



Service Manual

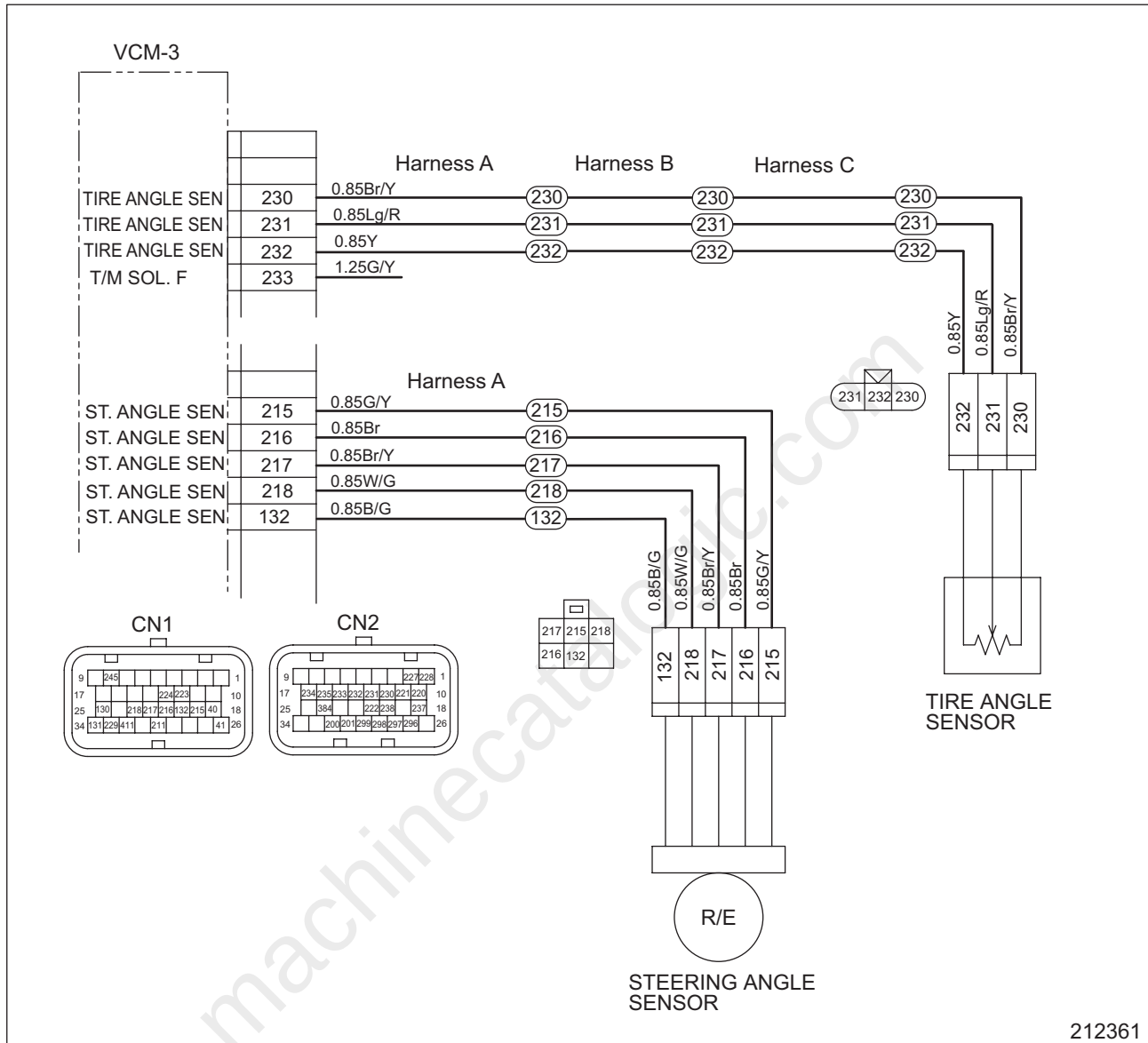
Chassis, Mast & Options

DP80N

T32C-10011-up

DP90N

T32C-60011-up



212361

- 1 Hub cap, Gasket
- 2 Outer lock nut, Lock washer
- 3 Inner lock nut
- 4 Rear axle hub
- 5 Tapered roller bearing (inner race) [4]
- 6 Oil seal [4]
- 7 Tapered roller bearing (outer race) [4]
- 8 Tapered roller bearing (outer race) [4]
- 9 Tapered roller bearing (inner race)
- 10 Oil seal retainer
- 11 Tie rod pin
- 12 Tie rod
- 13 Spacer [12]
- 14 Dust seal [12]
- 15 Spacer [12]
- 16 Dust seal [12]
- 17 Stopper ring
- 18 Spherical bearing
- 19 Clamp
- 20 Power cylinder, Pipe
- 21 Cover
- 22 Shim [21]
- 23 O-ring [21]
- 24 Oil seal [21]
- 25 Tapered roller bearing (outer race) [21]
- 26 Stopper plate, Cap
- 27 Steering knuckle
- 28 Lower dust cover [27]
- 29 Tapered roller bearing (inner race) [27]
- 30 Oil seal retainer [27]
- 31 O-ring [30]
- 32 Tapered roller bearing (inner race) [27]
- 33 Oil seal retainer [27]
- 34 Oil seal [36]
- 35 Tapered roller bearing (outer race) [36]
- 36 Rear axle housing

NOTE

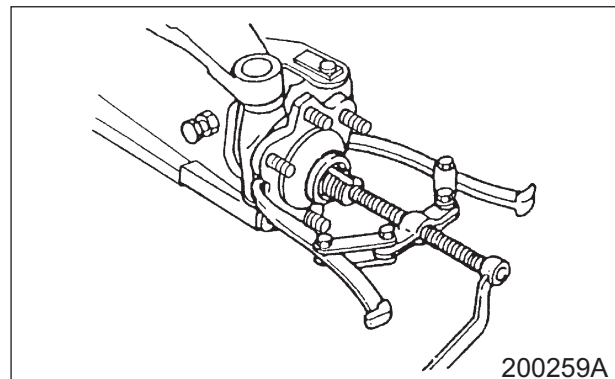
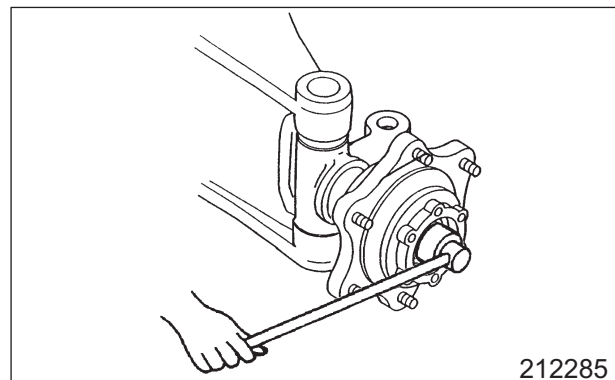
[] shows the number of each place to remove from.

- (1) Lock nut
 - (a) Restore the folded part of the lock washer to its original form.
 - (b) Remove the outer and inner lock nuts using a socket wrench.

Width across flats of lock nut	70 mm (2.76 in.)
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- (2) Rear axle hub

Use a puller to remove the rear axle housing from the steering knuckle.



4.4 Reassembly

To reassemble, follow the disassembly sequence in reverse and observe the following.

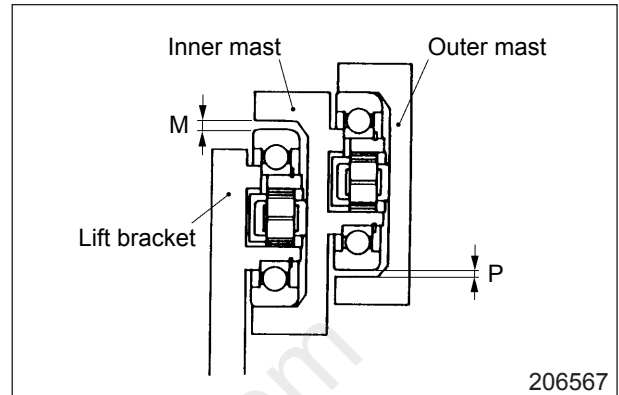
1. Front and rear clearance between mast and lift bracket

- (1) Select and assemble the main roller in an appropriate manner in order that the clearances P and M are within the dimensions as shown below throughout the height range.

Truck model	DP80N	DP90N
Clearances between main roller and rolling surface P, M	0.5 to 2.1mm (0.02 to 0.08 in.)	0.5 to 2.8 mm (0.02 to 0.11 in.)

Unit: mm

Truck model		DP80N	DP90N
Main roller size	S	169 mm (6.65 in.)	203 mm (7.99 in.)
	M	170 mm (6.69 in.)	205 mm (8.07 in.)
	L	171 mm (6.73 in.)	207 mm (8.15 in.)



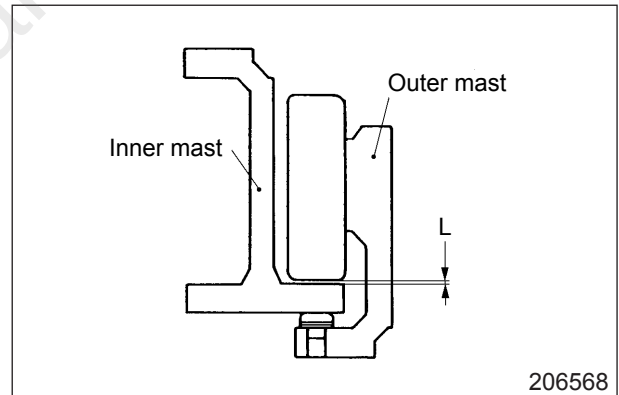
2. Installing mast trip

Install to make the front and rear clearance between outer and inner masts within the specified dimension.

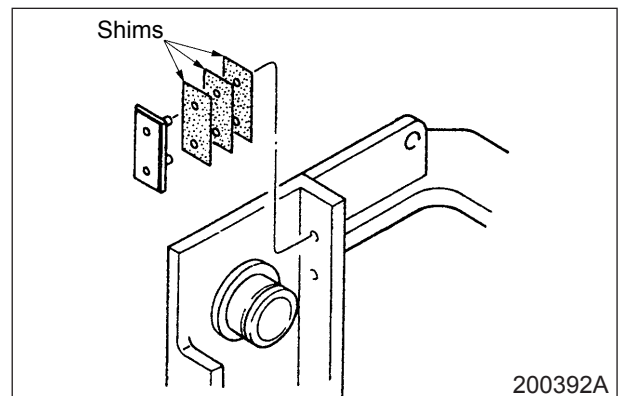
- (1) Withdraw the inner mast until the span of mast main roller comes to the dimension as shown below, and measure the clearance between inner mast flange and main roller L with thickness gauge.

Clearance L	0.2 to 1.0 mm (0.008 to 0.0039 in.)
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Mast Models	Roller span
4V80A, 4M80A	905 mm (35.6 in.)
4V90A	950 mm (37.4 in.)



- (2) If the clearance of mast strip L is not within the specified value, adjust with the shims.

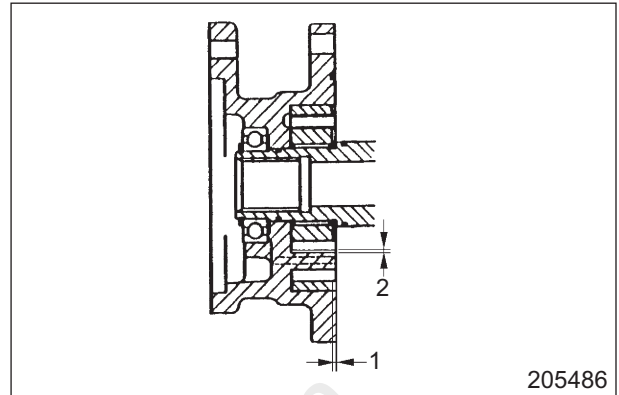


3-SPEED POWERSHIFT TRANSMISSION

4.2.2 Inspection

- (1) Oil pump
 - (a) Put the internal gear and pump gear in the pump case, and measure top clearance 2.
 - (b) Using a dial indicator, measure side clearance 1 between the gears and pump case.

Side clearance 1 mm (in.)	Standard value	0.040 to 0.078 (0.00157 to 0.00307)
	Service limit	0.09 (0.0035)
Top clearance 2 mm (in.)	Standard value	0.3 to 0.345 (0.0118 to 0.0136)
	Service limit	0.35 (0.0138)



- (2) Stator shaft
 - (a) Check the splines for wear or damage.
 - (b) Check the oil passages for clogging.
- (3) Friction plates and mating plates
 - (a) Check for sign of seizure, uneven contact, warpage or excessive wear.
 - (b) Check the splines for wear or damage.
- (4) Clutch drums
 - (a) Check the mating plate sliding surfaces for wear or damage.
 - (b) Check the clutch piston sliding surfaces for wear or damage.

Full Version Available

Caterpillar DP90N Forklift Service Manual (99709-62100)

Caterpillar DP90N Forklift service manual, covers hydraulics, drive unit, wiring, mast, and engine repairs. Downloadable PDF format.

VIEW THE FULL MANUAL

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