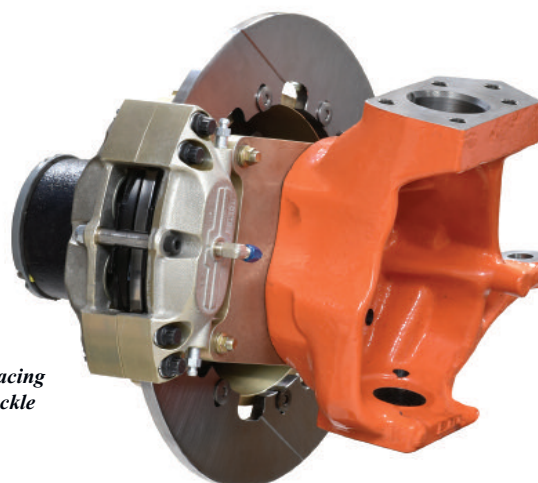
50295 Weld Cup for F350 Hub 4.0" (ea)310.00
Alloy steel for 4" tube (with baffle seal)



ROCK CRAWLER DISC BRAKE KITS



75910 Kit on Reid Racing
Ford King Pin Knuckle



MW Disc Brake Kits are produced with attention to the details. We have used a larger 14" diameter rotor to increase the holding power. The brake rotors are produced from abrasive resistant steel that is double disc ground to be flat and parallel. The Slot Drive™ rotor attachment system is a major improvement for prolonging brake rotor life. This system allows the Disc to expand and contract with the disc temperature without putting stress on the attachment fasteners. Disc cupping common to competitors product is eliminated with this exclusive attachment method.

MW calipers are exceptionally strong, compact, with superior bridge strength over similar products. The material used in MW calipers is stronger than common 6061 aluminum billet calipers. MW calipers use four 7/16" diameter body fasteners plus a 5/16" diameter bridge bolt that increases the calipers rigidity. The design advantages create significant increases in holding power. MW calipers utilize a 3/8" hex bleeder screws in each end, no right and left hand calipers. That feature allows the MW Caliper to be mounted in many clock positions and bled without removing. Internal fluid passages eliminate external damage prone lines.

All the Caliper mount brackets are billet 7075-T6 aluminum, Adapter rotor "hats" are produced from proprietary alloy aluminum, drilled to accommodate matching hub patterns. The 71900 kits for the F350 unit hub will accommodate the existing 170 mm metric and 6-1/2 x 8 hole inch patterns. All the required mounting hardware and MW calipers with linings are included.

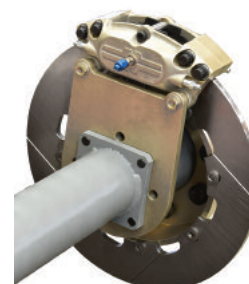
75900 Brake Kit, F350 Front Knuckle1625.00
2005 or later F350 or Reid Racing front knuckle

75905 Brake Kit, F450 F550 Front Knuckle1625.00
2005 and later F450

75910 Brake Kit, Ford King Pin Knuckle1625.00
1975 to mid 1991 Ford Kingpin Knuckle

75915 Chevrolet King Pin Knuckle1625.00
1977 to mid 1991

UNIT HUB & REAR DISC BRAKE KITS



71900 Brake Kit, Unit Hub1625.00
For use with Timken F350 Unit hubs in conjunction with the 50290 or 50295 weld cup. Adaptor has 6-1/2 x 8 hole and 170mm x 8 hole pattern.

71905 GM 14 Bolt Rear Brake kit1625.00
Mounts to the original 14 bolt hub with the original 14 Bolt rear backing plate mount. Kit is shown with 50250 axle drive plate kit.

toll free
800-525-1963

on the web
www.markwilliams.com

CLASSIC RACING CORVETTE PARTS

Mark Williams has expanded into the Corvette replacement parts for the serious racer. We have engineered several new products that increase the strength and reliability for the C2 and through C4 series Corvette drivelines. The most vulnerable parts for the C2 and C3 are from the use of the 17-spline axles in both wheel hubs and the inboard flange yokes. We've increased the spline size in both of these components to a larger and modern 30-spline design. The larger spline profile greatly increases strength. The axles feature forged 300M materials, and with in-house heat-treating and shot peening a truly dependable part has been created. We are committed to producing the highest quality parts for the serious vintage Corvette racers

CORVETTE C2 AND C3 AXLE HUB KITS



This kit for C2/C3 ('63-'82) Corvettes improves the yoke-shaft torsional strength by upgrading the spline to a more modern and stronger 31 tooth involute profile. The axle flange (spindle), is produced from a 4340 aircraft alloy forging. The flange (spindle) is double heat-treated for improved ultimate strength and shot peened for improved cycle life.

The universal joint yoke replaces the two parts of the original design, eliminating the 4-bolt flange. The splined yoke is through hardened steel and features removable heat-treated billet caps that simplify installation. The universal joint cap is attached with ARP fasteners and the bolt heads are drilled for safety wire locking. The axle-shaft features a 1"-20 thread that increases the strength of the entire system. The axles come installed with 1/2"-20 x 3"

ARP wheel studs that feature a nut-aligning quick start. 2" long studs are an option. Studs are installed with a threaded connection into the axle flange. The flanges have a second pattern with 5/16"-18 threads that can be used to secure the brake disc. The kit comes with all the parts required for assembly, including Timken® bearings and SKF-CR seals. Sold as a kit for both sides. Installation and service instructions can be found on our website, Service Bulletin #0115.

50230-KIT Corvette C2-C3 Rear Axle Wheel Hub3164.00
Complete Next-Step rear wheel kit with standard length axle shafts and 1350 series universal joints. 3" or optional 2" long 1/2-20 wheel studs. Machining of the bearing preload spacer is required for proper pre-load.

CORVETTE C2 AND C3 REAR INBOARD YOKE SHAFTS



The C2 and C3 Corvette's differential comes from the factory with a 17-spline inboard flange yoke that is prone to failure. This super strong 300M version has the spline updated to a stronger 30-tooth involute profile. It features through hardening heat-treating process and shot peening. The inner yoke shaft features a billet u-joint cap (p/n 50237) that attaches with studs and a 12-point ARP nut.

The standard Corvette posi-traction is modified by slightly increasing the bore size, and changing to 30-spline axle gears that are common to 12-bolt GM posi-traction units. A simple machining operation to the original posi-traction case is required. With this change, a standard GM C-clip is used to retain the yoke shafts. New Eaton™ posi-traction units with all required modifications are available, part number 19670-MOD. Kit price is per pair. Installation and service instructions can be found on our website, Service Bulletin #0111.

****NOTE**** These yoke shafts WILL NOT work with C2/C3 Corvettes that have been modified to use a GM 12-Bolt posi & special gear (eg. Tom's). For those 12-Bolt modified Corvettes, use p/n 50248-KIT, which includes the driver's side (p/n 50248) and passenger's side (p/n 50249) inner yoke shafts.

50245-KIT Corvette C2-C3 Rear Inner Yoke Shaft Kit (pair)2100.00
Replaces the factory 17-spline differential yoke axle shaft. Must use 30 spline axle gears originally used in the 12 bolt GM differential. Modifications are required to the Posi-Traction carrier in order to clear the large splines.

MARK WILLIAMS Enterprises®

YOKE SHAFTS FOR 12 BOLT CONVERSION



Many owners have chosen to upgrade the rear by modifying a stock Corvette case to use a GM 12-Bolt Posi and gear, but some of these systems still use the cast bolt-on universal flange yoke. Our one-piece, super strong 300M inner yoke shafts eliminate the bolted connection and significantly increase the strength and quality compared to OEM parts. The splines have been updated to a stronger 12-Bolt 30-tooth involute profile. They are produced with our in house through hardening heat-treating process and shot peened. The inner yoke shafts includes billet u-joint caps (p/n 50237) that attach with studs and 12-point ARP nuts.

A standard GM c-clip is used to retain the yoke shafts. MW Sold as a pair.

50248-KIT Inner Yoke Shafts for 12 Bolt Posi 2100.00
Yoke Shafts for C2-C3 Corvettes that use the Tom's Differentials Modified 12 Bolt Post-Traction and special ring and pinion. Mates to 1350 series universal joint half shafts.

****NOTE**** *This kit will only work with C2/C3 Corvettes that have been modified to use a GM 12-Bolt posi & gear. If your Corvette has a stock differential, use p/n 50245-KIT inner yoke shafts.*

CORVETTE C2-C3 BILLET POSI-TRACTION CASE



ACG-30



50247



ACG-30-3



SF58922 Kit

C2-C3 Replacement Case for the Eaton™ 19670 Posi-Traction. This solves the problem with cracked and failed cases while increasing gear life. The case is produced from through hardened alloy steel and shot peened. Includes a special ACG-030-3 pin.

The case uses 12 Bolt GM side and spider gears kit SF58922, For use with 50245-KIT Inner Yoke Shafts. (page 10).

ACG-030 Billet Posi Traction Case4200.00
Produced from billet aircraft quality materials thru hardened heat treated

50247 C-CLIP Machinable for Thickness23.00

Used to fine tune the C-Clip axle to the Spider Pin. Required if using 30 Spline Axles and Spider Gears

SF58922 30 Spline Internal Axle Gear Kit175.00

With Shot Peen Treatment and Supra-Fin finishing .

ACG-030-3 Spider Pin54.00

4140 Case Hardened pin for 12 Bolt spider gear. Can be used with reworked cast iron case by enlarging the spider pin bores to slip fit with this pin.

CORVETTE C4 REAR HUB YOKE SHAFT



50510G

This is an upgrade for the C4 (1988 - 1996) Corvette rear wheel hub shaft yoke that is prone to failure. We have increased the spline to 32-tooth, and upgraded the material to 300M aircraft alloy steel. Then, thru hardened heat-treated in house for maximum strength. The shaft is shot peened and comes with the an enlarged 1"-20 flange nut, billet u-joint caps, spacer and washers.

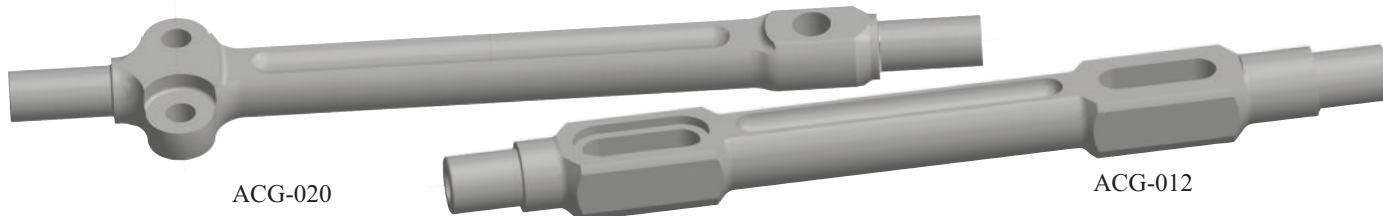
No need to send in your old hubs for rework. The kit comes with new Timken™ hubs with 32 splines and metric press in studs. Everything that is required for a bolt in installation. Installation and service instructions can be found on our website, Service Bulletin #0117.

50225-KIT C4 Rear wheel Hub Kit (pair)2896.00
32 Spline C4 Hub-Yoke Upgrade kit

toll free
800-525-1963

on the web
www.markwilliams.com

CORVETTE C2 AND C3 CONTROL PIVOT SHAFT



ACG-020

ACG-012

ACG-020 Control Arm Shaft Lower ea 487.00 ACG-012 Control Arm Shaft Upper ea 365.00

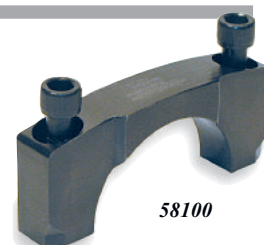
Designed to replace the original low carbon GM part, the ACG-020 is made from billet 4140 steel and heat treated with the M/W Austempering process and shot peened. Journals for lower pivot bushings have a 7/16-20 thread upper have 3/8-24 thread. The lower control mounting surface is raised approximately 1/8" for a slight improvement in the roll center. Priced each.

NOTE: A Spherical Bearing and hardware kit is available from ACG Enterprises e-mail: c_geatches@sbcglobal.net

CORVETTE C2 AND C3 DIFFERENTIAL PARTS

One of the most common causes of Corvette rear end component failure can be traced to the stock rear end caps. To cure this problem, MW makes a replacement cap from billet steel with an increased cross section and heat treated grade 8 hardware (included). Precision measuring of the cap bore and milling of cap parting line is required to install. Normally, only the driver's side cap has to be replaced, but most customers replace both. Check out the cap installation instructions (Service Bulletin #0007) on our website. Not a returnable part after it is installed.

58100 Differential Cap C2-C3 Corvette 70.00



58100

PINION YOKE AND HALF SHAFTS



39038

Replace the weak 1310 series factory Pinion Yoke with 1350 series u-joints. Manufactured from high strength, heat treated 4340 steel. All machining is done in relationship to the spline pitch diameter to ensure each yoke is symmetrical for balance and smooth operation. Designed to use

the 2nd generation alloy steel cap kit for added strength or standard u-bolts. - Sold separately. 58918 nut and washer kit required.

39038 Pinion Yoke, 1350 Joint 204.00
U-Bolt kit sold separate 39010 or 39112



39810

This C2/C3 Corvette rear axle half shaft features MW 4130 forged steel weld yokes, 1350 series non-greaseable, lubed for life universal joints. 3" O.D. x .083" heat-treated chromium-molybdenum tube with 13-7/8" centers. (Other lengths can be produced at the same cost.) Cold wire TIG welded. Sold AS A PAIR

39810 Half Shaft C2-C3 Corvette (pr) 885.00
4130 Tube and End Fitting with Spicer Joints

BILLET CAPS, NUTS AND SPACERS



39112

These 2nd generation U-bolt (cap) kits feature a bubble stud that locates on the rear flange bolt hole indexing the location. The straps are produced from heat treated chromium-molybdenum steel.

39112 2nd Gen U-Bolt Kit 97.00



58918 Kit

The Pinion attachment of the Corvette Needs a little help in maintaining the preload setting and making sure the pinion nut is secure. The Billet Nut and Solid Preload Spacer fits the bill.

58918 Pinion Nut & Washer Kit 38.75
Required on 39038 pinion yoke.



58914

58914 Preload Spacer 47.00
Hardened 4140 with length to machine for preload

MARK WILLIAMS Enterprises®

CORVETTE C5 CV AXLE SHAFTS



50220 Axle Shafts are Manufactured from 300M aircraft steel and Shot Peened. These shafts have been designed to handle the rigors of any high powered application. Applications for the 1997-2004 C5 Corvette. These axle shafts that attach to the constant velocity (CV) joints. Corvette rear. Axle shafts are sold in pairs.

50220 C5 Axle Shafts for CV Joints (pair)972.50
300M Heat treated and shot peened

50210 Left Hand axle shaft is available. Produced from 300M aircraft steel and shot peened. Intermediate shafts are sold as singles. If you have a strong Corvette, this is the differential output shafts that you need to put reliable power to the ground.

50210 C5 Intermediate Shaft402.00
300M Heat Treated and Shot Peened

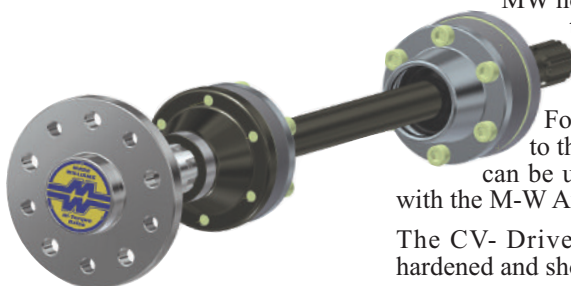
JAGUAR XK AND XJ REAR HUB



This assembly is designed to be a bolt-in conversion to solve breakage issues associated with the OEM 10-spline shafts by converting to a 31-tooth involute spline profile. It utilizes the original bearings and seals. The kit comes with all parts necessary for the conversion, including several thicknesses of preload shims for the proper tapered roller bearing preload. The yoke-shaft is made from a 300M aircraft alloy forging that has been heat-treated and shot peened for improved cycle life, and features removable caps that simplify the installation. The universal joint cap attachment fasteners are drilled for safety wire locking. The yoke-shaft features a 1"-20 thread that increases strength. The hub is 4340 steel that is through-hardened heat treated with our austempering process. Wheel studs are an ARP product with a quick-start nut-aligning feature. Installation - Service instructions can be found on Service Bulletin #0114.

JAG-1000 JAG Rear Axle Hub Assembly3700.00
Bolt in Kit for both sides, Utilizes OE 1410 size universal joints

PANTERA AXLES AND CV CONVERSION



MW now has CV Joint conversion kit for Ford Pantera. This series 15 CV kit replaces the original U-Joint style half-shafts. Enjoy all the benefits of a CV joint style design, including, better handling, smoother operation, less binding, and an increased range of motion.

For a truly superior axle assembly, we have added a wheel and brake disc register to the axle. The CV to axle Flanges are compatible with the original half shafts and can be used for the CV upgrade. All stub axles are produced from 4340 heat treated with the M-W Austempering process.

The CV- Drive Shaft is produced from 300M, hardened and shot peened.



P-6000 Half-Shaft CV Conversion Kit4317.75
Includes everything you need to convert to CV Joints.

50510 Pantera Stub Axles (Pair)1115.00
4340 8 spline stub axles per pair. Replacement axle with extended register for wheel and brake register.

50510

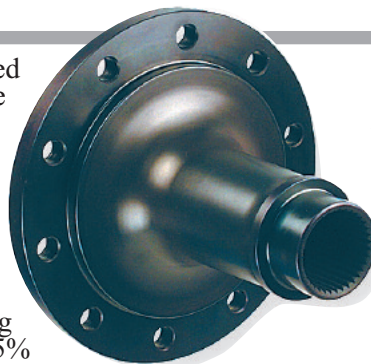
toll free
800-525-1963

on the web
www.markwilliams.com

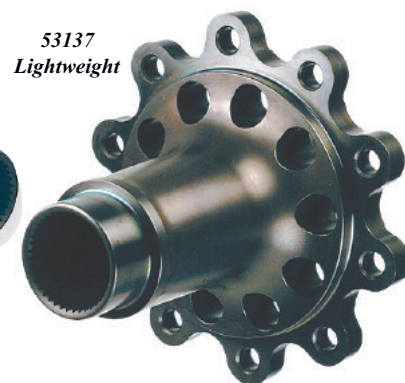
STEEL SPOOLS

All Mark Williams steel spools are precision machined from 4140 steel forgings and through hardened. The final grinding operation also ensures a near-zero runout on the ring mounting surface. MW spools also have an increased cross-section under the ring gear register to prevent ring gear deflection.

Mark Williams steel spools are offered in both standard and lightweight versions. The major differences are the addition of lightening holes drilled through the hub of the spool and a profile milled ring gear flange. This reduces the weight by as much as 25% over the standard version without sacrificing the strength of the spool.



53140
Standard Weight



53137
Lightweight

STANDARD STEEL SPOOLS

53120	35 Spline 8" Ford Spool	.....	310.00
	MW 35 spline. 10.5 lbs.		
53132	35 Spline 8.8" Ford Spool	.....	310.00
	MW 35 spline. 14 lbs. Must use 57900 ring gear bolts.		
53136	40 Spline 9" Ford Spool	.....	310.00
	For 3.250" bore case, requires 45 mm bore wheel bearing and matching housing ends. 11 lbs.		
53140	35 Spline 9" Ford Spool	.....	310.00
	MW 35 spline. For stock 2.893" or 3.062" case. 11 lbs.		
53144	31 Spline 9" Ford Spool	.....	310.00
	Stock type 31-spline. 12 lbs.		
53146	35 Spline 9" Ford Spool	.....	310.00
	MW 35 spline For 3.250" bore case. 12 lbs.		
53130	35 Spline 8.5 GM 10-Bolt Spool.*	.....	310.00
	MW 35 spline. For 1970 or later. 14 lbs.		
53160	35 Spline 12 Bolt Chevrolet Spool *	.....	310.00
	MW 35 spline. 14 lbs.		

53164	30 Spline 12-Bolt Chevrolet Spool *	.....	310.00
	Stock type 30 spline. 14 lbs. (limited stock)		
53180	35 Spline 8-3/4" Mopar Spool	.....	341.00
	MW 35 spline. 14 lbs.		
53186	30 Spline 8-3/4" Mopar Spool	.....	341.00
	Stock type 30 spline. 14 lbs.		
53150	57-64 Olds-Pontiac 35 Spline	.....	549.00
	Stock type 35 MW spline. 14.2 lbs.		
14B-SPL-30	14 Bolt GM 30 stock spline	.....	549.00
	Stock type 30 spline. 24.7 lbs.		
14B-SPL-40	14 Bolt GM 40 spline	.....	549.00
	40 spline requires aftermarket spindles with increased bore 24.7 lbs.		
14B-SPL-35	14 Bolt GM 35 Dana spline	.....	549.00
	Dana 35 spline. 24.7 lbs.		

* Requires C-Clip Eliminator kit or other axle retention method

LIGHTWEIGHT STEEL SPOOLS

D1554F33	33 Spline 9" Ford Spool	.....	319.00
	Strange Engineering spool (not profiled)		
53125	40 Spline 9" Ford Lightweight Spool	.....	365.00
	For 3.812" case bore and 1/2" ring gear bolts. 9.7 lbs		
53127	40 Spline 9" Ford Lightweight Spool	.....	365.00
	For 3.812" bore case and 7/16" ring gear bolts. 9.7 lbs		
53129	40 Spline Modular 12 Bolt LW Spool	.....	365.00
	MW 40 spline. 12.5 lbs.		
53134	35 Spline 8.8 Ford Lightweight Spool	.....	365.00
	MW 35 spline. Must use 57900 ring gear bolts 11 lbs.		
53137	40 Spline 9" Ford Lightweight Spool	.....	365.00
	For 3.250" bore case. 8.5 lbs.		
53138	35 Spline 9" Ford Lightweight Spool	.....	365.00
	Summers Bros. type for 3.250" bore case. 9 lbs.		
53145	35 Spline 9" Ford Lightweight Spool	.....	365.00
	MW 35 spline for 2.983 or 3.062 bore case. 8.75 lbs.		

53147	35 Spline 9" Ford Lightweight Spool	.....	365.00
	Strange type for 3.250" bore case. 10.5 lbs.		
53148	35 Spline 9" Ford Lightweight Spool	.....	365.00
	MW 35 spline for 3.250" case. 9 lbs.		
53165	35 Spline 12-Bolt Chevy LW Spool *	.....	365.00
	MW 35 spline. 11 lbs.		
53175	35 Spline Dana 60 Lightweight Spool	.....	549.00
	MW 35 spline. 17 lbs.		
53177	40 Spline Dana 60 Lightweight Spool	.....	549.00
	Requires 58505 bearings and proper housing ends. 16 lbs.		
53187	35 Spline 8 3/4 Mopar LW Spool	.....	365.00
	MW 35 spline. 12.5 lbs.		
53196	40 Spline 9" Ford Lightweight Spool	.....	398.00
	MW 40 Spline, 4.000" Bore Case. 10.16 lbs.		
53265	35 Spline 12-Bolt Lightweight Spool*	.....	365.00
	MW 35 spline 3.250" bore carrier 11.1 lbs.		

* Requires C-Clip Eliminator kit or other axle retention method



ALUMINUM SPOOLS



Mark Williams offers spools manufactured from High Strength forged aluminum alloy. M-W aluminum spools are being used successfully in all Drag Race classes. They are machined from 7075-T6 aluminum alloy forgings and finished with the MW Gold Coat process. Aluminum spools are approximately half the weight of the profile milled steel spools. The 40-spline spools are available for 9" thru 10" Fords, 12" Modular as well as Dana 60 rears. Aluminum 9" Ford 40 spline spools must be used in a case with a 3.812" or 4.00" bore. The 35-spline aluminum 9" Ford spool requires a case with a 3.250" bore. All M-W Aluminum spools come with hardened washers used under the ring gear bolts to prevent deterioration of the bolt seat.



53133 9" Ford Aluminum Spool	473.00
<i>MW 40 spline, for 3.812 bore case. 4.7 lbs</i>	
53135 9" Ford Aluminum Spool	473.00
<i>MW 35 spline, for 3.250" bore case. 4.9 lbs.</i>	
53153 Olds/Pont '57-64 Aluminum Spool	550.00
<i>35 Spline MW Spline 2.00 ID Bearing with hard bolt seat washers</i>	
53158 12-Bolt Aluminum Spool	654.00
<i>*MW 35 spline, housing must be bored to 3.250". Includes 58925 shim kit and 53161A bearing kit. 5.3 lbs.</i>	
53149 9" Ford Aluminum Spool	473.00
<i>Strange 35 spline type, for 3.250" bore case. 4.9 lbs.</i>	

53166 12-Bolt Modular Aluminum Spool	473.00
<i>MW 35 spline for 12-bolt modular housing, weight 5.2 lbs.</i>	
53174 Dana 60 Aluminum Spool	599.00
<i>MW 40 spline, 45mm bore axle bearings and proper housing ends required. 8 lbs.</i>	
53179 8-3/4" Mopar Aluminum Spool	594.40
<i>MW 35-spline, weight 5.2 lbs.</i>	
53104 12" Aluminum Spool 40 spline	776.00
<i>4 series 3.70 to 5.83 ratio weight 11.8 lbs.</i>	
53108 12" Aluminum Spool 40 spline	776.00
<i>3 series 2.91 to 3.20 ratio weight 11.8 lbs.</i>	

LOCKING CARRIERS



187S-13A



187S-17B

225S-40A



187S-35C

LOCKING DIFFERENTIALS are offered for popular 9" Ford applications (28 and 31-spline), as well as Dana 60 rear ends. These units are designed to provide power to both wheels even in those situations where one tire loses traction. Detroit lockers will also compensate for differences in wheel speed when turning corners by letting the wheel with the larger turning radius overrun and unlock from the other wheel.

187S-13A 9" Ford 28 spline Locker	781.76
187S-17B 9" Ford 31 spline Locker	781.76
187S-35C 9" Ford 35 spline Locker	854.00
<i>Nodular iron housing. Requires 3.250" bore case.</i>	
225S-23A Dana 60 Detroit Locker®	756.00
<i>35 Spline for 4.56-7.17 ratio gears.</i>	

225S-40A Dana 60 Locker	699.00
<i>40 Spline for 3.73-4.10 ratio gears</i>	
225S-40B Dana 60 Locker	699.00
<i>40 Spline for 4.88-7.17 ratio gears</i>	

BILLET DIFFERENTIAL CARRIERS

C2-C3 Corvette

Modular 12"



MW manufactures steel billet Open and Posi-Traction carriers are made from 4140 chromoly. Carriers are available for the C2-C3 Corvette Eaton™ Posi that utilizes 12 Bolt interal axle and spider gears with a 30 tooth spline.

The 12" Modular Rear carrier features a 4 pinion spider gear design and is available with 40 or 35 spline axle side gears. The 12" carrier is also available for 2.91 and 3.20 ratios and 3.73 thru 5.83 ratios.

90030 Modular 12" Open Carrier, 40 spline	3240.00
<i>Special 4140 billet housing and spider gears for 2.91-3.20 ratio gears.</i>	
90034 Modular 12" Open Carrier, 40 spline	3240.00
<i>Special 4140 billet housing and spider gears for 3.73-5.83 ratio gears.</i>	

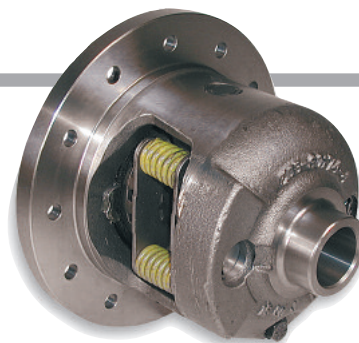
ACG-030 C2-C3 Posi-Traction Case	4200.00
<i>4140 billet housing Replacement for 19670 Eaton (tm) Posi-Traction. Internal parts not included, but comes with spider pin.</i>	

toll free
800-525-1963

on the web
www.markwilliams.com

Posi-TRACTION UNITS

There are a number of excellent after-market posi-traction units which have proven to be exceptionally reliable in increased power street machines. These units provide increased traction prior to wheel spin. This is accomplished through the use of pre-loaded friction discs and, to some degree, the wedging action of the axle gear. This distributes torque to the wheel with superior traction rather than letting the wheel without traction spin free. All Eaton™ units are equipped with carbon fiber clutches and are available for 10 and 12 Bolt GM passenger car and truck rears as well as 8.8" Ford rears.



57311 9" Ford Posi-Traction402.00 <i>31 spline clutch O.E. type posi-traction.</i>	19556 12 Bolt Eaton™ Truck Posi-Traction648.46 <i>400lb preload unit, 30-spline for 3.73 to 5.38 ratio.</i>
19510 12 Bolt Eaton™ Posi-Traction504.45 <i>30 spline with 800 lb clutch preload. For 3.90-6.14 ratios.</i>	19557 8.5 10 Bolt Eaton™ Posi-Traction509.91 <i>28 spline with 400 lb clutch preload. For 2.73 to 5.57 ratios.</i>
19554 12 Bolt Eaton™ Posi-Traction (Series 3) . . .589.20 <i>30 spline with 400 lb clutch preload. For 3.08 to 4.10 ratios.</i>	19588 8.8 Ford Eaton™ Posi-Traction615.63 <i>31 spline with 400 lb clutch preload. For 3.08 and up ratios.</i>
19555 12 Bolt Eaton™ Posi-Traction648.40 <i>30 spline with 400 lb clutch preload. For 4.10 to 6.14 ratios.</i>	19603 8.2" GM Eaton™ Posi-Traction510.32 <i>28 spline with 400 lb clutch preload. For 3.08 and up ratios.</i>
	19670 Corvette C2-C3 Eaton™ Posi-Traction . . .510.32 <i>17 spline with 400 lb clutch preload. For 3.08 -3.90 ratios.</i>

BEARINGS AND RING GEAR BOLTS



All MW spool bearing kits feature Timken® bearings and races. MW also offers special bearing adapters to allow the use of spools for smaller bore sizes to be used in larger bores. MW ring gear bolts are manufactured with a ground shoulder to drive against, while the 12 point bolt heads are drilled to accept aircraft type safety wire. This method reduces the chance of the ring gear bolts "backing out".

FORD SPOOL MATING PARTS

53121 8" Ford Spool Bearings52.36
53124 9" Ford Spool Bearings 3.812 O.D.89.04
53126 9" Ford Spool Bearings 3.812 O.D.184.00 <i>To use a spool with 2" dia. journals in a 3.812 case</i>
53131 8" Ford and 8.5" 10-Bolt Spool Bearings . .52.36
53141 9" Ford Spool Bearings, 2.893" O.D.52.36
53142 9" Ford Spool Bearings, 3.062" O.D.61.48
53143 9" Ford Spool Bearings, 3.250" O.D.60.32
53197 9" Ford Spool Bearings, 4" OD Tapered .228.50
53210 9" Ford Spool Bearings 3.812 O.D.172.24 <i>Angular contact for 2.25 id x 3.812 od</i>
53220 9" Ford Spool Bearings 4.00 O.D.210.00 <i>Angular contact for 2.25 id x 4.000 od</i>
57510 Spool Shim Adapter, (pr)48.15 <i>To use a spool with 1.7" dia. journals in a 3.250" case</i>

57570 Adjuster Adapter, (pr)106.00 <i>To adapt a 3.062" bearing to 3.250" bore case. MW case ONLY</i>
57900 9" Ring Gear Bolt Set.48.00 <i>7/16"-20 threads, 12 point 3/4 hex, safety wire hole</i>
57920 9" Ford Ring Gear Bolt Set 1/2-2082.10
57940 Thin 9" Ford Ring Gear Bolt Set 1/2-20 . .82.10

GM SPOOL MATING PARTS

53151 '57-64 Olds/Pontiac Spool Bearings72.31
53157 GM 12 Bolt Inner Carrier Shim, (ea)30.00
53161 GM 12 Bolt Spool Bearings72.36
53161A GM 12 Bolt Spool Bearings (for 53158) . .82.52
58900 MW G.M.12 Bolt Ring Gear Bolt Set44.41

DANA 60 AND 8-3/4 MOPAR MATING PARTS

53171 Dana 60 Spool Bearings99.00
56900 Dana 60 Ring Gear Bolt kit40.00
53181 8-3/4" Mopar Spool Bearings72.36
53900 8-3/4" Mopar Ring Gear Bolts35.00

MARK WILLIAMS Enterprises®

RING AND PINION GEARS



Mark Williams Enterprises, Inc. is one of the nation's largest warehouse distributors for several manufacturers. At any given time, you'll find hundreds of ring & pinion gear sets in stock at MW! This includes standard gears for oval track and street use as well as 9310 Alloy "Pro" gears for drag race only applications. Additionally, Mark Williams Enterprises, Inc. has everything necessary to properly install and set up a rear end gear set. This includes installation kits, tools, measuring devices, gear marking compound, special ring gear bolts, safety wire and gear lube. On the following pages you will find a listing of ring and pinion sets available at the publication time. Different vendors may introduce any additional ratios following this publication. Call 800-525-1963 for availability and pricing on items not listed.

• **SAME-DAY SHIPPING OF STOCK GEARS** • **COMPETITIVE PRICES** • **COURTEOUS & KNOWLEDGEABLE SALES STAFF**

8620 "STANDARD" GEARS

Standard Gears are primarily used in oval track and street applications. The material and heat treating provide excellent wear service life but doesn't handle shock loads as well as Pro gears. 9" Ford standard gears have a 28 spline pinion.

9310 "PRO" GEARS

"Pro" gears are designed specifically for drag racing. The 9310 alloy and heat treat are ideally suited to absorb high impact shock loads. 9" Ford ratios from 4.86 to 6.50 have 28 spline pinions. Select ratios available for 12 Bolt and Dana 60.

"INCREASED SIZE PRO" GEARS

These 9", 9 1/2" and 10" Ford gears are built specifically for ultra high horsepower drag racing applications from 9310 material. All available ratios (2.91 to 4.86) most have a large 35 spline shaft.

9" FORD GEAR NOTES

CASE CLEARANCE

While many new 9" gears are now manufactured for case clearance, many 9" Ford ring gears require modification to clear the pinion pilot bearing area. Do not grind on the case. Instead, chamfer the ring gear for clearance. A gauge tool is available (57486) that checks the profile and gauges the interfering material if necessary.

LUBRICATION Depending on the housing capacity recommend using three to four quarts of MW-Torco GL-6 racing gear oil, SAE 85w140, Part number 55-0030, 1qt., The lube level should up to the pinion center. This is a non-synthetic lube with additional extreme pressure additives to prevent galling. We do not recommend synthetic lubricants for Drag Race applications. Oval Track applications require a baffle to prevent all the lube from becoming built up in the right axle housing tube. Our rear end filler bung and cap, part numbers 5015 & 5016 installed in the top of the housing make it easy to fill.

PINION BEARING

If using a stock Ford front pinion bearing support, it must be the unit that has the HM89443 rear cone. Some standard pinion Pro Gears must use a HM89444 rear cone. This bearing has a larger radius that matches the increased radius in the pinion. Do not use the OEM pinion support with the M-88048 rear bearing. It will not stand the load and will fail destroying the gear set.

RECOMMENDED PINION SUPPORTS

The recommended pinion support is our heavy duty Taper/Taper support part numbers 57620 for 28-spline input, or 57630 for 35-spline input. Both use larger Timken® bearings front and rear. The next step is the Ball/Taper support that has a lower preload and is capable of much higher RPM. Our tests have shown that this bearing combination has less pinion deflection than the double Timken® bearing units. This unit utilizes a Timken® front bearing with an angular contact bearing in the rear. The standard 28-spline pinion uses part number 57670 and the 35-spline pinion is 57680. The top on the line is our double angular contact 476XX series support utilizes two angular contact ball bearings for minimum drag and high RPM applications. An option for either of the units is a ceramic ball bearing option that is lighter and reduces the rolling friction. The 10" Ford gears require a 47679 or 57679 support as the mounting distance is greater.

DOUBLE ANGULAR BALL BEARING SUPPORT

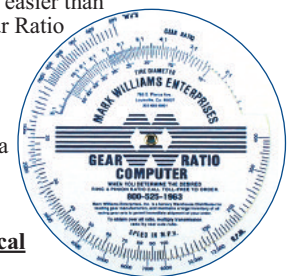
The low friction 57022 32-spline input third members utilize a dual angular contact bearings in the pinion support, optionally with ceramic balls for further friction reduction. Additionally we now have a new series of pinion supports that have dual ball bearings with 28-splines (P/N 47675) and 35-splines (P/N 47680). Any of these supports can have the ceramic ball upgrade.

WHAT SIZE GEAR 9", 9-1/2" OR 10"

Over the years we have strived to increase the durability for the 9" Ford type differential. In the early days the standard 9" diameter 8620 alloy ring and pinions were the only choice. Then the 9310 alloys were introduced with improved gear life. The next problem was twisting the pinion spline in two the with the Top Fuel cars of the day. Increasing the input spline to 35-splines solved that problem. The gears needed a size increase so the gear pitch diameter was increased a 9-1/2" pattern. It's to be noted that the physical diameter of the ring gear is 9-1/4" Some of the edge material was removed to fit in the current aftermarket housings. The latest change is increasing the pitch diameter pattern to a 10" pattern. The actual ring gear measures 9-7/16" diameter. Another improvement was to change the balance of the ring gear tooth thickness to pinion gear thickness to balance the stresses. The pinion support for the 10" ring and pinions is different from the 9"-9-1/2" gears. This is to accommodate the larger distance from the ring gear center to the rear pinion bearing (mounting distance) on the larger 10" pattern.

WHAT GEAR RATIO IS RIGHT FOR MY CAR?

The answer to this often asked question is easier than you might think. The Mark Williams Gear Ratio Calculator allows you to insert 3 of 4 variables, tire diameter, engine RPM, and MPH with the result being the final gear ratio required. You can also use it to determine the correct tire size or see how a tire size change will affect engine RPM and/or speed. Ratios can also be calculated on our web site at www.markwilliams.com click> [Technical](#) then click> [Calculators](#).



toll free
800-525-1963

on the web
www.markwilliams.com

9" FORD GEARS

8620 STREET/OVAL TRACK GEARS '57-'73 Passenger Car - 'and Aftermarket Thirdmembers

DUE TO THE VOLATILITY IN THE RACING RING AND PINION MARKET, PLEASE CHECK WITH OUR SALES DEPARTMENT TO CONFIRM PRICE AND AVAILABILITY

429-0121	2.91 9" Ford Richmond Gear	.262.78
F890300	3.00 9" Ford Motive Gear	.334.25
629-0284	3.25 9" Ford Richmond Gear	.262.78
F890325	3.25 9" Ford Motive Gear	.307.50
429-0027	3.50 9" Ford Richmond Gear	.323.83
629-0195	3.55 9" Ford Richmond Gear	.280.65
629-0361	3.70 9" Ford Richmond Gear	.311.67
F890370	3.70 9" Ford Motive Gear	.314.84
F890389	3.89 9" Ford Motive Gear	.323.17
629-0177	3.89 9" Ford Richmond Gear	.220.96
F890411	4.11 9" Ford Motive Gear	.315.22
F890430	4.30 9" Ford Richmond Gear	.361.38
629-0161	4.33 9" Ford Richmond Gear	.348.99
629-0185	4.56 9" Ford Richmond Gear	.311.66
F890457	4.57 9" Ford Motive Gear	.323.04
629-0379	4.63 9" Ford Richmond Gear	.407.41
F890486	4.86 9" Ford Richmond Gear	.334.63
629-0067	4.86 9" Ford Richmond Gear	.350.98
F890500	5.00 9" Ford Motive Gear	.356.29

629-0360	5.00 9" Ford Richmond Gear	.376.64
F890514	5.14 9" Ford Motive Gear	.334.39
629-0068	5.14 9" Ford Richmond Gear	.350.82
F890529	5.29 9" Ford Motive Gear	.277.02
629-0270	5.29 9" Ford Richmond Gear	.302.96
F890543	5.43 9" Ford Motive Gear	.269.94
629-0069	5.43 9" Ford Richmond Gear	.283.72
F890567	5.67 9" Ford Motive Gear	.349.44
629-0070	5.67 9" Ford Richmond Gear	.349.44
F890583	5.83 9" Ford Motive Gear	.349.44
629-0288	5.83 9" Ford Richmond Gear	.356.56
F890600	6.00 9" Ford Motive Gear	.331.82
629-0199	6.00 9" Ford Richmond Gear	.349.11
F890620	6.20 9" Ford Motive Gear	.214.62
629-0290	6.20 9" Ford Richmond Gear	.387.82
F890633	6.33 9" Ford Motive Gear	.369.77
629-0276	6.33 9" Ford Richmond Gear	.387.82
F890650	6.50 9" Ford Motive Gear	.349.29
629-0197	6.50 9" Ford Richmond Gear	.387.82

9" FORD PRO GEARS

9310 DRAG RACE STANDARD AND LARGE PINION 9" PRO GEARS

*Small Pinion is 1.313" dia. pinion stem 28 spline pinion
Large Pinion is 1.875 rear 1.500 from bearing 35 spline pinion*

729-0001	3.40 9" Ford Richmond Pro LP 9310	.582.74
729-0002	3.50 9" Ford Richmond Pro LP 9310	.526.80
729-0003	3.60 9" Ford Richmond Pro LP 9310	.573.29
F990370BP	3.70 9" Ford Motive BP 9310	.635.10
F990389BP	3.89 9" Ford Motive BP 9310	.503.37
729-0043	3.89 9" Ford Richmond Pro LP 9310	.559.32
F990429SP	4.29 9" Ford Motive Small Pinion 9310	.659.74
729-0079	4.29 9" Ford Richmond Pro LP 9310	.529.95
729-0080	4.57 9" Ford Richmond Pro LP 9310	.529.95
F990457SP	4.57 9" Ford Motive Small Pinion 9310	.659.74
F990471SP	4.71 9" Ford Motive Small Pinion 9310	.581.56
729-0070	4.71 9" Ford Richmond Pro LP 9310	.490.54
F990486BP	4.86 9" Ford Motive BP 9310	.467.38

729-0066	4.86 9" Ford Richmond Small Pro 9310	.465.64
729-0078	5.00 9" Ford Richmond Small Pro 9310	.445.41
F990514SP	5.14 9" Ford Motive Small Pinion 9310	.501.99
729-0017	5.14 9" Ford Richmond Small Pro 9310	.412.96
729-0069	5.29 9" Ford Richmond Small Pro 9310	.562.77
F990543SP	5.43 9" Ford Motive Small Pinion 9310	.501.99
729-0005	5.43 9" Ford Richmond Small Pro 9310	.537.47
F990567SP	5.67 9" Ford Motive Small Pinion 9310	.450.02
729-0007	5.67 9" Ford Richmond Small Pro 9310	.468.53
729-0019	5.83 9" Ford Richmond Small Pro 9310	.544.32
729-0023	6.20 9" Ford Richmond Small Pro 9310	.410.76
729-0054	6.50 9" Ford Richmond Small Pro 9310	.505.03



9-1/2" FORD PRO GEARS

9310 DRAG RACE LARGE PINION 9-1/2" PRO GEARS

1.875" dia. pinion stem 35 spline pinion (unless noted otherwise noted))

DUE TO THE VOLATILITY IN THE RACING RING AND PINION MARKET, PLEASE CHECK WITH OUR SALES DEPARTMENT TO CONFIRM PRICE AND AVAILABILITY

U9.5F-3.25	3.25	9-1/2" Ford Toms Large Pinion . . . . .	.990.00
U9.5F-3.40	3.40	9-1/2" Ford Toms Large Pinion . . . . .	.990.00
U9.5F-3.60	3.60	9-1/2" Ford US-Toms Large Pinion . . . . .	.990.00
U9.5F-3.70	3.70	9-1/2" Ford US-Toms Large Pinion . . . . .	.990.00
729-0097	4.11	9-1/2" Ford Richmond Large Pinion . . . . .	.713.95
07-995429	4.29	9-1/2" Ford US Gear Large Pinion . . . . .	.449.47
729-0098	4.29	9-1/2" Ford Richmond Large Pinion . . . . .	.721.54

U9.5F-4.86	4.86	9-1/2" Ford US-Toms Large Pinion . . . . .	.990.00
U9.5F-5.14	5.14	9-1/2" Ford US-Toms Large Pinion . . . . .	.990.00
729-0108	5.00	9-1/2" Ford Richmond Std. Pinion . . . . .	.683.15
		<i>28 spline standard pinion</i>	
729-0110	5.11	9-1/2" Ford Richmond Std. Pinion . . . . .	.744.44
		<i>28 spline standard pinion</i>	
729-0108	5.00	9-1/2" Ford Richmond Std. Pinion . . . . .	.683.15
		<i>28 spline standard pinion</i>	

9-1/2" MWE LOW FRICTION FORD GEARS

9310 PRO STOCK 32 SPLINE INPUT

As used in the MW Low Friction 57022 Thirdmembers 45mm rear pinion bearing ID, 32 spline pinion.

These gears are manufactured for MW by Velvet Drive, the original manufacturer for Richmond brand gears. The quality is the same as pre 2002 Richmond brand gears. The gears can be used in a Differential with the MW ball taper support with different spacers and a 32 spline pinion yoke. See catalog page 29 for the matching pinion support. These gears are available with Shot Peening and Supra-Fin finishing options (SFL).

MWE-511-	5.11	9-1/2" Low Friction Gear . . . . .	.877.00
MWE-514	5.14	9-1/2" Low Friction Gear . . . . .	.877.00
MWE-517	5.17	9-1/2" Low Friction Gear . . . . .	.877.00
MWE-520	5.20	9-1/2" Low Friction Gear . . . . .	.877.00

MWE-525	5.25	9-1/2" Low Friction Gear . . . . .	.877.00
MWE-529	5.29	9-1/2" Low Friction Gear . . . . .	.877.00
MWE-538	5.38	9-1/2" Low Friction Gear . . . . .	.877.00
MWE-550	5.50	9-1/2" Low Friction Gear . . . . .	.877.00

10" FORD PRO GEARS

9310 10" PITCH DIAMETER DEVELOPMENT (9.43 PHYSICAL RING DIAMETER)

The latest strength improvement for the 9" Ford rears. Requires matching case and pinion front bearing support. Can be used in most 9" Housings with extra clearance modifications. All have 35 spline input and 1/2" ring gear bolts. Fits 9" spools for 1/2" ring gear bolts.

T10-370	3.70	10" Ford Tom's Gear . . . . .	.1219.25
T10-389	3.89	10" Ford Tom's Gear . . . . .	.1219.25
T10-411	4.11	10" Ford Tom's Gear . . . . .	.1219.25
F910411	4.11	10" Ford Motive Gear . . . . .	.1460.76
T10-429	4.29	10" Ford Tom's Gear . . . . .	.1219.25
F910429	4.29	10" Ford Motive Gear . . . . .	.1446.79
T10-457	4.57	10" Ford Tom's Gear . . . . .	.1219.25
F910457	4.71	10" Ford Motive Gear . . . . .	.1446.79

T10-500	5.00	10" Ford Tom's Gear . . . . .	.1219.25
F910500	5.00	10" Ford Motive Gear . . . . .	.1399.34
T10-514	5.14	10" Ford Tom's Gear . . . . .	.1219.25
F910514	5.14	10" Ford Motive Gear . . . . .	.1399.34
F910533M	5.33	10" Ford Motive Gear . . . . .	.1442.62
F910537M	5.37	10" Ford Motive Gear . . . . .	.1458.30
F910543	5.43	10" Ford Motive Gear . . . . .	.1399.34

GEAR LIGHTENING

RING GEAR LIGHTENING



MW offers a special ring gear lightening service for 9" Ford, 12 bolt GM (4:88 to 6:20 ratio) and Dana 60 gears. This process is performed on a CNC lathe with special tooling to produce a generous radius and smooth finish. The result is a weight reduction of between 1/2 and 3-1/2 lbs. Some gears are factory lightened but we can remove additional weight in most cases.

LRG	Lighten ring gear. (with gear purchase)105.00
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toll free
800-525-1963

on the web
www.markwilliams.com

MW 12" MODULAR GEARS

9310 PRO GEAR MATERIAL For 12" MW Modular Differential 14 ring gear bolts 9/16-18 thread

2.167" rear bearing dia. 40 spline input

729-0121	2.91	12" Modular Gear, Series 1 Spool	2800.00
729-0320	3.20	12" Modular Gear, Series 1 Spool	2800.00
729-0133	3.70	12" Modular Gear, Series 2 Spool	2800.00
729-0120	3.89	12" Modular Gear, Series 2 Spool	2800.00
729-0115	4.11	12" Modular Gear, Series 2 Spool	2800.00
729-0116	4.29	12" Modular Gear, Series 2 Spool	2800.00
729-0132	4.44	12" Modular Gear, Series 2 Spool	2800.00

729-0117	4.57	12" Modular Gear, Series 2 Spool	2800.00
729-0118	4.71	12" Modular Gear, Series 2 Spool	2800.00
729-0135	5.00	12" Modular Gear, Series 2 Spool	2800.00
729-0136	5.14	12" Modular Gear, Series 2 Spool	2800.00
729-0134	5.43	12" Modular Gear, Series 2 Spool	2800.00
729-0124	5.83	12" Modular Gear, Series 2 Spool	2800.00

SERIES 1 GEARS USE 53104 SPOOL OR 90030 CARRIER, SERIES 2 GEARS USE 53108 SPOOL OR 90034 CARRIER

SPECIAL GEAR RATIOS ARE NOW AVAILABLE FOR THE MW 12" MODULAR REAR! CALL 1-800-525-1963 FOR MORE INFORMATION.

8.8" FORD GEARS

8620 STREET GEARS

1.626" dia. pinion stem 30 spline pinion

07-888308	3.08	8.8" Ford US Gear 8620	175.58
2020743	3.08	8.8" Ford Spicer Gear 8620	176.78
F888355	3.55	8.8" Ford Richmond Gear 8620	294.00

F888373	3.73	8.8" Ford Motive Gear 8620	288.66
F888390	3.90	8.8" Ford Motive Gear 8620	336.15
F888410	4.10	8.8" Ford Motive Gear 8620	288.41

GM CAR 12 BOLT GEARS

8620 STREET OVAL TRACK GEARS

1.625" dia. pinion stem 30 spline pinion, 4 series

429-0094	3.08	12 Bolt Car Richmond 3 series	342.61
429-0113	3.42	12 Bolt Car Richmond 3 series	298.72
G888342	3.42	12 Bolt Car Motive 3 series	318.92
429-0095	3.55	12 Bolt Car Richmond 3 series	297.59
429-0039	3.73	12 Bolt Car Richmond 3 series	298.96
G888373	3.73	12 Bolt Car US Gear 3 series	197.48
429-0096	3.73	12 Bolt Car Richmond 4 series	260.09
429-0040	3.90	12 Bolt Car Richmond 3 series	260.09
629-0304	4.10	12 Bolt Car Richmond 3 series	389.82
629-0031	4.10	12 Bolt Car Richmond 4 series	294.47
G888411	4.11	12 Bolt Car Motive Gear 4 series	272.25

629-0378	4.33	12 Bolt Car Richmond 4 series	367.33
G888456	4.56	12 Bolt Car Motive Gear 4 series	421.34
629-0306	4.56	12 Bolt Car Richmond 3 series	287.08
629-0032	4.56	12 Bolt Car Richmond 4 series	460.05
G888456	4.56	12 Bolt Car Motive 4 series	194.36
629-0033	4.88	12 Bolt Car Richmond 4 series	421.34
629-0034	5.14	12 Bolt Car Richmond 4 series	223.12
629-0035	5.38	12 Bolt Car Richmond 4 series	323.38
629-0037	5.86	12 Bolt Car Richmond 4 series	323.80
629-0038	6.14	12 Bolt Car Richmond 4 series	320.39
83-1019		Installation Kit, GM Car 12 Bolt	161.21

3 SERIES CARRIERS 3.08 TO 3.73

4 SERIES CARRIERS 3.90 AND NUMERICALLY HIGHER

GM CAR 12 BOLT PRO GEARS

9310 DRAG RACE PRO GEARS

1.625" dia. pinion stem 30 spline pinion, 4 series

729-0099	4.11	12 Bolt Car Richmond Pro Gear	405.18
729-0074	4.33	12 Bolt Car Richmond Pro Gear	411.11
729-0072	4.56	12 Bolt Car Richmond Pro Gear	372.20
729-0064	4.88	12 Bolt Car Richmond Pro Gear	372.01

729-0027	5.14	12 Bolt Car Richmond Pro Gear	373.20
729-0029	5.38	12 Bolt Car Richmond Pro Gear	381.08
729-0031	5.57	12 Bolt Car Richmond Pro Gear	398.83
729-0033	5.86	12 Bolt Car Pro Gear	339.24
83-1019		Installation Kit, GM Car 12 Bolt	161.21

* Requires C-Clip Eliminator kit or other axle retention method



CORVETTE C2-C3 '63 69 GEARS

429-0097	3.08	Corvette C2-C3	.423.22
429-0139	3.36	Corvette C2-C3	.423.18
V885355	3.36	Corvette C2-C3	.403.93
429-0021	3.55	Corvette C2-C3	.423.14

V885370	3.70	Corvette C2-C3	.315.66
429-0031	3.70	Corvette C2-C3	.409.96
429-0139	3.90	Corvette C2-C3	.426.18

30 spline pinion for series 3 carriers or M/W ACG-030 Case

GM TRUCK 12 BOLT GEARS

8620 STREET GEARS '64-'82 C10/K10 & K20, Blazer - G10/G20 Van

1.437" dia. pinion stem 30 spline pinion

429-0068	3.08	GM Truck 12 Bolt - 3 series	.309.41
429-0280	3.73	GM Truck 12 Bolt - 4 series	.309.50

629-0204	4.10	GM Truck 12 Bolt - 4 series	.303.50
83-1018		Installation Kit, GM Truck 12 Bolt	.131.70

3 SERIES CARRIERS 3.40 AND NUMERICALLY LOWER

4 SERIES CARRIERS 3.73 AND NUMERICALLY HIGHER

MW HI-EFFICIENCY GEARS

Replacement gears for the 67410 series Hi-Efficiency Thirdmembers (High Pinion). Made from 9310 material with the same hypoid distance (and efficiency) as the Dana 60 rears. Requires MW pinion support, case, and spool to utilize. 32 spline input.

98-401	4.77	Hi-Efficiency Pro Gear	.600.00
98-400	4.86	Hi-Efficiency Pro Gear	.600.00
98-405	5.00	Hi-Efficiency Pro Gear	.600.00
98-406	5.50	Hi-Efficiency Pro Gear	.600.00

98-403	5.67	Hi-Efficiency Pro Gear	.600.00
98-402	5.71	Hi-Efficiency Pro Gear	.600.00
98-404	5.83	Hi-Efficiency Pro Gear	.600.00

8" FORD GEARS

8620 STREET GEARS '65-'79 Mustang - '67-'72 Cougar - '64-'72 Comet - '60-'72 Falcon & Fairlane

.188" dia. pinion stem 25 spline pinion

429-0101	3.55	8" Ford Richmond Gear 8620	.344.94
429-0111	3.80	8" Ford Richmond Gear 8620	.340.36

629-0065	4.62	8" Ford Richmond Gear 8620	.256.45
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8" FORD INSTALLATION KIT

83-1015		Installation Kit, 8" Ford	.123.96
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DANA 60 GEARS

8620 STREET GEARS

'66-'73 Dodge & Chrysler w/Hemi - Various 3/4 ton trucks '67-'98 *9 3/4" ring gear 1.626" dia. pinion stem 29 spline pinion*

429-0129	3.54	Dana 60 Richmond Gear	.495.79
706033-1X	3.54	Dana 60 Spicer Gear	.336.48
429-0130	3.73	Dana 60 Richmond Gear	.481.65
706033-2X	3.73	Dana 60 Spicer Gear	.428.03
629-0052	4.10	Dana 60 Richmond Gear	.342.60

629-0053	4.56	Dana 60 Richmond Gear	.342.60
629-0054	4.88	Dana 60 Richmond Gear	.342.60
629-0057	5.13	Dana 60 Richmond Gear	.342.60
706033-8X	7.17	Dana 60 Spicer Gear	.373.87

DANA 60 PRO GEARS

9310 DRAG RACE PRO GEARS

9 3/4" ring gear 1.626" dia. pinion stem 29 spline pinion

729-0011	4.10	Dana 60 Pro Gear 9310	.423.49
729-0077	4.56	Dana 60 Pro Gear 9310	.424.80
729-0068	4.88	Dana 60 Pro Gear 9310	.424.80

729-0013	5.38	Dana 60 Pro Gear 9310	.392.53
729-0041	6.17	Dana 60 Pro Gear 9310	.451.41

DANA 60 INSTALLATION KIT

83-1034		Installation Kit, Dana 60	.251.39
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toll free
800-525-1963

on the web
www.markwilliams.com

8 3/4" MOPAR GEARS - 742 CASE

8620 STREET GEARS '57-'68 Dodge, Chrysler and Plymouth

1.750 dia. pinion stem 10 spline pinion

629-0375	3.91	8-3/4" Mopar Gear 1-3/4"	480.00	629-0047	4.56	8-3/4" Mopar Gear 1-3/4"	257.75
629-0045	4.10	8-3/4" Mopar Gear 1-3/4"	257.75	629-0048	4.86	8-3/4" Mopar Gear 1-3/4"	261.94
629-0046	4.30	8-3/4" Mopar Gear 1-3/4"	257.75	629-0145	5.13	8-3/4" Mopar Gear 1-3/4"	246.15
83-5310-S		Installation Kit, 8 3/4" Mopar - 742	196.60	83-1037		Installation Kit, 8 3/4" Mopar - 742	196.36

8 3/4" MOPAR GEARS - 489 CASE

8620 STREET GEARS '69-'73 Dodge, Chrysler and Plymouth

1.875" dia. pinion stem 10 spline pinion

629-0371	3.55	8-3/4" Mopar Gear 1-7/8"	332.87	629-0061	4.57	8-3/4" Mopar Gear 1-7/8"	290.81
629-0058	3.91	8-3/4" Mopar Gear 1-7/8"	308.92	629-0062	4.86	8-3/4" Mopar Gear 1-7/8"	293.89
629-0059	4.10	8-3/4" Mopar Gear 1-7/8"	384.61	629-0063	5.13	8-3/4" Mopar Gear 1-7/8"	318.98
629-0060	4.30	8-3/4" Mopar Gear 1-7/8"	290.81	83-1031		Installation Kit, 8 3/4" Mopar - 489	167.67

GM 8.5" 10 BOLT GEARS

8620 STREET GEARS '70-'76 Chevelle & Olds F85 - '70-'75 Chevy II - '70-'81 Camaro/Firebird/GTO

1.625" dia. pinion stem 30 spline pinion

429-0278	3.42	GM 8.5" 10 Bolt	331.92	629-0169	4.88	GM 8.5 10 Bolt	332.12
429-0041	3.73	GM 8.5" 10 Bolt	300.88	629-0171	5.13	GM 8.5 10 Bolt	331.62
629-0165	4.10	GM 8.5" 10 Bolt	354.55	83-1021		Installation Kit, GM 8.5" 10 Bolt	131.70
629-0167	4.56	GM 8.5 10 Bolt	332.12				

ALL GEARS FIT 3 SERIES CARRIERS (2.73 AND NUMERICALLY HIGHER) OR MW SPOOL

RING AND PINION SET-UP VIDEOS



MW offers two educational installation videos. The MW video explains in step-by-step detail the set-up of a MW 9" aluminum center section. The Richmond Gear video is designed for basic ring and pinion gear set-ups. The Richmond video explains gear terminology and basic setup procedures for popular passenger car rear ends including 9" Ford, 10/12 Bolt Chevrolet, Dana 60 and 8 3/4" Mopar. Both videos are a must for rear end set-ups

629-0000	Richmond Gear DVD Video	26.00
10098	MW 9" Ford Assembly DVD Video	25.00

MARK WILLIAMS Enterprises®

RING GEAR CLEARANCE & HOUSING TEMPLATE



The Ring Gear Clearance Gauge is available to check the 9", 9-1/2" and 10" gear sets for clearance required for M-W 9" cases. Designed to eliminate the trial and error

The Housing Clearance Template will show the profile to clear 9-1/2" and 10" ring and pinions plus the 4.00" bore thirdmember clearance requirements. It also has a center slot for measuring pinion center to housing end, when narrowing or building a housing.

57486 Ring Gear Clearance Gauge14.00

57459 Housing Clearance Template15.00

GEAR IMPROVEMENTS

SUPRA-FIN SURFACE IMPROVEMENT

MW offers **Supra-Fin** surface finish improvement for ring and pinion sets. This fine micro finishing process reduces friction and eliminates the need for break-in procedures required to assure a long gear life. We exclusively protect the mounting and bearing surfaces so this process will not alter the installation fit.

SUPRA-FIN125.00

Shot Peening surface improvement decreases the likelihood of cracks forming on the gear. Nearly all fatigue cracks begin at the surface of the part. By overlapping the dimples of the media, Shot-Peening creates a compression zone at the surface of the part. This layer acts as a barrier to crack propagation. The peening process provides a considerable increase in part life.



SHOT PEENING

PEEN-02 Shot Peen Gear Set95.00

SUB ZERO TREATMENT

In addition to other gear improvement processes offered by Mark Williams, our **Sub Zero Treatment** process enhances gear wear characteristics. Cold treating a ring and pinion improves the metal crystal structure, decreasing the amount of retained austenite. This process can increase the gear life.

SUBZ Sub Zero Treatment50.00



MW offers a special **Ring Gear Lightening** service for 9" Ford, 12 bolt GM (4:88 to 6:20 ratio) and Dana 60 gears. This process is performed on a CNC lathe with special tooling to produce a generous radius and smooth finish. The result is a weight reduction of between 1/2 and 3-1/2 lbs. Some gears are factory lightened but we can remove additional weight in most cases.

RING GEAR LIGHTENING

LRG Lighten ring gear. (with gear purchase)105.00

TORCO GEAR OIL



Torco GL-6 Racing Gear oil has proven to be ideal for drag racing and oval track applications. SAE 85W-140 can be used when running a spool, posi-traction or open differentials. It provides superior adhesive strength and extreme anti-score protection. In addition, the Torco gear oil available from MW is specially blended to include the friction modifying additives required for most clutch type posi-traction units. Available by the quart or 12 quart case. **Look for the MW logo on the label.**

55-0030 Torco SAE 85-140 Gear Oil (1 qt)14.50

55-0040 Torco SAE 85-140 Gear Oil(12 qts)165.00

toll free
800-525-1963

on the web
www.markwilliams.com

DIFFERENTIAL ASSEMBLY TOOLS

One of the handiest shop tools is the MW Bench Mule. The “Mule” is a very sturdy and versatile fixture capable of holding differentials, transmissions, cylinder heads, etc. for assembly. Being able to securely position your work is essential. With two axis adjustment and heavy duty steel construction the MW Bench Mule makes tough jobs much easier to handle. The standard arms will easily hold a thirdmember or transmission and can even hold a full size 12 bolt housing. Optional attachments include short arms for cylinder head assembly work. The 670 Spool holding attachment bolts to the vise arms to hold either a 35 or 40 spline spool while tightening the ring gear bolts. Another option is to utilize a regular bench vise and the 57492 Spool holder with both 35 and 40 tooth splines. Both these tools have the 35 spline side sized that so it will work with either 45° or 30° pressure angle splines.

650	Bench Mule	.....	354.00
670	Spool Holding Fixture (35 & 40 spline)	.....	125.00
680	Cylinder Head Holding Forks (6-3/8" centers)	.....	74.00
57492	Spool Holder, 35 & 40 spline (for vise)	.....	85.00



SETTING THE PINION DEPTH

Pinion depth is easily the most important element of correctly setting up a ring and pinion. The T&D pinion depth checker, used by many leading shops and racers, is easy to use and allows you to precisely set pinion depth. This deluxe kit has the components required for checking the most popular rears including 10 & 12 Bolt GM, Dana 60, 8.8 & 9" Ford and 8 3/4 Mopar rears. All components are stored in the included plastic carrying case to prevent damage. This is a very popular item and it works very well on a large variety of rears. Unfortunately it will not work on Mark Williams aluminum and nodular cases due to the captive pilot bearing area. Use PCMW for MW cases.

PCD	T&D Deluxe Pinion Depth Checker	545.00
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PINION DEPTH CHECKER 9" CASES

MW 9" cases have increased material behind the pilot bearing. This prevents the use of the PCD pinion depth checker or similar tools that must have access to the tip of the pinion. There is an alternate method to obtain the shim required. All you need to know is the distance from the end of the pinion pilot stem to the flange of the support. With that value you can calculate the shim required. The 1" travel dial indicator and precision calibration standard are included. It can be used on any 9" case as long as the case is 6.00" (the normal distance) from the mounting flange to the spool centerline. This is a easier method to determine the correct shim.

PCMW	Pinion Depth Checker Tool	152.00
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Works with MW aluminum or nodular iron cases or other accurate cases. Works in 3.25 to 6.50 ratios



SPECIALTY SET-UP TOOLS

300-2	Safety Wire Twist Pliers, 9" length	.....	92.00
55-0002	Gear Marking Compound (small packet)	.....	3.10
57485	Adjuster Wrench, 3.812 case	.....	75.80
57488	Coupler/Yoke Wrench	.....	184.00
57490	Adjuster Wrench, 3.062 & 3.250 cases	.....	66.80
57493	Bearing Puller (standard pinion)	.....	297.00
57494	Bearing Puller (large pinion)	.....	245.00
57499	Backlash Indicator Kit (made in USA)	.....	151.47
90250	Slide Hammer (aluminum cap removal)	.....	41.75

These tools include a wrench to hold either a female pinion coupler or 1350 series yoke while tightening/torquing the pinion nut, Sockets for back lash adjusters, Safety wire twist pliers, Backlash Dial Indicator kit and Pinion bearing pullers.



MARK WILLIAMS Enterprises®

HI-EFFICIENCY THIRDMEMBER ASSEMBLY

The Hi-Efficiency Thirdmember is a raised pinion version of the conventional 9" unit.

The ring and pinion gear has the same hypoid distance as a Dana 60™ and as a result, benefits from the same efficiency the Dana 60 is known for.

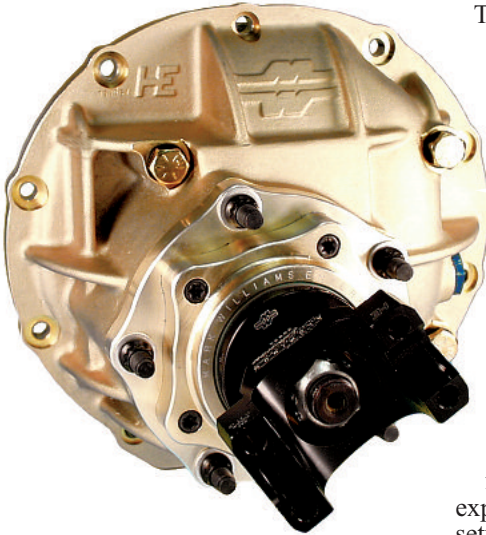
The ideal applications are lightweight cars (2200# max) and with power limited up to 1000 HP. The units have proven successfully in competition eliminator cars.

The aluminum housing features the thru-bolt design similar to the MW 9" aluminum case. It also features a double angular contact front pinion support for reduced friction. It will fit in the regular and modular 9" housing that are prepared to accept the 9-1/2" ring gears.

Pro Gears featuring 9310 alloy are used in the specially assembled thirdmembers. They all feature a 32-spline pinion for additional strength.

The following ratios are available: 4.77, 4.86, 5.00, 5.50, 5.67, 5.71, and 5.83. All units come with our 40-spline aluminum spool and your choice of a billet aluminum u-joint yoke or coupler. A computer pick-up ring is included.

The gears in the assembly features our Supra-Fin™ processing that reduces friction and eliminates material transfer normally found in the break-in process. Our expert assembly technicians meticulously assemble each unit documenting all critical settings.



- SUPRA-FIN™ POLISHED GEARS
- ALUMINUM PINION YOKE
- LOW-FRICTION SEAL
- ALUMINUM 40-SPLINE SPOOL
- SURE-LOCK™ ADJUSTER SYSTEM
- 32-SPLINE PINION INPUT

67410-XXX Hi-Efficiency Thirdmember Assembly3080.00

Specify ratio. 32-spline input, u-joint, yoke, or coupler.

HOUSING GASKETS AND TRANSPORTER

This gasket fits all 9" housings and allows for the clearance required for 9-1/2" and 10" increased diameter gears. It is coated with an EZ-Release seal ring that allows repetitive use. The 9"

Thirdmember transporter is the convenient way to store you spare Thirdmembers. These also double as a convent way to ship the thirdmembers with a double wall-shipping carton and foam pad.



57929 Thirdmember Gasket with EZ-Release -Seal11.62

Fit all 9" type housing with clearance for large gears

57999 Transporter for 9" type Thirdmembers102.40

Makes keeping you spare thirdmember clean and dry easy.

57999A Shipping Carton and two 12" x 12" x 1" pads15.90

CORROSION INHIBITOR

Mark Williams Enterprises has long used this product for the final step in our Black Oxide process. to prevent rust during the storage and shipping.

This product can also be used for keeping unpainted dragster chassis tubing from rusting. Regular application will keeps driveline parts corrosion free without plating or painting. Available in one quart bottles.



55-0085 Metal Guard 500 Corrosion Inhibitor, One quart bottle16.00

55-0080 Metal Guard 500 Corrosion Inhibitor, One pint bottle)8.00

toll free
800-525-1963

on the web
www.markwilliams.com

MWE 9-1/2" Low Friction Ford Thirdmembers



Special ratio Pro Gears are available in specially prepared thirdmember assemblies. These assemblies feature MW designed 9-1/2" ratios produced by Velvet Drive (formerly Richmond Gear).

The ratios available in the 9310 alloy 32 spline pinion are: 5.11, 5.14, 5.17, 5.20, 5.25, 5.29, 5.33, 5.38, 5.43 and 5.50. This assembly can also be built with standard 9" and 9-1/2" Small 28 spline Pinion Pro-Gear ratios utilizing the same components.

The assemblies feature the Supra-Fin™ processing that reduces friction and eliminates material transfer normally found in the break-in process. We also use a Sub-Zero thermo-treatment to eliminate the possibility of retained austenite. Most assemblies feature 9-1/2" diameter gear with a 32 spline input (the same size as transmissions) eliminating an obvious weak link in the drive system.

We use a ceramic dual opposed angular contact bearing pinion support that is lighter, while reducing friction and adding rigidity to the pinion. A low drag pinion seal, used in conjunction with our aluminum pinion yoke reduces the pre-load drag to about 5 inch pounds.

The proven MW Thru-Bolt case features the Sure-lock™ adjuster system that makes other retention methods obsolete and prevents adjuster back out. All units include a computer pickup ring with one, two or four magnets. Our expert assembly technician meticulously assembles each unit documenting all critical settings.

- **POCKET LIGHTENED RING GEAR**
- **SUPRA-FIN™ FINISHED GEARS**
- **CERAMIC PINION SUPPORT BEARINGS**
- **ALUMINUM PINION YOKE**
- **LOW-FRICTION SEAL**
- **ALUMINUM 40 SPLINE SPOOL**
- **SURE-LOCK™ ADJUSTER SYSTEM**
- **32-SPLINE PINION INPUT 9-1/2" GEAR**
- **SUB-ZERO TREATED RING AND PINION**
- **LOW DRAG ASSEMBLY PROCEDURES**

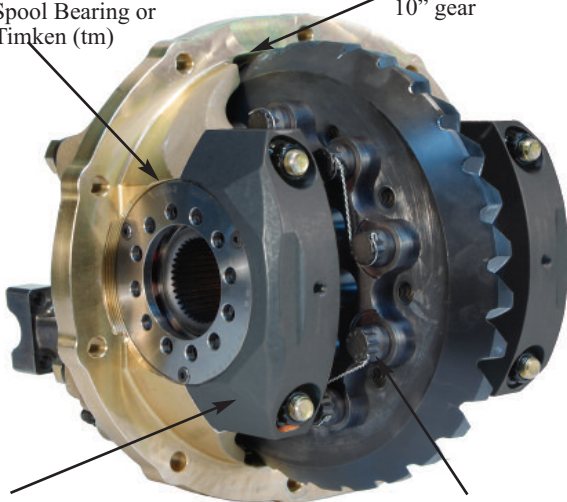
57022-XXX Low Friction 9-1/2" Thirdmember4637.00
5.11 thru 5.50 Ratio, Sub-Zero, Supra-Fin treated 9-1/2" gears, specify ratio required. 32 spline input.

57022 Low Friction 9" & 9-1/2" ThirdmemberPOA
Units built with same component technology but ring and pinion gears will be 9" or 9-1/2" 28 spline input. 3.50 to 6.50 ratio 9310 gear. Prices vary with different ratios. Please call for pricing on specific ratios.

10" SEVERE SERVICE FORD THIRDMEMBER

Oversize 4.000" Angular Contact Spool Bearing or Timken(Timken (tm) Bearings

Extra clearance for 10" gear



Aluminum or steel cap versions

Special ARP produced bolts with safety wire

The 10" ring and pinion gear sets have shown to dramatically increase gear life compared to 9" gears. Modifications have been made to the MW Aluminum thru bolt, (V revision and later) case to accommodate the larger gears. Additionally the main bearing bores have been increased to a 4.000" diameter bore that is paired with special M-W angular contact ball bearings. Tests have shown that the angular contact bearings are better at deflection control than tapered roller bearings. Thirdmember assemblies are available with 3.70 to 6.20 gear ratios. More new ratios are currently in development. One option available is full ceramic ball bearings. These thirdmembers are a drop in fit for MW Modular housings. Other housing may require clearance for the larger outside diameter gear.

57026 Thirdmember, 10" Pro Gear*4075.00
10" ring and pinion, ball-taper support, steel caps, steel spool, 1480 or 1350 u-joint, 3.812" bore.Timken® bore tapered spool bearings

57027 Thirdmember, 10" Pro Gear*4475.00
10" ring and pinion, ball-ball support, aluminum caps, steel or aluminum spool, 1480 or 1350 u-joint, angular contact 4" bore spool bearings

*Prices can vary due to different pricing of ring and pinion gears sets from various manufacturers

MARK WILLIAMS Enterprises®

9" & 9-1/2" FORD THIRDMEMBERS



For over the past five decades, Mark Williams Enterprises has continually improved the effectiveness and reliability of our 9" Ford assemblies. We have introduced new and improved components, developed specialized tooling, and created detailed processes to ensure that our 9" Ford Thirdmembers are the best money can buy. We offer three different styles of thirdmember cases and several different types of pinion supports to cover almost any application. Assemblies can be built with nodular iron, lightweight aluminum, or rugged thru-bolt style aluminum with several bore sized to match the spool/carrier required. Pinion Supports are available with tapered bearings or angular contact ball bearings. The experts at Mark Williams can also assemble any of our Thirdmembers to meet your exact needs. We insure the accuracy of all critical operations by utilizing numerous specialized tools and applying over forty years of experience with 9" Ford carriers. Our attention to detail is reflected in every MW assembly and is evident even in the special transport containers supplied to ensure safe shipping and handling.

DOOR CAR THIRDMEMBERS, U-JOINT YOKE

57003	Super Class/E.T. Bracket Assembly	2830.00
	Aluminum thru bolt case (3.250 bore), lightweight steel spool, MW 28 spline 1350 series pinion yoke, ball-tapered bearing support, 4:86 to 6:50 Richmond Gear 9" std. pinion Pro Gear. (58#)	
57004	Street Rod Assembly	2459.00
	Aluminum light weight case (3.062 bore), Posi Unit, MW 1330 or 1350 pinion yoke, tapered pinion support, 3:00 to 6:50 Richmond Gear 9" 8620 gear. (70#)	
57005	Street/Oval Track Assembly	3093.00
	Nodular iron case (3.062 bore), 28 or 31-spline Detroit Locker, MW 1330 or 1350 pinion yoke, tapered support, 3:00 to 6:50 Richmond Gear 9" 8620 gear. (75#)	
57007	E.T. Bracket/Oval Track Assembly	2463.00
	Nodular iron case (3.250 bore), standard spool (28, 31, 35 or 40 spline), 1350 MW pinion yoke, tapered support, 3:00 to 6:50 Richmond Gear 9" 8620 gear. (72#)	
57008	Super Class/E.T. Bracket Assembly	2760.00
	Aluminum thru bolt case (3.250 bore), 35 Spline lightweight steel spool, MW 35 spline 1350 series pinion yoke, ball-tapered bearing support, 3:40 to 4:86 Richmond Gear large pinion 9" Pro Gear. (58#)	
57009	Pro Stock Assembly, Large Pinion	2927.00
	Aluminum thru bolt case (3.812 Bore), 40 spline aluminum spool, MW 35 spline 1350 series pinion yoke, ball-tapered bearing support, 3:40 Richmond Gear large pinion 9" Pro Gear.	
57011	Pro Modified Assembly 9"	2947.00
	Aluminum thru bolt case (3.812 bore), 40 spline lightweight steel spool, MW 35 spline 1350 series pinion yoke, ball-tapered bearing support, 3:40 to 4:86 Richmond Gear large pinion 9" Pro Gear. (62#)	
57014	9-1/2" Pro Stock Assembly	3096.00
	Aluminum thru bolt case (3.812 Bore), 40 spline aluminum spool, MW 1350 series pinion yoke, ball-tapered bearing support, 3.25 to 5.20 ratio Richmond Gear 9-1/2" Pro Gear.	
57025	9-1/2" Pro Stock Assembly	3494.00
	Aluminum thru bolt case (3.812 Bore), 40 spline aluminum spool, MW 1350 series Aluminum pinion yoke, ball-tapered bearing support, 5.14 to 5.50 ratio 32 Spline MW 9-1/2" Pro Gear.	

57015	Pro Street Assembly	3397.00
	Aluminum thru bolt case (3.250 bore), 35 spline locker (nodular), MW 28 spline 1350 series pinion yoke, tapered bearing support, 3.00 to 6.50 ratio Richmond Gear 9" 8620 gear. (75#)	
57019	Pro Stock Assembly	2963.00
	Aluminum thru bolt case (3.812 Bore), 40 spline aluminum spool, MW 28 spline 1350 series pinion yoke, ball-taper bearing support, 4:86 to 6.50 Richmond Gear 9" std. pinion Pro Gear.	
57021	9-1/2 Pro Modified Assembly	3348.00
	Aluminum thru bolt case (3.812 bore), 40 spline lightweight steel spool, MW 35 spline 1350 series pinion yoke, ball-tapered bearing support, 1/2" ring gear bolts, 3.25 to 4:86 US Gear large pinion 9-1/2" Pro Gear. (68#)	

DRAGSTER/ALTERED THIRDMEMBERS, COUPLER

57001	Pro Dragster Assembly	2824.00
	Aluminum thru bolt case (3.250 bore), lightweight steel spool, 28 spline female pinion coupler, ball-tapered bearing support, 4.86 to 6.50 9" Richmond Gear std. pinion Pro Gear. (58#)	
57002	Pro Dragster Assembly	2731.00
	Aluminum thru bolt case (3.250 bore), lightweight steel spool, 35 spline female pinion coupler, ball-tapered bearing support, 3:40 to 4:86 9" Richmond large pinion Pro Gear. (61#)	
57010	Top Dragster Assembly	2668.00
	Aluminum thru bolt case (3.812 bore), 40 spline lightweight steel spool, 35 spline female pinion coupler, ball-tapered bearing support, 3:40 to 4:86 Richmond Gear large pinion 9" Pro Gear. (58#)	
57012	Superlite Econo/Comp Assembly	2170.00
	Lightweight aluminum case (3.250 bore), 35 spline aluminum spool, ball-tapered bearing support, female pinion coupler, lightened 9" 8620 standard Gear. (49#)	
57013	9-1/2" Alcohol Dragster-F/C Assy	3237.00
	Aluminum thru bolt steel cap case (3.812 bore), 40 spline lightweight steel spool, 35 spline female pinion coupler, ball-tapered pinion support, 1/2" ring gear bolts, Richmond Gear lrg pin. 9-1/2" Pro Gear. (62#)	

THIRDMEMBERS OPTIONS

MW Aluminum Pinion Yoke	Price on Request
57463 Case Modification for Internal Pump	170.00
	Allows usage of 57466 Internal Pump Kit
CB Ceramic Bearing Upgrades	Price On Request.
LRG Lighten Ring Gear	105.00

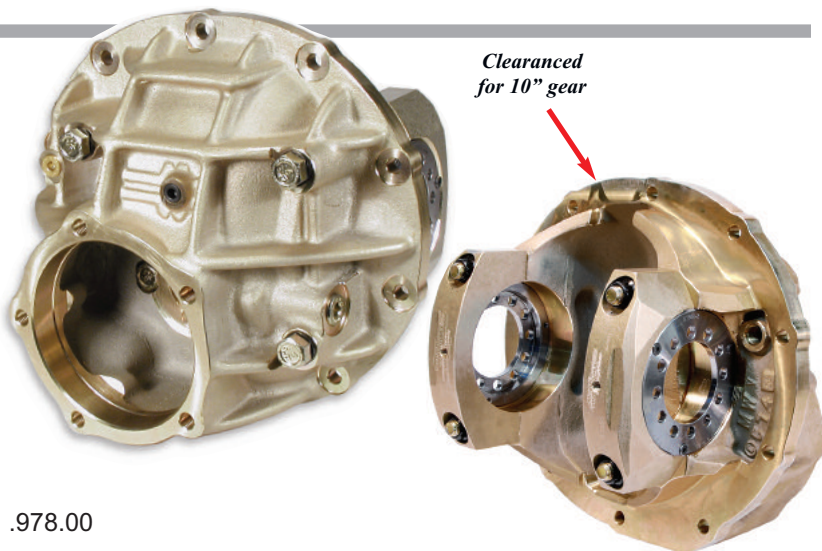
PEEN-02 Shot Peen Ring and Pinion	95.00
SUBZ Gear Cold Process	50.00
Supra-Fin™ Ring and Pinion Surface Improvement	125.00
57999 Transport Carrier, 9" Ford	102.40
	No charge when purchasing Thirdmember

toll free
800-525-1963

on the web
www.markwilliams.com

9" FORD CASES

ALUMINUM THRU-BOLT - This highly refined, heavy-duty unit has become the "standard" in champion caliber Drag Race cars. It weighs 11 lbs. less than our nodular iron carrier. The unique thru bolt design and the use of an ultra strong A206 alloy with engineered cross sections give it superior strength. The MW Thru-Bolt™ cases (The Original) with cap aligning bushings create better compressive strength and maintaining the main cap alignment. The pinion pilot-bearing bore utilizes an extra long bearing that is completely captive, retained by screw fasteners. 7075 aluminum or Steel caps are utilized with billet steel adjusters and 7/16" pinion support stud kit are included. Bore sizes available are 3.062", 3.250", 3.812" and new 4.00" bore. The 3.812" and 4.00" bore cases features "Grip-Lock™" adjusters lock system. All the MW thru bolt cases are cleared for 9-1/2" (9-1/4" actual diameter) through 10" (9-7/16" actual diameter) gears. Fluid passage ports for external and internal lubrication systems are pre-drilled.



57430 9" Ford Thru-Bolt Aluminum Case978.00
3.062" bore w/aluminum caps and adjusters. 16.5 lbs.

57440 9" Ford Thru-Bolt Aluminum Case969.00
3.250" bore w/aluminum caps and adjusters. 16.4 lbs.

57448 9" Ford 3.812" 9-1/2" & 10" Gear Case958.00
3.812" bore thru bolt case w/aluminum caps and adjusters. (3.812 bore size for spools and carriers with 2-1/4" ID bearings) 16.2 lbs.

57448-95S Ford Big Bore 9-1/2" & 10" Gear Case .1251.00
Same as 57448 but with steel billet caps. 19.6 lbs.

57458 9-1/2" & 10" Ford 4" Bore, Aluminum Caps .1052.00
For 4.00 bore angular contact ball main bearings, 15.9 lbs.

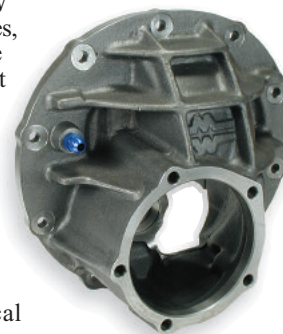
57458-10S 9-1/2" & 10" Ford 4" Bore, Steel Caps .1120.00
For 4.00 bore angular contact ball main bearings, 19.4 lbs.



LIGHT WEIGHT ALUMINUM - The MW Light Weight case is based on the MW nodular case design and is cast from the same material used in the MW thru-bolt cases, but does not have the additional reinforcing and heavier walls of a thru-bolt case. The case should only be used in lighter drag racing and street applications. The MW Light Weight case is 5 lbs. lighter than a thru-bolt case and over 15 lbs. lighter than an OEM nodular case. It can also be used in street or oval track applications.

57415 9" Ford Light Weight Case692.00
3.062" bore with aluminum caps and adjusters. 11.5 lbs.

57425 9" Ford Light Weight Case692.00
3.250" bore with aluminum caps and adjusters. 11.5 lbs.



NODULAR IRON

- The MW nodular iron case features a improved case design that provides necessary reinforcement in all critical areas, yet is comparable in weight to a stock unit while lighter than competitors. Each MW nodular iron case comes with billet steel caps with ARP studs and nuts. Billet steel adjusters with studs for the pinion assembly. 3.062" or 3.250" bore sizes available.

57460 9" Ford MW Nodular Case664.00
3.062" bore with steel caps and adjusters. 29 lbs.

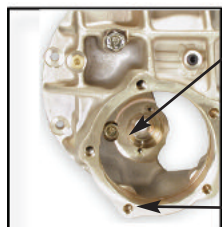
57470 9" Ford MW Nodular Case664.00
3.250" bore with steel caps and adjusters. 29 lbs.

57465 9" Ford MW NASCAR Case . . .695.00
3.062" bore with pump mounts and fluid ports. Load bolt provision, 3/8-16 threads for pinion support, lightened main caps. 27.7 lbs.

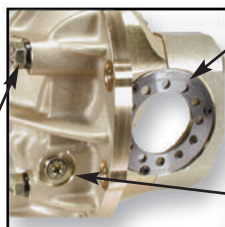
57465 NASCAR Case



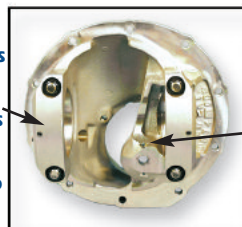
THRU-BOLT FEATURES



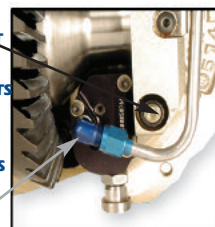
POSITIVE PILOT BEARING RETENTION
THRU-BOLT CONSTRUCTION
7/16 THREADS IN CASE



GRIP-LOCK™ STEEL ADJUSTERS
7075 T651 ALUMINUM CAPS
THREADED FOR OPTIONAL LOAD BOLT



GRADE 9 BOLTS WITH ALIGNMENT BUSHINGS AND REDUCED HEX NUTS
PILOT BEARING REMOVAL HOLES
SHOWN WITH INTERNAL PUMP



MARK WILLIAMS Enterprises®

9" FORD ALUMINUM PINION SUPPORT



57620

57680

MW offers several models of pinion support assemblies for 9", 9-1/2" and 10" differentials. The MW upgraded pinion support uses Timken® tapered bearings that have much higher load capacity than the OEM units. Part numbers 57620 and 57630 feature dual tapered bearings and improved strength. The next improvement increased RPM limits to match requirements of higher revving motors by upgrading to a rear angular contact ball bearing. This eliminated issues with the large rear tapered bearing lowering maximum RPM's. An added bonus is the frictional drag verses load applied is improved with rear angular contact bearings. The newest assemblies feature a dual angular contact ball bearings. These units have a special front bearing and retainer that allow the race to be removed for setting the preload. A common upgrade for angular contact bearing is to change to ceramic balls that are stiffer, lighter, and have an increased RPM rating. All supports require input yoke match wider bearing assembly. Stock yokes can be shortened to fit.

28 Spline Input 9"- 9-1/2" Gear

47675 Pinion Bearing Housing, Ball/Ball482.00
9" & 9-1/2" Ford 28 spline pinion gears, with dual angular contact bearings. .

57620 Pinion Bearing Housing Assy Taper/Taper . .387.00
9" Ford standard 28 spline pinion gears, with tapered bearings.

57670 Pinion Bearing Housing Assy, Ball/Taper . .432.00
9" Ford standard 28 spline pinion gears, with angular contact rear bearing. Timken® tapered front.

32 Spline Input - 9-1/2" Gear

57675 Pinion Bearing Housing Assy, Ball/Taper . .421.00
MW 32 spline pinion gears, with angular contact rear bearing, Timken® tapered front.

35 Spline Input 9"- 9-1/2" Gear

47680 Pinion Bearing Housing, Ball/Ball482.00
9" & 9-1/2" Ford 35 spline large pinion Pro gears, with dual angular contact bearing.

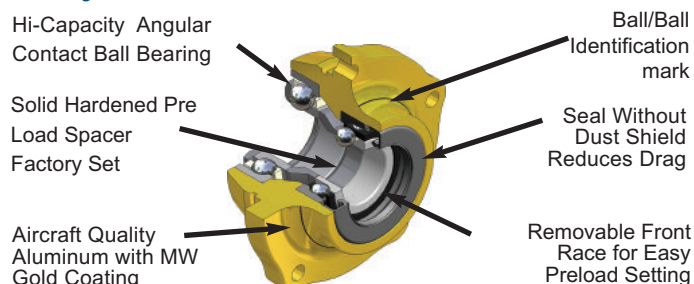
57630 Pinion Bearing Housing, Taper/Taper380.00
9" Ford 35 spline large pinion Pro gears, with tapered bearings.

57680 Pinion Bearing Housing Assy, Ball/Taper . .432.00
9" & 9-1/2" Ford 35 spline large pinion Pro gears, with angular contact rear bearing Timken® front

35 Spline Input 10" Gear

47679 Pinion Bearing Housing Assy, Ball/Ball . . .760.00
10" Ford 35 spline pinion Pro gears, with dual angular contact bearings

57679 Pinion Bearing Housing Assy, Ball/Taper . .585.00
10" Ford 35 spline large pinion Pro gears, with angular contact rear bearing, Timken® front.



47XXX Series Supports

9" FORD CERAMIC BEARING PINION SUPPORTS

CB-47675 Ceramic Ball/Ball Pinion Support905.00
9" & 9-1/2" Ford 28 spline pinion Pro gears, with dual ceramic angular contact bearings. Requires MW yoke or coupler.

CB-47679 Ceramic Ball/Ball Pinion Support1205.00
10" Ford 35 spline pinion Pro gears, with dual ceramic angular contact bearings.

CB-47680 Ceramic Ball/Ball Pinion Support905.00
9" & 9-1/2" Ford 35 spline large pinion Pro gears, with dual ceramic angular contact bearing.

CB-57670 Ceramic Ball /Tapered Bearing744.00
For 9" Ford standard 28 spline pinion gears, with ceramic angular contact rear bearing. Timken® tapered front.

CB-57675 Ceramic Ball /Tapered Bearing744.00
For MWE 32 spline pinion gears, with ceramic angular contact rear bearing, Timken® tapered front.

CB-57679 Ceramic Ball /Tapered Bearing920.00
For 10" Ford 35 spline large pinion Pro gears, with ceramic angular contact rear bearing, Timken® tapered front.

CB-57680 Ceramic Ball /Tapered Bearing720.00
For 9" & 9-1/2" Ford 35 spline large pinion Pro gears, with angular contact rear bearing. Timken® tapered front.

9" FORD NODULAR PINION SUPPORT

57690 Nodular Iron Ball Bearing Pinion Support432.00
Ball angular contact rear bearing Timken® tapered front, Pre-Set.

CB-57690 Nodular Iron Ceramic Ball Bearing Pinion Support755.00
Ceramic balls angular contact rear bearing Timken® tapered front, Pre-Set



toll free
800-525-1963

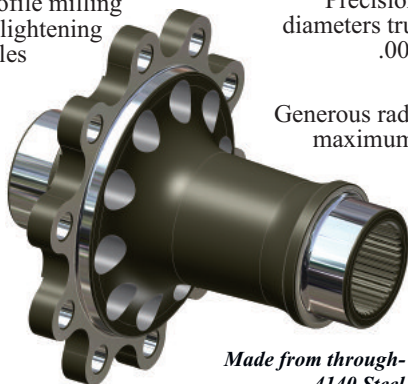
on the web
www.markwilliams.com

9" FORD SPOOLS

Profile milling
& lightening
holes

Precision ground
diameters true within
.001" T.I.R.

Generous radiuses for
maximum rigidity



Made from through-hardened
4140 Steel

53125

There is more to a spool than meets the eye. It not just a pretty part, but one of the key components that influence ring and pinion life. Our product has a reliable ratio of strength to weight. MW steel and aluminum spools are in-house produced from our exclusive forging tools that create superior grain flow for maximum strength. MW steel spools are produced from 4140 alloys and through hardened, resulting in steel strength that is the same at the core as at the surface.

Our aluminum spools are produced from 7075 aluminum and feature the MW gold coating. The bearing diameters and ring gear register are precisely controlled utilizing CNC grinders. Custom tooling grinds all three critical diameters on the same centers. The ring gear diameter is precisely controlled, assuring the proper press fit to the ring gear. Controlling these factors while manufacturing a spool is extremely important for improving maximum gear life.

Light Weight Spools

53145	9" Ford Light Weight Spool	.....365.00
	MW 35-spline, L/W milled for stock case, 2.983" or 3.062" bore, weight 8.75 lbs.	
53148	9" Ford Light Weight Spool	.....365.00
	MW 35-spline, L/W milled 3.250" case, weight 9 lbs.	
53125	9" Ford Light Weight Spool	.....365.00
	Light weight profile milled steel spool (40 spline), 3.812 bearings with 1/2" ring gear bolts, 3.812" case, 10 lbs	

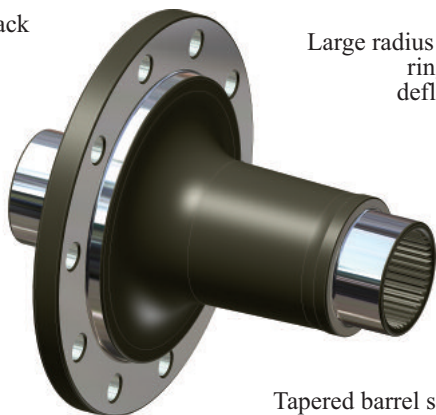
Light Weight Spools

53127	9" Ford Light Weight Spool	.....365.00
	Light weight profile milled steel spool (40 spline), 3.812 bearings, 7/16" ring gear bolts, 3.812" case, 10 lbs.	
53137	9" Ford Light Weight Spool	.....365.00
	MW 40-spline, L/W milled, 3.250" bore case, large bore wheel bearings and proper housing ends are required, weight 8.5 lbs	
53138	9" Ford Light Weight Spool	.....365.00
	Summers type 35-spl., L/W milled, weight 9 lbs. (Dana type spline)	
53147	9" Ford Light Weight Spool	.....365.00
	Strange type 35-spline, (Dana spline) weight 9 lbs.	

STANDARD STEEL SPOOLS

Tapered back
profile for
increased
stiffness

Large radius limits
ring gear
deflection



53136

Tapered barrel section
increases rigidity

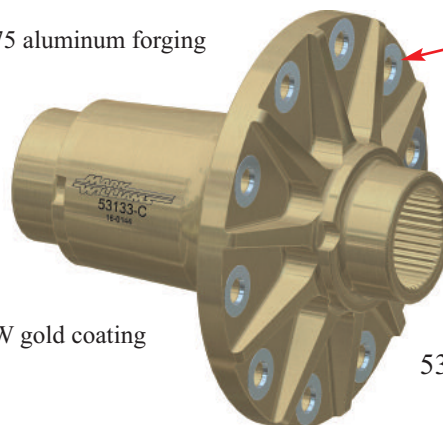
Standard Spools

53139	9" Ford Standard Spool	.....310.00
	Stock type 28-spline, weight 10 lbs.	
53144	9" Ford Standard Spool	.....310.00
	Stock type 31-spline, weight 11 lbs.	
53140	9" Ford Standard Spool	.....310.00
	MW 35-spline for stock case, 2.893" or 3.062" bore, 11 lbs.	
53146	9" Ford Standard Spool	.....310.00
	MW 35-spline 3.25" case, weight 12 lbs.	
53136	9" Ford Standard Spool	.....310.00
	MW 40-spline, requires 3.250" bore case and large bore wheel bearing with proper housing ends. weight 11 lbs.	

ALUMINUM SPOOLS

7075 aluminum forging

Hardened
washer
for ring
gear bolt
seat



MW gold coating

Stiffening
back ribs

53133

Aluminum Spools

53135	9" Ford Aluminum Spool	.....473.00
	Aluminum spool (35 spline), requires 3.250" bore case weight 4.9 lbs.	
53133	9" Ford Aluminum Spool	.....473.00
	Aluminum spool (40 spline), 3.812" bearings. Requires 3.812 bore case, 57448 weight 5.5 lbs.	
53149	9" Ford Aluminum Spool	.....473.00
	For Strange 35-spline axles.	

MARK WILLIAMS Enterprises®

9" FORD LOCKERS & POSI-TRACTION



57311



187S-35C



187S-17B



DPI-35

The 9" Ford has several ways to go when an increased traction differential is required. Mark Williams stocks several different types, the Detroit Locker, the Truetrac®, the DPI Gold Track, and the Ford Clutch Posi.

DETROIT LOCKER™ is offered for popular 9" Ford applications (28, 31, and 35-spline). These units are designed to provide power to both wheels even in those situations where one tire loses traction. Detroit Lockers™ will also compensate for differences in wheel speed when turning corners by letting the wheel with the larger turning radius overrun and unlock from the other wheel. The 35 spline unit is popular for Pro-Street application, requiring a large axle spline and can be used for drag racing.

CLUTCH POSI-TRACTION are the most common and are used in the original rears. Smooth quiet action relies on spring pressure and friction in the clutch plates to increase driving traction. Quietest for street rod applications.

TRUETRAC™ OR GOLD TRACK™ differentials do not use friction plates, but rather the wedging action of separating spiral pinion gears. This type of differential is unique in that it increases traction, but does not affect the steering, and there are no friction plates to wear. It allows normal differentiation without adverse effect on steering, or chattering when cornering. Only when there is a loss of traction, will power transfer occur. The worm drive differential offers moderate strength.

187S-13A 9" Ford 28 spline Detroit Locker™781.76

187S-17B 9" Ford 31 spline Detroit Locker™781.76

187S-35C 9" Ford 35 spline Locker854.00

Requires 3.812" or 3.250 case. with 2.0 ID bearings

57311 9" Ford Posi Unit (31 spline)402.00

Clutch type posi-traction (Motorsports type).

57315 9" Ford Eaton™ (35 spline)762.00

Unit requires 3.812" or 3.250 case. with 2.0 ID bearings

DPI-35 9" Ford Gold Track (35 spline)1234.00

Unit requires 3.812" or 3.250 case. with 2.0 ID bearings

9" FORD AXLE & SPOOL PACKAGE



50100 Hi-Torque Axles



Drive Stud Kit and Washers



Wheel Bearings and Lock Rings



9" Spool 35 or 40 Spline



Bearing Retainers

The MW 9" Ford Axle/Spool Package includes a pair of custom built standard Hi-Torque axles (any length/35 or 40 spline combination), axle bearings, bearing retainer plates, standard steel spool and a complete 5/8 drive stud kit with Snap-Lock™ washers. This kit allows you to have the top of the line axle and spool kit and get all the right parts the first time.

HI-K12 Axles/Spool/Bearing/Retainer/Stud Kit1300.00

Call for additional savings on a lightweight components package.

toll free
800-525-1963

on the web
www.markwilliams.com

9" FORD COMPONENTS



This is a list of the most common replacement parts for 9" type differentials. We have many parts and components available that are not included in this listing. Give us a call for items not listed. We are never too busy to help you find the smallest part you require. We take pride in helping you get the right parts when you need them.

39008	MW 9" Ford Pinion Yoke	195.00
	<i>28-spline, 4340 steel for 1350 series U-joint.</i>	
39011	MW 9" Ford Pinion Yoke	210.00
	<i>35-spline, 4340 steel for 1350 series U-joint.</i>	
39025	9" Ford Pinion Yoke 1330 Ford Joint	195.00
	<i>4340 steel for Ford 1330 series joint 3-5/8 x 1-1/8" for MW support.</i>	
5000-181	Retaining Ring For MW Ford Case	1.25
53124	9" Ford Spool Bearings 3.812 O.D.	89.04
53141	9" Ford Spool Bearings, 2.893 O.D.	52.36
53142	9" Ford Spool Bearings, 3.062 O.D.	61.48
53143	9" Ford Spool Bearings, 3.250 O.D.	60.32
57407	Pinion Stud Kit for MW Cases 7/16"	52.24
57408	Pinion Stud Kit for MW Case 3/8"	57.96
57449	Load Bolt Kit for MW Case	49.00
57500	Heavy-Duty Adjusters, 3.062 bore	58.16
57502	Replacement Cap, 2.893" bore (ea)	180.00
57503	Replacement Cap, 3.062" bore (ea)	169.00
57510	Shim, Spool/Carrier (pr)	48.15
	<i>For 9" Ford Spool/Carrier in a 3-1/4" case.</i>	
57550	Heavy-Duty Adjusters, for 3.250 bore (pr)	81.00
57560	Heavy-Duty Adjusters, for 3.812 bore (pr)	96.00
57570	Adjuster Adapter (pr)	106.00
	<i>To use 3.062" bearing in a 3.25" case, (best method).</i>	
57602	Pinion Bearing Sleeve	19.00
	<i>For rear bearing of 57600/57620 Pinion Bearing Housing.</i>	
57603	Solid Pre-Load Spacer	19.50
	<i>For 57600, 57610, 57620 and 57630 (machining required).</i>	
57604	Shim, Yoke/Coupler	13.50
	<i>For use with 39008 or 40300 with stock 9" Ford pinion housing.</i>	
57609	Stud Kit, 9" Ford Pinion Support	57.57
	<i>For stock and non MW cases.</i>	

57608	Bolt Kit 9" Ford Pinion Support	6.30
	<i>For Cases with 3/8-16 threads</i>	
57900	Ring Gear Bolt Set Thin 3/4 wench (7/16")	48.00
	<i>Drilled for safety wire (use ARW77 washers w/Strange spool)</i>	
57901	Gasket, 9" Ford Thirdmember	5.20
57929	10" Gear Ford 9" Thirdmember Gasket	11.62
	<i>Profile to clear 10" gears EZ-Release reusable gasket.</i>	
57902	Pinion Nut, 9" Ford (standard pinion)	5.25
57903	Pinion Nut, 9" Ford (35 spline pinion)	6.50
57904	Seal, 9" Ford Pinion (standard pinion)	17.43
57905	Seal, 9" Ford Pinion (35 spline pinion)	21.90
57906	Adjuster Locks, stock type (pr)	5.80
57907	Pinion Pilot Bearing (OE type bearing)	21.60
57908	Pilot Bearing Retainer (for stock case)	10.00
57909	Crush Sleeve (stock support)	10.00
57912	Seal, 9" Ford Pinion (40 spline pinion)	39.78
	<i>For 57650 or 12" pinion support Viton high temperature compound.</i>	
57913-10	Thirdmember Stud Kit (10 ea.)	81.35
	<i>Thirdmember to housing attachment bolts, nuts and washers.</i>	
57914	Pinion Pilot Bearing, .812" Long	23.53
	<i>For MW thru bolt cases.</i>	
57916	9" Pinion Depth Shims .005"-.015"	23.60
	<i>MW alum. shims. 2ea.-.005, .007 & 1 ea.-.010, .012, .015.</i>	
57940	Ring Gear Bolt set Thin 3/4 wrench(1/2")	82.10
	<i>Thin head 3/4" 12 point with safety wire drilled</i>	

Angular Contact Spool Bearings

53210	Angular Contact Spool Bearings 3.812" OD	172.24
	<i>3.812" OD x 2.250" inside (9" Ford 3.812 case and Dana 60)</i>	
53220	Angular Contact Spool Bearings 4.000" OD	210.00
	<i>4.00" OD x 2.250" inside (9" Ford 57458 case)</i>	
CB-53220	Ceramic AC Spool Bearings 4.000" OD	664.15
	<i>4.00" OD x 2.250" inside (9" Ford 57458 case)</i>	

9" FORD ASSEMBLIES

The steel housing MW 9" rear end assemblies are custom produced to suit your individual application. MW's years of experience assures you that the finished product will match your exact requirements. Each assembly starts with a brand **NEW** large 9" Ford center. 3" x 1/4" wall 4130 chromoly tubes are installed and given extensive internal supports. The thirdmember mounting flange is reinforced at the attachment stud locations. MW housing ends are installed after all structural welding is completed, including any suspension mounts and or rear brace, to assure true alignment. Thirdmembers are available from the economical nodular iron carrier to the full competition thru bolt aluminum case with 9 or 9-1/2" gears. Axle choices available range from the standard MW Hi-Torque axles to the trick Superlight gun drilled models. Options include Carbon/Carbon disc brakes and other weight saving components. The assemblies below are a few popular combinations, call for a quote on a package that is best suited to your application.



57000 Pro Quality

57000 9" Ford Complete Pro Quality Rear7206.00

Aluminum thirdmember with thru bolt case, L.W. steel spool, Pro Gears, ball bearing pinion support and MW yoke, Super-Light gun drilled 40 spline axles with bearings and drive stud kit. Housing with 4130 tubes and brace. MW Disc brake kit with drilled steel rotors are also included.

57060 9" Ford Complete Locker Rear5413.00

Nodular iron thirdmember, 31 or 35 spline locker, 8620 gears, MW tapered bearing pinion support and MW Ford pinion yoke, standard Hi-Torque axles with bearings and 1/2" wheel studs (less brakes). 31 or 35-spline locker same price .

57050 9" Ford Complete M/L Economy Rear4381.00

MasterLine *Nodular iron thirdmember, standard spool, 8620 gears, MW tapered bearing pinion support and MW Ford pinion yoke, standard MasterLine axles with bearings and 1/2" wheel studs (less brakes). Add \$750.00 for optional housing brace.*

57090 9" Ford Pro-Street Rear (less center)4942.00

New 9" Ford housing with rear brace installed. Includes MW Pro Street Axles, wheel bearings, 5/8" drive stud kit and MW vented disc brakes. Specify wheel to wheel width, bolt pattern and number of splines (same dimensions as required on axles). Complete rear less thirdmember assembly.

9" FORD STEEL HOUSINGS



57220

Mark Williams offers several steel 9" Ford housings. Housings with 3" diameter tubes are built with brand new coil spring centers, 4130 tubes with internal bracing and MW housing ends. MW also offers bolt-in housings for some popular applications that are built from stock tube housings with all required suspension mounts. All housings have a lube fill cap, drain, housing vent, and thirdmember studs installed. We can install custom brackets to any of these housings for an additional charge. If you are going to install your mount brackets in the car, we can build the housing with the ends tacked on, so it can be returned for final housing end installation. This will eliminate the welding distortion caused by the bracket installation process.

57120 9" Ford housing with mounts1673.00

Fits '82-'92 Camaro/Firebird. Includes torque arm mount (no brace).

57130 9" Ford housing with mounts1442.00

Fits '78-'79 Mid size GM passenger car .

57140 9" Ford housing with mounts1491.00

Fits '79-'93 Ford Mustang with Quad shock mounts.

57150 9" Ford Floater Housing2702.00

9" center with 4130 tubes, rear brace, filler cap and bung, vent and floater spindles installed. Large tubed housing.

57160 9" Ford Housing with Mounts1617.00

Fits '64-'72 Mid size GM passenger car

57200 9" Ford Large Tube Housing1251.00

9" center with 3" 4130 tubes, filler cap and bung, vent and choice of any MW housing ends. No brace.

57220 9" Ford Large Tube Housing2065.00

9" center with 3" 4130 tubes, rear brace, filler cap and bung, vent and choice of any MW housing ends.

Check out the Modular 9" housing in this catalog. Many quality minded builders are opting for the advanced modular rears available with a variety of housing ends and mounting brackets. Sometimes the Modular is a better cost value than the steel housings.

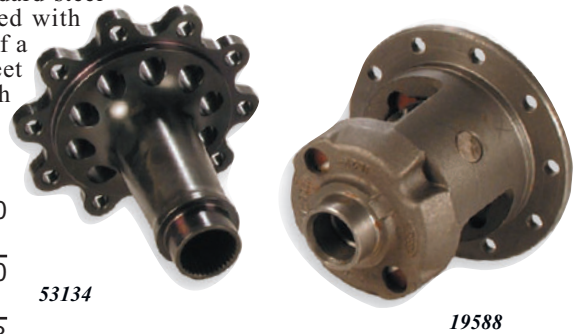
toll free
800-525-1963

on the web
www.markwilliams.com

8.8 COMPONENTS SPOOL AND POSI-TRACTION

For drag race applications Mark Williams offers a pair of steel spools, standard steel and lightweight steel, both with MW 35 splines. These spools can be used with either MW Hi-Torque axles or MW's **MasterLine** axles. Both require the use of a MW "C" clip eliminator kit or updating to weld on housing ends. For street applications the Eaton™ 31 spline posi-traction is the good choice. With carbon fiber clutches and 400 lbs. preload this unit delivers the most torque to the rear wheels yet still gives excellent drivability.

53132	8.8" Ford 35 Spline Spool	.....310.00
	<i>Must use 57900 ring gear bolt kit, 14#</i>	
53134	8.8" Lightweight Ford Spool	.....365.00
	<i>Must use 57900 ring gear bolt kit, 11#</i>	
19588	8.8" Eaton™ Posi-Traction (31 Spline)	.....615.63
	<i>31 spline with 400 lbs preload clutch, for 3.08 and up ratios</i>	



53134

19588

8.8 HOUSING ENDS - C-CLIP ELIMINATOR KITS



58510

59260

When preparing the 8.8" Ford rear for serious power the first modification is to eliminate the possibility of wheel loss with axle failure. The first method is to utilize a C-Clip Eliminator kit. The kit is designed to bolt on to the standard housing end with some modification. The second method is to install our replacement housing ends. Changing housing ends is the best method, especially if you need to narrow track width.

58510	8.8 Ford Housing Ends (pr)	.....240.00
	<i>For 3.150" O.D. bearing with bolt kit for backing plate.</i>	
59250	8.8 Ford C-Clip Eliminator Kit	.....251.00
	<i>For MW axles with 1.564" I.D. ball bearings.</i>	
59260	8.8 Ford Street/Strip C-Clip Eliminator. Kit	.....278.46
	<i>For MW axles with 1.564" I.D. Timken® tapered roller bearings. Best kit for street applications.</i>	

8.8 BILLET CAP AND YOKE

One of the most common causes of rear end failure can be traced to the stock rear end caps. To cure this problem, MW offers a billet steel replacement cap that has an increased cross section and heat treated hardware. Requires simple milling or surfacing in rod cap grinder to install.

Our 1350 series pinion yoke eliminates the circular companion flange and allows the use of a 1350 series U-Joint and high strength driveshafts as used in all other drag race cars. Driveshafts are available in mild steel, chromoly or aluminum with transmission yokes for all popular models.

The 39023 pinion yoke can be used with a 3-3/16" magnetic pickup ring.

59300	8.8" Ford Steel Main Cap (ea)	.....93.00
	<i>Requires milling of cap parting line to install</i>	
39023	MW 8.8" Ford Pinion Yoke	.....195.00
	<i>For 1350 series joint for 39112 U-bolts</i>	
39112	2nd Gen 1350 U-Bolt cap kit	.....97.00
	<i>For MW 1350 Series Pinion Yokes</i>	
TA1806	TA Cast Aluminum Cover	.....251.81
57140	9" Ford Mustang Bolt In Housing	.....1491.00
	<i>An option to consider is the 9" housing that has bolt in mounting brackets installed. see page 33 for more information</i>	



39112

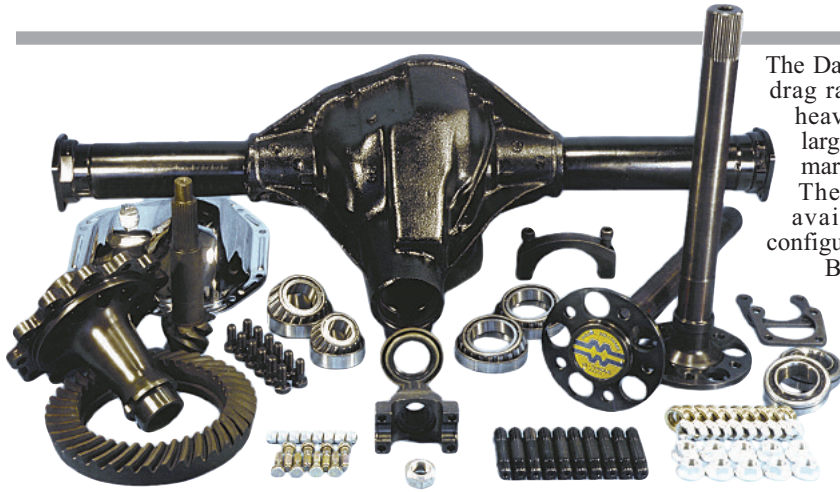
39023

59300

TA1806

MARK WILLIAMS Enterprises®

DANA 60 ASSEMBLIES



The Dana 60 series rear end has, for many years, been one of drag racing's most popular differentials, mainly due to the heavy-duty nature of the unit itself. The Dana features a large 9-3/4" diameter ring gear and the availability of after-market 8620 or 9310 alloy gears with ratios of 3.54 to 7.17! The Dana is the only passenger O.E.M. rear that was available with 35 spline axles in the original factory configuration. The main drawback to the Dana is the weight.

By comparison, a complete Dana 60 is approximately 35# heavier than a 9" with a braced steel housing. A newly designed center casting has threaded adjusters for the carrier/spool bearing and pad for the Mopar type pinion snubber. The one piece center casting creates stiffness not found in thirdmember type rears. The Dana 60 offers excellent strength and reliability for the dollar. MW has a complete array of specialized components to further improve a Dana 60.

56002 Dana 60 Pro-Quality Rear4384.00
Complete with Standard axles, bearings, lightweight spool (35 or 40 spline), choice of Pro-Gears, Center housing with threaded adjusters, MW pinion yoke, with 4130 steel tubes, MW housing ends, wheel bearings and 5/8" thread drive stud kit. (less brakes)

56050 Dana 60 Economy Rear3790.00
Complete with axles, bearings, standard spool (35 or 40 spline), choice of 8620 gears, MW 1350 series pinion yoke, Center housing with threaded adjusters 4130 tubes with any MW housing end and 1/2" screw in wheel studs. (less brakes)

56060 Dana 60 Rear with Detroit Locker4508.00
Complete with axles, bearings, Detroit Locker, 35 or 40 spline, choice of 8620 gears, stock pinion yoke, Center housing with threaded adjusters. 4130 tubes with any MW housing end and 1/2" screw in wheel studs. (less brakes)

56100 Dana 60 Housing1400.00
Dana 60 Housing with 3" x .25" 4130 steel tubes. Includes housing ends. New center casting width is built to customer specs. Includes a new Strange center housing with threaded adjusters

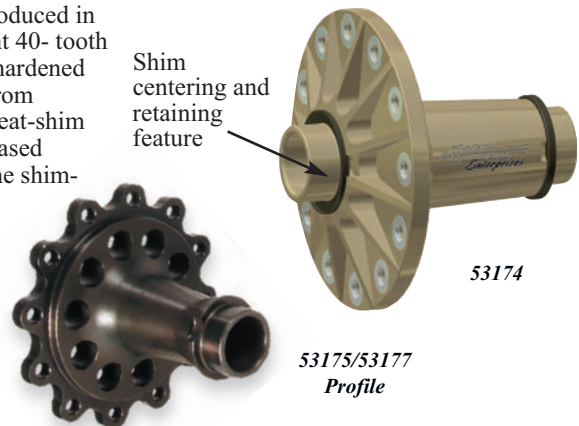
DANA 60 SPOOLS

MW offers three different spools for the Dana 60 rear axle. Steel spools are produced in the 35-tooth MW version that has the 45° pressure angle spline, and the current 40-tooth 45° pressure angle spline. The aluminum spool features a 40 tooth spline and hardened washers for the bolt seat. The washers prevent deformation of the aluminum from torquing the ring gear bolts. Another feature of the aluminum spool is a steel seat-shim retainer. This innovation keeps the preload shims centered and allows an increased radius for the bearing seat. It also allows the bearing remover to pull against the shim-retainer, preventing the destruction of the shims during setup.

53174 Dana 60 Aluminum Spool599.00
MW 40-spline, aluminum, must have 45mm bore axle bearings weight 8 lbs.

53175 Dana 60 Steel Spool549.00
MW 35-Spline, L/W profile milled, (proper housing wheel bearings that controls axle movement is required) weight 17 lbs.

53177 Dana 60 Steel Spool549.00
MW 40 Spline, L/W profile milled steel 15 lbs.



DANA 60 LOCKER

The Dana 60 Locker features both 35 and 40 spline axle gears and will accept 4.10 to 7.17 ratio, (4 series) gears. The 40 spline locker is a new item and is available for 3.73-4.30 ratios and 4.56-7.17 ratio. MW 40 spline axles for our spool will also fit the new Locker

225S-23A Detroit Locker756.00
Dana 60 rear 35-Spline (for 4.10 to 7.17 gear)

225S-40A Detroit Locker699.00
40 Spline for 3.73-4.10 ratio gears

225S-40B Detroit Locker699.00
40 Spline for 4.88-7.17 ratio gears

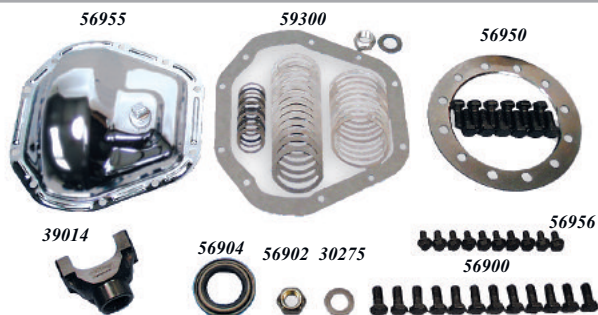
TA1812 TA Dana 60 rear cover203.00
The TA rear cover strengthens the housing and provides support to the main caps. Steel replacement caps are recommended as the first upgrade on O.E.M. Dana type rears.



toll free
800-525-1963

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DANA 60 COMPONENTS



30275	Dana 60 Pinion Nut Washer	2.25
39014	MW Dana 60 Pinion Yoke 1350 joint <i>29-spline, 4340 steel for 1350 series U-joint</i>	195.00
39091	MW Dana 60 Pinion Yoke 1410 joint <i>29-spline, 4340 steel for 1410 high misalignment series U-joint</i>	304.00
53171	Spool Bearings, Dana 60	99.00
53172	Pinion Bearing Set, Dana 60	112.38
56900	Dana 60 Ring Gear Bolt Kit	40.00
56901	Dana 60 Cover Gasket	9.45

56902	Dana 60 Pinion Nut	5.80
56904	Dana 60 Pinion Seal	30.05
56910	Dana 60 Shim Kit <i>Pinion depth and pre-load shims, spool shims, gasket, pinion nut and washer.</i>	89.84
56940	Axle Gear,(ea.) <i>For Dana 60 Powr-Loc™ with 35 splines.</i>	149.06
56950	Ring Gear Spacer <i>Dana 60 for using 4.56 to 7.17 gear on 3.54 to 4.10 carrier.</i>	63.50
56955	Dana 60 Chrome Cover	43.95
56956	Dana 60 Cover Bolt Kit (10 pcs)	15.60



56960 Power-Lock™ Kit

56960	Powr-Lock™ Kit Dana 60 or 70 <i>Clutches, axle and spider gears, spider gear pin for 35 spline Powr Lock™ posi traction. Converts 23 spline carriers to 35.</i>	645.42
83-1034	Gear Installation Kit, Dana 60 <i>Shims (carrier, pinion depth, and preload), pinion nut, carrier bearings, pinion bearings, ring gear bolts, pinion nut and washer, gear marking compound and gasket.</i>	251.39

DANA CENTER COVER & CAP

Replace one of the most common component failures on a Dana 60 with a MW billet steel replacement cap. The Dana 60 typically only requires one on the drivers side. Installation requires milling or rod cap grinding on the parting line of the cap.

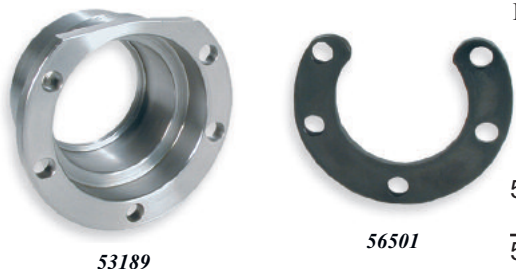
The TA rear cover strengthens the housing and provides support to the main caps. Covers are available as an upgrade to complete rears, or separately. Steel replacement caps are recommended as the first upgrade on O.E.M. Dana type rears.

The Strange reproduced center housing that is used for the Dana 60 housing is available for special projects. It features threaded adjusters and bolt pattern for the pinion snubber like were available on the Mopar-Chrysler Hemi Cars in the seventies.

56200	Dana 60 Steel Main Cap w/fasteners (ea)	98.00
888	Labor (cap installed by MW Ent.) (ea)	75.00
TA1812	TA Rear Cover	258.85
56000	Center Housing for Dana 60	553.00



MOPAR HOUSING ENDS AND RETAINERS



53189

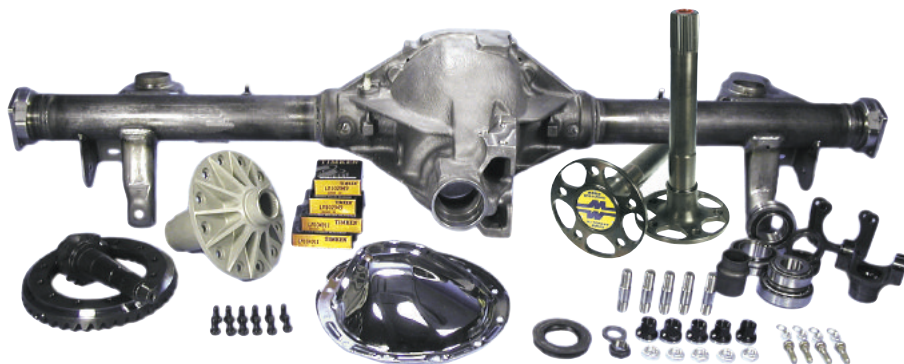
56501

Replacement Mopar ends are produced that utilizes a larger 3.150 O.D. bearing. The 53189 end allow the advantage of the larger bearing bore, (up to 45mm) wheel bearings that increase the axle strength. If you are using aftermarket drag race disk brakes we recommend using our 58580 housing ends. It is the most straightforward end that all the dimensions are standardized. It also has the advantage that the caliper can be mounted in four different clock angels if needed.

53189	Mopar Housing Ends, (pr) <i>For Mopar brakes using 58503, 58504 and 58505 axle bearing.</i>	160.00
56501	Mopar Bearing Retainers, (pr) <i>For 53189 and 53188 Mopar housing ends.</i>	32.00

MARK WILLIAMS Enterprises®

GM 12 BOLT ASSEMBLIES



58000-RL Light Weight for GM "F" Body

suspension brackets. Three basic units are available; configurations include street/strip with Eaton™ Posi-Traction units, standard drag race with 35 spline steel spool and lightweight 35-spline aluminum spool. Bolt in models are available for ALL popular GM cars including the F- body with torque arm mounts.

MW Disc brake can be added to any model rear end. If using an MW Disk Brake kit, the rear will include our 58580 housing ends that take advantage of large 45mm bore bearings with inboard housing seals for a double seal. With its favorable hypoid distance and overall weight, the 12 Bolt is a good choice for applications with moderate power where friction loss and weight are important.

Additional performance improvements are available including Ring and Pinion Supra-Fin™ surface improvement finishing.



'64-'72 "A" Body



'67-69 Camaro Mono
Spring Mounts



71275 Disk Brake Option

58060-S Complete GM 12 Bolt Street/Strip pkg . . .4245.00

With Masterline Axles, Eaton posi, 8620 gears (no brakes)

58000-R Complete GM 12 Bolt Drag Race pkg . . .4502.00

With 35 Spline Hi-Torque axles, spool Pro Gears (no brakes)

58000-RL Complete GM 12 Bolt Light Wt Drag . . .5018.00

With MW Lightweight Aluminum Spool and Superlight Hi-Torque Gun drilled (11/16") Axles, Pro Gears, TA Cover (No Brakes).

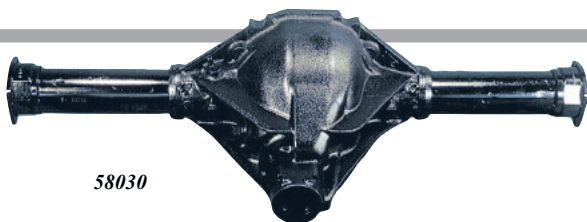
71270 4 Caliper Disc Brake Kit2043 .00

Drilled rotors for 58580 Symmetrical housing ends, Lightened Rotors

71250 2 Caliper Disc Brake Kit1475.00

Drilled Rotors (or Solid)

GM 12 BOLT HOUSING



58030

MW offers DTS Express (KTRE) bare housings. Both utilize 4130 tubes and can be assembled with your choice of housing ends. The housings are produced with the stock carrier bore size 3.062" and the oversize 3.250" bore that will accommodate the MW aluminum 35 spline spool. For the builder who wants to fabricate the suspension mount in the car it makes sense to get the bare housing. We can tack weld the ends so they can be removed to install slide over brackets, and reinstall after welding.

58025 12 Bolt Bare 3.062" bore Housing1662.00

DTS housing, 4130 tubes and any MW housing ends, 3.062" bore. Suspension mounts can be installed at an extra charge. Price will be based on the application.

58030 12 Bolt Bare 3.250" bore Housing1662.00

DTS housing with 4130 tubes and any MW housing ends. 3.250" bore. Suspension mounts can be installed at an extra charge. Price will be based on the application.

toll free
800-525-1963

on the web
www.markwilliams.com

GM 12 BOLT SPOOLS

53130 10-Bolt 8.5" Chevrolet Spool310.00
MW 35-spline 1970 or later 10 bolt, weight 14 lbs.

53158 12-Bolt Aluminum Spool654.00
MW 35 spline, housing must be bored to 3.250" Includes 58925 shim kit and 53161A bearing kit. (\$198.00 separate) 5.3 lbs.

53160 12-Bolt Chevrolet Spool310.00
MW 35-spline, weight 14 lbs.

53164 12-Bolt Chevrolet Spool310.00
30-spline, All 12 Bolt spools requires C-clip Eliminator kit or weld on housing ends, weight 14 lbs.



53160



53158



53165

53165 12-Bolt Chevrolet Spool365.00
MW 35-spline, L/W milled, weight 11 lbs.

53265 12-Bolt Chevrolet Spool 3-1/4 Bore365.00
MW 35-spline, L/W milled, for 3-1/4 bore housing11.1 lbs.

12 BOLT POSI-TRACTION



EATON

Eaton® Posi Performance Differentials

Mark Williams stocks Eaton™ posi-traction units for 10 and 12 Bolt GM applications. All Eaton™ units feature carbon fiber clutches.

19554 12 Bolt Eaton™ Posi-Traction (Series 3) . . .598.20
30 spline with 400 lb. clutch preload. For 3.08 to 4.10 ratios.

19555 12 Bolt Eaton™ Posi-Traction648.40
30 spline with 400 lb. clutch preload. For 4.10 and up ratios.

19556 12 Bolt Eaton™ Truck Posi-Traction648.46
30 spline with 400 lb. clutch reload. For 3.73 and up ratios.

19557 8.5 10 Bolt Eaton™ Posi-Traction509.91
28 spline with 400 lb. clutch preload. For 2.73 - 5.57 ratios.

914A575 12 Bolt Eaton™ Truetrac566.00
33 spline For 4.10 to 6.14 ratios.

914A576 12 Bolt Eaton™ Truetrac566.00
33 spline For 3.08 to 3.90 ratios.

GM HOUSING ENDS & RETAINERS

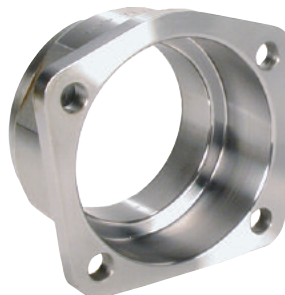
58400 G.M. Housing Ends, (pr)166.00
Full size 12 Bolt, Chevrolet Impala, Biscayne and 1/2-ton pickup, for 58503, 58504 or 58505 sealed axle bearings.

58410 Full Size GM Bearing Retainers (pr)32.00
For MW 58400 Full Size GM housing end

58560 G.M. Housing Ends, (pr)175.96
Mid-size 10/12 Bolt, for 58506 Timken® tapered roller axle bearings and seals.

58600 G.M. Housing Ends (pr)143.00
Mid-size 10/12 Bolt, for 58503, 58504 or 58505 sealed axle bearings.

58230 Standard GM Bearing Retainers (pr)32.00
For MW 58600 10 and 12-bolt housing ends.



58600



58230

GM C-CLIP ELIMINATOR KITS

These simple and handy kits are the perfect way to eliminate pesky Chevrolet C-clips. The kits also qualify as an accepted Safety Hub. They are easily installed on stock 10/12 Bolt axle tubes (after housing end is trimmed with a common hack saw) and accommodate large Ford style oversize bore sealed axle bearings. The press fit of the bearing and lock ring along with steel retainer plate hold the axle in place. There is a BIG DIFFERENCE in the MW C-Clip Eliminator kits when compared to our competitors. Our kits are steel, not troublesome aluminum. Our design leaves a round section of the housing, to align the bearing and carry the weight. Others rely on the bolt that is threaded into aluminum to align and carry the weight of the car. All MW C-clip kits include detailed installation instructions and mounting hardware.

58250 C-Clip Eliminator Kit225.00
Small 10/12-Bolt, for MW axles with 1.625" I.D. bearings.

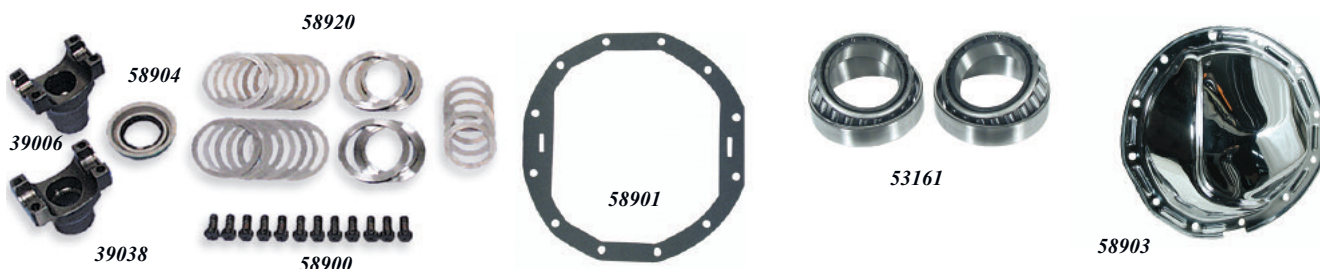
58350 C-Clip Eliminator Kit276.00
Full size 12-Bolt and 1/2 ton pick-up, for use with MW axles 1.625" I.D. bearing.



58250 kit

MARK WILLIAMS Enterprises®

GM 12 Bolt Components



39006	MW 12 Bolt Pinion Yoke (3.875 long)	.....	.215.00
39038	MW 12 Bolt Pinion Yoke (2.875 long)	.....	.204.00
58903	Chrome Cover, 12 Bolt	.....	.33.80
53161	12 Bolt Spool Bearings (3.062 OD)	.....	.62.52
53161A	12 Bolt Bearings for Alum. Spool (3.250 OD)	.....	87.52
53162	12 Bolt Chevrolet Pinion Bearing Set	.....	.66.22
58901	12 Bolt Rear Cover Gasket	.....	.5.20

58904	12 Bolt Chevrolet Pinion Seal	.....	.17.43
58920	12 Bolt Complete Shim Kit	.....	.86.65
<i>Assortment of pinion depth, carrier shims.</i>			
58925	12 Bolt Carrier Shim Kit (3.250" bore)	.....	.95.00
<i>Special inner shim with assortment of standard carrier shims. Must be used with 53158 spool and 53161A bearing kit.</i>			
58900	12 Bolt Chevrolet Ring Gear Bolt Kit	.....	.44.41
<i>3/8-24 Thin Head 12 Point Hex</i>			

MW 12 Bolt Improvements

The MW designed pinion put has improved the OEM crimping design that destroys the pinion threads. Made from alloy steel and 100% machined with hardened washer, our design fixes the problem associated with OEM parts.

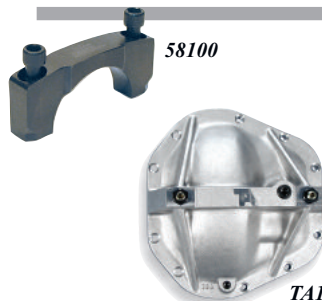
58918	Nut, 12 Bolt Pinion with Washer44.40
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Until now, 12 bolt rears have been forced to rely on a standard crush sleeve. The MW solid preload spacer is CNC machined from 4140 steel and heat treated. Spacers are long and must be trimmed to the required length

58905	12 Bolt Solid Pre Load Spacer	.....	.47.00
<i>Requires machining to set the preload.</i>			



12 Bolt Billet Cap & Cover



One of the most common causes of rear end failure can be traced to the stock rear end caps. To cure this problem, MW offers a billet steel replacement cap that has an increased cross section and heat treated hardware. **Simple milling required to install.**

58100	12 Bolt Chevrolet Steel Main Cap (ea)	.....	.70.00
888	Labor (cap installed by MW Ent.) (ea)	.....	.75.00
TA1810	TA Cast Cover for 12 bolt GM car rears	.....	.252.81

12 Bolt Axle & Spool Package



The MW 12 Bolt Axle/Spool Package includes a pair of custom built standard Hi-Torque axles (any length/spline combination), complete c-clip eliminator kit w/bearings, standard steel spool and a complete 5/8" drive stud kit. This kit allows you to have the top of the line axle and spool kit and get all the right parts the first time.

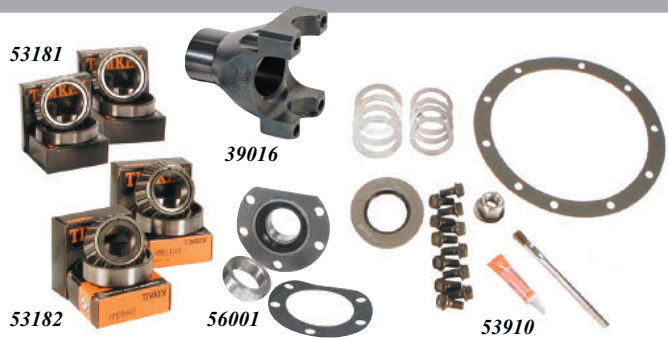
HI-K14	12 Bolt Axle/Spool/C-Clip Eliminator Package1350.00
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Call for additional savings on a lightweight components package.

toll free
800-525-1963

on the web
www.markwilliams.com

8-3/4 MOPAR COMPONENTS



39016	MW 8-3/4" Mopar Pinion Yoke	210.00
	10-spline, 4340 steel for 1350 series U-joint	
53181	8-3/4" Mopar Spool Bearings	69.08
	3.265" bore stock case (for MW spool)	
53182	Pinion Bearing Set	144.28
	8-3/4" Mopar, 1-3/4" pinion diameter, 742 case	
53900	8-3/4" Mopar Ring Gear Bolt Kit (L H)	35.00
53901	8-3/4" Mopar Rear Gasket	5.20
53902	8-3/4" Mopar Pinion Nut	3.75
53904	8-3/4" Mopar Pinion Seal, 1-3/4"	53.95

53905	8-3/4" Mopar Pinion Seal, 1-7/8"	26.10
53910	Pinion Shim Kit (742 Case)	59.60
	742 Case 8-3/4" Mopar, 1-3/4" pinion. Includes pinion depth and preload shims, pinion seal, and marking compound, pinion nut, washer.	
83-5310-S	Installation Kit, 8-3/4" Mopar (742 Case)	196.60
	742 case with 1-3/4" pinion. Includes pinion depth and preload shims, pinion nut and washer, pinion seal, stock posi carrier bearings, pinion bearings, ring gear bolts, gear marking compound, and gasket.	
53920	Pinion Shim Kit (489 Case)	56.74
	489 case 8-3/4" Mopar, 1-7/8" pinion (tapered pinion). Includes pinion depth shims, crush sleeve, pinion seal, pinion nut / washer, gasket, and marking compound.	
83-1037	Installation Kit, 8-3/4" Mopar (742 Case)	196.36
	742 case with 1-3/4" pinion. Includes pinion depth and preload shims, pinion nut and washer, pinion seal, stock posi carrier bearings, pinion bearings, ring gear bolts, gear marking compound, and gasket.	
83-1031	Installation Kit, 8-3/4" Mopar	167.67
	489 case with 1-7/8" Pinion. Includes pinion depth shims, crush sleeve, pinion nut and washer, pinion seal, spool bearings (with 2.00" bore), pinion bearings, ring gear bolts, marking compound, gasket.	
56001	Mopar Non-Adjustable Axle Bearings (pr)	96.65
	2.875" O.D., 1.562" I.D. for stock ends w/retainer	
56003	Mopar Non-Adjustable Axle Bearings (pr)	111.71
	2.875" O.D., 1.562" I.D. for stock ends w/retainer, spiral lock	

8-3/4 MOPAR SPOOLS



53179	8-3/4" Mopar Aluminum Spool	594.40
	MW 35-spline, weight 5.2 lbs.	
53180	8-3/4" Mopar Spool	341.00
	MW 35-Spline, 14 Lbs.	
53186	8-3/4" Mopar Spool	341.00
	Stock type 30-spline, weight 14 lbs.	
53187	8-3/4" Mopar Spool	365.00
	MW 35-spline, L/W profile milled, weight 11.2 lbs.	

8-3/4 MOPAR BILLET CAP

As with most rears, the stock caps are a weak link of the 8 3/4 Mopar. MW now offers a billet steel cap that is pre-bored and threaded. Caps are easily installed with a simple milling operation. Caps include Grade 8 hardware.

53950	8 3/4 Mopar Billet Cap(ea).	133.50
53960	Heavy Duty Adjusters (pr)	67.50
	CNC Machined Billet Steel	



8-3/4 MOPAR AXLE & SPOOL PACKAGE

The MW 8 3/4 Mopar axle/spool package includes a pair of custom built standard Hi-Torque axles (any length/spline combination), 56003 axle bearings, standard steel spool, and a complete 5/8 drive stud kit. This kit allows you to have the top of the line axle and spool kit and get all the right parts the first time.

HI-K13	8-3/4 Mopar Axle Spool kit	1300.00
	Hi-Torque axles, spool, wheel bearings, retainers, drive stud kit	

Call for additional savings on a lightweight components package



MARK WILLIAMS Enterprises®

'57-'64 OLDS-PONTIAC COMPONENTS



The '57-'64 Olds-Pontiac rear end is still enjoying some popularity in drag racing. These rears were fairly popular in the past and have been used in surprising numbers that is why Mark Williams Enterprises continues to manufacture and stock many of the hard to find pieces needed to assemble and strengthen this rear.

39018	MW '57-'64 Olds Pinion Yoke	195.00
	<i>13 spline, 4340 steel for 1350 series U-joint.</i>	
53153	Olds/Pont '57-64 Aluminum Spool	550.00
	<i>35 Spline MW Spline 2.00 ID Bearing with hard bolt seat washers</i>	
53150	Olds/Pont '57-64 Steel Spool	549.00
	<i>35 Spline MW Spline 2.00 ID Bearing</i>	
53151	'57-'64 Olds-Pontiac Spool Bearings	72.36
53152	'57-'64 Olds Rear Gasket	7.50
58500	Olds-Pontiac Housing Ends (pr)	124.00
	<i>For 58503, 58504 or 58505 axle bearings with seal provision</i>	
58910	'57-'64 Olds-Pontiac Shim Kit	32.50
	<i>Pinion depth shims and crush preload spacer.</i>	
83-5810	Gear Installation Kit '57-'62 Olds	247.09
	<i>Pinion depth shims, crush sleeve, spool & pinion bearings, seal, pinion nut and gear marking compound.</i>	
83-5810-S	Gear Installation Kit '57-'67 Olds	226.74
	<i>Pinion depth shims, crush sleeve, spool & pinion bearings, seal, pinion nut and gear marking compound. For MW Spool.</i>	

OLDS-PONTIAC BILLET CAP



Main cap breakage is a major problem with the '57-'64 Olds. Mark Williams now offers a superior strength billet cap that is pre-bored and threaded. Caps are easily installed with a simple fly cut milling operation.

58502	'57-'64 Olds-Pontiac Cap (ea)	112.00
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OLDS-PONTIAC AXLE & SPOOL PACKAGE



The MW Olds-Pontiac Axle/Spool Package includes a pair of custom built standard Hi-Torque axles (any length with 35 spline spool), axle bearings, bearing retainer plates, standard steel spool and a complete 5/8 drive stud kit.

HI-K15	Olds-Pontiac Axle spool Kit	1525.00
	<i>Axles, spool, wheel bearings, retainers and drive stud kit.</i>	

SHOP LABOR OPERATIONS



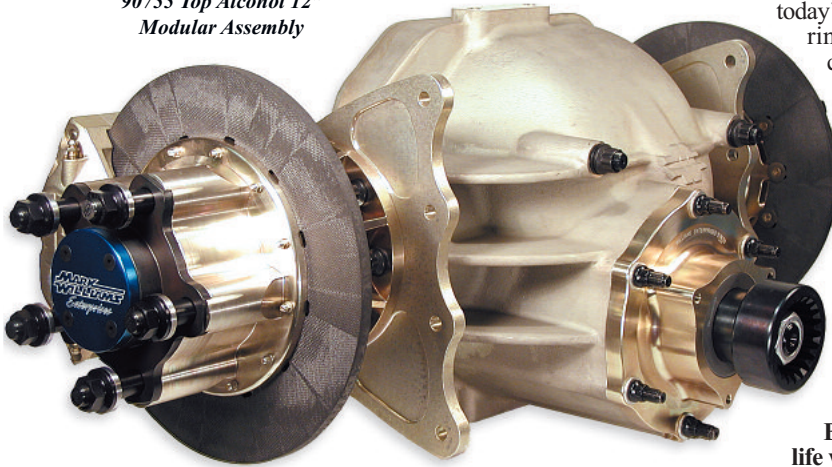
555	Magnaflux and Inspect Axles (pr)	50.00
	<i>Bearings and studs must be removed for thorough inspection. Lock ring can not have been tack welded. MW axles only.</i>	
666	Thirdmember Type Gear Set Up	300.00
	<i>9" Ford, 8 3/4 Mopar or Early Olds-Pontiac.</i>	
666-11	MW 12" Gear Set Up	800.00
	<i>Mark Williams 12"</i>	
777	Salisbury Type Gear Set Up	425.00
	<i>Dana 60, 10 or 12 bolt Chevrolet or 8.8 Ford.</i>	
888	MW Main Cap Installation (ea)	75.00
	<i>Dana 60, 12 bolt Chevrolet, 9" Ford, 8-3/4" Mopar and '57-64 Olds/Pontiac.</i>	
999	Install Housing Ends (labor only)	385.00
	<i>Narrow housing or re-align housing ends.</i>	
91110	Broach Pinion for MW Pump Drive	138.00
	<i>Add 3/8" hex pinion shaft to drive modular fluid pump.</i>	

444	Re-Drill MW Axles (only)	340.00
	<i>Bolt pattern change or enlarge for 5/8 drive studs. Requires heat-treating. Bearings and studs must be removed (bearing lock rings can not have been tack welded). New bearings required. Can't be performed on axles that have studs welded or holes that have been damaged</i>	

toll free
800-525-1963

on the web
www.markwilliams.com

90755 Top Alcohol 12"
Modular Assembly



The Mark Williams 12" Modular rear end has been designed to handle the harsh treatment of today's Top Alcohol and Pro Modified cars. This assembly is based on a ring and pinion designed from a clean sheet. It is not like other competitor's efforts to make a stronger unit where their designs are based on existing housing limitations. This unit has the proper proportioning ratios of housing strength and bearing capacity that make it a superior unit.

Features include an 12" Pitch diameter ring gear and 40 spline pinion shaft. The gears are designed with a 12" pitch diameter.

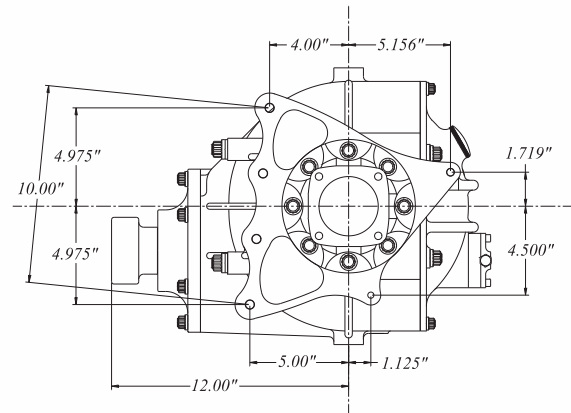
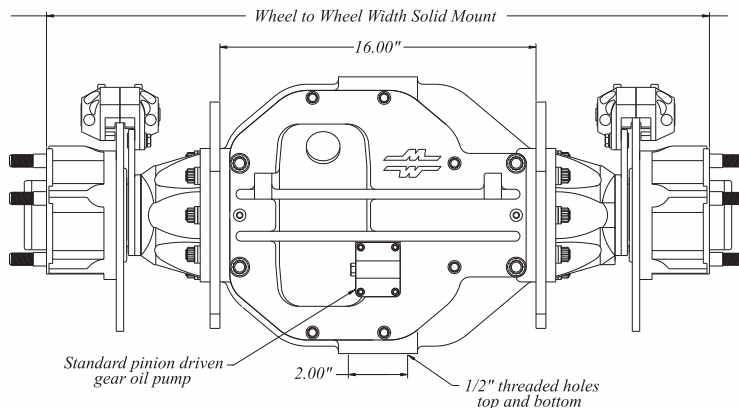
. The gear selection are 2.91, 3.20, 3.70, 3.89, 4.10, 4.29, 4.57, 4.71 and 5.83 ratios.

We currently have the ability to produce special ratios by using our in house the gear blanks.

The special gear ratios can be delivered in approximately 8 weeks.

Best of all we are so confident in the extended ring and pinion life we warranty the gears against breakage for 2 years.

The housing can be used with Hi-Torque flange axles as well as the MW Floater Hubs. The unique design allows easy removal of the rear cover to inspect the ring gear, while the removable pinion support gives access to the pinion gear. With the beefy 12" gears, the use of premium materials, and features carried over from the other MW race proven modular rears, the MW 12" offers unmatched strength and reliability.



MODULAR 12" ASSEMBLIES

90000 12" Modular Center Section	11,360.00
<i>Fully assembled center section with MW 12" gear, 40 spline aluminum spool, ball-taper pinion support, coupler and hardware. Center section only, use this if you have an existing 9" modular rear and want to upgrade to an 12" gear.</i>	
90750 Complete 12" Modular Steel Brake Assembly	17,486.00
<i>Complete 90000 center section with MW 12" gear, 40 spline aluminum spool, ball-taper pinion support, coupler and hardware, and end bells. MW full floater with 40 spline axles. Aluminum solid mount brackets. Includes MW 4 piston calipers and lightened steel brake rotors. 210#</i>	
90755 Complete 12" Modular Carbon/Carbon Assembly	18,328.00
<i>Complete 90000 center section with MW 12" gear, 40 spline aluminum spool, ball-taper pinion support, coupler and hardware, and end bells. MW full floater with 40 spline axles. Aluminum solid mount brackets. Includes MW 4 piston calipers and carbon/carbon brake rotors and pads. 198#</i>	

See charts on pages 54 and 55 for solid mount widths and floater spindle combinations. Call for pricing on special widths and combinations.

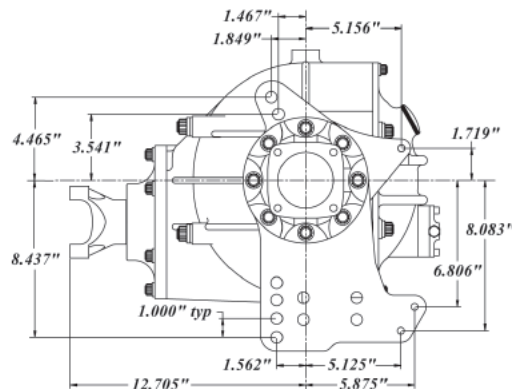
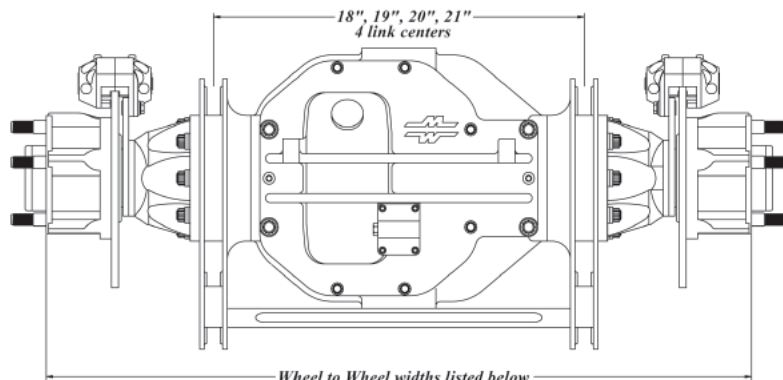
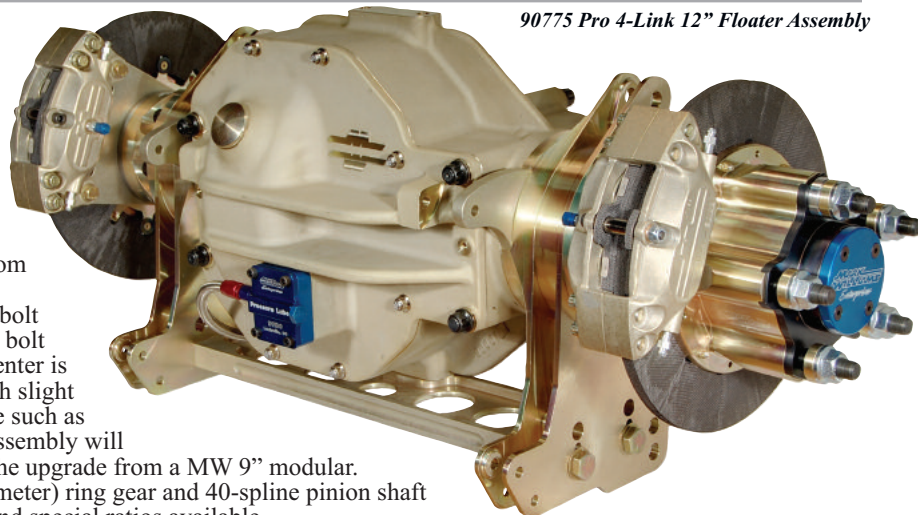
12" Pro 4-LINK



Pro Mod and Nitro Coupe racers have an option when it comes to rear end assemblies. Ring and pinion life for the 9" Ford type rears can be a constant issue. The 12" Modular make those issues a thing of the past. The 12" Pro 4-link rear from Mark Williams represents a massive gear life improvement for high horsepower 4-link drag race cars such as Pro Mods and Nitro Coupes.

At the heart is a rugged center module that is cast from the same tough aircraft alloy used in all MW cast aluminum components. It also incorporates the thru bolt design carried with a strength enhancing cover. The bolt pattern on the mounting faces on both sides of the center is the same as MW's 9" modular rear. This means, with slight modification, all the existing MW modular hardware such as 4 link brackets, lower tie bar, end bells and floater assembly will bolt directly to this new 12" assembly, simplifying the upgrade from a MW 9" modular. The gear set features an 11" diameter (12" pitch diameter) ring gear and 40-spline pinion shaft are all produced in the USA with the most popular and special ratios available.

90775 Pro 4-Link 12" Floater Assembly



MODULAR 12" Pro 4-LINK ASSEMBLIES



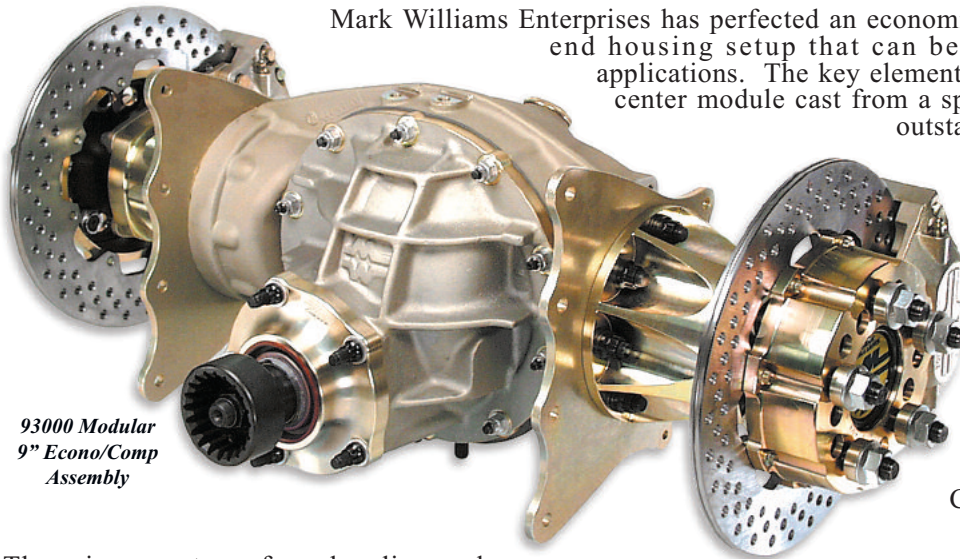
90780 Pro-Mod 4-Link carbon floater
with 4130 steel brackets

- 90770 Complete 12" Mod 4 Link Assembly . . .17, 658.00
Complete 90020 center with MW full floating 40 spline axles, lightened steel brakes, aluminum 4-link brackets, end bells and axles. (18" centers, 35-1/2" wheel to wheel).
- 90775 Complete 12" Mod 4 Link Assembly . . .20,360.00
Complete 90020 center with MW full floating 40 spline axles, carbon/carbon brakes, aluminum 4-link brackets, end bells and axles. (18" centers 35-1/2" wheel to wheel).
- 90780 Complete 12" Mod 4 Link Assembly . . .16,598.00
Uses 4130 steel 4-link brackets, MW steel brake disc full floater assembly with lightened brake discs, end bells and axles. (17-1/4" centers 34-5/8" wheel to wheel).
- 90785 Complete 12" Mod 4-Link Assembly . . .20,814.00
Uses 4130 Steel 4-Link brackets, full floater assembly with MW carbon/carbon disc brakes, end bells and axles. (17-1/4" centers 34-5/8" wheel to wheel).
- 90020 12" Modular Center Section . . .11,145.00
Fully assembled center casting with gears, spool, pinion support, yoke and hardware. For easy swaps.
- 91100 Lube Pump Assembly . . .645.00
Bolts to rear cover on solid or 4 link rear. Includes pump shaft and all plumbing. A must on Top Alcohol and Pro Mod cars Included in all assemblies..

See charts on pages 54 and 55 for 4-link widths and floater spindle combinations. Special narrow steel 4-link as above can be special built. Call for pricing on special widths and combinations.

toll free
800-525-1963

on the web
www.markwilliams.com



93000 Modular
9" Econo/Comp
Assembly

Mark Williams Enterprises has perfected an economical modular 9" Ford aluminum rear end housing setup that can be used for drag racing and street applications. The key element is the reinforced aluminum housing center module cast from a special grade aerospace alloy with an outstanding tensile strength of 60,000 psi (30% higher than 6061). The modular concept allows a variety of end bells and mounting brackets to suit your particular application. Price wise, the MW Modular stacks up favorably to the considerable re-working needed to make OEM units useable, or even the labor intensive fabricated steel housings. But the most important consideration is that the MW Modular housing is a completely CNC machined assembly and is extremely accurate.

There is zero stress from bending and welding typical to sheet metal rears. This assures you of an accurate housing that is properly aligned for optimum internal efficiency. The modular unit is also upgrade-able. If, at a later date a class change requires full floating hubs or the width needs to be changed, the appropriate end bells can be bolted on, eliminating cutting and welding. The newest addition to our modular line is the Econo/Comp 4 link housing (shown at right, recommended for LIGHT DUTY dragster and altered applications). It incorporates mild steel 4 link brackets and spacers along with a tubular lower tie bar. These new components make it easier than ever to convert a MW modular solid mount dragster housing to a 4-link set-up. This Modular rear is intended for lightweight Dragster and Altered applications that are less than 1800# and 800 HP. See part number 97780 page 47 for higher powered applications.



92400 Econo/Comp
4-Link Housing

9" Econo/Comp Housings with Brackets

92000 Econo/Comp 9" Solid Mount Housing2409.00
9" center section with 5/16" mounting brackets and standard end bells, symmetrical brake mount pattern., (26" wide for 32 1/8" wheel to wheel width). Call for additional widths and applications

92400 Econo/Comp 9" 4 Link Housing3024.00
With 3/16" mild steel 4 link brackets, tubular tie bar and standard end bells w/ symmetrical brake mount pattern, (4-link centers 17-1/4") with a 34" wheel to wheel width). Other widths available.

9" Econo/Comp Complete Assemblies

93000 Complete Econo/Comp Solid Rear6608.00
Lightweight aluminum carrier, 35-spline aluminum spool, lightened standard 8620 gears, MW axles (gun-drilled), bearings, drive studs, MW disc brake kit with drilled rotors, 92000 housing. Assembled weight 133 lbs.

93400 Complete Econo/Comp 4 Link Rear7492.00
Lightweight aluminum carrier, 35-spline aluminum spool, lightened standard 8620 gears, MW axles (gun-drilled), bearings, drive studs, MW disc brake kit with drilled rotors, 92400 housing. Assembled weight 149 lbs.

93050 Complete Econo/Comp Solid Rear9276.00
Lightweight aluminum carrier, 35-spline aluminum spool, lightened standard 8620 gears, MW axles (gun-drilled), bearings, drive studs, MW disc brake kit with Carbon/Carbon brakes, 92000 housing. Assembled weight 121 lbs.

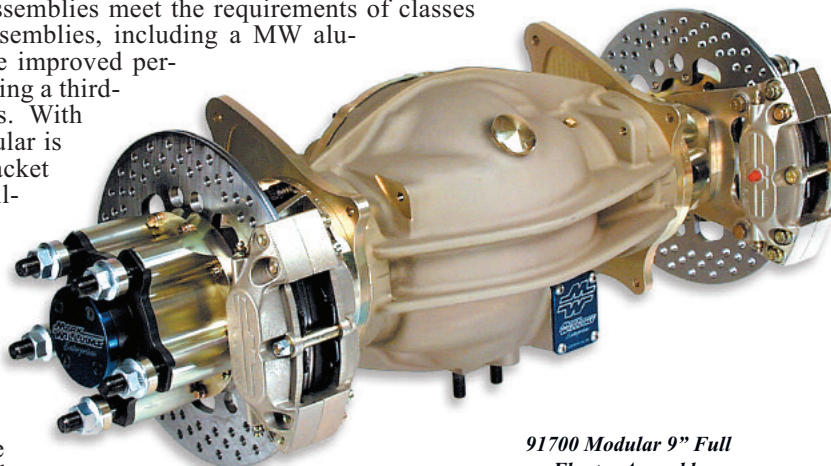
93450 Complete Econo/Comp 4 Link Rear9430.00
Lightweight aluminum carrier, 35-spline aluminum spool, lightened standard 8620 gears, MW axles (gun-drilled), bearings, drive studs, MW disc brake kit with Carbon/Carbon brakes, 92400 housing. Assembled weight 137 lbs.

9" FULL FLOATER

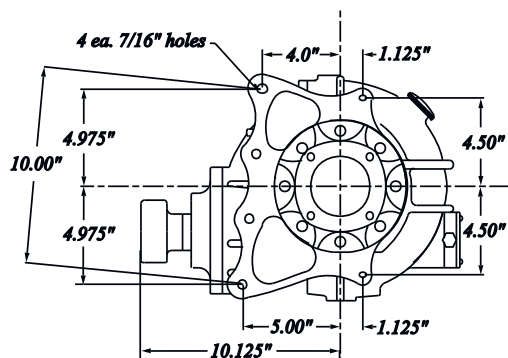
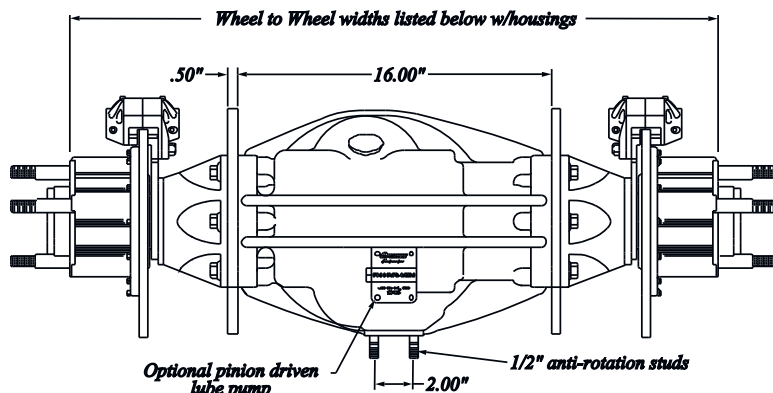


MW's full floater 9" Ford Aluminum Modular assemblies meet the requirements of classes that must have full floating hubs. Complete assemblies, including a MW aluminum thirdmember, offer reliability and provide improved performance due to precise component alignment. Being a thirdmember type rear, it's a snap to change gear ratios. With the 9", 9-1/2" and 10" ring and pinions, the Modular is suited for Top Dragster, Competition and Bracket Class applications. Thirdmembers are now available with 9-1/2" and 10" diameter ring gear (in select ratios) for added strength.

The MW floater unit incorporates sealed ball bearings (self lubricating) for minimum drag. The Floater hubs are available with a 5" or 5-1/2" bolt circle. Complete rears include full floater assemblies with a one-piece axle, (standard width only) and a large pinion thirdmember. Steel or Carbon/Carbon Disc Brakes are available for superior stopping power along with substantial weight savings.



91700 Modular 9" Full Floater Assembly



MODULAR 9" FLOATER HOUSINGS

94700-31 Modular Floating Housing w/Spindles . . .2819.00
Housing with Series II spindles and 1/2" thick pocket-milled brackets (31 1/8" wheel to wheel).

94700-33 Modular Floating Housing w/Spindles . . .2855.00
Housing with Series II spindles and 1/2" thick pocket-milled brackets (33 1/8" wheel to wheel). 50 lbs.

94700-37 Modular Floating Housing w/Spindles . . .2890.00
Housing with Series II spindles and 1/2" thick pocket-milled brackets (37 1/8" wheel to wheel).

MODULAR 9" FLOATER ASSEMBLIES

91700 Full Floating Mod. Aluminum Rear8196.00
Floater with 1/2" mount brackets for 5" x 5 or 5 1/2" x 5 B.C, complete with Series II spindles, 57010 thirdmember (any ratio), brake assembly with lightened discs, MW calipers, one-piece axle, width 33-1/8" wheel to wheel, assembly weight 164 lbs.

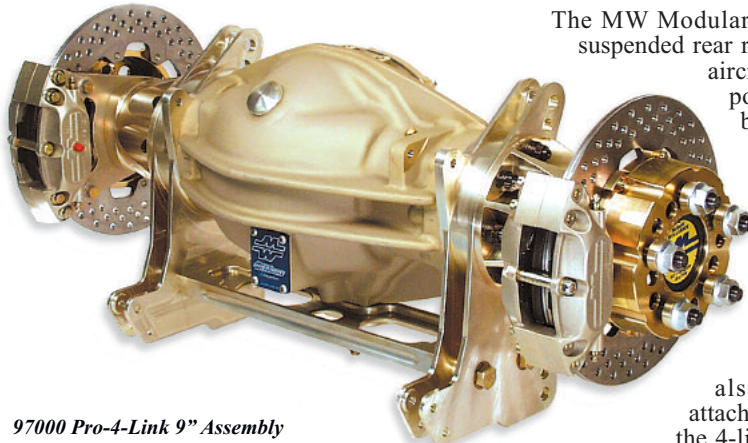
91750 Full Floating Mod. Aluminum Rear10,996.00
Same as 91700 but with MW carbon/carbon brakes, assembly weight 152 lbs.

*See pages 54 & 55 for components to make non-standard width housings. Or call 800-525-1963!

All Modular Housings accept thirdmembers with 10" ring gears without modifications!

toll free
800-525-1963

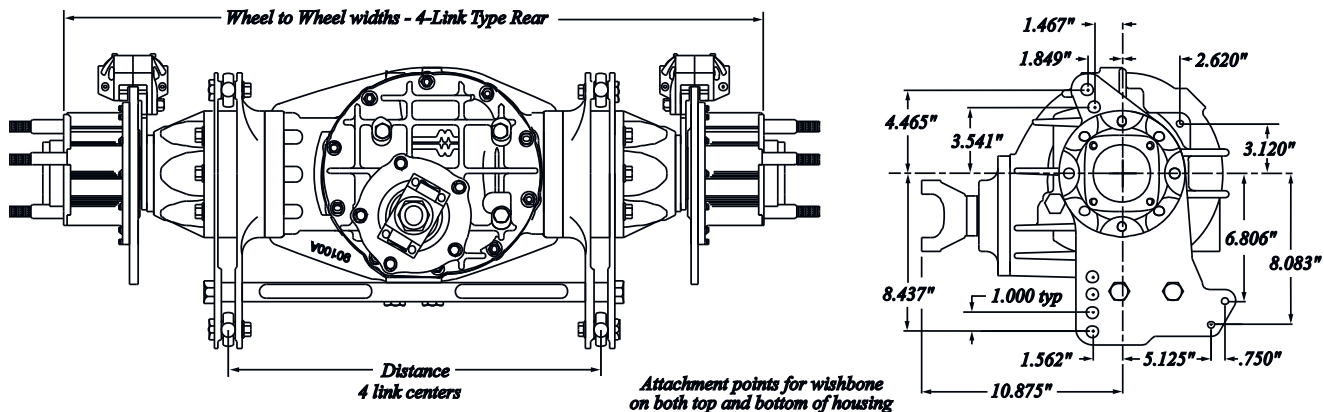
on the web
www.markwilliams.com



97000 Pro-4-Link 9" Assembly

The MW Modular 9" Pro 4-link housing is an outstanding choice for the suspended rear racecar. All 4 link brackets are CNC machined from 7075 aircraft alloy aluminum. The layout of the 4-link attachment points is the same as used by the leading pro stock chassis builders.

Units are available in both floater and flange type axle configurations. Unique design features include indexing lugs on each 4-link bracket that positively lock inner and outer brackets to each other and to the housing. This insures perfect alignment of all components and eliminates the possibility of the housing and thirdmember shifting between the brackets. To further strengthen the assembly, aluminum cross tie bar is used to secure the 4-link brackets to the bottom of the housing. The housing also has provisions for either upper or lower wishbone attachment along with shock and wheelie bar mounts. Holes in the 4-link brackets accommodate rod ends with 5/8" cross-holes. Standard housing has a 37" wheel-to-wheel width and 20" 4 link centers. Others widths are available (see charts on page 54 & 55).



9" MODULAR PRO 4-LINK HOUSINGS

96000 Mod 4-Link Flange Axle Housing4181.00
Modular housing, aluminum 4-link brackets 37" wheel to wheel, 20" 4-link centers for flange type axles. See chart on pages 54-55 for other 4 link centers and wheel to wheel widths. (Other widths avail with extra charge).

98700 Mod 4-Link Full Floater Housing4980.00
Modular Floater housing, aluminum 4-link brackets, 36-5/8" wheel to wheel, 20" 4-link centers for Full Floater kit. Call for other 4 link centers and wheel widths. (Other widths available with extra charge)

9" MODULAR PRO 4-LINK ASSEMBLIES

97000 Complete Modular 4-Link Flange Rear . .11,732.00
3.812 bore H-D 10" ring gear aluminum thirdmember with 40 spline steel spool, Pro-gears, 50500 gun-drilled 40 spline flange axles, MW brakes with lightened rotors, 37" wheel to wheel and 20" 4 link centers standard. (Other widths available at extra charge) 160 Lbs.

99700 Complete Modular 4-Link Floater Rear . .12,389.00
Large bore H-D aluminum 10" thirdmember with 40 spline steel spool, Pro-gears, gun drilled 40 spline axles, MW brakes with lightened rotors, 36-5/8" wheel to wheel and 20" aluminum 4-link brackets. (Other widths available at extra charge) 185 Lbs

97050 Complete Modular 4-Link Flange Rear . .13,662.00
Same as 97000 but with MW carbon/carbon brakes.

99750 Complete Modular 4-Link Rear15,305.00
Same as 99700 but with MW carbon/carbon brakes.

The models listed are typical assemblies. We can build you a rear to suite your individual requirements with a different thirdmember and axle/brake combinations. We can supply a drawing of the available 4-link bolt patterns upon request. Different configurations are available. Call for a quotation on a rear with the options that meets your requirements.

9" PRO 4-LINK



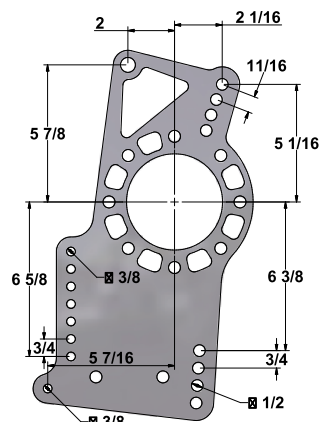
99785 Pro-4-Link 9" Assembly

The MW Modular 9" 4-link housing is available with 4130 steel 4-link suspension mounts. The steel brackets feature the key alignment lugs for extra strength. The result is a 17-1/4" 4-link center distance plus the added durability of steel brackets.

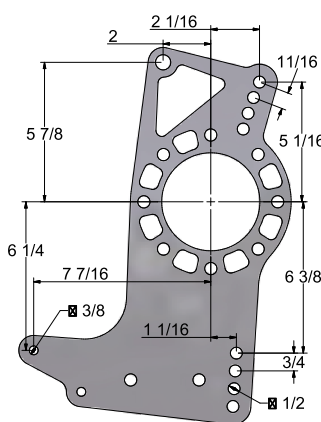


90039 Coil Over Shock Mount

Available with coil-over spring mounts, that are fixed or adjustable with aluminum shock mounting brackets. Housings accept the 4.00" Bore MW thirdmembers without modifications. The complete rears are available with the 10" ring and pinion that can include the 100% angular contact ball bearing assembly. 4-link centers can be as narrow as 16" with an optional modified (14-3/8") center housing.



90041 ADJUSTABLE MOUNT BRACKET



90043 FIXED MOUNT BRACKET



98780 Floater Housing
17-1/4" 4-Link centers

9" MODULAR PRO STEEL 4-LINK HOUSINGS

96780 Mod Steel 4-Link Flange Axle Housing . . .4025.00
Modular housing, Fixed 4130 steel brackets 34" wheel to wheel, 17-1/4" 4-link centers for flange type axles. See chart on page 53 wheel to wheel widths. (Other widths available with extra charge).

98780 Mod Steel 4-Link Full Floater Housing . . .4648.00
Modular Floater housing, 1/4" 4340 fixed 4-link brackets, 34 5/8" wheel to wheel, 17-1/4" 4-link centers for Full Floater kit. Call for other 4 link centers and wheel widths. (Other widths available with extra charge)

9" MODULAR PRO STEEL 4-LINK ASSEMBLIES

97780 Complete Steel 4-Link Flange Rear . . .10,696.00
4.00 bore H-D aluminum thirdmember all ball bearings with 40 spline steel spool, 10" Pro-gears, 50500 gun drilled 40 spline flange axles, MW brakes with lightened rotors, 34" wheel to wheel with 17-1/4" Steel 4 link centers standard. (Other widths available at extra charge)

97785 Complete Steel 4-Link Flange Rear . . .13,506.00
Same as 97780 but with MW carbon/carbon brakes.

All Modular Housings accept thirdmembers with 10" ring gears without modifications!

99780 Complete Modular 4-Link Floater Rear . .11,946.00
Large bore 10" H-D aluminum thirdmember with 40 spline steel spool, 10" Pro-gears, gun drilled 40 spline floater axles, Steel disc brakes with lightened rotors, 34-5/8" wheel to wheel with 17-1/4" Steel 4 link centers standard. (Other widths available at extra charge)

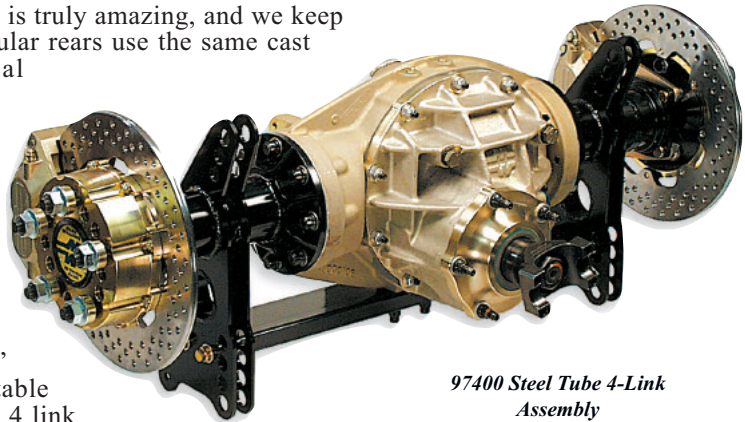
99785 Complete Modular 4-Link Rear . . .14,746.00
Same as 99780 but with MW carbon/carbon brakes.

90039 Adjustable Coil Over Shock Mounts brackets and mounts add \$117.59

toll free
800-525-1963

on the web
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The versatility of the MW 9" Ford aluminum modular rear is truly amazing, and we keep expanding the possible combinations. All steel tube modular rears use the same cast aluminum center, and either steel end bells or special aluminum end bells attached to 3" chromoly axle tubes. Steel tubes allow installation of 4 link or ladder bar brackets, spring pads, or any other combination available with a traditional housing. In addition, steel tubes allow for much wider housing widths than the aluminum configurations. This opens up many new applications for the MW modular housing. Using steel end bells, 4-link housings can be built with MW laser cut 4-link brackets made from 1/4" thick steel plate. The 4-link attachment points on these brackets are similar to our aluminum brackets and accommodate 5/8" cross-hole rod end. Other mounting holes for the adjustable shock mounts and wheelie bar mounts are 3/8" diameter. 4 link centers can be as narrow as 21". To add rigidity to the 4 link mounts, a 1" X 3" steel cross tube is used to tie the 4-link brackets to the bottom of the housing.



97400 Steel Tube 4-Link Assembly

MODULAR 9" STEEL TUBE 4-LINK HOUSINGS

96400 Steel Tube Modular 4-Link Housing3230.00
Any width housing, any 4-Link center to centers (min. 21"), 3" X .250" wall 4130 steel tubes with steel end bells with choice of MW housing ends.

97400 Steel Tube Modular 4-Link Assembly8160.00
Complete with Aluminum thru bolt case, 40 spline axles, lightweight steel spool, 9" Pro Gear, Steel 4-Link brackets, with tie bar, MW disc brakes, drive studs, 1350 series pinion yoke, any housing width, any width 4-Link centers (21" minimum).

MODULAR 9" STEEL TUBE ASSEMBLIES



95500 Steel Tube Housing

The alternate method of attaching the steel tubes to the MW 90000-series modular aluminum center is fitting special aluminum end bells to the 3" chromoly tubes, which can be built to any length and with any MW housing end. This method is best suited for "Street Rod" applications giving the rear a more hi-tech look. Suspension, wheelie bar, and spring mounts can be attached to the tubes at the discretion of the builder just as with a normal steel 9" housing. The most obvious benefit is the ability to use the interchangeable, easy-to-maintain 9" Ford thirdmember.

95000 Steel Tube Modular Street Assembly6150.00
With aluminum end bells and 4130 tubes, your spring/suspension mounts. Any make housing ends. Pro-Street axles with Timken wheel bearings. Includes lightweight aluminum thirdmember and 31 spline posi, minimum of 38" housing width (less brakes).

95500 Steel Tube Modular Housing2736.00
3" diameter tubes with end bells for street/strip use. Spring pad or suspension mount installation is additional.

The models listed are typical assemblies. We can build you a rear to suite your individual requirements with a different thirdmember and axle/brake combinations. We can supply a drawing of the available 4-link bolt patterns upon request. Different configurations are available. Call for a quotation on a rear with the options that meets your requirements.

12 BOLT ECONO/COMP

MW's 12 bolt Econo/Comp modular aluminum housing is ideal for many dragster/altered applications. The center casting is only 14" wide. When used with standard end bells the housing width is 24". This gives a wheel to wheel width of 30 1/8" allowing for the narrow rear tread width that is popular today with a number of dragster chassis builders. Other widths are available. See page 54&55 for choices. This is easily done through the use of different end bells. The 12 Bolt ring and pinion has also become popular due to its reduced internal friction. This improved efficiency frees up horsepower

and becomes more beneficial in lightweight cars or lower horsepower cars.



93412 Econo/Comp
4-Link Housing
shown without axles

For suspended dragsters we offer the Econo/Comp 4 link housing (shown at left). It incorporates special steel 4 link brackets and aluminum spacers along with a tubular lower tie bar. These new components make it easier than ever to convert a MW modular solid mount dragster housing to a 4-link set-up. Another important factor is the weight of the assembly. At 122 lbs. with drilled steel rotors, the Modular 12 Bolt can easily save 10 lbs. over a 9" Ford. For the super weight conscience racer, additional weight savings of roughly 15 lbs. is possible through the use of an aluminum spool, lightened gear, and MW carbon/carbon disc brakes.

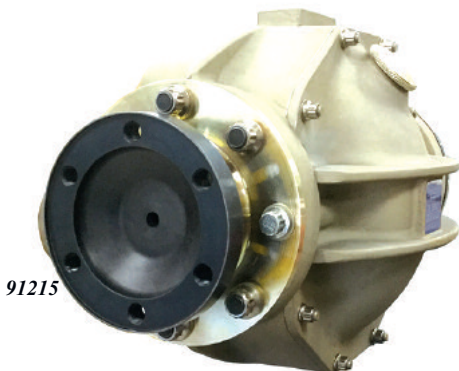


93012 Modular 12 Bolt Econo/Comp Assembly

12 BOLT ECONO/COMP ASSEMBLIES

93012 12 Bolt Econo/Comp Assembly6333.00
35 spline aluminum spool, lightened Pro ring and pinion gears, MW axles (gun drilled), bearings, drive studs, MW disc brake kit with drilled rotors, 92012 solid mount housing. Assembled weight 122 lbs.

93052 12 Bolt Pro Econo/Comp Assembly9134.00
Same as 93012 but with MW carbon/carbon brakes. Assembled weight 112 lbs.



91215

93412 12 Bolt Econo/Comp 4-Link Assembly . . .7062.00
35 spline aluminum spool, lightened Richmond Pro ring and pinion gears, MW axles (gun drilled), bearings, drive studs, MW disc brake kit with drilled rotors, 4 link housing. Assembled weight 138 lbs.

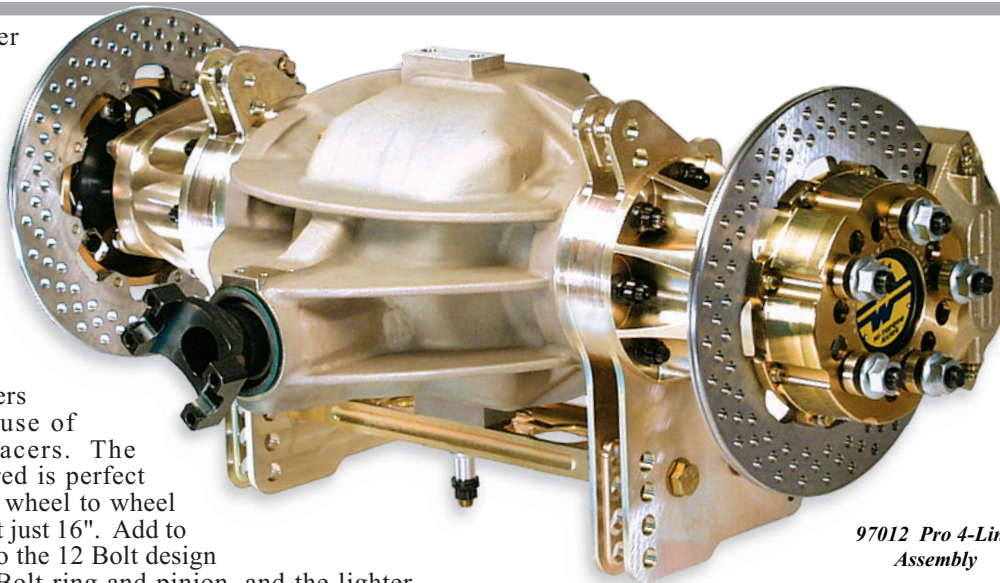
93452 12 Bolt Mod Econo/Comp Assembly9862.00
Same as 93412 but with MW carbon/carbon brakes. Assembled weight 128 lbs.

91215 12 Bolt Center for IRS3102.00
Center with Posi or Truetrac gears with Axles for CV joints.

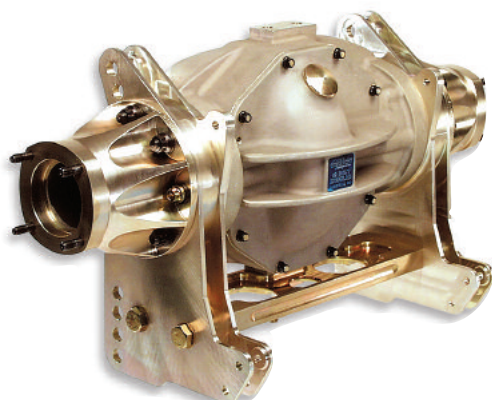
The 12 Bolt Modular center section is available as a ridged-mount center section featuring CV stub axles for independent rear suspension applications. Call an MW Technical representative for more information.

With the current trend in Super Comp toward suspended dragsters and altered, the MW Modular 12 Bolt Pro 4 Link housing is the answer. The Pro 4 link housing offers many benefits over mounting a steel 12 bolt housing with suspension brackets.

MW's innovative modular design allows for a wide range of housing configurations. Housing width and 4 link centers can be adjusted through the use of different end bells and/or spacers. The housing in the assembly pictured is perfect for dragster applications with a wheel to wheel width of 33" and 4 link centers at just 16". Add to this all of the MW refinements to the 12 Bolt design increased efficiency of the 12 Bolt ring and pinion, and the lighter assembly weight vs a 9" Ford and it's easy to see that the MW Modular 12 Bolt really meets the needs of light weight race cars.



97012 Pro 4-Link Assembly



Pro 4-Link 12 Bolt Housing for fanged Axles

DESIGN FEATURES:

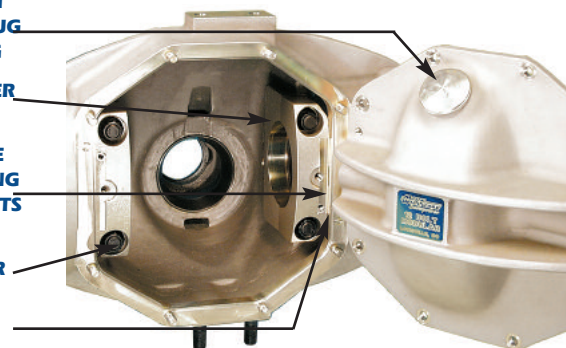
INSPECTION/FILL PLUG IN COVER, A DRAIN HOLE/PLUG IN BOTTOM OF HOUSING

THREADED SPOOL-CARRIER ADJUSTMENT

COVER LOCKS ON INSIDE EDGE AND USES AN O-RING SEAL TO ELIMINATE GASKETS AND LEAKS.

THRU BOLTS INTO COVER

CAPS SUPPORTED BY HOUSING WALL



12 BOLT PRO 4-LINK ASSEMBLIES

97012 12 Bolt Pro 4-Link Assembly8934.00
With aluminum billet 4-link brackets, aluminum end bells, 35 spline aluminum spool, US Pro-gears, gun-drilled axles, MW disc brakes with drilled rotors. Standard 35" wheel to wheel. 138 lbs.

97512 12 Bolt Pro 4-Link Assembly11,734.00
Same assembly as 97012 shown at left but equipped with a MW carbon/carbon brake kit. 128 lbs.

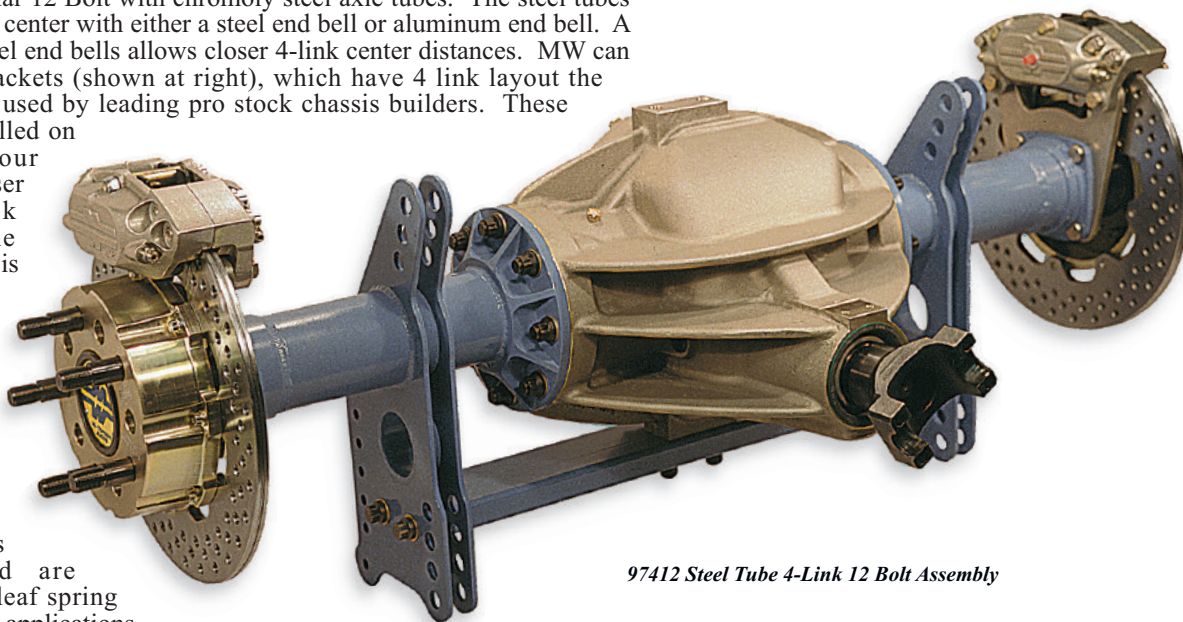
See pages 54 & 55 for a complete list of the housing widths and 4 link center combinations available using different end bells and/or spacers.

12 BOLT STEEL TUBE REARS

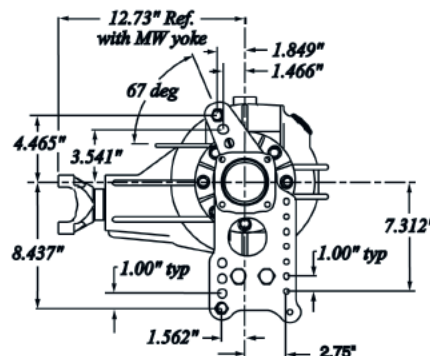
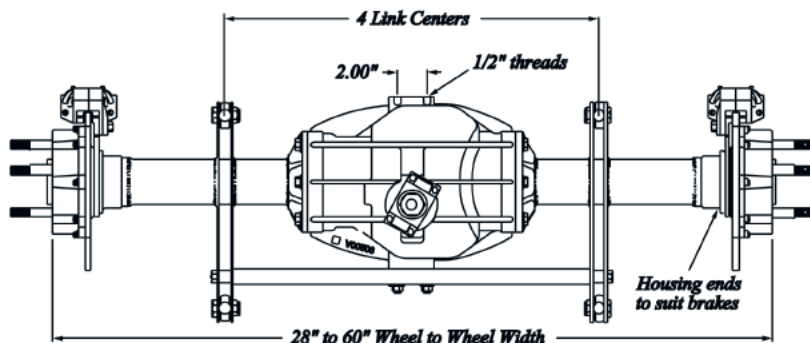


MW offers the Modular 12 Bolt with chromoly steel axle tubes. The steel tubes can be attached to the center with either a steel end bell or aluminum end bell. A housing built with steel end bells allows closer 4-link center distances. MW can supply the 4 link brackets (shown at right), which have 4 link layout the similar to the layout used by leading pro stock chassis builders. These brackets can be installed on the centers of your choice. They are laser cut from 1/4" thick steel plate. The hole size for the rod ends is 5/8", other mounting holes for shock and wheelie bar mounts are 3/8" diameter. The 1" X 3" tubular steel tie bar is added to stabilize the 4 link brackets.

Aluminum end bells are available and are normally used with leaf spring applications for street applications. This method adds to the high-tech look of the housing. Spring pads can be added for bolt in units.



97412 Steel Tube 4-Link 12 Bolt Assembly



12 BOLT STEEL TUBE ASSEMBLIES

95412 12 Bolt Steel Tube Assembly5360.00
12 Bolt modular housing with **steel end bells** and housing ends to suit brakes, **MasterLine** axles 30 spline Eaton posi, 8620 street gears (3.08 - 4.88 ratios), 1350 pinion yoke, fully assembled. (less brakes)

97412 12 Bolt Steel Tube 4-Link Assembly7034.00
Complete with Hi-Torque 35 spline axles, lightweight steel spool, US Pro Gear, Steel 4-Link brackets, with rectangular tie bar, MW disc brakes (Drilled Rotors), drive studs, 1350 pinion yoke, any desired housing width, any width 4-Link centers.

Mark Williams can also install customers supplied ladder bar or 4 link brackets, shock mounts, wheelie bar mounts, spring pads etc. on steel tube housings. Call for pricing and more information on a housing to fit your exact needs.

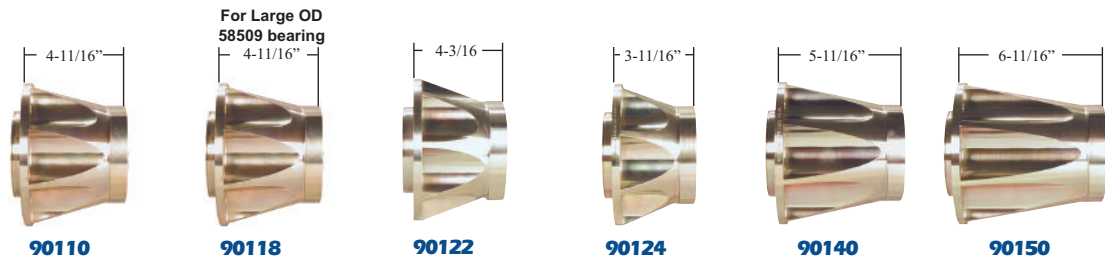
toll free
800-525-1963

on the web
www.markwilliams.com

CONFIGURATIONS



FLANGE AXLE END BELLS



	90110	90118	90122	90124	90140	90150
9" OR 12" SOLID MOUNT REAR	32 1/8" WHEEL TO WHEEL	32 1/8" WHEEL TO WHEEL	31 1/8" WHEEL TO WHEEL	30 1/8" WHEEL TO WHEEL	34 1/8" WHEEL TO WHEEL	36 1/8" WHEEL TO WHEEL
9" OR 12" 4 LINK 17-1/4" CENTERS	34" WHEEL TO WHEEL	34" WHEEL TO WHEEL	33" WHEEL TO WHEEL	32" WHEEL TO WHEEL	36" WHEEL TO WHEEL	38" WHEEL TO WHEEL
9" OR 12" 4 LINK REAR 18" CENTERS	35" WHEEL TO WHEEL	35" WHEEL TO WHEEL	34" WHEEL TO WHEEL	33" WHEEL TO WHEEL	37" WHEEL TO WHEEL	39" WHEEL TO WHEEL
9" OR 12" 4 LINK REAR 19" CENTERS	36" WHEEL TO WHEEL	36" WHEEL TO WHEEL	35" WHEEL TO WHEEL	34" WHEEL TO WHEEL	38" WHEEL TO WHEEL	40" WHEEL TO WHEEL
9" OR 12" 4 LINK REAR 20" CENTERS	37" WHEEL TO WHEEL	37" WHEEL TO WHEEL	36" WHEEL TO WHEEL	35" WHEEL TO WHEEL	39" WHEEL TO WHEEL	41" WHEEL TO WHEEL
9" OR 12" 4 LINK REAR 21" CENTERS	38" WHEEL TO WHEEL	38" WHEEL TO WHEEL	37" WHEEL TO WHEEL	36" WHEEL TO WHEEL	40" WHEEL TO WHEEL	42" WHEEL TO WHEEL
9" OR 12" 4 LINK REAR 22" CENTERS	39" WHEEL TO WHEEL	39" WHEEL TO WHEEL	38" WHEEL TO WHEEL	37" WHEEL TO WHEEL	41" WHEEL TO WHEEL	43" WHEEL TO WHEEL
12 BOLT SOLID MOUNT REAR	30 1/8" WHEEL TO WHEEL	30 1/8" WHEEL TO WHEEL	29 1/8" WHEEL TO WHEEL	28 1/8" WHEEL TO WHEEL	32 1/8" WHEEL TO WHEEL	34 1/8" WHEEL TO WHEEL
12 BOLT 4 LINK REAR 16" CENTERS	33" WHEEL TO WHEEL	33" WHEEL TO WHEEL	32" WHEEL TO WHEEL	31" WHEEL TO WHEEL	35" WHEEL TO WHEEL	37" WHEEL TO WHEEL
12 BOLT 4 LINK REAR 17" CENTERS	34" WHEEL TO WHEEL	34" WHEEL TO WHEEL	33" WHEEL TO WHEEL	32" WHEEL TO WHEEL	36" WHEEL TO WHEEL	38" WHEEL TO WHEEL
12 BOLT 4 LINK REAR 18" CENTERS	35" WHEEL TO WHEEL	35" WHEEL TO WHEEL	34" WHEEL TO WHEEL	33" WHEEL TO WHEEL	37" WHEEL TO WHEEL	39" WHEEL TO WHEEL
12 BOLT 4 LINK REAR 19" CENTERS	36" WHEEL TO WHEEL	36" WHEEL TO WHEEL	35" WHEEL TO WHEEL	34" WHEEL TO WHEEL	38" WHEEL TO WHEEL	40" WHEEL TO WHEEL
12 BOLT 4 LINK REAR 20" CENTERS	37" WHEEL TO WHEEL	37" WHEEL TO WHEEL	36" WHEEL TO WHEEL	35" WHEEL TO WHEEL	39" WHEEL TO WHEEL	41" WHEEL TO WHEEL

THE MW MODULAR rear can be configured for flange axles or floater hubs to meet any requirement. These charts list the most popular configurations. In addition some of the modular rears used for front motor applications can use spacers between the housing and the mounting brackets to align the attachment point closer to the chassis rails.

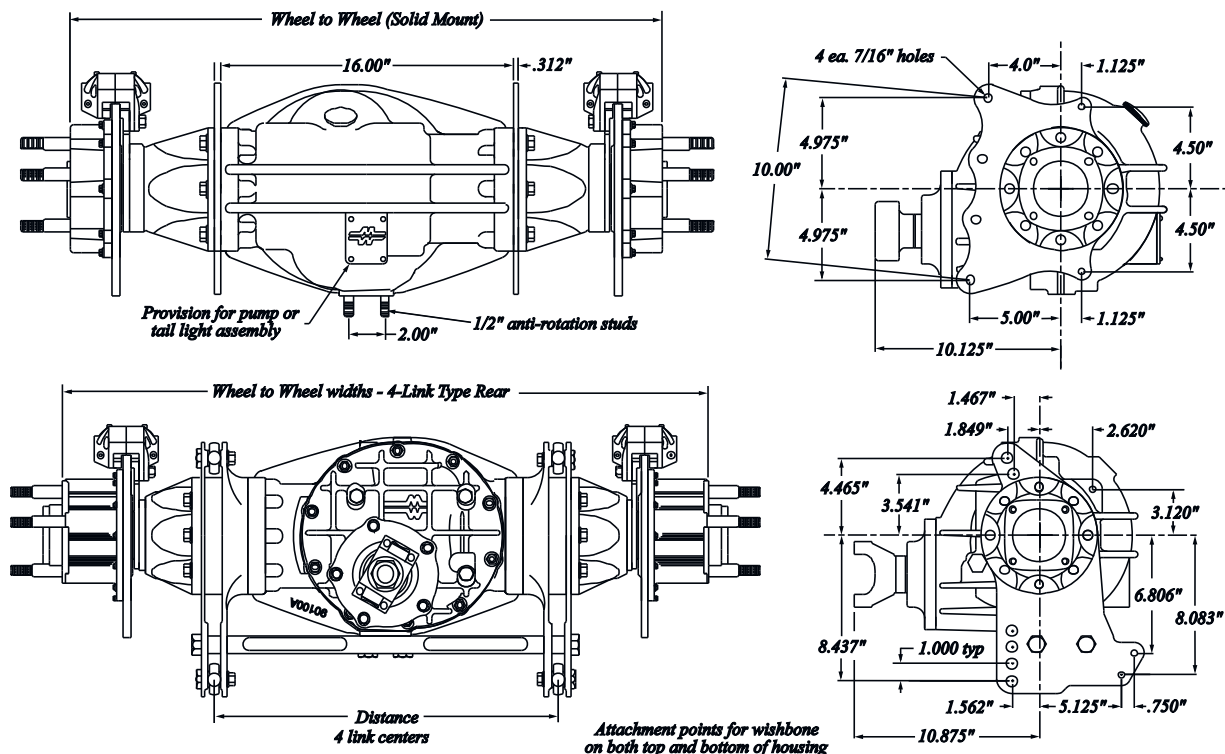


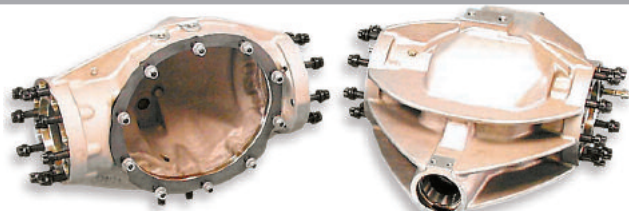


SERIES II FLOATER END BELLS

90323	90322	90320	90324	90321	
31-1/8 WHEEL TO WHEEL	32-1/8 WHEEL TO WHEEL	33-1/8 WHEEL TO WHEEL	35-1/8 WHEEL TO WHEEL	37-1/8 WHEEL TO WHEEL	9" OR 12" SOLID MOUNT REAR
32-5/8 WHEEL TO WHEEL	33-5/8 WHEEL TO WHEEL	34-5/8 WHEEL TO WHEEL	36-5/8 WHEEL TO WHEEL	38-5/8 WHEEL TO WHEEL	9" OR 12" 4 LINK 17-1/4" CENTERS
33-5/8 WHEEL TO WHEEL	34-5/8 WHEEL TO WHEEL	35-5/8 WHEEL TO WHEEL	37-5/8 WHEEL TO WHEEL	39-5/8 WHEEL TO WHEEL	9" OR 12" 4 LINK REAR 18" CENTERS
34-5/8 WHEEL TO WHEEL	35-5/8 WHEEL TO WHEEL	36-5/8 WHEEL TO WHEEL	38-5/8 WHEEL TO WHEEL	40-5/8 WHEEL TO WHEEL	9" OR 12" 4 LINK REAR 19" CENTERS
35-5/8 WHEEL TO WHEEL	36-5/8 WHEEL TO WHEEL	37-5/8 WHEEL TO WHEEL	39-5/8 WHEEL TO WHEEL	41-5/8 WHEEL TO WHEEL	9" OR 12" 4 LINK REAR 20" CENTERS
36-5/8 WHEEL TO WHEEL	37-5/8 WHEEL TO WHEEL	38-5/8 WHEEL TO WHEEL	40-5/8 WHEEL TO WHEEL	42-5/8 WHEEL TO WHEEL	9" OR 12" 4 LINK REAR 21" CENTERS
37-5/8 WHEEL TO WHEEL	38-5/8 WHEEL TO WHEEL	39-5/8 WHEEL TO WHEEL	41-5/8 WHEEL TO WHEEL	43-5/8 WHEEL TO WHEEL	9" OR 12" 4 LINK REAR 22" CENTERS

All dimensions are in inches. Solid mount widths are shown with 1/2" brackets.. 17-1/4" 4-Link centers is with 1/4" steel brackets. Call for special widths.





90100

90200

90100 9" Ford Modular Center1322.00
Includes all studs, nuts and washers for end bells and center section, filler cap, vent and pump block off plate. Specify the thickness of the end bells or 4-link brackets to determine the proper end bell stud.

90200 12 Bolt Main Modular Center1247.00
With all studs, nuts and washers for end bells, main caps, adjusters and cast rear cover with filler cap and vent. Specify the thickness of the end bells or 4-link brackets to determine the proper end bell stud.

SOLID MOUNT AND 4-LINK BRACKETS

All modular brackets for solid mount applications are CNC machined from 7075-T6 billet aluminum plate. 1/2" brackets are pocket milled on both sides. Steel 4 link brackets are laser cut 1/4" 4130 and NC milled to mate to keyed spacers.

90012 1/2" Mount Bracket (12" Mod) (ea.)175.00

90115 5/16" Mount Bracket (ea.)166.00

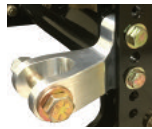
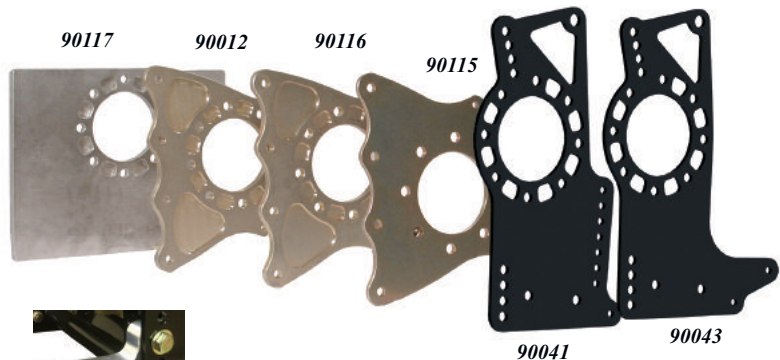
90116 1/2" Mount Bracket (9" Mod.) (ea.)162.00

90117 1/2" Mount Bracket, Blank (ea.)155.00
14" X 12", hole center is 3" in, semi-finished plate

90041 4-Link Bracket Adjustable Height (ea) ..175.00
For 90039 shock mount, 1/4" thick 4130 material

90043-I 4-Link Bracket Fixed Height (ea)175.00
1/4" 4130 material for 17-1/4" narrow 4-link centers

90039 Adjustable Coil Over Mount Kit117.50
for the 90041 4-link bracket kit (pr)



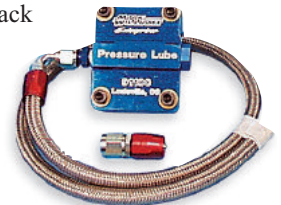
90039

FLUID PUMP ASSEMBLY

Mark Williams 9" and 12" Modular rears are set up to accept a fluid pump to circulate rear end lubricant from the back of the housing forward to the pinion bearings and the gear contact area to extend bearing and ring and pinion life. Pump is driven off the rear of the pinion shaft. Pump assembly includes pump shaft, required fittings, braided hose, and fasteners.

91100 Pressure Lubrication Pump Assembly645.00
Pump drive requires 3/8 hex in pinion shaft (see below).

91110 Broach Hex Drive in Pinion (labor only)138.00



91100

SPACERS, SEALS & TAIL LIGHT

90108 Rear Cover for Tail Light42.00
Replaces standard pump block off plate.

90127 End Bell Axle Seal10.20
Fits into center casting before end bell is installed

96020 1/2" Thick Keyed Spacer (ea.)192.00
Keyed spacers can be used to change 4 link centers and/or housing width on modular housings. Requires special studs.

96022 1" Thick Keyed Spacer (ea.)204.00
Keyed spacers can be used to change 4 link centers and/or housing width on modular housings. Requires special stud

96022-XXX Special Thick Outboard Spacer (ea.)POA



96022-3375



96022-1000



90127

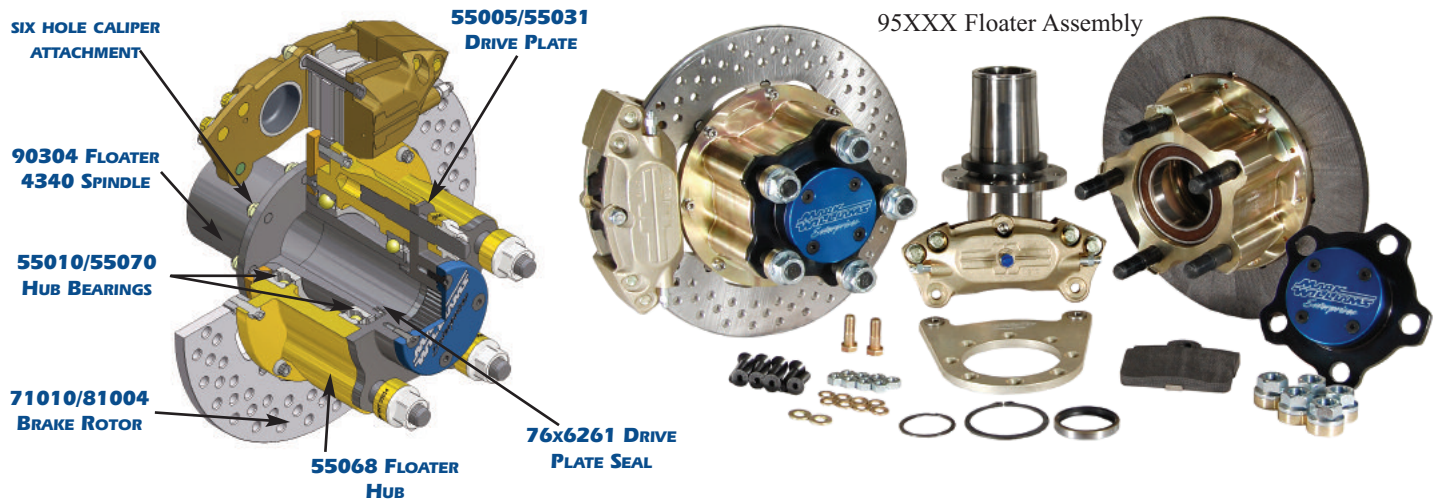


90108



90109

FULL FLOATER HUB KITS



The MW Full Floater assembly is required by most sanctioning bodies for Fuel, Alcohol, and Pro Modified racecars. In the event of an axle failure, the floating hub will prevent wheel loss. An added performance advantage is that the wheel alignment is maintained under high acceleration load situations, preventing a "toe in" condition. The Series II floater assemblies feature a handful of new improvements. A larger inside bearing allows thicker spindle cross-section preventing crack propagation under severe tire-shake conditions. The forged aluminum hub has improved stud retention with deeper counter-bores and longer threads engagement. Hubs are available with either 4-3/4", 5" or 5-1/2" X 5 hole bolt circle. Spindles are produced from forged 4340 chrome-nickel-molybdenum steel and heat-treated. Floater axles are available in the standard 4340 or 300M, solid or gun-drilled. Drive plates are 40-spline and heat-treated alloy steel or aluminum drive plates with steel spline insert as a option.

Kits are available with conventional steel rotors or carbon-carbon setups that feature our Slot-Drive™ rotor attachment technology. Upgrade options include ceramic wheel bearings and four caliper brake kits. The floater kits are also available with long spindles, or without spindles to fit modular housings already equipped with spindles.

STANDARD FLOATER KITS

Kits Without Spindles

95475 Full Floater Hub Assembly	3334.00
<i>40 spline axles, 4-3/4" x 5 hole bolt pattern, Less floater spindles.</i>	
95750 Full Floater Hub Assembly	3334.00
<i>40 spline axles, 5" x 5 hole bolt pattern. Less floater spindles.</i>	
95850 Full Floater Hub Assembly	3334.00
<i>40 spline axles, 5-1/2" x 5 hole bolt pattern. Less floater spindles.</i>	

Complete Kits

95470 Full Floater Hub Assembly	4397.00
<i>40 spline axles, 4-3/4" x 5 hole bolt pattern</i>	
95700 Full Floater Hub Assembly	4397.00
<i>40 spline axles, 5" x 5 hole bolt pattern.</i>	
95800 Full Floater Hub Assembly	4397.00
<i>40 spline axles, 5-1/2" x 5 hole bolt pattern.</i>	

CARBON/CARBON FLOATER KITS

95485 Full Floater Hub Assembly, Carbon	6250.00
<i>40 spline axles, 4-3/4" x 5 hole bolt pattern. Less floater spindles.</i>	
95450 Full Floater Hub Assembly, Carbon	6250.00
<i>40 spline axles, 5" x 5 hole bolt pattern. Less floater spindles.</i>	
95570 Full Floater Hub Assembly, Carbon	6250.00
<i>40 spline axles, 5-1/2" x 5 hole bolt pattern. Less floater spindles.</i>	

95480 Full Floater Hub Assembly, Carbon	7308.00
<i>40 spline axles, 4-3/4" x 5" bolt pattern.</i>	
95400 Full Floater Hub Assembly, Carbon	7308.00
<i>40 spline axles, 5" x 5 hole bolt pattern.</i>	
95555 Full Floater Hub Assembly, Carbon	7308.00
<i>40 spline axles, 5 x 5" bolt pattern.</i>	

FLOATER KIT OPTIONS

11-3/8" Diameter Disc for 15" Wheels	P.O.A.
Dual Caliper Option (4 Caliper)	P.O.A.
Titanium Wheel Studs	P.O.A.
Aluminum Lug Nuts	P.O.A.
300M Material Axle Shafts gun drilled	P.O.A.

Floater Axles (non-standard lengths*)	P.O.A.
Long Spindle Upgrade	P.O.A.
Ceramic Bearing upgrade	P.O.A.
Aluminum Drive Plates upgrade	P.O.A.

* Stocked axle lengths are for 32" to 38" wheel to wheel

toll free
800-525-1963

on the web
www.markwilliams.com

FLOATER COMPONENTS

The MW unique ball bearing floater design, is easily identified by the large snap ring that retains the hub. This is a very successful drag race design and is race proven. We stock most everything you need for repair and/or replacement, or to update your current floater assembly.

55066	MW Floater Hub for Steel Rotor (ea)	.575.00
	<i>5" bolt circle, less bearings and wheel studs Series II design.</i>	
55068	MW Floater Hub for Steel Rotor (ea)	.595.00
	<i>5-1/2" bolt circle, less bearings and wheel studs Series II design.</i>	
55080	MW Floater Hub for Steel Rotor (ea)	.595.00
	<i>4-3/4" bolt circle, less bearings and wheel studs Series II design.</i>	
55067	MW Carbon/Carbon Floater Hub (ea)	.630.00
	<i>5" bolt circle, less bearings and wheel studs Series II design.</i>	
55090	MW Carbon/Carbon Floater Hub (ea)	.630.00
	<i>4-3/4" bolt circle, less bearings and wheel studs Series II design.</i>	
55069	MW Carbon/Carbon Floater Hub (ea)	.630.00
	<i>5 1/2" bolt circle, less bearings and wheel studs Series II design.</i>	
90304	Floater Spindle, Short Series II (ea)	.540.00
	<i>Short spindle 7-7/16" over all length 3-1/32" length from flange.</i>	
90337	Floater Spindle, Long Series II (ea)	.762.00
	<i>Long spindle 12-9/16" over all length, 8-1/8" length from flange.</i>	
55005	40 Spline Drive Plate Steel 5" BC (ea(ea))	.265.00
55085	40 Spline Drive Plate Steel 4-3/4" BC (ea)	.265.00
55031	40 Spline Drive Plate, Steel 5 1/2" BC (ea)	.265.00
55025	40 Spline Drive Plate Alum 5" BC (ea)	.345.00
55026	40 Spline Drive Plate Alum 5-1/2" BC (ea)	.345.00
55008-40-XX	Floater Axle Shafts, std. lengths (pr)	.632.00
	<i>Fits range widths from 32" to 38" wheel to wheel 4340 gun drilled</i>	

55008CG	Floater Axle Shafts Gun-Drilled (pr)	.722.00
	<i>4340 material gun drilled custom lengths</i>	
55008M	Floater Axle Shafts, (pr)	.920.00
	<i>300M material solid (custom made) up to 20".</i>	
55008MG	Floater Axle Shafts, (pr)	.1010.00
	<i>300M material 7/8" Gun drilled (custom made) up to 20".</i>	
55010	Floater Hub Bearing, Outer (ea)	.84.25
	<i>Double sealed ball bearing, 1 per hub.</i>	
55070	Floater Hub Bearing, Inner (ea)	.108.89
	<i>Series II large inner, double sealed Ball Bearing.</i>	
55018	40 Spline Drive Plate Cover (ea)	.38.00
93061	Floater Wheel Stud (ea)	.12.50
	<i>5/8-18 thd. 4.2" over all, 2" shoulder protrudes 11/16" from drive plate.</i>	
71010	Brake Rotor Steel(ea)	.179.00
	<i>Slot drive mounting pattern, 11-3/4" diameter with lightening holes.</i>	
90305	Single Caliper Mount Bracket (ea)	.70.00
	<i>For Series II spindle, 11 3/4" rotor with a single caliper.</i>	
95023	Dual Caliper Mount Bracket (ea)	.119.00
	<i>For Series II spindle, 11 3/4" rotor with dual calipers.</i>	
95029	Dual Caliper Mount Bracket (ea)	.119.00
	<i>For Series II spindle, 11 3/8" rotor with dual calipers, for 15" wheels</i>	
76X6261	40 Spline Drive Plate Seal (ea)	.12.50
3100-255	Spindle Retaining Ring (ea)	.4.65

The parts listed are for current kits. Call for help with older parts`.

BILLET WHEEL SPACERS

7304	1/4" Wheel Spacers (pr)	.70.00
	<i>4-1/2", 4-3/4" & 5" x 5 hole patterns, for 11/16" drive studs.</i>	
7308	1/2" Wheel Spacers (pr)	.98.00
	<i>4-1/2", 4-3/4" & 5" x 5 hole patterns, for 11/16" drive studs.</i>	
7314	1/4" Wheel Spacers for Floater (pr)	.76.00
	<i>4-3/4", 5" & 5 1/2" x 5 hole patterns, for 11/16" drive studs.</i>	
7318	1/2" Wheel Spacers for Floater (pr)	.98.00
	<i>4-3/4", 5" & 5 1/2" x 5 hole patterns, for 11/16" drive studs.</i>	

MW wheel spacers are available in 1/4" and 1/2" thicknesses and are produced from billet aircraft grade aluminum (not cast). All spacers are drilled for use with 11/16" diameter drive studs. All popular wheel bolt patterns are available. The 7304 and 7308 center hole clears a 3-1/16" register. The 7314 and 7318 clears a 3-1/2" floater drive plate.



FILLER CAPS AND BUNGS

MW offers two sizes of filler caps and weld bungs. Either suitable for many different applications, including rear end, valve cover, fuel tanks, etc. Filler cap weld bungs are available in steel or aluminum. Popular size fuel line aluminum weld bungs, drain plug w/bung and screw-in housing vents are also available.

2403	-6 Tank Weld Bung, (Aluminum), (3/8)	.10.30
2404	-8 Tank Weld Bung, (Aluminum), (1/2)	.11.64
5014	Rear Drain Fitting (3/8" pipe thread)	.12.36
5015	Rear Filler Cap, Gold, (Alum)	.18.15
5016	Rear Filler Weld Bung, (Steel)	.14.00
5018	Rear Filler Weld Bung, (Aluminum)	.11.50
5019	Vent Plug Rear Housing (1/4" pipe thread)	.8.50
5020	Fuel Tank Weld Bung, (Aluminum)	.12.25



5021	Vent Plug Rear Housing (1/8" pipe thread)	.8.10
5022	-16 Fuel Line Weld Bung (Aluminum)	.17.50
5030	Fuel Tank Cap (Aluminum)	.32.00
5040	Fuel Tank Filler Weld Bung, (Steel)	.14.00
	<i>Also used for a large rear axle filler/inspection port.</i>	

MARK WILLIAMS Enterprises®

HOUSING ENDS & RETAINERS

MW manufactures a full line of weld on housing ends. Most of our housing ends are CNC machined from **4130 heat treated forgings** and are designed to butt weld to the housing tube. The bolt patterns match the most popular brake assemblies. All MW housing ends are 2" long and have **provisions for inboard seals** that eliminates the possible gear oil leakage through the axle bearings. This extra length also reduces distortion problems of the bearing bore from final welding.

All Pro Street Housing ends use Timken® bearings and special outboard seals. Alignment tools are available to properly install the housing ends (page 59).



58599 for 3.346
85mm Bearing

NOTE: WE RECOMMEND USING THE SYMMETRICAL 58580 OR 58599 HOUSING ENDS FOR ALL DRAG RACE APPLICATIONS USING AFTERMARKET DISC BRAKES.

SYMMETRICAL

58599 Symmetrical Ends (pr)135.00
For 3.346 85 mm O.D. 58509 bearings. This is the housing end and bearing combination used by the top Chassis builders. With the inboard seal it eliminates fluid leakage issues. The mating bearing is a standard industrial bearing that is stronger than the common 3.150 Ford-Olds type bearing. 2" long fig. A

58580 Symmetrical Ends (pr)135.00
For all 3.150 O.D. bearings with a .826 (31mm) wide outer race, internal seal provision 2" long. fig. A

58585 Pro-Street Symmetrical Ends (pr) .160.00
For 58506S Timken® unit bearings with that with 58516 outer seal and uses 58515 internal seal 2" Long fig. A

58595 Ends for 85mm Wide bearing (pr) .232.00
For 58508 Double Row wide bearing 2.25" for seal

OLDS/PONTIAC

58500 Olds/Pontiac (pr)124.00
For all 3.150 O.D. bearings. fig. B 2" Long

58501 Olds/Pontiac Retainers (pr)29.00

CHEVROLET

58400 Full Size GM (pr)166.00
For all 3.150 O.D. bearings. fig. C 2" Long

58410 Full Size GM Retainers (pr)32.00

58230 Standard GM Retainers (pr)32.00

FORD

57800 Small Ford (pr)124.00
For all 3.150 O.D. bearings. fig. E 2" Long

57801 Small Ford Retainers (pr)29.00

57802 New Style Ford Retainers (pr)29.00

57804 Large Ford Retainers (pr)29.00

57805 Lincoln Retainer (pr)29.00

57810 Small Ford Pro Street (pr)124.00
For 58506 Timken® unit bearings. fig. E 2" Long

57820 Large Ford 1/2" Holes Pro Street .124.00
For 58506 Timken® unit bearings. Pair fig. F 2" Long

58600 Standard GM (pr)143.00
For all 3.150 O.D. bearings. fig. D 2" Long

58560 Standard GM Pro Street (pr)175.96
For 58506 Timken® unit bearings. fig. D 2" Long

57830 Large Ford 1/2" Holes (pr)130.00
For all 3.150 O.D. bearings. fig. F 2" Long

57840 Lincoln 3/8" Holes (pr)160.00
For all 3.150 O.D. bearings. fig. F2" Long

57850 Lincoln 3/8" Holes Pro Street (pr) 140.00
For 58506 Timken® unit bearings. fig. F 2" Long

57860 New Style Ford (pr)130.00
For all 3.150 O.D. bearings. fig. G 2" Long

58510 8.8 Ford (pr)240.00
For all 3.150 O.D. bearings. Includes 3/8" backing plate studs. fig. H2" Long

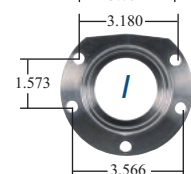
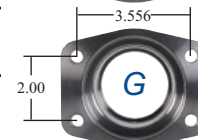
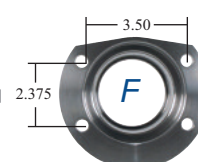
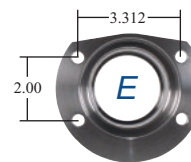
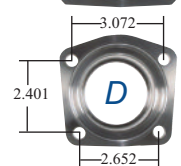
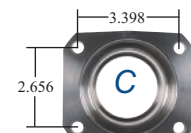
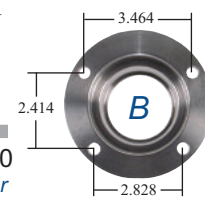
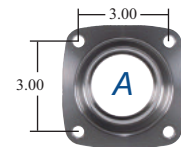
58511 8.8 Ford Retainers (pr)32.00

MOPAR

53188 Mopar Pro Street (pr)198.00
For 58506 Timken® unit bearings. fig. I 2" Long

53189 Mopar (pr)160.00
For all 3.150 O.D. bearings. fig. I 2" Long

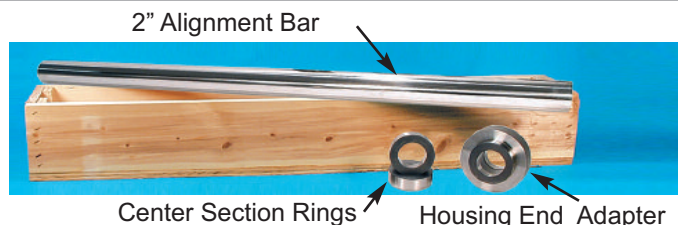
56501 Mopar Retainers (pr)32.00



toll free
800-525-1963

on the web
www.markwilliams.com

Housing Narrowing Tools



300F Housing End Alignment Ford/Ford Kit	.....	.698.00
300M Housing End Alignment Ford/Mopar Kit	.....	.698.00
300S Housing End Alignment 85mm 3.349 Brng. Kit	..	.698.00

The basic kit contains an alignment bar 39-1/2" long (one), a pair of differential centering rings and one housing end aligning sleeve. The kits are supplied with a choice of different bar centering rings (one pair) and housing end adapters (one). Extra rings and sleeves can be purchased to allow narrowing and truing all popular differentials.

Housing End adapters

302	3.150" and 2.875" Diameters	.....	.253.00
	<i>Large Ford Olds-Pontiac (80mm) and Mopar (73mm)</i>		
303	3.150" and 2.834" Diameters	.....	.253.00
	<i>Large Ford Olds-Pontiac (80mm) and Mustang (72mm)</i>		
310	3.349" and 3.150" Diameters	.....	.253.00
	<i>Symmetrical ends (85 mm) & Large Ford Olds-Pontiac (80mm)</i>		

The MW housing alignment tools are the most accurate way to narrow a rear end housing. It is the tool of choice for all the prominent chassis builders. The alignment bar has a large 2" diameter that is heat treated, hard chromed, and precision ground for durability and precise fit to the mating components. By utilizing a hard-chromed surface we can have a close clearance to the rings without a problem of galling to the mating parts. Alignment sleeves and center rings are produced from thru hardening steel, heat treated, honed, then outside diameters are ground on precision arbors. The quality of this tool will allow many years of accurate performance.

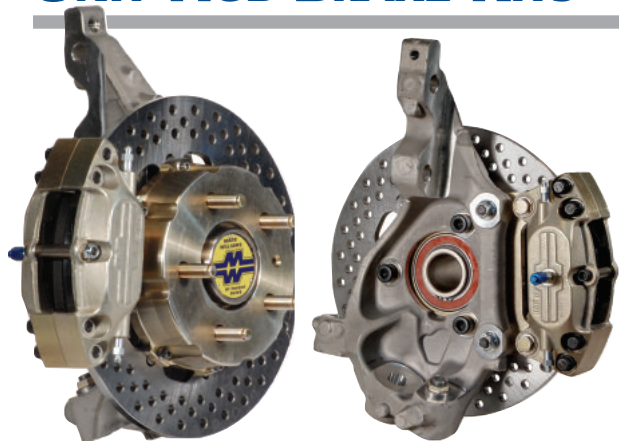
As a added feature, one end of the housing end tool has a 2-1/2" diameter to align the end of a 3" x 1/4 wall housing tube, for tack welding. Kits are shipped in a wooden container that is ideal for storage.

304	Floater Alignment Sleeve	.....	.367.00
	<i>M-W Series II floater spindles.</i>		

Bar Centering Rings

305	Center Section Alignment Rings	.....	.210.00
	<i>Dana 60, 3.812" O.D.</i>		
306	Center Section Alignment Rings	.....	.210.00
	<i>Ford 9", 3.250" O.D.</i>		
307	Center Section Alignment Rings	.....	.210.00
	<i>12-bolt, 8.8" Ford and Ford 9", 3.062" O.D.</i>		
308	Center Section Alignment Rings	.....	.210.00
	<i>Mopar 8-3/4", 3.265" O.D.</i>		

UNIT HUB BRAKE KITS



75530 Disc Kit with 75538 Hub and Spindle Modifications

Mark Williams Enterprises now has a high quality front brake kit available for the Generation 5 GM cars that utilize a Unit Front Hub design. Kit features Slot-Drive™ disc attachment system that is produced from rust resistant stainless steel. This design allows components to thermally expand and contract without creating warping stress common in other systems. This precision kit features heat-treated large diameter steel alloy rotors. The lightening holes reduce rotating weight and create a fresh friction surface on the brake pads ensuring optimal stopping surfaces. All brackets are made from 7075 grade aircraft aluminum alloy and feature a gold finish. The MW brake kit maintains the original track width to preserve the original steering geometry. Our kit features four piston MW calipers with internal porting.

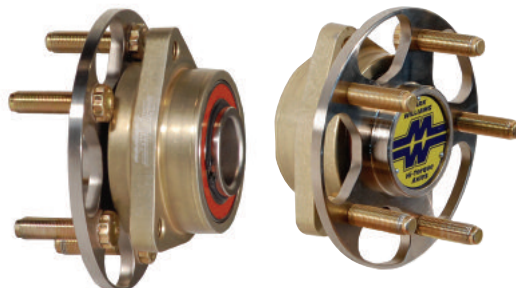
75530	GM Gen 5 Disc brake kit	.....	.1492.00
	<i>Requires spindle modifications for caliper and rotor hat clearance. See service Bulletin # SB0090 for modifications required.</i>		

75530-MOD	Modify Customers Spindles (pr)60.00
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SUPER LIGHT GEN 5 CAMARO HUB

For the COPO cars. This is a direct replacement for the heavy and high drag OEM unit bearing hub. Designed for maximum weight savings and reduction of drag, this unit features triple low drag bearings, an aircraft aluminum housing, and a lightened, heat treated aircraft alloy hub. The rotating torque is 75% less than the OEM assemblies. Our alloy steel hub features an extensive internal tulip profile for maximum weight reduction. A weight savings of 6 pounds per vehicle is obtained.

75538	Gen 5 GM Hub Assembly	.....	.1612.00
	<i>4-3/5 x 5 Pattern, Choice of 1/2-20 x 2" or 3" long wheel studs</i>		

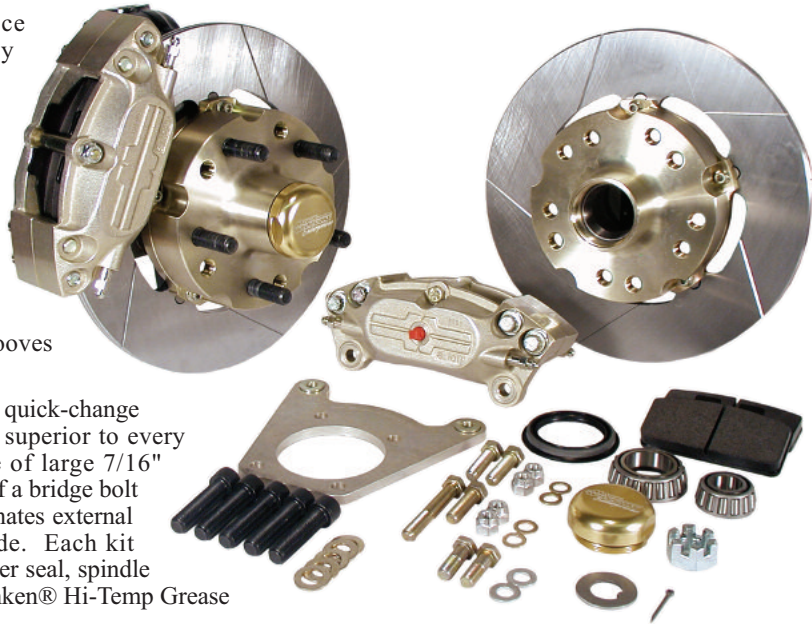


MARK WILLIAMS Enterprises®

FRONT DISC BRAKE KITS

The integral hub design incorporates a one piece hub/brake hat and is produced from aircraft alloy aluminum. The larger mounting diameter utilizes the Slot-Drive™ attachment system that reduces rotor distortion. The integral hub design directs the heat from the brake rotor to the wheel, the largest heat sink. The hubs are double drilled with 4-1/2" and 4-3/4" bolt patterns to fit the most popular wheels. 1/2"-20 X 2" (3" available) wheel studs are standard as are the billet aluminum dust caps with o-ring seals. The special alloy 10-1/2" diameter steel rotors are stress relieved, double disc ground in MW's facility and features cleaning grooves that act to clean the surface of the brake pads.

The heart of all Mark Williams brake kits is the MW quick-change caliper. The bridge strength of the MW caliper is superior to every other caliper on the market today due to the use of large 7/16" fasteners connecting the caliper halves and the use of a bridge bolt on the 4-piston caliper. Internal fluid porting eliminates external lines and allows calipers to be used on either side. Each kit includes Timken® tapered roller bearings, CR® inner seal, spindle nut and washer and all of the required fasteners. Timken® Hi-Temp Grease is recommended.



GENERAL MOTORS INTEGRAL HUB KITS

75150	Early Camaro/Chevelle 4 Piston Kit	1813 .00
	<i>'67-'69 Camaro/Firebird '67-'72 Chevelle '68-'74 Nova (all drum spindles, spindle modifications required).</i>	
75250	Late GM "F" Body 4 Piston Kit	2170.00
	<i>'93-'00 Camaro/Firebird Includes MW spindle</i>	
75840	Camaro/Chevelle 4 Piston Kit	1614.00
	<i>'70-'76 Camaro/Firebird '73-'76 Chevelle '75-'76 Nova Spindle</i>	
75850	3rd Generation Camaro 4 Piston Kit	1746.00
	<i>'82-'92 Camaro/Firebird</i>	

75860	Corvette 4 Piston Kit	2320.00
	<i>'84 Corvette w/ aluminum Upright</i>	
75870	Corvette 4 Piston Kit	1886 .00
	<i>'69-'82 Corvette '68-'72 Chevy Pass. w/disc brakes</i>	
75950	GM "G" Body/S-10 4 Piston Kit	1886 .00
	<i>'94-'00 Chevy S-10 '79-'87 Monte Carlo and Malibu '79-'87 Grand Prix</i>	

FORD KITS

75350	Late Pinto/Mustang II 4 Piston Kit	1668.00
	<i>'74-'78 Mustang II '74-'80 Pinto</i>	
75450	Early Pinto 4 Piston Kit	1641.00
	<i>'71-'72 Pinto (drum brakes)</i>	
75460	Mustang 4 Piston Kit	1729.00
	<i>'70 Mustang/Falcon/Fairlane '71-'74 Comet (drums)</i>	
75650	Early Mustang 4 Piston Kit	1730.00
	<i>'67-'69 Mustang '66-'69 Comet (drum)</i>	

75655	'64 Fairlane T/B 4 Piston Kit	1729.00
	<i>'64-'65 Fairlane</i>	
75750	Late Mustang 4 Piston Kit*	1690.00
	<i>'79 Mustang 4&6 cyl '80 All '81 Spindle Modifications Required</i>	
75760	'78-81 Mustang 4 Piston Kit	1903.00
	<i>'79-'81 Mustang 4 & 6 cylinder</i>	
75770	'87-'92 Mustang 4 Piston Kit	1684.00
	<i>8 cylinder strut</i>	
75000-S	Special Application Brake kits	P.O.A
	<i>We can produce some special kits Priced On Application (P.O.A.)</i>	

MOPAR KITS

75500	"A" Body 4 Piston Kit	1896.00
75540	Challenger 4 Piston Kit	1366.00
	<i>2009 Challenger Unit Hub type Kit</i>	

75550	"A" Body 4 Piston Kit	1588.00
75570	"E" Body 4 Piston Kit	1820.00

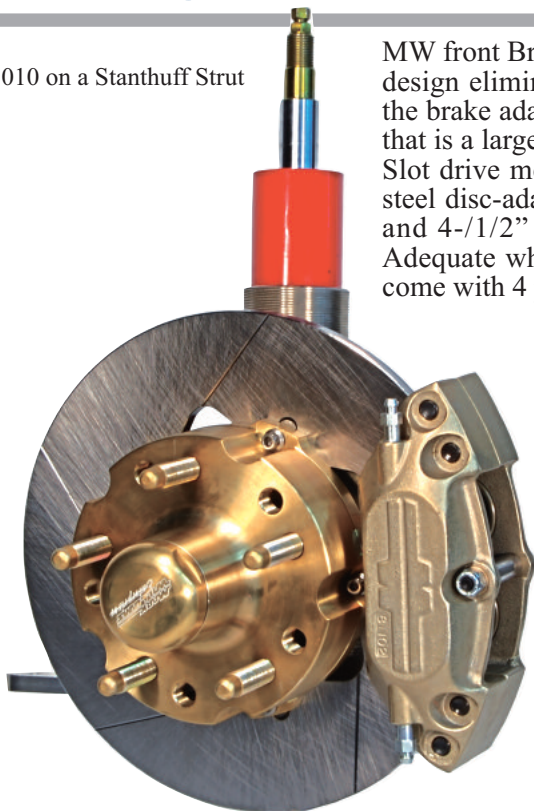
Note: To assure the proper fit we require the spindles for Mopar Kits to be sent for variation and factory installation. We have found there are so many variations, this method is the only way we can assure a proper installation.

toll free
800-525-1963

on the web
www.markwilliams.com

RACING STRUT INTEGRAL HUB KITS

75010 on a Stanthuff Strut



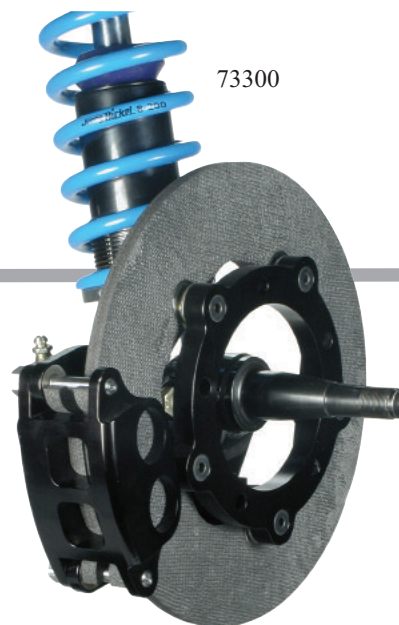
MW front Brake kit for Drag Race Struts that utilize bolt on wheels. This superior design eliminates using a heavy factory hub. The one-piece design incorporates the brake adaptor in the hub. The heat path from the rotor is directed to the wheel that is a large energy absorbing mass. The disc is attached with the exclusive MW Slot drive method. This feature reduces the Disc warping common to one piece steel disc-adaptor and ridged bolted methods. Integral hub is design with 4-3/4" and 4-1/2" x 5 hole bolt pattern, 1/2-20 threads for screw in wheel studs. Adequate wheel clearance is allowed with a 10-1/2" diameter steel disc. All kit come with 4 piston MW Calipers.

75000	Strange Sportsman Strut 2 Piston Kit	1488.00
75010	Santhuff Strut 4 Piston Kit	1488.00
75030	Bickel Super Stock Strut 4 Piston Kit	1424.00
75040	Bickel Strut 2 Piston Kit	1424.00
75050	Strange Sportsman Strut 4 Piston Kit	1513.00
75070	Art Morrison Strut 4 Piston Kit	1750.00

SPINDLE MOUNT WHEEL KITS

MW's floating brake rotor solves the installation problems associated with fixed rotor kits. Mark Williams now offers several kits that are direct bolt-on to aftermarket style front struts. Also included are kits designed for MW Anglia/P&S style front spindles, plus the Strange adjustable Dragster/FC spindle.

All kits feature designs that use a solid mounted billet aluminum two piston caliper, billet aluminum rotor adapter, and unique, patented, USP 6,988,598 B2, floating brake rotor (available in steel or carbon fiber). With this design, run-out on the back of the wheel is not critical. Please note that your MW dragster spindles must be sent to the factory for bracket installation or are available new with the mounting tabs installed.



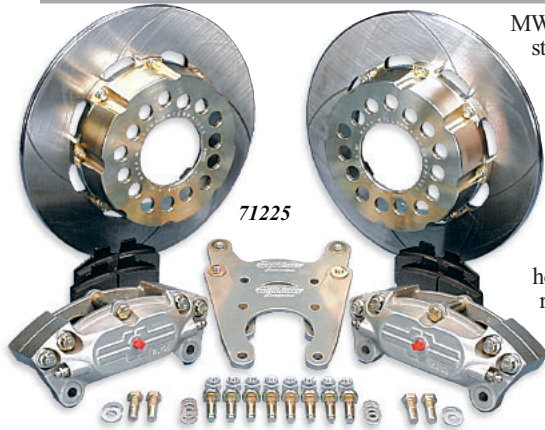
73000	Spindle Mount Kit	1447.00
<i>MW front spindles. This kit requires spindles be sent to factory for bracket installation, part #31250</i>		
73100	Carbon Spindle Mount Kit	3327.00
<i>MW front spindles with carbon rotors and pads. This kit requires spindle bracket installation, part # 31250</i>		
73200	Strange Spindle Mount Kit	1576.00
<i>Strange aluminum funny car spindles. With steel rotors.</i>		
73300	Lamb/JBRC Strut Kit	1340.00
<i>Lamb or JBRC front struts with steel rotors.</i>		

73350	Santhuff Strut Kit	1340.00
<i>Santhuff struts. With steel rotors.</i>		
73400	Carbon Kit Lamb/JBRC Strut Kit	3327.00
<i>Lamb or JBRC struts with carbon rotors and pads.</i>		
73450	Carbon Kit Santhuff Strut	3327.00
<i>Santhuff struts. With carbon rotors and pads.</i>		
73500	Carbon Kit Strange F/C Spindle	3450.00
<i>Strange Adjustable F/C Spindles with carbon rotors and pads</i>		
31250	Install Tabs On MW Spindle	135.00
<i>Labor to install caliper mounting tabs on MW spindles</i>		

Use the Disc Brake Calculator to calculate the pressures and master cylinder sizes pedal ratios required to optimize your Disc Brake system. The calculators are at www.markwilliams.com/calculators.html OR click on Technical/Calculators

MARK WILLIAMS Enterprises®

REAR DISC BRAKE KITS



MW calipers are exceptionally strong, compact, with superior bridge strength over similar products. The material used in MW calipers is stronger than common 6061 aluminum billet calipers. All MW calipers use four 7/16" diameter body fasteners plus a 5/16" diameter bridge bolt in an effort to maximize the calipers rigidity. MW calipers utilize a 3/8" hex bleeder screws in each end, no right and left hand calipers. Internal fluid passages eliminating external damage prone lines.

Caliper mounts are billet 7075-T6 aluminum, Adapter rotor "hats" are proprietary alloy aluminum, triple drilled with 4-1/2", 4-3/4 and 5" X 5 holes drilled to accept 5/8" (11/16" shoulder) drive studs. The brake rotors are abrasive resistant steel that is double disc ground to be flat and parallel. All the required mounting hardware and MW calipers with linings are included. The Slot Drive™ rotor attachment system is a major improvement for prolonging brake rotor life. Disc cupping is eliminated with this exclusive attachment method.



81100



Slot-Drive™ System

FORD BRAKE KITS

71525 Solid Steel Disc Brake Kit	1495.00
<i>Large Ford housing ends with 1/2" bolts.</i>	
71550 Drilled Steel Disc Brake Kit	1520.00
<i>Large Ford housing ends with 1/2" bolts.</i>	
71825 Solid Steel Disc Brake Kit	1495.00
<i>Small Ford housing ends with 3/8" bolts.</i>	

71850 Drilled Steel Disc Brake Kit	1520.00
<i>Small Ford housing ends with 3/8" bolts.</i>	
71325 Solid Steel Disc Brake Kit	1520.00
<i>New Style Ford Ends with 3/8" bolts.</i>	
71350 Drilled Steel Disc Brake Kit	1520.00
<i>New Style Ford Ends with 3/8" bolts.</i>	

CHEVROLET KITS

71725 Solid Steel Disc Brake Kit	1448.00
<i>GM mid-size MW 58600 housing ends.</i>	
71750 Drilled Steel Disc Brake Kit	1475.00
<i>GM mid-size MW 58600 housing ends.</i>	

71925 Solid Steel Disc Brake Kit	1480.00
<i>Stock housing ends with MW "C" clip eliminator kit.</i>	
71950 Drilled Steel Disc Brake Kit	1475.00
<i>Stock housing ends with MW "C" clip eliminator kit.</i>	

OLDS/PONTIAC KITS

71125 Solid Steel Disc Brake Kit	1448.00
<i>Olds-Pontiac housing ends.</i>	

71150 Drilled Steel Disc Brake Kit	1475.00
<i>Olds-Pontiac housing ends.</i>	

MOPAR KITS

71625 Solid Steel Disc Brake Kit	1495.00
<i>Mopar housing ends. Caliper mounts require modifications when using MW 53189 ends.</i>	

71650 Drilled Steel Disc Brake Kit	1520.00
<i>Mopar housing ends. Caliper mounts require modifications when using MW 53189 ends.</i>	

SYMMETRICAL END KITS

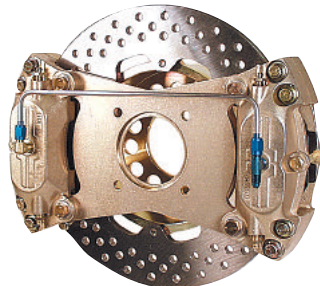
71225 Solid Steel Disc Brake Kit	1448.00
<i>MW 58580 Symmetrical housing ends, 3.150 bearing.</i>	
71250 Drilled Steel Disc Brake Kit	1475.00
<i>MW 58580 Symmetrical housing ends, 3.150 bearing.</i>	
71230 Solid Steel Disc Brake Kit	1448.00
<i>Heavy Duty Symmetrical housing ends, with 3.347" OD bearing.</i>	
71280 Drilled Steel Disc Brake Kit	1475.00
<i>Heavy Duty Symmetrical housing ends, with 3.347" OD bearing.</i>	

71290 Drilled Steel Disc Brake Kit	1475.00
<i>For 15" bead-lock wheels. Fits MW 58580 housing ends.</i>	

4 CALIPER BRAKE KITS

71260 Solid Steel Disc Brake Kit, 4 Caliper	2018.00
<i>MW 58580 Symmetrical housing ends. Four calipers.</i>	
71270 Drilled Steel Disc Brake Kit, 4 Caliper	2043.00
<i>MW 58580 Symmetrical housing ends. Four calipers.</i>	
71275 Drilled Steel Disc Brake Kit, 4 Caliper	2043.00
<i>MW 58580 Symmetrical housing ends. Four calipers. for 15" Beadlock wheel applications.</i>	

71270 Dual
Caliper Kit with
Cross Drilled Rotor,
Fits MW 58580 Symmetrical
Housing Ends



Some kits are available with a dual caliper configuration. Those configurations are designed to give extra holding power at the starting line. For information on brake performance, master cylinder size requirements with pedal ratios calculations go to: www.markwilliams.com click on Technical/Brake Tech

toll free
800-525-1963

on the web
www.markwilliams.com

CARBON/CARBON BRAKES

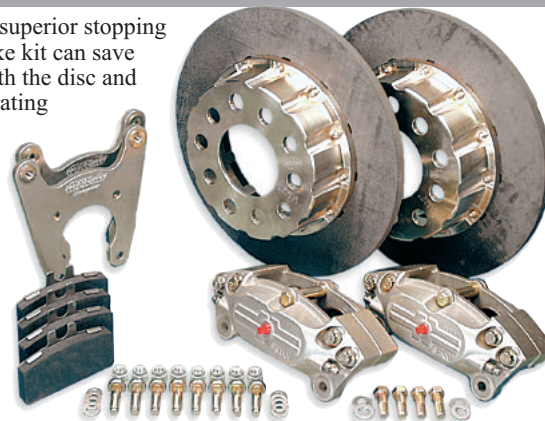
MW Carbon/Carbon brakes offer the advantage of an extremely light-weight rotor with superior stopping ability. When compared to a standard kit with drilled steel rotors, a Carbon/Carbon brake kit can save you as much as 10 lbs of rotating weight. Carbon/Carbon brakes are unique because both the disc and friction pad are made of the same material, and do not suffer brake fade at elevated operating temperatures. The square drive lug system allows for the expansion of the aluminum mounting hat without applying pressure to the rotor. MW brakes are produced from 2D PAN knit Carbon Fiber MW Carbon/Carbon kits include MW race proven 4 piston calipers with hard Teflon-Anodized pistons, Carbon brake pads with Titanium heat shields, billet aluminum mounting brackets, and all the required fasteners.

Brake Technology has changed dramatically over the past few years and Mark Williams Enterprises is in the forefront.

81200 Carbon/Carbon Brake Kit \$4285.00
Fits MW 58580 or Lamb symmetrical type housing ends. 4-1/2", 4-3/4" and 5" bolt circle. Saves 12 lbs. over standard brake kit.

81250 Carbon/Carbon Kit for 15" wheels \$4285.00

81280 Carbon/Carbon Brake Kit \$4285.00
Fits Heavy Duty ends with 3.346 O.D. bearing 58595, 58598 and 58599 ends.

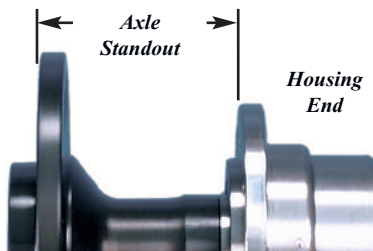


ALL MARK WILLIAMS 71000 SERIES SINGLE CALIPER REAR BRAKE KITS (SEE PAGE 62) CAN BE PURCHASED AS CARBON/CARBON FOR AN ADDITIONAL CHARGE

BRAKE SYSTEM TECH

CALIPER ALIGNMENT, CLEARANCE & POSITION

Axle stand out controls the alignment of the brake system and as a result is very critical. To check stand out first verify that the housing ends are perfectly aligned. Install axles and check axle stand out (face of axle flange to face of housing end) as accurately as possible. See the chart below for stand out dimensions for MW brake kits. Stand out should be + .015 of the dimension listed. Shims are available to correct the alignment. 71009 shim goes between the axle flange and brake hat that will move the disc outward .015". 71018 shim goes between the caliper and mount and will move the caliper inboard .015". Misalignment can cause caliper mount deflection, and is one of the causes of a "spongy" pedal. Install wheels to make sure caliper to wheel clearance is adequate on the diameter and face of the wheel. To bleed, the calipers they must be positioned at 3:00 or 9:00 o'clock. This allows the bleeder to be at the highest point of the piston cavity, ensuring that all air is removed from system.



Symmetrical ends	2.834"
Olds ends	2.834"
Large Ford ends	2.500"
Small Ford ends	2.500"
GM 10-12 Bolt ends	2.812"
Mopar ends	2.500"

PEDAL RATIO & MASTER CYLINDER

The master cylinder bore size influences the obtainable brake line pressure. Recommended master cylinder size when using two typical 4-piston calipers only in the rear is a single outlet, 7/8" bore master cylinder. If single piston front brakes are used in conjunction with two 4-piston calipers in the rear a dual outlet, tandem 1" bore master cylinder is recommended. When using 4-piston calipers front and rear a dual outlet, 1-1/32" bore master cylinder is recommended. Mounting the master cylinder to a frame rail or roll bar is recommended to ensure a solid mount. With the correct master cylinder in place the pedal ratio must be great enough to produce 1200-psi system pressure under severe braking conditions. A pedal ratio verses line pressure calculator is available on the Mark Williams website, www.markwilliams.com. We recommend using a pressure gauge connected to the system to verify the maximum available pressure before running the car. If the desired pressure cannot be easily attained the pedal ratio must be increased until the minimum pressure of 1000 psi is easily reached.

BRAKE LINES & FLUID

Aircraft AN-3 brake lines and fittings are recommended. Only stainless steel braided teflon hose, stainless or seamless steel tubing (3/16" x .028") should be used for brake lines. Lines should be secured to chassis rails to resist vibration and routed in such a way to avoid possible contact with wheels, tires and other moving parts. Joining hard line and braided line or "T"s should be done using a bulkhead fitting and a small tab welded to the chassis. Long runs should be done with hard tubing to avoid expansion of flexible line. The amount of flexible braided hose in the system should be kept to a minimum. See page 64 for AN -3 fittings and brake line. Use of DOT 4 or 5.1 fluid with a high boiling point and lubrication for seals and pistons is recommended. Do not use (DOT5) silicone fluids.

TROUBLE SHOOTING

Spongy Pedal Poor Stopping:

- A) Air in system. Bleed brakes, making sure that the bleed valve is the highest point.
- B) Disc warped (saucer shaped). Replace.
- C) Calipers not square with disc. Check housing end alignment, both concentricity and squareness.
- D) Linings worn on taper. Make sure that caliper is centered over the rotor and the caliper bracket is not deflecting.
- E) Master cylinder bore too small. Match master cylinder to the system. Check the line pressure.
- F) Master cylinder deflection. Stiffen master cylinder mounts.
- G) Pedal ratio wrong, low or high pressure

Brakes are locked up after run:

The piston in the master cylinder is not being allowed to return to the start location. The pressure relief hole is exposed to zero the line pressure. Re-adjust the linkage so that the piston completely returns. Make sure there is a positive stop on the pedal or lever. Do not rely on the retaining ring in the master cylinder for the pedal stop.

Excessive pad wear, disc shows excess heat:

- A) System pressure is too low causing a longer pressure applied time to stop. Pressure needs to be high enough to allow wheel lock at any time. Check the ability of the system to generate 1200 PSI.
- B) Pistons sticking in caliper, clean and overhaul calipers. Annual maintenance is required.

MARK WILLIAMS Enterprises®

BRAKE KIT COMPONENTS

All of the components that make up Mark Williams brake kits are available individually. The main components are listed below and on the following page. If there is a part that is not shown please call and a MW tech will help you find the parts.

2 & 4 PISTON CALIPERS

MW calipers are all manufactured in house and are cast from the same alloy as the MW 9" Ford cases that has a higher tensile strength than 6061 used in most billet calipers on the market. Pistons are machined from billet aluminum and are Teflon-Hard coat anodized.



81100 MW Quick Change 4 Piston Caliper (ea) .214.00
For 5/16" to 3/8" thick rotor, no linings

81100PR MW Quick Change 4 Piston Calipers (pr) .520.00
For 5/16" to 3/8" thick rotor, with non-asbestos 81133 linings.

82100 MW Quick Change 4 Piston Caliper (ea) . .214.00
For .812" thick vented rotor, no lining.

82100PR MW Quick Change Calipers (pr)520.00
For .812" thick vented rotor, with non-asbestos 81133 linings.

83100 MW Single Piston Caliper (ea)165.00
For 5/16" to 3/8" thick rotor, no linings.

83100PR MW Single Piston Calipers (pr)395.00
For 5/16" to 3/8" thick rotor, with linings.

BRAKE HATS & ROTORS

MW brake hats are CNC machined in house from a special aircraft alloy. All hats clear a 3.062" register and are machined to accept MW 5/8" drive studs. Hats locate on a 6.248" maximum axle flange diameter.



71022 Brake Disc Hat (ea)148.00
For 70000 series brakes. With 4 1/2", 4 3/4" and 5" patterns.

81001 Carbon Brake Disc Hat (ea)222.00
For 80000 series outboard mount disc brake.

71010 Steel Brake Rotor Slot-Drive (ea)179.00
With lightening holes 11-3/4" Dia, for 71000 series kit.

71030 Steel Brake Rotor Slot-Drive (ea)169.00
With cleaning grooves 11-3/4" Dia, for 71000 series kit.

71009 0.015" Rotor Shim3.00
To move disc out for fine adjustments. 4-3/4" & 4-1/2" x 5 patterns

71034 Front Brake Slot Drive Hardware Kit79.00
Slot drivers and fasteners both sides (recommended with new rotors)

71035 Rear Brake Slot Drive Hardware Kit124.00
Slot drivers and fasteners both sides (recommended with new rotors)

73311 Steel Floating Brake Rotor (ea)186.00
For 73000 series kit (.325 thick).



73104 Carbon Floating Brake Rotor (ea)992.00
For 73100 & 73400 brake kits. (Not shown)

75009 Steel Brake Front Rotor Slot-Drive(ea) . . .156.00
With cleaning grooves. For 75000 series kit with slot drive attachment.

81034 Carbon Brake Rotor (ea)1379.00
For 81000 series brake kit, flange axle and floater kits, .437 thick.

81033 Carbon Brake Rotor (ea)1379.00
For 15" brake kits, flange axle and floater kits, .437 thick.

81132 Brake Pad for 15" kits23.00

71018 0.015" Caliper Shim0.60
To move caliper out for fine adjustments. Goes between caliper and mounting bracket.

BRAKE LININGS



73004 Lining, MW Front Caliper (ea)24.36
For MW 2 piston billet front caliper in spindle mount kits.

73109 Carbon/Carbon Lining (ea)211.58
For MW 73002 floating front caliper. (Not shown)

81035 Carbon/Carbon Lining (ea)183.00
Includes Titanium steel backing plate, both disc diameters

81133 Ferodo Hi-Friction DS3000 Lining (ea)23.00
For MW 81100,82100 caliper, Ferodo non-asbestos high friction this in the normal lining shipped with brake kits.

81136 Bushing for 81133 Linings, (ea)10.00
Use with 81133 lining in JFZ or Wilwood calipers One for two linings.

83120 Lining, 2 Piston Front Caliper (ea)19.58

toll free
800-525-1963

on the web
www.markwilliams.com

BRAKE SYSTEM COMPONENTS



Whatever your application MW has the correct master cylinder for the job. We stock single outlet cylinders for 2 caliper systems as well as the popular tandem, dual outlet master cylinders for 4 wheel braking systems.

B3359 1 1/8" Dual Master Cylinder174.00

CALIPER & MASTER CYLINDER PARTS

6446	Bleed Screw, 1/4" Thread (ea)	1.65
9400	Bleed Screw, 3/8" Thread (ea)	1.65
75099	Dust Cap Socket (ea) (Front Brake)	59.64
75002	Front Hub Dust Cap (ea) (Front Brake)	46.00
81101	MW Caliper Half, Inboard	96.00
811EX	Rebuilt MW Caliper (Exchange)	134.72
81102	MW Caliper Half, Outboard	96.00
81104	MW Caliper Bridge Bushing (ea)	7.92
81103	Piston, For MW Caliper (ea)	13.00

B3360	1 1/32" Dual Master Cylinder	174.00
81105	Caliper Pressure Test Gauge	80.00
<i>Recommended Checking pressure settings at the wheel. Invaluable troubleshooting aid</i>		
9-888	Residual Pressure Valve	52.50
<i>2 lb. Lamb for use with M-W, JFZ or Wilwood calipers</i>		
74-750U	3/4" Tilton Master Cylinder Kit	104.90
<i>Accepts side or flange mounting with remote or fixed reservoir and -3 outlet fitting.</i>		
74-875U	7/8" Tilton Master Cylinder Kit	104.90
74-100U	1" Tilton Master Cylinder Kit	104.90
9-1841A	Lamb 9/16" Banjo Fitting	44.00
9-1841B	Lamb 1/2" Banjo Fitting	44.00
260-8419	Brake proportioning valve, knob adj.	63.50

BRAKE LINES AND FITTINGS



0187X028	-3 Stainless Tubing (ft)	11.22
<i>3/16" X .028" tube, for the long brake line runs</i>		
0300	-3 Stainless Hose (ft)	4.75
<i>3/16" PTFE brake line hose per foot</i>		
1100	-3 Straight Hose End	9.90
1110	-3 45 Degree Hose End	12.75
1120	-3 90 Degree Hose End	18.70
2048	-4 to -3 Straight Union	3.75
2050	-3 Straight Union	2.75
2060	-3 Union Tee	7.55
2083	1/8" Pipe Nipple	2.53
2187	-3 Tee Fitting	8.50
<i>3/16" tee with 1/8" pipe on the side</i>		
2511	-3 Straight Adapter	2.25
<i>3/16" hose end to 1/8" pipe (caliper fitting)</i>		
2513	-4 Straight Adapter	1.40
<i>-4 JIC to 1/4" NPT</i>		
2610	-3 90 Degree Adapter	4.75
<i>3/16" hose to 1/8" pipe 90 elbow</i>		
2769	-3 Bulkhead Straight	4.50

2808	-3 Bulkhead Tee	15.50
2815	-3 Bulkhead Tee	12.95
<i>Bulkhead on the run.</i>		
2921	-3 Bolt For Banjo	4.05
2949	-3 Banjo Brake Adapter	7.50
3554	-3 Tube Flair Nut, (6)	4.95
3556	-3 Bulkhead Nut, (2)	3.25
3642	-3 Banjo Gasket, (2)	0.75
3669	-3 Tube Sleeve, (6)	4.45
3750	Line Clamp-Hose 3/16 (6)	1.86
<i>for stainless steel tube pack of 6</i>		
3755	Line Clamp-Tubing 1/4 (6)	1.80
<i>for Teflon Braided hose pack of 6</i>		
10324-03	Inverted Flare Adapter	6.25
<i>AN -3 to 3/16" inverted flare. For OEM lines</i>		
10100-03	Inverted Flare Adapter	8.65
<i>AN -3 to 10mm inverted flare. For OEM lines.</i>		
FBM2945	-3 to Fe. 10mm Concave	14.00
FM10324-03	Invert. Flare Adapter	8.25

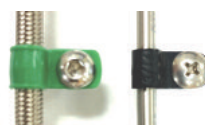
Correctly plumbing your brake system is very important to brake performance. Quality components are the first step in doing it right. AN-3 is the recommended size for a brake system and MW stocks everything you will need. (Note flares must be 37°)

SWEDGED BRAKE LINES



Order Line with (dash) end fitting for each end. Base line is 12" long add \$4.75 for each additional foot length.

0300-1-1	Straight X Straight	26.50
0300-1-2	Straight X 45°	29.00
0300-1-3	Straight X 90°	32.00
0300-2-2	45° X 45°	34.50
0300-2-3	45° X 90°	34.50
0300-3-3	90° X 90°	40.12



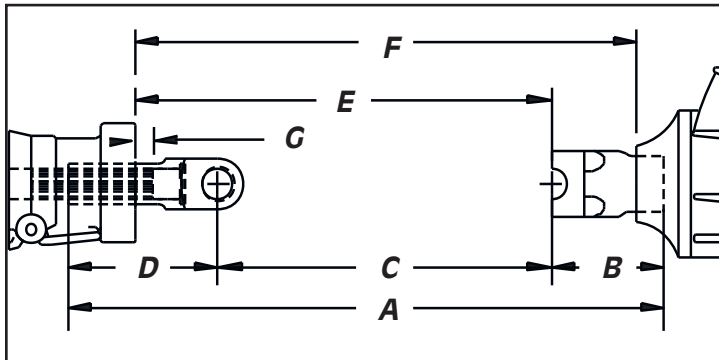
Clean it up with 3750-3755 clamps

WILLIAMS Enterprises®

DRIVESHAFT ASSEMBLIES

Many of the nation's leading drag racers rely on Mark Williams's driveshafts and for good reason. MW has been building race-winning driveshafts for over 50 years and offers a driveshaft for nearly every application. From the 4130 chromoly shafts capable of handling Pro Mod/Nitro Coupe power to the lightweight 7075 aluminum shafts for Pro Stock, Comp, Super Stock or any application where rotating weight is a concern. All work, from fabrication to balancing, is done in-house at MW's plant and you can be assured of unmatched quality and prompt delivery. Most MW Driveshafts meet the SFI 43.1 specifications.

When placing an order for Mark Williams driveshaft assemblies please refer to the diagram below for the required dimensions. The "E" dimension is the preferred measurement but remember your 1350 or 1480 series pinion yoke must be in place when measuring, (our pinion yoke might not the same length as stock yokes). If ordering by the "C" dimension, the MW transmission yoke should be used. Our trans yoke lengths may not be the same as a stock yoke. The "E" dimension can be used but make sure you have the pinion yoke you will utilize.



- A** End of trans yoke to end of pinion yoke.
- B** End of pinion yoke to U joint center.
- C** U joint center to U joint center.
- D** End of trans yoke to U joint center.
- E** Trans seal to U joint center.
- F** Trans seal to pinion seal.
- G** Trans seal to end of output shaft.

CHROMOLY & MILD STEEL

When it comes to a bulletproof driveline the Mark Williams chromoly driveshaft is the strongest. A chromoly shaft is 75% stronger than commonly used 1020 DOM material. To ensure the quality of the material, the 4130 condition HT tubing used is manufactured by domestic mills to meet the MIL-6736-B-HT-125 specification. The perfect companion to MW's chromoly tubing is the MW produced, 4130 forged weld yokes used in each assembly. These weld yokes are produced in-house to exacting tolerances to provide the proper press fit in the chromoly tube. MW weld yokes and chromoly tubing are assembled using a specially built alignment/assembly fixture, then carefully joined using an automated cold wire TIG process. Precision 1350 or 1480 series U-joints are then installed along with the forged, 100% machined 4340 heat-treated transmission yoke. Each assembly is High-Speed electronically spin balanced at a RPM that represents operating speed, to G30 industry tolerances.

The finished product is a driveline capable of handling today's most powerful vehicles. (Prices are less transmission yoke.) All 4130 Chromoly driveshafts meets and exceeds the SFI Spec 43.1.

39650 Mild Steel Driveshaft Assembly469.00
3-1/2" O.D. x .065 DOM mild steel shaft, Spicer weld yokes and lube for life 1350 series U-joints.

39640 Mild Steel Driveshaft Assembly475.00
4" O.D. x .083 DOM mild steel shaft, Spicer weld yokes and lubed for life 1350 series U-joints.

39800 3" Chromoly Driveshaft Assembly577.00
3" O.D. x .083 4130 chromoly shaft. MW 4130 forged steel weld yokes and lubed for life 1350 series U-joints. SFI 43.1

39850 3-1/2" Chromoly Driveshaft681.00
3-1/2" O.D. x .083 4130 chromoly shaft. MW 4130 forged steel weld yokes and lubed for life 1350 series U-joints. SFI 43.1

39880 3-1/2" Chromoly Driveshaft 1480 Joint730.00
3-1/2" .083" wall 4130 HT Tube, Precision U-Joints for high Powered applications. SFI 43.1.

Caution: Steel with the smaller diameters has the lowest critical speed properties. For long shafts it is necessary to use a large diameter for high RPM requirements. Check the speed chart page 74 before ordering



toll free
800-525-1963

on the web
www.markwilliams.com

ALUMINUM ACCU-BOND™ DRIVESHAFTS



39550 7075
Aluminum
Driveshaft



Mark Williams Accu-Bond™ aluminum driveshafts are custom built with the super tough 7075 or 6061 aluminum tubing and fitted with special MW forged or Billet 7075-T6 end yokes. The end yokes are mated to the tubing using our patented, (USPS 7,485,045 B2) Accu-Bond™ bonding process. This allows the end fittings to be produced from high-grade 7075 aluminum, increasing the strength (the normal weak link of any aluminum driveshaft). In addition, the use of aluminum allows a 50% weight reduction compared to a steel shaft.

All shafts are high-speed balanced to G30 specifications in relation to the actual operating speeds on MW's high-speed balancer. Balance weights are attached with our unique system of bolt-on balance weights. Accu-Bond™ shafts are available in both 3 1/2" and 4" diameters. The 4" diameter should be used for longer shafts to avoid critical speed limitations (the rpm at which the shaft wants to "jump rope"). The combination of the larger diameter and high strength of 7075 materials allow for a thinner wall thickness, resulting in a very light assembly. The 7075 shaft is ideal for applications where weight and critical speed are an issue. The 6061 Accu-Bond™ driveshaft is an economical alternative to the 7075-bonded shaft. This shaft has slightly lower operating speeds and ultimate strength compared to the 7075 shaft, but is adequate for most high-powered applications. Prices are less transmission yoke, which is required for proper balancing. All Accu-Bond 7075 and 6061 driveshafts are SFI 43.1 certified.

39555 Accu-Bond™ 7075 Driveshaft952.00
3-1/2" O.D. x .110" 7075 aluminum, MW forged 7075-T6 end yokes
and cold forged precision 1350 series U-joints. Meets SFI 43.1

39985 Accu-Bond™ 6061 Driveshaft897.00
3-1/2" O.D. x .125" 6061-T6 aluminum tube, MW forged 7075-T6 end
yokes and cold forged precision 1350 series U-joints. Meets SFI 43.1

39550 Accu-Bond™ 7075 Driveshaft995.00
4" O.D. x .100" 7075 aluminum tube, MW forged 7075-T6 end yokes
and cold forged precision 1350 series U-joints. Meets SFI 43.1

39560 Accu-Bond™ SSG, 1350 joint Driveshaft . .852.00
4" O.D. x .100" SSG 6062 aluminum tube, billet 7075-T6 end yokes and
cold forged precision 1350 series U-joints.

CARBON FIBER DRIVESHAFTS



39100 Carbon
Fiber Driveshaft



Carbon Fiber Shafts

- 1) Higher critical speed rating over aluminum shafts
- 2) Can be used for extremely long shafts at high RPM.
- 3) Best power to shaft weight rating.

39155 Carbon Fiber Driveshaft1575 .00
4.1" O.D. Carbon Fiber shaft, MW 7075-T6 forged aluminum
end yokes and cold forged precision 1350 series U-joints.
meets SFI 43.1.

In keeping with the advances in driveline technology, Mark Williams Enterprises offers a carbon fiber driveshaft assembly. The special Mark Williams aluminum end yokes are manufactured to extremely tight tolerances for a precise fit into the carbon fiber tube. The end yokes are then installed in the carbon fiber tube using a proprietary, patented bonding system. A custom built assembly fixture ensures perfect alignment or "phasing" of the end yokes during this process. MW's precision 1350 series U-joints, are installed along with the transmission yoke and the assembly is electronically balanced using the race proven bolt-on weight system. The stiffness of the carbon fiber material allows for higher critical speeds thus making it ideal for longer applications such as Pro Stock Trucks etc. Price is less transmission yoke. MW carbon fiber driveshafts are SFI 43.1 certified when using a MW Yoke.

Our torsion testing ability is unparalleled in the industry. We are involved in special design and manufacturing processes for all types of driveline applications. Our in house torsion testing machine allows testing of all types of maximum torsion and cycle load tests.

Each Accu-Bonded™ shaft is load and cycle tested to assure performance quality before shipping. A certificate of test accompanies each shaft. As a support service we will perform proof testing for any MW produced driveshaft free of charge.

DRIVESHAFT TESTING



MARK WILLIAMS Enterprises®

1480 ALUMINUM & CHROMOLY DRIVESHAFTS

1480 series Drive Shafts, Transmission and Rear Yokes is the next step up for Pro-Mod and other High Powered combinations. The oversize joints create a driveshaft that is up to 40% stronger than 1350 series joints. The 1480 series shafts are available in 3-1/2" Chromoly and 4.0" 7075 Aluminum Accu-Bond™ shafts.

Pair either driveshaft with our 1480 series transmission yoke and pinion yokes for the ultimate in precision and strength. Steel pinion yokes are available for 9" Ford 35 spline pinion, GM 14 Bolt rears, and MW 12"40 spline pinion. Also we have Aluminum 7075 Pinion yokes for 9", 9-1/2", 10" Ford 35 spline and MW 12"40 spline pinion. Mating U-bolt kits are required for the pinion yokes. Transmission yokes currently available are 16, 32 and 35-spline Lenco/B&J, 32-spline Liberty roller-bearing yokes, 32-spline Turbo 400, and 40 spline. Drive Shafts are priced less transmission yoke.

MW has raised the bar again for quality and strength in driveline products.

39880
3-1/2" 1480
driveshaft shown with
39070 trans yoke



39890
4" 7075 aluminum 1480
driveshaft shown with
39076 trans yoke

39880 3-1/2 1480 Chromoly Driveshaft730.00
3.5" x 0.083" wall chromoly tubing. With cold forged precision 1480 universal joints and balancing,(Trans yoke sold separate). Meets SFI 43.1

39890 7075 Driveshaft1670.00
Accu-Bond™ 4" O.D. x .100" 7075 aluminum tube, MW billet 7075-T6 end yokes and cold forged precision 1480 series U-joints. (Trans yoke sold separate) Meets SFI 43.1

1480 SERIES TRANSMISSION YOKES

Mark Williams Heavy Duty 1480 series transmission yokes are 100% machined from hot-forged chromoly. The Heat-treat hardness is compatible for use in roller bearing tail housing transmissions. Shot Peening after heat-treating gives a added fracture resistant durability.

Similar to our 1350 series yokes, they feature the same Patented Reduced Mass™ profile with the larger 1480 U-joint that is 40% stronger than standard 1350 U-joints. These yokes are designed for high power applications where strength is more important than the assembly's weight. Matching pinion yokes are available for popular differential applications.

39070	MW 1480 Series Transmission yoke . . . . .	.409.00
	<i>16-spline, Lenco and G-Force, 1480 joint, D=4.50"</i>	
39071	MW 1480 Series Transmission yoke . . . . .	.409.00
	<i>32-spline, Lenco, 1480 joint, D=4.50"</i>	
39074	MW 1480 Series Transmission yoke . . . . .	.409.00
	<i>32-spline, Liberty, Jerico 1480 joint, D=6.15"</i>	
39076	MW 1480 Series Transmission yoke . . . . .	.409.00
	<i>32-spline, Turbo 400, 1480 joint, D=6.15"</i>	
39176	MW 1480 Series Rapid Release Transmission yoke . . . . .	.442.00
	<i>32-spline, Turbo 400, 1480 joint, D=6.15"</i>	
39079	MW 1480 Series Transmission yoke . . . . .	.409.00
	<i>35-spline, Lenco, 1480 joint, D=4.25"</i>	
39095	MW 1480 Series Transmission yoke 35 spline . . . . .	.409.00
	<i>35 spline Liberty Trans 1.9685" barrel, 1480 joint, D=6-1/8"</i>	



39076
Turbo 400

toll free
800-525-1963

on the web
www.markwilliams.com

INTERNAL SLIP 7075 DRIVESHAFT

MUSTANG GT500 DRIVESHAFT

The MWS series (Mark Williams Slip) shafts were designed for the Mustang GT500 and similar models. This replaces the two-piece steel shaft that cannot handle the torque and 150+ mph speeds, and eliminates the center driveshaft support bearing with the internal slip feature. This MWS-500 shaft is made with the exclusive Gold Finish 7075 aluminum material, which is both stronger and lighter than common aluminum driveshafts, making it able to perform under the stresses where the two-piece steel shafts fail. The MW patented boding process is used to join the end fittings, proving much stronger than the standard welding method. This shaft is made to match any Mustang transmission (automatic or stick shift) and differential flange with a 2" male pilot and 1/2" bolts on a 3" center square bolt pattern. Cars equipped with 9" Ford differentials can take advantage of this shaft using a 1350 series universal joint pinion yoke or our new Generation III 9" Ford pinion flange connection system. These shafts utilize precision Spicer 1350 universal joints and are Hi-Speed balanced to G30 specifications. The shaft run out is closely controlled. In addition, each shaft is torsion tested for additional quality assurance. Different shaft flange yoke combinations are available for attachment to different transmissions and differentials. Specific models can be designed for other applications.

MWS-500 Mustang Shaft

Optional 39082 9" Pinion Flange

U.S. Patent # 7,485,045 B2

MWS-500 GT500 Driveshaft, Internal Slip2199.00
with 2 shaft flange yokes

MWS-509 Driveshaft, Internal Slip1866.00
with 1 shaft flange yoke

MWS-510 Driveshaft, Internal Slip1716.00
Without flange yokes utilizes standard 1350 end yokes

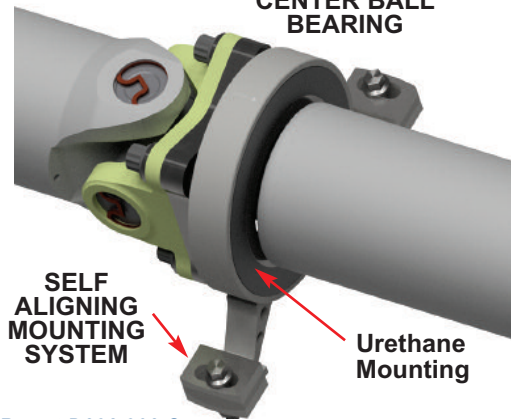
HELLCAT DRIVESHAFT

The Dodge Challenger and Charger SRT Hellcat needed some help in the driveshaft department. The factory carbon fiber shaft is a nice part but not up to the requirements when you start modifying the power output. The fact that this car has a relatively long distance from the transmission to the differential eliminates producing a one-piece shaft for high speeds and high RPM requirements. Our design utilized the two-piece construction as dictated by the shaft critical speed requirements.

Complete MWS-600 Driveshaft assembly, configured for Charger with Auto Transmission

39157

REPLACEABLE CENTER BALL BEARING



Patent D828,238 S

Construction features are:
A ridged mount system, United States Design Patent D828,238s Features a sealed bearing mounted in urethane to dampen noise, with a drive lug connecting method.

The strength is assured with the AccuBond™ connection to a 7075 aluminum tube. This is our offering for the strongest high RPM capable driveshaft for the Hellcat.

MWS-600 Hellcat Challenger Driveshaft Assy4377.00

Hellcat Challenger Manual Transmission

MWS-601 Hellcat Driveshaft Assembly4790.00

Charger Automatic Transmission

MWS-604 Hellcat Driveshaft Assembly4640.00

Automatic Transmission with 9" Rear



TRANSMISSION YOKES

MW heavy-duty transmission yokes have been designed to incorporate Spicer 1350 series U-joints and are forged from heat treated 4340 steel. All yokes are 100% machined in house on MW's state-of-the-art CNC machines. Special fixtures are used to guarantee that all machining is done in relationship to the spline pitch diameter. This assures concentricity and produces a yoke that is symmetrical and balanced for smooth operation. All models are thru hardened heat treated to over 200k PSI that is compatible with roller bearing tail housings. All transmission yokes receive Shot Peen process as an extra precaution preventing surface crack formation. U-joint cup bores are line-honed to exact limits and the bearing-bushing/seal surface machined with special fixtures assuring concentricity with the spline pitch diameter. An added steep is the retaining ring surfaces are trimmed to assure an exact fit for the u-joint.

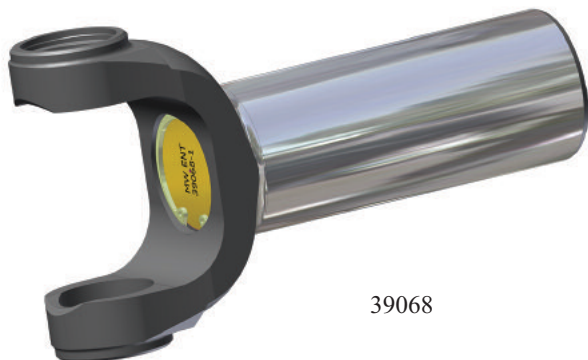


MW First!
O-Ring Plug Seal

Like all MW product's they are laser engraved with part numbers and batch numbers that allow complete trace-ability. An end of spline sealing is with an o-ring seal with a tapered retaining ring that forces a aluminum plug against the seal. This improved method has proven to eliminate fluid seepage. Please note that there is a difference in diameters between a needle bearing tail housing, and a bushed tail housing, for same brand transmissions. Nobody goes thru all these steps to produce the highest quality Transmission Yokes as Mark Williams.

39002	MW Chrysler Transmission Yoke	235.00
	30 spline, for 1350 series U joint. Mopar, Doug Nash and Liberty trans. for bushing 1.680" Diameter, "D" = 6-1/8"	
39004	MW Turbo 400 Transmission Yoke	235.00
	32 spline, for 1350 series U joint. Turbo 400 and Super T-10 trans. 1.886" barrel for roller or bushing "D" = 5-3/4" 1.886" Dia	
39005	MW Powerglide Transmission Yoke	235.00
	27 spline, for 1350 series U joint. Powerglide and Turbo 350 trans. for bushing 1.5035 diameter "D" = 5-13/16"	
39013	MW Lenco Transmission Yoke	235.00
	32 spline, for 1350 series U joint. Lenco trans. For exposed output shaft. "D" = 4"	
39015	MW Lenco Transmission Yoke	235.00
	16 spline, for 1350 series U joint. Lenco trans. For exposed output shaft. "D" = 4"	
39020	MW C-6 Ford Transmission Yoke	235.00
	31 spline, for 1350 U joint. C-6 & Toploader Transmissions. For bushing 1.6845" Dia "D"=6-1/8"	
39021	MW Lenco Transmission Yoke	235.00
	35 spline, for 1350 series U joint. Lenco trans. For exposed output shaft. "D" = 4"	
39022	MW Ford C-4 Transmission Yoke	235.00
	28 spline, for 1350 series U joint. C-4 trans. For bushing 1.6845 diameter "D" = 5-13/16"	

39031	MW 904 Torqueflight	235.00
	26 Spline, for 1350 Series U joint, 904 Torqueflight, For bushing 1.559" diameter "D"=6-1/8"	
39040	MW G-Force Transmission Slip Yoke	235.00
	16 spline, for 1350 series U joint. G-Force or Lenco trans. For exposed output shaft. "D" = 3 1/2"	
39060	32 Spline Aftermarket Trans. Yoke	235.00
	32 spline, for 1350 series U joint. . G-Force or Lenco trans. For exposed output shaft "D" = 3 1/2"	
39032	Mopar-Liberty Slip Yoke	235.00
	30 spline. Liberty trans. for roller bearing 1.750" Diameter "D"=6-1/8"	
39034	32 Spline Aftermarket Trans. Yoke	235.00
	32 spline. Jerico and G Force trans. 1.885" diameter mostly bushing but some manufactures roller bearing "D" = 6-1/8"	
39035	Powerglide Slip Yoke	235.00
	27 spline. Powerglide for needle bearing 1.500 Diameter Tail-Housing. "D" = 5-13/16"	
39057	32 Spline Aftermarket Trans. Yoke	235.00
	32 Spline, Jerico for roller bearing 1.888" Diameter. "D" = 6-1/8"	
39068	32 Spline Aftermarket Trans. Yoke	235.00
	32 Spline, for roller bearing 1.888" Diameter. "D" = 6-7/16" Two splines omitted , side fit splines 1.888" barrel Diameter	



39068



39057-TP

This handy tool keeps transmission gear lube from exiting the transmission when removing your driveshaft between runs. It has a knurled end for turning the output shaft to realign the clutch. Fits all 32 spline transmissions with 1.885-1.888 " seal diameter. (Liberty, Jerico, & Richmond manual transmissions.) Will also work as a plug in the Turbo 400 and 4L80 automatic transmissions. Installation - Service instructions can be found on Service Bulletin #0037.

39057-TP Trans Cap & Alignment Tool	55.00
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toll free
800-525-1963

on the web
www.markwilliams.com

RAPID RELEASE YOKES

The MW Rapid Release yokes can be a real time saver during those quick transmission changes. They allow the driveshaft to be disconnected at the transmission rather than at the pinion, plus the cap design prevents over tightening and possible damage to the U joint cups. These yokes accept the 1350 series Spicer U joint and are the lightest and most compact units of this type on the market. Each yoke comes with caps and fasteners. Care must be exercised not to mix U-joint caps and maintain indexing after shaft is balanced. MW built driveshafts with these yokes have identifying index marks.

39102	Mopar Rapid Release Yoke	437.00
	30 spline. Mopar, Doug Nash and Liberty trans. "D"=6-1/8"	
39104	Turbo 400 Rapid Release Yoke	437.00
	32 spline. Turbo 400 and Super T-10 trans. "D"=5-3/4"	
39105	Powerglide Rapid Release Yoke	437.00
	27 spline. Powerglide and Turbo 350 trans. "D"=5-13/16"	
39113	Lenco Rapid Release Yoke	437.00
	32 spline. Lenco trans. "D"=4"	
39115	Rapid Release Yoke	437.00
	16 spline. Lenco trans. "D"=4"	
39120	Ford Rapid Release Yoke	437.00
	31 spline. C-6 and Toploader trans. "D"=6-1/8"	

PINION YOKES

MW steel pinion yokes are CNC machined from heat treated 4340 steel forgings and they accept the Spicer 1350 series U-joint. Special tooling ensures that every yoke is machined concentric to the pinion spline for smooth operation. Yokes have provision for computer pick up rings available separately. Every MW pinion yoke can use conventional Spicer 3/8" diameter U-bolts, or the new 2nd Gen™ alloy steel kit to retain the U-joint.

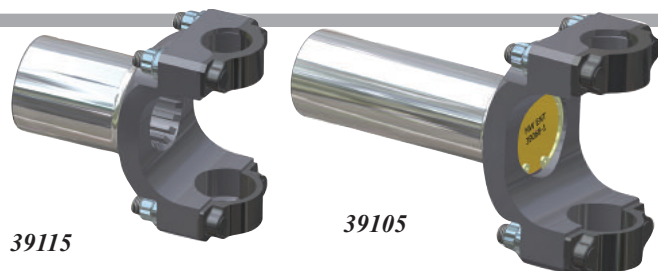


39011

39003	MW 8.5" GM 10 Bolt Pinion Yoke	215.00
	30 spline, for 1350 series U joint. "B" = 3-3/16"	
39006	MW GM 12 Bolt Pinion Yoke (long)	215.00
	30 spline, for 1350 series U joint. "B" = 3-7/8"	
39038	MW GM 12 Bolt Pinion Yoke (short)	204.00
	30 spline, for 1350 series U joint. "B" = 2-7/8" <u>Recommended yoke</u>	

BILLET ALUMINUM YOKES

39906	MW Aluminum 12 Bolt Pinion Yoke	295.00
	30 spline, for 1350 series U joint. "B"= 3 7/8"	
39908	MW Aluminum 9" Ford Pinion Yoke	295.00
	28 spline, for 1350 series U joint. "B"= 3-7/8"	
39911	MW Aluminum 9" Ford Pinion Yoke	295.00
	35 spline, for 1350 series U joint. "B"= 3-7/8"	
39936	Low Friction 9" Ford Pinion Yoke	295.00
	32 spline, for 1350 series U joint. B"= 3-7/8" This is the aluminum yoke used with the 57022 series Thirdmembers and the MWE-XXX 9-1/2" Gear sets.	
39972	9" Ford Pinion Yoke 1480 Joint	325.00
	35 spline, for 1480 series U joint. B"= 3-7/8" for 9", 9-1/2", Gear sets.	
39973	12" Modular Pinion Yoke 1480 Joint	325.00
	40 spline, for 1480 series U joint. B"= 3-7/8" for 11", Gear sets.	



39115

39105

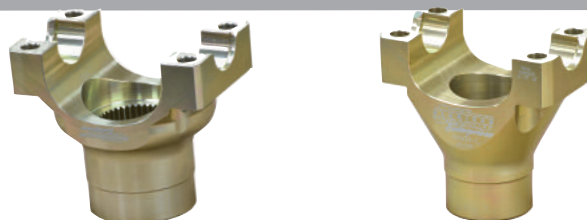
39135	Dedenbear PG Rapid Release Yoke	437.00
	27 spline. Powerglide trans. with Dedenbear Tail-Housing Roller bearing 1.500 diameter "D"=5-13/16"	
39157	Quick Release 32 Spline Roller Bearing	437.00
	32 spline. Roller bearing with 1.888" diameter D"=6-7/16"	
39110	Replacement Steel Caps, Bolt on (pr)	80.00
	For pre 2016 yoke with threaded holes.	
39112	Replacement Steel Caps, Gen II, stud (pr)	97.00



39110

39112

39008	MW 9" Ford Pinion Yoke, 28 spline	195.00
	28 spline, for 1350 series U joint. "B" = 3-7/8". Note: 57604 shim required if yoke is used with stock support.	
39011	MW 9" Ford Pinion Yoke, 35 spline	210.00
	35 spline, for 1350 series U joint. "B" = 3-7/8"	
39014	MW Dana 60 Pinion Yoke	195.00
	29 spline, for 1350 series U joint. "B" = 3-1/32"	
39016	MW 8-3/4" Mopar Pinion Yoke	210.00
	10 spline, for 1350 series U joint. "B" = 3-1/2"	
39018	MW '57-'64 Olds/Pontiac Pinion Yoke	195.00
	13 spline, for 1350 series joint. "B" = 3.160"	
39023	MW 8.8" Ford Pinion Yoke	195.00
	30 spline, for 1350 series U joint. "B" = 3-9/32"	
39037	MW 12" Rear	270.00
	40 Spline, for 1350 Series U-Joint "B"=3.830"	
39025	MW 9" Pinion Yoke 1330 series Joint	195.00
	28 spline for MW support, 1330 Ford joint (3-5/8 X 1-1/8") "B"=3-1/2"	
39083	14Bolt GM Truck 1410 series joint	304.00
	30 spline for early GM Truck used in Rock Bouncer	



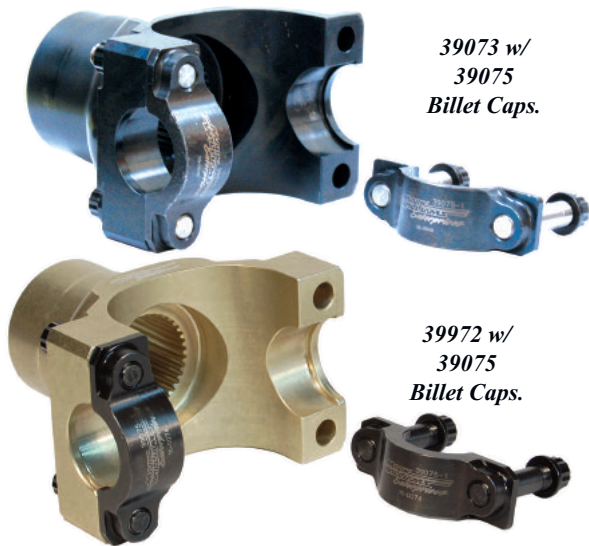
39973 1480 Joint

39908 1350 Joint

All MW aluminum yokes are CNC machined from 7075-T6 billet materials and have the MW Gold Coat process. These 1350 series pinion yokes mate to the 39912 Gen II and 1480 Joint, 39075 U-Bolt kits. (Page 73)

MARK WILLIAMS Enterprises®

1480 SERIES PINION YOKES



MW Extra Heavy Duty pinion yokes are precision machined from Alloy Heat-Treated steel forgings. They feature a 1480 series U-joint that is 40% stronger than the standard 1350 U-Joints. Special fixtures ensure that every yoke runs concentric to the splines. Shot Peened for surface strength improvement. For extra strength, the 39075 Billet Steel Cap Kit is required rather than replace standard straps.

39072 MW 1480 Series 9" Ford Pinion Yoke	339.00
<i>35 spline, for 1480 series U-Joints B=3-7/8"</i>	
39073 MW 1480 Series 12" Pinion Yoke	339.00
<i>40 spline, for 1480 series U-Joints B= 3-7/8"</i>	
39084 MW 1480 Series 14 Bolt GM Pinion Yoke	339.00
<i>30 spline, for 1480 series U-Joints B= 3.7" early 14 Bolt GM Truck</i>	
39075 Cap Kit for 1480 Series Yokes	129.00
<i>Billet steel cap kit for 1480 series pinion yokes</i>	
39972 MW 1480 Series Aluminum 9" Ford Pinion Yoke	325.00
<i>35 spline, for 1480 series U-Joints B=3-7/8"</i>	
39973 MW 1480 Series Aluminum 12" Pinion Yoke	325.00
<i>40 spline, for 1480 series U-Joints B= 3-7/8"</i>	

OVAL TRACK YOKE & PULLEY

39053-1 9" Oval Track Yoke Short	320.00
<i>9" Ford 28-spline. "B"=3-9/16" Nickel Plated.</i>	
39063 9" Oval Track Yoke, Short	206.00
<i>9" Ford 28-spline. "B"=3-9/16" Nickel Plated. For billet caps.</i>	
39064 9" Oval Track Yoke, Long	196.00
<i>9" Ford 28-spline. "B"=3-7/8" For 39111 billet caps.</i>	
39924-1 9" Oval Track Aluminum Long	295.00
<i>9" Ford 7075-T6 billet, 28-spline. "B"=3-7/8" with Threads.</i>	
U-BOLTS & OPTIONS	
39111 Billet U-Bolt Kit for NASCAR	97.00
<i>Billet caps with studs and 12 point nuts (pr).</i>	
39053-2 V- Belt Pulley Installed on above Yoke	35.00
<i>Pulley installed for driving oil cooler system pumps</i>	
39027 Strap Bolt on U-Joint Caps	14.70

MW Oval Track yokes are machined from 4340 forgings and designed to use Spicer 1350 U-joint and straps or MW U -bolt kit. V-belt pulleys are optional. These yokes are designed for Daytona type pinion supports or MW's 57690 nodular iron ball bearing support (yokes must be modified if used with any other MW support). Two new yokes accept a U-



39064 shown with 39111 billet caps



39024 w/strap kit and optional 39053-2 pulley

OFF-ROAD DRIVELINE COMPONENTS

With the increased popularity of off road events M/W is proud to offer several drive line products. For the Atlas transfer case we have yokes and CV flanges. For the 14 Bolt pinion yokes and CV flanges. Look for new problem solving products for you're off road drivelines in the future.



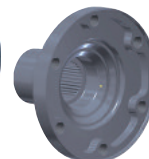
39086



39085



39332 Series 21



39334 Series 15 CV



39385 for Spicer Flange

39086 Atlas Transfer Yoke	304.00	39331 Pinon CV flange 930 Size	384.00
<i>32-spline. 1350 Spicer Joint size</i>		<i>35-spline. for 930 Series 15 CV Joint</i>	
39087 Atlas Transfer Yoke	304.00	39332 Pinon CV flange 934 Size	384.00
<i>32-spline. 1410 Spicer Joint size</i>		<i>35-spline. for 934 Series 21 CV Joint</i>	
39088 Atlas Transfer Yoke	304.00	39334 Atlas CV flange 930 Size	384.00
<i>32-spline. 1480 Spicer Joint size</i>		<i>32-spline. for Series 15 CV Joint</i>	
39084 GM Truck 14 Bolt Pinion Yoke	339.00	39335 Atlas CV flange 934 Size	384.00
<i>30-spline. 1480 Spicer Joint size</i>		<i>32-spline. for Series 21 CV Joint</i>	
39085 GM Truck 14 Bolt Pinion Yoke	304.00	39385 Pinon 4 bolt U-Joint flange	204.00
<i>30-spline. 1350 Spicer Joint size</i>		<i>for Spicer 4 Bolt up flange 4-3/4" square</i>	

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800-525-1963

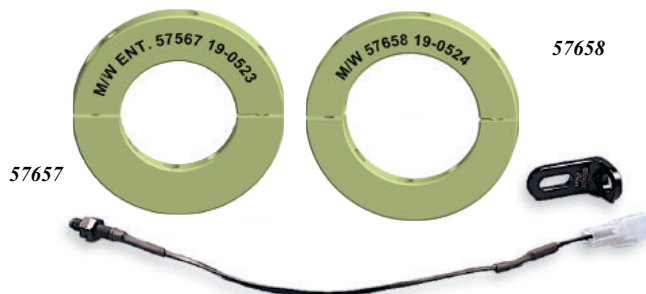
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www.markwilliams.com

COMPUTER PICKUP ASSEMBLY

The MW computer pickup assembly provides driveshaft rpm data from the pinion. Compatible with most on board computer systems. CNC machined and black anodized these collars will accept 1 to 8 magnets. Magnets slip in from center, a plastic plug holds the magnet outward (included with magnet). The 57642 collar has 1.875" I.D. while the 57645 collar has a 2.187" I.D. 57656 has a 2.375 I.D. Most MW yokes and couplers are designed to use one of these collars. Specify number of magnets required. 1,2 4 or 8

57640	Assembly Std Pinion (collar & bracket)	145.00
57641	Bracket for 9" Ford Thirdmember	21.20
57646	Assembly Lrg. Pinion (collar & bracket)	145.00

57658	Magnet Ring 8 mag (lrg pinion) 2.187" I.D.	125.16
57643	Magnet (1/4" dia. x 1/4" long)	2.75
57644	Proximity Sensor Assembly	75.00

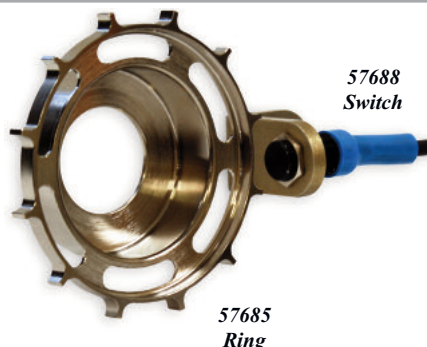


HIGH RESOLUTION HALL EFFECT SENSOR

The Mark Williams hall effect driveline sensor features a lightweight, nickel plated trigger ring and a solid state pickup. 12 pulses per revolution deliver accuracy 3 times higher than a 4 magnet system, and the system is less prone to errors due to vibration. The kit includes everything needed to install the system on a 9" Ford, including the bracket and updated seal.

57685	12 Point Hall Effect Sensor Ring	150.00
	<i>Fits 28 spline 9" Ford pinion, includes seal</i>	
57686	12 Point Hall Effect Sensor Ring	150.00
	<i>Fits 32 spline low drag 9" Ford pinion (MW), includes seal</i>	
57687	12 Point Hall Effect Sensor Ring	150.00
	<i>Fits 35 spline 9" Ford large pinion, includes seal</i>	
57688	Hall Effect Sensor Switch	118.00
	<i>Fits 9" includes bracket</i>	

**Older RacePak units may not be compatible without an update from RacePak.*



BALANCING

Hi-Speed Balancing



Many of our driveshaft improvement is result in utilizing use of our highly sophisticated balancing machine This enables Mark Williams Enterprises technicians to accurately balance shafts that simulate operating conditions. The device features a built-in "dyno" that can place loads on the shaft and is adjustable to universal joint operating angle The process allows Mark Williams to balance driveshafts and check the universal joint preload more accurately than is possible through conventional processes thus simulating actual running conditions. This equipment is used on all driveshafts manufactured by Mark Williams Enterprises. Mark Williams quality check and balance any existing 1350 or 1480 series universal shaft, regardless of manufacturer, for a nominal fee.

BAL	Straighten and High Speed Driveshaft Balance	125.00
BAL-SPIN	Spin Test and Balance to NASCAR Specifications	145.00

MARK WILLIAMS Enterprises®

DRIVELINE COUPLERS

Mark Williams makes a complete line of driveline couplers for dragster, funny car, drag boat, pulling tractor, and other applications with solid mount rear ends that require direct connection or solid splined shafts. All couplers are made of 4140 alloy steel and hardened by MW's Austempering heat treat process. Gear cutting operations are performed on special fixtures that locate on the spline pitch diameters to assure minimum total indicated run out. Coupler seal and/or bushing diameters are CNC ground to a smooth finish to assure proper fit and sealing of lubricants. All couplers receive a protective black oxide finish for extra durability. Double splined solid driveshafts and the original MW quick disconnect Powerglide couplers are also available for applications where the distance from the transmission to the rear end is too long for a standard male/female coupler.



TRANS COUPLERS, CONNECTORS & LOCK RINGS

40340	Ford C-4 Transmission Coupler	.231.65
	28 spline, male, Ford C-4 trans. 5-3/4" long	
40350	Ford C-6 Transmission Coupler	.205.00
	31 spline, male, Ford C-6 trans. 5-3/4" long	
40550	Mopar Transmission Coupler	.205.00
	30 spline, male, Jerico or Liberty trans. 5-3/4" long	
40600	Lenco Transmission Coupler	.106.00
	16 spline, male, Lenco trans. 2-7/8" long	
40610	Lenco Transmission Coupler	.122.00
	16 spline, male, Lenco trans. 3-7/8" long	
40620	Lenco Transmission Coupler	.160.00
	16 spline, female, Lenco trans or 16 spline driveshaft.	
40640	Lenco Transmission Coupler	.160.00
	32 spline, female, Lenco trans or 32 spline driveshaft.	
40650	Male Coupler Ring Gear	.67.00
	20 tooth gear with 1.650 bore (for making special couplers).	
40660	Lenco Transmission Coupler	.164.00
	35 spline, male, Lenco trans. 6" long	
40700	Turbo 400 and B&J Trans Coupler	.164.00
	32 spline, male, Turbo 400 or B&J trans. 3-7/8" long	
40711	Turbo 400 and B&J Trans Coupler	.182.00
	32 spline, male, Turbo 400 or B&J trans. 6-3/4" long	
40780	Lenco Transmission Coupler	.164.00
	32 spline, male, Lenco trans. 3-7/8" long	
40800	Powerglide Transmission Coupler	.145.00
	27 spline, male, Powerglide or 350 trans. 3-7/8" long	
40805	Powerglide Transmission Coupler	.145.00
	27 spline, male for Dedenbear Tail Housing. 3-7/8" long	

40810	Powerglide, Transmission Coupler	.205.00
	27 spline, male, Powerglide or 350 trans. 6 3/4" long	
40820	Powerglide, Transmission Coupler	.245.00
	27 spline, male, Powerglide or 350 trans. 8" long	
40830	Powerglide, Trans Coupler, with 4.5" Gap	.265.00
	27 spline, male, Powerglide or 350 trans, includes lock ring, sleeve & coupler	
40900	Driveshaft Connector	.66.00
	16 spline, Lenco transmission and solid driveshafts.	
40950	Driveshaft Connector	.66.00
	32 spline, Lenco transmission and solid driveshafts.	
40951	Driveshaft Connector	.66.00
	32 spline, B & J transmission and solid driveshafts.	
40960	Driveshaft Connector	.92.50
	40 spline, Transmission and solid driveshafts.	
40980	Driveshaft Connector	.86.00
	35 spline, Lenco transmission and solid driveshafts.	

Shaft to Coupler Lock Rings

40601	Coupler Lock Ring (aluminum)	.44.81
	Fits 1 3/8" 16 or 32 spline trans output or splined shaft. 1 pc.	
40602	Coupler Lock Ring (steel)	.42.40
	Fits 1 3/8" 16 or 32 spline trans output or splined shaft. 2 pc.	
40603	Coupler Lock Ring (aluminum)	.43.43
	Fits 1 3/8" 16 or 32 spline trans output or splined shaft. 2 pc.	
40605	Coupler Lock Ring (steel)	.40.00
	Fits 1 1/2" 35 spline trans output or splined shaft. 2 pc.	
40836	Coupler Lock Ring for 40 spline O.D.(steel)	.45.30
	Fits 40 spline 1.708" diameter used in Quick Disconnect Coupler assy.	

PINION COUPLERS

40000	9" Ford Pinion Coupler	.182.00
	35 spline, female, 9" Ford large pinion.	
40040	9" Ford Pinion Coupler	.215.00
	40 spline, female, 9" Ford TF pinion.	
40045	11" Modular Pinion Coupler	.215.00
	40 spline, female, 11" Modular pinion.	
40050	Blank Female Pinion Coupler	.140.00
	No internal splines, No heat treat	
40060	9" Ford Pinion Coupler	.215.00
	32 Spline, female, Low Friction Thirdmember	
40100	9" Ford Pinion Coupler	.164.00
	35 spline, male, 9" Ford large pinion.	
40200	'49-'50 Olds-Pontiac Pinion Coupler	.208.00
	10 spline, female.	

40250	'57-'64 Olds-Pontiac Pinion Coupler	.208.00
	13 spline, female.	
40300	9" Ford Pinion Coupler	.182.00
	28 spline, female, 9" Ford standard pinion.	
40400	Dana 60 Pinion Coupler	.182.00
	29 spline, female.	
40500	8-3/4" Mopar Pinion Coupler	.192.00
	10 spline, female.	
40630	Quick Change Pinion Coupler	.182.00
	10 spline, female.	
40750	12-Bolt Chevrolet Pinion Coupler	.182.00
	30 spline, female.	
49300	9" Ford Aluminum Pinion Coupler	.276.00
	Made from 7075 Aluminum. Similar to 40300. 28 Spline, female. 9" Ford standard pinion. Note: Limited service life.	

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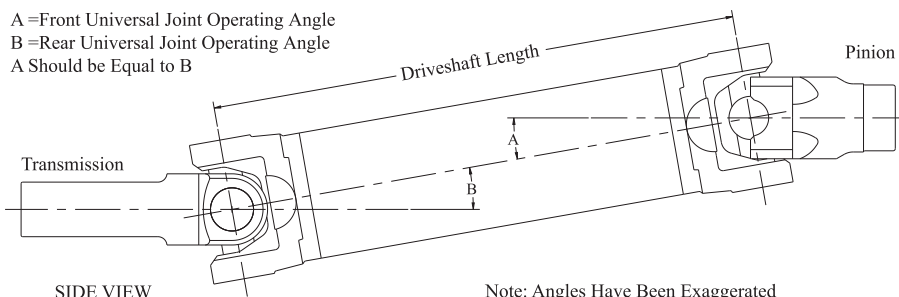
DRIVESHAFT TIPS

There are a couple important factors that will ensure the best possible performance from your driveshaft assembly. One is U-joint operating angles and the other is shaft critical speed. Both are explained below. Use these tips to avoid common driveline mistakes.

OPERATING ANGLES

The driveline arrangement in most racing applications is known as a parallel, zero degree phasing driveshaft. In order to obtain the minimum power loss from the operation of the universal joints, two things must be addressed with regard to operating angles. First is making sure shaft centerlines are parallel. Second is the actual operating angle of the U-joints. The centerline of the engine/transmission (ØA) should be kept as parallel as possible to the pinion centerline (ØB). This ensures both U-joints are operating at the same angle.

Keeping these centerlines parallel throughout the suspension travel would be ideal but is very hard to do. The type of rear suspension will have an effect on maintaining a parallel condition. A 4-link suspension system is the best when it comes to the pinion maintaining its angle through its travel up and down. Ladder bar and torque arm systems create unique operating angles as the suspension moves since they move from a single point. In any case, the pinion angle should be set to match the engine/trans angle with the car at its ride height by placing a digital level on a machined surface of the engine then on the pinion yoke. Adjust bars or shim accordingly. u-joint operating angles should be kept at a minimum. In general operating angles should be 2° or less for racing applications and should be within 1/2° of each other. Greater operating angles create a power loss and can cause vibration at high RPMs. Again a 4-link is the best at keeping the U-joints operating at the same angles. Increasing the operating angle will also affect the critical speed characteristics of a driveshaft. There is a general misunderstanding about "dropping the pinion down" several degrees. This is a practice that should be applied only to leaf spring cars without any traction control devices where springs can "wrap" and change pinion angle. This practice would not apply to 4-link, ladder bar or torque arm equipped cars. Failure to maintain matched and minimum operating angles increase erratic non-uniform output velocity from the driveshaft to the differential.



CRITICAL SPEED

MW Part Number	44"	46"	48"	50"	52"	54"	56"	58"	60"
39155 4.0" Carbon Fiber	14173	12940	11860	10910	10070	9320	8650	8060	7521
39550 4" Bonded 7075	10620	9700	8890	8170	7540	6980	6480	6040	5630
39555 3.5" Bonded 7075	8590	7850	7190	6620	6110	5660	5250	4890	4570
39600 3.0" Mild Steel	7860	7170	6570	6050	5580	5170	4800	4470	4170
39640 4" Mild Steel	10460	9560	8760	8060	7440	6890	6400	5960	5560
39650 3.5" Mild Steel	9210	8410	7710	7090	6550	6060	5630	5240	4890
39800 3" 4130 Steel	7960	7270	6660	6130	5660	5240	4860	4530	4220
39850 3.5" 4130 Steel	9230	8430	7730	7110	6570	6080	5650	5260	4910
39860 4" DOM Mild Steel	10470	9560	8770	8070	7450	6900	6410	5970	5570
39880 3.5" Chromoly 1480	9320	8510	7800	7170	6620	6130	5690	5300	4940
39890 4" 1480 Bonded 7075	10620	9700	8890	8170	7540	6980	6480	6040	5630
39985 3.5" Bonded 6061	9050	8260	7580	6970	6430	5960	5530	5150	4810
39990 4" Bonded 6061	10460	9540	8750	8050	7430	6870	6380	5940	5540

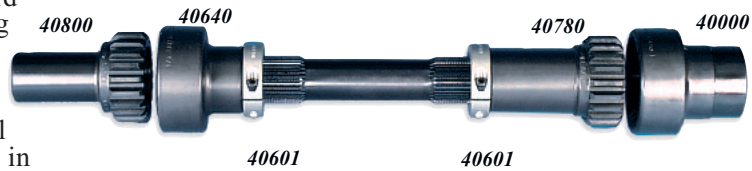
Any rotating shaft will become dynamically unstable at certain speeds and create vibrations at an amplitude that will cause destruction. The shaft will go into a whirl or "jump rope" effect causing an imbalance that will vibrate violently and ultimately fail. In order to avoid these conditions all drivelines must operate within their critical speed limitations. The factors that determine the critical speed are the stiffness of the material, the diameter of the tubular member and the shaft length. Typically a larger diameter shaft has a higher critical speed than a smaller diameter shaft. The length of a shaft also has a great effect on its speed properties. The chart to the left shows general limits based on a 75% rating. Keeping shafts within these limits will assure smooth operation. Shafts operating higher than the speeds listed can expect vibration at some point.

Critical Speeds of MW Driveshafts in RPM'S
Lengths are centers of U-Joints

MARK WILLIAMS Enterprises®

SOLID DRIVESHAFTS

MW solid driveshafts are for vehicles with solid mounted rear ends where a single coupler is not long enough. These shafts are available in stocked lengths from 6" to 28" long. All shafts are machined out of 4340-alloy steel. All shafts are, micro polished, and heat-treated with MW's austempering process. All shafts receive a black oxide finish. Standard shafts in stock are: 1-3/8-16 straight key, 1-3/8-32 involute spline and 1-1/2-35 involute splines. Shafts over 12" have 4 full inches of spline on each end and can be shortened up to 2" on each end. Couplers and spline shafts should not be used unless perfect alignment is assured. Critical speed calculations must be considered for these shafts. Call with your numbers to confirm the RPM critical speed value. MW can also build custom solid driveshafts to your specs with different splines upon request.



Typical Powerglide to 9" Ford set-up with 32 spline shaft

16 SPLINE DRIVESHAFTS

41000-06 F/C Driveshaft, 16 Spline 6" Long	170.00
41000-08 F/C Driveshaft, 16 Spline 8" Long	185.00
41000-12 F/C Driveshaft, 16 Spline 12" Long	207.00
41000-14 F/C Driveshaft, 16 Spline 14" Long	215.00
41000-16 F/C Driveshaft, 16 Spline 16" Long	242.00

41000-20 F/C Driveshaft, 16 Spline 20" Long	255.00
41100-24 F/C Driveshaft, 16 Spline 24" Long	265.00
41100-28 F/C Driveshaft, 16 Spline 28" Long	276.00
41100-32 F/C Driveshaft, 16 Spline 32" Long	299.00

32 SPLINE DRIVESHAFTS

41050-06 F/C Driveshaft, 32 Spline 6" Long	170.00
41050-08 F/C Driveshaft, 32 Spline 8" Long	185.00
41050-12 F/C Driveshaft, 32 Spline 12" Long	207.00
41050-16 F/C Driveshaft, 32 Spline 16" Long	219.00

41050-20 F/C Driveshaft, 32 Spline 20" Long	255.00
41150-24 F/C Driveshaft, 32 Spline 24" Long	242.00
41150-28 F/C Driveshaft, 32 Spline 28" Long	253.00

35 SPLINE DRIVESHAFTS

41060-06 F/C Driveshaft, 35 Spline 6" Long	170.00
41060-24 F/C Driveshaft, 35 Spline 24" Long	255.00

41160-28 F/C Driveshaft, 35 Spline 28" Long	265.00
41160-32 F/C Driveshaft, 35 Spline 32" Long	282.00

QUICK DISCONNECT POWERGLIDE COUPLER

This innovative MW original design allows transmission removal without disturbing the engine or rear end. Perfect for Comp and Super Comp dragsters. **Shorty Powerglide only.**

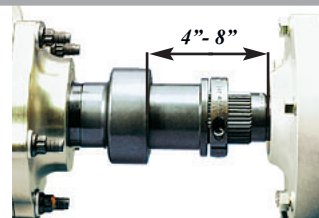
POWERGLIDE 27 SPLINE BUSHING TAIL HOUSINGS

40830 Q/D Coupler, Powerglide (Short)	265.00
<i>Requires 4" from trans seal to pinion coupler, bushed housing</i>	
40840 Q/D Coupler, Powerglide (Long)	276.00
<i>Requires 4" - 6" from trans seal to pinion coupler, bushed housing</i>	
40860 Q/D Coupler, Powerglide (Extra Long)	285.00
<i>Requires 6"-8" from trans seal to pinion coupler, bushed housing</i>	

POWERGLIDE 27 SPLINE ROLLER TAIL HOUSINGS

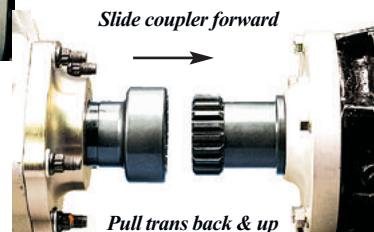
40850 Q/D Coupler, Powerglide (Short)	265.00
<i>Requires 4" from trans seal to pinion coupler, roller housing</i>	
40855 Q/D Coupler, Powerglide (Long)	276.00
<i>Requires 4"-6" from trans seal to pinion coupler, roller housing</i>	
40865 Q/D Coupler, Powerglide (Extra Long)	285.00
<i>Requires 6"-8" from trans seal to pinion coupler, roller housing</i>	

Individual replacement parts are available for all couplers. Our MW Technical Representative can help you find the right parts. Give us a call.



With coupler installed and lock ring in place, a gap (approximately 1/8") is needed to be between lock ring and coupler to avoid binding as the chassis works.

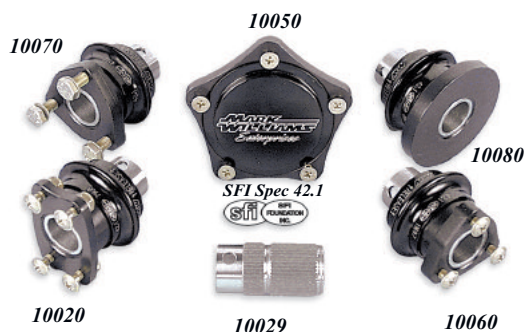
When removing the transmission, remove the lock ring and slide coupler forward to the back of the transmission. This allows the transmission to be moved back and off the dowel pins of the engine.



POWERGLIDE WITH 32 SPLINE OUTPUT

40870 Q/D Coupler 32T for Powerglide (Short)	287.00
<i>Requires 4" from trans seal to pinion coupler, roller housing</i>	
40875 Q/D Coupler 32T Powerglide (Long)	318.00
<i>Requires 4"-6" from trans seal to pinion coupler, roller housing</i>	
40876 Q/D Coupler 32T, Powerglide (Extra Long)	344.00
<i>Requires 6"-8" from trans seal to pinion coupler, roller housing</i>	
40878 Q/D Coupler 32T, T-400 (Extra Long)	357.00
<i>Requires 6"-8" for Bushing (long barrel)</i>	

QUICK RELEASE STEERING HUBS



MW quick release hubs not only make it easier for drivers to get in and out of their cars under normal conditions, but they're invaluable in emergency situations. Our hubs feature a close tolerance between the splines in the hub and the splined mounting sleeve. This eliminates annoying "slop" common with hex style hubs and contributes to unsurpassed driver feel. All hubs incorporate a positive ball/detent lock, while the sliding collar's shape facilitates easy "two finger" operation. The chromoly 1" x 48 tooth splined sleeve (with one tooth omitted for indexing purposes) can easily be welded or bolted to any 3/4" O.D. steering shaft. Hubs are CNC machined from billet 7075 aluminum and black anodized for durability. Note: *Splined sleeve & wheel mounting hardware included w/ each hub kit.*



10020 Q/R Hub Dragster & F/C	120.00
<i>For MW wheels, 4 holes, 3/16" holes, .75 x 1.65</i>	
10025 Q/R Hub	154.00
<i>5-Hole Grant GT Pattern, 3/16" hole, 5 x 2.86 B.C.</i>	
10029 Splined Sleeve, Bolt on	32.00
10050 Q/R Hub	154.00
<i>6-Hole Sparco/Momo Pattern. 3/16" holes, 2.755" (70mm) B.C</i>	

10060 Q/R Steering Hub	120.00
<i>3 hole Don Long style, 10-32 thd., 3 holes on 1.375 B.C.</i>	
10070 Q/R Hub	120.00
<i>Oval track, 3 hole x 1/4" threads on 1.75 B.C.</i>	
10080 Q/R Hub, Universal	120.00
<i>Blank 2.45" diameter flange.</i>	
30112 1/4" Cross Bolt and Nut	7.95
<i>Aircraft smooth shank bolt with washers and Jet nut.</i>	

DRAGSTER STEERING WHEELS

MW Dragster/FC steering wheels are fully CNC machined from 3/16" aluminum. Main wheel is fully polished inside and out with polished grips. MW wheels are approximately 7 5/8" wide and 7 1/8" deep and drilled to match steering hub #10020 or D5 mount.

We can offer wheels without the grips installed for customers wanting the have the grips anodized colored with other car components.

10035 Dragster/FC Type Steering Wheel	170.00
<i>With polished grips, Mounting drilled for 10020 quick release hub or D5 weld in mount. We no longer offer anodized colored grips.</i>	
10046 Switch Panel*	45.00
<i>Brushed Aluminum, w/ Button Holes</i>	
10048 Switch Black Panel*	45.00
<i>Black Aluminum, with Button Holes</i>	

**Switch panel mounting holes must be drilled in steering wheel.*



10048



10046



10035



10035 & 10048
(Switches not Included)

STEERING WHEELS

713-4 10" Grant "D" Shape Wheel	147.00
<i>Black suede grip, silver spokes. Uses 10060 Quick Release hub. Dragster/Altered Applications. Note legal for door cars.</i>	
763-1 13" Grant Steering Wheel	124.00
<i>Black grip, silver spokes. Uses 10025 Quick Release hub.</i>	
764-1 13" Grant Steering Wheel	134.00
<i>Black grip, yellow stripe Uses 10025 Quick Release hub..</i>	



713-4

763-1

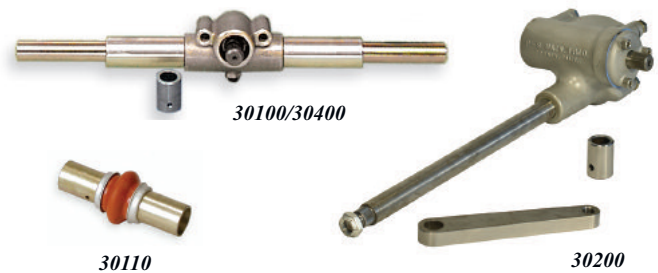
764-1

MARK WILLIAMS Enterprises®

STEERING BOXES

MW stocks a billet Funny Car type steering box for front-engine applications and rack and pinion steering boxes for rear engine dragsters. Racks are available in 10" or 15" widths and with racks in either steel or aluminum. Rack and Pinion Units are dimensionally the same as original P&S machine steering. We now have the original P-S (TAK Machine) tooling and patterns to reproduce the original P-S product.

30100 Rack and Pinion	407.00
<i>15" rack with 6" of travel steel rack 2.74 lbs</i>	
30100A Aluminum Rack and Pinion	407.00
<i>15" 7075 aluminum rack with 6" of travel 1.71 lbs</i>	
30400A Aluminum Rack and Pinion	407.00
<i>10" 7075 aluminum rack with 6" of travel 1.34 lbs</i>	
30200 Standard Steering, 10:1 Ratio	560.00
<i>Standard unit for F/C and Altered race cars 5.36 lbs</i>	
30110 Universal Joint for 3/4" OD Tube	176.89
<i>Aircraft quality Joint lubricated with rubber boot</i>	



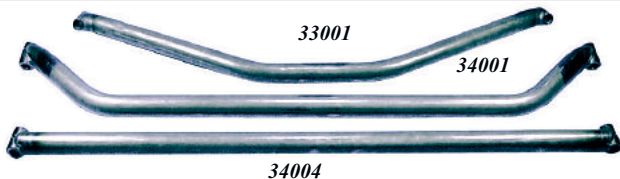
MW FRONT SPINDLES

MW front spindles are manufactured from 4130 steel forgings or 7075 Aluminum Billet and accept the popular Anglia style spindle mount wheels. All spindles are drilled top and bottom for a steering arm or a tow hook attachment and are black oxidized. Steering arms are profile milled from 1/4" 4130 steel or 1/4" 7075 aluminum. All assemblies include brass thrust washers, spindle castle nuts, washers, and cotter pins.

31200 MW Front Spindle Assembly (pr)	574.00
<i>Steel. 2 control arms. Standard is 5" arms</i>	
31210 MW Front Spindle Assembly (pr)	609.00
<i>Steel 3 control arms. Specify 4", 5" or 6" arms.</i>	
31230 MW Front Spindle Assembly (pr)	560.00
<i>Steel With king pins. No steering arms.</i>	
31300 Aluminum 7075 Spindle (pr)	560.00
<i>Two 4" aluminum arms with castle nuts and thrust washers.</i>	
31221 Tow Rings Spindle Cap M/W Spindle	33.75
31222 Tow Rings Spindle Cap P-S Spindle	33.75



TUBULAR FRONT AXLES

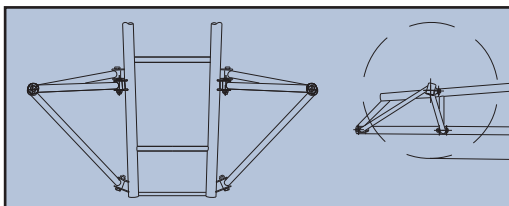


33001 Dragster Axle	320.00
<i>6" drop, 39" centers, 6" flat, 1-1/2 x .120 4130 tube</i>	
33002 Dragster Axle	337.00
<i>5" drop, 39" centers, 6" flat, 1-1/2 x .120 4130 tube</i>	
33003 Dragster Axle	322.00

Mark Williams tubular front axles are built from 4130N chromoly tubing. King pin bosses are TIG welded using a special precision fixture to maintain correct king pin angle then king pin bores are reamed after final welding.

<i>5" drop, 39" centers, 20" flat, 1-1/2 x .120 4130 tube</i>	
33005 Dragster Axle	320.00
<i>6" drop, 36" centers, 6" flat, 1-1/2 x .120 4130 tube</i>	
34001 Funny Car/Altered Axle	326.00
<i>5" drop, 42" centers, 1-5/8 x .188 4130 tube</i>	
34002 Funny Car/Altered Axle	298.00
<i>3" drop, 40" centers, 1-5/8 x .188 4130 tube</i>	

A-ARM FRONT END MATERIALS KITS



Typical Dragster A arm installation

The advantages of an A-arm setup include lighter weight, increased rigidity, and contemporary styling. Both kits feature a bolt on removable A-arm design. The 33600 A-arm jig fixture or a similar clamping fixture is necessary to build a car with these kits. (See page 84)

34500 F/C Altered A-Arm Front End Kit	206.00
33500 Dragster A-Arm Front End Kit	211.00
33600 A-Arm Jig Fixture (see photo page 86)	195.00

toll free
800-525-1963

on the web
www.markwilliams.com

TORSION ASSEMBLIES

FUNNY CAR TORSION ASSEMBLY

The MW FC/Altered torsion bar assembly is designed for use on either a Funny Car or Altered chassis, and has a 26" span with 5 inch arms. The housing is 1-1/2" x .065 diameter 4130 chromoly tubing, while the torsion bar is heat-treated 4140 steel.

Extra fine adjustments are possible through the use of 7/8"-48-spline serrations on the torsion bar and arms. The torsion arm load is carried by Torrington® needle bearings. Plus complete freedom of axle movement is assured through the use of 3/8" spherical bearings swedged in the torsion arms.



35000 Funny Car/Altered Torsion Assembly460.00
26" centers with 5" arms

AXLE MOUNTING BRACKETS



Pre-cut mounting brackets make it easy to mount the front axle. All are produced from 4130 sheet normalized condition steel.

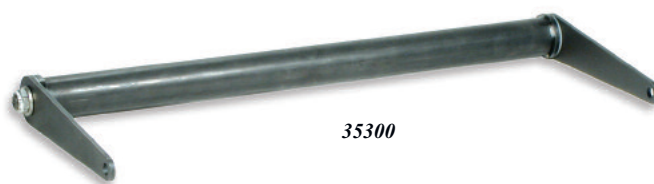


15010 Axle Mount Brackets F/C (4)61.00
3/16 4130 welds to 1-5/8" tube axle bolts to the 35000 Torsion

33020 Axle Mount Brackets Dragster (4)69.00
3/16 4130 plate welds to 1-1/2" tube axle, bolts to the 35300 Torsion

DRAGSTER TORSION ASSEMBLY

Mark Williams has reproduced the Dragster Torsion assembly that was used in the '60's. The bar is produced from 1/2" hex material and has 7/8-48 serrated buttons on the ends for height adjustment. The splined button is hardened as well as the end flange in the tube, to retard wear a small grease hole allows lubrication of the moving parts. This is the same dimensionally, as was used for Woody Gilmore and Mark Williams front engine cars.



35300 Dragster Torsion Bar332.00
20" centers 6-3/8" long arm 1-3/8" Dia housing

ANTI-ROLL ASSEMBLIES

The Anti-Roll assembly features splined 7075 aluminum outer arms. There are two models, 1-1/4" and 1-1/2" spline sizes. The shaft for the 1-1/4" (351XX) series can be heavy wall 1-1/4" chromoly tube or splined adapter .083" diameter adapter tube. The 1-1/2" spline size assemblies, (352XX) series utilize the splined adapter for 3" x .083 wall 4130 tube. The splined arms eliminate the possibility of oblong holes which are typical of a thru bolt design. The arms have a clevis design and accept 3/8" rod ends. The 3" tubular bar is stiffer than the straight 1-1/4" bar, and has the advantage of being fabricated to any width in the field.

The spherical self-aligning aluminum and Delrin® bearing mount are supplied with the weld on tabs and are available separately.

1-1/4" ANTI-ROLL ASSEMBLIES

35105 3" Tubular Anti Roll Center Tube Assy. 1-1/4" .686.00
3" center tube assy., with 35103 bearings, specify 5" or 6" arms & width.
Includes (2) 35103 bearing blocks.

35100 MW Anti-Roll Assembly 1-1/4" Serrations396.51
5" or 6" arms. 18" centers. 1-1/4 x .188 tube (custom widths available)
(no bearing blocks)

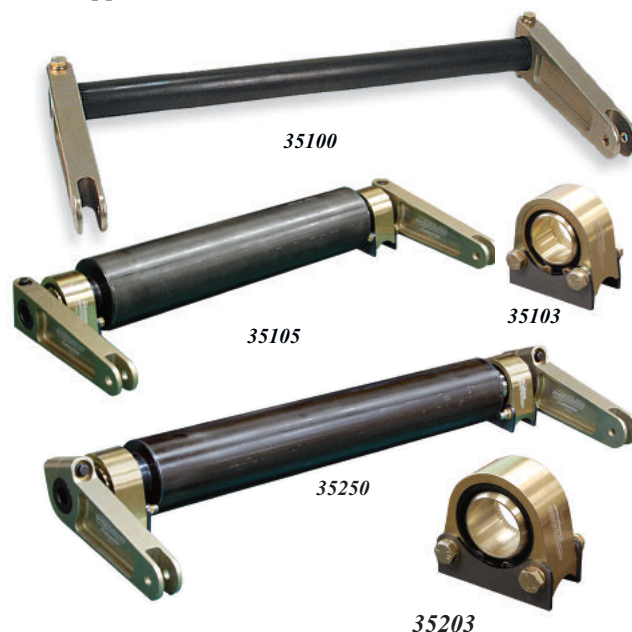
35103 Spherical Bearing Block 1-1/4"115.00
1-1/4" x 48 Tooth serrations partially in bore. (2 required)

1-1/2" ANTI-ROLL ASSEMBLIES

35250 3" Tubular Anti Roll Center Tube Assy 1-1/2" . .873.00
3 X .083" X (24") center tube 35203 bearings (2), 1.5" ends, and 6" aluminum arms

35203 Spherical Bearing Block, 1-1/2" (one)152.00
1-1/2" x 48 Tooth serrations partially in bore. (2 required)
and 35105 kits (not shown).

35110 Linkage Kit for Anti-Roll Assembly198.00
Includes (2) 12" long 7/8" x .058" tube, tube adapters 4130 7/16" large shank RH & LH rod ends with 3/8" holes, all nuts and washers, for 35100



MARK WILLIAMS Enterprises®

SUSPENSION, MONO-SHOCK ROCKER SYSTEM

This is a unique mono-shock system that's perfect 4-link dragster. This design utilizes a single coil over shock and combines the functions of actuating the shock and an anti-roll bar in one assembly. The 12010 assembly shown with optional shock and spring, which are sold separately. Three different spring rates are available to suit various engine combinations.



12010 Rocker Assembly
shown with available
coil over

12010	Rocker Suspension Assembly (less shock)	864 .00
12011	Splined Outer Rocker Arm (ea)	107.50
12017	Delrin® Shaft Bushing (ea)	31.56
12015	Adjuster Link, no rod ends (ea)	26.00
12019	Double Adjustable Shock (5" stroke no spring)	POA
12019-225	Coil Spring (225#)	63.00
12019-275	Coil Spring (275#)	63.00

4-LINK & WISHBONE KITS



97100 KIT



12030 KIT



12021



97150

12020	Dragster/Altered 4 Link Kit	804.00
	<i>Kit uses 1-1/8" x .083" tubing & 5/8" x 5/8" rod ends.</i>	
12021	Dragster Front 4 Link Bracket (ea)	47.68
12030	Dragster/Altered Wishbone Kit (ea)	220.00
	<i>1/2" (2) and 5/8" (1) 4130 rod ends, aluminum slider shaft</i>	
97100	4 Link Kit for 96000/97000 Housing	1060.00
	<i>Kit uses 1-1/4" x .095 tubing & 5/8 x 3/4 rod ends.</i>	
97150	Front Chassis 4 Link Bracket (ea)	56.00

Mark Williams' 4-link wishbone kits include everything required to complete a standard 4-link rear suspension from the chassis to the housing. All kits include Aurora 4130 rod ends, jam nuts, tube adapters, M/W reduced hex shear shank bolts and locking jam nuts, and chromoly tubing. Both 4-link kits also include chromoly front chassis brackets.

LEVERS, PEDALS

MW brake levers and clutch/brake pedal are all CNC machined from 1/4" 6061 aluminum stock and fully polished to a bright luster. Both brake levers have polished aluminum grips installed. Clutch/brake pedal features bolt-on foot pad with grooved non-slip surface. All include mounting stud #10040 (see below).



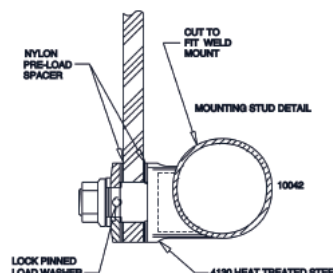
10042	Brake/Clutch Pedal	102.34
	<i>With bolt on foot pad.</i>	
10043	Dragster Brake Lever	118.62
	<i>Polished aluminum grips.</i>	
10044	Funny Car Brake Lever	140.00
	<i>Polished aluminum grips.</i>	

LEVER/PEDAL MOUNTING STUD



10040

This unique assembly makes mounting controls such as brake levers and/or pedals simple. The use of a keyed aluminum washer along with teflon washers on each side of the lever allows the tension to be adjusted without the possibility of the nut loosening during use. The main body is machined from 4130 alloy steel and can be cut to fit against chassis rail (as shown).



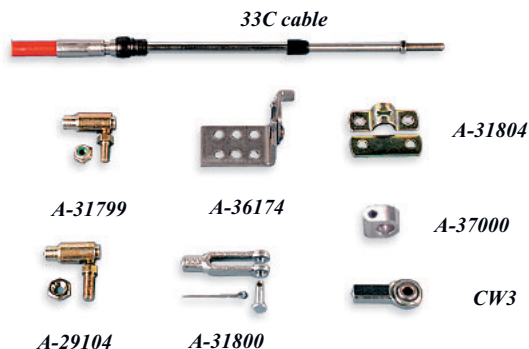
10040	Lever/Pedal Mounting Stud Assembly	58.00
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toll free
800-525-1963

on the web
www.markwilliams.com

MORSE CONTROL CABLES

Morse control cables have been the standard for many years and are ideal for operating your throttle, fuel shut-off, shifter/reverser, or chute release. MW stocks 3 foot to 14 foot cables and most of the common end fittings and clamps, both standard and quick release.



CABLE ACCESSORIES

A-21002	Quick Cable End 1/4"-28 X 3/8 Ball	10.50
A-29104	Quick Release Rod End, 1/4-28 thread	11.69
A-31799	Quick Release Rod End, 10-32 thread	14.15

33C-3	3' Morse Push/Pull Cable	44.07
33C-4	4' Morse Push/Pull Cable	51.00
33C-5	5' Morse Push/Pull Cable	45.30
33C-6	6' Morse Push/Pull Cable	45.51
33C-7	7' Morse Push/Pull Cable	52.31
33C-8	8' Morse Push/Pull Cable	50.59
33C-9	9' Morse Push/Pull Cable	49.89
33C-10	10' Morse Push/Pull Cable	56.67
33C-11	11' Morse Push/Pull Cable	57.58
33C-12	12' Morse Push/Pull Cable	58.74
33C-13	13' Morse Push/Pull Cable	59.91
33C-14	14' Morse Push/Pull Cable	70.63
33C-24	24' Morse Push/Pull Cable	72.66

A-31800	Clevis, 10-32 thread	7.32
A-31804	Clamp & Shim	6.42
A-36174	Quick Release Clamp	16.16
A-37000	Clamp, Aluminum Morse Cable	15.53
CW3	3/16" Female Rod End	6.76

CHROMOLY ROD ENDS



MW recommends the use of chromoly rod ends in high stress applications such as suspension components and steering linkage. All of the Aurora® 4130 chromoly rod ends listed here are a 3 piece design.

AM6	3/8-24" 4130 Male Rod End	24.28
AB6	3/8-24" 4130 Male Left Hand Rod End	24.28
AM7	7/16"-20 4130 Male Rod End	30.02
AB7	7/16"-20 4130 Male Left Hand Rod End	30.02
AM8	1/2"-20 4130 Male Rod End	38.22
AB8	1/2"-20 4130 Male Left Hand Rod End	38.22
AM10	5/8"-18 4130 Male Rod End	48.42
AB10	5/8"-18 4130 Male Left Hand Rod End	48.42
AM12	3/4"-16 4130 Male Rod End	68.80
AB12	3/4"-16 4130 Male Left Hand Rod End	68.80
RAM6T	3/8"-24 4130 Rod End <i>Right hand thread, nickel plated and PTFE lined.</i>	49.40

RXAM10T	3/4"-16 4130 Male Rod End <i>5/8" ball, right hand thread, nickel plated and PTFE lined.</i>	98.98
RXAB10T	3/4"-16 4130 Male Rod End <i>5/8" ball, left hand thread, nickel plated and PTFE lined.</i>	100.56
RAM12T	3/4"-16 4130 Male Rod End <i>Right hand thread, nickel plated and PTFE lined.</i>	106.56
RAB12T	3/4"-16 4130 Male Rod End <i>Left hand thread, nickel plated and PTFE lined.</i>	106.56
XAM6	7/16"-20 4130 Male Rod End <i>3/8 ball, right hand thread.</i>	29.74
XAB6	7/16"-20 4130 Male Rod End <i>3/8 ball, left hand thread.</i>	29.74
XAM10	3/4"-16 4130 Male Rod End <i>5/8 ball, right hand thread.</i>	68.24
XAB10	3/4"-16 4130 Male Rod End <i>5/8 ball, left hand thread. 5/8 ball, left hand thread.</i>	68.24
RXAM-8T-3	3/4"-16 4130 Male Rod End <i>3/4 Shank, Teflon Lined. 1/2" ball, right hand thread.</i>	107.46
RXAB-8T-3	3/4"-16 4130 Male Rod End <i>3/4 Shank, Teflon Lined. 1/2" ball, left hand thread.</i>	109.06

THIN JAM-NUTS

Jam nuts are used to lock the rod end in the mating female threaded connector. We can supply thin steel nuts of aircraft quality or M/W produced from 7075 aluminum and gold coated. Currently the 3/4 and 1/2" sizes are available in aluminum with more to follow.

N5R	5/16-24 R.H. Jam Nuts, (6 pcs)	5.25
N5L	5/16-24 L.H. Jam Nuts, (6 pcs)	12.54
N6R	3/8-24 R.H. Jam Nuts, (6 pcs)	6.99
N6L	3/8-24 L.H. Jam Nuts, (6 pcs)	12.39
N7R	7/16-20 R.H. Jam Nuts, (6 pcs)	9.30
N7L	7/16-20 L.H. Jam Nuts, (6 pcs)	13.65

N10R	5/8-18 R.H. Jam Nuts, (4 pcs)	15.00
N10L	5/8-18 L.H. Jam Nuts, (4 pcs)	21.00
N8RA	1/2-20 R.H. Aluminum Jam Nuts, (6 pcs)	21.50
N8LA	1/2-20 L.H. Aluminum Jam Nuts, (6 pcs)	21.78
N12RA	3/4-16 R.H. Aluminum Jam Nuts, (4 pcs)	21.98
N12LA	3/4-16 L.H. Aluminum Jam Nuts, (4 pcs)	22.44



MILD STEEL ROD ENDS

CM3	10-32 Male Rod End	6.88
CW3	10-32 Female Rod End	6.76
CW4	1/4"-28 Female Rod End	6.98
CM5	5/16"-24 Male Rod End	8.68
CB5	5/16"-24 Left Hand Male Rod End	7.08
CW5	5/16"-24 Female Rod End	7.70
CM6	3/8"-24 Male Rod End	8.68
CB6	3/8"-24 Male Left Hand Rod End	8.68
CM7	7/16"-20 Male Rod End	10.26
CB7	7/16"-20 Male Left Hand Rod End	10.26
CM8	1/2"-20 Male Rod End	13.68
CB8	1/2"-20 Male Left Hand Rod End	13.68

Mark Williams Enterprises stocks a complete line of mild steel Aurora® spherical rod ends. The mild steel rod ends listed here are a 2 piece design and are ideal for applications such as throttle, shifter, clutch linkage, and other light duty applications.



CM10

CM10	5/8"-18 Male Rod End	18.46
CB10	5/8"-18 Male Left Hand Rod End	18.46
CM12	3/4"-16 Male Rod End	25.02
CB12	3/4"-16 Male Left Hand Rod End	25.02
XM10	3/4"-16 Male Rod End	39.34
<i>3/4-16 Thread on shank with 5/8" hole in ball.</i>		
XB10	3/4"-16 Male Left Hand End	39.34
<i>3/4-16 Thread on shank with 5/8" hole in ball.</i>		

TUBE ADAPTERS

MW weld in tube adapters make fabricating linkage, struts, or any application that requires joining a male rod end or threaded clevis to chromoly tubing a snap. All MW tube adapters are CNC machined and lead screw tapped to ensure a precise and square part.

10510	Tube Adapter, 5/16"-24 to 5/8 x .058	8.20
10510L	Tube Adapter, 5/16"-24 L.H. to 5/8 x .058	8.20
10610	Tube Adapter, 3/8"-24 to 5/8 x .058	5.26
10610L	Tube Adapter, 3/8"-24 L.H. to 5/8 x .058	5.26
10612	Tube Adapter, 3/8"-24 to 3/4 x .058	6.72
10612L	Tube Adapter, 3/8"-24 L.H. to 3/4 x .058	6.72
10614	Tube Adapter, 3/8"-24 to 7/8 x .058	6.70
10614L	Tube Adapter, 3/8"-24 L.H. to 7/8 x .058	6.70
10714	Tube Adapter, 7/16"-20 to 7/8 x .058	9.04
10714L	Tube Adapter, 7/16"-20 L.H. to 7/8 x .058	9.04
10814	Tube Adapter, 1/2"-20 to 7/8 x .058	10.36
10814L	Tube Adapter, 1/2"-20 L.H. to 7/8 x .058	10.36
10816	Tube Adapter, 1/2"-20 to 1 x .058	11.20
10816L	Tube Adapter, 1/2"-20 L.H. to 1 x .058	11.20
11016	Tube Adapter, 5/8"-18 to 1 x .058	11.20
11016L	Tube Adapter, 5/8"-18 L.H. to 1 x .058	11.20
11018	Tube Adapter, 5/8"-18 to 1 1/8 x .083	12.00



11018L	Tube Adapter, 5/8"-18 L.H. to 1 1/8 x .083	12.00
11218	Tube Adapter, 3/4"-16 to 1 1/8 x .083	12.00
11218L	Tube Adapter, 3/4"-16 L.H. to 1 1/8 x .083	12.00
11220	Tube Adapter, 3/4"-16 to 1 1/4 x .058	13.00
11220L	Tube Adapter, 3/4"-16 L.H. to 1 1/4 .058	13.00
11221	Tube Adapter, 3/4"-16 Thread	13.00
<i>For 1-1/4 x .095 tubing, for 4-link rear suspension</i>		
11221L	Tube Adapter, 3/4"-16 L.H. Thread	13.00
<i>For 1-1/4 x .095 tubing, hex wrench driver for 4-link</i>		

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800-525-1963

on the web
www.markwilliams.com

CHASSIS BRACKETS & TABS

All of the MW brackets and tabs listed below are manufactured from 1/8" thick 4130N chromoly steel, except for 10010 and 15010 which are 3/16" thick and D5 which is 1/16" thick chromoly.

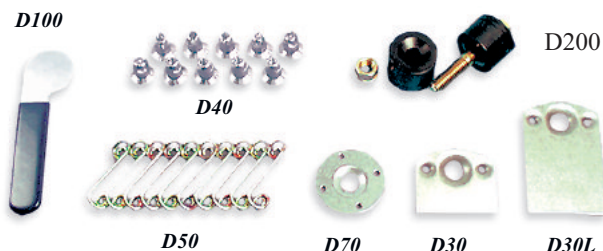


10010	Mounting Tab for Clevis (5/16" hole)	7.19
15010	Torsion Mounting Brackets, 3/16" (set of 4) <i>For 34002 3" drop x 40" centers</i>	61.00
D11	Anti-Rotation Tab (3/8" Hole)	3.20
D12	Chassis Radius Rod Mount Bracket	5.72
D1A	Small Motor Mount Tab (3/8" Hole)	3.45
D2	Large Flat Mount Tab (3/8" Hole)	4.07
D20	Large Motor Mount Tab (No hole)	14.35
D21	Small Flat Mounting Tab (3/8" Hole)	1.65
D26	Weld-In Clevis for 7/8" Tube (3/8 Rod End)	3.69
D5	Steering Wheel Mount Plate	4.25
D150	Motor Mount Clamp, 1-1/2" (ea) <i>Fits 1-1/4" to 1-1/2" diameter tubing. Quantity pricing available.</i>	7.00
QTL	Frame Rail Tail Light 1.5" diameter	88.50

DZUS FASTENERS & TOOLS

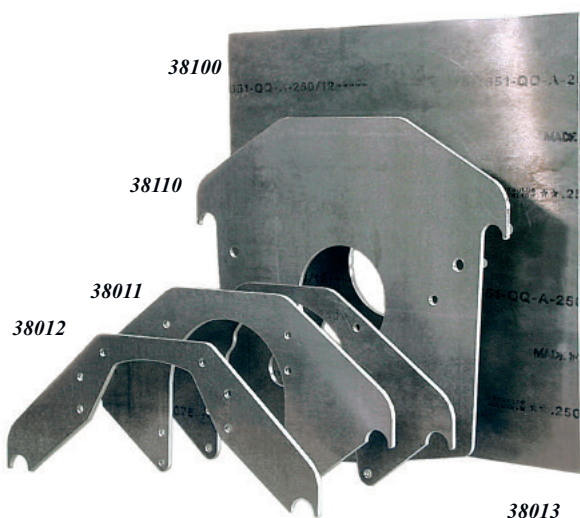
D30	Dzus Mounting Tab, (ea)	.98
D30-100	Dzus Mount Tabs, (pack of 100)	61.95
D30L	Dzus Mounting Tab, 3" Long (ea)	1.44
D30L-100	Dzus Mounting Tab, 3" Long (100)	74.00
D40	Dzus Buttons, Steel (10 ea.)	18.32
D40-100	Dzus Buttons, (pack of 100)	150.80
D50	Dzus Springs, (pack of 10)	13.52
D50-100	Dzus Springs, (pack of 100)	101.39
D70	Panel Doubler (Round)	.71
D100	Dzus Button Wrench	9.00
D200	Dzus Dimpling Tool	22.50

Dzus fasteners are the most widely accepted method of securely attaching aluminum body panels, fiberglass panels, seats, etc. MW stocks the popular buttons, springs, tabs, and panel doublers along with the proper dimpling, and installation tools, and button wrench.



ENGINE MOUNTING PLATES

All MW engine mounting plates are manufactured from 1/4" thick 7075-T6 aluminum plate and CNC machined with common crankshaft centerlines to ensure exact fit and interchange-ability even from one engine make to another. Semi-Finished plate Has the 6" crankshaft hole, dowel pin, and 2" vent holes.



38010	Engine Mount Plate Blank <i>12" x 24" Front blank. 1/4" thick (no holes)</i>	105.00
38100	Rear Engine Mount Plate <i>24" x 24" Semi-Finished with crank and vent holes and choice of dowel pin holes. 1/4" thick.</i>	229.00
38115	Rear Engine Mount Plate <i>For Funny Car and Altered with crank and vent holes. Milled for 1 1/2" tube size. Choice of dowel pin holes. Top section is not profiled. 1/4" thick. (photo not shown)</i>	240.00
38110	Rear Engine Mount Plate <i>For Dragster with crank and vent holes. Milled for 1 1/4" tube size. Choice of dowel pin holes. 1/4" thick.</i>	240.00
38011	Front Engine Mount Plate <i>Small Block Chevrolet for Dragster & Funny Car. 1/4" thick.</i>	130.00
38012	Front Engine Mount Plate <i>Late Model Chrysler for Dragster and Funny Car. 1/4" thick.</i>	130.00
38013	Front Engine Mount Plate <i>Big Block Chevrolet for Dragster & Funny Car. 1/4" thick.</i>	130.00

MARK WILLIAMS Enterprises®

CHROMOLY TUBING & PLATE

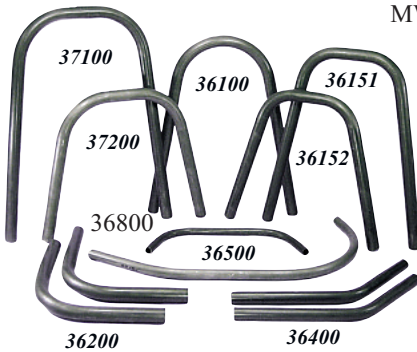
All MW 4130 tubing is certified aircraft quality material that meets 6736 specifications. Small quantities of under a 100' are sold at the cut price. Large quantities of 100' or more are sold at the 100' price. Different tubing sizes can be combined to produce an order of more than 100' but they must be full lengths. Full lengths can be anywhere from 17' - 24'.



PART#	DESCRIPTION	LBS./FT	CUT	100'
0375x058	3/8 x .058 Tube	.20	13.35	8.90
0500X058	1/2 x .058 Tube	.27	14.79	9.28
0625X058	5/8 x .058 Tube	.35	14.76	9.84
0750X058	3/4 x .058 Tube	.43	11.11	7.40
0875X058	7/8 x .058 Tube	.51	12.21	8.14
1000X058	1 X .058 Tube	.58	10.77	7.18
1125X058	1 1/8 x .058 Tube	.66	13.62	9.08
1125X083	1 1/8 x .083 Tube	.92	18.00	12.00
1250X058	1 1/4 x .058 Tube	.74	12.69	8.64
1250X083	1 1/4 x .083 Tube	1.03	17.16	11.44
1250X095	1 1/4 x .095 Tube	1.17	21.75	14.50
1375X058	1 3/8 x .058 Tube	.82	15.39	6.26

1375X065	1 3/8 x .065 Tube	.91	16.83	6.26
1375X095	1 3/8 x .095 Tube	1.30	20.85	13.90
1500X058	1 1/2 x .058 Tube	.89	13.74	9.16
1500X065	1 1/2 x .065 Tube	1.00	14.73	9.82
1500X120	1 1/2 x .120 Tube	1.77	22.50	15.00
1625X083	1 5/8 x .083 Tube	1.37	16.59	11.06
1625X188	1 5/8 x .188 Tube	2.88	35.79	23.86
3000X250	3 x .250 Tube	7.34	72.63	
3250X250	3 1/4 x .250 Tube	8.01	74.52	
4130-062	Sheet Steel, 4130 1/16" Thick 9" X 12" . .		33.25	
4130-125	Sheet Steel, 4130 1/8" Thick 9" x 18" . .		60.25	
4130-187	Sheet Steel, 4130 3/16" Thick 9" x 18" . .		75.75	
4130-250	Sheet Steel, 4130 1/4" Thick 9" X 18" . .		91.10	

PRE-BENT CHROMOLY TUBING



MW's stock of pre bent tubing includes, roll bars, shoulder hoops, dragster frame rails etc. These items are all mandrel bent in-house and designed for the professional or the do-it-yourself chassis builder.

12041	Driveshaft Loop (2 pcs)	54.00
7/8 x .058 4130 tube. 180° bends. 5" wide inside.		
36100	Dragster Roll Bar (single bend)	81.50
24" tall x 19 1/2" centers, 1-5/8 x .083 4130 tube.		
36151	Double Bend Dragster Roll Bar	82.00
24" tall x 19 1/2 centers, 1-5/8 x .083 4130 tube, 2 bends.		
36152	Double Bend Drag Secondary Roll Bar	56.10
19" tall x 19 1/2" centers 1-5/8 x .083 4130 tube, 2 bends.		
36155	Helmet Guard Tubes (pr)	62.00
1 x .058 4130 tube, 2 bends..		
36161	Double Bend Dragster Roll Bar	62.50
24" tall x 19 1/2" centers, 1-1/2 x .065 4130 tube, 2 bends.		
36162	Double Bend Drag Secondary Roll Bar	48.50
19" tall 19 1/2" centers 1-1/2 x .065 4130 tube, 2 bends.		
36171	Double Bend Dragster Roll Bar (6" radius)	64.50
24" tall x 19 1/2" centers, 1-1/2 x .065 4130 tube, 2 bends.		
36172	Double Bend Drag Sec. Roll Bar (6" radius)	62.50
19" tall 19 1/2" centers 1-1/2 x .065 4130 tube, 2 bends.		
36200	Dragster Roll Bar Back Brace	46.00
14" tall x 16" deep, 90 degree bend, 1 5/8 x .083 4130 tube.		
36260	Dragster Roll Bar Back Brace	41.00
14" tall x 16" deep, 90 degree bend, 1 1/2 x .065 4130 tube.		

36300	Dragster Shoulder Hoop	158.00
19" inside x 72" tall, 1 1/2 x .058 4130 tube		
36350	Dragster Shoulder Hoop	99.00
19" inside x 36" tall, 1 1/2 x .058 4130 tube.		
36360	F.E. Dragster Shoulder Hoop	181.50
Up to 22" inside x 82" tall, 1 1/2 x .058 4130 tube.		
36370	F.E. Dragster Lower Hoop	199.05
17" inside, 1 3/8 x .058 4130 tube w/kick up bends.		
36375	F.E. Dragster Lower Hoop (1 bend)	178.75
17" inside, 1 3/8 x .058 4130 tube w/kick up bends.		
36400	Dragster Support Tube (1)	43.58
Upper to lower rail 1 3/8 x .095 4130 tube.		
36500	Dragster Seat Former	56.00
1 1/4 x .058 4130 tube.		
36550	Dragster Seat Former	57.24
1 3/8" x .058" 4130 tube		
36800	Steering Mount Cross Tube	41.25
1" x .058 4130 tube.		
37100	Funny Car Roll Bar	110.00
29" tall x 21 1/2" centers, 1 5/8 x .083 4130 tube.		
37200	Funny Car Secondary Roll Bar	88.00
19 1/2" tall x 21 1/2" centers, 1 5/8 x .083 4130 tube.		
37400	Funny Car Shoulder Hoop	166.00
20" inside x 74" tall, 1 1/2 x .058 4130 tube.		

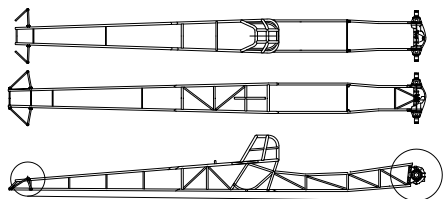
BEND PACKAGES

37000	Funny Car Bend Package	.456.00
<i>Roll bar, secondary roll bar, 2 back braces & shoulder hoop.</i>		
38000	F.E. Dragster Bend Package	.589.55
<i>Includes shoulder hoop, lower rail hoop, first and second roll bars, and the back brace.</i>		
36050	R.E. 1 5/8" Dragster Bend Package	.388.10
<i>Roll bar, secondary roll bar, back braces and shoulder hoop.</i>		
36060	R.E. 1 1/2" Dragster Bend Package	.351.00
<i>Roll bar, secondary roll bar, back braces and shoulder hoop.</i>		

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CHASSIS TOOLS AND INSTRUCTION



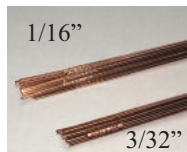
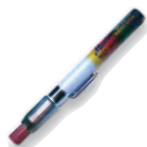
This DVD Video contains information on the BIG Picture on tubular chassis constructions. Although this video is done on a Top Alcohol Dragster from years past, its value is in knowing correct construction steps. It shows the method of building the chassis from the rear differential around the engine to the front end to result in the desired ground clearance. This general knowledge is the source for many of the current popular chassis builders today. Even If you are considering purchasing a chassis from you local builder, it will give your basic knowledge of the correct construction methods.



10004 Chassis Construction DVD90.00

FILLER ROD & TEMP STICK

A temp stick along with an oxy-acetylene torch should be used to normalize critical weld areas such as drivers compartment, rear end mounts etc. MW recommends ER70S-2 filler rod for tig welding chromoly. It is a triple deoxidizer for a clean and ductile weld joint.

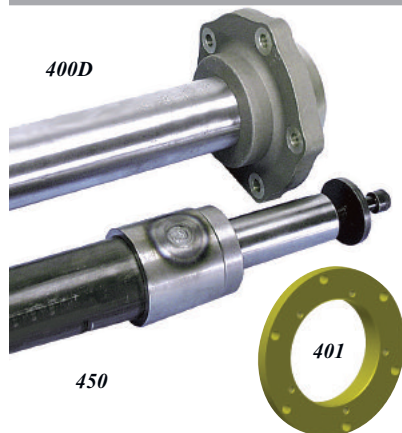


10008 Temperature Stick Indicator38.74
1050 degrees.

65-062 1/16" Oxweld 65 Welding Filler Rod13.85/lb
Photo shows the amount in one pound

65-093 3/32" Oxweld 65 Welding Filler Rod14.47/lb
Photo shows the amount in one pound

DRIVELINE ALIGNMENT BARS



The Mark Williams 9" alignment bar is manufactured from 2-1/2" diameter heavy wall D.O.M. tubing with a CNC machined aluminum flange attached to one end. This aluminum flange bolts directly to the front of a 9" Ford thirdmember case in place of pinion support and allows for perfect alignment between rear end and engine. With an overall length of 80" this bar can be used for dragster as well as funny car/altared chassis construction. Door car chassis construction can use this also by extend the tube length with a piece of 3" x 1/4" wall tubing. This will work as long as the engine block has a 3" or larger main bore. The 12 bolt alignment bar uses a steel pilot that is inserted into the seal bore along with a standard rear pinion bearing (not supplied) to align the bar in the center section. Works with stock and MW modular 12 bolt rears.

400D 9" Ford Driveline Alignment Bar370.00

401 Adapter to Use 400D on MW 11" Rear, Aluminum Gold Coated192.50

450 12 Bolt Driveline Alignment Bar295.00

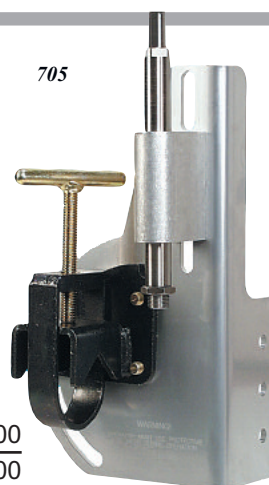
A-ARM JIG TUBE FITTING TOOLS



The MW A-Arm jig simplifies installing an a-arm front end on a dragster or funny car chassis. The spindle is fastened through the upright and set to the proper caster angle with a bubble protractor. This is normally used for cars with standard 17" dragster or 15" FC spindle mount front wheels. The uprights can be positioned anywhere along the 1-1/2" square cross tube (included) to produce the desired front end tread width. The cross tube is clamped to the bottom of the chassis rails with shims to make the appropriate ground clearance.

705 Tubing Notcher167.00

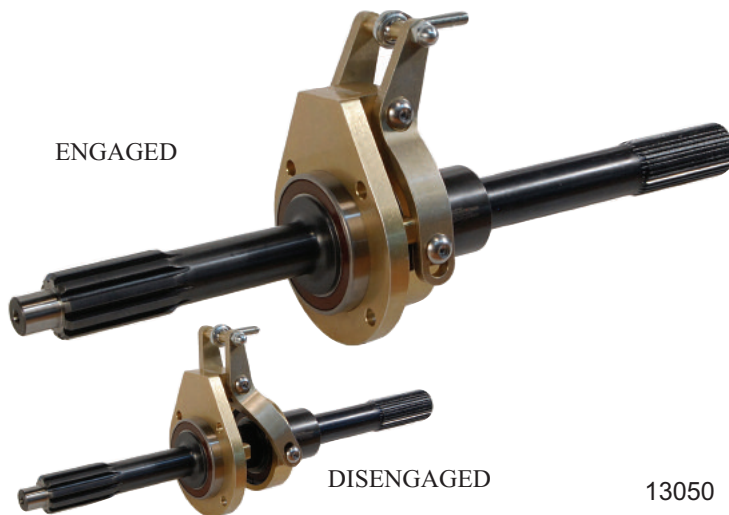
33600 A-Arm Fixture195.00



The Tubing Notcher tool will help you produce tight fitting joints that will result in better welds and a nicer finished product. This is the original Ol' Joint Jigger tool not a cheap Chinese copy. A standard bi-metal hole saw is all that's needed. The unit can be used with a drill press or a 1/2" drill motor.

MARK WILLIAMS Enterprises®

CACKLE-SAFE DISCONNECT



When attached to the bell housing, this device allows the driver to disconnect the output shaft from the driveshaft and safely run the car without having to hold in the clutch pedal. This eliminates the possibility of a foot slipping of the pedal and reduces wear on the clutch springs. All normal driveline couplers stay engaged and do not rotate while the engine is running. The sliding coupler, output shaft, and driveshaft are made of heat-treated alloy steel, while the bearing retainer and fork assembly are machined from billet aluminum. The output shaft and driveshaft are custom made to the length required for your car depth and engine location.

13050 Cackle-Safe Disconnect1752.00

CV DRAGSTER DRIVE SHAFT



This kit includes everything required to convert to a CV shaft. The 7075 aluminum transmission housing that bolts to the transmission is 27-spline. The CV joints are race-prepped with our Supra-Fin™ isotropic super finishing process and lightened. The CV is assembled and pre-lubed. The CV joint includes retaining cups and high-speed boots with gaskets that keep the lubricant in place. The center drive-shaft is produced from 300M material and shot peened. The CV 9" differential pinion flange is included and available in the 28 and 35-spline configurations. All exposed steel parts are finished with a Cerakote ceramic coating for rust prevention.

The 39373 assemblies are for mid length tail housing with a 32-spline output and longer engine to transmission distances.

The center shafts are made to fit your specific chassis-engine-transmission combination, and the assembly is delivered ready for bolt-in installation. See Service Bulletin 113 for length ordering information or call 800-525-1963 .

39371 CV Drive Assembly Powerglide-9" Ford . . .1600.00
For 27 spline output. 28 or 35 spline 9" rear

39372 CV Drive Assembly Powerglide-9" Ford . . .1600.00
For 32 spline output. 28 or 35 spline 9" rear

39360 CV Drive Long Tailhousing Flange725.00
For 32 spline (only)mid length Powerglide Tail housing

39373 CV Drive Long Tailhousing Assy1412.00
For 32 spline mid length Powerglide Trans & 9" rear.

DRIVESHAFT SAFETY LOOPS

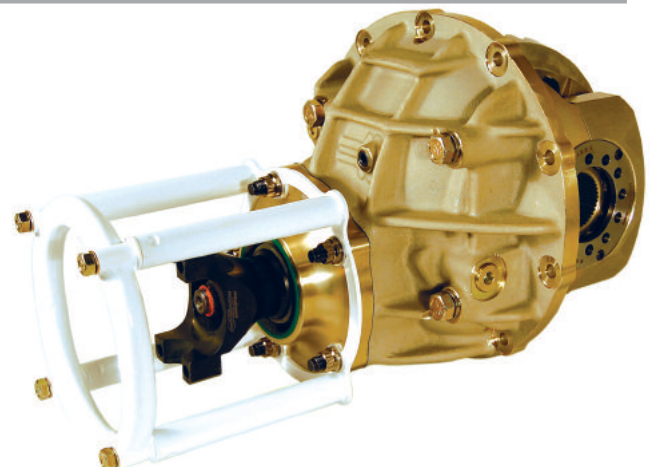
Our driveshaft safety loop attaches directly to the differential third member, eliminating tubular structures that attach to the chassis.

The front section loop is removable by four retaining bolts allowing easy drive shaft removal. The open design allows removal of the rear universal retaining bolts that are impossible to remove with enclosed tube designs. Constructed from 4130 material this satisfies the NHRA rule requirements for a "retainer loop 360 degrees of enclosure".

Available for both 9" Ford and MW 11" differentials

57625 Drive Shaft Loop Assembly295.00
9" Thirdmember, for 7/16 stud size

90725 Drive Shaft Loop Assembly310.00
11" Modular rear, 7/16" stud size



toll free
800-525-1963

on the web
www.markwilliams.com

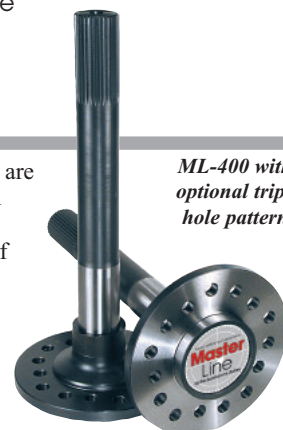
MasterLine

For over 50 years the name "Mark Williams" has been synonymous with the ultimate in quality and reliability. But there are those racers who feel their combination doesn't require the "ultimate". With this in mind, Mark Williams Enterprises offers the **MasterLine** series of driveline components for Street and Strip (10 sec. and up) applications. **MasterLine** components include axles, bearings, spools, gear sets, and nodular iron 9" Ford cases.

MasterLine AXLES

Machined from special alloy steel forgings, **MasterLine** axles are ideal for cars as quick as 9.90. **MasterLine** axles are all custom CNC machined to length. They feature thick flanges, 1/2" -20 threaded holes for your specific pattern. An upgrade for 5/8 stud size is available. We can provide any spline up to 35 tooth, true involute form. hobbed splines (before heat treating), an in house double heat treat, precision ground bearing journals to ensure the correct press fit of axle bearings, and adjustable bearing seats to allow precise brake system alignment.

ML-400 **MasterLine** Axles, 28 to 35 spline (pr)568.00



MasterLine SPOOLS

ML-132 8.8 Ford 35 Spline Spool279.00

ML-140 9" Ford for 2.893" or 3.062" Bore Case ...279.00

ML-146 9" Ford for 3.250" Bores279.00

ML-160 12 Bolt Chevrolet 3.062 Stock Bore279.00



MasterLine spools are CNC machined from alloy steel forgings and heat treated in-house. Plus, the bearing journals and ring gear flange are precision ground. All have Mark Williams 35 spline.

MasterLine BEARINGS

ML-001 Mopar Axle Bearings, 2.875" O.D. (pr)96.55

ML-003 Mopar Axle Brng, 2.875" w/snap ring (pr) ...106.55

ML-250 Small GM "C" Clip Eliminator kit211.00

ML-507 Ford/Olds Axle Bearings, 3.150" O.D. (pr) ...98.77

ML-803 Mustang Axle Bearings, 2.835" O.D. (pr)91.55

MasterLine bearings are sealed and feature a 1.562" I.D. and an "O" ring around the outside of the bearing to eliminate the need for an inner housing seal. Available for large and small Ford, Olds/Pontiac, Mopar and GM 10 & 12 Housing ends and Bolt C-clip eliminator kit. Even though it is a sealed bearing a inner housing end seal is recommended.



MasterLine DRIVESHAFTS

MasterLine driveshafts are custom built from 3" x .083 DOM mild steel tubing or 6061 aluminum with Spicer 1350 series weld yokes and Spicer precision 1350 series U joints. Special assembly fixtures guarantee proper weld yoke phasing during assembly. Every shaft is electronically balanced with the transmission yoke installed to ensure vibration free operation. Prices includes the forged billet MW4340 transmission yoke.

ML-39200

ML-600 3" x .083 Mild Steel Driveshaft621.00

Any length with u-joints, includes transmission yoke.

ML-39200 3.5" x .125" 6061 Aluminum Shaft670.00

Any length with u-joints, Includes transmission yoke.

ML-39300 4" x .125" 6061 Aluminum Shaft825.00

Any length with u-joints, includes transmission yoke.



MasterLine CASES

MasterLine nodular cases feature tough nodular iron castings that are CNC machined, billet steel main caps and bearing adjusters, and extra reinforced pilot bearing area. (3/8" pinion support studs are available)

ML-460 Nodular Iron Case w/ 3.062" Bores545.00

Steel caps and billet adjusters, adjuster locks

ML-470 Nodular Iron Case w/ 3.250" Bores545.00

Steel caps and billet adjusters, adjuster locks



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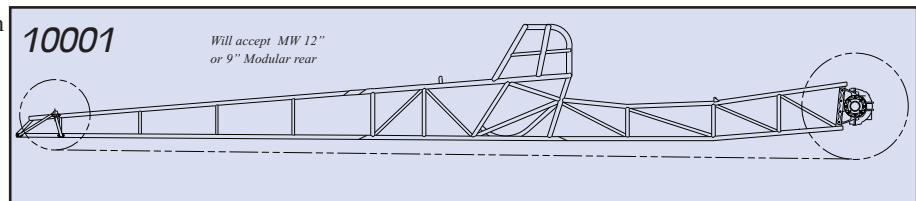
CHASSIS PLANS

For those drag racers that want to build their own race car from scratch, Mark Williams offers the plans and bill of materials required for the construction. Plans are available for several Dragster chassis or A-Altered/Funny car. The material specified will conform to the appropriate SFI (SEMA Foundation Inc.) specification, if constructed accordingly. Since their introduction, MW kit car plans have proven to be very competitive in various classes ranging from Economy Altered to Alcohol dragsters. The construction of any chassis requires a level of experience necessary to complete the project satisfactorily. We are supplying the basic dimensioned print for each chassis. No two cars are built alike, and you will find it necessary to determine dimensions based on engine placement, transmission type, driver size, wheel base, and ground clearance desired. The tubing will need to be fitted for each joint utilizing a tool specifically for "fish mouthing" joints. We suggest purchasing the DVD video to review the construction methods before committing to build the chassis from the prints.

10004 Dragster Chassis Construction Video DVD (Covers solid mount dragster chassis construction only)90.00

SOLID REAR ENGINE DRAGSTER PLANS

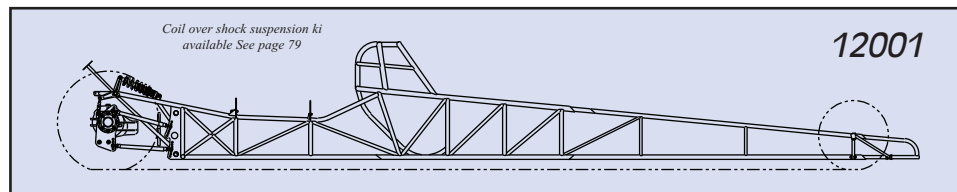
Top Alcohol type chassis plans designed with solid mounted 92000 MW modular 9" aluminum housing. This chassis is to be constructed with the 11" Modular rear. Plans include a bill of materials list. Parts list includes: Steering hardware with rack and pinion box, engine mounting plates, and all of the pre bent and straight tubing required to build a chassis. The drawing can be used to build a chassis the meets the SFI 2.3K chassis specs.



10001 Plans and Bill of Materials List, Top Alcohol Dragster90.00

4-LINK ENGINE DRAGSTER PLANS

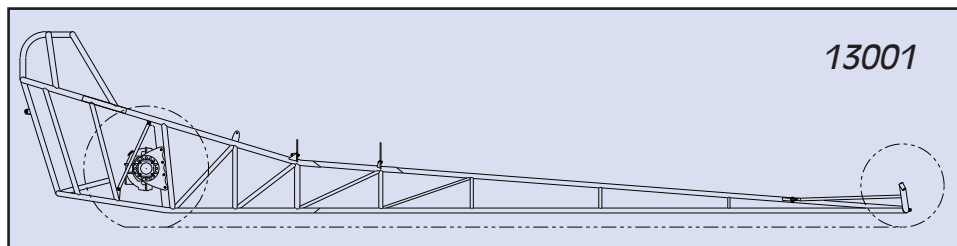
Chromoly chassis with unique mono-shock rear suspension and MW modular 12 bolt housing w/billet aluminum 4 link brackets. Plan and bill of materials includes monoshock rocker shaft and arms, 4-link and wishbone kits, complete steering with rack and pinion box, engine mounting plates and all the pre bent and straight tubing to build a chassis that meets the current SFI 2.5 chassis specs.



12001 Dragster Blueprint and Bill of Materials, 4-Link Suspension90.00

FRONT ENGINE DRAGSTER PLANS

Chromoly chassis with 92000 MW modular 9" aluminum housing. Meets the current SFI 2.2B chassis specs for new front engine dragsters (6.29 and quicker). Plans include bill of materials for: modular housing steering with standard box, engine mounting plates and all of the pre bent and straight tubing to build a basic chassis. Supercharged applications will require a full floater housing.



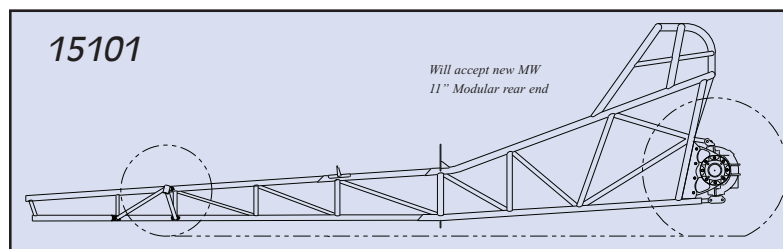
13001 Front Engine Dragster Blueprint and Bill of Materials90.00

We can still supply all of the components that were available in the kit car packages.
BILL OF MATERIAL LISTS ARE AVAILABLE ON OUR WEB SITE AT WWW.MARKWILLIAMS.COM/BILLMAT

toll free
800-525-1963

on the web
www.markwilliams.com

FUNNY CAR/ALTERED PLANS



Plans are designed utilizing the 92000 MW modular 9" or 11" Modular aluminum housing. Bill of materials include: Spindles and linkage for standard box, engine mounting plates and all the pre bent and straight tubing to build a basic chassis that will meet the current SFI 10.1E chassis specs for new Funny Car or Altered. When built to print chassis can be certified for any class up to Nitro Funny Car. Supercharged applications will require a full floater housing.

15101 Funny Car or Altered Blueprint and Bill of Materials90.00

PROMOTIONAL ITEMS



ML-DEC



DEC



DEC-DB



DEC-DS



WC



MWTAPE



DSP

WC	Wall Clock Axle Logo	16.00
MWTAPE	Inch/Metric 10' Tape	Free with Purchase
ML-DEC	MasterLine Round Decal	1.00
DEC	MW Round Decal	1.00
DEC-DS	MW Driveshaft Decal (die cut)	1.00
DEC-DB	MW Disc Brake Decal (die cut)	1.00
DSP	Driveshaft Poster 24" X 36"	Free with Purchase

T-FC	MW cotton T-shirt, Funny Car (specify size)	15.00
	Black or white, specify size	
T-PM	MW cotton T-shirt, Pro Mod (specify size)	15.00
	Black or white, specify size	
T-PS	MW cotton T-shirt, Pro Stock (specify size)	15.00
	Black or white, specify size	
T-SS	MW cotton T-shirt, Super Stock (specify size)	15.00
	Black or white, specify size	

