

LT1 / LV1



**Air-cooled
Direct Injection
Diesel Engines**

Technical Data Sheet



Accessories

- Air cleaner - medium duty
- Alternative speed and stop/run control devices
- Engine protection switches & solenoids
- Exhaust silencers
- Exhaust and manifold lagging
- Flywheel end adaptors
- Flywheel end shaft extensions, couplings and pulleys
- Fuel filters
- Alternative paint finishes
- Fuel tanks
- Gear end reduction gearboxes
- Gear end shaft extensions
- Hydraulic pump drives - gear end (LV1) or flywheel end
- Starting handle - in both limited kickback or non limited kickback versions
- 12 volt starter motor
- Tool kit

Additional accessories available - Consult Lister-Petter

Product Support

- Recommended spares kits
- Special service tools
- Workshop Manual

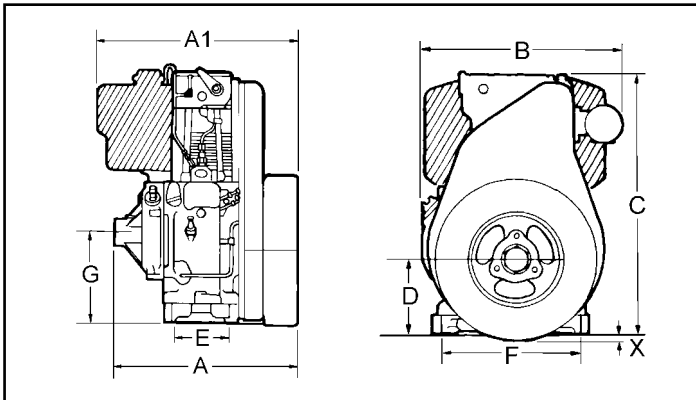
Standard Equipment

- Inlet & exhaust manifold
- Decompressor 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)

| General 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: | liter | 0.408 | 0.477 |
| | in ³ | 24.9 | 29.1 |
| Lubricating Oil Capacity: (including filter) | liter | 1.3 | 1.3 |
| | pint | 2.3 | 2.3 |
| Fuel Consumption @2500 r/min: (75% Load) | l/h | 1.3 | 1.4 |
| | pt/h | 2.3 | 2.5 |
| 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 (Temporary) | 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 |
| | ft ³ /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 @ -8°C 18°F | 110 | 120 |
| Minimum Starting Temperature*: (without additional aids) | °C | -8° | -8° |
| | °F | 18° | 18° |

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



| Principal Dimensions | | | | | | | | |
|----------------------|------------------------|------|-----|------|--------------------------|------|-----|------|
| | SHEET METAL FAN SHROUD | | | | CAST ALUMINUM FAN SHROUD | | | |
| | LT1 | | LV1 | | LT1 | | LV1 | |
| | mm | inch | mm | inch | mm | inch | mm | inch |
| A | 354 | 13.9 | 358 | 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 | 503 | 19.8 | 503 | 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 |

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

Engine Data

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.

For further information, contact:

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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