



ZF S 6-650 Synchromesh Gearbox for commercial vehicles



The ZF S 6-650 synchromesh gearbox was developed for light and medium duty trucks with a GCW of up to 26,000 lbs.

Special features

- Synchronized in all gears
- Dual cone synchronizer in 2nd and 3rd gear
- Quiet high contact ratio gears
- Low shift forces w/tight shift pattern
- Aluminum housing (front, center and rear)
- Internal oil pump for lubrication and cooling
- Center bearing support

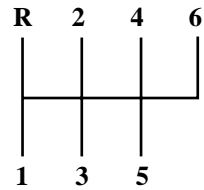
Installation Options

- SAE or special clutch housings
- Integrated or bolt-on bell housing
- Left and right ISO/SAE 6 bolt PTO
- Output flange or yoke (available in SAE Series 1410, 1480, 1550)
- 4WD or 2WD capability

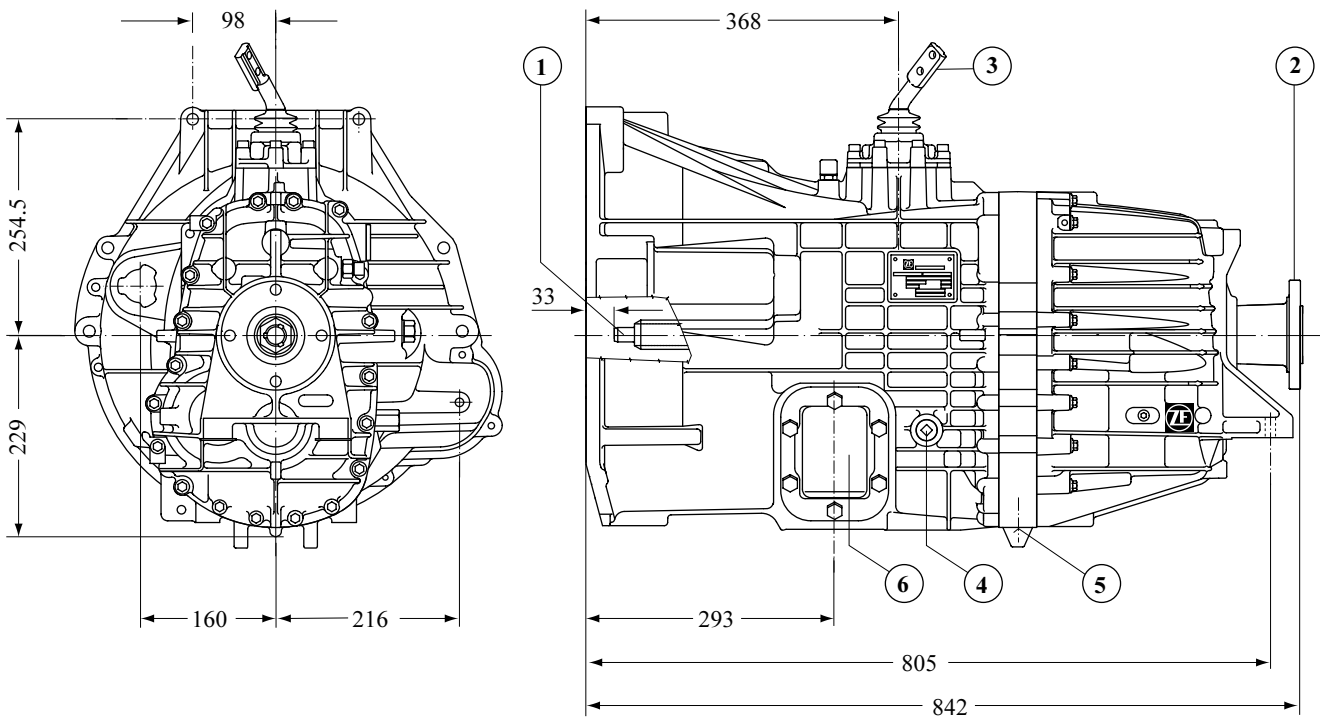
Technical data

Transmission type		S 6-650	
Input torque max. Nm (Reference value: depending on vehicle data and application conditions)		720 (Ft. Lbs. 520)	
Standard ratios	Gear	1	5.79
		2	3.30
		3	2.10
		4	1.31
		5	1.00
		6	0.72
		R	5.23
Weight without auxiliary	≈ kg	106.5 (235 lbs)	
Oil quantity	≈ dm ³	6.0	
Oil grade as per ZF List of Lubricants TE-ML 02; specification acc. to vehicle manufacturers instructions			
Installation Longitudinal with shift output for left or right-hand drive vehicles			

Shift pattern



Installation dimensions



Center Distance = 105 mm

Key to drawing

- | | |
|---------------|------------------------|
| ① Input | ⑤ Oil drain |
| ② Output | ⑥ PTO connection point |
| ③ Shift lever | |
| ④ Oil fill | |

Subject to technical change without notice. For installation investigation purpose, please request installation drawings; only the data contained therein is binding.

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