

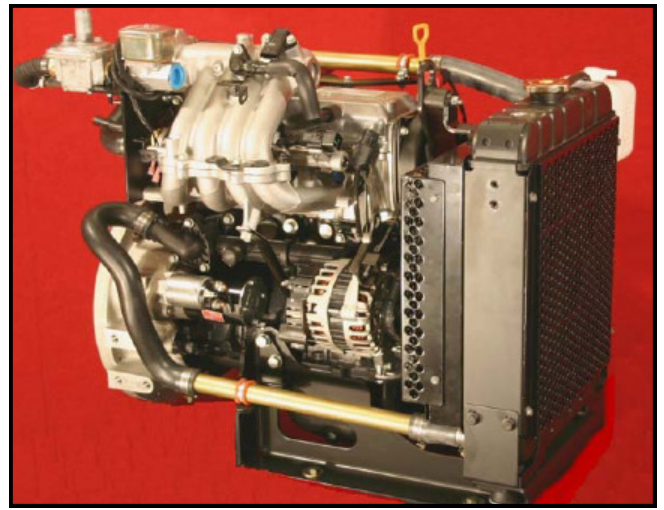
Gasoline, LPG & Natural Gas Engine

ZPP 410

1.0 LITER

For industrial applications

ZPP- THE POWER OF CHOICE

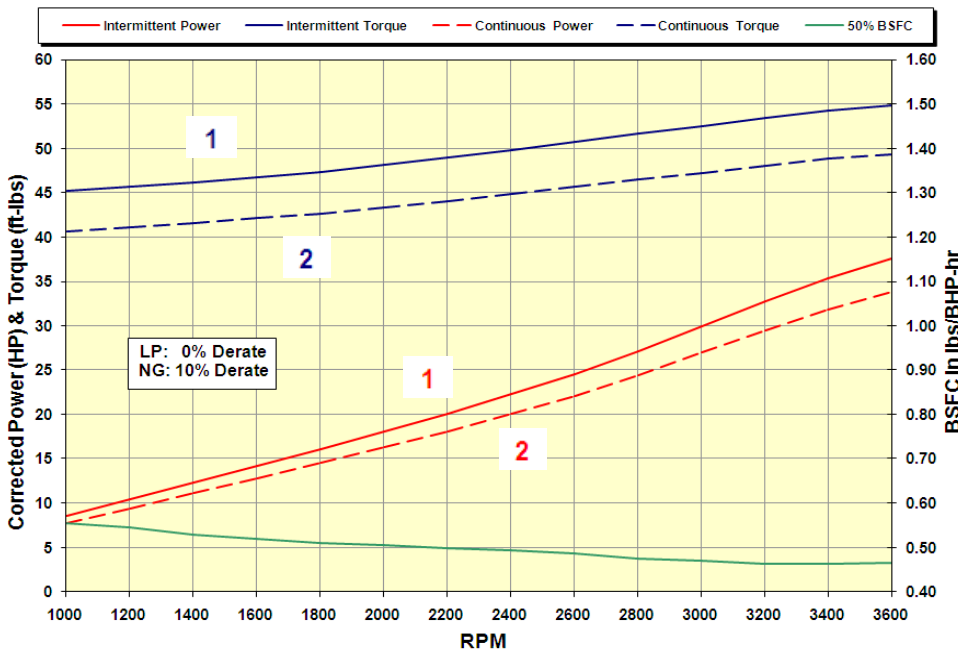


GENERAL SPECIFICATION

Intermittent Output	38 HP @ 3600 rpm
Continuous Output	34 HP @ 3600 rpm
Peak Torque	55 ft-lbs @ 3600 rpm
Fuel / Delivery	Gasoline / Multi-port - LPG / NG Mixer Type
Engine Configuration	4 Cylinder In-line, SOHC
Block Material	Cast Iron
Head Material	Cast Aluminum
Bore x Stroke (mm)	66.0 x 73.0
Total Piston Displacement	999 cc
Compression Ratio	9.7 : 1
Length X Width x Height (mm)	482.6 x 520.7 x 673.1
Dry Weight (excluding shipped lose parts)	82 Kg
Catalyst (2007 emissions compliance)	Remote mounted

Note: HP and Torque figures shown for 2007 LSI - EPA/CARB certified engine with catalyst

ZPP-410 Gasoline Power, Torque, & BSFC Curves



Curve 1 - Intermittent Gross Output

This is the highest out put obtainable at standard ambient conditions from a basic engine equipped only with the built-in accessories essential to its operation. These levels may be only maintained for operating periods of short duration.

Applications: Scissor lifts, Aerial platforms, Scrubbers / Sweepers, Utility vehicles, Construction equipment.

Curve 2 - Continuous Gross Output

This is the output that can be obtained at standard ambient conditions from a basic engine, operating in a continuous duty mode.

Applications: Generator, Welders Water pumps, Gas compressors Carpet cleaners, etc

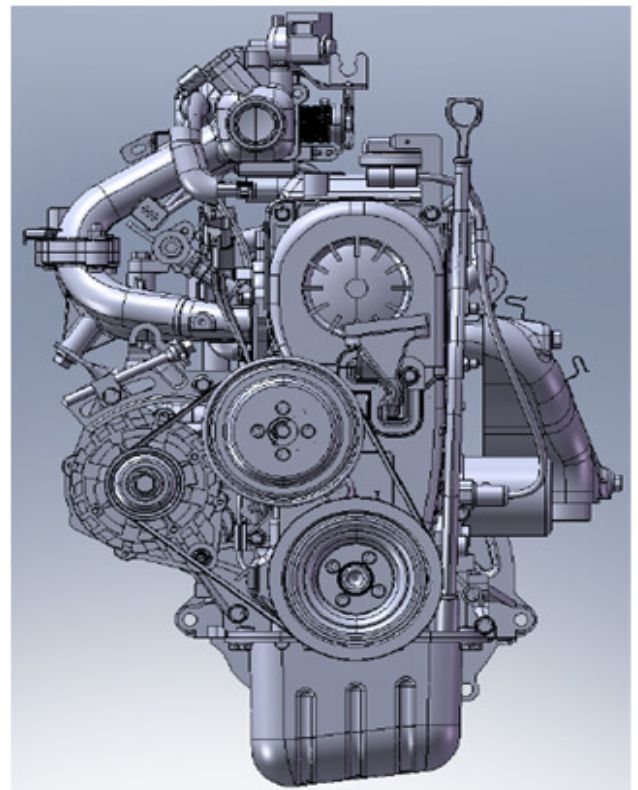
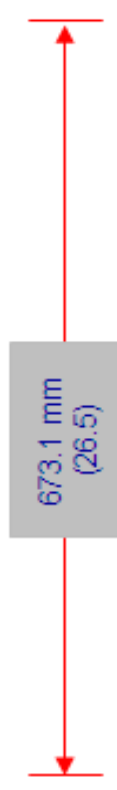
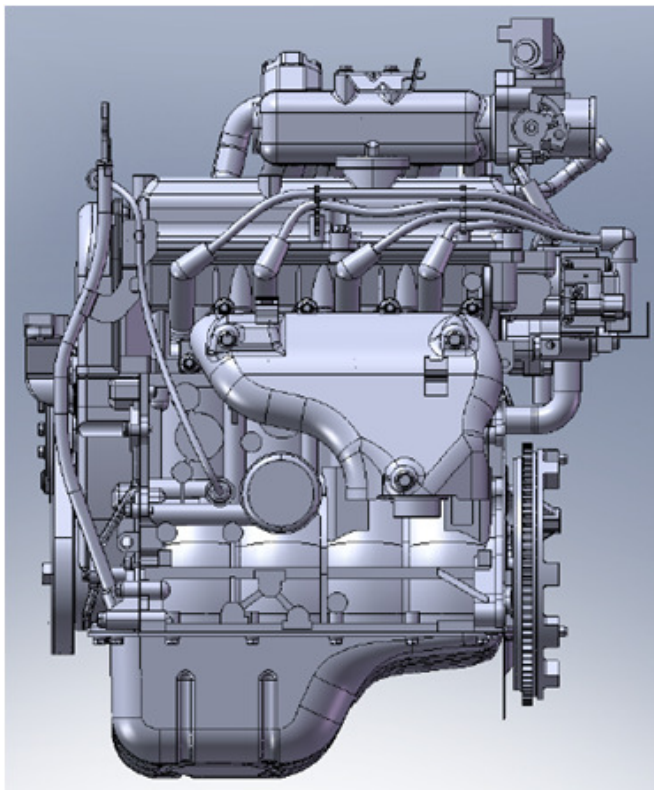


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ENGINE SPECIFICATIONS

General			Physical Data		
Cylinders	4		Length	19.0 in	482.6 mm
Cylinder Arrangement	Vertical In-line		Width	20.5 in	520.7 mm
Bore size	2.60 in	66.0 mm	Height	26.5 in	673.1 mm
Stroke	2.87 in	73.0 mm	Weight	181 lb	82 Kg
Cylinder Displacement	15.24 in ³	249.75 cc	Oil Capacity	3.5 Qt	3.3 L
Total Displacement	60.9 in ³	999 CC			
Compression Ratio	9.7 : 1				
Fuel Systems			Electrical		
Gasoline	Multi-port		Starter Motor	12 V - 0.9 Kw	
LPG / NG	Mixer Type		Alternator	13.5 V - 70 A	
Fuel Pressure (gasoline)	3 bar			w/ built in regulator	
Fuel Pressure LPG / NG	< 5 in		Ignition	DIS	
Fuel Requirement	unleaded gasoline				
Fuel Pump	Electric		Cooling		
Electronic Governor	ZEEMS III		Thermostat	180 ° F	82 ° C



482.6 mm
(19.0)

520.7 mm
(20.5)