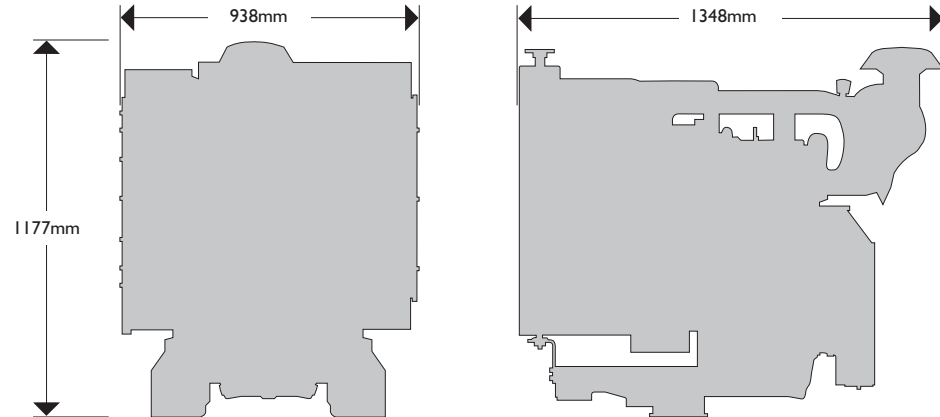




G-DRIVE



PERFORMANCE DATA

	G-TCA	
	Prime	Standby
Calculated gen-set output:		
kWe (1)	87	96
kVA (2)	109	120
Engine power (kWm) at kVA rating (3)	100	110
Fuel consumption at:		
110% load	l/h (g/kWh)	26.3 (202)
100% load	l/h (g/kWh)	24.1 (204)
75% load	l/h (g/kWh)	18.6 (211)
50% load	l/h (g/kWh)	13.0 (221)
Governing	ISO8528 G2 Class	

Notes: (1) kWe calculation assumes 91% alternator efficiency
 (2) kVA calculation assumes 0.8 Power Factor
 (3) measured according to ISO14396
 Prime Power and Stand-By as defined by ISO8528-1

GENERAL TECHNICAL DATA

Technical Code	G-TCA	
Thermodynamic cycle	Diesel 4 stroke	
Aspiration	TCA	
Arrangement	inline, 4 cyl.	
Nominal bore x stroke	mm	103 x 132
Total displacement	cm ³	4399
Valves per cylinder	4	
Cooling	Liquid	
Direction of rotation (viewed from crank nose)	Clockwise	
Compression ratio	17.5	
Rotational mass moment of inertia excluding flywheel	kgm ²	0.2255
11.5" flywheel inertia	kgm ²	0.6986
Exhaust emissions certificate	EU 97/68/EC St.2	
Minimum Starting temperature without auxiliaries	°C	-12
Dry weight	kg	618

COOLING SYSTEM

		G-TCA
Coolant capacity – (inc. cooling pack)	Ltrs	18
Cooling liquid maximum temperature	°C	110
Coolant specification approved (JCB HP high performance)		ASTM D6210
Cooling air flow requirement and canopy depression		3.9m³/sec @ 16mm H ₂ O
Maximum working ambient temperature	°C	50
Fan type (standard)		24" Pusher

FUEL SYSTEM

		Rotary Mechanical
Injection system		Rotary Mechanical
Fuel maximum intake restriction	mbar	150
Fuel maximum intake temperature	°C	50
Engine pre-filter	Micron	30
Engine main filter	Micron	5
Fuel maximum return restriction	mbar	250

EXHAUST SYSTEM

Maximum allowable back pressure	mbar	100
Exhaust temperature at standby rating	°C	529
Exhaust flow at standby rating	kg/h	530

LUBRICATING SYSTEM

		G-TCA & G-TC2
Lubricating oil pressure	bar	4.6
Maximum oil temperature:	°C	125
Engine angularity limits (continuous operation):	deg	35
Maximum front up and front down		35
Maximum right hand and left hand		35
Total system capacity – including pipes, filters etc	Ltrs	14
Minimum recommended oil grade	API	CF4
Oil filter maintenance service schedule	Hours	250
Oil consumption	% of fuel consumed	0.1

ELECTRICAL SYSTEM

		G-TCA
Starter and alternator	V	12, Earth return
Minimum cranking speed	rpm	100
Battery – minimum capacity recommended, not included		145Ah.
Battery – minimum cold cranking capacity recommended, not included		850CCA

AIR INDUCTION SYSTEM

Maximum allowable restriction with dirty air filter	mbar	80
Air requirement for combustion at standby rating	kg/h	506
Air filter type		2 stage paper element

STANDARD CONFIGURATION

Flywheel housing		SAE 3
Flywheel		SAE 11.5"
Intake manifold location		Left hand
Exhaust manifold/ turbocharger location		Right hand
Turbocharger		Central mounting
Fan transmission ratios		1.25
Distance between fan – crankshaft centres	mm	356
Main fuel filter & pre-filter		Included
Fuel pump		Mechanical with primer
Oil filter		1, left side
Oil vapours blow-by circuit		Filtered, open
Oil heat exchanger		Left side
Oil filter position		Top and left side
Starter motor		12V, 4.2KW
Alternator		12V, 95A
Engine stop		Electric
Power Take Off Light-duty	kW	6.8
Finish		Lacquered

