

**SECTION 205-02B: Rear Drive Axle/Differential — Ford 9.75-Inch Ring Gear
SPECIFICATIONS**

2014 F-150 Workshop Manual
Procedure revision date: 10/25/2013

Material

Item	Specification	Fill Capacity
Additive Friction Modifier XL-3 (US); CXL-3 (Canada)	EST-M2C118-A	118 ml (4 oz) to be installed before axle lubricant — Not to be used with Electronic Locking Differentials (ELD)
Maximum Strength Retaining Compound Loctite® 638™	—	—
Motorcraft® High Contrast Hypoid Gear Marking Compound XG-14	—	—
Motorcraft® SAE 75W-140 Synthetic Rear Axle Lubricant XY-75W140-QL (US); CXY-75W140-1L (Canada)	WSL-M2C192-A and GL-5	2.84L (6.0 pt) — ELD only 2.60L (5.5 pt) — Non Traction-Lok equipped 2.48L (5.25 pt) — Traction-Lok equipped
Premium Long-Life Grease XG-1-C or XG-1-K (US); CXG-1-C (Canada)	ESA-M1C75-B	—
Silicone Gasket and Sealant TA-30	WSE-M4G323-A4	—
Threadlock and Sealer TA-25	WSK-M2G351-A5	—

Rear Axle Backlash Shim Adjustment Table

Backlash Change Required		Thickness Change Required	
mm	In	mm	In
0.025	0.001	0.050	0.002
0.050	0.002	0.050	0.002
0.076	0.003	0.101	0.004
0.101	0.004	0.152	0.006

0.127	0.005	0.152	0.006
0.152	0.006	0.203	0.008
0.177	0.007	0.254	0.010
0.203	0.008	0.254	0.010
0.228	0.009	0.304	0.012
0.254	0.010	0.355	0.014
0.279	0.011	0.355	0.014
0.304	0.012	0.406	0.016
0.330	0.013	0.457	0.018
0.335	0.014	0.457	0.018
0.381	0.015	0.508	0.020

General Specifications

Item	Specification
Available drive pinion shims in steps of 0.25 mm (0.010 in)	0.254 mm (0.010 in) — 0.965 mm (0.038 in)
Electronic Locking Differential (ELD) side gear backlash	0.100-1.000 mm (0.004-0.040 in)
Maximum differential case flange ring gear runout	0.076 mm (0.003 in)
Maximum variation between ring gear teeth	0.102 mm (0.004 in)
Pinion bearing preload	1.8-3.3 Nm (16-29 lb-in)
Ring gear backlash	0.203-0.304 mm (0.008-0.012 in)
Maximum axle shaft flange runout	0.279 mm (0.011 in)

Torque Specifications

Description	Nm	lb-ft	lb-in
Axle vent	18	—	159
Brake hose bracket bolts	30	22	—
Brake tube/parking brake cable bracket bolt	25	18	—
RH parking brake cable bracket bolt	30	22	—
Differential bearing cap bolts	105	77	—
Differential housing cover bolts	45	33	—
Differential pinion shaft lock bolt	30	22	—
Differential ring gear bolts ^a	—	—	—
Driveshaft flange bolts	103	76	—
Electronic Locking Differential (ELD) coil screws	5	—	44
ELD electrical connector bolt	7	—	62

Fill plug	30	22	—
Handle Adapter	2.2	—	20
Lower shock absorber nuts	90	66	—
Tool 205-135 nut	7	—	62
U-bolt nut ^a	—	—	—
Wheel speed sensor bolts	15	—	133

^a Refer to the procedure in this section.

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