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

We recommend using four quarts of MW-Torco GL-6 racing gear oil, SAE 85w140, Part number 55-0030, 1qt., This is a non-synthetic lube with additional extreme pressure additives to prevent galling. We do not recommend synthetic lubes 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. These two are most popular units and are used on most thirdmember builds. An option for either of the units is a ceramic ball rear bearing that is lighter and reduces the rolling friction.
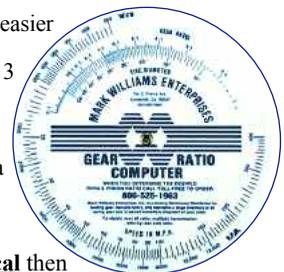
DOUBLE ANGULAR BALL BEARING SUPPORT

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 47670) and 35-splines (P/N 47680). Any of these supports can have the ceramic ball upgrade and the Tungsten Disulfide Coating, Nano-Grey™, coating applied.

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" patter. 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**.