## WILLYS OVERLAND MOTORS, INC.

## SERVICE BULLETIN

ND. 49-30

DATE June 21, 1949

ALL DISTRIBUTORS AND DEALERS

TO

CANE TYPE SHIFT TRANSMISSION JUMPING OUT OF ENGAGEMENT CJ2A - CJ3A - 2WD - 4WD

When a complaint of jumping out of second speed is received, the following procedure should be of assistance in locating and correcting the difficulty:

1. Tighten nut on end of main shaft. CJ2A - CJ3A - 4WD. Road test.

If trouble is not overcome, continue as follows:

- 2. Remove control tower assembly. Check shifting forks for looseness on shaft. If loose, replace shifting fork with new one, making sure it is tight on shaft.
- 3. Carefully check shifting fork to make sure it is not bent or twisted. This can be detected by uneven wear on tips of fork where it contacts the groove in the clutch sleeve.
- 4. Hold control tower in vise and shift into second speed. Note if shaft is in locked position. If not, remove shaft and note poppet ball mark on shaft to see if ball bottoms in groove. If not, carefully grind the groove in shaft not more than .010.
- 5. Check fit of second speed gear to shaft. If loose, new bushing, Part No. 640400 or second speed gear, Part No. 640398, should be installed. There should be .003 to .014 end play between rear face of gear and shoulder on shaft when gear is pressed toward front of transmission, so that clutch hub is against snap ring.
- 6. The clutch sleeve must engage second speed gear to a depth of 1/8" beyond the chamfered edge of teeth. If less, new spacer, Part No. 643621, or a .030 shim should be installed between spacer and shoulder on shaft for CJ2A, CJ3A, and 4WD. On the 2WD the .030 shim should be installed between the rear bearing and shoulder of shaft.

We are sure that any case of second gear slipping out of mesh can be corrected by making one or all of these adjustments.

D. A. WALTERS General Service Manager

DAW:mlm