

Technical Service Aid

SUBJECT: NEW SERVICE REPLACEMENT HYPOID DRIVE PINION AND LOWER HELICAL DRIVE GEAR AVAILABLE AFTER NOVEMBER, 1983.

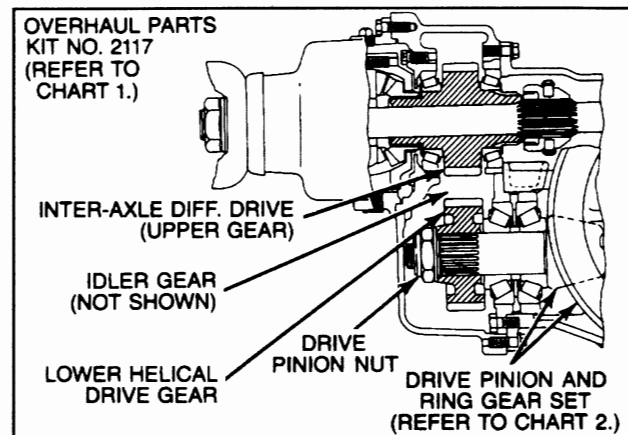
(OVERHAUL PARTS KIT NO. 2117 AND HYPOID DRIVE PINION AND RING GEAR SETS FOR AXLE MODELS LISTED BELOW.)

MODELS: LHD, QHD, LHF AND QHF FORWARD/REAR DRIVE UNITS.

To provide improved spline engagement, Meritor has released for service replacement on axle models listed above, new hypoid drive pinions and lower helical drive gears with 39 tooth fine pitch helical rolled splines. The redesigned splines will enable the gears to have a tight fit when assembled together, thus optimizing retention of the helical gear on the pinion shaft.

Because the new and old design splines are not compatible, the gears are not interchangeable. Therefore, when replacing either the lower helical drive gear or the drive pinion and ring gear set, all three pieces must be replaced at the same time.

The new lower helical drive gear (Part No. 3892-C-4735) is available individually, in the Meritor Overhaul Parts Kit No. 2117 and is also included with the various hypoid drive pinion and ring gear sets. The new drive pinion is available only in sets with either a matching ring gear or ring gear and lower helical gear. Refer to the illustration and charts 1 and 2.



NOTE: The Meritor Overhaul Parts Kit No. 349 continues to be available to service the original gears with old design 21 tooth coarse splines. Refer to Meritor Technical Service Aid, TSA-3-88.

CHART 1 - OVERHAUL PARTS KIT NO. 2117*

Part Name	Part Number	Quantity
Inter-Axle Differential Drive (Upper) Gear	3892-P-2044	1
Idler Gear	3892-D-1824	1
Lower Helical Drive Gear	3892-C-4735**	1
Drive Pinion Nut	1227-N-898 (1-3/4" - 12 threads)	1

* Use Kit No. 2117 if drive unit is equipped with a new drive pinion having the 39 tooth fine pitch rolled splines. Use Kit No. 349 if drive unit is equipped with an old drive pinion having 21 tooth coarse splines.

** Lower helical drive gear listed replaces the old design gear 3892-S-4517. All other parts same as Kit No. 349.

**CHART 2 - SERVICE REPLACEMENT DRIVE PINION AND RING GEAR SETS WITH AND WITH
OUT THE LOWER HELICAL DRIVE GEAR 3892-C-4735.
(All pinions of sets listed have 1 3/4"-12 threads)**

Ratios	New Service Gear Sets		Old Service Gear Sets*
	With Helical Gear	Without Helical Gear	
3.55	A-36028-21	A-36028-20	A-36028-17
3.70	A-37588-13	A-37588-12	A-37588-9
3.90	A-38006-10	A-38006-9	A-38006-1
4.11	A-35818-24	A-35818-23	A-35818-19
4.33	A-36722-13	A-36722-12	A-36722-9
4.44	A-35816-20	A-35816-19	A-35816-16
4.63	A-35814-17	A-35814-16	A-35814-13
4.88	A-36446-16	A-36446-15	A-36446-12
5.29	A-35812-21	A-35812-20	A-35812-17
5.83	A-35810-20	A-35810-19	A-35810-16
6.17	A-35808-23	A-35808-22	A-35808-18
6.83	A-35806-22	A-35806-21	A-35806-18
7.20	A-35804-23	A-35804-22	A-35804-18
7.80	A-35802-18	A-35802-17	A-35802-14
8.60	A-35800-18	A-35800-17	A-35800-15

* Because of differences between the splines, the new lower helical drive gear 3892-C-4735 cannot be used with the old design pinions.

SERVICE

Disassembly and Reassembly of the Drive Unit.

To install the individual new parts or the complete Overhaul Parts Kit No. 2117 refer to the appropriate disassembly and reassembly procedures outlined in the Meritor Field Maintenance Manual No. 5C along with the following:

1. When assembling the new lower helical drive gear onto the pinion shaft, a press and sleeve of the correct size **MUST** be used. The sleeve must seat against the gear hub and be long enough to extend beyond the end of pinion.

IMPORTANT: Before pressing on the helical gear, make sure the splines of both gears are properly aligned. Index splines as required.

2. Use the existing washer (1229-N-1730), that was removed from the drive unit, under the pinion locknut.
3. Before installing the pinion nut, apply three to five drops of Meritor Liquid Adhesive 2297-C-3747 (Loctite #277) to the first two or three threads of the pinion shaft. Tighten the pinion nut to the specified torque valve.

NOTE: An optional castellated drive pinion nut and roll pin (Meritor Service Parts Kit No. 2272) is available to provide optimum lockup and retention of the lower helical drive gear on pinions with 1 3/4"-12 threads and 21 tooth coarse splines. Refer to the Meritor Technical Service Aid, TSA-3-98.

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