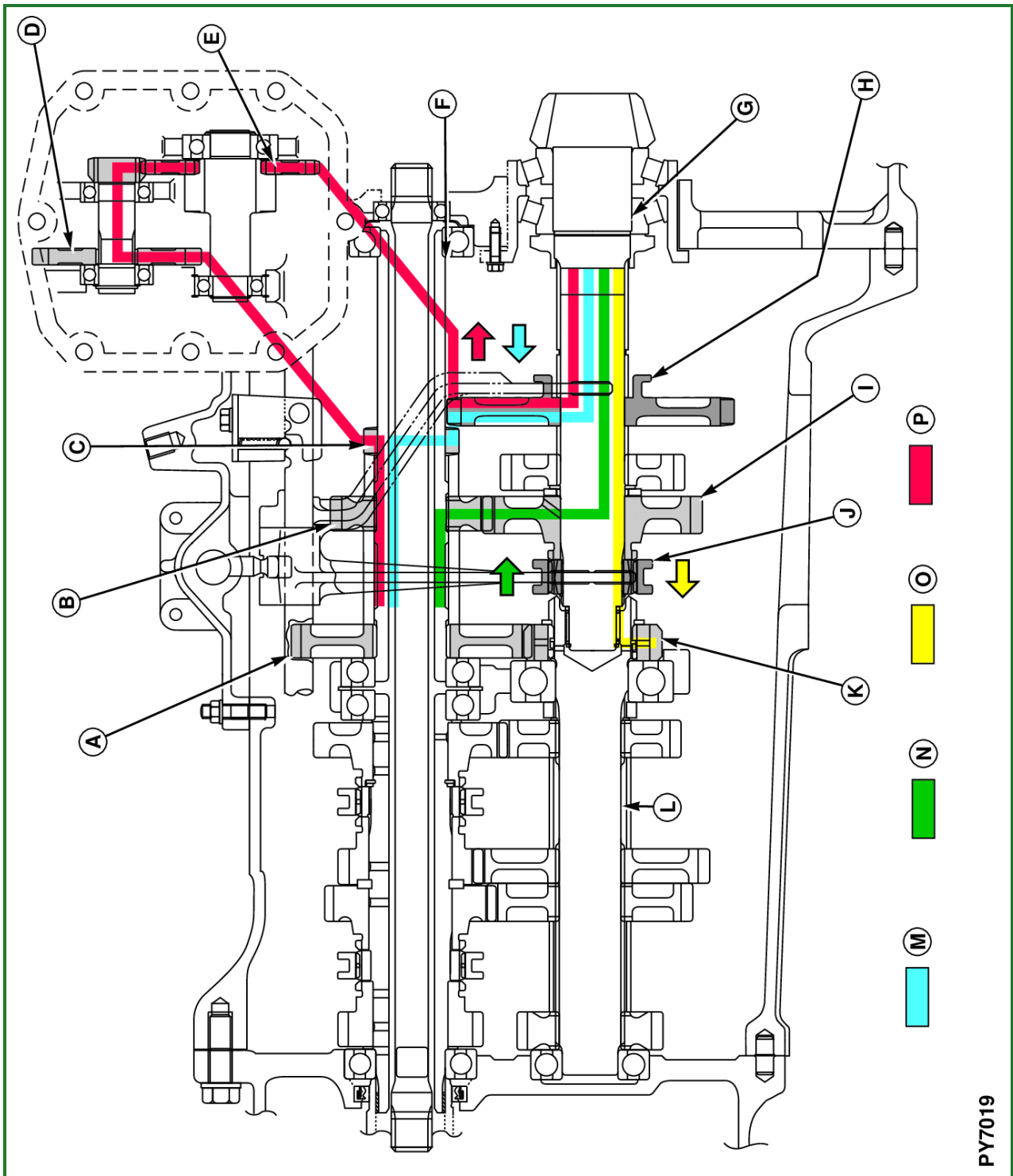


– If Equipped

Collarshift Transmission—Range Shift Power Flow With Creeper
– If Equipped



PY7019-UN: Collarshift Transmission—Range Shift Power Flow With Creeper

LEGEND:

- A - Range Reduction Drive Gear
- B - B Range Drive Gear
- C - A Range Drive Gear
- D - Creeper Drive Gear
- E - Creeper Driven Gear
- F - Range Reduction Shaft

- G - Differential Drive Shaft
- H - A Range and Creeper Shift Sliding Gear
- I - B Range Driven Gear
- J - B and C Range Shift Collar
- K - C Range Driven Gear
- L - Driven Shaft
- M - A Range
- N - B Range
- O - C Range
- P - Creeper Range

FUNCTION:

Provides three range speeds and an optional creeper speed.

MAJOR COMPONENTS:

- Drive Shaft
- Range Reduction Drive Gear
- Range Reduction Shaft
- Drive Gears
- Driven Gears
- B and C Range Shift Collar
- A Range and Creeper Shift Sliding Gear
- Differential Drive Shaft
- Creeper Assembly (Optional)

THEORY OF OPERATION:

Range selection is achieved through a combination of the gears on the range reduction shaft (F) and the gears on the differential drive shaft (G).

The driven shaft (L) transmits power to the range reduction shaft (F) through the C range driven gear (K) and the range reduction drive gear (A) which are constantly in mesh. The C range driven gear is splined to the driven shaft, and the range reduction drive gear is splined to the range reduction shaft (F).

C Range:

The C range driven gear (K) is splined to the end of the driven shaft (L). The B and C range shift collar (J) is splined to the differential drive shaft (G). When the 3rd range is selected, the range shift collar slides and engages the splines on the end of the driven shaft (L) and power is transmitted to the differential drive shaft (G).

B Range:

The B range drive gear (B) is splined to the range reduction shaft (F). The B range drive gear is constantly in mesh with the B range driven gear (I) which floats on the differential drive shaft (G). When the B range is selected, the shift collar (J) engages the B range driven gear and power is transmitted to the differential drive shaft.

A Range:

The A range drive gear (C) is splined to the range reduction shaft (F). When the A range is selected, the 1st range and creeper shift sliding gear (H) slides and engages the A range drive gear (C).

Optional Creeper Range:

When the optional creeper assembly is installed on the transmission, The A range drive gear (C) on the range reduction shaft (F) is constantly in mesh with the creeper drive gear (D).

When the creeper range is selected, the A range and creeper shift sliding gear (H) slides to engage the creeper driven gear (E).