PowerTech® 6068T

6068TF220 – 120 kW @ 1500 rpm
6068TF250 – 142 kW @ 1800 rpm

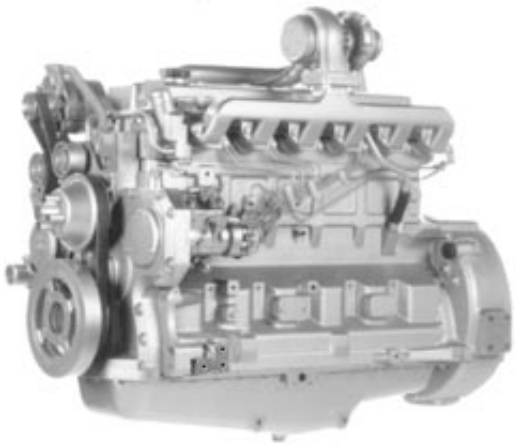
JOHN DEERE

SPECIFICATIONS for ***GEN SET*** Applications

TA LUFT approved @ 1500 rpm

EPA - CARB Tier 1 Certified @ 1800 rpm

Bare Engines

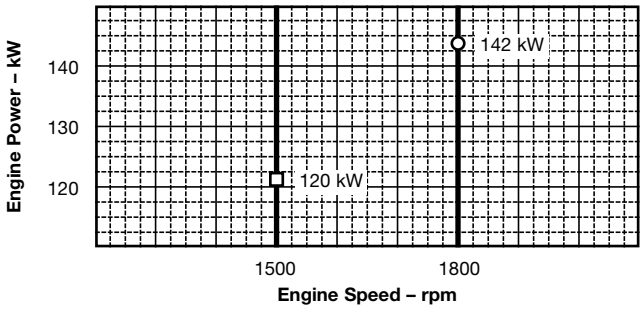


Photographs may show non standard equipment.

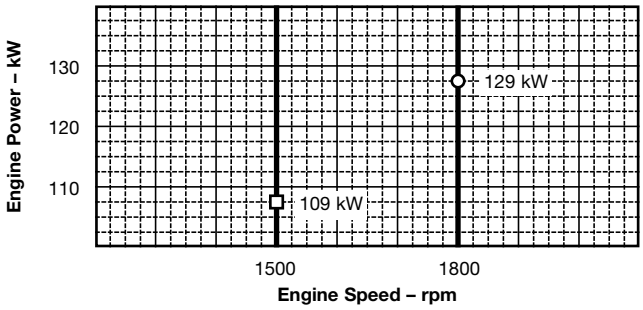
PERFORMANCE DATA

Speed (Hz)	Generator Efficiency %	Fan Power kW	Power Factor	Calculated Gen Set rating					
				Prime			Standby		
				kW net	kVA	kWe	kW net	kVA	kWe
1500 (50)	88-92	4	0.8	105	115-121	92-97	115	127-133	101-106
1800 (60)	88-92	5	0.8	124	137-143	109-115	137	150-157	120-126

STANDBY POWER



PRIME POWER



Performance Data	**1500 rpm**	**1800 rpm**
Gross Rated Power (without fan)		
Prime = PRP – kW (hp)	109 (146)	129 (173)
Standby = LTP – kW (hp)	120 (161)	142 (190)
Rated Speed – rpm	1500	1800
Low Idle Speed – rpm	No	No
BMEP		
Prime = PRP – kPa (psi)	1282 (186)	1264 (183)
Standby = LTP – kPa (psi)	1412 (205)	1392 (202)
Friction Power @ Rated Speed – kW (hp)	13 (17)	17 (23)
Altitude Capability – m (ft)		
Prime	1500 (5000)	2300 (7500)
Standby	1500 (5000)	2300 (7500)
Air: Fuel Ratio		
Prime = PRP	27.9 : 1	32.9 : 1
Standby = LTP	27.6 : 1	33.4 : 1
Noise		
Prime = PRP – dB(A) @ 1 m	91.2	92.7
Standby = LTP – dB(A) @ 1 m	92.0	93.7

STANDBY POWER is the nominal engine power available at varying load factors for up to 500 hours per year. This rating conforms to ISO 8528-1 “limited time running power (LTP)”. The calculated generator set rating range for standby applications is based on minimum engine power (nominal –5%) to provide 100% meet-or-exceed performance for assembled standby generator sets.

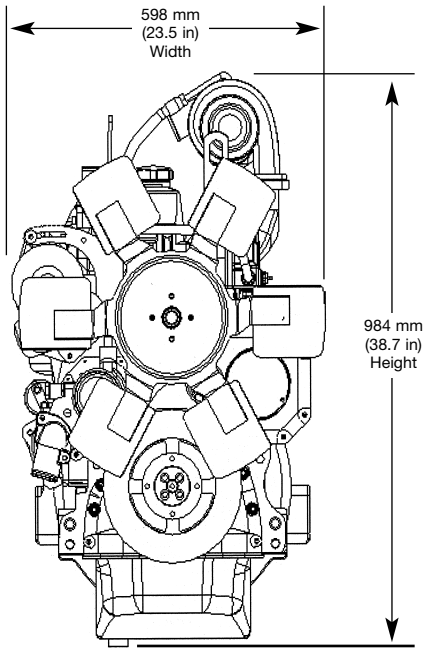
PRIME POWER is the nominal power an engine is capable of delivering with a variable load for an unlimited number of hours per year. This rating conforms to ISO 8528-1 “prime power (PRP)”.

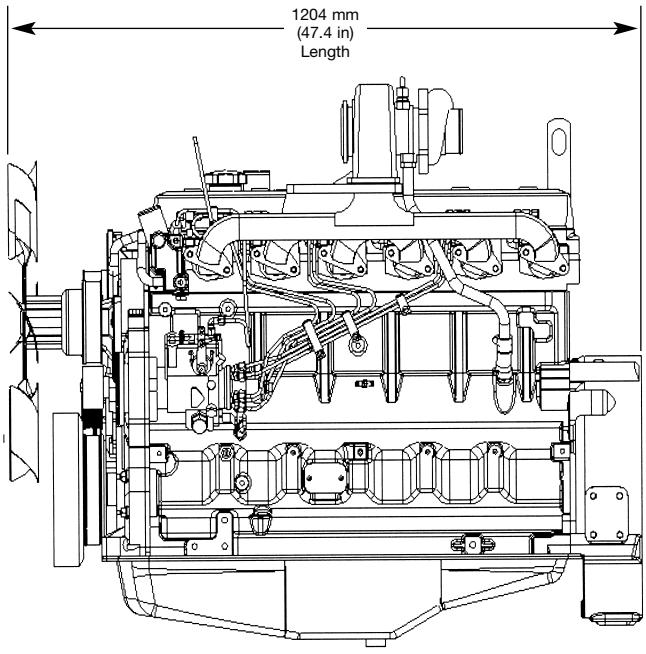
Fuel Consumption – l/h	**1500 rpm**		**1800 rpm**	
	Prime = PRP	Standby = LTP	Prime = PRP	Standby = LTP
25% Power	6.0	7.0	9.0	10.0
50% Power	13.5	14.5	16.0	17.0
75% Power	18.5	22.0	24.0	26.5
100% Power	26.0	29.0	32.0	34.5

Rated power guaranteed within + or –5% at SAE J1995 and ISO 3046.

JOHN DEERE ENGINE MANUFACTURING ISO 9000 REGISTERED

Bare Engine Specification Data





General Data

Models	6068TF220 @ 1500 rpm 6068TF250 @ 1800 rpm
Number of cylinders	6
Bore and Stroke – mm (in.)	106 x 127 (4.19 x 5.00)
Displacement – dm^3 (in^3)	6.8 (414)
Compression Ratio	17.0 : 1
Valves per Cylinder – Intake/Exhaust	1 / 1
Firing Order	1-5-3-6-2-4
Combustion System	Direct Injection
Engine type	In-line, 4-cycle
Aspiration	Turbocharged
Engine Crankcase Vent System	Open
Engine Crankcase Pressure – kPa (in.H_2O)	0.5 (2)

Physical Data

Length – mm (in.)	1204 (47.4)
Width – mm (in.)	598 (23.5)
Height – mm (in.)	984 (38.7)
Weight, dry – kg (lb)	533 (1172)
(Includes flywheel housing, flywheel, & electrics)	
Center of gravity location	
From Rear Face of block (X-axis) – mm (in.)	438 (17.2)
Right of Crankshaft (Y-axis) – mm (in.)	1 (0.05)
Above Crankshaft (Z-axis) – mm (in.)	157 (6.2)

Electrical Data

Recommended Battery Capacity (CCA)	
12 Volt System – Amp	800
24 Volt System – Amp	570
Maximum Allowable Starting Circuit Resistance	
12 Volt System – Ohm	0.0012
24 Volt System – Ohm	0.002
Starter Rolling Current – 12 Volt System	
At 0°C (32°F) – Amp	920
At –30°C (–22°F) – Amp	1300
Starter Rolling Current – 24 Volt System	
At 0°C (32°F) – Amp	600
At –30°C (–22°F) – Amp	700

Air System

	1500 rpm	1800 rpm
Maximum Allowable Temperature Rise		
Ambient Air to Engine Inlet – °C (°F)	8 (15)	8 (15)
Maximum Air Intake Restriction		
Dirty Air Cleaner – kPa (in. H_2O)	6.25 (25)	6.25 (25)
Clean Air Cleaner – kPa (in. H_2O)	3 (12)	3 (12)
Engine Air Flow		
Prime = PRP – m^3/min (ft^3/min)	8.1 (286)	10.7 (378)
Standby = LTP – m^3/min (ft^3/min)	8.9 (314)	11.8 (417)
Recommended Intake Pipe Dia – mm (in.)	76.2 (3)	76.2 (3)

Exhaust System

	1500 rpm	1800 rpm
Exhaust Flow		
Prime = PRP – m^3/min (ft^3/min)	17.4 (614)	24.8 (876)
Standby = LTP – m^3/min (ft^3/min)	19.1 (674)	27.3 (964)
Exhaust Temperature		
Prime = PRP – °C (°F)	561 (1042)	540 (1004)
Standby = LTP – °C (°F)	581 (1078)	575 (1067)
Max. Allow. Back Pressure – kPa (in.H_2O)	7.5 (30)	7.5 (30)
Recommended Exhaust Pipe Dia – mm (in.)	101.6 (4)	101.6 (4)

Cooling System

	1500 rpm	1800 rpm
Engine Heat Rejection		
Prime = PRP – kW (BTU/min)	66 (3753)	73 (4151)
Standby = LTP – kW (BTU/min)	72 (4095)	80.5 (4578)
Coolant Flow – L/min (gal/min)	144 (38)	174 (46)
Thermostat Start to open – °C (°F)	82 (180)	82(180)
Max Water Pump Inlet Restrict – kPa (in.H_2O)	5 (20)	7 (27)
Engine Coolant Capacity – L (qt)	11.3 (12.0)	11.3 (12.0)
Recommended Pressure Cap – kPa (psi)	69 (10)	69 (10)
Maximum Top Tank Temp – °C (°F)	105 (221)	105 (221)
Minimum Coolant Fill Rate – L/min (gal/min)	11 (3)	11 (3)
Minimum Air to Boil temperature – °C (°F)	47 (117)	47 (117)

Fuel System

	1500 rpm	1800 rpm
Fuel Injection Pump	Stanadyne	Stanadyne
Governor Regulation	5%	5%
Governor Type	Mechanical	Mechanical
Total Fuel Flow		
Prime = PRP – kg/h (lb/h)	93 (205)	96 (212)
Standby = LTP – kg/h (lb/h)	93 (205)	96 (212)
Maximum Fuel Transfer Pump Suction – m (ft)	0.9 (3)	0.9 (3)
Fuel Filter Micron Size @ 98% Efficiency	8	8

Lubrication System

	1500 rpm	1800 rpm
Oil Pressure at Rated Speed – kPa (psi)	345 (50)	345 (50)
Oil Pressure at Low Idle – kPa (psi)	105 (15)	105 (15)
In Pan Oil Temperature – °C (°F)	115 (240)	115 (240)
Total Engine Oil Capacity with filter – L (qt)	19 (20.1)	19 (20.1)
Engine Angularity Limits (continuous)		
Any Direction – degrees	20	20

Specifications and design subject to change without notice.

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