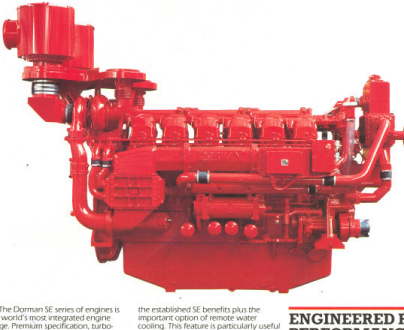
DORMAN DIESELS

SETCW

WATER COOLED ENGINES



The Dorman SE series of engines is the world's most integrated engine range. Premium specification, turbo-charged engines, the SE series are available with Charge Water Cooling using water from an external source in 6 cylinder in-line and 12 and 16 cylinder Vee form models.

INTEGRATED DESIGN

Developed from a common design concept, the range features include exceptional power to weight ratios, commonality of components, low fuel and oil consumptions, low levels of gaseous emissions and levels of overall performance and reliability that set new standards for the design of diesel engines.

Dorman SE's are unique in offering such high performance and reliability in a single range of premium specification engines with a common design concept. Proven in the most arduous conditions worldwide, the SE range is internationally acknowledged and accepted.

REMOTE COOLING

The remote charge water cooled (TCW) models of the SE range offer all the established SE benefits plus the important option of remote water cooling. This feature is particularly useful in modern building design where remote radiators may be located on a roof to maximise cooling airflow but many floors away from a sound isolated plant room or standby power facility. The TCW versions of SE engines are well proven in such applications and are noted for the ability to allow remote location of radiators or heat exchangers at considerable distances without the need for expensive supplementary pumps. This facility also allows the TCW models to benefit from the availability of raw water sources.

The low levels of gaseous emissions and smoke achieved by Dorman engines (typically below 1 Bosch unit) make them ideal for use in environmentally sensitive locations such as city centre developments.

HEAT RECOVERY

The ability to operate utilising remote cooling makes the SE series ideal for power schemes that wish to recover waste engine heat such as in combined heat and power installations. Dorman's considerable experience in this field is represented by numerous installations worldwide and a specific expertise in supplying CHP packages designed to achieve optimum results in these applications with a Dorman engine.

ENGINEERED FOR PERFORMANCE AND RELIABILITY

The SE range is the result of a 10 year programme of fundamental research into engine design to create a new generation of engines. Dorman engineers concentrated on the central process of combustion, examining in detail how to achieve the greatest efficiency in fuel usage to produce high power in a compact engine.

Central to the SE concept is a unique piston and cylinder design which incorporates a unit fuel injector. All SE series engines benefit from this proven Dorman design concept. These individual camrocker operated unit injectors achieve high pressures to ensure ultra-fine fuel atomisation, and hence, controlled rapid combustion resulting in low smoke and gaseous emissions, whilst producing high powers per cylinder. The application of unit injection eliminates the need for external high pressure fuel pipes.

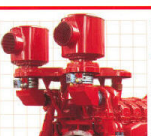
The pistons are aluminium alloy and incorporate gallery cooling thus ensuring a thermally stable piston throughout the load and speed range. This feature gives long life of piston-rings and cylinder liners, whilst decreasing the risk of potentially harmful carbon deposits. The upper ring is wedge shaped running in a Ni-resist iron

carrier, thus eliminating top ring groove wear and ring sticking after extended periods of running at excess powers.

The SE cylinder and injection system are common throughout the SE series allowing these engines to achieve the highest power outputs per litre of cylinder capacity.

All SE series engines have externally mounted large capacity oil pumps to supply cool pressurised oil to all working surfaces of the engine in addition to the piston cooling jets. Wedge shaped gudgeon pin bosses create large bearing areas, thus enabling high power to be transmitted to robust induction hardened crankshafts.

Each cylinder has an individual four valve head to give optimised gas flows to these high specific power engines. Both inlet and exhaust valves are made from 21-4N valve steel with a Stellite facing, chrome flashed stems, and Stellite faced tips. The renewable valve inserts are made from Brico 52. This combination of valve and valve seat being selected to give extended durability.



16SETCW
16 cylinder 60° Vee form water cooled diesel engine developing power 1146kW/b-1575kWb

HIGH POWER TO WEIGHT RATIO

The Dorman SE series engines are noted for achieving high power outputs per cylinder and offering high power to weight ratios. In practice, these engines provide power outputs normally only associated with much larger engines, their compact size and low weight reduces shipping costs and allows for easier installation.

Coupled with the benefits of remote radiator location, the SE range represent a major advantage to engineers and architects seeking to integrate large standby power facilities into modern building design to support computer based tenants and building services. The overall compactness, high power output and ease of service access of SE engines also makes them ideal for satisfying power requirements in building upgrades where space is at a premium.

6SETCW
6 cylinder in-line water cooled diesel engine developing power 374kW/b-592kWb
Showing Crank Case Doors.

12SETCW
12 cylinder 60° Vee form water cooled diesel engine developing power 860kW/b-1182kWb

EASE OF SERVICING

Ease of servicing and high availability are key SE features. The individual cylinder heads can, for example, be easily removed. The unit fuel injection system considerably aids reliability and maintains overall engine efficiency whilst providing an easily serviced system without high pressure fuel pipes and pumps. Attention to detail has created an engine design with high availability and low down time.

The SE series benefits from the worldwide support of the Dorman international dealer network, sophisticated parts and support system and the finest trained engineers. These facilities, available in over 100 countries, provide a back-up to Dorman products that few can match. In addition, all SE customers receive the considerable benefits of the Dorman Red Seal extended guarantee scheme. The Red Seal Guarantee is a major statement of confidence by Dorman in their engines and full details are available on request.

APPLICATION

In their industrial format the SE range of engines are designed to operate continuously at speeds of 1000-1800rpm. The engines are built in a factory fully approved to BS 5750/ISO 9000. All engines are tested to comply with BS 5514/1-1982, ISO 3046/1.

The specific performance of each engine is detailed in the tables and more specific performance figures related to application are available on application to Dorman sales department.

Electronic governing is fitted as standard with the option of hydraulic governoring available to suit the engines for any specific application. The engines have electric start as standard, with air or hydraulic starting available as options as appropriate for the application. Crank Case doors are fitted as standard.

Applications typically include: Generating Sets, Pump Sets, Compressor Sets.

TECHNICAL DATA

Turbocharged, four stroke, premium specification water cooled diesel engines. Individual models are specified with either radiator or heat exchanger cooling for use in conjunction with remote radiators or cooling towers.

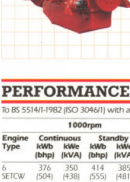
BORE: 160mm
STROKE: 190mm
COMPRESSION RATIO: 13·6:1
ROTATION: Anti-clockwise (When viewed from the flywheel end)

	6SE	12SE	16SE
TOTAL SWEPT VOLUME (Litres)	22·92	45·84	61·12
SUMP OIL CAPACITY (Litres)	113·4	159·0	214·0

GOVERNING: To ISO 3046/4 (BS5514), A1
FUEL SPECIFICATION: BS 2869 Class A1 + A2 or ASTM D975 No. 2D or equivalent.

Note: In any proposals involving the use of fuel different from the above specification, an analysis of the proposed fuel should be forwarded to Dorman Diesels to enable suitable recommendations to be made regarding amended maintenance periods for engine and fuel injection equipment.

Full technical data is available on request to cover all aspects of engine specification and performance, installation and application.



STANDARD EQUIPMENT

	6 SE	12 SE	16 SE
Base Engine	●	●	●
Fuel Injection System, hand stop control, fuel lift pump and priming pump	●	●	●
Electronic governor	●	●	●
Medium Duty Air Cleaners — paper elements, Single	●		
Double		●	●
24 Volt electrical equipment comprising starter motor, battery charging alternator, with low voltage control unit	●	●	●
SAE 14" Flywheel and 0 housing	●		
SAE 18" Flywheel and 00 housing		●	●
Turbochargers — Single	●		
Twin		●	●
Vertical Exhaust Outlets — Single	●		
Twin		●	●
Fuel Oil Filter and Water Separator	●	●	●
Lubricating Oil Filters	●	●	●
Engine Jacket — Water Oil Cooler	●	●	●
Thermostats	●	●	●
Water Pump	●	●	●
Fan Drive Pulley	●	●	●
Crank Case Doors	●	●	●
Torsional vibration damper to suit most applications	●	●	●
Engine protection pack for customer to wire as necessary and comprising a) 24 volt stop solenoid energised to run			
b) Low oil pressure/high water temperature switch	●	●	●
Overspeed Pick-up with switch	●	●	●
Induction Air Shut-Off Valves (Not 6SE)		●	●
Engine fleet	●	●	●
Dorman Engine User's Manuals	●	●	●

OPTIONAL EQUIPMENT

	6 SE	12 SE	16 SE
Heavy Duty Air Cleaners — paper element with pre-cleaner — Single	○		
Twin		○	○
Changeover Lubricating Oil Filter	○	○	○
Changeover Fuel Oil Filter	○	○	○
Air Starter — low pressure type	○	○	○
Batteries and Cables	○	○	○
Immersion Heater with thermostat	○	○	○
Instrument Panel (engine mounted) with Water temperature gauge			
Oil temperature gauge			
Oil pressure gauge			
Ammeter			
Electronic Tachometer with service hours recorder			
Keyswitch	○	○	○
Exhaust Temperature Gauge	○	○	○
Hydraulic Governor	○	○	○
Load sharing unit — for electronic governor	○	○	○
Auto-synchroniser — for electronic governor	○	○	○
Primary and Secondary Silencers	○	○	○
Flexible alignment pipe	○	○	○
Exhaust junction pipe, bellows and flange kit	○	○	○
Clutch	○	○	○
Flexible Coupling	○	○	○
Rein-valve lubricating oil make-up system	○	○	○
Induction Air Shut Off Valves	○	●	●

N.B. This list is not exhaustive, further options may be available to meet particular applications on enquiry to Dorman Diesels Sales Department.

Notes: ● Standard Equipment
○ Optional Equipment

PERFORMANCE AND POWER RATINGS

To BS 5514/1-1982 (ISO 3046/1) with ambient temperature of 27°C, 100kPa barometric pressure and 60% relative humidity.

Engine Type	1000rpm Continuous kWb (bhp)	kWe (kVA)	Standby kWb (bhp)	kWe (kVA)	1200rpm Continuous kWb (bhp)	kWe (kVA)	Standby kWb (bhp)	kWe (kVA)	1500rpm Continuous kWb (bhp)	kWe (kVA)	Standby kWb (bhp)	kWe (kVA)	1800rpm Continuous kWb (bhp)	kWe (kVA)	Standby kWb (bhp)	kWe (kVA)
6 SETCW	376 (504)	350 (438)	414 (555)	385 (481)	430 (576)	400 (500)	473 (634)	440 (550)	538 (721)	501 (627)	592 (794)	558 (698)	538 (721)	501 (627)	592 (794)	556 (695)
12 SETCW	–	–	–	–	860 (1153)	819 (1023)	946 (1268)	901 (1126)	1075 (1441)	1027 (1283)	1182 (1585)	1123 (1404)	1075 (1441)	1027 (1283)	1182 (1585)	1123 (1404)
12 SETCW2	–	–	–	–	–	–	–	–	1294 (1734)	1229 (1537)	1423 (1907)	1357 (1696)	1294 (1734)	1229 (1537)	1423 (1907)	1357 (1696)
16 SETCW	–	–	–	–	1146 (1536)	1088 (1359)	1261 (1690)	1196 (1495)	1432 (1920)	1365 (1706)	1575 (2112)	1504 (1880)	1432 (1920)	1365 (1706)	1575 (2112)	1504 (1880)
16 SETCW2	–	–	–	–	–	–	–	–	1708 (2290)	1631 (2039)	1879 (2519)	1800 (2250)	–	–	–	–

N.B. Standby ratings are available for the provision of power during a mains failure or during the maintenance of electrical power supply equipment for a maximum of 1,000 hours per 12 months on a varying load. There is no overload available on these standby ratings.

SETCW WATER COOLED ENGINES

RATINGS

For operating conditions different to those stated and derating please refer to the Dorman Product Information Folder or consult the Dorman Sales or Engineering Departments. For gross ratings and tolerances on power, fuel and lubricating oil consumption please refer to the Dorman Product Information Folder.

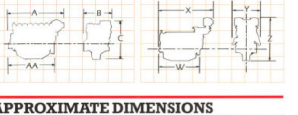
All Dorman SE engines comply with ISO standard tests at 27°C as a minimum. According to build, SE engines will maintain constant output (no deration) at higher temperatures. Full details available on request.

For Generating Set applications only a 10% overload for 1 hour in every 12 hours is available on continuous rating only. Please consult with the Dorman Sales or Engineering Departments for overloads available and consequently the continuous ratings in other applications.

APPLICATIONS AND INSTALLATION

For a full specification please refer to the Dorman Product Information Folder and for guidance on the installation of these engines please refer to the Dorman Installation Manual.

DIMENSIONS



APPROXIMATE DIMENSIONS

In-line Models

MM	6SETCW Without Radiator
A	2346mm
AA	1859mm
B	1100mm
C	1651mm
Approx. Weight kgs.	2300

Vee Form Models

MM	12SETCW Without Radiator	16SETCW Without Radiator
W	2448mm	2957mm
X	3147mm	3722mm
Y	1471mm	1471mm
Z	2314mm	2407mm
Approx. Weight Kgs.	4350	5550

Note: The above weights and dimensions are for guidance only. Exact sizes and weights will vary according to engine specification and are available on request.

British Quality Engineering

Perkins

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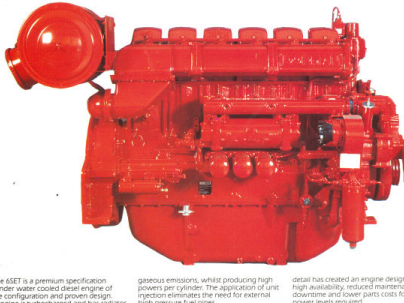
DORMAN DIESELS 6SET



The 6SET is a premium specification 6 cylinder water cooled diesel engine of in-line configuration and proven design. The engine is turbocharged and has radiator cooling.

PROVEN DESIGN

The 6SET is a member of the highly successful SE series of engines, noted for their high power to weight ratios and reliability. The SE series includes 8, 12 and 16 cylinder models in addition to the range of 6 cylinder engines. Dorman SE engines are well proven in thousands of applications worldwide in extremes of operating conditions.

FUEL EFFICIENT - HIGH POWER

Central to the 6SET is the unique SE piston and cylinder design which incorporates a unit fuel injector. All SE series engines benefit from this proven Dorman design concept. These individual camshaft operated unit injectors achieve high pressures to ensure ultra-fine fuel atomisation, and hence, controlled rapid combustion resulting in low smoke and gaseous emissions, whilst producing high powers per cylinder. The application of unit injection eliminates the need for external high pressure fuel pipes.

The pistons are aluminium alloy and incorporate gallery cooling thus ensuring a thermally stable piston throughout the load and speed range. This feature gives longer life of piston rings and cylinder liners, whilst decreasing the risk of potentially harmful carbon deposits. The upper ring is wedge shaped running in a Ni-resist iron carrier, thus eliminating top ring groove wear and ring sticking after extended periods of running at excess powers.

ENGINEERED FOR RELIABILITY

The 6SET has an externally mounted large capacity oil pump to supply cool pressurised oil to all working surfaces of the engine in addition to the piston cooling jets. Wedge shaped gudgeon pin bosses create large bearing areas, thus enabling high power to be transmitted to robust induction hardened crankshafts.

Each cylinder has an individual four valve head to give optimised gas flows to these high specific power engines. Both inlet and exhaust valves are made from 21-4N valve steel with a Stellite facing, chrome flashed stems, and Stellite faced tips. The renewable valve inserts are made from Brico 52. This combination of valve and valve seat being selected to give extended durability.

HIGH POWER, EASY MAINTENANCE

The Dorman 6SET achieves an excellent power to weight ratio and its compact size and low weight reduces shipping costs and allows for easier installation.

Advanced engineering and attention to detail has created an engine design with high availability, reduced maintenance downtime and lower parts costs for the power levels required.

The individual cylinder heads can, for example, be easily removed. The unit fuel injection system considerably aids reliability and maintains overall engine efficiency whilst providing an easily serviced system without high pressure fuel pipes and pumps.

Backed by an international dealer network in over 100 countries and Dorman's unique Red Seal Guarantee, the 6SET represents the highest standards in technology, reliability and service.

APPLICATION

The engine is designed to operate continuously at speeds of 1000-1800 rpm. The engine is built in accordance with approved to BS 5750 (ISO 9000) and is tested to comply with ISO 3046.

Electronic governing is supplied as standard with Woodward PSG hydraulic governing available as an option to suit the engine for any application. The engine has electric start as standard, with air or hydraulic starting available as options as appropriate for the application. Crankcase doors are fitted as standard.

Application can include:
Generating Sets, Pump Sets, Compressor Sets, Excavators, Cranes, Off-Highway Earthmoving Equipment, Stone Crushers and Locomotives.

ENGINE TYPE – 6SET

TECHNICAL DATA

Turbocharged, four stroke, 6 cylinder in-line water cooled diesel engine (Radiator Cooled).
BORE: 160 mm.
STROKE: 190mm.
TOTAL SWEPT VOLUME: 22.92 litres.
COMPRESSION RATIO: 13.6:1.
ROTATION: Anticlockwise (When viewed from the flywheel end).
SUMP OIL CAPACITY: 113.4 litre (25.0 gallis).
GOVERNING: To ISO 3046/4 (BS5514).
FUEL SPECIFICATION: BS2869 Class A1 + A2 or ASTM D975 No. 2D or equivalent.
Note: In any proposals involving the use of fuel different from the above specification, an analysis of the proposed fuel should be forwarded to Dorman Diesels to enable suitable recommendations to be made regarding amended maintenance periods for engine and fuel injection equipment.
STANDARD EQUIPMENT (Dorman Genpac 'A' Specification)
Base Engine.
Fuel Injection System, fuel lift pump and priming pump, hand stop control.
Electronic Governor.
Medium Duty Air Cleaner - paper element.
24 volt electrical equipment comprising starter motor, battery charging alternator with voltage control unit.
SAE 14" flywheel, SAE 'O' housing.
Turbocharger.
Vertical Exhaust Outlet.
Combined Fuel Oil Filter and Water Separator.
Lubricating Oil Filters.
Engine Jacket - Water Oil Stabiliser.
Twin Thermometers.
Water Pump.
Water Pipes, Clips and Hoses for radiator.
Fan Drive Pulley.
14" torsional vibration damper to suit application.
Engine protection pack for customer to wire as necessary and comprising:
a) 24 volt stop solenoid energised to run.
b) Combined low oil pressure/ high water temperature switch.
Overspeed Switch and Pick Up.
Crank Case Doors.
Engine Feet.
Dorman Engine Operation Manual.
Engine Test Certificate.

OPTIONAL EXTRAS

The following optional extra equipment is available to make up the specifications to the Dorman Genpac 'B' specification:
- Temperate Radiator (38°C).
- Tropical Radiator (58°C).
- Fan, Fan Guards and Belts.

For other applications the following optional extra equipment is available:
- Heavy Duty Air Cleaner - paper element with pre-cleaner.
- Changeover Lubricating Oil Filter.
- Changeover Fuel Oil Filter.
- Air Starter - low pressure type.
- Batteries and Cables.
- Immersion Heater with thermostat.
- Induction Air Shut-Off Valve.
- Instrument Panel (engine mounted) with:
  - Water temperature gauge.
  - Oil temperature gauge.
  - Oil pressure gauge.
  - Ammeter.
  - Electronic Tachometer with service hours recorder.
  - Key Switch.
- Exhaust Temperature Gauge.
- Woodward PSG Hydraulic Governor.
- Load sharing unit - for electronic governor.
- Auto-synchroniser for electronic governor.
- Primary and Secondary Silencers.
- Clutch.
- Flexible Coupling.
- Rein-valve lubricating oil make-up system.

N.B. This list is not exhaustive, further options may be available to meet particular applications on enquiry to Dorman Diesels Sales Department.

FIXED SPEED PERFORMANCE TABLES

To ISO 3046 (BS5514) with ambient temperature of 27 degrees C, 100 kPa barometric pressure and 60% relative humidity.

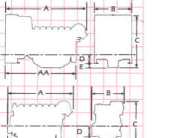
Continuous Ratings (Nett)

RPM	kW/b (bhp)	Specific Fuel Consumption (g/kW/h)
1000	218 (292)	218
1200	302 (405)	218
1500	374 (501)	209
1800	374 (501)	223

Standby Ratings (Nett)

RPM	kW/b (bhp)	Specific Fuel Consumption (g/kW/h)
1000	241 (323)	220
1200	334 (448)	223
1500	413 (554)	215
1800	413 (554)	230

N.B. Standby ratings are available for the provision of power during a mains failure or during the maintenance of electrical power supply equipment for a maximum of 1,000 hours per 12 months on a varying load. There is no overload available on these standby ratings.



APPROXIMATE DIMENSIONS

MM	With Radiator	Without Radiator
A	2733mm	2190mm
AA	2356mm	1813mm
B	1283mm	1102mm
C	1925mm	1521mm
D	399mm	220mm
E	144mm	323mm
Approximate Weight Kgs	2345	2004

RATINGS

For operating conditions different to those stated above and derating please refer to the Dorman Product Information Folder or consult the Dorman Sales or Engineering Departments. For gross ratings and tolerances on power, fuel and lubricating oil consumption please refer to the Dorman Product Information Folder.

Tested at ISO standard 27°C the engine will maintain constant output (no derating) to at least 38°C.

For Generating Set applications only a 10% overload for 1 hour in every 12 hours is available on continuous rating only. Please consult with the Dorman Sales or Engineering Departments for overloads available and consequently the continuous ratings in other applications.

APPLICATIONS AND INSTALLATION

For a full specification please refer to the Dorman Product Information Folder and for guidance on installation of these engines please refer to the Dorman Installation Manual.

British Quality Engineering

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DORMAN DIESELS 8SETCA

Parallel turbocharger system

The 8SETCA is a premium specification 8 cylinder water cooled diesel engine of in-line configuration. Utilising a unique parallel turbocharger system, the engine develops high power output per cylinder to produce an engine with a high overall power to weight ratio.

HIGH POWER TO WEIGHT RATIO

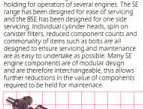
The engine features the innovative Dorman Parallel Turbocharger System (PTS) for reduced inertia and improved engine response. The new PTS system, advanced fuel injection system and four valve cylinder head design, combine to produce an engine with high power to weight ratio. The 8SETCA, with the advantages of an in-line design, produces power outputs that are normally only associated with much larger V12 and V16 high speed engines. The engine has the ability to operate satisfactorily in low load conditions and to start at low temperatures.

COMPACT SIZE

The small compact size of the engine reduces shipping and installation costs while the high power to weight ratio makes the 8SETCA suitable for a wide range of applications including installation in restricted spaces and where only single side access is available.

EASILY MAINTAINED

Being an eight cylinder engine, less time is required for servicing than on other engines of equivalent power. In common with other members of the SE family of engines, lower inventory levels are generally required. The engine has high commonality with other SE series models allowing for combined stock-holding for operators of several engines. The SE range has been designed for ease of servicing and the 8SE has been designed for one side servicing. Individual cylinder heads, spin on canister filters, reduced component counts and commonality of items such as bolts are all designed to ensure servicing and maintenance are as easy to undertake as possible. Many SE engine components are of modular design and are therefore interchangeable, this allows further reductions in the value of components required to be held for maintenance.



RELIABILITY

The engine has been developed and tested using the latest engineering design techniques and is an extension of the concepts proven in the highly successful 6SE and 12SE models. Dorman's proven unit fuel injection system considerably improves reliability as it removes the need for high pressure fuel lines and pumps. The engine is primarily gear driven and auxiliaries and drives are therefore permanently lubricated. Only the alternator is externally driven. The 4 plane crankshaft is designed for optimum balance and even firing while 9 large crankshaft bearings ensure excellent support.

A new oil cooler is fitted and the oil pump is of the plug in type.

Piston temperatures are controlled by an advanced spray jet cooling system. Engine protection devices are specified with additional protection systems available if required.

APPLICATION

The engine is designed to perate continu-ously at speeds of 1,000 – 1,800 rpm. The engine is built to comply with ISO & BS standards. Tested at ISO standard 27°C, the engine will maintain constant output (no derations) to at least 38°C. The engine is designed for use with the latest in single bearing alternators. Emission levels are low, making the engine suitable for use in sensitive locations. Electronic or Woodward PSG hydraulic governors may be supplied to suit the engine for any application. The engine has electric start as standard, with air or hydraulic starting available as options as appropriate for the application. Crankcase doors are also available.

Applications can include:
Generating Sets, Pump Sets, Compressors, Excavators, Cranes and Off-Highway Equipment, Stone Crushers and Locomotives.

ENGINE TYPE - 8SETCA

TECHNICAL DATA

Turbocharged, four stroke, 8cylinder water cooled diesel engine with Air to Air charge cooler (Radiator Cooled).
BORE: 160mm
STROKE: 190mm
TOTAL SWEPT VOLUME: 30.56 litres
COMPRESSION RATIO: 13.6:1
ROTATION: Anti-clockwise (When viewed from the flywheel end).
SUMP OIL CAPACITY: 137 litre (30 gallo)
GOVERNING: To ISO 3046/4 (BS5514) A1
FUEL SPECIFICATION: BS2869 Class A1 + A2 or ASTM D975 No. 2D or equivalent.

Note: In any proposals involving the use of fuel different from the above specification, an analysis of the proposed fuel should be forwarded to Dorman Diesels to enable suitable recommendations to be made regarding amended maintenance periods for engine and fuel injection equipment.

STANDARD EQUIPMENT: (Dorman Genpac 'A' Specification).
Base Engine
Fuel Injection System, hand stop controland fuel lift pump.
Electronic Governor.
Twin Medium Duty A/F Cleaners - paper elements.
24 Volt electrical equipment comprising starter motor, battery charging alternator with low voltage control unit.
SAE 1B Flywheel, SAE 0.0 housing.
Parallel Twin Turbochargers.
Twin Vertical Exhaust Outlet.
Fuel Oil Filter.
Lubricating Oil Filters.
Engine Jacket - Water Oil Stabiliser.
Thermostat.
Water Pump.
Water Pipes, clips and hoses for radiator.
Fan Drive Pulley.
Charge Air Pipes.
Single or twin 20" torsional vibration damper to suit application.
Overspeed Pick up and Switch
Engine protection pack for customer to wire as necessary and comprising:
a) 24 volt stop solenoid energised to run.
b) Combined low oil pressure/ high water temperature switch.
Engine feet.
Dorman Engine User's Manual.

For other applications the following optional extra equipment is available:

- Twin Heavy Duty Air Cleaners - paper element with pre-cleaner.
- Changeover Lubricating Oil Filter.
- Changeover Fuel Oil Filter.
- Air Starter - low pressure type.
- Batteries and Cables.
- Immersion Heater with thermostat.
- Induction Air Shut-Off Valves.
- Instrument Panel (engine mounted) with:
  - Water temperature gauge.
  - Oil temperature gauge.
  - Oil pressure gauge.
  - Ammeter.
  - Electronic Tachometer with service hours recorder.
  - Keyswitch.
- Exhaust Temperature Gauge.
- Woodward PSG Hydraulic Governor.
- Hand Speed Control.
- Load sharing unit - for electronic governor.
- Auto-synchroniser for electronic governor.
- Heat Exchanger with De-aeration tank and pipework.
- Primary and Secondary Silencers.
- Clutch.
- Flexible Coupling.
- Rev-valve lubricating oil make-up system.

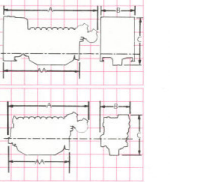
N.B. This list is not exhaustive, further options may be available to meet particular applications on enquiry to Dorman Diesels Sales Department.

OPTIONAL EXTRAS

The following optional extra equipment is available to make up the specifications to the Dorman Genpac 'B' specification:

- Tropical Radiator with Charge Air Cooler Matrix.
- Fan, Fan Guards and Belts.

DIMENSIONS



APPROXIMATE DIMENSIONS

MM	With Radiator	Without Radiator
A	3780mm	2926mm
AA	3129mm	2275mm
B	1626mm	1520mm
C	2193mm	1677mm
Approximate Weight Kgs.	3980	3200

FIXED SPEED PERFORMANCE TABLES

To ISO 3046 (BS5514) with ambient temperature of 27 degrees C. 100 kPa barometric pressure and 60% relative humidity.

Continuous Ratings (Nett)

RPM	kWb (bhp)	Specific Fuel Consumption (g/kWh)
1500	718(962)	210
1800	718(962)	220

Standby Ratings (Nett) for Generating Set applications only.

RPM	kWb (bhp)	Specific Fuel Consumption (g/kWh)
1500	790(1059)	214
1800	790(1059)	220

N.B. Standby ratings are available for the provision of power during a mains failure or during the maintenance of electrical power supply equipment for a maximum of 1,000 hours per 12 months on a varying load. There is no overload available on these standby ratings.

RATINGS

For operating conditions different to those stated above and detailing please refer to the Dorman Product Information Folder or consult the Dorman Sales or Engineering Departments. For gross ratings and tolerances on power, fuel and lubricating oil consumption please refer to the Dorman Product Information Folder. Tested at ISO standard 27°C, the engine will maintain constant output (no deration) to at least 38°C.

For Generating Set applications only a 10% overload for 1 hour in every 12 hours is available on continuous rating only. Please consult with the Dorman Sales or Engineering Departments for overloads available and consequently the continuous ratings in other applications.

APPLICATIONS AND INSTALLATION

For a full specification please refer to the Dorman Product Information Folder and for guidance on the installation of this engine please refer to the Dorman Installation Manual.

British Quality Engineering

Perkins

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In line with the Dorman policy of continual development and improvement the information given here is only intended for the assistance of clients and is not binding upon the company which reserves the right to alter its specifications without notice.