

# INSTALLATION - SERVICE INSTRUCTIONS

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Bulletin #97 page 1 of 2 **9"-9-1/2" Ford Pinion Supports** August 25.2016

## PART NUMBERS:

47675.....PINION SUPPORT, ASSY BALL/BALL 28 SPL. (7/16" pinion studs).

## DESCRIPTION

## PARTS INCLUDED:

See page two for item list and assemble view

## PRIMARY APPLICATIONS:

Drag racing. Must be used with Pro gears w/35 spline pinion.

## INSTALLATION OVERVIEW:

- 1) The diameter of the pinion shaft is very important!** MW pinion supports are pre-assembled and bearing preload determined based on a pinion shaft diameter of 1.8765". If the shaft is too large it will affect the preload on the bearings. The rear bearing in a Mark Williams support are manufactured with a bore size of 1.8760, this allows for a light press or slip fit the pinion with luberize coating. You might have to remove some of the luberize coating by polishing in a lathe for the proper fit.
- 2) The hardened bearing spacer washer (47673) is inserted in to the 7309BM bearing that is installed in the 47671 housing.**
- 3) Support assemblies are supplied with rear pinion bearing and sleeve installed in the housing so it is necessary to install these three pieces on the pinion as one unit.** When pressing the bearing and housing onto the pinion shaft it is best to use a short piece of tubing, with an I.D. large enough to slip over the pinion shaft, to push on the inner race of the bearing. This will prevent damage to the bearing.  
**Note:** To safely remove the rear bearing from the pinion without damage, use MW #57494 bearing puller. This tool is designed to fit under the shim behind the rear bearing which in turn contacts the inner race of the bearing. Pressure to the bearing housing and/or the outer race of the bearing will result in damage to the bearing.
- 3) Stand the pinion on end on the pilot stub.** Slide the 47673 preload spacer down the pinion shaft to the rear bearing and push front the pinion bearing (7308B1312) against the preload spacer. The front bearing should be slip fit on the pinion. If not you might have to polish the shaft for a slip on a lathe wiith fine emery cloth to obtain a slip fit.
- 4) Before installing the seal it is a good idea to check the bearing preload, even with a new assembly.** Install yoke or coupler on the pinion, install pinion nut and torque to 140 ft/lbs (if possible it is suggested to use a used pinion nut until final assembly). Rotate the pinion with an inch/lbs. torque wrench. The rotational drag should be 2-4 in/lbs If the rotational drag is too low step up the pinion nut torque in 10 ft/lbs increments and re-check the drag. Once the correct drag is achieved  
**NOTE:** the pinion nut torque. Maximum pinion nut torque is 200 ft/lbs. If the amount of drag is too high the preload spacer is too thin and should be replaced (new spacers that will require machining).
- 5) With the bearing preload checked and/or set, remove the yoke or coupler, install the pinion seal, re-install the yoke or coupler.** Install a new pinion nut with Loctite and torque to the amount determined in step #4. The torque will increase with the seal.

## TORQUE SPECS:

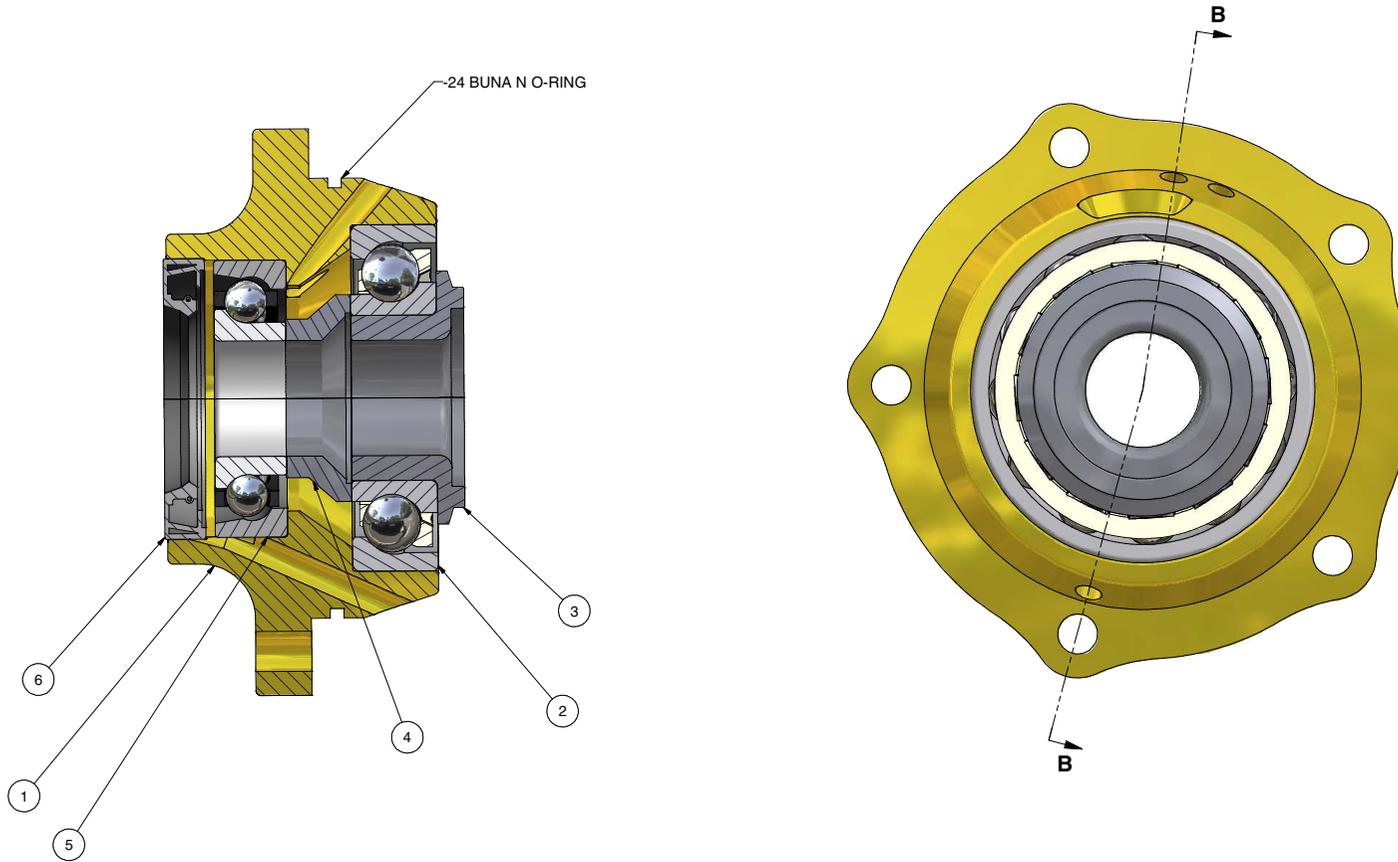
Pinion Nut 140 ft/lbs unless higher torque required per step #4 above.

Pinion housing nuts (3/8-24) 30-35 ft/lbs.

Pinion housing nuts (7/16-20) 40-45 ft/lbs.

## MAINTENANCE REQUIREMENTS:

Periodic visual inspection. Periodic inspection of bearings and races for excessive heat (discoloration) or wear (pitting). It is recommended that gear oil be changed once a season after initial break-in.



**Parts List**

ITEM	QTY	PART NUMBER	DESCRIPTION	FILE NAME
1	1	47672	HOUSING, PINION SUPPORT (BALL BALL)	004361N.ipt
2	1	7309BM	BEARING, ANGULAR CONCACT 7309 1.875 BORE	AS004265IN.iam
3	1	57674	SLEEVE (SMALL PINION) 1-7/8 BEARING	001736IN.ipt
4	1	47673	SPACER, PRELOAD BALL/BALL (SMALL PINION)	004367IN.ipt
5	1	7307B1312	BEARING, 30 DEG. ANGULAR, 1.312 BORE	AS004363IN.iam
6	1	18899	SEAL, 28 SPLINE B/B SUPPORT 3.188 X 1.875	18899 SEAL.ipt

MATERIAL	HEAT TREAT	 785 SOUTH PIERCE AVE. LOUISVILLE, CO 80027 PHONE: 303.650.1000 FAX: 303.650.1001 WWW.WATSON-DYWIDAG.COM
PROTECTIVE FINISH		
Z:\InventorFiles\Assembly_Files\AS004362IN.iam		
STOCK INFORMATION		MACHINING TOLERANCES FINISH: 08-10-16 AS004362IN.idw
PART LENGTH:    WEIGHT: MILLION LBS:    POUNDS: GROSS WEIGHT (PART):	XX    XXX    XXXX    X .015    .005    .0005    1/2 SUPPLY ACROSS FROM THE WEB	PINION SUPPORT, ASSY BALL/BALL 28 SPL. 8/30/2016    47675