

Document Title:	·	Information Type:	Date:
Brake disc, changing		Service Information	<b>2014/4/4 0</b>
Profile:			

## Brake disc, changing

Op nbr 51704

999 3875 Adjusting tool

Hexagon key 14 mm

#### NOTE!

Only a 9.5 mm (0.374 in) brake disc is supplied as spare part and this means that on a machine which is not fitted with a wear indicator, such an indicator must be fitted. Fit brake disc and wear indicator on one axle at a time and then on both sides of the axle. When fitting the wear indicator, the position of the brake piston must be changed. At the same time change the brake piston O-rings. As spare part the brake disc is supplied without a pump rotor. Therefore, the pump rotor must be moved over and centred on the new brake disc.



Figure 1 Axle without wear indicator

1. Plug



#### Figure 2 Axle wear indicator

1. Wear indicator

### Dismantling

- 1. Raise the machine, support the axle and remove the wheels.
- 2. Drain the oil from the hub reduction gears and axle housing.
- 3. Release the pressure in the brake system by depressing the brake pedal 30 40 times, so that the hissing sound ceases and no counter pressure can be felt in the pedal.
- 4. Connect lifting yoke E1752 to the hub reduction gear. Remove the bolts and lift away the hub reduction gear together with half shaft and brakes disc.

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The hub reduction gear weight is approx. 160 kg (353 lb).



Figure 3 Removing hub reduction gear

- 1. E1752
- 5. Loosen the lock nuts and unscrew the brake piston adjusting screws approx. 1 revolution.

6. Clean, inspect and change worn or damaged parts.





1. Adjusting screws with lock nuts

## Centring of pump rotor on brake disc

- 7. Remove the pump rotor from the old brake disc.
- 8. Centre the pump rotor on the new brake disc as follows:
  - O Position the new disc on a level surface with a pump rotor half on each side. Centre the pump rotor halves on the disc by knocking in two spring pins 6.35 x 24 mm (0.25 x 0.94 in) in two opposing bolt holes.
  - O Fit bolts in the other two holes. **Tightening torque: 12 N m (8.9 lbf ft).**
  - O Knock out the spring pins and fit bolts. **Tightening torque: 12 N m (8.9 lbf ft).**





1. Spring pins for centring of pump rotor half

### NOTE!

Only applies when fitting wear indicator on an axle which previously did not have a built-in wear indicator.

## Removing and fitting brake piston, changing brake piston O-rings

9. Loosen the bleeder screw

Figure 6 Loosen the bleeder screw

10. Remove the brake piston together with the springs. The brake piston weight is: approx. 7 kg (15 lb).



Figure 7 Removing brake piston

11. Remove and change the brake piston O-rings. Apply grease to the O-rings and the brake piston.



## Figure 8 Changing brake piston O-rings.

12. Fit the brake piston according to Fig.
The notch in brake piston, 1, must not coincide with the hole for wear indicator, 2.
Tighten down the bleeder screw.
1
2



### Figure 9 Fitting brake piston

- 1. Notch in brake piston
- 2. Hole for wear indicator

### Basic setting of wear indicator

13. Adjust the wear indicator pin to a basic setting of 90 mm (3.54 in).



Figure 10 Basic setting

1. 90 mm (3.54 in)

### Assembling

- 14. Fit guide pins and thrust plate in the hub reduction gear.
- 15. Fit the half shaft with the larger chamfer against the differential. Fit sun gear, brake disc with pump rotor and a new O-ring.



### Figure 11

- 1. O-ring
- 1. Brake disc with pump rotor
- 1. Half shaft
- 16. Fit the hub reduction gear, fit and tighten down the bolts. **Tightening torque: 310 N m (229 lbf ft).**



Figure 12 Fitting hub reduction gear

17. Fit the wear indicator which has been adjusted to the basic position.



Figure 13 Fitting wear indicator

- 1. Wear indicator
- 18. Tighten down the wear indicator



Figure 14 Tightening wear indicator

- 19. Start the engine, charge the brake system until the brake warning lamp has been extinguished and apply the brakes.
- 20. Bleed the brakes by fitting a plastic hose on the bleeder screw. Carefully open the bleeder screw and close the bleeder screw, when oil free of air flows out.
- 21. Stop the engine, keep the brakes applied and screw in the adjusting screws against the brake piston. Then unscrew the bolts 1/2 revolution. Lock with the lock nuts.



## Figure 15 Adjusting screws with lock nuts



The brakes should be applied during the adjustment and must not be released until the adjusting tool 3875 has been removed.

### Adjusting wear indicator

22. Adjust the wear indicator by fitting adjusting tool 3875 and tightening it until it bottoms.



Figure 16 Adjust the wear indicator

- 1. 3875
- 23. Remove the tool while the brakes are still applied.
- 24. Release the brakes and fit and tighten down the plug on the wear indicator.



Figure 17 Tighten down the plug

- 25. Fill the axle housing and hub reduction gears with oil.
- 26. Fit the wheels and remove any supports.



Document Title: Brake discs, checking wear, L70C up to incl. ser. no 13501	516	Information Type: Service Information	Date: <b>2014/4/4 0</b>
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## Brake discs, checking wear, L70C up to incl. ser. no. - 13501

### Op nbr 51601

999 3789 Depth gauge

The following applies when checking:		
Temperature:	Normal working temperature	
Brakes:	Applied	
Thickness, new disc:	8.5 mm (0.335 in)	
Min. thickness :	7.2 mm (0.283 in)	
Wear limit:	When the flat surface of the pin is flush with the surface of the plate marked "CHANGE" or "STOP"	

## Checking

1. Start the engine and charge the brake system until the brake warning lamp is extinguished. Stop the engine and apply the brakes.



The brakes must be applied during the entire wear check.

2. Remove the plug, and fit tool 3789, see Figurs



Figure 1 Axle without wear indicator

1. Plugg



Figure 2 Checking brake disc wear

- 1. Pin
- 2. Platte

3. Check the brake disc wear by establishing how far pin 1 protrudes above surface 2. The surface is marked "CHANGE" and "STOP".

If the flat surface of the pin is flush with the plate surface marked "CHANGE" or "STOP", the brake disc must be changed, see Fig.

If "CHANGE" is indicated, the brake disc must be changed as soon as possible.

If "STOP" is indicated, the brake disc must be changed immediately.

4. Remove the tool, fit the plug and let up the brake pedal.



Document Title: Brake discs, checking wear, L70C w.e.fr. ser. no. 13502 - axle with built-in wear indicator	516	Information Type: Service Information	Date: <b>2014/4/4 0</b>
Profile:			

## Brake discs, checking wear, L70C w.e.fr. ser. no. 13502 - axle

### Op nbr 51701

The following applies when checking:		
Temperature:	Normal working temperature	
Brakes:	Applied	
Tjocklekn ny lamell:	9.5 mm (0.374 in)	
Wear limit:	When the flat surface of pin B is flush with flat surface A of the nipple	

### Checking

1. Start the engine, and charge the brake system until the brake warning lamp is extinguished. Stop the engine and apply the brakes.

Stanna motorn och ansätt bromsen.



The brakes must be applied during the entire wear check.

2. Remove the plug on the wear indicator.



Figure 1 Axle with built-in wear indicator

- 1. Wear indicator
- 3. Using a finger press in the wear indicator pin until stop, see Fig.



Figure 2 Press in wear indicator pin

4. The wear of the brake disc is indicated by the position of the flat surface of pin B relative to the flat surface A of the nipple. The position of the flat surface of the pin, varies depending on the brake disc wear. With a new brake disc the flat surface of the pin protrudes 2.3 mm (0.091 in) outside the flat surface of the nipple, see Fig.



Figure 3 Indication of brake disc wear

- 1. Wear indicator pin
- 2. Nipple
- A. Nippelns plana yta
- B. Flat surface of pin
- 5. The brake disc is worn out and must be changed when the flat surface B of the pin is flush with the flat surface A of the nipple, see Fig.



Figure 4 Brake disc is worn out

- A. Flat surface of nipple
- B. Flat surface of pin
- 6. Fit the plug on the wear indicator, let up the brake pedal.



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