

Component Procedures: Differential Assembly

Table of Contents

1. Front (Article 2082233)
2. Rear (Article 2082237)
3. Front Axle (Article 313303)
4. Rear Axle (Article 313304)
5. Parts and Labor (itype_189)
6. Disassembly and Assembly (Article 2080723)
7. Removal and Installation (Article 2080768)
8. Capacities (itype_30)
9. Fluid Types (itype_31)
10. Fluid Types and Capacities (itype_436)
11. 181 FBI Axle (Article 2082281)
12. 194 RBI Axle (Article 2082282)
13. 216 RBI Axle (Article 2082283)
14. Front (Article 2081736)
15. Rear (Article 2081737)

Parts and Labor (itype_189)

Labor

Operation	Qualifier Path	Skill	Std Hrs	Wty Hrs
Replace	Front Axle > Axle Assembly	B	4.6	3.0
Replace	Rear Axle > With Chrysler Axle	B	2.7	2.0
Replace	Rear Axle > Without Chrysler Axle	B	2.7	2.2
Overhaul/Rebuild	Front Axle	B	5.5	4.4
Overhaul/Rebuild	Front Axle > Note > To R&R Pinion Bearings, A?	B	1.2	1.1

Disassembly and Assembly (Article 2080723)

Non Standards

- Front (2080989)
- Rear (2080990)

Removal and Installation (Article 2080768)

Non Standards

- Front Drive Axle (2080865)
- Rear Drive Axle (2080866)

Capacities (itype_30)

DIFFERENTIAL FLUID

CAPACITY

- 181 FBI 1.48 L (3.13 pts.)
- 194 RBI 1.66 L (3.5 pts.)
- with TRAC-LOK include 3.5 oz. friction modifier
- 216 RBI 1.89 L (4.0 pts.)
- with TRAC-LOK include 4 oz. friction modifier

Fluid Types (itype_31)

DIFFERENTIAL FLUID

TYPE

181 FBI, 194 RBI, 216 RBI

Multi-purpose hypoid

gear

lubricant meeting the following specifications:

- MIL-L-2105C
- API GL 5
- Thermally stable SAE 80W-90 gear lubricant

Lubricant for heavy-duty or trailer tow use is SAE 75W-140 SYNTHETIC gear lubricant.

TRAC-LOK

If equipped, include the specified amount of friction modifier.

Fluid Types and Capacities (itype_436)

Fluid Types

Capacities

181 FBI Axle (Article 2082281)

Mechanical Specifications

Axle Ratio

3.07,3.55,3.73,4.10

Differential

Side

Gear

Clearance

0.12-0.20 mm (0.005-0.008 in.)

Ring Gear

Diameter

18.09 cm (7.125 in.)
Ring Gear Backlash
0-0.15 mm (0.005-0.008 in.)
Pinion Std. Depth
92.1 mm (3.625 in.)
Pinion Bearing
Rotating Torque
Original Bearings
1-2 Nm (10-20 in.lbs.)
New Bearings
1.5-4 Nm (15-35 in.lbs.)
Torque Specifications
Fill Hole Plug
34 Nm (25 ft.lbs.)
Differential Cover
Bolt
41 Nm (30 ft.lbs.)
Bearing Cap Bolt
61 Nm (45 ft.lbs.)
Ring Gear Bolt
95-122 Nm (70-90 ft.lbs.)
Axle Nut
.....
237 Nm (175 ft.lbs.)
Hub Bearing
102 Nm (75 ft.lbs.)
Lower Ball Stud
108 Nm (80 ft.lbs.)
Upper Ball Stud
101 Nm (75 ft.lbs.)

194 RBI Axle (Article 2082282)

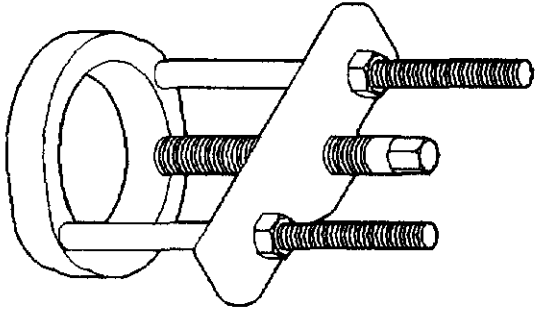
Mechanical Specifications
Axle Ratio
3.07,3.55,3.73,4.10
Differential Bearing
Preload
0.1 mm (0.004 in.)
Differential
Side
Gear
Clearance
0-0.15 mm (0-0.006 in.)
Ring Gear
Diameter
19.2 cm (7.562 in.)
Ring Gear Backlash
0-0.15 mm (0.005-0.008 in.)
Pinion Std. Depth
92.08 mm (3.625 in.)
Pinion Bearing
Rotating Torque
Original Bearings
1-2 Nm (10-20 in.lbs.)
New Bearings
1.5-4 Nm (15-35 in.lbs.)
Maximum Carrier Spread
0.51 mm (0.020 in.)
Torque Specifications
Differential Cover

Bolt
41 Nm (30 ft.lbs.)
Differential Bearing Cap Bolt
77 Nm (57 ft.lbs.)
Ring Gear Bolt
95-122 Nm (70-90 ft.lbs.)
Nut,
Pinion Gear
-Minimum
271-474 Nm (200-350 ft.lbs.)
Screw, Pinion Mate Shaft Lock
16.25 Nm (12 ft.lbs.)
Bolt, ABS Sensor
8 Nm (70 in.lbs.)

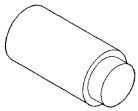
216 RBI Axle (Article 2082283)

Mechanical Specifications
Axle Ratios
3.07,3.55,4.10
Differential Bearing
Preload
0.1 mm (0.004 in.)
Differential
Side
Gear
Clearance
0-0.15 mm (0-0.006 in.)
Ring Gear
Diameter
216 mm (8.5 in.)
Ring Gear Backlash
0.13-0.20 mm (0.005-0.008 in.)
Pinion Depth
109.52 mm (4.312 in.)
Bearing Preload, Pinion (New)
2.226-4.52 Nm (20-40 in.lbs.)
Bearing Preload, Pinion (Original)
1-3 Nm (10-20 in.lbs.)
Torque Specifications
Plug, Fill
34 Nm (25 ft.lbs.)
Bolts,
Differential Cover
.....
41 Nm (30 Ft.lbs.)
Bolts, Differential Bearing Cap
108 Nm (80 ft.lbs.)
Bolts, Ring Gear
Nuts, Brake Backing Plate
61 Nm (45 ft.lbs.)
Nut,
Pinion Gear
-Minimum
217 Nm (160 ft.lbs.)

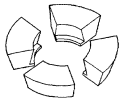
Front (Article 2081736)



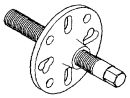
Puller—C-293-PA



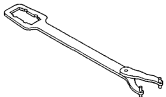
Plug—SP-3289



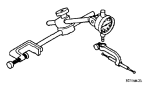
Adapter—C-293-39



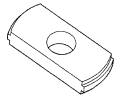
Puller—C-452



Wrench—C-3281



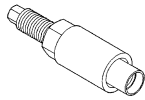
Dial Indicator—C-3339



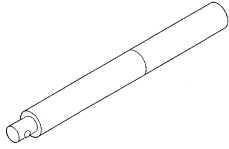
Remover—D-149



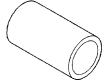
Driver—C-3716-A



Installer—W-162-D



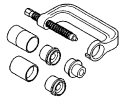
Handle—C-4171



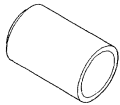
Cup—8109



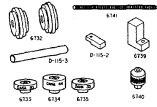
Installer—D-146



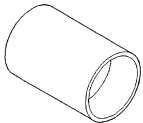
Remover/Installer—6289



Installer—6761



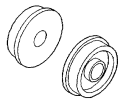
Tool Set, Pinion Depth—6774



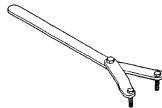
Installer—6752



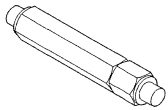
Gauge Block—6733



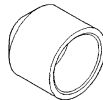
Installer Discs—8110



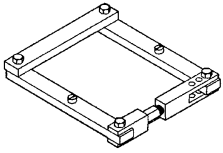
Spanner—6958



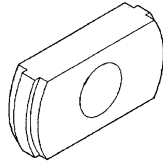
Turnbuckle—6797



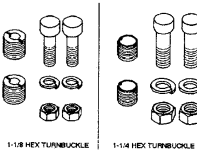
Installer—C-3972-A



Spreader—W-129-B

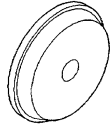


Remover—C-4345

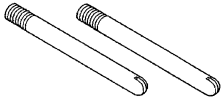


1-1/8 HEX TURNBUCKLE 1-1/4 HEX TURNBUCKLE

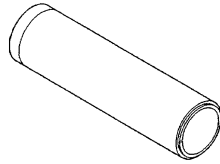
Adapter Kit—6987



Installer—D-130



Pilot Stud—C-3288-B



Installer—W-262

Rear (Article 2081737)

Non Standards

- With 194 RBI Axle (2081738)
- With 216 RBI Axle (2081739)