



CHAPTER 6 PROPELLER SHAFT



Training Document

HOWO ZZ4257S3241V

- Universal joint propeller shaft is composed of an universal joint and a propeller shaft. It is mainly used in power delivery between non-concentric shafts or between two shafts of which relative positions are often changing during operation.
- According to the drive-train arrangement, transmission, clutch and engine are fixed on the front part of vehicle frame, while the rear axle is linked to vehicle frame through spring leaves. Therefore, the transmission output shaft and the input shaft of axle final reduction gear are not in a same straightline. With change of load and running conditions on road surface, and the deformation of spring leaves, the relative positions will have change accordingly. Therefore, during vehicle running, the distance between the transmission and drive axle will have change, moreover, its included angle between shafts will also have change. In order to adapt to this change and to reliably deliver the power, the propeller shaft should be composed of universal joint and telescopic spline.
- An advanced propeller shaft structure of heavy duty (HD) truck is adopted for the propeller shaft of SINOTRUCK HD trucks. Compared to previous traditional propeller shaft, a great improvement has been made no matter what either in structure or in performance, and a series of advanced manufacturing technology has been introduced.





- **SECTION 1 BASIC PERFORMANCE PARAMETERS**



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- Type: tubular and open type
- Swing angle of universal joint: 35°
- Spline modularity: 2.5
- Refer to Table 5-1 for axle tube specifications and magnitude of torques.
- Table 5-1

Axle tube specifications (mm)	Max. operating torque (Nm)
85×5	6200
89×5	7240
93×7	10000
108×7	15000
120×8	23000

