

# INSTALLATION - SERVICE INSTRUCTIONS

765 South Pierce Avenue Louisville, Colorado 80027

303-665-6901 Phone 800-525-1963  
www.markwilliams.com

**MARK  
WILLIAMS**  
*Enterprises*

Bulletin #99 page 1 of 2 **Aluminum 4" BORE 10" RG Cases**

May '17

## PART NUMBERS:

## DESCRIPTION

57458...Thru-Bolt aluminum 9" Ford Case (4.00 bore).  
Clearanced for 10" (9.400 actual diameter) ring gear  
w/aluminum caps)

57458-10S...Thru-Bolt aluminum 9" Ford Case (4.00 bore).  
Clearanced for 10" (9.400" actual diameter) ring gear  
w/steel caps)

## PARTS INCLUDED:

57562 ....Adjusters with locking screws (2).

57407.....Pinion support stud kit (7/16-20 & 7/16-14 threads). Stud kit  
includes 5 - 57406 studs, 5 - APN12-1 12 point  
nuts, 5 - AN122585 hardened washers



## PRIMARY APPLICATIONS:

Drag racing, Severe duty applications/ Requires spool with 2.250  
inside diameter bearings

## ASSEMBLY OVERVIEW:

- 1) Install pinion support studs using #271 Loctite. Screw in 57406 studs in until they bottom out.
- 2) Requires the heavy duty long pilot bearing (57914), Warm the bearing area with a heat gun to expand the bore until bearing drops in. Press or drive so bearing is seated then lock in place with the 2 button head bolts supplied with the bearing.
- 3) Do not grind on the case in the pilot bearing area for ring gear clearance. Newer gear sets have the top inner corner of the teeth chamfered for this purpose. If clearance is needed, grind ring gear teeth rather than case for needed clearance. use M/W tool 57486 to gauge the tooth for proper clearance.
- 4) During final assembly, after setting pinion depth and backlash, torque pinion support nuts and main cap bolts (see below).
- 5) Tighten the 3 allen screws (40 in/lbs) to lock the adjuster. Never attempt to move the adjuster in the case without first loosening the allen screws.
- 6) **Make sure side plug is tightened.**

## TORQUE SPECS:

Main Cap bolts (1/2-20) 70-75 ft/lbs.  
Pinion support studs (7/16-20) 40-45 ft/lbs.

## MAINTENANCE REQUIREMENTS:

The side fill plug is magnetic. It can be removed and inspected for chips or metal fragments that would indicate the need for removal and inspection for the ring and pinion. Periodic visual inspection of case and it's components. Carefully inspect area around pilot bearing. Check torque on all fasteners. If pinion support studs need to be removed, apply heat to soften Loctite before removing.

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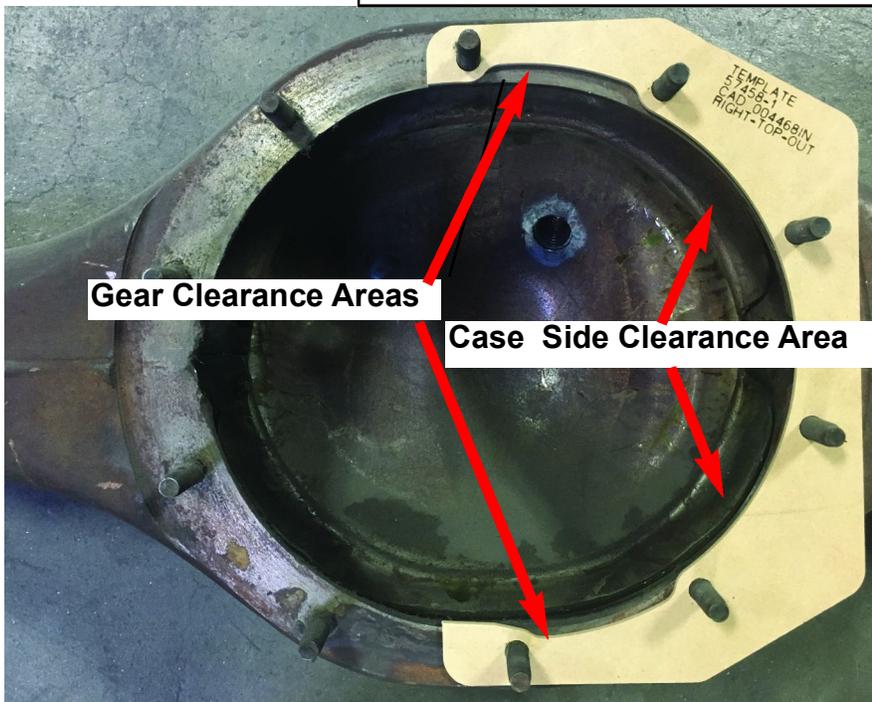
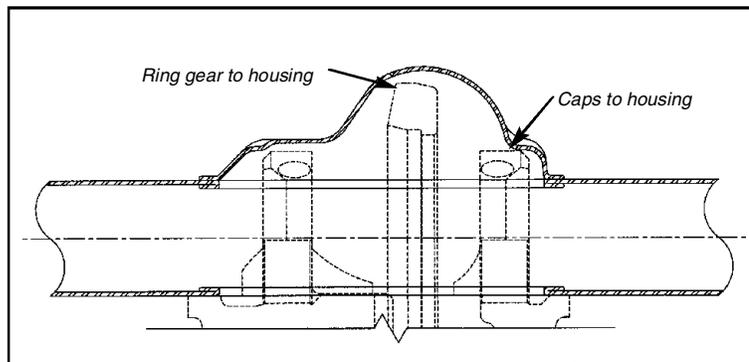
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## Housing Clearance NOTES:

When installing thirdmember assembly check clearance at the points shown in the diagram. The larger caps and/or the adjuster lock bolts on aluminum cases can possibly come in contact with the back of some fabricated and stock Ford housings. If the thirdmember tightens up or won't turn at all after installing it, the caps or ring gear is binding in the housing. For the cap interference modify the housing at the point of contact by heating and forming with a ball peen tool. Do not grind on caps! 9 1/2" and 10" ring gears may also be close to the flange and inner structure of a stock housing. Grinding for clearance will be necessary. Current, (2016 and later) M/W Modular housing has the required clearance. Others will require added clearance for the gear and the thirdmember profile on the driver's side. A hard board template is available to gauge the required clearance. Ask for part number 57458-1.



ClearanceTemplate  
p/n 57458-1