

## FT4 4LE2X Constant Speed / Genset Engine Technical Data

### General Data

Number of Cylinders	4	
Bore and Stroke	3.35x3.78 in	85x96 mm
Displacement	133 in <sup>3</sup>	2.18 L
Compression Ratio	17.6:1	
Valves per Cylinder--Intake/Exhaust	2	
Firing Order	1-3-4-2	
Combustion System	Direct injection	
Aspiration	Turbocharged & Intercooled	
Engine Crankcase Vent System	PCV Closed Type	
Max. Crankcase Pressure	0.43 inHg	1.47 kPa
Engine Rotating Direction Viewed from Fan Side	CW	
After Treatment	Diesel Oxidation Catalyst	

### Performance Data

Rated Power	66 hp	49 kW
Rated Speed	1800 rpm	
Low Idle Speed	1000 rpm	
High Idle Speed	1800 rpm	

### Physical Data (without DOC mounted on engine)

(Includes Engine, Flywheel Hsg SAE #4, Flywheel, & Electrics)

Length	30.35 in	771 mm
Width	23.0 in	585 mm
Height	30.43 in	773 mm
Weight, dry	478 lb	217 kg
Center of Gravity Location:		
Forward of Rear Block Face	7.1 in	181 mm
Right of Crankshaft	-0.06 in	-1.6 mm
Above Crankshaft	4.0 in	101 mm

### Physical Data (with DOC mounted on FW Hsg)

(Includes Engine, Flywheel Hsg SAE #4, Flywheel, & Electrics)

Length	33.4 in	848 mm
Width	23.0 in	585 mm
Height	30.4 in	773 mm
Weight, dry	500 lb	227 kg
Center of Gravity Location:		
Forward of Rear Block Face	6.4 in	163 mm
Right of Crankshaft	-0.04 in	-0.9 mm
Above Crankshaft	4.5 in	114 mm

### Air System

Engine Air Flow*	104.9 CFM	3.0 m <sup>3</sup> /min
Max. Allowable Air Temperature Rise Ambient to Engine Inlet*	9 °F	5 °C
Max. Air Intake Restriction w/New Air Cleaner*	10.0 " Water	2.5 kPa

### Cooling System

Engine Heat Rejection to Coolant*	2208.4 BTU/min	2.3 MJ/min
Coolant Flow (@ 5 PSI Total Head Pressure)	20.6 gal/min	78 L/min
Max. Top Tank Temperature*	203 °F	95 °C
Water Pump Inlet Restriction*:		
Recommended	1.5 inHg	5.08 kPa
Max.	3.0 inHg	10.16 kPa
Engine Coolant Capacity	4 qt	4.1 L
Coolant Drawdown Capacity wo/Significant Loss of Flow	10%	
Recommended Minimum Limiting Ambient Temp*	115 °F	46 °C

### Charge Air Cooler

CAC Heat Rejection*	303.3 BTU/min	0.32 MJ/min
CAC Temp Rise over Ambient Temp*	36 °F	20 °C
CAC Pressure Drop*	1 PSI	7 kPa
Turbo Outlet Temp*	275 °F	135 °C
Turbo Outlet Pressure*	16.7 PSI	115 kPa

### Maximum Surface Temperatures

Fan Belt*	176 °F	80 °C
Engine Harness Junction Connectors*	212 °F	100 °C
ECM*	167 °F	75 °C
Turbocharger Wastegate Actuator*	302 °F	150 °C
Starter P/N 8-97112-865-2*	248 °F	120 °C
Alternator P/N 8-94423-756-0*	176 °F	80 °C

### Exhaust System

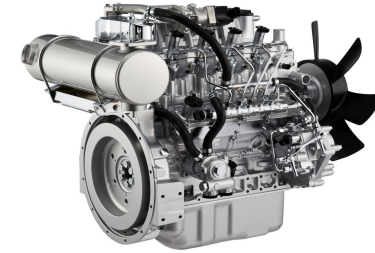
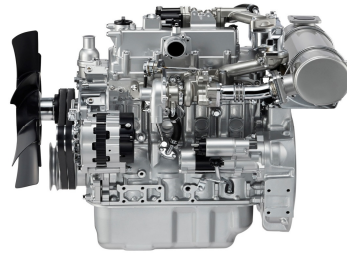
Exhaust Temperature*	1013 °F	545 °C
Exhaust Gas Flow*	281.9 CFM	8.0 m <sup>3</sup> /min
Remotely Mounted DOC Exhaust Temperature Drop (Turbo Outlet to DOC Inlet) at 25% load	9 °F	5 °C
Max. Allowable Back Pressure for Total Exhaust System, including DOC & All Piping:		
-- DOC Mounted on FW Hsg*	3.0 inHg	10.0 kPa
-- DOC Mounted Remotely*	2.2 inHg	7.5 kPa

### Fuel System

High Pressure Electronic Common Rail w/Remote-Mounted ECM		
Max. Inlet Restriction/Pressure	-4.35 PSI to 2.9 PSI	-30kPa to 20kPa
Max. Return Pressure	2.9 PSI	20 kPa
Max. Fuel Inlet Temperature at Fuel Pump*	140 °F	60 °C
Fuel Consumption*	3.3 gal/hr	12.6 L/hr

### Lubrication System

Max. Engine Oil Temp in Oil Gallery*	239 °F	115 °C
Max. Engine Oil Temp 10mm past Dipstick*	248 °F	120 °C
Standard Oil Pan Inclination Angle	15°	



**ISUZU**

3/21/2013

\*All values at rated speed and power unless otherwise noted.