

# Warrantable Repairs of T300 Transmission Synchronizers

M-431-002

(December 2008)

## Valid for

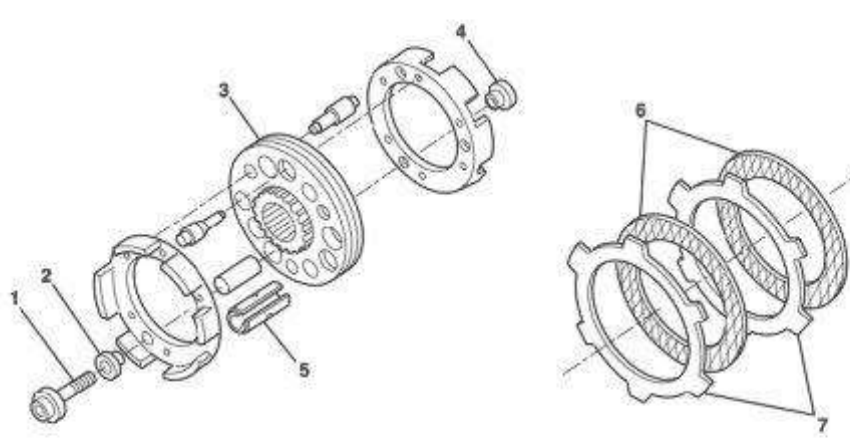
Mack CXU,CHU,GU,MRU,LEU models built with a T-300 transmission.

## Case description

A synchronizer repair kit (kit No. 85115910) is available through the MACK Parts System for warrantable repair of a T300 transmission synchronizer in instances where the sliding clutch is damaged. This kit, which services both the standard synchronizer (part number 320KB3147) and the heavy-duty synchronizer(part number 320KB3150), includes the sliding clutch and associated components necessary when overhauling a synchronizer.

## Parts

Components included in the kit are as follows:

Synchronizer Repair Kit (Kit No. 85115910)			
			
Key	Qty.	Part number	Description
1	3	21158575	Screw, 12-point
2	3	298KB213	Insert, non-threaded
3	1	320KB461A	Clutch
4	3	298KB214	Insert, threaded

5	3	25500385	Spring, preload
	3	25500680	Spring, preload
6	8	495KB361	Disc, friction
7	8	495KB367	Disc, reaction

## Disassembly and Reassembly

Refer to the applicable T300 service manual for the transmission model being serviced.

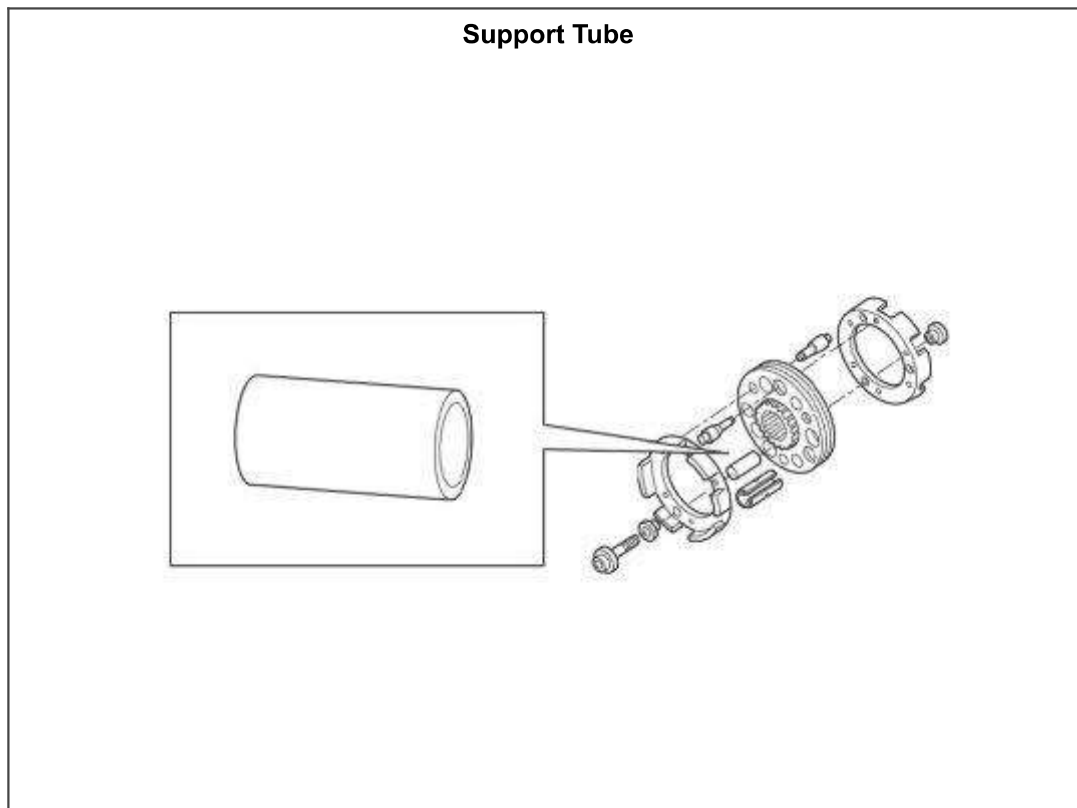
*Note: To prevent repeat synchronizer failure, the air shift system, range cylinder and shift fork must be inspected for proper function, wear and/or damage. Refer to the Range Shift Troubleshooting Procedures for T300 Series Transmissions Manual, 10–202.*

*Note: The friction discs must be pre-soaked in transmission fluid (either GO-J, GO-J Plus or TO-A, whichever is being used in the transmission).*

## Component Inspection

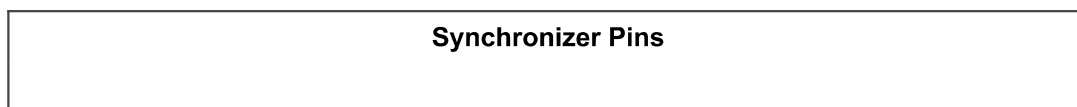
The support tubes, synchronizer pins and clutch housings are NOT included in the repair kit, and must be inspected before reusing. In most instances, these parts will not be damaged and can be reused. Use the following criteria to determine if replacement is necessary:

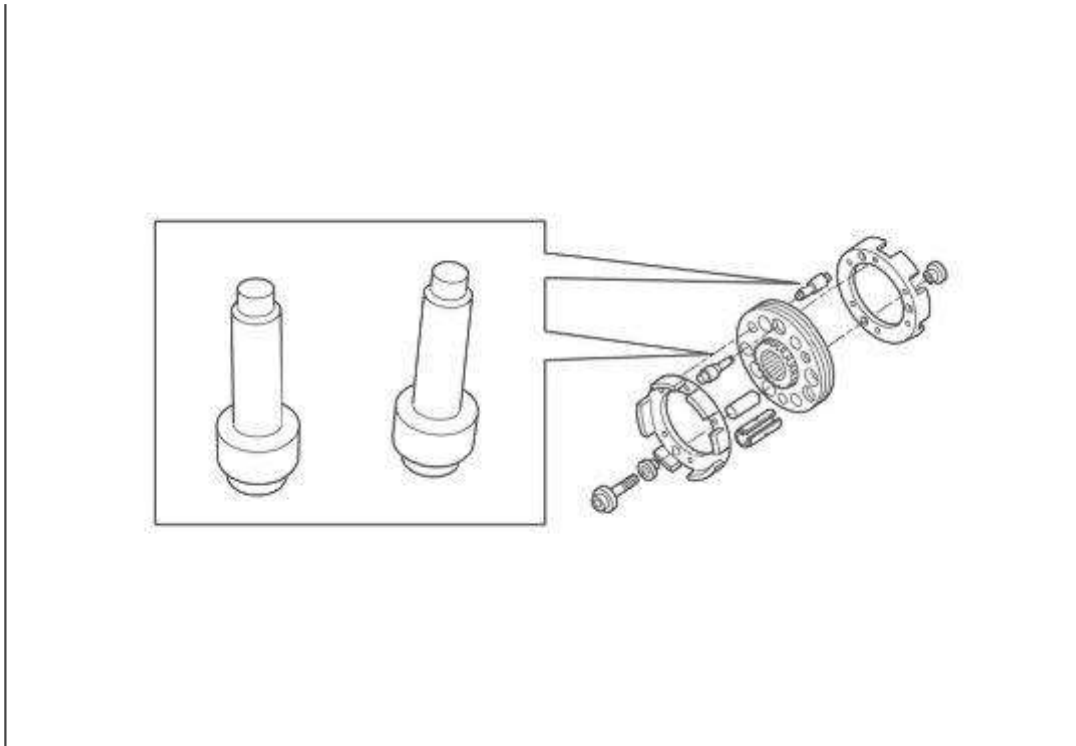
- **Support Tubes** — Inspect the support tubes for cracks and deformities. Any defective tubes must be replaced.



*Note: If the support tubes are damaged, order the repair kit (kit No. 85115910) and support tubes as required.*

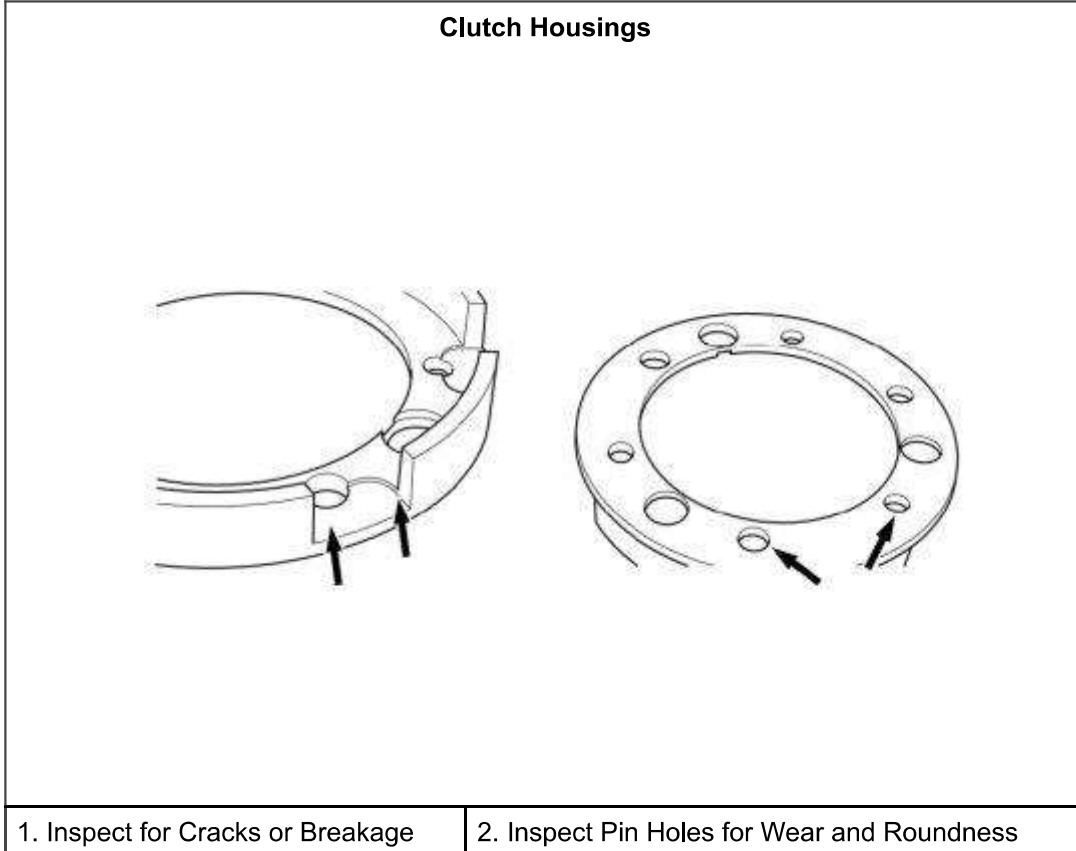
- **Synchronizer Pins** — Inspect the pins for breakage, cracks or missing pieces. Wear marks and shiny spots are allowable and suitable for reuse.





*Note: If the synchronizer pins are damaged, order the repair kit (kit No. 85115910) and synchronizer pins as required.*

- **Clutch Housings** — Inspect the clutch housings for cracks or breakage. The synchronizer pin holes must be checked for wear and roundness (the holes should not be oblong). The pins should rotate freely but not have excessive clearance.



*Note: Replace the entire synchronizer assembly if clutch housing damage is evident.*

## Issued by

Technical Service

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