

RICHMOND GEARS



Mark Williams Enterprises, Inc. is one of the nation's largest factory warehouse distributors for Richmond Gear. At any given time, you'll find over 1,300 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 detailed listing of the applications and ratios available. Should Richmond Gear introduce any additional ratios following the printing of this catalog, rest assured that they will be added to our inventory and available for immediate shipment. Competitors and chassis shops alike have come to rely on MW for gears because we offer....

• 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.

"LARGE PINION PRO" GEARS

These 9" & 9 1/2" Ford gears are built specifically for ultra high horsepower drag racing applications from 9310 material. All available ratios (3.40 to 4.86) have a large 35 spline shaft.

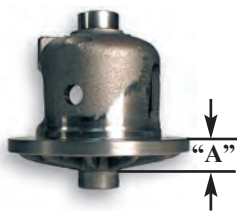
9" FORD GEAR NOTES

While many new 9" gears are now manufactured for 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. Oval Track applications require a baffle to prevent all the lube from becoming built up in the right axle housing tube. We recommend using one gallon of Torco GL-6 racing gear oil, SAE 85w140 (Part number 55-0030, 1qt.). Our rear end filler bung and cap, part numbers 5015 & 5016 installed in the top of the housing make it easy to fill. If using a stock Ford front pinion bearing support, it must be the unit that has the HM89443 rear cone. Richmond Standard Pinion Pro gears must use a HM89444 rear cone. This bearing has a larger radius that matches the increased radius in the pinion. The recommended pinion support is our Heavy Duty Support, part number 57620 or 57670, which uses even larger bearings. All 35-spline pro gears must use the pinion support, part number 57630 or 57680, with matching coupler or yoke. Some gears do not have the engraved pinion setting depth (OEM gears); however, the

setting depth can be calculated. The master housing dimension for 9" Ford is 4.375". This is the distance from the centerline of the thirdmember case main bearing bores, to the shoulder that the stock rear pinion bearing would stop against. By measuring the pinion head thickness, then subtracting this measurement from 4.375" (master housing dimension), the setting depth is obtained. Some of these pinions are marked with a + or - and a number. This is the variance from the master housing dimension that the pinion needs to be set. Example: If the pinion is marked +2 the master housing dimension would be 4.375" plus .002 or 4.377".



GM 12 BOLT CARRIER NOTES



"A"	Car	Truck
2 Series	.590"	NA
3 Series	1.020"	.895"
4 Series	1.325"	1.145"

Check the distance from the bearing shoulder to ring gear flange ("A") to determine the carrier series for proper ring & pinion selection.

Caution: If a ring gear spacer is to be used, check the length of the register on the carrier. On some OEM carriers the ring gear register is not long enough to register the ring gear when a spacer is used. Do not run a ring gear that does not locate on the register of the carrier.

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. This is a must for the serious racers tool box. Ratios can also be calculated on our web site at www.markwilliams.com click Technical Help..... 3.00

