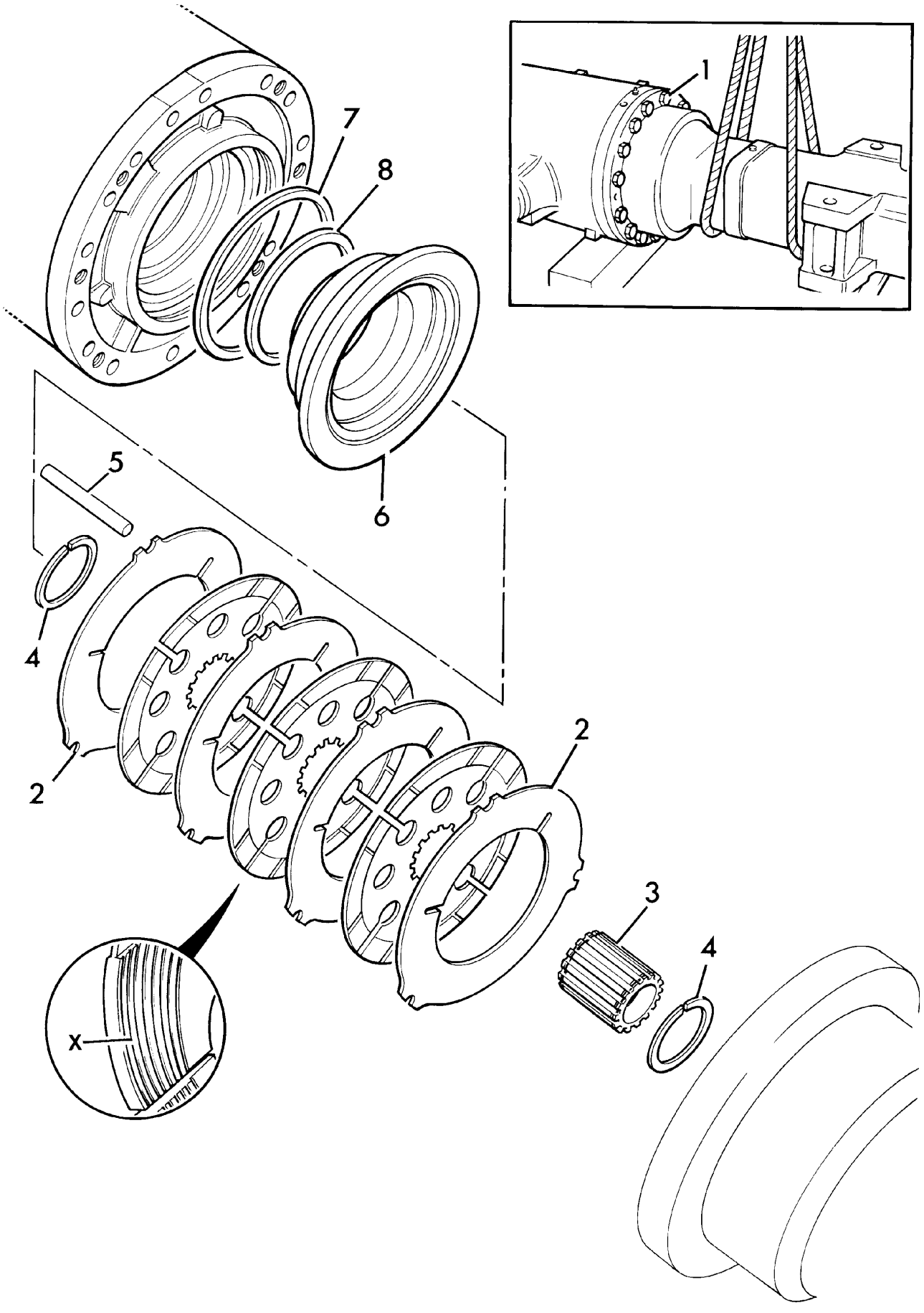


S255900

FRONT INBOARD BRAKES - DISMANTLING & ASSEMBLY

Dismantling

The following procedure shows the axle removed from the machine, however, the brakes may be accessed without removing the complete axle.

⚠ WARNING

Make the machine safe before getting beneath it. Park the machine on level ground. Make sure the engine is stopped, the parking brake engaged and the transmission is in neutral. Disconnect the battery. Chock both sides of all four wheels.

5-3-2-1

1 Disconnect track rod end. Disconnect and plug hydraulic hoses and remove steer rams. Support the axle arm. If working with the axle in situ on non-sway machines, the axle mounting bolts must be removed on the side to be worked on.

2 Remove Durlok bolts **1**. Use a heavy duty socket 892/00818 to unscrew them.

3 Jack the axle arm off the drive head, using the drive head securing bolts. Remove all traces of gasketing from the mating faces.

4 There are two counterplates **2**, one at each end of the brake pack, which are not secured to the plate carrier **3**. If the plates are to be re-used, note their positions and which way round they are then withdraw the brake pack.

5 Remove the circlip **4**. If the brake pack is to be re-used, note the positions of the plates before removing them.

Note: The plate carrier **3** has an internal chamfer at the end which faces away from the drivehead.

6 Wear limit of friction plates is to the depth of circumferential grooves X. Check all plates for flatness and damage. (Some scoring of the counterplates is normal.) Renew the brake pack complete if worn or damaged. Do not renew individual plates.

7 Remove the three reaction pins **5**. Inspect for damage.

8 Carefully withdraw the brake piston **6** from its housing, if removal is necessary. A hydraulic hand pump can be used to force the piston out of the housing.

9 Remove and discard seals **7** and **8**. Inspect the housing bore for damage and scoring. Nicks or cuts in the seals may be responsible for loss of brake fluid.

Assembly

1 Fit new seals **7** and **8**. Make sure they seat squarely in their grooves.

2 Carefully press the piston **6** all the way into its housing.

3 Assemble the friction plates and counterplates **2** onto the carrier **3**. If the original brake pack is being re-used, return the plates to their original positions (see 'Dismantling', Step 4.) Soak new friction plates in JCB Special Gear Oil before assembly. Fit circlip **4**.

4 Locate the three reaction pins **5** into their grooves, securing them with grease. Push the pins fully into their location holes in the housing.

5 Install one counterplate **2** into the housing, then the brake pack, then the other counterplate. Ensure that the chamfered end of the brake carrier **3** faces away from the drive head. Return re-used counterplates to their original positions. Push the brake pack fully home.

6 Apply Multigasket to the mating face of the drive head, and Threadlocker and Sealer to the threads of bolts **1**. (Use new Durlok bolts). Locate the axle arm onto the drivehead, with the embossed word 'TOP' on the axle arm uppermost.

7 Fit bolts **1** and torque tighten.

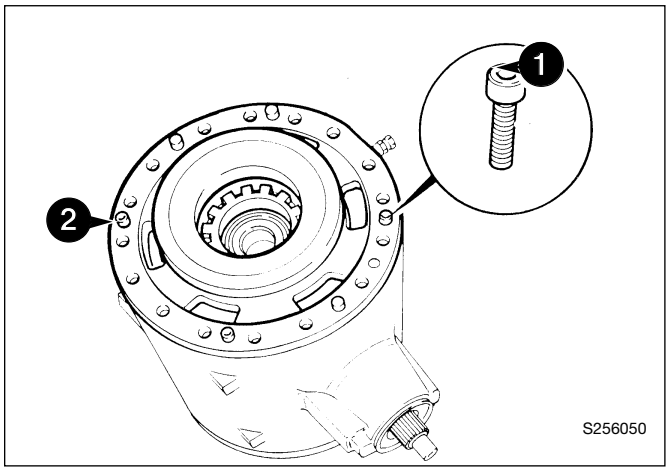
Note: Check the grade of bolts fitted. Grade 8.8 should be tightened to 244 Nm (178lbf ft, 24.9 kgf m), grade 12.9 should be tightened to 400 Nm (295 lbf ft, 40.8 kgf m).

FRONT DRIVE HEAD - DISMANTLING

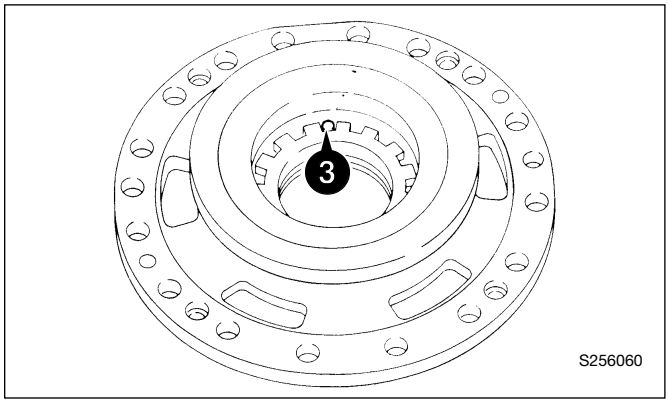
Note: As the drivehead cannot be dismantled in situ, the complete axle must be removed from the machine.

1 After removing the axle arms , position the drive head as shown, with the crownwheel at the top. Remove capscrews.

2 Match - mark the brake piston housing and drive head. Pull off the brake piston housing.

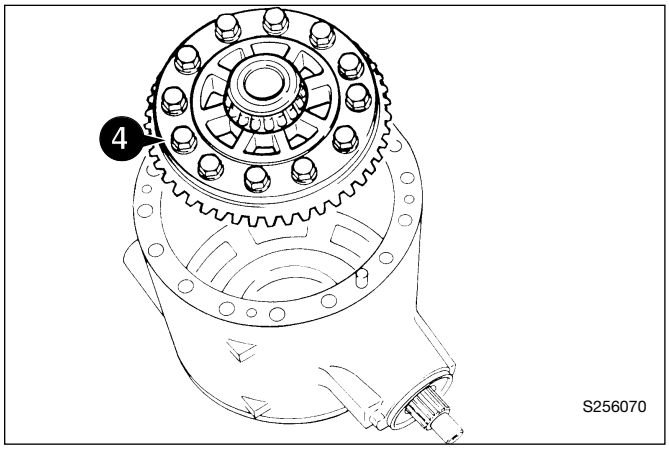


3 Drive out the differential side nut locking pin, to allow readjustment on assembly. Remove the other brake piston housing only if damaged, but remove its locking pin regardless (to allow sideload adjustment on assembly).



4 Lift out the crownwheel/differential assembly.

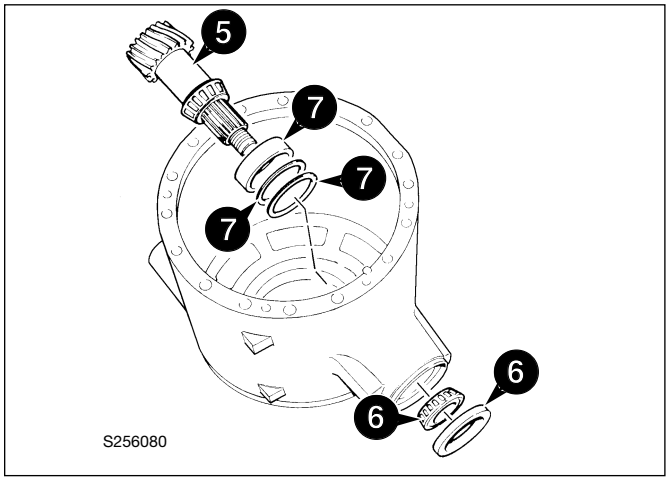
Note: If both brake piston housings are to be removed, mark the crownwheel end of the drive head casing to ensure that the assembly is returned to its original position.



5 Withdraw the pinion.

6 Withdraw the pinion seal and outer bearing cone.

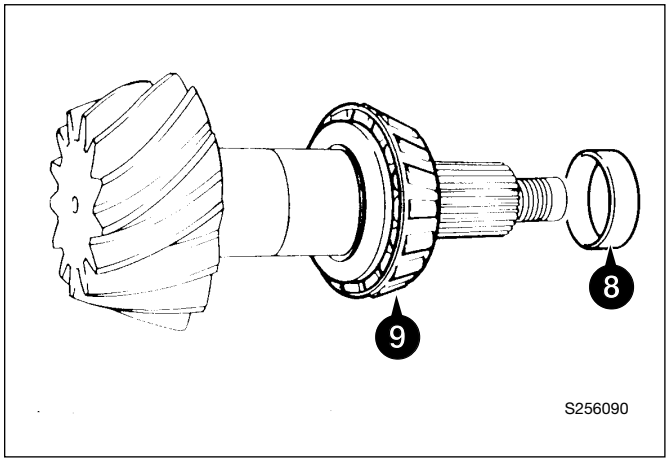
7 If necessary, drive out the pinion inner bearing cup and shims. Discard the shims. Repeat for the outer bearing cup if required. Note that there are no shims for the outer bearing cup.



FRONT DRIVE HEAD - DISMANTLING (cont'd)

8 Remove and discard the pinion collapsible spacer.

9 Pull off the bearing cone.



10 To dismantle the differential assembly, first remove bolts.

11 Lift off the top half housing.

12 Remove the differential gears and spherical washers. Pull off both differential bearing cones.