

Airspeed limits	Vmo (Maximum operating)	237 kts. at 10,000 ft. at No Fuel Weight of 46,000 lbs. (1)
(Calibrated air speed)	Vne (Never exceed)	269 kts. at 10,000 ft. (2)
	Va (Maneuvering)	174 kts. at 10,000 ft. (2)
	Vfe (Flaps down 0° to 20°)	208 kts.
	Vfe (Flaps down 20° to Fully Down)	144 kts.
	Vlo (Landing Gear Operation)	162 kts.
	Vle (Landing Gear Extension)	190 kts.
	Vll (Landing Light Extension)	162 kts.
	(1) For values of Vmo at other altitudes and No Fuel Weights, see Approved Airplane Flight Manual.	
	(2) For values of Vne at other altitudes, see Approved Flight Manual.	

C.G. range

	With Standard Fuel Arrangement				
	Weight (lbs.)	Forward		Aft	
		% SMC	Sta.	% SMC	Sta.
Takeoff and landing	Up to 42,000	.05	(369.1)	.26	(394.9)
Takeoff and landing	42,000 - 60,000	.05 to .135	(369.1 to 379.5)	.26	(394.9)
Takeoff and landing	60,000 - 62,000	.135 to .141	(379.5 to 380.3)	.26	(394.9)
Takeoff and landing	62,000 - 63,000	.141 to .144	(380.3 to 380.7)	.26	(394.9)
Takeoff and landing	63,000 - 64,500	.144 to .148	(380.7 to 381.2)	.26	(394.9)
Enroute	Up to 42,000	.04	(367.8)	.26	(394.9)
Enroute	42,000 - 51,000	.04 to .09	(367.8 to 374.0)	.26	(394.9)
Enroute	51,000 - 64,500	.09	(374.0)	.26	(394.9)

	When Fuselage Center Fuel Tank is in Use				
	Weight (lbs.)	Forward		Aft	
		% SMC	Sta.	% SMC	Sta.
Takeoff and landing	Up to 42,000	.05	(369.1)	.26	(394.9)
Takeoff and landing	42,000 - 51,000	.05 to .10	(369.1 to 375.25)	.26	(394.9)
Takeoff	51,000 - 64,500	.10	(375.25)	.26	(394.9)
Landing	51,000 - 57,500	.10 to .126	(375.25 to 378.4)	.26	(394.9)
Enroute	Up to 42,000	.04	(367.8)	.26	(394.9)
Enroute	42,000 - 51,000	.04 to .09	(367.8 to 374.0)	.26	(394.9)
Enroute	51,000 - 64,500	.09	(374.0)	.26	(394.9)

Maximum weights

Landing: Normal Landing	Type 744:	55,000 lbs.;
	Type 745D:	57,500 lbs.
Takeoff:	Type 744:	60,700 lbs.;
	Type 745D:	60,285 lbs.

NOTE: When the fuel jettisoning system, Vickers Armstrongs Modification No. D.1720 is installed and operable, the maximum takeoff weight is 63,000 lbs. This modification applies only to aircraft Type 745D. When in addition to Modification D.1720, the Modification Nos. D2257, D.2273, either D.1237 or D.2481, and Landing Gear Equipments 201(a) with 201(b) and either 202(c) or 202(f), OR 201(e) with 201(f) and 202(d) are incorporated, the maximum takeoff weight is 64,500 lbs. These modifications apply only to aircraft Type 745D.

Zero fuel gross weight: Type 744 - 49,168 lbs.; Type 745D - 50,168 lbs.
 Type 745D - 51,680 lbs. with BAC Mod. D.3194 incorp.
 3-engine ferrying (See NOTE 4)

Minimum crew	2 Pilot and co-pilot (91)		
No. of seats	48 (Passengers). This number may be increased provided the arrangement is approved by either the Air Registration Board or the Federal Aviation Agency. 2 (Stewards) 1 (Supernumerary flight crew)		
Maximum baggage	<u>Type 744</u>		
	Forward upper compartment	600 lbs. (142)	
	Forward lower compartment	2060 lbs. (206)	
	Aft upper compartment	2300 lbs. (740)	
	Aft lower compartment	1740 lbs. (294)	
	Aft lower compartment	1740 lbs. (294)	
	<u>Type 745D</u>		
	Forward upper compartment	880 lbs. (156)	
	Forward lower compartment (with Radio Mod. No. D.1236)	1800 lbs. (203)	
	Forward lower compartment (without Radio Mod. D.1236)	1900 lbs. (204)	
	Aft upper compartment (with Freon & lugg. guard)	930 lbs. (750)	
	Aft upper compartment (with Freon & lugg. guard at ZFW above 50,168 lbs.)	0 lbs. (750)	
	Aft upper compartment (without Freon refrig. system)	2300 lbs. (740)	
	Aft upper compartment (without Freon at ZFW above 50,168 lbs.)	1050 lbs. (740)	
	Aft lower compartment (with Radio Mod. No. D.1236)	1680 lbs. (296)	
Aft lower compartment (without Radio Mod. No. D.1236)	1700 lbs. (295)		
Fuel capacity	Fuel contained in four wing tanks: <u>Types 744. 745D Serial No. 242 only</u>		
	2 inner wing tanks of 603.5 U.S. gals. each (usable)	8048 lbs. (396)	
	2 outer wing tanks of 564 U.S. gals. each (usable)	7520 lbs. (417)	
	Total wing fuel capacity of 2335 U.S. gals. plus 20.4 U.S. gals. of unusable fuel.		
	<u>Type 745D</u>		
	2 inner wing tanks of 578 U.S. gals. each (usable)	7712 lbs. (397)	
	2 outer wing tanks of 564 U.S. gals. each (usable)	7520 lbs. (417)	
	Total wing fuel capacity of 2284 U.S. gals. plus 25.2 U.S. gals. of unusable fuel.		
	When Vickers-Armstrongs Modifications D.1312 and D.1974 have been incorporated the following fuel capacity is available in one fuselage tank.		
	1 fwd. fuselage (center) tank cell of 351 U.S. gals.	2336 lbs.	
1 aft. fuselage (center) tank cell of 201 U.S. gals.	1336 lbs.		
Total fuselage fuel capacity of 552 U.S. gals. with no unusable fuel.	3672 lbs. (268)		

	When Vickers Armstrongs Modifications D.639, D.1692, D.1819 have been incorporated the following fuel capacity is available in two wing slipper tanks: 2 wing slipper tanks of 171.5 U.S. gals. each (usable) plus 2.5 U.S. gals. (unusable) in each tank.	(390)																														
	When Vickers Armstrongs Modifications D.2760 and D.2924 have been incorporated, the following fuel capacity is available in two wing slipper tanks of 305.4 U.S. gals. each (usable) plus 0.6 U.S. gals. (unusable) in each tank.	2036 lbs. (382)																														
Water/Methanol	Types 744, 745D Serial No. 242 only; 90 U.S. gals. (2 wing tanks 45 gals. each) Type 745D: 132 U.S. gals. (2 wing tanks 66 gals. each)	750 lbs. (388) 1034 lbs. (388)																														
Oil capacity	4.8 U.S. gals. per engine contained in the engine	38.5 lbs. (263)																														
Control surface movements	<table border="0"> <tr> <td>Elevator</td> <td>Up 20°</td> <td>Down 10°</td> </tr> <tr> <td>Elevator trim tab (Right)</td> <td>Up 12°</td> <td>Down 12°</td> </tr> <tr> <td>*Elevator Anti-Balance Tab (Left)</td> <td>Up 15°</td> <td>Down 7° 30'</td> </tr> <tr> <td>Elevator Spring Tab</td> <td>Up 10°</td> <td>Down 20°</td> </tr> <tr> <td>Rudder</td> <td>Right 15°</td> <td>Left 15°</td> </tr> <tr> <td>Rudder Trim & Spring Tab</td> <td>Right 10°</td> <td>Left 10°</td> </tr> <tr> <td>Aileron</td> <td>Up 20°</td> <td>Down 20°</td> </tr> <tr> <td>Aileron Trim Tab (Right)</td> <td>Up 20°</td> <td>Down 20°</td> </tr> <tr> <td>Aileron Balance Tab (Left)</td> <td>Up 20°</td> <td>Down 20°</td> </tr> <tr> <td>Flaps</td> <td>Down 47°</td> <td></td> </tr> </table>	Elevator	Up 20°	Down 10°	Elevator trim tab (Right)	Up 12°	Down 12°	*Elevator Anti-Balance Tab (Left)	Up 15°	Down 7° 30'	Elevator Spring Tab	Up 10°	Down 20°	Rudder	Right 15°	Left 15°	Rudder Trim & Spring Tab	Right 10°	Left 10°	Aileron	Up 20°	Down 20°	Aileron Trim Tab (Right)	Up 20°	Down 20°	Aileron Balance Tab (Left)	Up 20°	Down 20°	Flaps	Down 47°		
Elevator	Up 20°	Down 10°																														
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Elevator Spring Tab	Up 10°	Down 20°																														
Rudder	Right 15°	Left 15°																														
Rudder Trim & Spring Tab	Right 10°	Left 10°																														
Aileron	Up 20°	Down 20°																														
Aileron Trim Tab (Right)	Up 20°	Down 20°																														
Aileron Balance Tab (Left)	Up 20°	Down 20°																														
Flaps	Down 47°																															
	*When V.A. Modification D.2021 is incorporated the Anti-Balance Tab is offset 3° Down at elevator neutral and the tab movement is measured from this position.																															
Serial Nos. eligible	Type 744 - 40, 41, 42, 50 to 60 inclusive. Type 745D - 82, 103 to 139 inclusive, 183, 184, 185, 191, 198 to 217 inclusive, 225 to 234 inclusive, 242, 284 to 288 inclusive, 334, 391 and 392. The United Kingdom certificate of airworthiness endorsed as noted under "Certification basis" must be submitted for each individual aircraft for which application for certification is made.																															
Certification basis	Type Certificate No. 814 issued under CAR 10. 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. Airworthiness certificate may be issued on basis of a United Kingdom certificate of airworthiness signed by a representative of the Ministry of Transport and Civil Aviation containing the following notation: "The aeroplane covered by this certificate has been examined and found to comply with British Civil Airworthiness Requirements published January 1951 and with the Special Requirements notified to the Government of the United Kingdom by the Government of the U.S.A." (This certification equivalent to CAR 4b (Transport Category) as amended to May 18, 1954)																															
Required equipment	In addition to the relevant basic equipment required by B.C.A.R. dated January 1951, and U.S. Special Requirements, the following items of equipment must be installed: <u>Type 744</u> - 1(e), 2(a), 3(a), 4(a), 102(a), 104(g), 105, 106(a), 109(c), 201(a), (b); 202(e), 203(d), 204(c), 301(a), 302(a), 303(e), 401(a), 402(a), 404, 405(b), 406, 501(a), (b); 502, 503, 504, 505. <u>Type 745D</u> - 1(c), 2(a), 3(b), 4(a), 102(a), 104(a), 105, 106(a), 109(a), 201(a), (b); 202(a), 203(a), 204(a), 301(a), 302(a), 303(a), 401(c), 402(a), (b); 404, 405(a), 406, 501(a), (b); 502, 503, 504, 505.																															

II - Model Vickers Viscount Type 810, Approved April 22, 1958

Type 810 is similar to Type 745D but with: Fuselage lengthened 46 inches, rear pressure bulkhead moved aft 65 inches, rectangular doors and additional door, starboard side aft, introduction of structural changes to cater for increased A.U.W.

Engines 4 Rolls-Royce Dart 525 or 525F Turbo propellers

Fuel Aviation Kerosene to Specification D.Eng.R.D.2482; and/or American Specification MIL-F-5616 (JP-1); and/or Canadian Specification 3-GP-23(a);
OR
 D.Eng.R.D.2486; and/or American Specification MIL-F-5624 B or C (JP-4) and/or Canadian Specification 3-GP-22B;
OR
 D.Eng.RF.D. 2494.

Water-Methanol mixture parts by weight Water $62 \pm 2\%$, Meth. $38 \pm 2\%$ to Rolls-Royce Specification AEP-1-W/M Issue 4. Specific Gravity mixture .938 - .945 at 60°F/60°F.

Engine limits

Static Sea Level Ratings			
Ratings	Shaft	Jet	Engine
	Horsepower (S.H.P.)	Thrust (lbs.)	Speed (r.p.m.)
Maximum takeoff	1750	480	15,000
Maximum continuous (unrestricted)	1585	420	14,500
Ground idling (unrestricted)	--	--	6500 - 7500

Airspeed limits
(Calibrated air speed)

V_{mo} (Maximum operating) 267 kts. at 10,000 ft. (1)
 V_{ne} (Never exceed) 296 kts. at 10,000 ft. (2)
 V_a (Maneuvering) 185 kts. at 69,000 ft. (3)
 V_{fe} (Flaps down 0° to 20°) 200 kts.
 V_{fe} (Flaps down 20° to Fully Down) 152 kts.
 V_{lo} (Landing Gear Operation) 170 kts.
 V_{le} (Landing Gear Extension) 190 kts.
 V_{ll} (Landing Light Extension) 165 kts.

(1) For values of V_{mo} at other altitudes, see Approved Airplane Flight Manual.

(2) For values of V_{ne} at other altitudes, see Approved Airplane Flight Manual.

(3) For values of V_a at other weights, see Approved Airplane Flight Manual.

C.G. range

	Weight (lbs.)	Forward		Aft	
		% SMC	Sta.	% SMC	Sta.
Takeoff and landing	Up to 50,000	.01	(410.2)	.26	(440.9)
Takeoff and landing	50,000 - 69,000	.01 to .082	(410.2 to 419.0)	.26	(440.9)
Takeoff and landing	69,000 - 72,500	.082 to .091	(419.0 to 420.2)	.26	(440.9)
Enroute	Up to 57,000	.00	(408.9)	.27	(442.2)
Enroute	57,000 - 69,000	.00 to .05	(408.9 to 415.1)	.27	(442.2)
Enroute	69,000 - 72,500	.05 to .061	(415.1 to 416.5)	.27	(442.2)

Maximum weights	Landing: Normal Landing	62,000 lbs.	
	Takeoff:	69,000 lbs.	
	Zero Fuel Gross Weight	55,500 lbs.	
NOTE: When Vickers Modification G.1226 "Introduction of stiffeners to skin panels in way of windows between Stns. 330-700 (approx.)" is incorporated the permissible Zero Fuel Gross Weight is 57,500 lbs. When in addition to Modification G.1226, Landing Gear Equipment 201(j) or 201(l) is incorporated, the maximum takeoff weight is 72,500 lbs.			
3-engine ferrying: See NOTE 4			
Minimum crew	2 Pilot and co-pilot (91)		
No. of seats	56 (Passengers). This number may be increased provided the arrangement is approved by either the Air Registration Board or the Federal Aviation Agency.		
	2 (Stewards)		
	1 (Supernumerary flight crew)		
Maximum baggage	Forward upper compartment (if fitted)	550 lbs. (154)	
	Forward lower compartment	1900 lbs. (231)	
	Aft lower compartment	1700 lbs. (324)	
	Aft upper compartment (if fitted)	1600 lbs. (847)	
	Forward lower compartment (Serial No. 320 only)	1600 lbs. (218.5)	
	Aft lower compartment (Serial No. 320 only)	2100 lbs. (319.1)	
	Forward lower compartment (Serial No. 341 only)	1720 lbs. (212.8)	
	Aft lower compartment (Serial No. 341 only)	2340 lbs. (315.2)	
	Aft upper compartment (Serial 341 only)	1000 lbs. (850.0)	
	Aft lower compartment (Serial No. 435 only)	2240 lbs. (318)	
Fuel capacity	Fuel contained in four wing tanks:		
	2 inner wing tanks of 792 U.S. gals. each (usable)	10560 lbs. (452)	
	2 outer wing tanks of 348 U.S. gals. each (usable)	4640 lbs. (457)	
	Total wing fuel capacity of 2280 U.S. gals. plus 8.4 U.S. gals. of unusable fuel.		
When Vickers-Armstrongs Modifications G.1782 has been incorporated the following fuel capacity is available in two wing slipper tanks: 2 wing slipper tanks of 305.4 U.S. gals. each (usable) plus 0.6 U.S. gals. unusable in each tank			
		2036 lbs. (428)	
Water/Methanol	132 U.S. gals. (2 wing tanks, 66 gals, each)	1034 lbs. (434)	
Oil capacity	4.8 U.S. gals. per engine contained in the engine	38.5 lbs. (309)	
Control surface movements	Elevator	Up 20°	Down 13°
	Elevator trim tab (Right)	Up 12°	Down 12°
	Elevator Anti-Balance Tab (Left)	Up 20°	Down 13°
	Elevator Spring Tab	Up 10°	Down 20°
	Rudder	Right 15°	Left 15°
	Rudder Trim & Spring Tab	Right 10°	Left 10°
	Aileron	Up 20°	Down 20°
	Aileron Trim Tab (Right)	Up 16°	Down 16°
	Aileron Balance Tab (Left)	Up 20°	Down 20°
Flaps	Down 47°		

Serial Nos. eligible	320, 341, 353, 354, 355, 356, 357, 358, 359, 360, 361, 362, 363, 364, 365, 366, 389, 435. The United Kingdom certificate of airworthiness endorsed as noted under "Certification basis" must be submitted for each individual aircraft for which application for certification is made.
Certification basis	Type Certificate No. 814 issued under CAR 10. 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. Airworthiness certificate may be issued on basis of a United Kingdom certificate of airworthiness signed by a representative of the Ministry of Transport and Civil Aviation containing the following notation: "The aeroplane covered by this certificate has been examined and found to comply with British Civil Airworthiness Requirements published January 1951 and with the CAR 4b Amendment 4b-4 April 1, 1957 and 4b-7 October 17, 1957, and with the Special Requirements notified to the Government of the United Kingdom by the Government of the U.S.A." (See NOTE 7)
Required equipment	In addition to the relevant basic equipment required by B.C.A.R. dated January 1951, and U.S. Special Requirements, the following items of equipment must be installed: 1(d), 2(b), 3(c), 4(b), 102(e), 104(d), 105, 106(b), 109(b), 201(g), (h); 202(g), 203(b), 204(d), 301(b), 302(a), 303(c), 401(d), 402(c), (d); 404, 405(a), 406, 501(a), (b); 502, 503, 505.

Specifications Pertinent to All Models

Datum	Station 0 is located at the exterior surface of the nose skin plating on the center line of the aircraft. Horizontal arms shown are plus (+) to the rear of the datum. With radome nose installed to Vickers Dwg. No. 81028 Sht. 3 or Vickers Dwg. No. 81028 Sht. 5. Station 0 is located on the center line of the aircraft 8 ins. aft of the exterior surface of the nose.
Standard mean chord (S.M.C.)	123 in. leading edge of S.M.C. is at +363 in. for 744, 745D +409 in. for 810
Max. approved operating altitude	25,000 ft.

Equipment:

Propellers and Propeller Accessories

1. Propellers (including hubs, blades synchronising equipment, Rotol SN A/4)
 - (a) Deleted
 - (b) Deleted
 - (c) Type 745D: 4 Rotol (c) R130/4-20-4/12E with RA 25842 blades 1232 lbs. (243)
Diameter: 10 ft.
Pitch settings at .7 radius:
Ground Fine +4° NOTE: When Vickers Modification D.1708 has been installed the ground fine Pitch setting is 0°
Flight Fine +24°
Feathered +84° 24'
 - (d) Type 810: 4 Rotol (c) R179/4-20-4/33 with RA 25910 blades 1483 lbs. (289)
Diameter: 10 ft.
Pitch settings at .7 radius
Ground Fine 0°
Flight Fine Low +25°
High +36°
Feathered +86°

- | | | |
|----|--|--------------------------------|
| 1. | (e) Type 744: 4 Rotol (c) R148/4-20-4/21E with RA 25840 blades
Diameter: 10 ft.
Pitch settings at .7 radius
Ground Fine 0°
Flight Fine + 22° 30'
Feathered + 86° | 1176 lbs. (242) |
| 2. | (a) 4 propeller spinners and extensions 4CM/54 - (744, 745D)
(b) 4 propeller spinners and extensions 4CM/65 - (810) | 94 lbs. (249)
96 lbs. (288) |
| 3. | (a) 4 propeller controller units, (c) CU/48E/1 (Type 744) 75 lbs. (281)
(b) 4 propeller controller units, (c) CU/50E (Type 745D) 70 lbs. (281)
(c) 4 propeller controller units, (c) Rotol CU/84 (810) | 88 lbs. (306) |
| 4. | (a) 4 propeller feathering pumps and motors C RFP/18E - (744, 745D)
(b) 4 propeller feathering pumps and motors C RFP/26 - (810) | 50 lbs. (262)
73 lbs. (308) |

Engines and Engine Accessories

- | | | |
|------|--|----------------------------------|
| 101. | Deleted | |
| 102. | (a) 2 gearboxes and front drives (inbd.) Rotol PTG5/11A and PTG5/11B:
Rotol ADE/157 (Types 744, 745D) | 148 lbs. (331) |
| | 2 gearboxes and front drives (outbd.) Rotol PTG5/10A and PTG5/10B:
Rotol ADE/157 (Types 744, 745D) | 138 lbs. (346) |
| or | (b) 2 gearboxes and front drives (inbd.) Rotol PTG5/11A and PTG5/11B:
Rotol ADE/251 (Type 745D) | 148 lbs. (331) |
| | 2 gearboxes and front drives (outbd.) Rotol PTG5/36A and PTG5/36B:
Rotol ADE/251 (Type 745D) | 146 lbs. (347) |
| or | (c) 2 gearboxes and front drives (inbd.) Rotol PTG5/29A and PTG5/11B:
Rotol ADE/216 (Types 745D) | 149 lbs. (332) |
| | 2 gearboxes and front drives (outbd.) Rotol PTG5/28A and PTG5/10B:
Rotol ADE/216 (Types 745D) | 142 lbs. (347) |
| or | (d) 2 gearboxes and front drives (inbd.) Rotol PTG5/29A and PTG5/11B:
Rotol ADE/252 (Type 745D) | 148 lbs. (332) |
| | 2 gearboxes and front drives (outbd.) Rotol PTG5/37 and PTG5/36B:
Rotol ADE/252 (Type 745D) | 152 lbs. (347) |
| or | (e) 2 gearboxes and front drives (inbd.) Rotol PTG14/4 and PTG14/2B:
Rotol ADE/281 (Type 810) | 189 lbs. (380) |
| | 2 gearboxes and front drives (outbd.) Rotol PTG14/5 and PTG14/1:
Rotol ADE/281 (Type 810) | 189 lbs. (395) |
| | When Vickers Modification D.1582 or D.1899 is applied to the above gearboxes the Pressurization System blower pressure may be raised from 8.5 p.s.i. to 11.0 p.s.i. (Types 744, 745D) | |
| 103. | Deleted (included in Item 102) | |
| 104. | <u>System Fuel:</u> | |
| | (a) 2284 U.S. gals. capacity in four wing tanks: 15 U.S. gals. undrainable (excluding 1.2 U.S. gals. undrainable in engine)
(10.2 U.S. gals. unusable but drainable (Type 745D) | 100 lbs. (412)
68 lbs. (412) |
| | (b) When fuselage (center fuel tank is installed)
System fuel: 2851 U.S. gals. capacity in four wing tanks and center tank.
15 U.S. gals. undrainable and unusable
(Excluding 1.2 U.S. gals. undrainable in engine)
10.2 U.S. gals. unusable but drainable (Type 745D) | 100 lbs. (412)
68 lbs. (412) |
| | (c) When slipper tanks (174 U.S. gals.) are installed.
System fuel: 2632 U.S. gals. capacity in four wing tanks and slipper tanks
15.0 U.S. gals. undrainable and unusable
(excluding 1.2 U.S. gals. undrainable in engine)
15.0 U.S. gals. unusable but drainable (Type 745D) | 100 lbs. (412)
100 lbs. (412) |
| | <u>OR</u> | |
| | System fuel: 3175 U.S. gals. capacity in four wing tanks,
fuselage center tank and slipper tanks
15.0 U.S. gals. undrainable and unusable
(excluding 1.2 U.S. gals. undrainable in engine)
15.0 U.S. gals. unusable but drainable | 100 lbs. (412)
100 lbs. (412) |

104.	(d) System fuel: 2280 U.S. gals. capacity in four wing tanks, 8.4 U.S. gals. undrainable (excluding 1.2 U.S. gals. undrainable in Engine) (Type 810)	56 lbs. (454) 8 lbs. (327)
	(e) When slipper tanks (306 U.S. gals.) are installed. System fuel: 2892 U.S. gals. capacity in four wing tanks and slipper tanks 8.4 U.S. gals. undrainable and unusable in wing tanks (excluding 1.2 U.S. gals. undrainable in engine) 1.2 U.S. gals. undrainable and unusable in slipper tanks (Type 810)	56 lbs. (454) 8 lbs. (327) 8 lbs. (428)
	(f) When slipper tanks (306 U.S. gals.) are installed. System fuel: 2896 U.S. gals. capacity in four wing tanks and slipper tanks 16.2 U.S. gals. undrainable and unusable (excluding 1.2 U.S. gals. undrainable in engine) 10.2 U.S. gals. unusable but drainable (Type 745D)	108 lbs. (410) 68 lbs. (412)
	(g) 2335 U.S. gals. capacity in four wing tanks: 15 U.S. gals. undrainable (Excluding 1.2 U.S. gals. undrainable in engine) 5.4 U.S. gals. unusable but drainable (Types 744, 745D, Serial No. 242 only)	100 lbs. (412) 36 lbs. (412)
105.	System oil: 4.2 U.S. gals. residual (744, 745D) (810)	34 lbs. (281) 34 lbs. (327)
	(19.2 U.S. gals. in engine not included in weight empty)	
106.	4 starters (a) Rotax C.5104 (744, 745D) (b) Rotax C.5104 (810)	116 lbs. (281) 116 lbs. (327)
107.	Fuselage - Center Tank Fuel (745D only) Vickers-Armstrongs Modifications D.1312 (fuel tanks) and D1974 (fuel system)	600 lbs. (271)
108.	Slipper tank Vickers-Armstrongs Modification D.639 D.1692 Pacitron System, D.1819 Lightning Strike (745D) Vickers-Armstrongs Modification G.1782 (810) Vickers-Armstrongs Modification D.2760, D.2924 (745D)	322 lbs. (390) 360 lbs. (428) 360 lbs. (382)
109.	Fuel pumps: (a) Thompson TF. 27300-13 (745D) (b) Thompson TB. 60200-6 (810) (c) Thompson TF. 27300-8 (744)	57 lbs. (429) 57 lbs. (475) 57 lbs. (428)

Landing Gear

201.	4 Main wheel-brake assemblies	
	(a) Main wheels, Dunlop AH 50420 (744, 745D)	264 lbs. (419)
	(b) Main wheel brakes, Dunlop AH50091/2 (744, 745D)	310 lbs. (419)
	(c) Main wheel brakes, Dunlop AH50448/9 (745D)	276 lbs. (419)
	(d) Maxaret brake units Dunlop AC10944 & AC10946 (745D)	21 lbs. (419)
	(e) Main wheels, Dunlop AH 50450 (745D)	240 lbs. (419)
	(f) Main wheel brakes, Dunlop AH50961/2 (745D)	305 lbs. (419)
	(g) Main wheels, Goodyear 9531741 (810)	211 lbs. (465)
	(h) Main wheel brakes, Goodyear 9560359 (L&R) (810)	352 lbs. (465)
	(i) Anti-skid brake unit generator, Goodyear 9541144 (810)	1 lb. (465)
	(j) Main wheel brakes, Goodyear 9560359, Mod 1 (L&R) (810)	380 lbs. (465)
	(k) Main wheels, Dunlop AH50780 (810)	265 lbs. (465)
	(l) Main wheel brakes, Dunlop AH51310/11 (810)	335 lbs. (465)
	(m) Maxaret brake units, Dunlop AC13614/6 (810)	181 lbs. (465)
	(n) Maxaret brake units, Dunlop AC10942 and AC10948 (Type 744)	21 lbs. (419)
202.	4 main wheel tires and tubes (the following tires and tubes or any others that are equivalent may be installed).	
	NOTE: When tires type DR.2622 and DR.2624 are fitted on aircraft operating at weights above 60,285 lbs. the life of these tires is limited to two re-moulds only, and the inflation pressure must be 112 p.s.i.	
	(a) Dunlop DR.2622 (14 ply) tires with Dunlop DT.2607 tube (745D)	298 lbs. (419)
	(b) Dunlop DR.2624 (14 ply) tires with Dunlop DT.2607 tube (745D)	303 lbs. (419)
	(c) Dunlop DR.2623 (16 ply) tires with Dunlop DT.2607 tube (745D)	319 lbs. (419)
	(d) Dunlop DR.2626 T (16 ply) tubeless tires (745D)	328 lbs. (419)
	(e) Dunlop DR.2625 (14 ply) tires with Dunlop DT.2607 tube (744, 745D)	294 lbs. (419)
	(f) Dunlop DR.2626 (16 ply) tires with Dunlop DT.2607 tube (745D)	312 lbs. (419)
	(g) Goodyear GA.2211 tubeless tires (810)	298 lbs. (465)

202.	(h) Dunlop DR.11021T (16 ply) tubeless tires (810)	310 lbs. (465)
	(i) Goodyear 36 x 10.75-16-1/2 (16 ply) tires with Goodyear G23017 tube (744)	320 lbs. (419)
203.	2 Nose wheels	
	(a) Dunlop AH50026 (744, 745D)	35 lbs. (118)
	(b) Goodyear E.30760 (810)	51 lbs. (117)
	(c) Dunlop AH51142 (810)	42 lbs. (117)
	(d) Dunlop AH51140 (744, 745D)	38 lbs. (118)
204.	2 Nose wheel tires and tubes (the following tires and tubes or any others that are equivalent may be installed).	
	(a) Dunlop DR.7165 (10 ply) tires and Dunlop FB.2 tubes (745D)	55 lbs. (118)
	(b) Dunlop DX.7167 (8 ply) tires and Dunlop FB.2 tubes (745D)	51 lbs. (118)
	(c) Dunlop DX.7168 (8 ply) tires and Dunlop FB.2 tubes (744, 745D)	53 lbs. (118)
	(d) Goodyear GA.2204 (10 ply) Tubeless tires (810)	52 lbs. (117)
	(e) Goodyear GA.2212 (8 ply) Tubeless tires (810)	45 lbs. (117)
	(f) Dunlop DX.7169T (10 ply) Tubeless tires (810)	50 lbs. (117)
	(g) Firestone 24 x 7.25-12 (10 ply) tires and tubes	55 lbs. (118)

Electrical Equipment

301.	4 Generators	
	(a) Rotax B2112 (744, 745D)	168 lbs. (329)
	(b) Bendix 30E/0219 (810)	264 lbs. (379)
	(c) Rotax B2804 (810)	272 lbs. (379)
302.	4 Alternators	
	(a) Rotax N.0505 (744, 745D) 104 lbs. (349) (810)	104 lbs. (399)
303.	Batteries	
	(a) 3 Varley A/24/19/25 or (745D)	113 lbs. (389)
	(b) 4 Varley A/24/19/25 (745D)	150 lbs. (389)
	(c) 3 Dagenite 12-ECM13-VA (810)	126 lbs. (435)
	(d) 4 Varley A/24/19/25 C (810)	150 lbs. (435)
	(e) 2 Sonotone CA20 (744, 745D)	100 lbs. (389)

Interior Equipment

401.	A.R.B. Approved Airplane Flight Manual for:	
	(a) Viscount Type 744 (DOC. Ref. No. VS.1.6)	
	(b) Deleted	
	(c) Viscount Type 745D (DOC. Ref. No. VS.1.6)	
	(d) Viscount Type 810 (DOC. Ref. No. VS.1.11) (See also NOTE 7)	
402.	Windshield Wipers, Motors and Pumps	
	(a) Wipers, 2 Dunlop ACM 17096 (Left and Right) and 1 Dunlop ACM 17638 (Center) (744, 745D)	
	(b) Motors, 2 Dunlop AC 13208 (744, 745D)	
	(c) Wipers, 1 Dunlop ACM 19890 (Left) (810)	1.5 lbs. (62)
	1 Dunlop ACM 19892 (Right) (810)	1.5 lbs. (62)
	(d) Pump, 1 Dunlop AC 14372 (Double) (810)	20 lbs. (43)
403.	Deleted	
404.	Hydraulic Fluid in System and Reservoir, Mineral Oil DTD 585 or equivalent (744, 745D) (810)	86 lbs. (240) 31 lbs. (178)
405.	Automatic Pilot	
	(a) Bendix PB.10A (3 servos + elevator trim servo)	
	(1) [a] Servo stall forces measured at pilots controls: (745D)	
	Elevator: Nominal - 15 lbs.	
	Aileron: Nominal - 15 lbs.	
	Rudder: Nominal - 29 lbs.	
	[b] Corresponding servo stall torques measured at servo: (745D)	
	Elevator: Nominal - 30 lbs. -ft.	
	Aileron: Nominal - 25 lbs. -ft.	
	Rudder: Nominal - 16 lbs. -ft.	

405. (a) (1) [c] Servo stall forces measured at pilots controls: (810)
 Elevator: Max. - 53 lbs. Min. - 39 lbs.
 Aileron: Max. - 23 lbs. Min. - 16 lbs.
 Rudder: Max. - 112 lbs. Min. - 82 lbs.
 [d] Corresponding servo stall torques measured at servo: (810)
 Elevator: Max. - 44 lbs. -ft. Min. - 32 lbs.-ft.
 Aileron: Max. - 34 lbs. -ft. Min. - 23 lbs.-ft.
 Rudder: Max. - 44 lbs. -ft. Min. - 32 lbs.-ft.
 (2) Maximum speed for auto-pilot operation is V_{mo} C.A.S.
 (See A.R.B. Approved Airplane Flight Manual for altitude loss during auto pilot malfunctions)
- (b) Collins AP-101 (3 servos + elevator trim servo)
 (1) [a] Servo/torque measured at servo
 Elevator: 12 lbs. -ft.
 Aileron: 12 lbs. -ft.
 Rudder: 12 lbs. -ft.
 Elevator trim: 3.3 lbs. -ft.
 (2) Maximum speed for auto-pilot operation is V_{mo} C.A.S.
 (See A.R.B. Approved Airplane Flight Manual for altitude loss during auto-pilot malfunctions)
406. Pre-stall warning system
 (a) Stickshaker, Safe Flight 20102
 (b) Detector, Safe Flight 180A BT

De-Icing Equipment

501.	(a) Wings - Inner, V.A. Dwgs. 72482 Sht. 3, 4	(744, 745D)	
	Inner, V.A. Dwgs. Left 81082 Sht. 9 or 81382 Sht 2	(810)	
	Right 80282 Sht. 137 or 81282 Sht 1	(810)	
	(b) Inboard Nacelle V.A. Dwgs. 70082 Shts. 23, 24	(744, 745D)	
	Inboard Nacelle V.A. Dwgs. 81082 Shts. 5, 6, 7, 8	(810)	
502.	Fuselage: V.A. Dwgs. 72482 Sht. 7	(744, 745D)	
	V.A. Dwgs. 80382 Sht. 3	(810)	
503.	Windscreen: V.A. Dwg. 70182 Sht. 25	(744, 745D)	
	Nesa Glass	(810)	
504.	Windscreen Spray Pump Dunlop AC12302	(744, 745D)	3 lbs. (110)
505.	Propeller and Engine Intake de-icing Electrical Equipment	(744, 745D)	181 lbs. (363)
	less equipment on propellers	(810)	190 lbs. (409)
602.	Janitrol Combustion Heater 21C38 V.A. Dwg. 72455 Sht. 45	(744, 745D)	
603.	Deleted November 14, 1956		
604.	Fuel jettisoning system Vickers-Armstrongs Modification D.1720	(745D only)	87 lbs. (403)
605.	Air Steps (Applicable to 745D only)		
	(a) Vickers-Armstrongs Modification D.1273 "To make provisions for Air Step Installation"		3 lbs. (206)
	(b) Vickers-Armstrongs Modification D.1675 "Introduction of Air Steps"		285 lbs. (392)
	(c) Vickers-Armstrongs Modification D.1846 "To Introduce Propeller Brake"		15 lbs. (392)
606.	Freon Refrigeration System Vickers-Armstrongs Modification D.2149	(745D only)	590 lbs. (457)

NOTE 1. Current weight and balance report, including list of equipment included in certificated weight empty, 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 air carrier operators having an approved weight control system).

NOTE 2. Deleted May 16, 1958.

NOTE 3. Information essential to the proper maintenance of the aircraft, including retirement times of the critical parts, is included in the Vickers-Armstrongs (Aircraft) Ltd., Viscount 744, 745D and 810 Instruction Manual, provided with each aircraft.

NOTE 4. Ferry permits may be issued to Models 745D and 810 aircraft on which one engine is inoperative, with its propeller removed or feathered under the following conditions:
 (1) Operation of aircraft shall be in accordance with pertinent limitations contained in the applicable portion of the Approved Airplane Flight Manual, pertinent appendices, and existing instructions.

(2) (a) Maximum takeoff weight 55,000 lbs. (745D) *

(b) Maximum takeoff weight 65,000 lbs. (810) *

			<u>745D</u>	<u>810</u>
(3) C.G. range for	Forward C.G.	0.116 S.M.C.	(377.25)	(423.25)
landing and takeoff	Aft C.G.	0.19 S.M.C.	(386.3)	(423.3)

*(Except when limited by runway length specified in approved Airplane Flight Manual).

NOTE 5. Specification for Model 745, approved November 7, 1955, has been deleted since aircraft of this model are no longer on U.S. register.

NOTE 6. Model 744 Approved June 13, 1955. Deleted from Specification Rev. 8 May 16, 1958. Reinstated April 22, 1964.

NOTE 7. The Special Requirements include that for a fuel jettison system in accordance with CAR -4b. 437. Compliance with FAR 25.1001(b) and (c) is an acceptable alternative and is identified in the Doc. No. VS.1.11 Flight Manual by Amendment P/23. Amendment P/23 is required for operation of airplanes which have the alternative configuration.

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