

CLOSED STEERING KNUCKLES

Ford F-250
IHC 200

DESCRIPTION

The closed steering knuckles seal the axle shaft-to-spindle "U" joint to prevent its contamination from road spray, and its heavier structure provides increased strength and durability. All of the vehicle weight is borne by the axle housing and steering knuckle; the axle is free floating. The knuckles are mounted to the axle yoke with tapered bearings instead of ball joints as in open knuckle assemblies. Other than the unique parts required for front-wheel drive, these axles are mechanically identical to other Dana/Spicer axles. All closed knuckles assemblies are used with part-time transfer cases and locking hubs.

OVERHAUL

DISASSEMBLY

1) Remove wheel, brake drum (disc brake assembly) and wheel hub. See *Locking Hubs in this Section*. Remove brake backing plate and wheel spindle, then slide axle shaft assembly out through steering knuckle.

2) Disconnect steering connecting rods at steering knuckle and remove oil seal retainer attaching bolts from rear of knuckle. Remove cap screws holding upper and lower pivot pin bearing caps and remove caps. Slide steering knuckle off end of axle housing and remove oil seal, gasket and seal retainer.

3) Remove bearings and seals from hub, spindle and knuckle as necessary. Inspect all machined parts for wear or damage. Check pivot bearing caps and pivot bearings for damage or excessive play. Replace defective parts as necessary.

REASSEMBLY

1) Install upper and lower pivot bearing cups in axle housing yoke. Place pivot bearing cones in cups retaining lower bearing with wheel bearing grease. Place steering knuckle over yoke, then install lower and upper pivot bearing caps. Be sure old shims are still in position between caps and knuckle. Torque bearing cap bolts to specifications.

2) Using a torque wrench on upper bearing cap attaching bolt (or stud nut on left side), rotate knuckle to measure bearing preload. Add or subtract shims as necessary to bring preload to specifications.

Pivot Bearing Preload

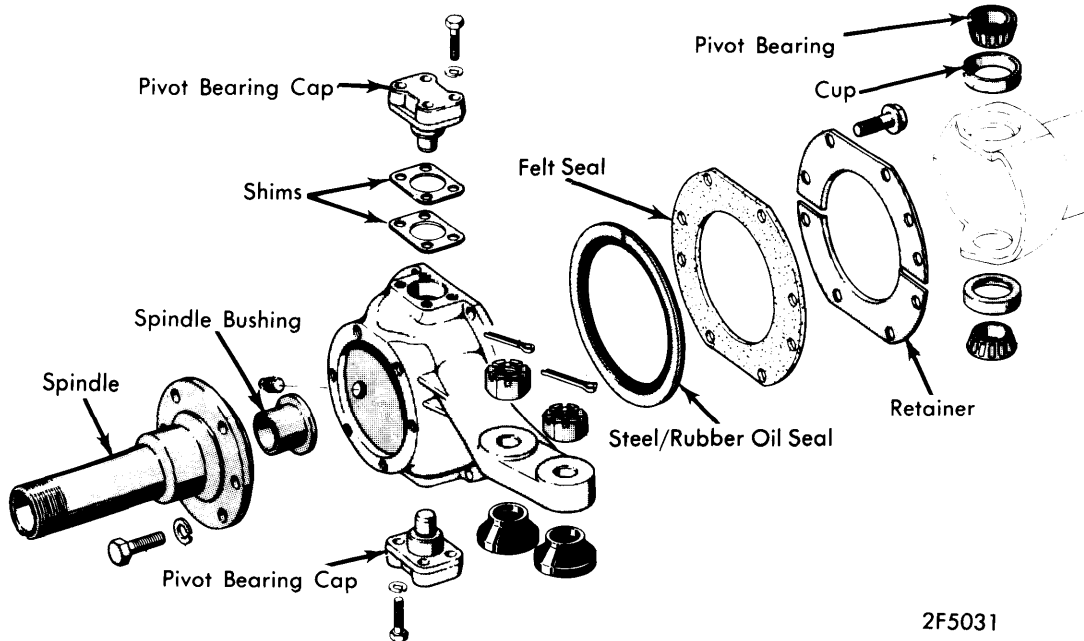
Application	Ft. Lbs.
Ford Motor Co.	
Model 44-6CF (Dana No. 603395-1 ①)	5-10
Model 44-6CFHD (Dana No. 603396-1 ①)	10-15
International Harvester	20-40

① - This number found at lower left corner of axle identification tag.

3) Install oil seal with steel side facing knuckle and precut area at 12 o'clock position. Slit felt gasket and install with slit at 12 o'clock position. Install seal retainers with ends of halves at 3 and 9 o'clock positions. To complete reassembly, reverse removal procedure.

TIGHTENING SPECIFICATIONS

Application	Ft. Lbs.
Seal Retainer-to-Knuckle	
Ford Motor Co.	30-40
International Harvester	10-25
Pivot Pin Bearing Cap Bolts	
Ford Model 44-6CF	30-40
All Others	80-90



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