

STEERING CLUTCHES AND BRAKES

Removing brake drums and clutch shifters

Preparatory steps

- (a) Remove operator's seat and seat bracket.
- (b) Remove steering clutch levers and brake pedal.

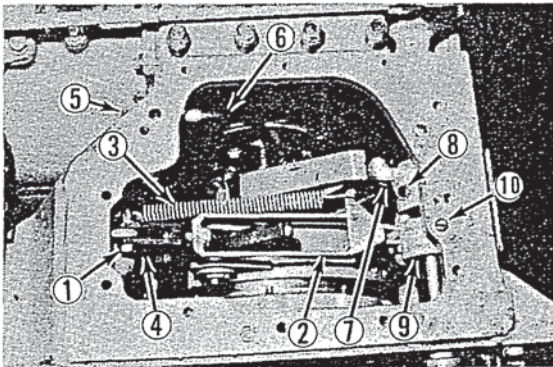
Procedure

- (1) Loosen off twelve bolts securing cover, and remove cover.

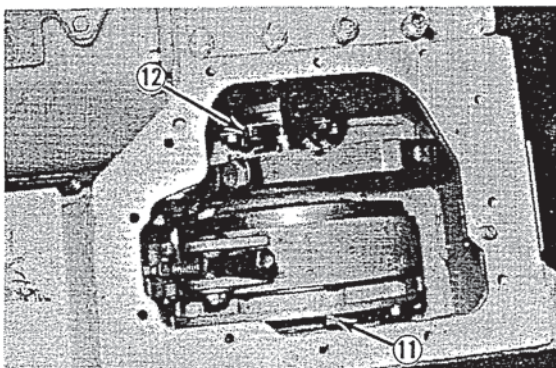
NOTE

Take out desiccant from inside the clutch case.

- (2) Remove bolt (1), and separate arm (2) and spring (3). Loosen off set bolt (4).
- (3) Remove grease fitting (nipple) (5), and disconnect hose (6) from clutch case.
- (4) Remove set bolt (8) of cam (7) and set screw (10) of lever (9).

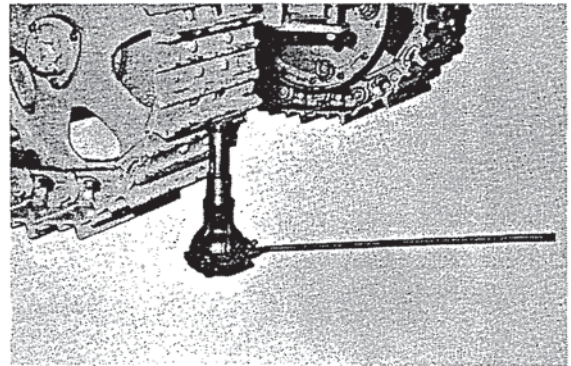


- (5) Attach a lifting sling to tie pin, and have clutch drum and shifter suspended.
- (6) Loosen off ten bolts (11) to separate final drive pinion from drum.
- (7) Loosen off eight bolts (12) to separate drive shaft from shaft.

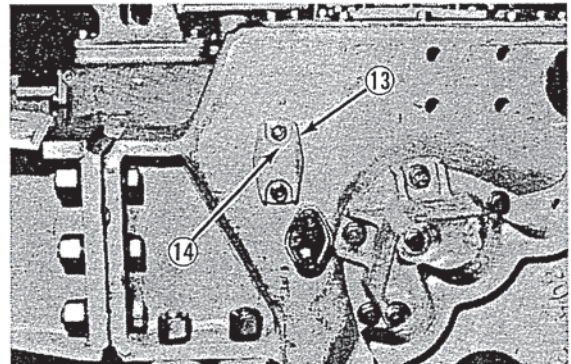


NOTE

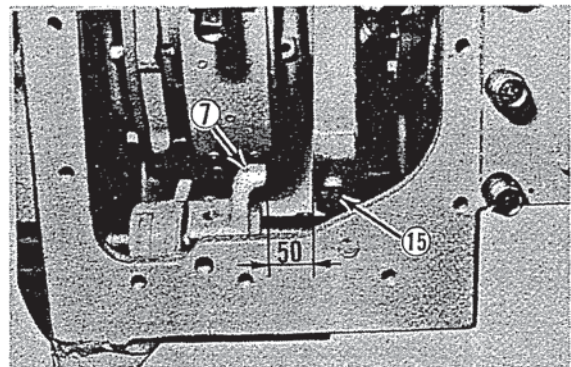
It is advisable, when removing bolts (11) (12), to move the track with a jack as shown to facilitate removal of the bolts.



- (8) Remove cover (13), and pull out shaft (14).



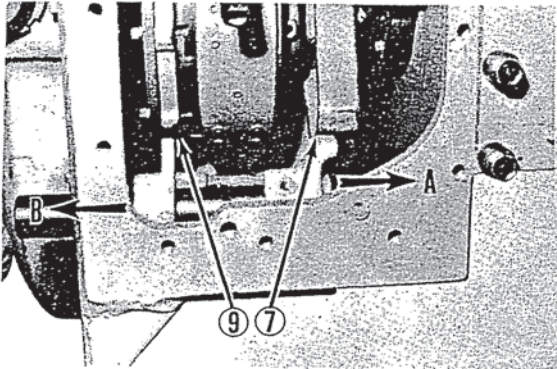
- (9) Displace cam (7) in the direction of arrow to obtain about 50 mm (2 in.) in the clearance between the cam yoke roller (15).



- (10) Lift clutch assembly within clutch case. Remove bolt from socket, and plumb up yoke. Displace cam (7) all the way in the direction of arrow A (toward the bevel gear side) and lever (9) in the

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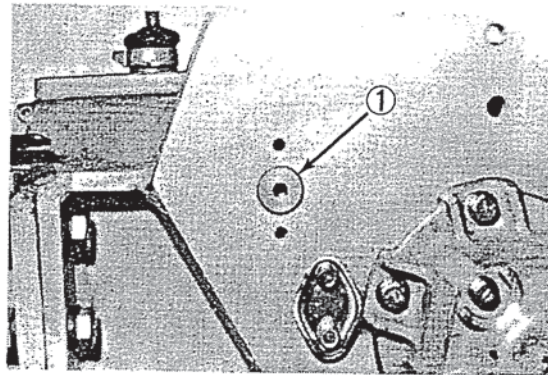
direction of arrow B (toward the final drive side), and lift off steering clutch complete with brake and yoke.



Installing brake drums and clutch shifters

Procedure

- (1) Place steering clutch complete with brake and yoke in clutch case.
- (2) Install shaft (1) to brake lever.
- (3) Install final drive pinion to drum.
- (4) Connect drive shaft to shaft.

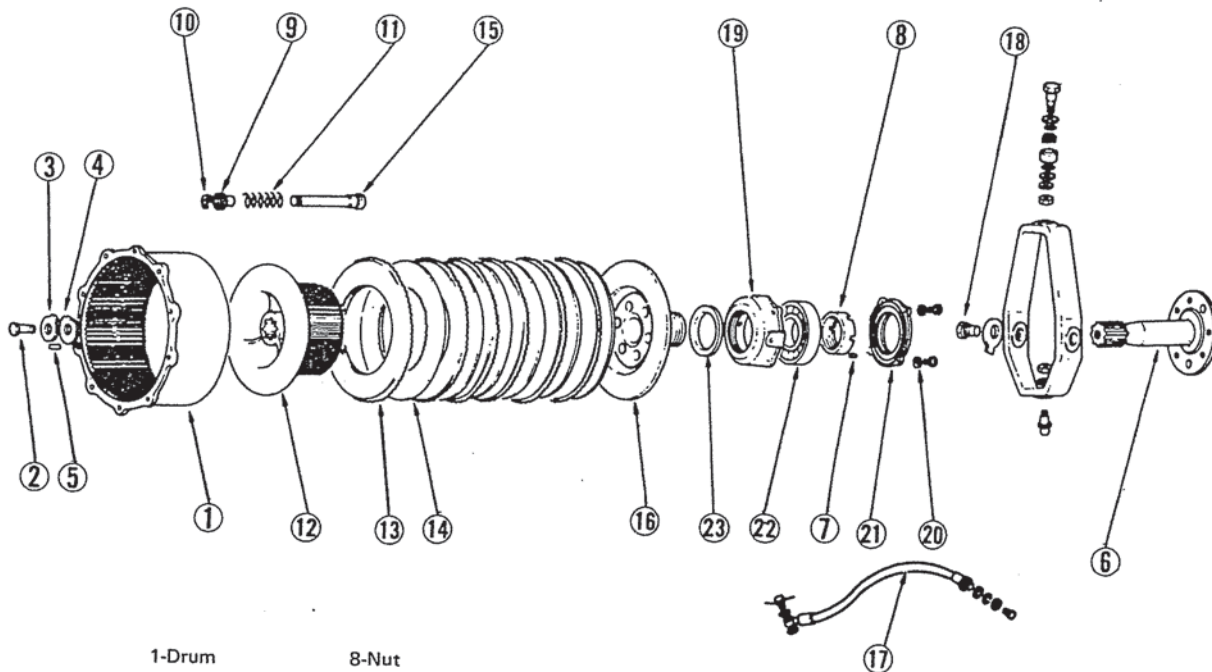


- (5) Install set bolt and set screw.
- (6) Connect hose to clutch case, and install grease fitting.
- (7) Screw set bolt, and install arm and spring.
- (8) Install cover with twelve bolts.

Subsequent steps

- (a) Install steering clutch levers and brake pedal.
- (b) Install operator's seat bracket and seat.

Disassembling clutch and yoke



- | | | | |
|---------------|---------------------|-----------------|----------------------------------|
| 1-Drum | 8-Nut | 15-Pin (6 pcs) | 20-Bolt with washer (4 pcs each) |
| 2-Bolt | 9-Guide (6 pcs) | 16-Plate | 21-Seal case |
| 3-Lock washer | 10-Retainer (6 pcs) | 17-Hose | 22-Bearing |
| 4-Washer | 11-Spring (6 pcs) | 18-Bolt (2 pcs) | 23-Seal |
| 5-Spring pin | 12-Drum | 19-Shifter | |
| 6-Shaft | 13-Plate (6 pcs) | | |
| 7-Set screw | 14-Plate (6 pcs) | | |

Clutch and yoke — disassembled view

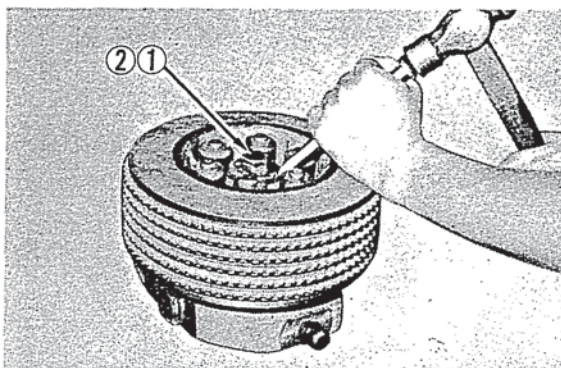
STEERING CLUTCHES AND BRAKES

Tool required

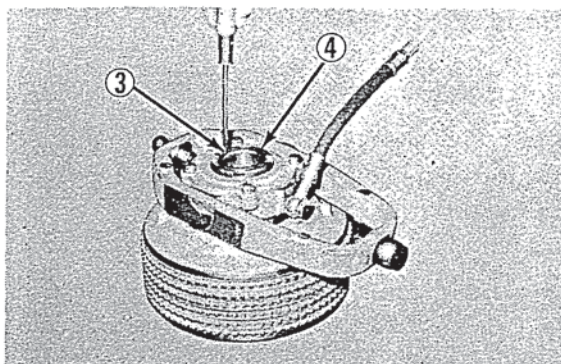
Tool name	Tool number	Qt.
Steering clutch tool	58609-01900	1

Procedure

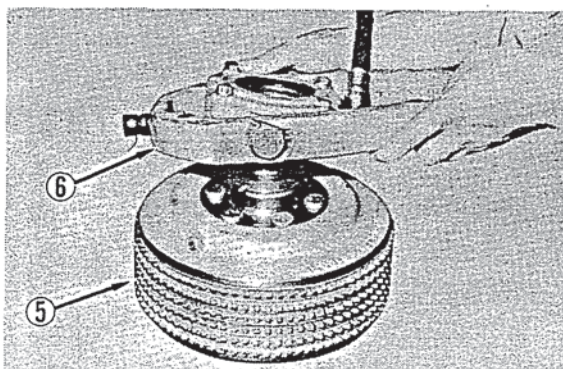
- (1) Remove drum and brake band.
- (2) Straighten lock washer under bolt (1). Loosen off the bolt, and pull out shaft (2).



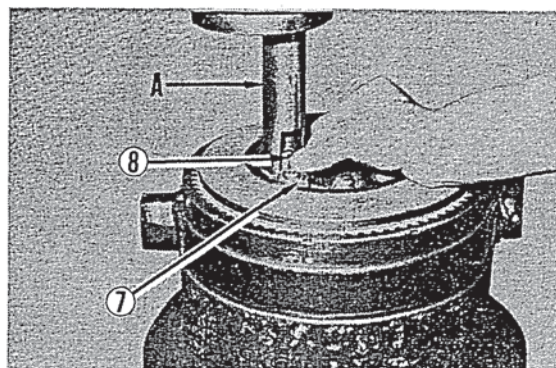
- (3) Loosen off set screw (3), and remove nut (4).



- (4) Remove yoke assembly (6) from clutch plate assembly (5).



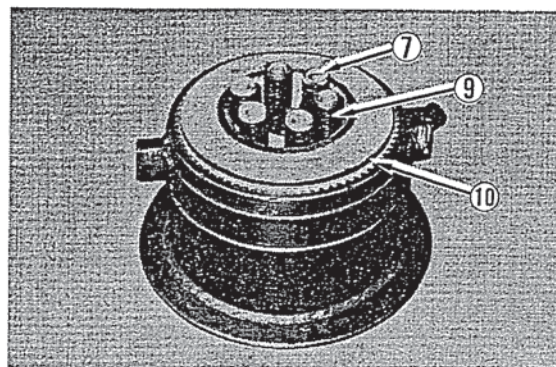
- (5) With clutch plate assembly held on a bench, give a push to guide (7) (to compress spring under the guide), using a tool (A), and remove retainer (8).



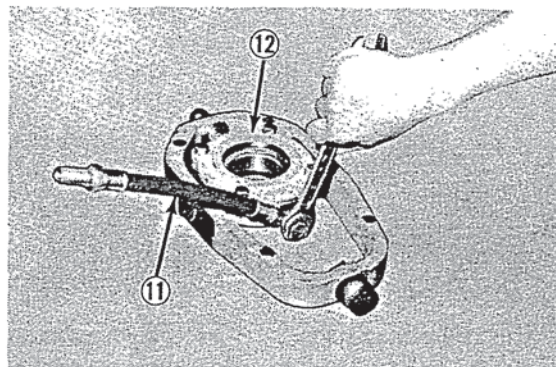
- (6) Remove guide (7), spring (9) and plate (10).

NOTE

A total of six retainers, six guides and six springs are used in each clutch.



- (7) Disconnect hose (11) from clutch case, and remove shifter (12).



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Assembling clutch and yoke

Tool required

Tool name	Tool number	Qt.
Steering clutch tool	58609-01900	1

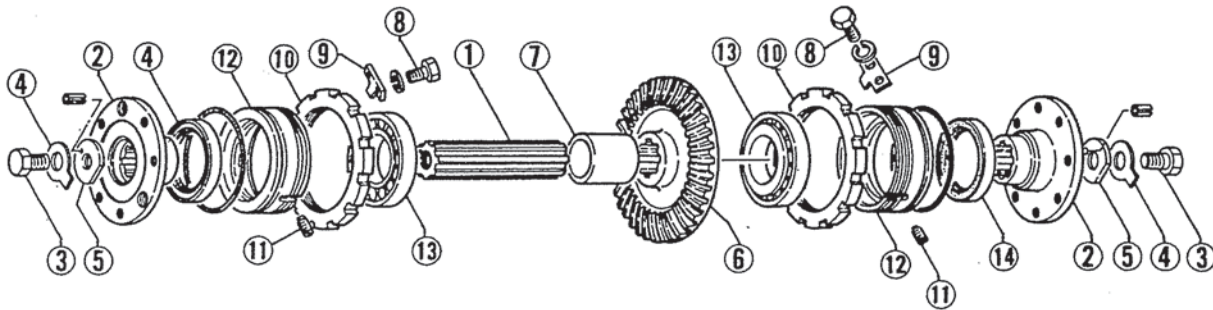
Procedure

Assembly is the reverse of disassembly procedure.

NOTE

Align drive and driven plates with respect to their teeth.

Disassembling bevel gear and shaft



1-Drive shaft
2-Coupling (2 pcs)
3-Bolt (2 pcs)
4-Lock washer (2 pcs)
5-Washer (2 pcs)

6-Bevel gear
7-Spacer
8-Bolt with washer (2 pcs each)
9-Locking plate (2 pcs)
10-Nut (2 pcs)

11-Set screw
12-Bearing cage
13-Bearing
14-Oil seal

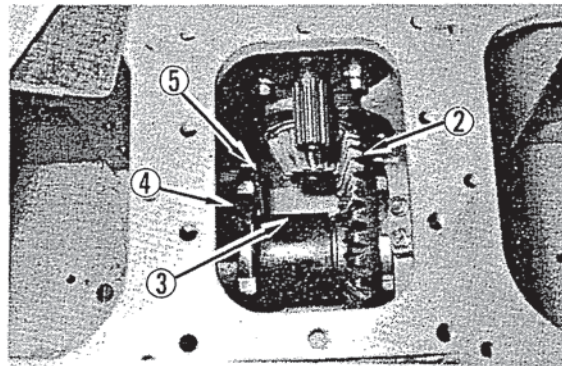
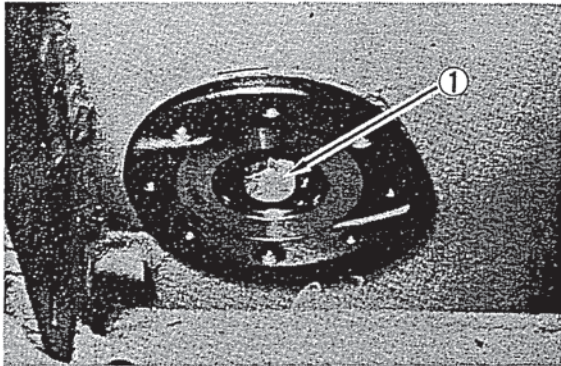
Bevel gear and shaft — disassembled view

Tool required

Tool name	Tool number	Qt.
Wrench	58309-01900	1

Procedure

- (1) Loosen off bolt (1), and remove lock washer and washer at each end of drive shaft.



- (4) Remove bearing cages, each complete with bearing, oil seal and coupling, from gear case by loosening off set screws.
- (5) Remove bearing, oil seal and coupling from each bearing cage.

Assembling bevel gear and shaft

Tool required

Tool name	Tool number	Qt.
Wrench	58309-01900	1

- (2) Give blows of a soft-faced hammer or mallet to drive shaft, and remove bevel gear (2) and spacer (3).
- (3) Remove right and left locking plates (4), and, using a wrench (A), loosen off right and left nuts (5).