

AC1 / AD1



**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 and gear end adaptors
- Flywheel end shaft extensions
- Fuel filters
- Fuel tanks
- Gear end reduction gearboxes
- Gear end shaft extensions
- Hydraulic pump drives - gear end or flywheel end
- Rope Start on 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

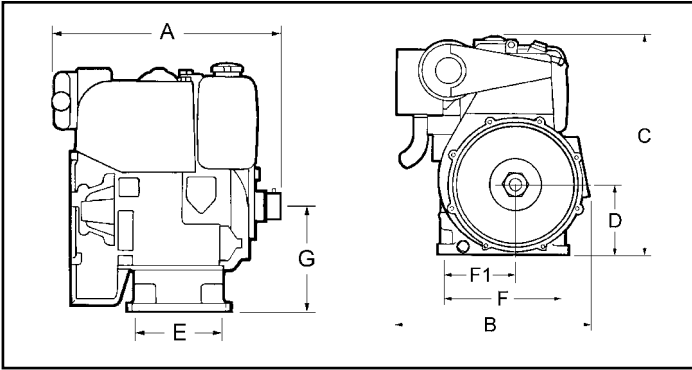
- Decompressor lever
- Governor - fixed or variable speed
- Grey paint finish
- Inlet & exhaust manifold
- Lifting eye
- Lubricating oil filter
- Operator's handbook
- SAE6 bellhousing

General Data		AC1	AD1
Bore:	mm	76.2	80.0
	inch	3.00	3.15
Stroke	mm	66.7	73.0
	inch	2.62	2.87
Cylinder Capacity:	liter	0.304	0.367
	in ³	18.6	22.4
Lubricating Oil Capacity: (including filter)	liter	2.7	2.7
	pint	4.8	4.8
Fuel Consumption @2500 r/min: (75% Load)	l/h	0.9	1.0
	pt/h	1.6	1.8
Specific Fuel Consumption: (full load @ max. torque speed - 5% tol.)	g/kW h	268	265
	lb/hp h	0.44	0.43
Angles of inclination: Permanent (Temporary)	Flywheel end up	35° (40°)	40° (40°)
	Flywheel end down	40° (40°)	45° (45°)
	Manifold side up	40° (40°)	45° (45°)
	Manifold side down	40° (45°)	30° (32°)
Minimum Idling Speed:	r/min	1000	1000
Combustion Air Required @2100 r/min.	l/s	5.7	6.4
	ft ³ /min.	12.1	13.6
Dry Weight (including flywheel)	kg	47	53
	lb	103	117

Electrical System		AC1	AD1
Alternator Output:	amp	14	14
Starter Motor Power:	kW	0.9	0.9
Starter Motor Battery Cold Cranking Performance Rating: (BS3911-Part 2)	amp @ -8°C (18°F)	115	125
	amp @ -18°C (0°F)	190	200
Minimum Starting Temperature*: (without additional aids)	°C	-15°	-15°
	°F	-5°	5°

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

AC1 / AD1



Principal Dimensions

	AC1		AD1		Q Build			
					AC1		AD1	
	mm	inch	mm	inch	mm	inch	mm	inch
A	456	17.9	456	17.9	435	17.1	435	17.1
B	412	16.2	412	16.2	442	17.4	442	17.4
C	458	17.9	509	20	529	20.8	576	22.7
D	149	5.9	149	5.9	149	5.9	149	5.9
E	148	5.9	148	5.9	148	5.9	148	5.9
F	250	9.8	250	9.8	250	9.8	250	9.8
F1	148	5.8	148	5.8	148	5.8	148	5.8
G	194	7.6	194	7.6	194	7.6	194	7.6

Power Output

Engine Speed r/min		Continuous Power		Intermittent Power	
		BS5514/ISO3046/DIN6271			
		AC1	AD1	AC1	AD1
3600	kW	4.8		5.3	
	hp	6.5		7.1	
3000	kW	4.5	5.3	4.9	5.8
	hp	6.0	7.1	6.6	7.8
2500	kW	3.7	4.3	4.1	4.8
	hp	5.0	5.8	5.5	6.4
2100	kW	3.0	3.5	3.3	3.9
	hp	4.0	4.7	4.4	5.2
1800	kW	2.4	3.0	2.7	3.3
	hp	3.3	4.0	3.6	4.4
1500	kW	2.1	2.5	2.3	2.8
	hp	2.8	3.4	3.1	3.7

Torque - Variable Speed

Engine Speed r/min		Intermittent Power	
		BS5514/ISO3046/DIN6271	
		AC1	AD1
3600	Nm	14.1	
	Ft Lbs	10.4	
3000	Nm	15.7	18.6
	Ft Lbs	11.6	13.7
2500	Nm	15.7	18.1
	Ft Lbs	11.6	13.4
2100	Nm	14.9	17.5
	Ft Lbs	11.0	12.9
1800	Nm	14.4	17.5
	Ft Lbs	10.6	12.9
1500	Nm	14.6	17.5
	Ft Lbs	10.8	12.9

For further information, contact:

Engine Data

Construction:

Light weight aluminium alloy crankcase. Large bearing surfaces for low bearing loads and long life.

Rotation:

AC1 clockwise or counter-clockwise, looking at the flywheel end according to build.
AD1 clockwise looking at the flywheel end.

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:

The gear driven oil pump supplies oil at constant pressure to all important bearing surfaces. A replaceable cartridge type oil filter is standard. Oil service interval is 250 hours.

Fuel & Combustion Systems:

Direct injection combustion system for easy starting and low fuel consumption.

Starting:

Rope start at flywheel end is available. Hand starting is available on the camshaft extension at the gear end or from geared arrangement on the flywheel. Starting handles are available in both limited or non-limited kickback versions. 12V electric starting is optional.

Governing:

Mechanical governing is provided for either constant speed or variable speed depending on the build. Generator set governing is available for 1500, 1800, 3000 & 3600 (AC1 only) r/min.

Drives:

Full power is available at both the flywheel and the gear end. A range of shafts, reduction gearboxes and hydraulic adaptations are available.

Mounting:

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

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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