



# 4TNV88

## Engine Technical Data

Revision: 0

Unit	4TNV88-DSA	4TNV88-DSA2	4TNV88-DSA3
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### General Data

Number of Cylinders	-	4	
Engine Type	-	Inline, Water-Cooled, 4 Stroke Diesel	
Bore x Stroke	mm x mm	88 x 90	
Total Displacement	cc	2.189	
Combustion type	-	Direct Injection	
Aspiration	-	Natural Aspiration	
Valves per Cylinder	-	2	
Compression ratio	-	19.1	
Firing Order	-	1-3-4-2	

### Performance Data

Net Intermittent Power	HP [kW] / rpm]	47.5 [35.4]/3000	
Net Continuous Power	HP [kW] / rpm]	--	
Net Max Torque	ft-lb [Nm]/rpm	104.1 [141]/1200	
Low Idle Speed	rpm	1000+/-25	
High Idle Speed	rpm	3210+/-25	

### Physical Data

Direction of rotation	-	Counter Clockwise (view from flywheel)		
Length - Inches	Inches [mm]	28.39 [721]	26.65 [677]	26.34 [669]
Width - Inches	Inches [mm]	20.20 [513]		
Height - Inches	Inches [mm]	25.47 [647]		
Dry Weight	lbs [kg]	434 [197]	410 [186]	395 [179]

### PTO System

Flywheel	-	SAE #5	Semi SAE #5	Semi SAE #5
Flywheel Housing	-	SAE #5 (Depth 124)	Sem SAE #5 (Depth 80)	Back Plate
Gear Case	-	with SAE Hydraulic Pump Flange		

### Lubrication System

Inclination, Continuous	degrees	30	
Inclination, 3 minutes Max.	degrees	35	
Lubrication Oil Filter Type	-	Paper Element	
Oil Capacity, Effective	Liters	3.4	
Total System Capacity	Liters	7.4	
Oil Change Interval, Hours	hr	250 (50, initial)	
Recommended Oil Type	API	CD, CE, CF or higher grade	

### Cooling System

Fan Type	-	Puller	
Fan Diameter	Inches [mm]	14.96 [380]	
Number of Blades	-	7	
Fan Pulley Diameter	Inches [mm]	4.33 [110]	
Crank Pulley Diameter	Inches [mm]	4.33 [110]	

### Fuel System

Fuel Filter Type	-	Paper Element	
Fuel Injection Pump Type	-	Distributor Type	
Water Separator (Standard)	-	Mesh size: 100-mesh/inch, water reservoir 150 cc	

### Electrical System

System Voltage	Volts	12 V	
Electric Stop Device	-	Stop Solenoid	
Alternator	-	12V-40A	
Starting Aid Device	-	Air Heater, 12V 400W	
Standard pre-heat time	Seconds	15	
Starting Motor Type	-	Reduction	
Starting Motor Power	kW	2.3	