

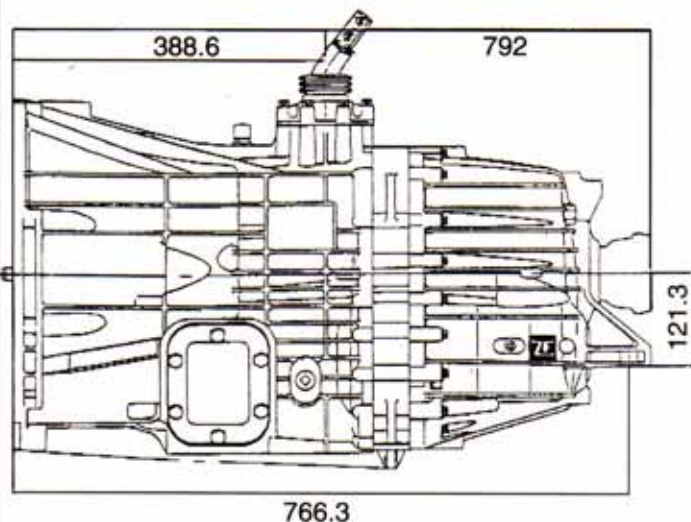
Updated Clutch Components for the S6-650

The clutch fork has been redesigned, and Ford recommends changing to the updated clutch fork on ALL repairs. The Ford part number for the updated clutch fork is YC3Z-7515-BB.

A steel sleeve has been added to the throwout bearing (release bearing) to prevent premature wear.

Figure 2

ZF S6-650 Synchronmesh Gearbox



The ZF S6-650 Synchronmesh gearbox was developed for light- and medium-duty trucks with a GCW of up to 26,000 lbs.

Listed below are the principal features:

- Synchronized in all gears.
- Low shift forces.
- Tight shift pattern.
- Quiet high-contact ratio gears.
- Aluminum housing.
- Internal oil pump for lubrication and cooling

Installation Options:

- SAE or special clutch housings.
- Left ISO/SAE 6-bolt PTO.
- Output flange or yoke.
- Direct-mount shifter with optional remote shift.

Illustration courtesy of ZF Industries Inc.

The updated release bearing is Ford part number FB1Z-7548-AC, and previous throwout bearings should be upgraded to the new part number on any repairs that require transmission removal.

Because of the intended heavy-duty use of these vehicles, there has been continuous upgrading of the clutch components. The latest disc was redesigned to prevent cracking at the disc retainer. The new Ford part number for the improved clutch disc is YC3Z-7550-DA.

Revised Service Schedules

The following guidelines for service are based on "normal" driving conditions.

- Change transmission fluid every 30,000 miles.
- Lube requirement is MERCON XT-2 QDX or DDX equivalent.

Extreme driving conditions require oil changes every 15,000 miles. Extreme conditions are described as:

- Operating in hot weather (90° F.)
- Carrying heavy loads and driving hilly or mountainous terrain
- Operating a transmission-mounted PTO
- Operating at maximum loads on a daily basis
- Sandy, dusty conditions.

Note: Driving in the normal stop-and-go traffic in major metropolitan areas should be considered extreme driving conditions. **TD**

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Input Torque (lb.-ft.)	Gear							Mass (lbs.) with integral clutch Bellhousing	Oil Quantity (L)
	1st Gear	2nd Gear	3rd Gear	4th Gear	5th Gear	6th Gear	Reverse Gear		
530 lb.-ft.	5.79	3.30	2.10	1.31	1.00	0.72	5.23	230	5.5