

LEADING PARTICULARS ROVER AIRBORNE AUXILIARY POWER PLANT MK. 10201

Description	Turbine engine providing drive and cooling air for a d.c. generator and drive for a hydraulic pump through a gearbox. The whole is contained in a fireproof box.
Engine performance (Maximum load)	
Electrical... ..	9kW 24V d.c.
Hydraulic	5.5 ⁺ 0.25 gal/min at 2450 lbf/in ²
Compressor	Single stage centrifugal
Air mass flow	1.45 lb/sec at I.S.A.S.L. conditions
Pressure ratio... ..	3.15 at I.S.A.S.L. conditions
Combustion chamber	Single can, reverse flow. Simplex type burner with air assistance.
Turbine	Single stage axial flow
Reduction gearbox	Countershaft type
Ratios	
Drive pinion	3.181:1
Blower unit	3.181:1
Generator	10.342:1
Hydraulic pump... ..	15.380:1
Rotation	
Main rotor... ..	Anti-clockwise viewed from turbine end
Generator	Anti-clockwise viewed from driven end
Hydraulic pump... ..	Clockwise viewed from driven end
Fuel system	
Fuel pump	Rover Mk.V111
Speed relative to engine	10.28:1
Burner... ..	Lucas S.S.C. 5/3C
Temperature control	Rover Part No. 423935
Air pump	Lucas MAP 100
Fuel	Refer to Operating Limitations
Oil system	
Type	Wet sump, pressure and splash
Oil	Refer to Operating Limitations
Sump capacity	4½ pints
Total engine capacity	6 pints approx.
Oil consumption	0.1 pt/hr
Starting system	Through generator in conjunction with aircraft batteries
Igniter plug	KLK RH 231/6
Generator	
Speed	4500 rev/min
Type	Rotax B3503/L
Hydraulic pump	
Speed	3034 rev/min
Type	Integral, type 180 Mk. 68

Power plant overall dimensions Length 49.4 in.
 Width 27.9 in.
 Height 29.3 in.

Weight ◀ 325 lb. $\pm 2\frac{1}{2}\%$ ▶

Centre of gravity $0.3 \pm \frac{1}{4}$ in. toward turbine end from
 mounting lugs
 $1.3 \pm \frac{1}{4}$ in. below engine centre line
 $1.4 \pm \frac{1}{4}$ in. to left of engine centre line
 (viewed from turbine end).

Miscellaneous

Actuator for burner Rotax C5536/1
 Oil cooler Morris Radiators/Rover
 Rover Part No. 421830
 Oil pressure switch Smith's Aircraft Instruments, 1001/2PG
 Exhaust thermocouples Smith's Aircraft Instruments. F1223.
 F1225, F1226 & F1227
 Hours counter Smith's Aircraft Instruments. ATFC
 268/2/R
 Starts counter Counting instruments (Ref. 52/4/B29)
 Fire detector element Graviner D2370/120 (Ref. 5CZ/5837)
 Detector head Graviner D900 (Ref. 5CZ/5222)