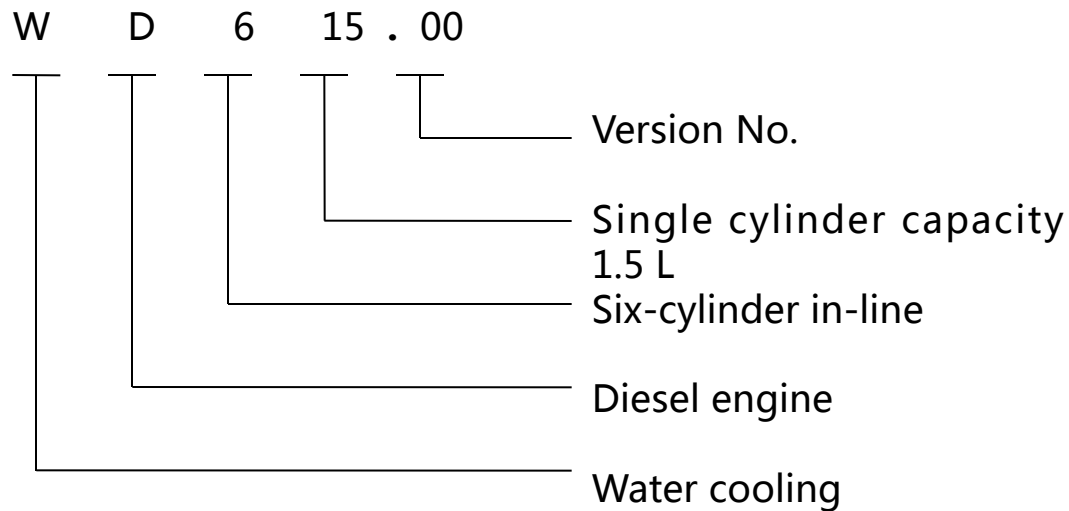




## SECTION 2 ENGINE MODELS AND TECHNICAL PARAMETERS

The definition of the model of WD615 series diesel engines is as follows:





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Ser. No.	Item/Engine model	WD615.64	WD615.62	WD615.87	WD615.69	WD615.47
1	Rated power kW(iso1585)	175	190	213	247	272
2	Rated rpm	2100	2200	2200	2200	2200
3	Max. torque Nm	1000	1100	1160	1350	1460
4	Max. torque rpm	1300-1600	1300-1600	1300-1600	1300-1600	1300-1600
5	Emission index	Euro II				
6	Number of cylinders	6				
7	Type	Four-stroke, water-cooling, in-line, direct-injection, dry-type oil cylinder				
8	Cylinder bore./stroke mm	126/130				
9	Displacement L	9.726				
10	Mean piston speed m/s	9.53				
11	Compression ratio	15.5:1				
12	Compression pressure kPa	>2000				
13	Mode of air intake	Inter-cooling				
14	order of ignition	1-5-3-6-2-4				
15	Cold-state valve clearance mm	Intake 0.3 Exhaust 0.4				
16	Valve timing (valve clearance, with 0.3 intake/0.4 exhaust)	Intake valve opens 43°-39°before top dead center, Intake valve closes 61°-67°after top bottom dead center Exhaust valve opens 76°-81°before top dead center, Intake valve closes 26°-34°after top bottom dead center				
17	Thermostat opening temperature °C	80 or 71				
18	Type of starting	Electric starting				
19	Type of lubrication	Pressure lubrication				
20	Lubricating oil capacity (oil pan) L	19				
21	Type of cooling	Water-cooling forced circulation				
22	oil pressure kPa	350-500				
23	oil pressure at idle speed kPa	≥100kPa				
24	Exhaust temp. after turbine °C	≥550				
25	Allowable longitudinal inclination	Front face /aft face	Long term 10/10 short term 30/30			
26	Allowable lateral inclination	Exhaust pipe side/fuel injection pump side	Long term 45/5 short term 45/30			
27	Crankshaft rotating direction (looking from the free end)	Clockwise				
28	External dimension (mm)	Length/Width/Height	1525/675/965			



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HOWO ZZ4257S3241V

Ser No.	Name	Model Specification (parameter)-Item	WD615				
			64	62	87	69	47
1	Diesel filter	Type	Double-stage filter element				
2	Water pump	Type	Centrifugal (centrifugal-chamber and timing gear chamber in one body)				
		Rated rpm	2585				
3	oil pump	Type	Gear type ( single stage pump for typical, two stage pump on special request)				
		Rated rpm	1896				
		Safety valve opening pressure kPa	1550±150				
4	Crankshaft vibration damper	Type	silicone oil				
		outside diameter	φ280				
5	Supercharger	Type	Exhaust turbine, vaneless, double-pear shaped, full-admission, long and short blades				
		Model	GT42、K29、J90-2、GJ90B				
6	oil filter	Type	Screw-in, paper filter element, double barrel, parallel connection				
7	Thermostat	Type	Wax element composite				
		opening temp. °C	80±(71±2)				
		Full-open temp. °C	95(86)				



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HOWO ZZ4257S3241V

8	oil cooler	Type	plate-fin type
		By-pass valve opening pressure kPa	600±36
		Pneumatic test pressure kPa	1500
9	Starter	Type	DC, self-excitation
		Model	KB-24V 5.4kW
		Power KW	5.4
		Voltage V	24
10	Generator	Type	Rectifying and voltage regulating together
		Model	



# Training Document

HOWO ZZ4257S3241V

		Power KW	750,1000 and 1540
		Voltage V	28
11	Fan	Type	Strengthened polyamide material, integral or silicone oil clutch
		outside diameter mm	620
		Max. unbalance of fan impeller gcm	30
12	Air compressor	Type	Single-cylinder, piston type, water-cooling
		Cylinder bore mm	90
		Stroke mm	46
		Piston total displacement cm <sup>3</sup>	293
		Working pressure kPa	850
		Max. pressure kPa	1000
		Ratio to engine speed	1.25
		Type of lubrication	Pressure lubrication
		Mode of working	Continuous
		Mass kg	12



## Table 2-2 Main technical specifications of accessories

The basic performance parameters of the main models of WD615 series engines are given in Table 2-1, and the main technical specifications of the accessories are given in Table 2-2.

# SECTION 3 FEATURES OF STRUCTURE AND ASSEMBLY AND REPAIR

