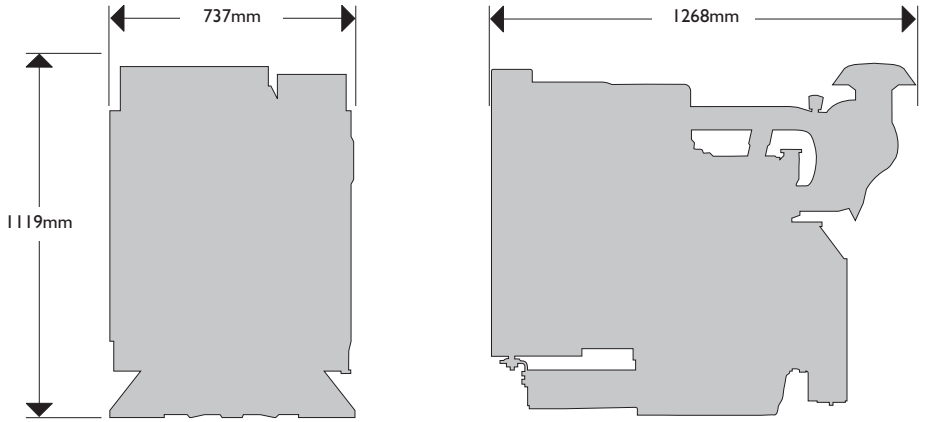
JCB DIESELMAX

# 448 TURBOCHARGED 64KVA PRIME @50HZ (70KVA STAND-BY)

## G-DRIVE




## PERFORMANCE DATA

| | | G-TC | |
|---|---|---|---|
| | | Prime | Standby |
| Calculated gen-set output: | | | |
| kWe (1) | | 51 | 56 |
| kVA (2) | | 64 | 70 |
| Nett engine power (kWm) at kVA rating (3) | | 56 | 61 |
| Fuel consumption at: | | | |
| 110% load | l/h (g/kWh) | 17.3 (220) | |
| 100% load | l/h (g/kWh) | 15.9 (221) | |
| 75% load | l/h (g/kWh) | 12.6 (233) | |
| 50% load | l/h (g/kWh) | 8.7 (241) | |
| 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
Assume 8kW fan power consumption

## GENERAL TECHNICAL DATA

| Technical Code | | G-TC |
|---|---|---|
| Thermodynamic cycle | | Diesel 4 stroke |
| Aspiration | | TC |
| Arrangement | | inline, 4 cyl. |
| Nominal bore x stroke | mm | 106 x 135 |
| Total displacement | $cm^3$ | 4765 |
| Valves per cylinder | | 4 |
| Cooling | | Liquid |
| Direction of rotation (viewed from crank nose) | | Clockwise |
| Compression ratio | | 18 |
| 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.3A |
| Minimum starting temperature without auxiliaries | °C | -10 |
| Dry weight | kg | 566 |

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## COOLING SYSTEM

| | | G-TC |
|---|---|---|
| Coolant capacity – engine only | Ltrs | 7 |
| Cooling liquid maximum temperature | °C | 110 |
| Coolant specification approved (JCB HP high performance) | | ASTM D6210 |
| Cooling air flow requirement and canopy depression | | 3.3m³/sec @ 13mm $H_2O$ |
| Maximum working ambient temperature | °C | 50 |
| Fan type (standard) | | 22" Pusher |

## FUEL SYSTEM

| | | |
|---|---|---|
| Injection system | | Mechanical |
| Fuel maximum intake restriction (@ electric lift pump inlet) | mbar | 100 |
| Fuel maximum intake temperature | °C | 80 |
| Engine pre-filter (electric lift pump) | Micron | 30 |
| Engine main filter | Micron | 5 |
| Fuel maximum return restriction | mbar | 50 |
| Water in fuel sensor | | |

## EXHAUST SYSTEM

| | | |
|---|---|---|
| Maximum allowable back pressure | mbar | 90 |
| Exhaust temperature at standby rating | °C | 511* |
| Exhaust flow at standby rating | kg/h | 367 |

## LUBRICATING SYSTEM

| | | | G-TC |
|---|---|---|---|
| Lubricating oil pressure | | bar | 3.2 |
| Maximum oil temperature: | | °C | 125 |
| Engine angularity limits (continuous operation): | Maximum front up and front down | deg | 35 |
| | Maximum right hand and left hand | deg | 35 |
| Total system capacity – including pipes, filters etc | | Ltrs | 14 |
| Minimum recommended oil grade | | API | CH4 15W40 |
| Oil filter maintenance service schedule | | Hours | 500 |
| Oil consumption | | % of fuel consumed | 0.1 |

*Stack temperature, not manifold

## ELECTRICAL SYSTEM

| | | G-TC |
|---|---|---|
| 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 | kgh | 367 |
| 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 | | 1.25:1 |
| Distance between fan – crankshaft centres | mm | 356 |
| Main fuel filter & pre-filter both included | | Electric lift pump |
| Fuel pump | | Mech with primer |
| Oil filter | | Left side |
| Oil vapours blow-by circuit | | Filtered, open |
| Oil heat exchanger | | Left side |
| Oil fill positions | | Top and left side |
| Starter motor | | 12V, 4.2kW |
| Alternator | | 12V, 85A |
| Engine stop | | Electric |
| Power Take Off light-duty | kW | 6.8 |
| Finish | | Lacquered |

## OPTIONAL EQUIPMENT

Electrical connector kit.
240/110V block heater.



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