

## General

Cylinders	4	
Cylinder arrangement	Vertical in-line	
Bore	102 mm	4.0 in.
Stroke	132 mm	5.2 in.
Cylinder Displacement	1.078 liter	65.8 in. <sup>3</sup>
Total displacement	4.314 liter	263.2 in. <sup>3</sup>
Compression ratio	19.0:1	
Combustion system	Direct injection	
Aspiration	Natural	

## Fuel system

Lift pump suction head, max	1.0 m	39.4 in.
Lift pump flow @max rpm	52.5 l/h	13.9 GPH
Max restriction in fuel supply line	200 mbar	80 in. H <sub>2</sub> O
Max restriction in fuel return line	200 mbar	80 in. H <sub>2</sub> O
Max restriction in fuel pre-filter	200 mbar	80 in. H <sub>2</sub> O
Fuel filter type	Replaceable cartridge	
Fuel consumption @ max rating	17.5 l/h	4.6 GPH
Fuel consumption @ peak torque	10.7 l/h	2.8 GPH

## Combustion air system

Combustion air flow @ max rating	260.0 m <sup>3</sup> /h	153.0 CFM
Max allowable clean restriction	25 mbar	10 in. H <sub>2</sub> O
Max allowable dirty restriction	65 mbar	26 in. H <sub>2</sub> O

## Exhaust system

Exhaust gas flow @ max rating	750.0 m <sup>3</sup> /h	441.4 CFM
Exhaust temp @ max rating	640 °C	1184 °F
Max allowable back pressure	75 mbar	30 in. H <sub>2</sub> O

## Cooling system

Type	Integrated air cooled	
Cooling air flow rate @ max rpm	3174.0 m <sup>3</sup> /h	1867.9 CFM
Max inlet air temp rise over ambient	10 °C	18 °F
Discharge air temp rise over inlet	55 °C	99 °F
Cowling pressure:		
Max loss due to inlet duct	10 %	
Max loss due to discharge duct	10 %	

## Lubrication system

Lubrication type	Forced-feed lubrication	
Oil flow at max rpm (std.)	40.0 l/min	10.6 GPM
Oil pump relief valve setting	6 bar	87 psi
Max oil temperature in oil sump	130 °C	266 °F
Filter volume	1.5 liter	1.6 qt.
Oil change interval	500 hours	

## Electrical

Starter motor	12V, 3.1kW	24V, 4.0kW
Max battery CCA	1250A	750A
Voltage drop, battery (+), max	1.0V	

## Physical data

Length	807 mm	31.8 in.
Width	679 mm	26.7 in.
Height	806 mm	31.7 in.
Weight, dry	307 kg	675.4 lb.
Max bending @ housing:	800 Nm	589.6 lb-ft
Max force @ flywheel:		
Axial:	3000 N	675.7 lb.
Radial:	4000 N	900.9 lb.

## Performance data

Peak torque	270 Nm	199.0 lb-ft
@ rpm	1500	
low idle speed	650 rpm	

## Net power

Engine RPM	<b>1800</b>	<b>2000</b>	<b>2150</b>	<b>2300</b>	<b>2500</b>
kW, intermittent	46.5	50.0	53.0	56.0	59.0
Hp, intermittent	63.2	68.0	72.1	76.2	80.2
kW, continuous	41.0	45.0	48.0	50.0	
Hp, continuous	55.8	61.2	65.3	68.0	0.0

## Fuel consumption

g/kWhr	223.0	226.0	230.0	240.0	252.0
lb/hphr	0.366	0.371	0.377	0.394	0.413

## Combustion air

m <sup>3</sup> /h	190.0	210.0	220.0	240.0	260.0
CFM	111.8	123.6	129.5	141.2	153.0

## Exhaust gas @ 500° C

m <sup>3</sup> /h	570.0	630.0	680.0	715.0	750.0
CFM	335.4	370.8	400.2	420.8	441.4

## Cooling air

m <sup>3</sup> /h	2285.0	2539.0	2730.0	2920.0	3174.0
CFM	1344.7	1494.2	1606.6	1718.4	1867.9

## Noise, dB(A)

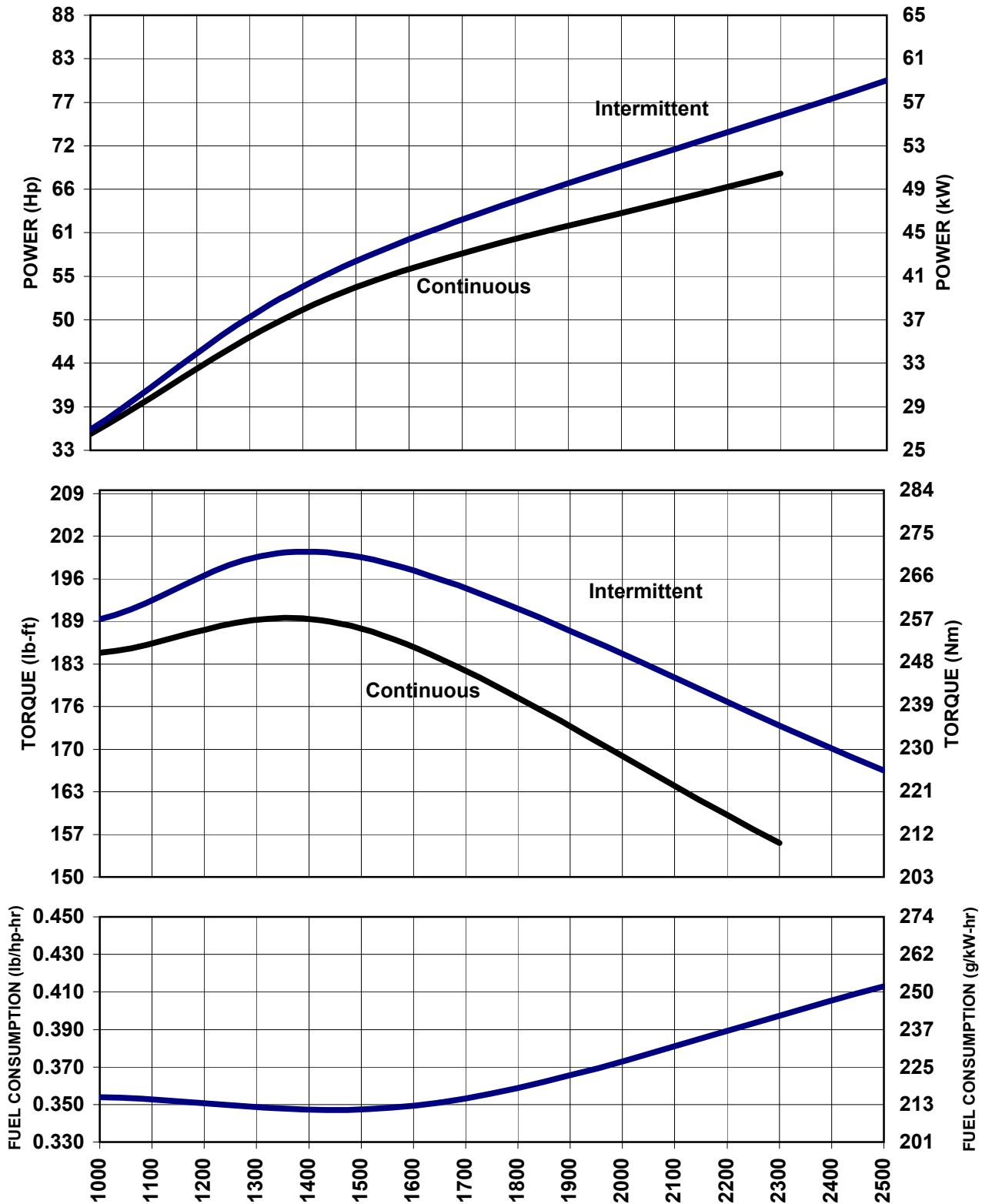
Avg. @ 1 meter

## Certifications

U. S. EPA Non-road Tier 2  
European COM 2

# ENGINE PERFORMANCE CURVES

ENGINE MODEL F4L914  
 RATING STANDARD ISO 3046  
 RATED INTERMITTENT POWER 80.2 Hp at 2500 rpm  
 MAX. TORQUE 199 lb-ft at 1500 rpm  
 EMISSION CERTIFICATION EPA Tier 2/COM 2



Tolerance: +/- 5% per ISO 3046  
 Reference conditions: 25 °C (77 oF) 99 kPa (29.31 in. Hg)  
 Fuel: 40 °C (104 °F) 0.850 kg/l (7.07 lb/gal)  
 Curves are based on current data and are subject to change without notice.

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