

Model		4A200
General data		
Type		In-line Vertical, Water-cooled 4-cycle diesel engine
Aspiration		Natural aspirated
Combustion system		In-direct injection, Vortex chamber
No. of cylinder		4
Bore and stroke	mm	83×92.4
Total displacement	cm ³	1,999
Compression ratio		22 : 1
Firing order		1-3-4-2
Direction of rotation		Counter clockwise viewed from flywheel side
Valve system		Over head valve
Dimensions(length×width×height)	mm	821×488×695
Dry weight	kg(lbs)	207 (456)
Injection timing (BTDC)		18°
Performance		
Rated power	HP @ rpm	41 @ 2700
Maximum bare speed	rpm	2900
Minimum bare speed	rpm	850
Maximum torque	kgf.m @ rpm	12.7 @ 1700
Intake/Exhaust system		
Intake pressure	mmAq	250
Back pressure	mmAq	700
Governor system		
Governor type		Centrifugal ball mechanical governor
Electrical system		
Starting system		Electric starting with cell starter
Starter output		12V, 2.0 kW
Starting support device		By glow plug in combustion chamber
Alternator		12V, 50A
Fuel system		
Fuel Injection pump		Bosch K type mini pump
Injection nozzle		Throttle type
Injection pressure		13.7 MPa, 140 kgf/cm ² , 1991 psi
Fuel		Diesel fuel
Rate of fuel consumption(rated power)	g/hph	Below 197
Lubrication system		
Lubrication type		Forced lubrication by rotor type pump
Oil pressure adjustment		Ball type valve
Lubricant		SAE 15W-40, better than API class CD
Rate of lubricant consumption (% of fuel consumption at rated power)		below 0.30%
Lubricant capacity	ℓ	8.0
Cooling system		
Cooling		Forced circulation with pump
Coolant capacity (engine only)	ℓ	3.9
Temperature control		Thermostat
Coolant temperature	℃	below 110 (highest point)

Exhaust temperature	°C	below 480 (rated power)
Smoke data		
Smoke at rated power	FSN	below 1.5
Smoke at maximum torque	FSN	below 3.5
Blow by	ℓ/min	below 38
Flywheel housing and Flywheel		
Flywheel housing (or Rear plate)		SAE #4
Flywheel		SAE clutch size 7.5"