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II Twin Pioneer Series 3 (Transport Category), Approved August 2, 1961

Engines	2 Alvis Leonides 531/8B				
Fuel	100/130 Minimum grade aviation gasoline				
Engine limits			<u>MP</u>		
		<u>HP</u>	<u>RPM</u>	<u>IN.HG.</u>	<u>ALT.</u>
	Takeoff (5 min.)	600/625	3200	46.0	S.L.
	Maximum continuous	570	3000	43.0	S.L.
	Maximum continuous	560/585	3000	43.0	2750 ft.
Propeller and propeller limits	2 De Havilland three-bladed, constant speed, feathering; Type PD.237/323/1 Diameter: 11 ft. Pitch settings at 42 in.sta.: Fine +23°, feathered +93°.				

Airspeed limits (I.A.S.)	Vne (Never exceed)	187 m.p.h. (162 knots)																																	
	Vno (Normal operating)	168 m.p.h. (146 knots)																																	
	Va (Maneuvering)	132 m.p.h. (115 knots)																																	
	Vfe (Flaps extended)	115 m.p.h. (100 knots)																																	
	Vlle (Landing light extended)	150 m.p.h. (130 knots)																																	
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	Vmc (Minimum control)	78 m.p.h. (68 knots)																																	
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Data Pertinent to All Models

Datum	180 in. aft of fuselage nose
Standard mean chord	105.1 in. (Leading edge is 12.8 in. fwd. of C.G. datum)
Leveling means	2 external pegs on right side of fuselage on frame stations 200 and 219.
Minimum crew	1
Maximum passengers	19

Other operating limitations	Aircraft shall be operated in compliance with the operating limitations specified in the appropriate A.R.B. Approved Airplane Flight Manual
Serial Nos. eligible	The United Kingdom Certificate for Airworthiness for Export endorsed as noted under "Certification basis" must be submitted for each individual aircraft for which application for certification is made.
Certification basis	<p>CAR 10. Type Certificate No. 7A7 issued November 11, 1959. Date of Application for Type Certificate October 26, 1955.</p> <p>Each aircraft and any replacement parts manufactured in the United Kingdom must be designated as "import" and clearly labeled as such in accordance with CAR 10.30.</p> <p>The U.S. Airworthiness Certificate may be issued on the basis of a United Kingdom Certificate of Airworthiness for Export signed by a representative of the Ministry of Aviation containing the following notation: "The aeroplane covered by this certificate has been examined and found to comply with British Airworthiness Requirements (1951) and the Special Requirements for Twin Pioneer Series 2 and Series 3 notified by the U.S.A. Government to the Government of the United Kingdom and conforms to T.C. 7A7." (This certification equivalent to CAR 4b amended to December 31, 1953, plus amendments 4b-1, 4b-2 and 4b-4.)</p>
Equipment	<p>The basic required equipment as prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the aircraft for certification. Approved equipment is shown in Scottish Aviation Equipment List No. TP/2/1 for Series 2 aircraft and in Equipment List No. TP/3/1 for Series 3 aircraft. In addition, the following items of equipment are required:</p> <p>(a) Engine Power Failure Warning System.</p>

- NOTE 1. (a) Current weight and balance report, including list of equipment included in certificated empty weight, and loading instructions when necessary, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of operators having an approved weight control system).
- (b) "Unusable Fuel and System Oil" and all hydraulic fluid must be included in the certificated empty weight. Unusable fuel is that quantity of fuel in the system and in the tanks which is unavailable to the engine under critical flight conditions as defined in CAR 4b.416. This unusable fuel includes "system fuel" which is defined as the quantity required to fill the system and tanks to the tank outlet level when the airplane is in the ground level attitude. The fuel gauges are calibrated with the unusable fuel level as the zero datum. The total amount of fuel is as follows:

<u>Series 2</u>	<u>Usable fuel</u> @ 6.0 lb./U.S. gal. 290 U.S. gal.	<u>Unusable fuel</u> @ 6.0 lb./U.S. gal. 6 U.S. gal.
<u>Series 3</u>	<u>Usable fuel</u> @ 6.0 lb./U.S. gal. 434 U.S. gal.	<u>Unusable fuel</u> @ 6.0 lb./U.S. gal. 10 U.S. gal.

System Oil is that amount of oil required to fill the oil system and tanks to the tank outlets to the engines. The propeller feathering oil is not considered usable oil and is included in "System Oil". System oil weight is 36 lb. The oil tank capacities shown in this data sheet include only the usable oil for which the tanks are placarded. Dipstick readings indicate the amount of usable oil.

NOTE 2. The following is a list of aircraft parts which are critical from the fatigue standpoint and must be replaced at the time specified:

<u>Component</u>	<u>Time</u>
All main bolts and bushes of main lift strut and U/C system	2,400 hr.
Wing V-brace structure Undercarriage V-brace.	3,250 hr.
Outer wing and lift strut	6,500 hr.
Fuselage undercarriage frames	10,000 hr.
Tailplane attachments, frames and fittings	7,000 flights
Relief valve, Part No. 71795,000 flights	
Hydraulic accumulator, slat jack assembly, flap jack assembly	10,000 flights
Hydraulic cut-out valve	12,500 flights

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