



# Technical Service Information

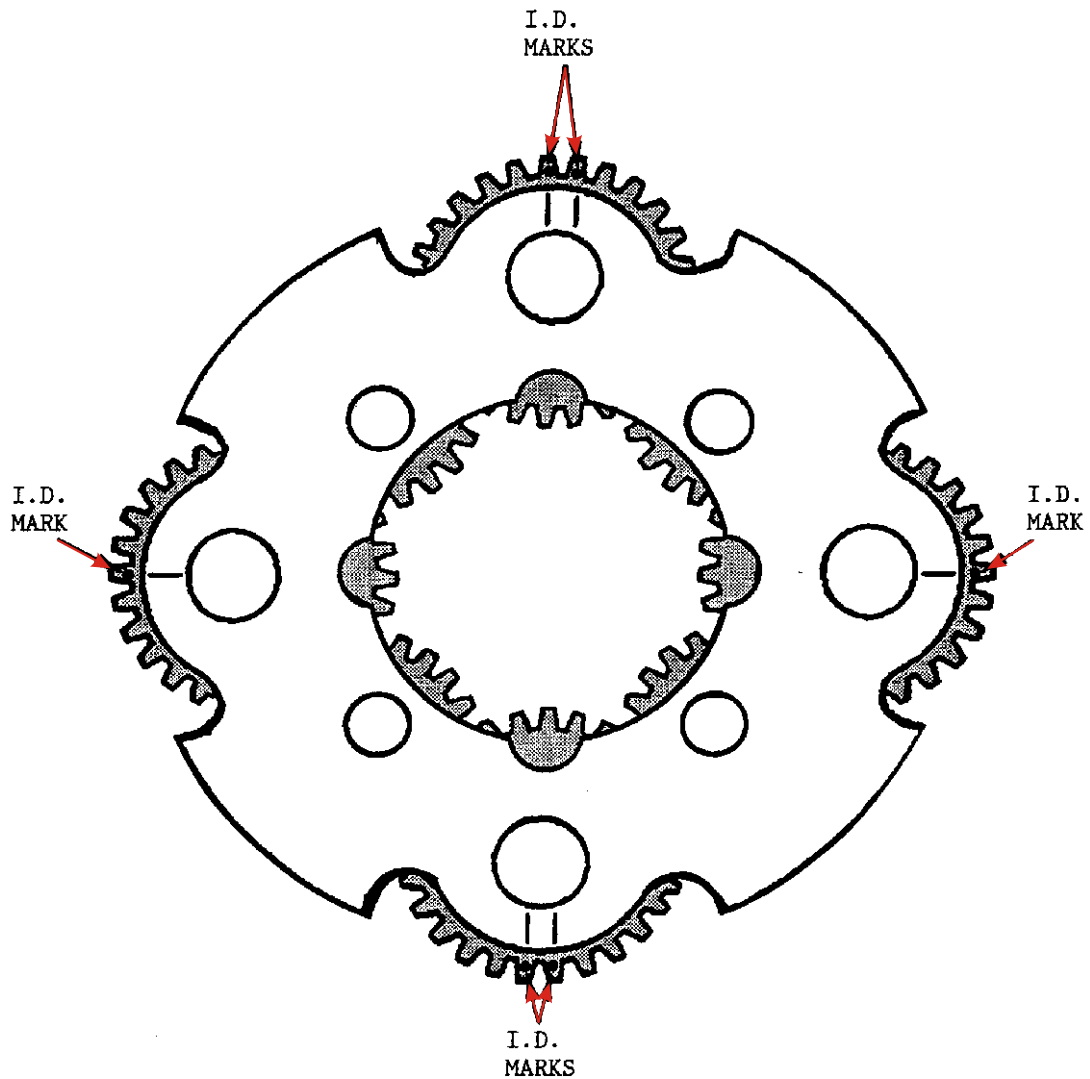
## THM 4L30-E

### PLANETARY INDEXING FOR EASE OF ASSEMBLY

**COMPLAINT:** The THM 4L30-E transmission uses a "Ravigneaux" planetary gear set that is very similar to the planetary gear set found in the THM 180. The gear set consists of two sets of pinion gears (Long and Short), in one planetary carrier, two sun gears (Input and Reaction), and one internal ring gear. This combination makes it VERY difficult, and at times impossible to assemble the transmission.

**CAUSE:** Planetary pinion gears not properly indexed.

**CORRECTION:** Place the planetary carrier on a flat work surface with the output shaft pointing up. Each long pinion gear has three I.D. marks on it, one I.D. mark on one side, and two I.D. marks on the other side. There are also corresponding marks on the carrier housing, as shown in Figure 1. Align the long pinion gear I.D. marks with the corresponding marks on the planetary carrier, as shown in Figure 1.  
After aligning the long pinion gears, Carefully install the reaction (Rear) sun gear into the long pinion gears, and ENSURE the pinions are still aligned. The planetary housing and reaction (Rear) sun gear assembly can now be installed into the case, ensuring that the splines of the rear sun gear are engaged into the reaction drum. This will now keep the long pinions aligned, so that the pre-assembled 2nd Clutch/3rd Clutch Housings will assemble very easily.



ALIGN THE LONG PINION GEAR I.D. MARKS WITH THE CORRESPONDING MARKS ON THE CARRIER AS SHOWN.