CATERPILLAR®

Service Repair Manual

Models

D8K TRACK-TYPE TRACTOR

Disassembly and Assembly
D8K TRACTOR POWER TRAIN

Media Number -SENR7011-01   **Publication Date -01/06/1976**   **Date Updated -12/12/2017**
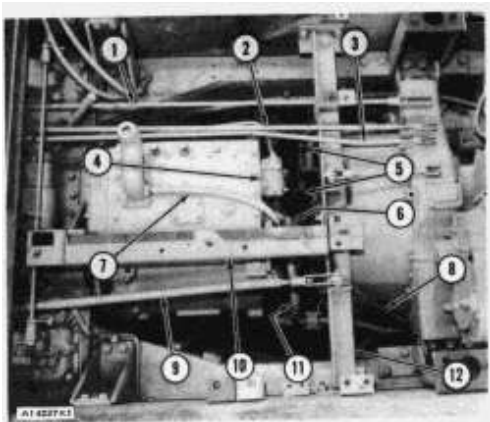
SENR70110037

Torque Divider (Power Shift)

SMCS - 3100-11; 3100-12; 3100-15; 3100-16
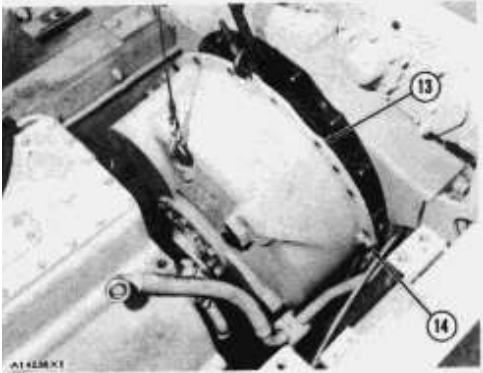
Remove Torque Divider (Power Shift)

start by:

a) remove seat and seat frame

b) remove crankcase guard (rear)

c) remove universal joint (power shift)

d) remove torque divider scavenge and circulating oil pump

e) remove torque converter outlet relief valve

f) remove brake pedals and dash

1. Drain the oil from the transmission and torque divider.

2. Remove rods (1), (2), (3) and (9) for the steering clutches and brakes. Put identification on the rods to prevent mixing at assembly.

3. Remove seat frame support (10) and cross-member (12).

4. Remove oil supply line (11) for the transmission hydraulic controls.

5. Remove oil supply line (6) for the torque converter.

6. Remove vent line (7) for the torque divider.

7. Remove vent line (8).

8. Remove transmission priority valve (4).

9. Remove oil outlet and inlet lines (5).

10. Install two 5/8" - 11 NC forged eyebolts in the torque divider as shown. Fasten a hoist to the torque divider. Remove the nuts and washers that hold the torque divider to the flywheel housing. Make a separation of the torque divider from the flywheel housing until a wire (14) can be installed around the planet carrier.
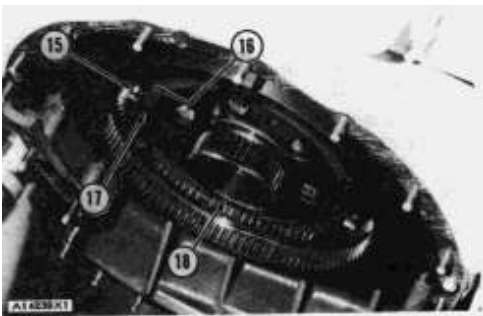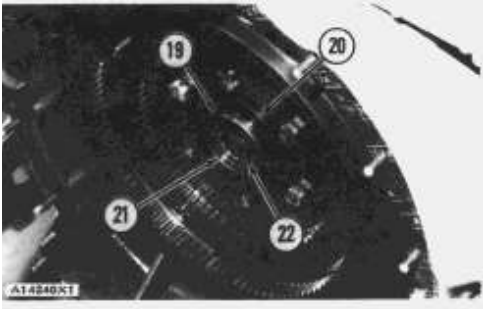

NOTICE

The wire is to prevent the planet carrier from falling from the output shaft when the torque divider is being removed.

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11. Remove torque divider (13). Weight of the torque divider is 850 lb. (386 kg).

12. Remove bolts (15), locks (16) and retainers (17). Remove gear (18).
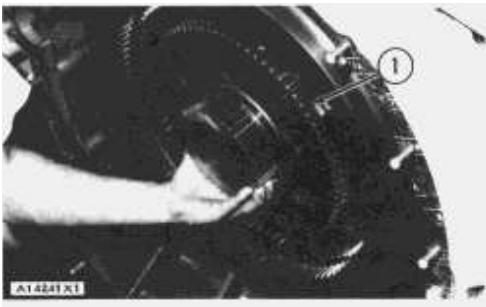
13. Remove snap ring (19). Remove washer (20).

14. Remove snap ring (21) and pilot bearing (22).

Install Torque Divider (Power Shift)

1. Install the pilot bearing in the flywheel. Install the snap ring that holds it.

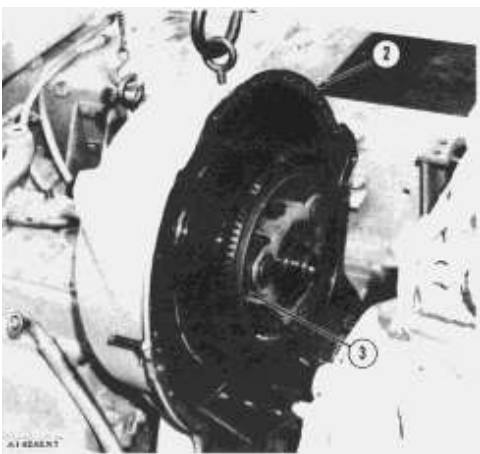**2.** Install the washer over the pilot bearing. Install the snap ring that holds it.

3. Put gear (1) into position in the flywheel. Install the retainers, locks and bolts that hold it.

NOTICE

Make sure wire (3) is around the planet carrier. The wire will prevent the planet carrier from falling off of the output shaft when the torque divider is installed.
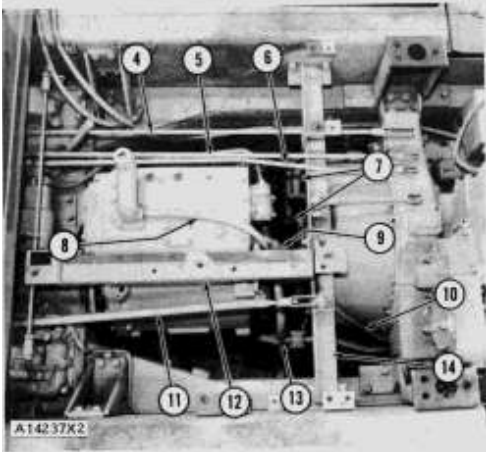
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4. Fasten a hoist to the torque divider (2) and put it into position on the flywheel housing. Remove wire (3). Make sure the teeth of the gears for the planet carrier are in alignment with the teeth on the gear that is fastened to the flywheel. Turn the output shaft slowly while the torque divider is pushed in position against the flywheel housing.

NOTICE

Do not use force to engage the torque divider in the flywheel housing.

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5. Install outlet and inlet lines (7).

6. Install the priority valve on the transmission.

7. Install vent line (10).

8. Install vent line (8) for the torque divider.

9. Install oil supply line (9) for the torque converter.

10. Install oil supply line (13) for the transmission hydraulic controls.

11. Install crossmember (14) and seat frame support (12).

12. Install rods (4), (5), (6) and (11) for the steering clutches and brakes.

13. Fill the transmission and torque divider with oil to the correct level. See, LUBRICATION AND MAINTENANCE GUIDE.

end by:

a) install brake pedals and dash

b) install torque converter outlet relief valve

c) install torque divider scavenge and circulating oil pump

d) install universal joint (power shift)

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