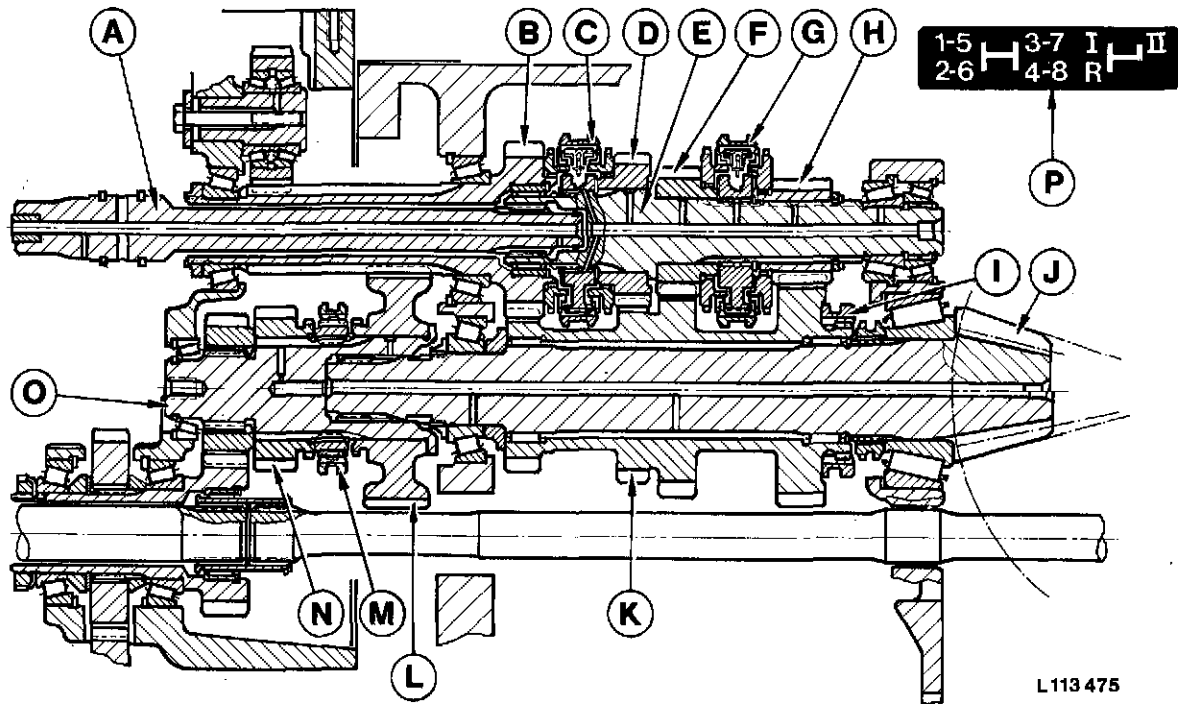


OPERATION OF SYNCHRONIZED TRANSMISSION



A-Transmission input shaft
 B-Transmission hollow drive shaft,
 4th and 8th speed, range I
 C-Shift collar for 3rd, 4th,
 7th and 8th speed
 D-Gear, 3rd and 7th speed
 E-Transmission drive shaft

F-Gear, 2nd and 6th speed
 G-Shift collar for 1st, 2nd,
 5th and 8th speed
 H-Gear, 1st and 5th speed
 I-Range II shift collar
 J-Differential drive shaft
 K-Hollow drive shaft

L-Gear, range I
 M-Range I and reverse range
 shift collar
 N-Reverse gear
 O-Range shaft
 P-Shifting pattern

Transmission Drive Shaft and Transmission Hollow Drive Shaft

The two shafts are located one behind the other and form the countershaft of the transmission. The 1st and 5th, 2nd and 6th and 3rd and 7th speeds and the two synchronizer packs are located on transmission drive shaft (E). The gear located on transmission hollow drive shaft (B) transmits power in 8th speed, the helical splines transmit power in 4th speed. The gears of both shafts are in mesh with gear hollow shaft (K) and the helical splines of hollow shaft (B) with gear (L) of range I. This permits power to be transmitted to differential drive shaft (J) in each speed.

Differential Drive Shaft and Hollow Drive Shaft

The differential drive shaft (J) is located below the transmission drive shaft and supported in the transmission case by two taper roller bearings. The hollow drive shaft (K) is supported on the differential drive shaft by means of needle bearings. When engaging range II, this shaft is coupled with differential drive shaft (J).

Range Shaft

Range shaft (O) is splined to the differential drive shaft and supported in the transmission bearing quill. Range I and reverse range gears, shifted by means of a shift collar, are mounted loosely on this shaft. The front wheel drive gear is also located on the range shaft.

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