

3.39 PULLDOWN TRANSMISSION (Figure 3.45)

The transmission is a 2-speed spur gear type - consisting of high, low and neutral positions. This permits speed and feed changes to meet varying conditions encountered in drilling. The input and output speed changes are obtained by sliding a jaw clutch between the high and low gear, carried on the output shaft.

Removing Transmission: To remove the transmission assembly, first remove the sheet metal cover between the mast hing posts. Disconnect the drive shaft from the fluid motor to the input shaft of the transmission. Next, remove the chain from the output shaft. Remove the shifting handle and remove the four 5/8" capscrews that hold the transmission to the frame. This will permit the transmission to be lifted out for repairing.

Disassembly: Remove the flange from the input shaft and the sprocket from the output shaft. After the grease is drained from the transmission, remove the lock nut from the Allen set screw that adjusts the spring and plunger. Remove these before removing the shifter handle. Next, take off the transmission cover, which is held in place by seventeen (17) 3/8" capscrews. Remove the yoke shifter by revolving the shifting collar over until the lugs will slip out of the slot. In order to remove the gears from the output shaft, it will be necessary to remove the bearing retainer and seal retainer from the housing and then remove the bearings from the output shaft. This will permit the shaft to be tilted enough to let the high gear slip off. Then, the clutch and low gear may be removed with the shaft. Remove the seal adapter and this will allow the input shaft to be pulled from the housing. The gears are integral with the shaft.

Inspection: After the transmission has been completely disassembled, wash out the case and parts with cleaning solvent and examine parts for wear. Replace all worn parts and grease seals.

Assembly: Assemble in reverse of disassembly. Adjust spring tension on shifting lever until it will snap when shifted.

Lubricating: See Lubrication Chart for grade of lubrication and capacity.

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| 1. PLUG | 15. LOCKWASHER | 28. BEARING |
| 2. BOLT | 16. ADAPTER | 29. GEAR |
| 3. HANDLE | 17. SEAL | 30. SHIFTER COLLAR |
| 4. PLUG | 18. BEARING | 31. CLUTCH |
| 5. BOLT | 19. SHAFT | 32. YOKE |
| 6. LOCKWASHER | 20. BOLT | 33. GEAR |
| 7. SETSCREW | 21. LOCKWASHER | 34. SHAFT |
| 8. COVER | 22. ADAPTER | 35. BEARING |
| 9. KEY | 23. BEARING | 36. SPACER |
| 10. SPRING | 24. BOLT | 37. FITTING |
| 11. PLUNGER | 25. LOCKWASHER | 38. BUSHING |
| 12. PIN | 26. ADAPTER | 39. RING |
| 13. NUT | 27. SEAL | 40. CASE |
| 14. BOLT | | |

Legend for Figure 3-45. Pulldown Transmission