

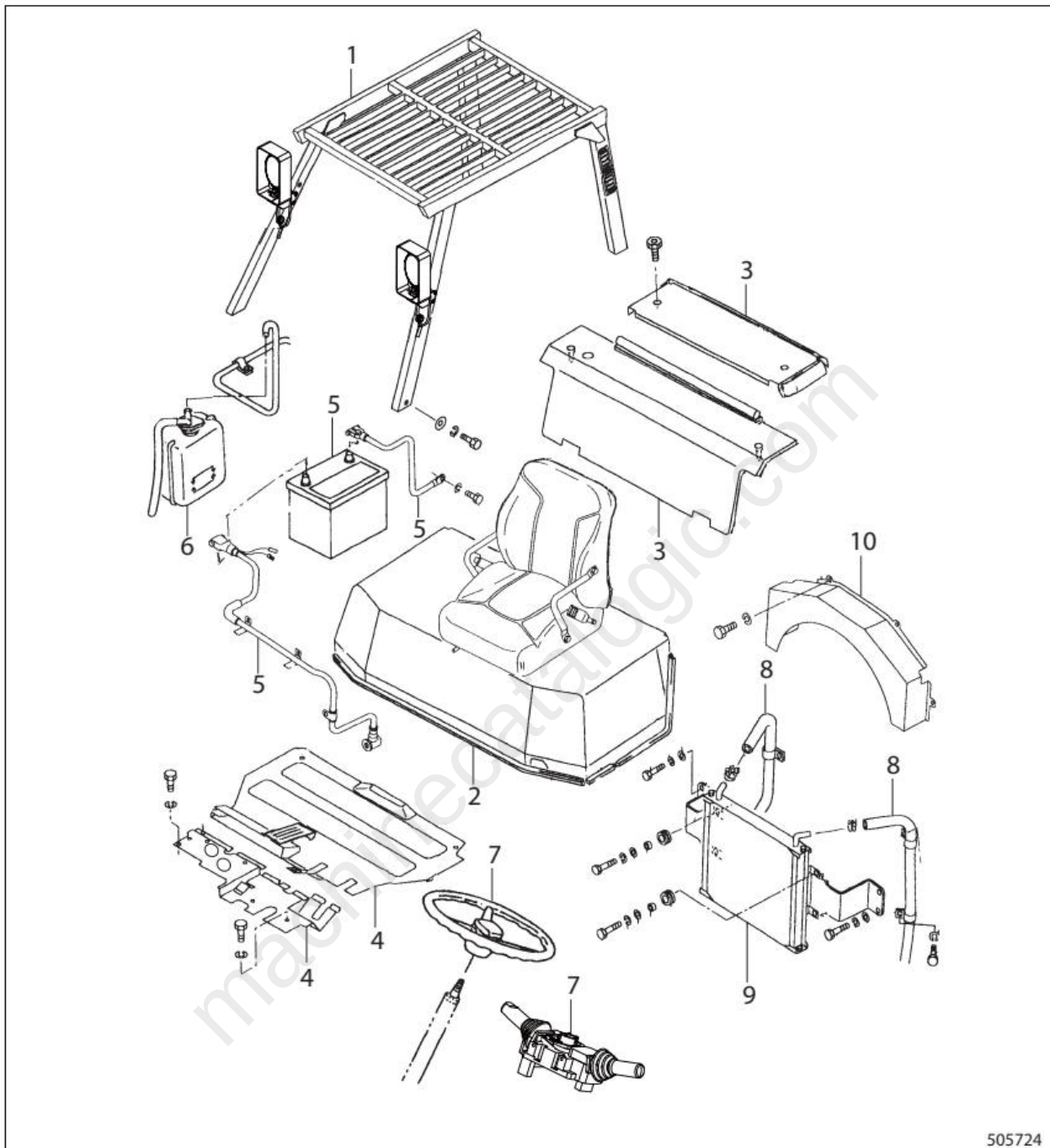


Service Manual

Chassis & Mast

GC35K	AT87B-00001-up
GC40K	AT87B-00001-up
GC40K STR	AT87B-00001-up
GC45K SWB	AT87B-00001-up
GC45K STR	AT87B-00001-up
GC55K	AT88B-00001-up
GC55K STR	AT88B-00001-up
GC60K	AT89B-00001-up
GC70K	AT89B-00001-up
GC70K STR	AT89B-00001-up

4.2 Removal Sequence (1)



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- | | |
|------------------------------------|---|
| 1. Light harnesses, Overhead guard | 6. Reserve tank |
| 2. Engine cover, Seat | 7. Steering wheel, Forward/reverse lever assembly |
| 3. Radiator cover | 8. Transmission oil hoses |
| 4. Floor plate | 9. Transmission oil cooler, Bracket |
| 5. Battery cable, Battery | 10. Cowl |

10. Inspection and Repair After Disassembling Wheel Brake

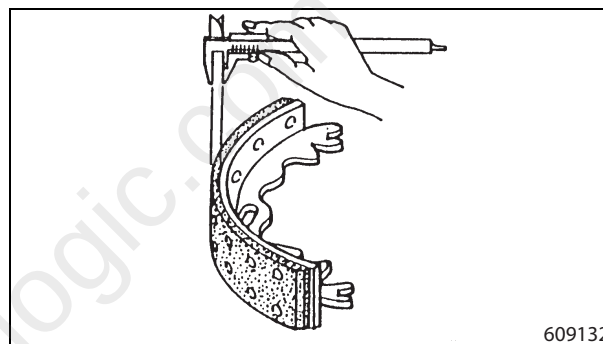
10.1 Backing Plate

- (1) Check the backing plate for cracks.
- (2) Check the tightening torque of mounting bolts.

Item	Tightening torque
Check the mounting bolts	238.3 to 284.3 N·m (24.3 to 29.3 kgf·m) [53.5 to 63.9 lbf·ft]

10.2 Shoe and Lining Assembly

- (1) Check the lining and shoe for cracks or breakage.
- (2) Replace the lining if severely stained with oil, burned, or deteriorated.
- (3) Check the lining thickness. If the thickness exceeds the service limit, replace the lining.



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Item	Standard value	Repair limit
Lining thickness	10 mm (0.39 in.)	4.2 mm (0.16 in.)

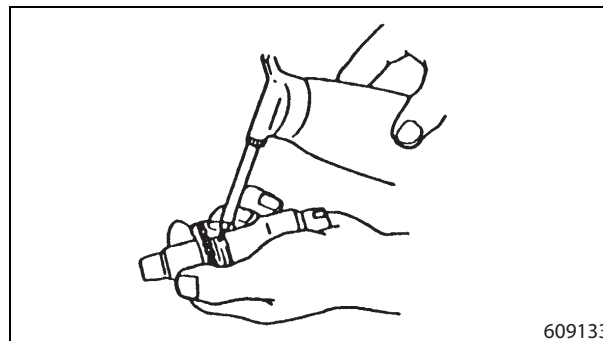
10.3 Brake Drums

If uneven wear or damage is found inside each brake drum, grind, and repair.

Item	Standard value	Repair limit or Service limit
Brake drum internal diameter	$317.5^{+0.2}_0$ mm ($12.500^{+0.008}_0$ in.)	318.5 mm (12.539 in.)

10.4 Adjusting Screw

Check for wear on wheel teeth. Also check if the wheel rotates smoothly.

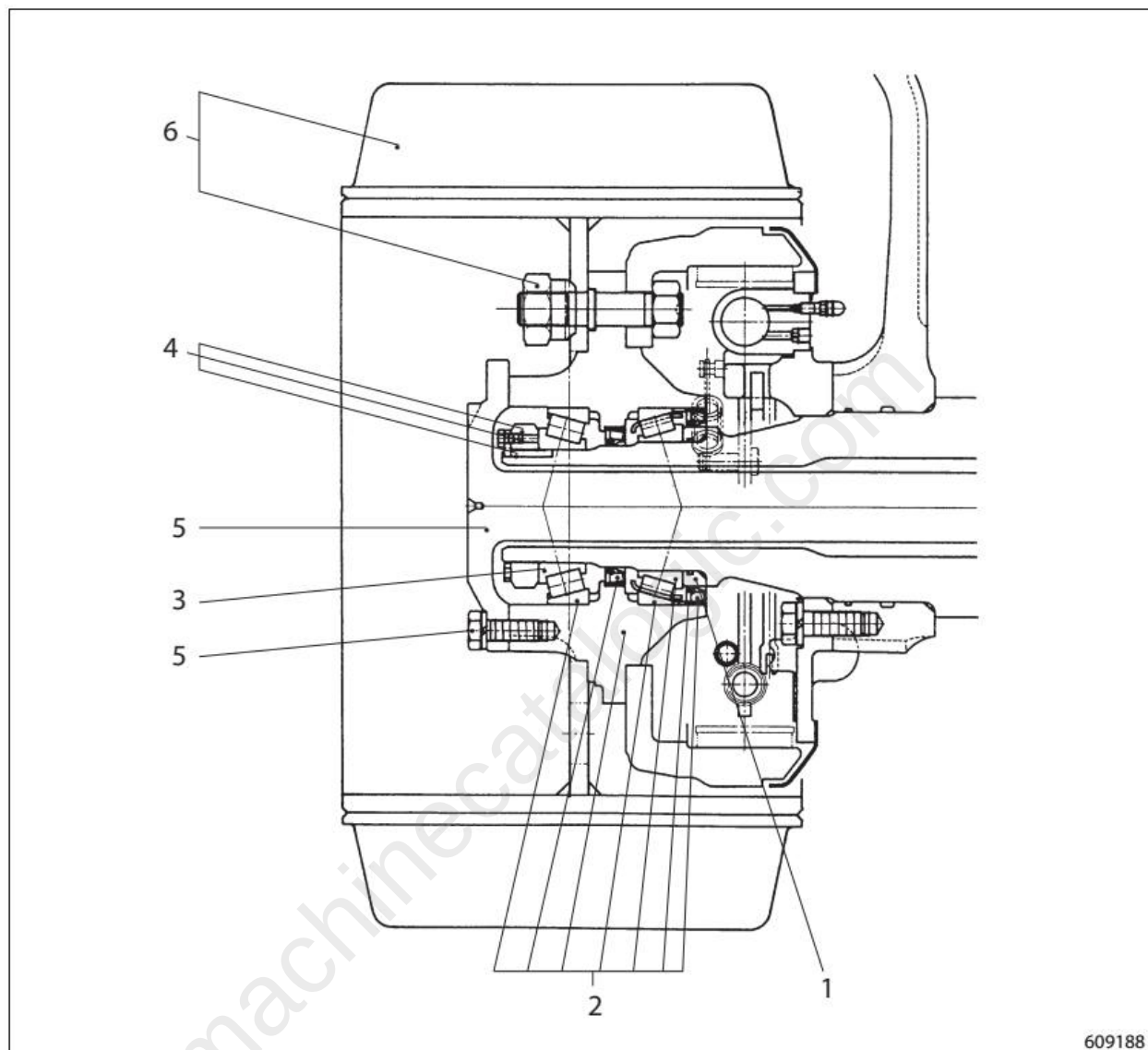


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Without spring washer										
Nominal size mm (in.)	Pitch mm (in.)	 500247			 500248			 500249		
		N·m	kgf·m	lbf·ft	N·m	kgf·m	lbf·ft	N·m	kgf·m	lbf·ft
10 (0.39)	1.5 (0.06)	39.2	4.0	28.9	51.0	5.2	37.6	79.4	8.1	58.6
12 (0.47)	1.75 (0.07)	69.6	7.1	51.4	90.2	9.2	66.5	135.3	13.8	99.8
14 (0.55)	2 (0.08)	112.8	11.5	83.2	146.1	14.9	107.8	215.7	22.0	159.1
16 (0.63)	2 (0.08)	172.6	17.6	127.3	224.6	22.9	165.6	323.6	33.0	238.7
18 (0.71)	2.5 (0.10)	239.3	24.4	176.5	311.9	31.8	230.0	451.1	46.0	332.7
20 (0.79)	2.5 (0.10)	336.4	34.3	248.1	437.4	44.6	322.6	630.6	64.3	465.1
22 (0.87)	2.5 (0.10)	392.3	40.0	289.3	587.4	59.9	433.3	842.4	85.9	621.3
24 (0.95)	3 (0.12)	578.6	59.0	426.7	753.2	76.8	555.5	1088.5	111.0	802.9
27 (1.06)	3 (0.12)	852.2	86.9	628.5	1108.2	113.0	817.3	1588.7	162.0	1771.7
30 (1.18)	3.5 (0.14)	1140.5	116.3	841.2	1481.8	151.1	1092.9	2168.3	221.1	1599.2
33 (1.30)	3.5 (0.14)	1563.2	159.4	1153.0	2031.9	207.2	1498.7	2915.5	297.3	2150.4
36 (1.42)	4 (0.16)	1972.1	201.1	1454.6	2564.4	261.5	1891.4	3765.8	384.0	2777.5
39 (1.54)	4 (0.16)	2610.5	266.2	1925.4	3393.1	3469.0	2502.6	4845.5	494.1	3573.8
42 (16.5)	4.5 (0.18)	3241.1	330.5	2390.5	4212.9	429.6	3107.3	6044.8	616.4	4458.4

10. Assembling Axle Shaft and Hub

10.1 Assembly Sequence



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|--|------------------------------------|
| 1. Retainer, O-ring | 3. Taper roller bearing (inner) |
| 2. Front hub drum assembly
Taper roller bearing (outer), Oil seal,
Taper roller bearing, Spacer and Oil seal | 4. Locknut, Lock washer, Bolt |
| | 5. Axle shaft, Bolt, Spring washer |
| | 6. Front tire, Wheel nut |

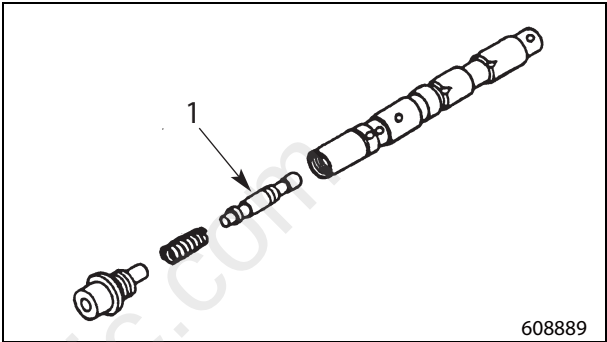
13. Inspection After Disassembling Control Valve

13.1 Sections, Spools, and Return Springs

- (1) Check each sliding surface for cracks and defects. Also, check the check-valve seat for wear.
- (2) Check the spool for burn and distortion.
Also, check for operating force.

Item	Value
Spool operating force	177 to 216N (18 to 22 kgf) [40 to 49 lbf]

- (3) Check the tilt lock valve for damaged or sticking valve.



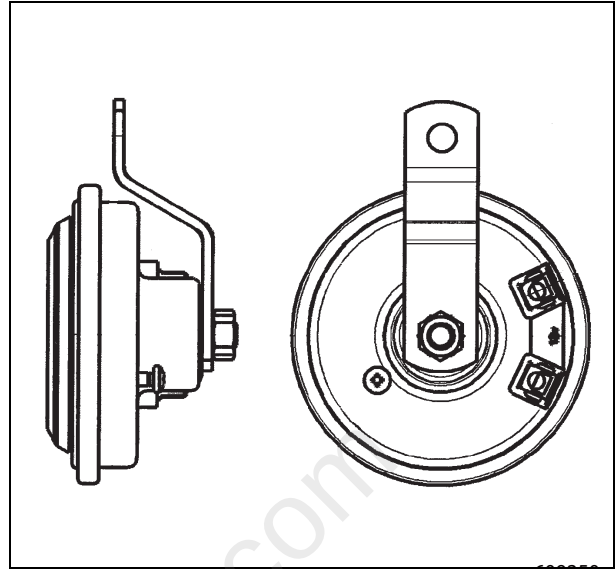
1. Tilt lock valve

5.4 Horn

Check that the horn sounds when applying the specified voltage to both terminals of the horn.

Replace the horn with a new one if it does not sound or its sound is abnormal.

Operating voltage: 9V to 16 V

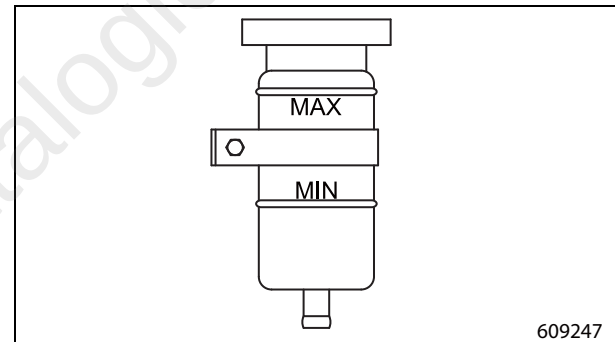


5.5 Reserve Tank

This reserve tank is equipped with LPG empty indicator switch.

Volume: Maximum 150 cc (9.2 cu. in) / Minimum 50 cc (3.1 cu. in)

Note: LPG empty indicator light glows when the brake fluid level reaches the minimum level.



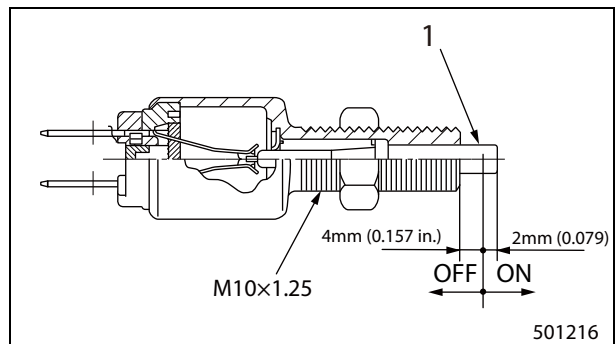
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5.6 Stop Light Switch

Connect a tester across the terminals and check that the lights turn ON and OFF when the amount of the push rod extended projection is within the specified value.

Measure the insulation resistance value across the terminals when the push rod is pushed in.

Replace the switch if the measured insulation resistance value is less than the value listed below:



501216

1. Push rod

Item	Limit value
Insulation resistance	1 M ohm or more with 500V insulation resistance tester

Rated voltage: DC12V

Full Version Available

Caterpillar GC70K STR Forklift Engine Service and Schematic Manual (99739-82110)

Caterpillar GC70K STR engine service manual, covers engine repair, testing, adjustment, and schematics. Searchable PDF download.

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