BF4L2011 Specification data

General

Cylinders	4			
Cylinder arrangement	Vertical in-line			
Bore	94	mm	3.7	in.
Stroke	112	mm	4.4	in.
Cylinder Displacement	0.78	liter	47.4	$in.^3$
Total displacement	3.11	liter	189.7	$in.^3$
Compression ratio	17.5:1			
Combustion system	Direct injection			
Aspiration	Turbocharged			

Fuel system

Lift pump suction head, max	3	m	118.1	in.
Lift pump flow @max rpm	47.2	l/h	12.5	GPH
Max restriction in fuel supply line	300	mbar	120	in. H_2O
Max restriction in fuel return line	200	mbar	80	in. H_2O
Max restriction in fuel pre-filter	200	mbar	80	in. H_2O
Fuel filter type	Spin-on cartridge			
Fuel consumption @ max rating	15.9	l/h	4.2	GPH
Fuel consumption @ peak torque	9.5	l/h	2.5	GPH

Combustion air system

Combustion air flow @ max rating	350.0	m^3/h	206.0	CFM
Max allowable clean restriction	50	mbar	20	in. H_2O
Max allowable dirty restriction	65	mbar	26	in. H_2O
Max inlet temp rise over ambient	10	°C	18	°F

Exhaust system

Exhaust gas flow @ max rating	940.0	m^3/h	553.2	CFM
Exhaust temp @ max rating	530	°C	986	°F
Max allowable back pressure	75.0	mbar	30	in. H_2O

Cooling system

Type	Integrated oil cooling			
Cooling air flow rate @ max rpm	0.0	m^3/h	0.0	CFM
Max inlet air temp rise over ambient	10	°C	18	°F
Discharge air temp rise over inlet	40	°C	72	°F
Cowling pressure:				
Max loss due to inlet duct	10	%		
Max loss due to discharge duct	10	%		

Lubrication system

Lubrication type	Forced feed			
Oil flow through filter at max rpm	20.5	l/min	5.4	GPM
Oil pump relief valve setting	7	bar	102	psi
Max oil temperature in oil sump	135	°C	275	°F
Filter volume	0.4	liter	0.423	qt.
Oil change interval	500 hours			

Electrical

Starter motor	12V, 2.3 kW	24V, 4.0 kW
Max battery CCA	950A	750A
Voltage drop, battery (+), max	1.0V	

Physical data

Length	710	mm	28.0	in.
Width	495	mm	19.5	in.
Height	703	mm	27.7	in.
Weight, dry	255	kg	561.0	lb.
Max bending @ housing:	900	Nm	663.3	lb-ft
Max force @ flywheel:				
Axial:	1500	N	337.8	lb.
Radial:	3700	N	833.3	lb.

Performance data

Peak torque	230	Nm	169.5	lb-ft
@ rpm	1600			
low idle speed	900	rpm		

Net power	**Genset**	**Variable speed**		
Engine RPM	**1800**	**2300**	**2500**	**2800**
kW, intermittent **(LTP)**		50.0	53.5	58.1
Hp, intermittent	0.0	68.0	72.8	79.0
kW , continuous **(COP)**	41.0	47.5	50.8	55.1
Hp, continuous	55.8	64.6	69.1	74.9

Fuel consumption

g/kWh	205.0	211.0	219.0	230.0
lb/hphr	0.336	0.346	0.359	0.377

Combustion air

m^3/hr	190.0	265.0	295.0	350.0
CFM	111.8	156.0	173.6	206.0

Exhaust gas

m^3/h	520.0	725.0	810.0	940.0
CFM	306.0	426.7	476.7	553.2

Cooling air

m^3/h				
CFM	0.0	0.0	0.0	0.0

Noise, dB(A)

Avg. @ 1 meter

Certifications

U.S. EPA Non Road Tier 2
European COM 1 (37 - 75 KW)
and COM 2 (18 - 37 KW)

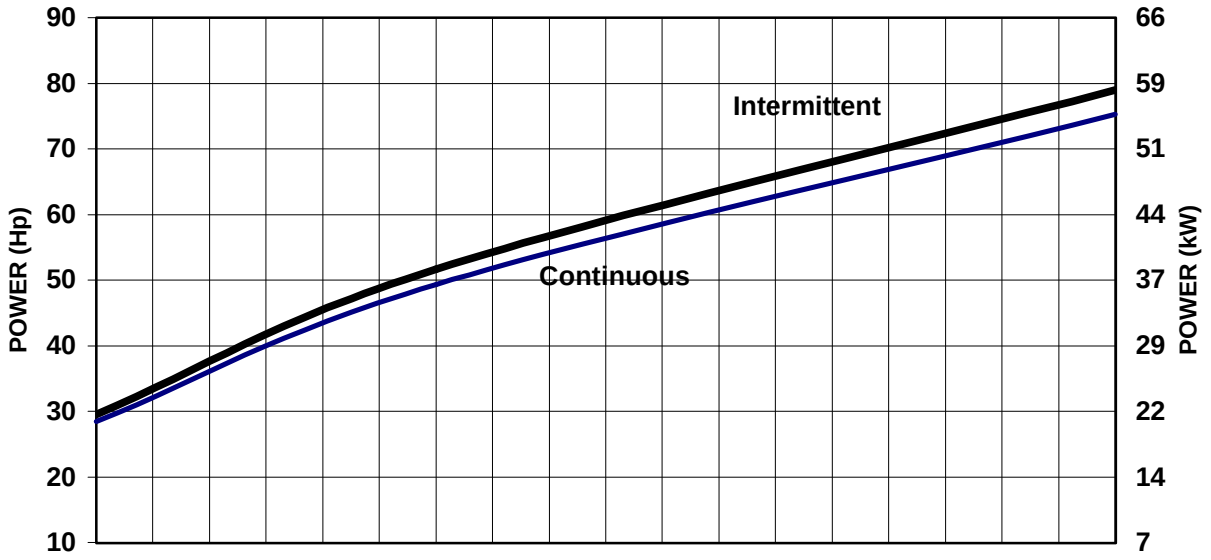
All data refer to standard conditions of 25 °C, 1000 mbar
Data are based on max intermittent output, unless noted

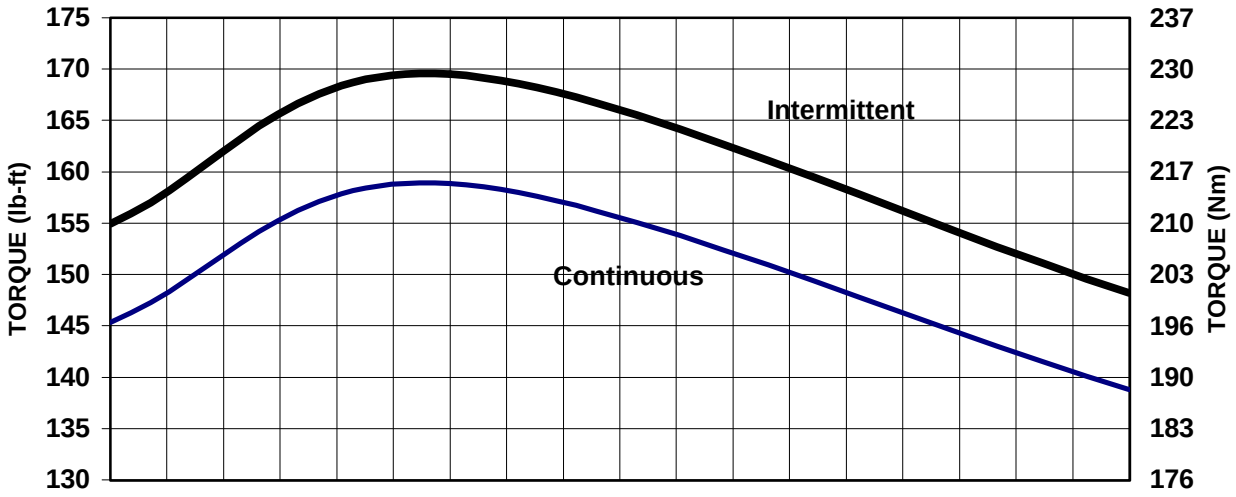
DEUTZ Corporation
3883 Steve Reynolds Blvd
Norcross, GA 30093 USA

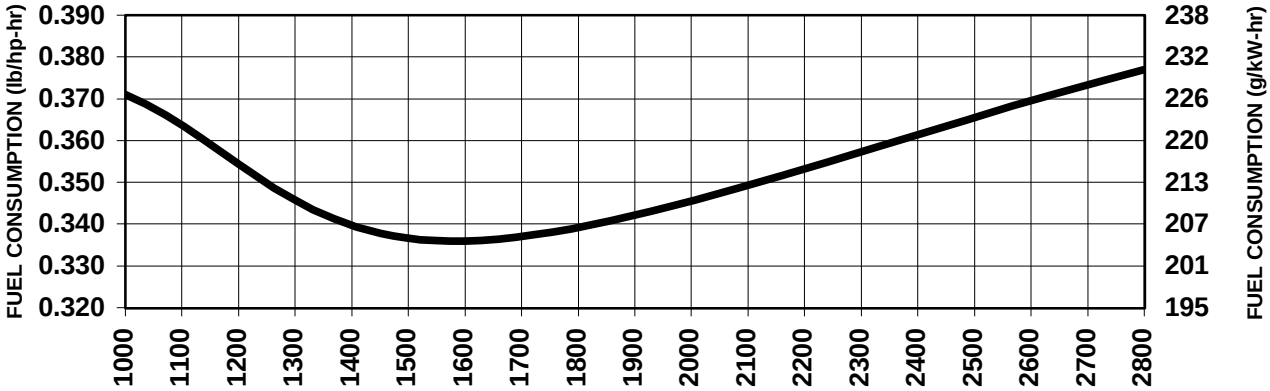
Document: 9997117
Revision: 1
Date: 01 Aug, 2002

ENGINE PERFORMANCE CURVES

ENGINE MODEL	**BF4L2011**
RATING STANDARD	**ISO 3406**
RATED INTERMITTENT POWER	**79 Hp at 2800 rpm**
MAX. TORQUE	**169.5 lb-ft at 1600 rpm**
EMISSION CERTIFICATION	**EPA Tier 2 / COM 1/2**







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)

Document: 9997117 (rev. 1)

Date: 01 Aug, 2002

Name: Reda Fam

Curves are based on current data and are subject to change without notice.

Printed 8/1/02,2:36 PM