



Service Manual

MC/FC

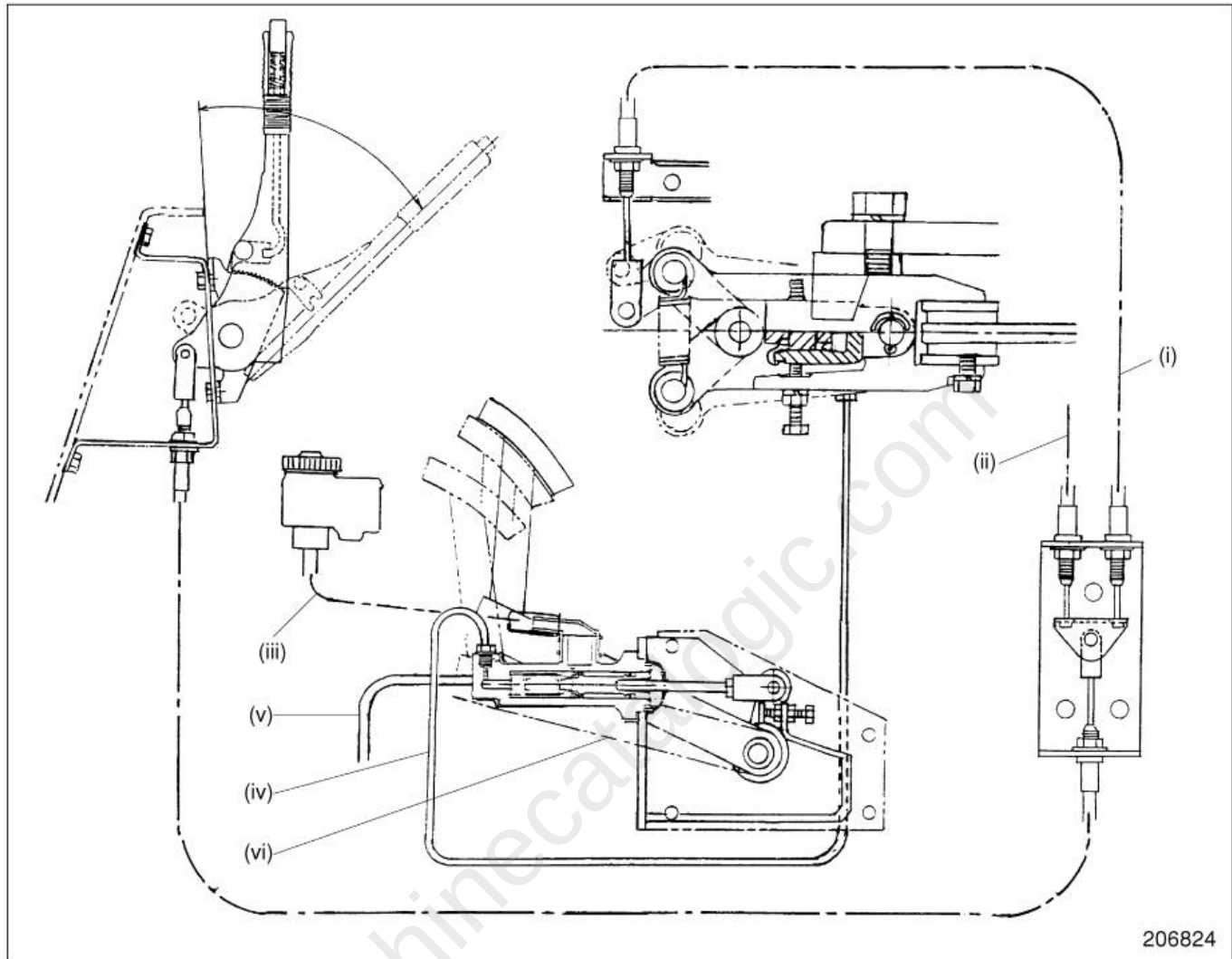
Chassis, Mast & Options

EP16NT	ETB11-20011-up
EP18NT	ETB13-20011-up
EP20NT	ETB13-70001-up

For use with EP16NT-EP20NT
Controller Service Manual.

99759-6B110

7. Removing brake components



- (1) Loosen the parking brake lever, and remove parking brake cable assemblies (i) (L.H.) and (ii) (R.H.).

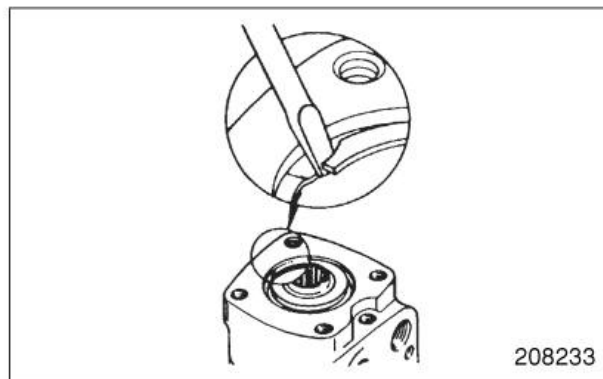
Disconnect the parking brake cables at the calipers, and keep the cables together on the frame near the center brake.

- (2) Position a drip pan, and disconnect brake fluid tube (iii) at the master cylinder.
- (3) Disconnect brake pipes (iv, v) (L.H., R.H.) at the master cylinder. Disconnect the branch brake hoses (L.H., R.H.) from the brake pipes.
- (4) Remove brake pedal assembly (vi).

Suggestions for Disassembly

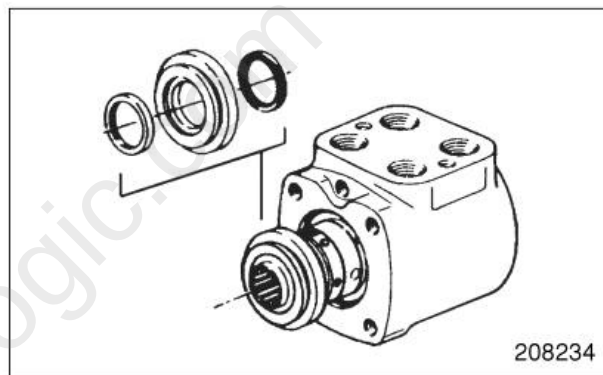
(1) Retaining ring removal

Remove the ring from the housing by prying the end of the ring out of the groove. Do not damage the machined surface.



(2) Seal gland bushing removal

Position the control spool and control sleeve assembly so that the pin is even with the center of the assembly. Remove the bushing.

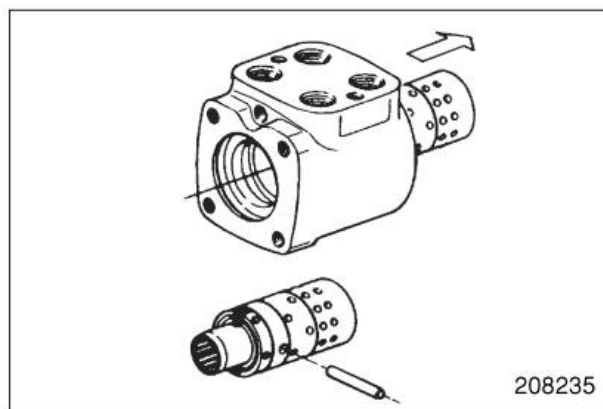


(3) Control spool and sleeve removal

Remove the control spool and sleeve assembly from the housing by pulling it toward the end of the housing opposite to the flange. Remove the pin from the assembly.

NOTE

To prevent damage to the housing, slowly pull out the assembly while twisting.

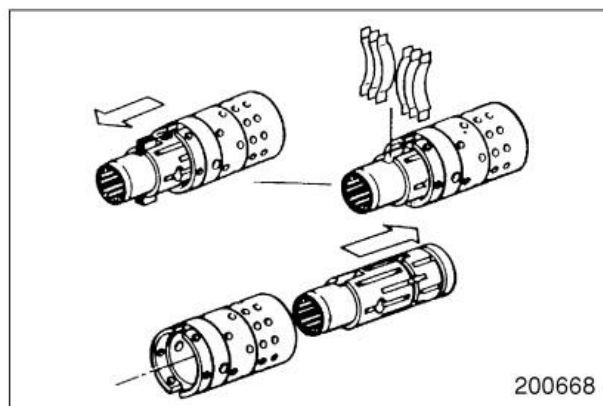


(4) Control spool and sleeve disassembly

NOTE

Before removing the spool from the sleeve, put a mark across the spool and sleeve so that the spool can be installed in the same position.

Pull the control spool from the sleeve enough to permit removal of the centering springs. Remove the centering springs. Remove the spool from the sleeve by pulling it toward the rear end of the sleeve while turning slowly.

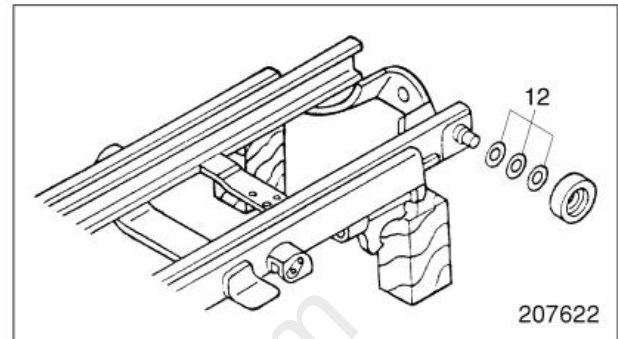


Reassembly

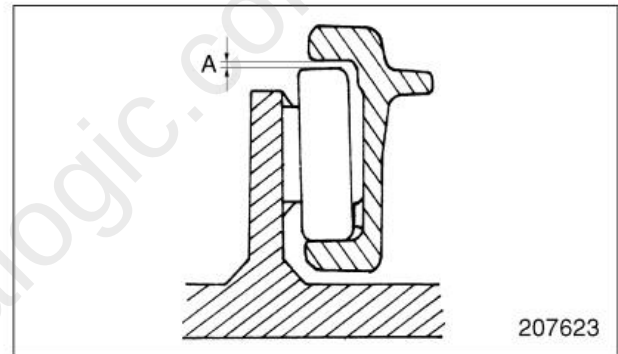
To reinstall, follow the removal sequence in reverse, and follow the steps below:

1. Main rollers

- (1) Adjust the right and left clearances by increasing or decreasing the thickness of shims 12.

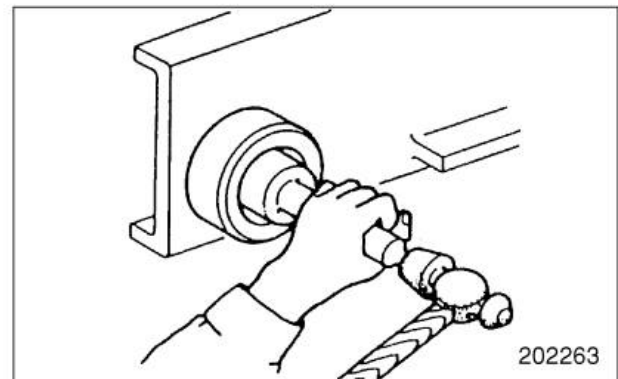


- (2) When replacing lift bracket main rollers, make sure clearance **A** between each roller and mast surface is 1 mm (0.04 in.) or less.



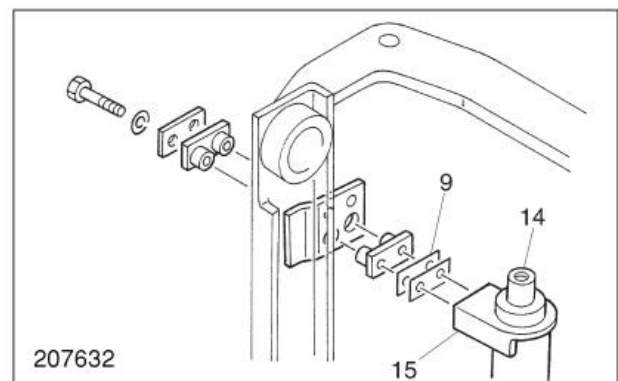
- (3) To install main rollers on shafts, use a driving tool. Be careful not to strike the outer roller surface with the driving tool.

Place the roller with its larger chamfered side facing outside.



2. Installing second lift cylinders

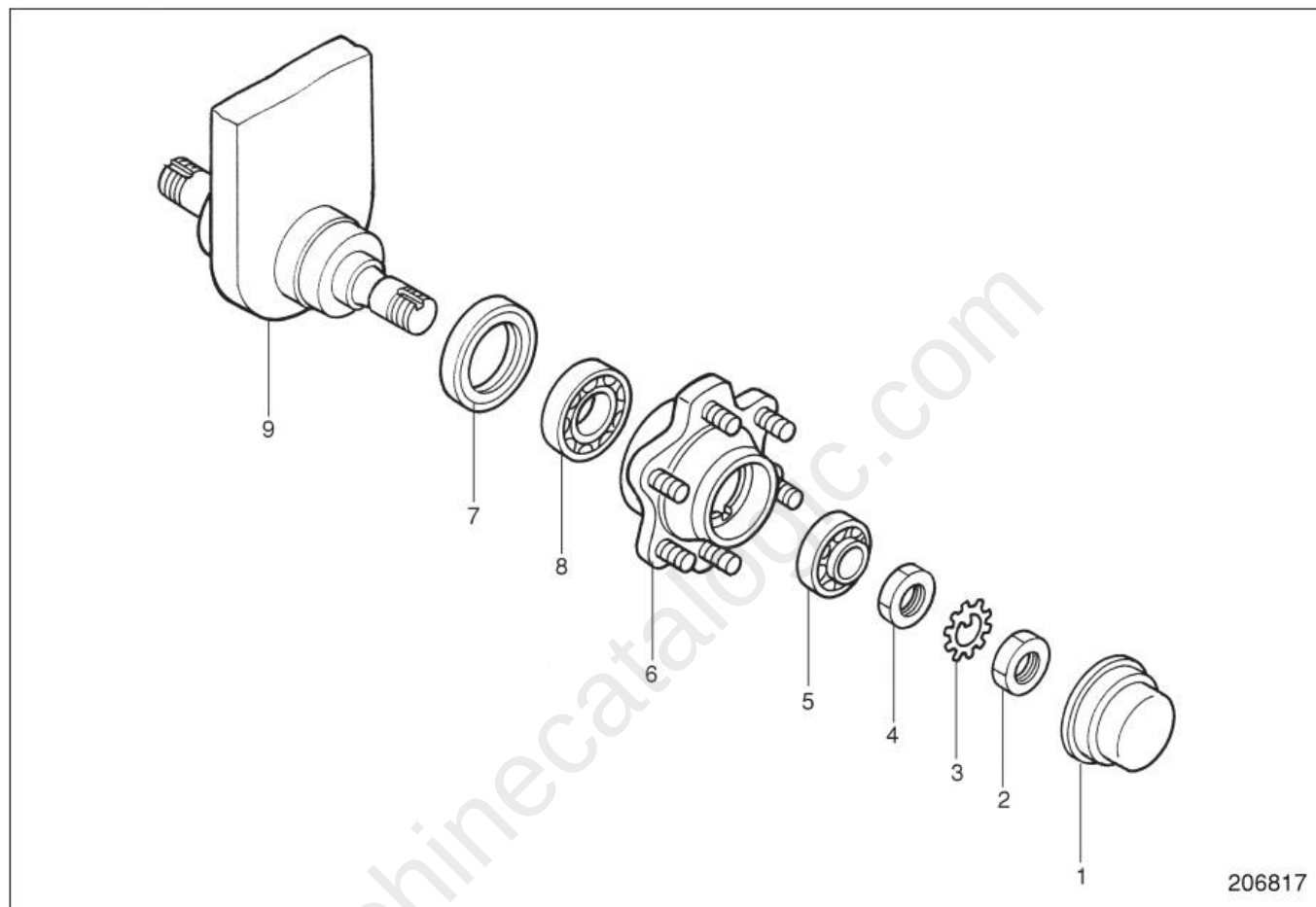
When installing second lift cylinders 14, make sure the cylinders are parallel to the mast to prevent torsional stress on the lift cylinders when the mast is positioned at the bottom. Adjust the installation positions of lift cylinder brackets 15 with shims 9.



Procedures and Suggestions for Disassembly and Reassembly

Steering Axle

Disassembly



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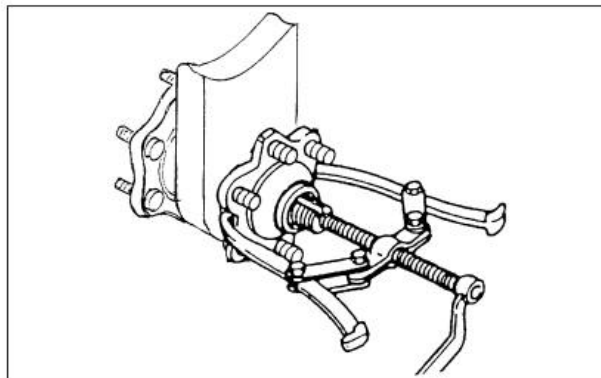
Sequence

- | | |
|------------------------|------------------------|
| 1 Cap | 6 Wheel hub, Hub bolt |
| 2 Nut | 7 Oil seal |
| 3 Lock washer | 8 Taper roller bearing |
| 4 Nut | 9 Steering axle |
| 5 Taper roller bearing | |

Suggestions for Disassembly

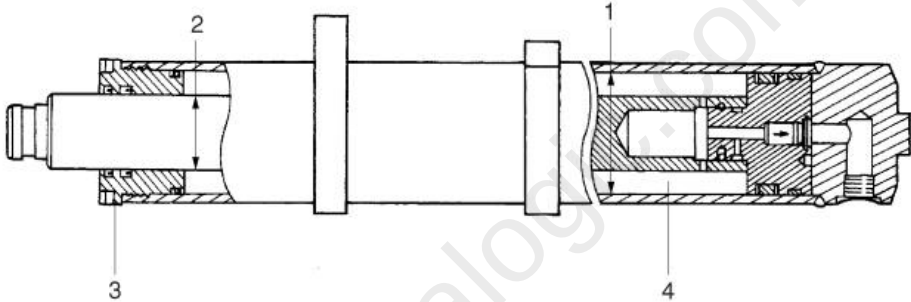
1. Removing wheel hubs

Use a puller to remove the wheel hubs from the steering axle.



A : Standard value

Unit: mm (in.)

Item		Truck Model	1 ton class	2 ton class
Lift cylinders (Duplex mast, triplex mast first cylinder)	[Piston] Inside diameter of cylinder tube 1	A	70 (2.76)	
	Diameter of piston rod 2	A	50.8 (2)	
	Tightening torque for retainer 3 N·m (kgf·m) [lbf·ft]	A	353 to 380 (36 to 39) [260 to 280]	
	Amount of hydraulic oil 4 cc (cu. in.)	A	20 to 25 (1.2 to 1.5)	
				
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Full Version Available

Caterpillar EP20NT Forklift Service Manual (99759-6B110)

Caterpillar EP20NT Forklift service manual, covers hydraulics, drive unit, wiring, mast, and service data. Instant PDF download.

[VIEW THE FULL MANUAL](https://machinecatalogic.com/caterpillar-ep20nt-forklift-service-manual-99759-6b110/)

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