LT1
LV1

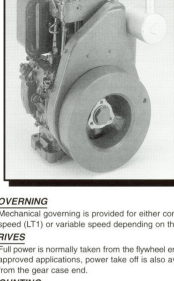
Air-cooled direct injection diesel engines.

Specifications & Technical Data

Lseries

LISTER PETTER

The right diesel for the job.



CONSTRUCTION
- Cast iron crankcase for durability.
- Large bearing surfaces for low bearing loads and long life.

ROTATION
- LT1 clockwise or counter-clockwise, looking at the flywheel end according to build.
- LV1 counter-clockwise looking at the flywheel end on all builds except build 09.

COOLING
- Air cooling by means of a highly efficient flywheel mounted fan.
- Designed for continuous operation in ambients up to 52°C (125°F).

LUBRICATION
- Self regulating plunger type pump supplies oil under pressure to all important bearing surfaces.
- Oil service interval is 250 hours.

FUEL & COMBUSTION SYSTEMS
- Direct injection combustion system for easy starting and low fuel consumption.
- Self vent fuel system (LV1).

STARTING
- LT1 - hand starting is available on the camshaft extension or from geared arrangement on the flywheel dependant on the build.
- LV1 - hand starting is available on the camshaft extension.
- Starting handles are available in both limited or non limited kickback versions.
- 12V electric starting is optional on counter clockwise rotation builds.

GOVERNING
- Mechanical governing is provided for either constant speed (LT1) or variable speed depending on the build.

DRIVES
- Full power is normally taken from the flywheel end. For approved applications, power take off is also available from the gear case end.

MOUNTING
- Hold-down feet are integral with the sump for base mounting.

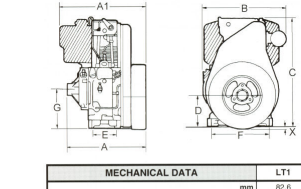
POWER OUTPUT - kW (hp)

Engine Speed r/min		Continuous Power		Intermittent Power	
		BS5514 / ISO3046 / DIN6271			
		LT1	LV1	LT1	LV1
3000	kW	5.6	6.7	6.2	7.4
	hp	7.5	9.0	8.3	9.9
2500	kW	5.0	5.8	5.5	6.4
	hp	6.7	7.8	7.4	8.6
2000	kW	4.0	4.8	4.4	5.3
	hp	5.4	6.4	5.9	7.0
1800	kW	3.6	4.3	3.9	4.7
	hp	4.8	5.8	5.3	6.3
1500	kW	3.0	3.5	3.3	3.9
	hp	4.0	4.8	4.4	5.2
1000	kW	1.9	2.2	2.1	2.4
	hp	2.5	2.9	2.8	3.2

TORQUE - Nm (lbf ft)

Engine Speed r/min		Intermittent Power	
		BS5514/ISO3046/DIN6271	
		LT1	LV1
3000	Nm	19.5	23.5
	lbf ft	14.4	17.3
2500	Nm	20.9	24.4
	lbf ft	15.4	18.0
2000	Nm	21.0	25.0
	lbf ft	15.5	18.5
1800	Nm	21.0	25.0
	lbf ft	15.5	18.5
1500	Nm	20.9	24.8
	lbf ft	15.4	18.3
1000	Nm	19.6	22.7
	lbf ft	14.5	16.8

Rating: BS5514/ISO3046/DIN6271. *Note that output ratings apply only to fully run-in engines without power absorbing accessories.*
Derating: BS5514/ISO3046/DIN6271 Altitude - Approx. 4% for every 300m (1,000 ft.) higher than 100m (330 ft.) above sea level. Temperature - Approx. 2.0% for every 5°C (10°F) above 25°C (77°F)



PRINCIPAL DIMENSIONS								
	Sheet metal fan shroud				Cast aluminium fan shroud			
	LT1		LV1		LT1		LV1	
	mm	inch	mm	inch	mm	inch	mm	inch
A	354	13.9	398	14.0	359	14.1	359	14.1
A1	404	15.9	398	15.6	403	15.8	403	15.8
B	371	14.6	394	15.5	424	16.7	424	16.7
C	353	19.8	398	19.8	503	19.8	503	19.8
D	140	5.5	140	5.5	140	5.5	140	5.5
E	112	4.4	112	4.4	112	4.4	112	4.4
F	260	10.2	260	10.2	260	10.2	260	10.2
G	175	6.9	175	6.9	175	6.9	175	6.9
X	10	0.4	16	0.6	35	1.4	35	1.4

*Dimensions are for guidance only, and should **not** be used for installation.*

MECHANICAL DATA		LT1	LV1
Bore:	mm	82.6	85.7
	inch	3.25	3.37
Stroke:	mm	76.2	82.6
	inch	3.00	3.25
Cylinder Capacity:	litre	0.408	0.477
	in³	24.9	29.1
Lubricating Oil Capacity:	litre	1.3	1.3
	pint	2.3	2.3
Fuel Consumption @ 3000 r/min: (75% Load)	l/h	1.6	1.8
	pt/h	2.7	3.1
Specific Fuel Consumption: (full load @ max. torque speed - 5% tol.)	g/kW h	268	259
	lb/hp h	0.44	0.43
Angles of Inclination: (permanent)	Flywheel end up	15°	15°
	Flywheel end down	10°	10°
	Manifold side up / down	10°	10°
Minimum Idling Speed:	r/min	900	900
Combustion Air Required @ 2000 r/min:	l/s	6.0	6.9
	ft³/min	12.7	14.7
Dry Weight: (including flywheel)	kg	83	83
	lb	183	183

ELECTRICAL SYSTEM		LT1	LV1
Starter Motor Power:	kW	1.2	1.2
Starter Motor Battery Cold Cranking Performance Rating: (BS3911-Part 2)	amp @ -6°C (18°F)	110	120
Minimum Starting Temperature*: (without additional aids)	°C	-10°	-10°
	°F	14°	14°

*Consult Lister-Petter concerning performance at lower temperatures.

STANDARD EQUIPMENT

- Inlet & exhaust manifold.
- Decompresser lever.
- Sheet metal or cast SAE5 fanshroud depending on build.
- Lifting eye (LV1).
- Governor - fixed (LT1) or variable speed.
- Green paint finish.
- Operator's handbook.
- Self-vent fuel system (LV1).

ACCESSORIES

- Air cleaner - medium duty.
- Alternative speed and stop/run control devices.
- Starting handle - in both limited kickback or non limited kickback versions.
- 12 volt starter motor.
- Exhaust silencers.
- Exhaust and manifold lagging.
- Flywheel and shaft extensions, couplings and pulleys.
- Flywheel end adaptors.
- Gear end shaft extensions.
- Hydraulic pump drives - gear end (LV1) or flywheel end.
- Fuel tanks.
- Fuel filters.
- Alternative paint finishes.
- Tool kit.
- Additional accessories available - Consult Lister-Petter.

PRODUCT SUPPORT

- Recommended spares kits.
- Special service tools.
- Workshop manual.

For Further Information Contact:

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