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MODELS 1920 AND 2120

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## CLUTCHES

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**SINGLE CLUTCH**

12 x 12 HYDRAULIC SHUTTLE SHIFT TRANSMISSION — MODEL 2120

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### Chapter 2
**DOUBLE CLUTCH**

12 x 4 NON-SYNCHROMESH TRANSMISSION — MODEL 1920

12 x 12 SHUTTLE SYNCHROMESH TRANSMISSION — MODEL 1920

12 x 4 NON-SYNCHROMESH TRANSMISSION — MODEL 2120

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5. Drive the roll pin out of the lower shift fork and rail.

6. Drive the roll pin out of the shift boss (10) and rail, Figure 19.

7. Rotate the shift rail 90° and slide the rail forward out of the case.

NOTE: Use care to not lose the detent ball and spring as they will be expelled with considerable force when released by the shift rail. Cover the detent bore with a shop towel to contain the ball and spring.

8. Remove the plug (5), Figure 20.

9. Remove the roll pin retaining wire (6).

10. Drive the double roll pin (4) out of the shift arm (3) and shaft (1) Figure 20, and remove the arm and shaft from the case.

RANGE GEARSHIFT RAIL AND FORK REMOVAL
Reference — Figure 21

1. Remove the shift rail retaining bolt (1), Figure 21.

Figure 18
Transmission Input Shaft and Fixed Gear Removal (Double Clutch)

1. Input Shaft
2. Bearing
3. Gear (3rd)
4. Collar
5. Gear (1st)
6. Gear (2nd)
7. Spacer
8. Gear (Rev.)
9. Bearing
10. Retainer
11. Bolts
12. Sealing Washer
13. Snap Rings
14. Seal

Figure 19
Main Gearshift Rails and Forks Removal

1. Shift Rail (Rev.-2nd)
2. Shift Rail (1st-3rd)
3. Fork (Rev.-2nd)
4. Fork (1st-3rd)
5. Roll Pin (2)
6. Detent Pin
7. Spring (2)
8. Ball (2)
9. Interlock (Balk) Pin
10. Boss
The differential housing, Figure 112 contains the final drive pinion, differential assembly and PTO drive components.

The main transmission gearshift lever (2) is located on the right hand side of the steering column, Figure 111.

The transmission housing forward compartment (4), Figure 113 contains the four main speed ratios. These gears are designed for synchronized shifting and are controlled by the column mounted shift lever (2), Figure 111.
To obtain live PTO while stopping the forward travel of the tractor, move the transmission shuttle control lever to the neutral position to permit the implement to clear itself.

Then while the shuttle control lever is still in neutral, depress the clutch pedal and re-engage the shuttle control lever. Start the forward travel by releasing the clutch pedal in a normal manner.

B. OVERHAUL

REMOVAL

Separate the tractor between the transmission and rear axle center housing. See “Separating the Tractor,” Part 12.

1. Remove the neutral switch and sealing washer (1 and 2). Figure 15.

   NOTE: Remove the balk pin (3) from the case.

2. Remove the case top cover from the center housing.
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### MODEL 1920-2120

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#### SEPARATING THE TRACTOR

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Figure 29
Separating the Rear End From the Transmission — Model 2120 Shown

1. Foot Throttle Linkage
2. Brake Return Spring (2)
3. Step Plate
4. Suction Tube
5. Hydraulic High Pressure Tube
6. Diverter Valve Manifold
7. Seat
8. Seat Track
9. Tool Box
10. Frame
11. Sheet Metal Panels
12. Inlet Tube and Filter

Figure 30
Brake Pedal Return Springs Removal
1. Springs (2)
2. Brake Pedal Rod

Figure 31
Clutch Pedal and Brake Cross Shaft Removal
1. Clutch Pedal Rod
2. Bellcrank
3. Cross Shaft
4. Cross Shaft Support
5. Clutch Pedal
6. Range Gear Shift Link