

# DWS4

**Water-cooled  
Indirect Injection  
Diesel Engines**

**delta  
series**

## Technical Data Sheet



### Accessories

- Air cleaner - heavy duty
- Alternative speed and stop/run control devices
- Engine bearers
- Exhaust flanges or silencers
- Fan drive guards
- Flywheel end drives
- Gauges - supplied loose
- Gear end drives
- Hydraulic pump drives - gear end and/or flywheel end
- Lubricating oil cooler
- Pusher or puller cooling fan
- Start panels
- Radiators - mounted or loose
- Self-vent fuel systems

*Additional accessories available - Consult Lister-Petter*

### Product Support

- Recommended spares kits
- Special service tools
- Workshop Manual
- Parts manual

### Standard Equipment

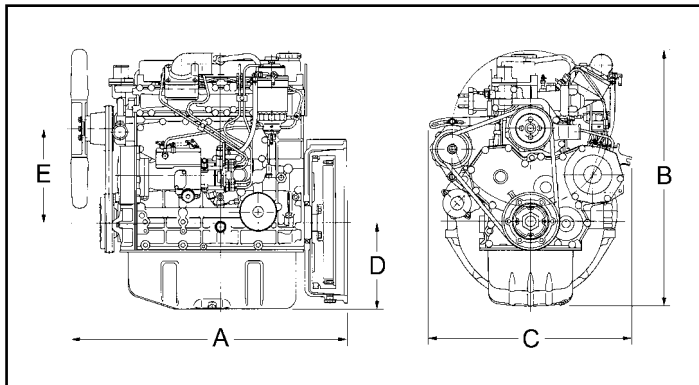
- Automotive style oil pan
- Combustion chamber glow plugs
- Flywheel with ring gear
- Fuel filter with water trap
- Fuel lift pump\*
- Governor - fixed or variable speed
- Grey paint finish
- High level oil filler
- Inlet & exhaust manifolds
- Integral 12 volt fuel control solenoid
- Lifting eyes
- Lubricating oil filter- spin on type
- Oil pressure switch
- Operator's handbook
- Raised dipstick on variable speed builds
- SAE 3 flywheel housing or backplate only
- Water Temperature control
- 12 volt starter motor
- 50 amp battery charging alternator

*\*Not Standard equipment on some builds*

General Data		DWS4
Bore:	mm	94.0
	inch	3.70
Stroke	mm	120.0
	inch	4.72
Cylinder Capacity:	liter	3.33
	in*	203.2
Lubricating Oil Capacity: (including filter)	liter	10.0
	U.S. quarts	10.6
Fuel Consumption @2500 r/min: (75% Load)	l/h	10.0
	U.S. gal/h	2.66
Specific Fuel Consumption: (full load @ max. torque speed - 5% tol.)	g/kW h	240
	lb/hp h	0.39
Angles of inclination: (any direction)	Permanent	15°
	Temporary	30°
Minimum Idling Speed:	r/min	700
Combustion Air Required @2000 r/min.	l/s	48.1
	ft <sup>3</sup> /min	102
Dry Weight (including flywheel)	kg	245
	lb	539

Electrical System		DWS4
Alternator Output:	amp	50
Starter Motor Power:	kW	2.2
Starter Motor Battery Cold Cranking Performance Rating: (BS3911-Part 2)	amp @ -8°C (18°F)	415
	amp @ -18°C (0°F)	735
Minimum Starting Temperature*: (without additional aids)	°C	-15°
	°F	5°

*\*Consult Lister-Petter Inc. concerning performance at lower temperatures.*



<b>Principal Dimensions</b>		
	mm	inch
<b>A</b>	781	30.7
<b>B</b>	712	28.0
<b>C</b>	638	25.1
<b>D</b>	240	9.5
<b>E</b>	262	10.3

<b>Power Output</b>			
Engine Speed r/min		Continuous Power	Intermittent Power
		BS5514/ISO3046/DIN6271	
<b>2500</b>	kW	46.3	48.5
	hp	62.1	65.0
<b>2000</b>	kW	39.0	40.3
	hp	52.3	54.0
<b>1800</b>	kW	35.7	36.9
	hp	47.9	49.5
<b>1500</b>	kW	30.2	31.6
	hp	40.5	42.4

<b>Torque - Variable Speed</b>		
Engine Speed r/min.		Intermittent Power
		BS5514/ISO3046/DIN6271
<b>2500</b>	Nm	185
	Ft Lbs	137
<b>2000</b>	Nm	192
	Ft Lbs	142
<b>1800</b>	Nm	196
	Ft Lbs	144
<b>1500</b>	Nm	201
	Ft Lbs	148

For further information, contact:

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**Engine Data**

**Construction:**

Thin-wall cast iron crankcase with ribbing and spherical struts for strength, durability and quiet operation. Automotive style oil pan allows for easier compatibility in OEM equipment. Internal crankcase breather for reduced emissions. Large bearing surfaces for low bearing loads and long life. Backplate or SAE flywheel housings for close coupling.

**Rotation:**

Counter-clockwise, looking at the flywheel end.

**Cooling:**

Water circulation pump with thermostat is driven by a vee belt. Cooling package designed for ambients up to 52°C (125°F). Pusher or puller cooling fan.

**Lubrication:**

Designed to run at high angles of inclination and includes a full flow spin-on cartridge filter. Lubricating oil pump is a gear-driven, positive displacement design. Oil service interval is 250 hours.

**Fuel & Combustion Systems:**

Indirect injection combustion system for low noise and emissions. Cylinder head is a cross-flow, with advanced design to increase efficiency of combustion. Rotary type fuel injection pump increases reliability and lowers service costs. Integrated fuel control solenoid eliminates external linkage.

**Starting:**

Standard equipment includes a 12 volt starter motor and combustion chamber glow plugs to ensure quick starting.

**Governing:**

Mechanical governing is provided for either variable or constant speeds depending on application. Generator set governing is available for 1500 & 1800 r/min.

**Drives:**

Full power is available at the flywheel end for axial or radial drives. Limited power hydraulic drives are available for mounting at the gear end.

**Mounting:**

Hold-down feet are available to suite various applications.



The information in this data sheet is of a general nature and does not form part of any contract or warranty. We have made efforts to ensure that the information is accurate but reserve the right to amend specification and information without notice or any obligation or liability. The set illustrated is not necessarily the standard build.

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