

DOUBLE CLUTCH MODEL 9 X 3 GEAR TRANSMISSION (4WD)

DESCRIPTION

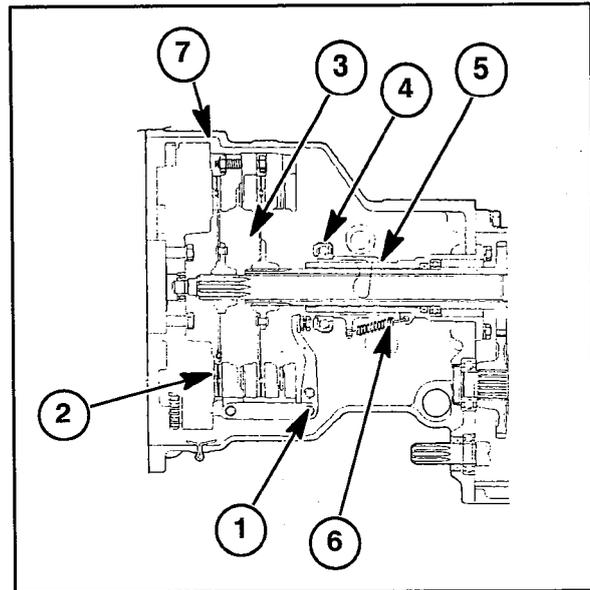
The double clutch is standard equipment on the Model TC30 tractors equipped with 4WD and the 9 x 3 gear transmission.

The double clutch permits the drive to the transmission to be disconnected from the main transmission to facilitate gear changes without stopping the drive to the PTO.

The double clutch utilizes two 215 mm (8.45") diameter discs. A transmission clutch disc transmits power from the engine to the main transmission input shaft and a second clutch disc transmits power from the engine to the PTO input shaft.

The double clutch is mounted to a recessed flywheel with six bolts.

The double clutch pressure plate release lever height is adjustable and should be checked and adjusted, if required, whenever the clutch is serviced or a new clutch is installed.



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1. Pressure Plate Assembly
2. Transmission Clutch Disc
3. PTO Clutch Disc
4. Clutch Release Bearing
5. Hub
6. Return Spring
7. Flywheel

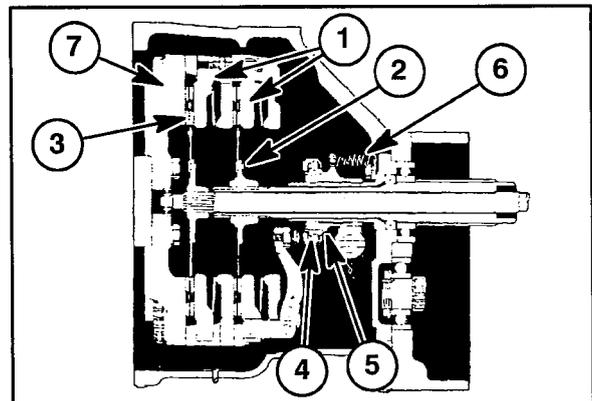
OVERHAUL

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DISASSEMBLY

1. Separate the tractor between the engine and the clutch housing. See "Separating the Tractor".
2. Remove the six bolts retaining the pressure plate to the flywheel and remove the pressure plates, 1, and discs, 2 and 3 assembly.

NOTE: Remove the attaching bolts gradually and evenly to prevent distorting the pressure plate assembly.

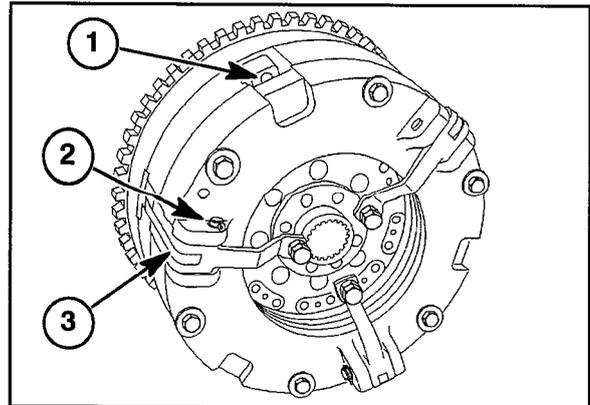


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1. Pressure Plate Assembly
2. PTO Clutch Disc
3. Transmission Clutch Disc
4. Clutch Release Bearing
5. Hub
6. Return Spring
7. Flywheel

SECTION 18 - CLUTCHES - CHAPTER 1

3. Loosen the three PTO clutch release adjusting bolts, 1, gradually and evenly until the bolts are disengaged from the bottom pressure plate.
4. Remove the three release lever pins, 2, from the cover and swing the release levers and links, 3, out of the way.
5. Separate the remaining components of the assembly.

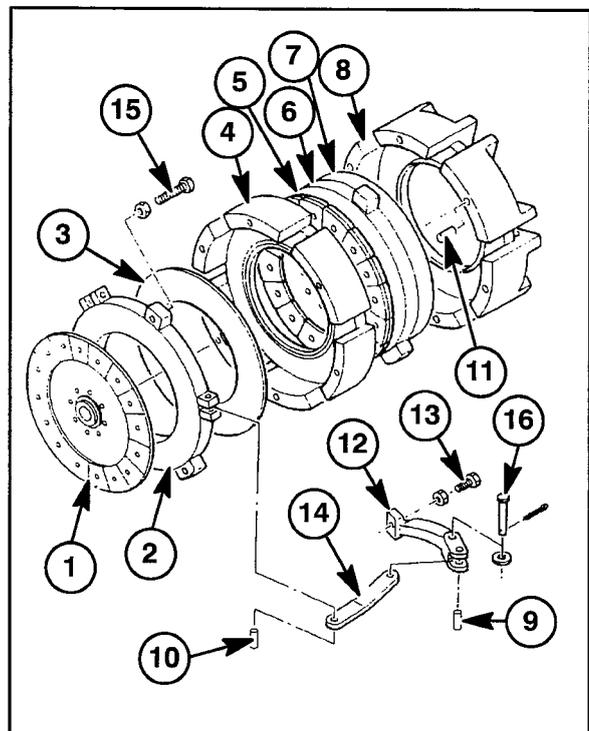


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INSPECTION

1. Inspect the pressure plates for scoring, cracks, or signs of overheating. Minor imperfections may be removed by resurfacing the pressure plate surface.
2. Inspect the release levers, 12, for excess wear or damage.
3. Inspect the release lever and link pivot pins for excess wear or damage.
4. Inspect the clutch disc lining for excess wear. Replace the clutch disc if the lining is worn to less than 0.3 mm (0.012") from the top of the rivet heads.
5. Inspect the clutch linings for signs of overheating, scoring, or oil impregnation in the lining.
6. Inspect the hub spline for excess wear.
7. Inspect the cushioning springs for signs of wear or damage.

NOTE: Flywheel surface may be machined down a maximum of 1.27 mm (0.050").



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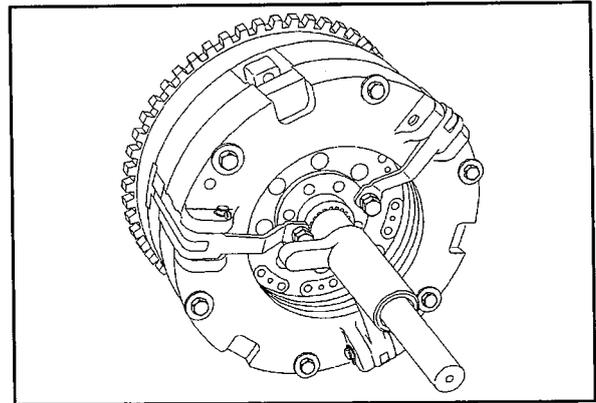
1. Clutch Disc Assembly (Transmission)
2. Pressure Plate
3. Diaphragm Spring
4. Clutch Cover - Inner
5. Clutch Disc Assembly (PTO)
6. Pressure Plate
7. Diaphragm Spring
8. Clutch Cover - Outer
9. Dowel Pin
10. Dowel Pin
11. Pin
12. Release Lever
13. Adjusting Bolt
14. Link
15. Adjusting Bolt
16. Pin

SECTION 18 - CLUTCHES - CHAPTER 1

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ASSEMBLY

1. Install one diaphragm spring, 7, (dome side away from flywheel) in the clutch outer cover, 8.
2. Install the PTO pressure plate, 6, in the clutch outer cover.
3. Install the PTO clutch disc, 5, with long side of hub away from flywheel.
4. Install the clutch inner cover, 4.
5. Install one diaphragm spring, 3, (dome side away from flywheel) in the clutch cover.
6. Install the transmission pressure plate, 2, in the clutch cover.
7. Install release lever link, and pin assemblies, 11, 12, 13, and 14.
8. Install the three PTO clutch release bolts, 15, into the transmission pressure plate (finger tight only).
9. Install the transmission clutch disc, 1, between the flywheel and the pressure plate with long side of hub away from flywheel.
10. Position the clutch pressure plate assembly on the flywheel and install the six mounting bolts.
11. Use alignment arbor, Tool No. FNH00077, align the clutch disc with the flywheel.
12. Tighten the six mounting bolts evenly to 34 N·m (25 ft. lbs.).



DOUBLE CLUTCH ADJUSTMENTS

NOTE: The following adjustments are made with the clutch assembly installed on the flywheel.

1. Install alignment arbor, Tool No. FNH00077, 5, in the clutch assembly until the arbor bottoms out in the pilot bearing.
2. Using a feeler gauge, 3, check the PTO clutch release adjusting bolt, 4, to pressure plate gap. The gap should be between 1.4 - 1.5 mm (0.055 - 0.060"). Readjust the bolt so the gap is within this dimension.
3. Tighten the adjusting bolt locknuts and recheck the gap.
4. Slide swing lever gauge over end of arbor until gauge Tool No. FNH01267, 1, contacts shoulder on arbor. Swing gauge over each of the height adjusting bolts, 2. Adjust each bolt, until the bolt head just touches the swing gauge.
5. Tighten the adjusting bolt locknuts and recheck the settings.

NOTE: When installing a new pressure plate assembly, the pressure plate friction surface must be wiped clean using a suitable solvent to remove the protective film.

