

DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

AIPC
Revision 9
MHI
YS-11
YS-11A-200
YS-11A-300
YS-11A-500
YS-11A-600
November 8, 1982

TYPE CERTIFICATE DATA SHEET NO. A1PC

This data sheet which is a part of type certificate No. A1PC prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Civil Air Regulations.

Type Certificate Holder Mitsubishi Heavy Industries, Ltd.
5-1, Marunouchi 2-chome
Chiyoda-ku
Tokyo, Japan

I - Model YS-11 (Transport Category), Approved September 7, 1965

Engines	2	Rolls-Royce Dark Mk. 542-10 or Mk. 542-10J or Mk. 542-10K (Turboprop) Reduction gearing 0.0775 : 1																
Fuel		(Fuel shall conform to the specifications listed or to subsequent revisions thereof.)																
	Group A	ASTM D. 1655-68 Jet A or Jet A-1 British D Eng. R.D. 2453, 2482, 2494, or 2498 Canadian 3-GP-23f or 3-GP-24e I.A.T.A. Kerosene Type Fuel MIL-T-5624G Grade JP-5																
	Group B	ASTM D. 1655-68 Jet B British D. Eng. R.D. 2454 or 2486 Canadian 3-GP-22f I.A.T.A. wide cut type fuel (JP-4 type) *MIL-T-5624G Grade JP-4 See NOTE 4 regarding fuel pump governor adjustments. *To be used in accordance with Rolls-Royce, Notice to Operator-Dart engine No. 1007.																
Water/Methanol		Rolls-Royce AEP-1-W/M, latest issue.																
Oil		<table border="0"> <tr> <td>Aero Shell Turbine Oil 750</td> <td>Enco Turbo Oil 274 (Enco 274)</td> </tr> <tr> <td>Castrol 98 Gas Turbine Oil</td> <td>Esso Turbo Oil 35 (E.T.O. 35)</td> </tr> <tr> <td>Castrol 98 U.K. Synthetic</td> <td>Enco Turbo Oil 35</td> </tr> <tr> <td>Aviation Oil (Castrol 98 U.K.)</td> <td>Texaco Synthetic Acft. Turbine</td> </tr> <tr> <td>Esso Aviation Turbo Oil 35</td> <td>Oil 35 (T.S.A.T.O. 35)</td> </tr> <tr> <td>(E.A.T.O. 35)</td> <td>Caltex Synthetic Turbo Oil 35</td> </tr> <tr> <td>Esso Extra Turbo Oil 274</td> <td>Regent Synthetic Turbo Oil 35</td> </tr> <tr> <td>(E.E.T.O. 274)</td> <td></td> </tr> </table>	Aero Shell Turbine Oil 750	Enco Turbo Oil 274 (Enco 274)	Castrol 98 Gas Turbine Oil	Esso Turbo Oil 35 (E.T.O. 35)	Castrol 98 U.K. Synthetic	Enco Turbo Oil 35	Aviation Oil (Castrol 98 U.K.)	Texaco Synthetic Acft. Turbine	Esso Aviation Turbo Oil 35	Oil 35 (T.S.A.T.O. 35)	(E.A.T.O. 35)	Caltex Synthetic Turbo Oil 35	Esso Extra Turbo Oil 274	Regent Synthetic Turbo Oil 35	(E.E.T.O. 274)	
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Reformatted 12/93.

Engine Limits

Dart MK 542-10, MK 542-10J and MK 542-10K Engine

Ratings (Min. Performance)	<u>Static Sea Level Rating (I.S.A.)</u>			
	Propeller Shaft Horsepower (S.H.P.)	Total Equivalent Horsepower (T.E.H.P.)	Engine Speed (R.P.M.)	Maximum Duration (Minutes)
Takeoff (Wet)	2,680 *	2,966 **	15,000	5
Takeoff (Dry)	2,305	2,559	15,000	5
Max. Continuous	2,305	2,559	15,000	Unrestricted

The above static ratings are based on engine operations with the aircraft service accessories unloaded and no bleed air extraction.

*This power is constant despite of changes in power extraction through the gear box.

**The power permitted through the gear box is not included, which is 70 H.P. maximum.

	<u>MK 542-10</u>	<u>MK 542-10J and MK 542-10K</u>
Maximum turbine gas temperature		
Momentary maximum during starting	930°C	930°C
Takeoff *5 min. limit)		
with water/methanol	890°C	940°C
without water/methanol	865°C	865°C
Maximum oil inlet temperature		
All operations	120°C	120°C

Propeller and
Propeller
Limits

2 Dowty Rotol Type (c) R.209/4-40-4.5/2
Hydraulic, constant speed and feathering
Hub: 4 blade, No. 40 blade shank size to fit No. 4 1/2 S.B.A.C. shaft.

Takeoff rating 2,680 shaft h.p.

Blade: RA.25952

Diameter: 14 ft. 6 in. (nominal)

Minimum allowable for repairs 14 ft. 3 in.

No further reductions are permitted

Pitch setting at 0.7 radius

Feathered: 84° 15'

Cruise Pitch Lock 27° 30'

Flight fine 14°

Ground fine 0°

Airspeed
Limits (CAS)

V _{mo} (Maximum operating) SL-13,600 ft.	245 knots	(282 m.p.h.)
M _{mo} (Maximum operating) above 13,600 ft.	0.475	
V _a (Maneuvering)	151 knots	(174 m.p.h.)
V _{fe} (Flap extended 10° and below)	200 knots	(230 m.p.h.)
V _{fe} (Flap extended above 10° to 20°)	165 knots	(190 m.p.h.)
V _{fe} (Flap extended above 20° to 35°)	135 knots	(155 m.p.h.)
*V _{lo} (Landing gear operating-extension)	210 knots	(242 m.p.h.)
**V _{lo} (Landing gear operating-extension)	165 knots	(190 m.p.h.)
V _{lo} (Landing gear operating-retraction)	135 knots	(155 m.p.h.)
*V _{le} (Landing gear extended)	210 knots	(242 m.p.h.)
**V _{le} (Landing gear extended)	165 knots	(190 m.p.h.)

*Applicable to airplanes with P/N 01-18062-1, -2 M.L.G. door assembly.

**Applicable to airplanes with P/N 01-18121-501, -502 M.L.G. door assembly.

C.G. range

Landing Gear extended flap up*

Weight (lb.)	Forward		Aft	
	%MAC	STA.(in)	%MAC	STA.(in)
51,800	21.5	-84.8	36.0	-66.5
35,270 and below	15.0	-93.0	36.0	-66.5

Straight line variation between points given.

*The airplane is safe and operable with flaps and gear in any position provided the center of gravity falls within limits specified with flaps up and gear down.

Landing gear retraction moment change is -99,800 in.lb.
 Flaps down (20 degrees) moment change is +5,990 in. lb.
 Flaps down (35 degrees) moment change is +10,420 in.lb.

Maximum	Takeoff	51,800 lb.
Weights	Landing	49,600 lb.

Maximum Zero Fuel Wt.	45,640 lbs.
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Minimum Crew	2 (Pilot and Copilot)
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Maximum Passengers	59-Limited by emergency exit requirements (CAR 4b.362(c)). Additional 5 passengers are permitted if 2 inflatable slides are installed.
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Maximum Baggage	<u>Compartment</u>	Capacity	Max. Load	Arm
	(lb.)	(lb./ft	2)	(in.)
	Right forward			
	* for 52 seats 38 in pitch type	1,500	100	-350
	** for 52 seats 34 in pitch type	2,500	100	-324
	*** for 60 seats 34 in pitch type	1,200	100	-358
	Left forward			
	**** for 52 seats 34 in pitch type only	1,000	100	-292
	Aft	2,000	100	+291
	Belly	1,100	65	-252

* Location of right forward cargo compartment: F.STA-9,900+ to F.STA-7,900†
 ** Location of right forward cargo compartment: D.STA-9,900+ to F.STA-6,870†
 *** Location of right forward cargo compartment: F.STA-9,900+ to F.STA-8,280†
 **** Location of left forward cargo compartment: F.STA-8,280+ to F.STA-6,870†
 † F.STA. units are in millimeters.

Fuel Capacity	Total Refuel*	Usable	Arm
	lb. (US Gal.) ea.	lb. (US Gal.)ea.	(in.)
	When two scavenge pumps per aircraft are installed.		
	2 integral tanks (main)	4,333 (666)	4,235 (651)
	Bag tanks (optional)		
	R.H.	2,339 (359)	2,327 (357)
	L.H.	1,496 (230)	1,484 (228)
	When four scavenge pumps per aircraft are installed.		
	2 integral tanks (main)	4,333 (666)	4,309 (663)
	Bag Tank (optional)		
	R.H.	2,339 (359)	2,327 (357)
	L.H.	1,496 (230)	1,484 (228)

***"Total Refuel" capacity includes Unusable and Usable Fuel.

Fuel weights are based on 6.5 lb./U.S. gal.

See NOTE 1(c) for system fuel.

Water/Methanol Capacity	1 bag tank in left-hand wing: 870 lb. (111 U.S. gal.)	-70.1 in.
	W/M weight is based on 7.85 lb./U.S. gal.	
Oil Capacity	Engine oil Tank capacity 38.5 lb. (38.5 U.S. pint) ea. (Applicable to the aircraft without R/R Mod. 1384)	-200.4 in.
	Tank capacity: 43 lb. (43 U.S. pint) ea. (Applicable to the aircraft with R/R Mod. 1384)	-200.4 in.
	Gear box oil: 6 lb. (6 U.S. pint) ea.	-134 in.
	See NOTE 1(C) for system oil.	
Maximum Operating Altitude	20,000 ft.	
Other Operating Limitations	See Japan Civil Aviation Bureau Approved Flight Manual, YS-FM-001.	

II - Model YS-11A-200 Series (Transport Category), Approved April 3, 1968.

(See NOTE 6 for conversion to YS-11A-500)

Engines	2 Rolls-Royce Dart Mk. 542-10 or Mk. 542-10J or Mk. 542-10K (Turboprop) Reduction gearing 0.0775 : 1 See NOTE 5 regarding intermixing of engines
Fuel	(Fuel shall conform to the specifications listed or to subsequent revisions thereof.) ASTM D. 1655-68 Jet A or Jet A-1 British D Eng. R.D. 2453, 2482, 2494, or 2498 Canadian 3-GP-23f or 3-GP24e I.A.T.A. Kerosene Type Fuel MIL-T-5624G Grade JP-5 Group B ASTM D. 1655-68 Jet B British D. Eng. R.D. 2454 or 2486 Canadian 3-GP-22f I.A.T.A. wide cut type fuel (JP-4 type) *MIL-T-5624G Grade JP-4 See NOTE 4 regarding fuel pump governor adjustments. *To be used in accordance with Rolls-Royce, Notice to Operator-Dart engine No. 1007.
Water/Methanol	Rolls-Royce AEP-1-W/M, latest issue.

Oil	Aero Shell Turbine Oil 750	Enco Turbo Oil 274 (Enco 274)
	Castrol 98 Gas Turbine Oil	Esso Turbo Oil 35 (E.T.O. 35)
	Castrol 98 U.K. Synthetic	Enco Turbo Oil 35
	Aviation Oil (Castrol 98 U.K.)	Texaco Synthetic Acft. Turbine
	Esso Aviation Turbo Oil 35	Oil 35 (T.S.A.T.O. 35)
	(E.A.T.O. 35)	Caltex Synthetic Turbo Oil 35
	Esso Extra Turbo Oil 274	Regent Synthetic Turbo Oil 35
	(E.E.T.O. 274)	

Engine Limits Dart MK 542-10, MK 542-10J and MK 542-10K Engine

Ratings (Min. Performance)	<u>Static Sea Level Rating (I.S.A.)</u>			
	Total Propeller Shaft Horsepower (S.H.P.)	Equivalent Horsepower (T.E.H.P.)	Engine Speed (R.P.M.)	Maximum Duration (Minutes)
Takeoff (Wet)	2,680 *	2,966 **	15,000	5
Takeoff (Dry)	2,305	2,559	15,000	5
Max. Continuous	2,305	2,559	15,000 Unrestricted	

The above static ratings are based on engine operations with the aircraft service accessories unloaded and no bleed air extraction.

*This power is constant despite changes in power extraction through the gear box.

**The power permitted through the gear box is not included, which is 70 H.P. maximum.

	<u>MK 542-10</u>	<u>MK 542-10J and MK 542-10K</u>
Maximum turbine gas temperature		
Momentary maximum during starting	930°C	930°C
Takeoff (5 min. limit)		
with water/methanol	890°C	940°C
without water/methanol	865°C	865°C
Maximum Continuous		
Maximum oil inlet temperature		
All operations	120°C	120°C

Propeller and Propeller Limits	2 Dowty Rotol Type (c) R.209/4-40-4.5/2	
	Hydraulic, constant speed and feathering	
	Hub: 4 blade, No. 40 blade shank size to fit No. 4-1/2 S.B.A.C. shaft.	
	Takeoff rating 2,680 shaft h.p.	
	Blade: RA.25952	
	Diameter: 14 ft. 6 in. (nominal)	
	Minimum allowable for repairs 14 ft. 3 in.	
	No further reductions are permitted.	
	Pitch setting at 0.7 radius	
	Feathered:	84°15'
	Cruise Pitch Lock	27°30'
	Flight fine	14°
	Ground fine	0°

Airspeed Limits (CAS)	Vmo (Maximum operating) SL-13,600 ft.	245 knots	(282 m.p.h.)
	Mmo (Maximum operating) above 13,600 ft.	0.475	
	Va (Maneuvering)	154 knots	(177 m.p.h.)
	Vfe (Flap extended 10° and below)	200 knots	(230 m.p.h.)
	Vfe (Flap extended above 10° to 20°)	165 knots	(190 m.p.h.)
	Vfe (Flap extended above 20° to 35°)	135 knots	(155 m.p.h.)
	*Vlo (Landing gear operating-extension)	210 knots	(242 m.p.h.)
	**Vlo (Landing gear operating-extension)	165 knots	(190 m.p.h.)
	Vlo (Landing gear operating-retraction)	135 knots	(155 m.p.h.)
	*Vle (Landing gear extended)	210 knots	(242 m.p.h.)
	**Vle (Landing gear extended)	165 knots	(190 m.p.h.)

*Applicable to airplanes with P/N 01-18062-1, -2 M.L.G. door assembly.

**Applicable to airplanes with P/N 01-18121-501, -502 M.L.G. door assembly.

C.G. range

Weight (lb.)	Landing Gear extended flap up*			
	Forward		Aft	
	%MAC	STA.(in)	%MAC	STA.(in)
54,010	22.4	-83.7	36.0	-66.5
35,270 and below	15.0	-93.0	36.0	-66.5

Straight line variation between points given.

*The airplane is safe and operable with flaps and gear in any position provided the center of gravity falls within limits specified with flaps up and gear down.

Landing gear retraction moment change is -99,800 in.lb.

Flaps down (20 degrees) moment change is +5,990 in. lb.

Flaps down (35 degrees) moment change is +10,420 in.lb.

Maximum	Takeoff	54,010 lb.
Weights	Landing	52,910 lb.

Maximum Zero Fuel Wt.	48,500 lbs.
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Minimum Crew	2 (Pilot and Copilot)
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Maximum Passengers	59 limited by emergency exit requirements (CAR 4b.362(c)). Additional 5 passengers are permitted if 2 inflatable slides are installed.
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Maximum Baggage	Compartment	Capacity	Max. Load	Arm
		(lb.)	(lb./ft 2)	(in.)
	Right forward			
	* for 52 seats 38 in pitch type	1,500	100	-350
	** for 52 seats 34 in pitch type	2,500	100	-324
	*** for 60 seats 34 in pitch type	1,200	100	-358
	Left forward			
	**** for 52 seats 34 in pitch type only	1,000	100	-292
	Aft	2,000	100	+291
	Belly	1,100	65	-252

*Location of right forward cargo compartment: F.STA-9,900+ to F.STA-7,900+

**Location of right forward cargo compartment: F.STA-9,900+ to F.STA-6,870+

***Location of right forward cargo compartment: F.STA-9,900+ to F.STA-8,280+

****Location of left forward cargo compartment: F.STA-8,280+ to F.STA-6,870+

† F.STA. units are in millimeters.

	Fuel Capacity	Total Refuel* lb. (US Gal.) ea.	Usable lb. (US Gal.)ea.	Arm (in.)
	When two scavenge pumps per aircraft are installed.			
	2 integral tanks (main)	4,333 (666)	4,235 (651)	-63.6
	Bag tanks (optional)			
	R.H.	2,339 (359)	2,327 (357)	-70.1
	L.H.	1,496 (230)	1,484 (228)	-70.1
	When four scavenge pumps per aircraft are installed.			
	2 integral tanks (main)	4,333 (666)	4,309 (663)	-63.6
	Bag Tank (optional)			
	R.H.	2,339 (359)	2,327 (357)	-70.1
	L.H.	1,496 (230)	1,484 (228)	-70.1
	**"Total Refuel" capacity includes Unusable and Usable Fuel.			
	Fuel weights are based on 6.5 lb./U.S. gal. See NOTE 1(c) for system fuel.			
Water/Methanol Capacity	1 bag tank in left-hand wing: 870 lb. (111 U.S. gal.)			-70.1 in.
Oil Capacity	W/M weight is based on 7.85 lb./U.S. gal.			
	Engine oil			
	Tank capacity	38.5 lb. (38.5 U.S. pint) ea.		-200.4 in.
	(Applicable to the aircraft without R/R Mod. 1384)			
	Tank capacity:	43 lb. (43 U.S. pint) ea.		-200.4 in.
	(Applicable to the aircraft with R/R Mod. 1384)			
	Gear box oil:	6 lb. (6 U.S. pint) ea.		-134 in.
	See NOTE 1(C) for system oil.			
Maximum Operating Altitude	20,000 ft.			
Other Operating Limitations	See Japan Civil Aviation Bureau Approved Flight Manual, YS-FM-002.			
<u>III - Model YS-11A-300 Series (Transport Category), Approved April 5, 1968.</u>				
(See NOTE 6 for conversion to YS-11A-600)				
Engines	2 Rolls-Royce Dart Mk. 542-10 or Mk. 542-10J or Mk. 542-10K (Turboprop) Reduction gearing 0.0775 : 1 See NOTE 5 regarding intermixing of engines			
Fuel	(Fuel shall conform to the specifications listed or to subsequent revisions thereof.)			
Group A	ASTM D. 1655-68 Jet A or Jet A-1 British D Eng. R.D. 2453, 2482, 2494, or 2498 Canadian 3-GP-23f or 3-GP-24e I.A.T.A. Kerosene Type Fuel MIL-T-5624G Grade JP-5			

Group B

ASTM D. 1665-68 Jet B
 British D. Eng. R.D. 2454 or 2486
 Canadian 3-GP-22f
 I.A.T.A. wide cut type fuel (JP-4 type)
 *MIL-T-5624G Grade JP-4

See NOTE 4 regarding fuel pump governor adjustments.

*To be used in accordance with Rolls-Royce, Notice to Operator-Dart engine No. 1007.

Water/Methanol

Rolls-Royce AEP-1-W/M, latest issue.

Oil

Aero Shell Turbine Oil 750	Enco Turbo Oil 274 (Enco 274)
Castrol 98 Gas Turbine Oil	Esso Turbo Oil 35 (E.T.O. 35)
Castrol 98 U.K. Synthetic	Enco Turbo Oil 35
Aviation Oil (Castrol 98 U.K.)	Texaco Synthetic Acft. Turbine
Esso Aviation Turbo Oil 35	Oil 35 (T.S.A.T.O. 35)
(E.A.T.O. 35)	Caltex Synthetic Turbo Oil 35
Esso Extra Turbo Oil 274	Regent Synthetic Turbo Oil 35
(E.E.T.O. 274)	

Engine Limits

Dart MK 542-10, MK 542-10J and MK 542-10K Engine

Ratings (Min. Performance)	Static Sea Level Rating (I.S.A.)			
	Propeller Shaft Horsepower (S.H.P.)	Equivalent Horsepower (T.E.H.P.)	Engine Speed (R.P.M.)	Maximum Duration (Minutes)
Takeoff (Wet)	2,680 *	2,966 **	15,000	5
Takeoff (Dry)	2,305	2,559	15,000	5
Max. Continuous	2,305	2,559	15,000	Unrestricted

The above static rating are based on engine operations with the aircraft service accessories unloaded and no bleed air extraction.

*This power is constant despite changes in power extraction through the gear box.

**The power permitted through the gear box is not included, which is 70 H.P. maximum.

	<u>MK 542-10</u>	<u>MK 542-10J and MK 542-10K</u>
Maximum turbine gas temperatures		
Momentary maximum during starting	930°C	930°C
Takeoff (5 min. limit)		
with water/methanol	890°C	940°C
without water/methanol	865°C	865°C
Maximum Continuous	905°C	915°C
Maximum oil inlet temperature		
All operations	120°C	120°C

Propeller and Limits	2 Dowty Rotol Type (c) R.209/4-40-4.5/2 Hydraulic, constant speed and feathering Hub: 4 blade, No. 40 blade shank size to fit No. 4-1/2 S.B.A.C. shaft. Takeoff rating 2,680 shaft h.p. Blade: RA.25952 Diameter: 14 ft. 6 in. (nominal) Minimum allowable for repairs 14 ft. 3 in. No further reduction permitted. Pitch setting at 0.7 radius Feathered: 84°15' Cruise Pitch Lock 27°30' Flight fine 14° Ground fine 0°																											
Airspeed Limits (CAS)	Vmo (Maximum operating) SL-13,600 ft.	245 knots	(282 m.p.h.)																									
	Mmo (Maximum operating) above 13,600 ft.	0.475																										
	Va (Maneuvering)	154 knots	(177 m.p.h.)																									
	Vfe (Flap extended 10° and below)	200 knots	(230 m.p.h.)																									
	Vfe (Flap extended above 10° to 20°)	165 knots	(190 m.p.h.)																									
	Vfe (Flap extended above 20° to 35°)	135 knots	(155 m.p.h.)																									
	*Vlo (Landing gear operating-extension)	210 knots	(242 m.p.h.)																									
	**Vlo (Landing gear operating-extension)	165 knots	(190 m.p.h.)																									
	Vlo (Landing gear operating-retraction)	135 knots	(155 m.p.h.)																									
	*Vle (Landing gear extended)	210 knots	(242 m.p.h.)																									
	**Vle (Landing gear extended)	165 knots	(190 m.p.h.)																									
	*Applicable to airplanes with P/N 01-18062-1, -2 M.L.G. door assembly.																											
	**Applicable to airplanes with P/N 01-18121-501, -502 M.L.G. door assembly.																											
C.G. range	<table border="1"> <thead> <tr> <th rowspan="2">Weight (lb.)</th><th colspan="2">Landing Gear extended flap up*</th><th colspan="2"></th></tr> <tr> <th>Forward</th><th></th><th>Aft</th><th></th></tr> <tr> <th></th><th>%MAC</th><th>STA.(in)</th><th>%MAC</th><th>STA.(in)</th></tr> </thead> <tbody> <tr> <td>54,010</td><td>22.4</td><td>-83.7</td><td>36.0</td><td>-66.5</td></tr> <tr> <td>35,270 and below</td><td>15.0</td><td>-93.0</td><td>36.0</td><td>-66.5</td></tr> </tbody> </table> <p>Straight line variation between points given.</p> <p>*The airplane is safe and operable with flaps and gear in any position provided the center of gravity falls within limits specified with flaps up and gear down.</p> <p>Landing gear retraction moment change is -99,800 in.lb. Flaps down (20 degrees) moment change is +5,990 in. lb. Flaps down (35 degrees) moment change is +10,420 in.lb.</p>				Weight (lb.)	Landing Gear extended flap up*				Forward		Aft			%MAC	STA.(in)	%MAC	STA.(in)	54,010	22.4	-83.7	36.0	-66.5	35,270 and below	15.0	-93.0	36.0	-66.5
Weight (lb.)	Landing Gear extended flap up*																											
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54,010	22.4	-83.7	36.0	-66.5																								
35,270 and below	15.0	-93.0	36.0	-66.5																								
Maximum Weights	Takeoff	54,010 lb.																										
	Landing	52,910 lb.																										
Maximum Zero Fuel Wt.	48,500 lbs.																											
Minimum Crew	2 (Pilot and Copilot)																											
Maximum Passengers	59 limited by emergency exit requirement (CAR 4b.362(c)). Additional 3 passengers are permitted if 2 inflatable slides are installed.																											

Maximum	Compartment	Capacity	Max. Load	Arm
		(lb.)	(lb./ft ²)	(in.)
	Main Cargo			
	* for 30 seats 34 in pitch type		150	-222
	use tie down	8,400		
	use no tie down	5,000		
	** for 38 seats 34 in pitch type		150	-251
	use tie down	6,400		
	use no tie down	3,700		
	*** for 46 seats 34 in pitch type		150	-283
	use tie down	4,100		
	use no tie down	2,400		
	**** All Cargo		F.STA-9,180+- F.STA-2,560+ 150 F.STA-2,560+ F.STA+3,240+ 75 †F.STA units are in millimeters	-116
	use tie down	15,400		
	use no tie down	10,200		
	Miscellaneous storage		150	-376
	use tie down	500		
	use no tie down	300		
	Belly Cargo	1,100	65	-252
	Carry-on Baggage	1,200		-222
	floor		75	
	shelves		20	
	**** Forward Cargo	1,000	150	-298
	* Location of right forward cargo compartment:	F.STA-9,180+ to F.STA-2,560+		
	** Location of right forward cargo compartment:	F.STA-9,180+ to F.STA-4,050+		
	*** Location of right forward cargo compartment:	F.STA-9,180+ to F.STA-5,800+		
	**** Location of left forward cargo compartment:	F.STA-9,180+ to F.STA+3,240+		
	(For aircraft of which the full cabin space is utilized as a main cargo compartment.)			
	***** For aircraft with forward cargo compartment installed.			
	†F.STA. units are in millimeters.			
Fuel Capacity		Total Refuel*	Usable	Arm
		lb. (US Gal.) ea.	lb. (US Gal.)ea.	(in.)
	When two scavenge pumps per aircraft are installed.			
	2 integral tanks (main)	4,333 (666)	4,235 (651)	-63.6
	Bag tanks (optional)			
	R.H.	2,339 (359)	2,327 (357)	-70.1
	L.H.	1,496 (230)	1,484 (228)	-70.1

When four scavenge pumps per aircraft are installed.

2 integral tanks (main)	4,333 (666)	4,309 (663)	-63.6
Bag Tank (optional)			
R.H.	2,339 (359)	2,327 (357)	-70.1
L.H.	1,496 (230)	1,484 (228)	-70.1

***"Total Refuel" capacity includes Unusable and Usable Fuel.

Fuel weights are based on 6.5 lb./U.S. gal.

See NOTE 1(c) for system fuel.

Water/Methanol Capacity	1 bag tank in left-hand wing: 870 lb. (111 U.S. gal.)	-70.1 in.
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W/M weight is based on 7.85 lb./U.S. gal.

Oil Capacity	Engine oil	
	Tank capacity	38.5 lb. (38.5 U.S. pint) ea.
	(Applicable to the aircraft without R/R Mod. 1384)	-200.4 in.
	Tank capacity:	43 lb. (43 U.S. pint) ea.
	(Applicable to the aircraft with R/R Mod. 1384)	-200.4 in.
	Gear box oil:	6 lb. (6 U.S. pint) ea.
		-134 in.

See NOTE 1(C) for system oil.

Maximum Operating Altitude	20,000 ft.
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Other Operating Limitations	See Japan Civil Aviation Bureau Approved Flight Manual, YS-FM-002.
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VI - Model YS-11A-500 Series (Transport Category), Approved May 8, 1970
(See NOTE 6 for conversion to YS-11A-200)

Engines	2 Rolls-Royce Dart Mk. 542-10 or Mk. 542-10J or Mk. 542-10K (Turboprop) Reduction gearing 0.0775 : 1
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See NOTE 5 regarding intermixing of engines

Fuel	(Fuel shall conform to the specifications listed or to subsequent revisions thereof.)
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Group A	ASTM D. 1655-68 Jet A or Jet A-1 British D Eng. R.D. 2453, 2482, 2494, or 2498 Canadian 3-GP-23f or 3-GP-24e I.A.T.A. Kerosene Type Fuel MIL-T-5624G Grade JP-5
Group B	ASTM D. 1665-68 Jet B British D. Eng. R.D. 2454 or 2486 Canadian 3-GP-22f I.A.T.A. wide cut type fuel (JP-4 type) *MIL-T-5624G Grade JP-4

See NOTE 4 regarding fuel pump governor adjustments.

*To be used in accordance with Rolls-Royce, Notice to Operator-Dart engine No. 1007.

Water/Methanol Rolls-Royce AEP-1-W/M, latest issue.

Oil	Aero Shell Turbine Oil 750 Castrol 98 Gas Turbine Oil Castrol 98 U.K. Synthetic Aviation Oil (Castrol 98 U.K.) Esso Aviation Turbo Oil 35 (E.A.T.O. 35) Esso Extra Turbo Oil 274 (E.E.T.O. 274)	Enco Turbo Oil 274 (Enco 274) Esso Turbo Oil 35 (E.T.O. 35) Enco Turbo Oil 35 Texaco Synthetic Acft. Turbine Oil 35 (T.S.A.T.O. 35) Caltex Synthetic Turbo Oil 35 Regent Synthetic Turbo Oil 35
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Engine Limits Dart MK 542-10, MK 542-10J and MK 542-10K Engine

Static Sea Level Rating (I.S.A.)				
	Propeller Shaft	Total	Engine	Maximum
Ratings	Horsepower	Equivalent	Speed	Duration
<u>(Min. Performance)</u>	<u>(S.H.P.)</u>	<u>(T.E.H.P.)</u>	<u>(R.P.M.)</u>	<u>(Minutes)</u>
Takeoff (Wet)	2,680*	2,966 **	15,000	5
Takeoff (Dry)	2,305	2,559	15,000	5
Max. Continuous	2,305	2,559	15,000 Unrestricted	

The above static ratings are based on engine operations with the aircraft service accessories unloaded and no bleed air extraction.

*This power is constant despite changes in power extraction through the gear box.

**The power permitted through the gear box is not included, which is 70 H.P. maximum.

	<u>MK 542-10</u>	<u>MK 542-10J and MK 542-10K</u>
Maximum turbine gas temperatures		
Momentary maximum during starting	930°C	930°C
Takeoff (5 min. limit)		
with water/methanol	890°C	940°C
without water/methanol	865°C	865°C
Maximum Continuous	905°C	915°C
Maximum oil inlet temperature		
All operations	120°C	

Propeller and
Propeller
Limits

2 Dowty Rotol Type (c) R.209/4-40-4.5/2
 Hydraulic, constant speed and feathering
 Hub: 4 blade, No. 40 blade shank size to fit No. 4-1/2 S.B.A.C. shaft.
 Takeoff rating 2,680 shaft h.p.
 Blade: RA.25952
 Diameter: 14 ft. 6 in. (nominal)
 Minimum allowable for repairs 14 ft. 3 in.
 No further reduction permitted.
 Pitch setting at 0.7 radius
 Feathered: 84°15'
 Cruise Pitch Lock 27°30'
 Flight fine 14°
 Ground fine 0°

Airspeed	Vmo (Maximum operating) SL-13,600 ft.245 knots	(282 m.p.h.)
Limits (CAS)	Mmo (Maximum operating) above 13,600 ft.	0.475
	Va (Maneuvering) 155 knots	(178 m.p.h.)
	Vfe (Flap extended 10° and below) 200 knots	(230 m.p.h.)
	Vfe (Flap extended above 10° to 20°)	165 knots (190 m.p.h.)
	Vfe (Flap extended above 20° to 35°)	135 knots (155 m.p.h.)
	*Vlo (Landing gear operating-extension)	210 knots (242 m.p.h.)
	**Vlo (Landing gear operating-extension)	165 knots (190 m.p.h.)
	Vlo (Landing gear operating-retraction) 135 knots	(155 m.p.h.)
	*Vle (Landing gear extended)	210 knots (242 m.p.h.)
	**Vle (Landing gear extended)	165 knots (190 m.p.h.)

*Applicable to airplanes with P/N 01-18062-1, -2 M.L.G. door assembly.

**Applicable to airplanes with P/N 01-18121-501, -502 M.L.G. door assembly.

C.G. range

Landing Gear extended flap up*

Weight (lb.)	Forward		AFT**		AFT***	
	%MAC	STA.(in)	%MAC	STA.(in)	%MAC	STA.(in)
55,110	23.7	-82.0	36.0	-66.5	32.2	-71.3
54,340					36.0	-66.5
52,910	21.9	-84.3				
35,270 and below	15.0	-93.0	36.0	-66.5	36.0	-66.5

Straight line variation between points given.

*The airplane is safe and operable with flaps and gear in any position provided the center of gravity falls within limits specified with flaps up and gear down.

Landing gear retraction moment change is -99,800 in.lb.

Flaps down (20 degrees) moment change is +5,990 in. lb.

Flaps down (35 degrees) moment change is +10,420 in.lb.

**Rearward C.G. limitation for airplanes with 12.50-16 14 P.R. Type III main tires

***Rearward C.G. limitation on the ground for airplanes with 12.50- 16 12 P.R. Type III main tires.
Rearward C.G. limitation in the air for airplanes with 12.50-16 12 P.R. Type III main tires is the same as that in column.**

Maximum	Takeoff	55,110 lb.
Weights	Landing	54,010 lb.

Maximum Zero
Fuel Wt. 49,600 lbs.

Minimum Crew 2 (Pilot and Copilot)

Maximum
Passengers 59 limited by emergency exit requirement (CAR 4b.362(c)).
Additional 5 passengers are permitted if 2 inflatable slides are installed.

Maximum Baggage	Compartment	Capacity (lb.)	Max. Load (lb./ft ²)	Arm (in.)
	Right forward			
	* for 52 seats 38 in pitch type	1,500	100	-350
	** for 52 seats 34 in pitch type	2,500	100	-324
	*** for 60 seats 34 in pitch type	1,200	100	-358
	Left forward			
	**** for 52 seats 34 in pitch type only	1,000	100	-292
	Aft	2,000	100	+291
	Belly	1,100	65	-252

* Location of right forward cargo compartment: F.STA-9,900+ to F.STA-7,900†

** Location of right forward cargo compartment: F.STA-9,900+ to F.STA-6,870†

*** Location of right forward cargo compartment: F.STA-9,900+ to F.STA-8,280†

**** Location of left forward cargo compartment: F.STA-8,280+ to F.STA-6,870†

† F.STA. units are in millimeters.

Fuel Capacity	Total Refuel* lb. (US Gal.) ea.	Usable lb. (US Gal.)ea.	Arm (in.)
When two scavenge pumps per aircraft are installed.			
2 integral tanks (main)	4,333 (666)	4,235 (651)	-63.6
Bag tanks (optional)			
R.H.	2,339 (359)	2,327 (357)	-70.1
L.H.	1,496 (230)	1,484 (228)	-70.1

When four scavenge pumps per aircraft are installed.

2 integral tanks (main)	4,333 (666)	4,309 (663)	-63.6
Bag Tank (optional)			
R.H.	2,339 (359)	2,327 (357)	-70.1
L.H.	1,496 (230)	1,484 (228)	-70.1

***"Total Refuel" capacity includes Unusable and Usable Fuel.

Fuel weights are based on 6.5 lb./U.S. gal.

See NOTE 1(c) for system fuel.

Water/Methanol Capacity	1 bag tank in left-hand wing: 870 lb. (111 U.S. gal.)	-70.1 in.
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W/M weight is based on 7.85 lb./U.S. gal.

Oil Capacity	Engine oil	
	Tank capacity 38.5 lb. (38.5 U.S. pint) ea. (Applicable to the aircraft without R/R Mod. 1384)	-200.4 in.
	Tank capacity: 43 lb. (43 U.S. pint) ea. (Applicable to the aircraft with R/R Mod. 1384)	-200.4 in.
	Gear box oil: 6 lb. (6 U.S. pint) ea.	-134 in.

See NOTE 1(C) for system oil.

Maximum Operating Altitude	20,000 ft.
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Other Operating
Limitations

See Japan Civil Aviation Bureau Approved Flight Manual, YS-FM-005.

V - Model YS-11A-600 Series (Transport Category), Approved May 8, 1970

(See NOTE 6 for conversion to YS-11A-300)

Engines 2 Rolls-Royce Dart Mk. 542-10 or Mk. 542-10J or Mk. 542-10K (Turboprop) Reduction gearing 0.0775 : 1

See NOTE 5 regarding intermixing of engines

Fuel (Fuel shall conform to the specifications listed or to subsequent revisions thereof.)

Group A ASTM D. 1655-68 Jet A or Jet A-1
British D Eng. R.D. 2453, 2482, 2494, or 2498
Canadian 3-GP-23f or 3-GP-24e
I.A.T.A. Kerosene Type Fuel
MIL-T-5624G Grade JP-5

Group B ASTM D. 1665-68 Jet B
British D. Eng. R.D. 2454 or 2486
Canadian 3-GP-22f
I.A.T.A. wide cut type fuel (JP-4 type)
*MIL-T-5624G Grade JP-4

See NOTE 4 regarding fuel pump governor adjustments.

*To be used in accordance with Rolls-Royce, Notice to Operator-Dart engine No. 1007.

Water/Methanol
Oil

Rolls-Royce AEP-1-W/M, latest issue.
Aero Shell Turbine Oil 750 Enco Turbo Oil 274 (Enco 274)
Castrol 98 Gas Turbine Oil Esso Turbo Oil 35 (E.T.O. 35)
Castrol 98 U.K. Synthetic Enco Turbo Oil 35
Aviation Oil (Castrol 98 U.K.) Texaco Synthetic Acft. Turbine
Esso Aviation Turbo Oil 35 Oil 35 (T.S.A.T.O. 35)
(E.A.T.O. 35) Caltex Synthetic Turbo Oil 35
Esso Extra Turbo Oil 274 Regent Synthetic Turbo Oil 35
(E.E.T.O. 274)

Engine Limits

Dart MK 542-10, MK 542-10J and MK 542-10K Engine

Static Sea Level Rating (I.S.A.)

Ratings	Propeller Shaft Horsepower (Min. Performance) (S.H.P.)	Total		Maximum Duration (Minutes)
		Equivalent Horsepower (T.E.H.P.)	Engine Speed (R.P.M.)	
Takeoff (Wet)	2,680 *	2,966 **	15,000	5
Takeoff (Dry)	2,305	2,559	15,000	5
Max. Continuous	2,305	2,559	15,000 Unrestricted	

The above static rating are based on engine operations with the aircraft service accessories unloaded and no bleed air extraction.

*This power is constant despite changes in power extraction through the gear box.

**The power permitted through the gear box is not included, which is 70 H.P. maximum.

		<u>MK 542-10</u>	<u>MK 542-10J and MK 542-10K</u>
	Maximum turbine gas temperature		
	Momentary maximum during starting	930°C	930°C
	Takeoff (5 min. limit)		
	with water/methanol	890°C	940°C
	without water/methanol	865°C	865°C
	Maximum Continuous	905°C	915°C
	Maximum oil inlet temperature		
	All operations	120°C	120°C
Propeller and Propeller Limits	2 Dowty Rotol Type (c) R.209/4-40-4.5/2 Hydraulic, constant speed and feathering Hub: 4 blade, No. 40 blade shank size to fit No. 4-1/2 S.B.A.C. shaft. Takeoff rating 2,680 shaft h.p. Blade: RA.25952 Diameter: 14 ft. 6 in. (nominal) Minimum allowable for repairs 14 ft. 3 in. No further reduction permitted. Pitch setting at 0.7 radius Feathered: 84° 15' Cruise Pitch Lock 27° 30' Flight fine 14° Ground fine 0°		
Airspeed Limits (CAS)	Vmo (Maximum operating) SL-13,600 ft	245 knots	(282 m.p.h.)
	Mmo (Maximum operating) above 13,600 ft.	0.475	
	Va (Maneuvering)	155 knots	(178 m.p.h.)
	Vfe (Flap extended 10° and below)	200 knots	(230 m.p.h.)
	Vfe (Flap extended above 10° to 20°)	165 knots	(190 m.p.h.)
	Vfe (Flap extended above 20° to 35°)	135 knots	(155 m.p.h.)
	*Vlo (Landing gear operating-extension)	210 knots	(242 m.p.h.)
	**Vlo (Landing gear operating-extension)	165 knots	(190 m.p.h.)
	Vlo (Landing gear operating-retraction)	135 knots	(155 m.p.h.)
	*Vle (Landing gear extended)	210 knots	(242 m.p.h.)
	**Vle (Landing gear extended)	165 knots	(190 m.p.h.)
	*Applicable to airplanes with P/N 01-18062-1, -2 M.L.G. door assembly.		
	**Applicable to airplanes with P/N 01-18121-501, 502 M.L.G. door assembly.		
C.G. range	Landing Gear extended flaps up*		

Weight (lb.)	Forward		AFT**		AFT***	
	%MAC	STA.(in)	%MAC	STA.(in)	%MAC	STA.(in)
55,110	23.7	-82.0	36.0	-66.5	32.2	71.3
54,340					36.0	-66.5
52,910	21.9	-84.3				
35,270 and below	15.0	-93.0	36.0	-66.5	36.0	-66.5

Straight line variation between points given.

*The airplane is safe and operable with flaps and gear in any position provided the center of gravity falls within limits specified with flaps up and gear down.

Landing gear retraction moment change is -99,800 in.lb.
 Flaps down (20 degrees) moment change is +5,990 in. lb.
 Flaps down (35 degrees) moment change is +10,420 in.lb.

**Rearward C.G. limitation for airplanes with 12.50-16 14 P.R. Type III main tires

***Rearward C.G. limitation on the ground for airplanes with 12.50- 16 12

P.R. Type III main tires. Rearward C.G. limitation in the air for
 airplanes with 12.50-16 12 P.R. Type III main tires is the same as that in column.**

Maximum	Takeoff	55,110 lb.
Weights	Landing	54,010 lb.

Maximum Zero Fuel Wt.	49,600 lbs.
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Minimum Crew	2 (Pilot and Copilot)
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Maximum Passengers	59 limited by emergency exit requirement (CAR 4b.362(c)). Additional 3 passengers are permitted if 2 inflatable slides are installed.
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Maximum Baggage	<u>Compartment</u>	<u>Capacity</u> (lb.)	<u>Max. Load</u> (lb./ft ²)	<u>Arm</u> (in.)
	Main Cargo			
	* for 30 seats 34 in pitch type		150	-222
	use tie down	8,400		
	use no tie down	5,000		
	** for 38 seats 34 in pitch type		150	-251
	use tie down	6,400		
	use no tie down	3,700		
	*** for 46 seats 34 in pitch type		150	-283
	use tie down	4,100		
	use no tie down	2,400		
	**** All Cargo		F.STA-9,180†- F.STA-2,560† 150 F.STA-2,560+ F.STA+3,240+ 75	-116
			†F.STA units are in millimeters	
	use tie down	15,400		
	use no tie down	10,200		
	Miscellaneous storage		150	-376
	use tie down	500		
	use no tie down	300		
	Belly Cargo	1,100	65	-252
	Carry-on Baggage	1,200		-222
	floor		75	
	shelves		20	
	**** Forward Cargo	1,000	150	-298
	*Location of right forward cargo compartment: F.STA-9,180+ to F.STA-2,560†			
	**Location of right forward cargo compartment: F.STA-9,180+ to F.STA-4,050†			
	***Location of right forward cargo compartment: F.STA-9,180+ to F.STA-5,800†			

****Location of left forward cargo compartment: F.STA-9,180+ to F.STA-3,240†
 (For aircraft of which the full cabin space is utilized as a main cargo compartment.)
 ***** For aircraft with forward cargo compartment installed.
 †F.STA. units are in millimeters.

Fuel Capacity	Total Refuel* lb. (US Gal.) ea.	Usable lb. (US Gal.)ea.	Arm (in.)
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When two scavenge pumps per aircraft are installed.

2 integral tanks (main)	4,333 (666)	4,235 (651)	-63.6
Bag tanks (optional)			
R.H.	2,339 (359)	2,327 (357)	-70.1
L.H.	1,496 (230)	1,484 (228)	-70.1

When four scavenge pumps per aircraft are installed.

2 integral tanks (main)	4,333 (666)	4,309 (663)	-63.6
Bag Tank (optional)			
R.H.	2,339 (359)	2,327 (357)	-70.1
L.H.	1,496 (230)	1,484 (228)	-70.1

***"Total Refuel" capacity includes Unusable and Usable Fuel.
 Fuel weights are based on 6.5 lb./U.S. gal.

See NOTE 1(c) for system fuel.

Water/Methanol Capacity	1 bag tank in left-hand wing: 870 lb. (111 U.S. gal.)	-70.1 in.
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W/M weight is based on 7.85 lb./U.S. gal.

Oil Capacity	Engine oil Tank capacity 38.5 lb. (38.5 U.S. pint) ea. (Applicable to the aircraft without R/R Mod. 1384)	-200.4 in.
	Tank capacity: 43 lb. (43 U.S. pint) ea. (Applicable to the aircraft with R/R Mod. 1384)	-200.4 in.
	Gear box oil: 6 lb. (6 U.S. pint) ea.	-134 in.

See NOTE 1(C) for system oil.

Maximum Operating Altitude	20,000 ft.
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Other Operating Limitations	See Japan Civil Aviation Bureau Approved Flight Manual, YS-FM-006.
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Data Pertinent to All Models

Datum	Station 0 is 42.5 in. aft of wing reference line (55% chord line).
MAC	126.1 in. (L.E. of MAC-111.9 in.)
Leveling Means	Leveling clips installed in the nosewheel well.

Control Surfaces Movements	Elevator	Up	27°	Down	13°
	Elevator balance tab	Up	6°	Down	12°
	Elevator trim tab (L.H.)	Up	10°	Down	15°
	Rudder spring-trim tab				
	Spring tab	Right	21°	Left	21°
	Trim tab	Right	12.5°	Left	12.5°
	Aileron	Up	24°	Down	15°
	Aileron spring tab	Up	18°	Down	10°
	Aileron trim tab (L.H.)	Up	21°	Down	21°
	Flaps			Down	35°
Serial Numbers	The Government of Japan Certificate of Airworthiness for Export endorsed as noted under				
Eligible "Import Requirements"	must be submitted for each individual aircraft for which application for certification is made.				
Certification Basis	CAR 10 dated March 28, 1955. (Applicable Regulations are CAR 4b dated December 31, 1953. Amendments 4b-1 through 4b-12 and SR- 422B.)				
	Application for type certificate dated June 15, 1962.				
	Compliance with the following optional requirements has been established.				
	Ditching Provisions	4b.361 (overwater operation can be approved when the aircraft has been equipped and installation has been approved according to CAR 4b.361).			
	Ice Protection Provisions	4b.640 (When the aircraft has been equipped with rubber boots ice protection system).			
Required Equipment	The basic required equipment as prescribed in the applicable airworthiness regulations (see certification basis) must be installed in the aircraft for type certification. NAMC Report YSE- 0547-2 "YS-11 and YS-11A Master Equipment List" contains a list of all required equipment that must be installed as well as optional equipment installations approved by the Japan Civil Aviation Bureau (JCAB).				
Import Requirements	A U.S. Certification of Airworthiness may be issued on the basis of a Japanese Certificate of Airworthiness for Export signed by a representative of the JCAB containing the following notation: "The aircraft covered by this certificate has been found to conform to Type Certificate Number A1PC and is in a condition for safe operation."				
NOTE 1 (a)	Current weight and balance report, including list of equipment included in the certificated empty weight, and loading instructions when necessary must be provided for each aircraft at the time of original certification.				
(b)	The airplane must be loaded so that the C.G. is within the specified limits at all times, with the effects of fuel use, and crew and passenger movement being considered.				
(c)	The weight of system fuel and oil as defined below, and hydraulic fluid, must be included in the airplane empty weight.				
System Fuel	The weight of all fuel required to fill all lines and tanks up to the zero fuel point on the fuel gauge in the most critical flight attitude. System fuel includes the unusable tank fuel as defined by CAR 4b.416.				

When two scavenge pumps per aircraft are installed.

	<u>Lbs. (U.S. Gal.)</u>	
Unusable (2 integral tanks)	196 (30)	98 (15) ea.
Unusable (2 bag tanks)	24 (4)	12 (2) ea.
Between emergency shutoff valve and engine	8 (1.2)	
Crossfeed line	9 (1.4)	
Between emergency shutoff valve and booster pump	4 (0.6)	
Transfer line (R.H.)	8 (1.2)	
Transfer line (L.H.)	<u>7 (1.1)</u>	

System fuel total 256 (40)

When four scavenge pumps per aircraft are installed.

	<u>Lbs. (U.S. Gal.)</u>	
Unusable (2 integral tanks)	48 (7)	24 (4) ea.
Unusable (2 bag tanks)	24 (4)	12 (2) ea.
Between emergency shutoff valve and engine	8 (1.2)	
Crossfeed line	9 (1.4)	
Between emergency shutoff valve and booster pump	4 (0.6)	
Transfer line (R.H.)	8 (1.2)	
Transfer line (L.H.)	<u>7 (1.1)</u>	

System fuel total 108 (17)

System Oil: System oil which must be included in empty weight is the amount of oil normally trapped in the propellers, plus the amount normally trapped in the engines after oil drainage. The total amount of "System Oil" is as follows:

	<u>Lbs. (U.S. Gal.)</u>	
Propeller hub	22 (22)	11 (11) ea.
Engine lubrication system	<u>20 (2)</u>	10 (10) ea.
System oil total	42 (42)	

- (d) The "Unusable" fuel is the amount of fuel in the tank which is unavailable to the engines under critical flight conditions as defined by CAR 4b.416 and may be obtained by taking the difference between "Total Refuel" and "Usable" tank capacities shown under "Fuel Capacity." This "Unusable" fuel is included in System fuel as indicated in 1(c) above.

NOTE 2. This aircraft must be operated in accordance with the Japan Civil Aviation Bureau Approved Airplane Flight Manual.

NOTE 3. Service life limits on structural components are established for all existing versions of the YS-11 and YS-11A in the JCAB Approved Manual YS-MR-101 "YS-11 and YS-11A Service Life Limits."

NOTE 4. The engine fuel pump governor must be adjusted when changing from wide-cut fuel to kerosene.

NOTE 5. When intermixing engines, aircraft performance shall be decided with the limitation of the lower powered engine used.

NOTE 6. When aircraft are converted in accordance with the information contained below, the nameplate must be modified to add the new model designation and the date of conversion.

The aircraft must be operated in accordance with the JCAB approved Airplane Flight Manual for the new model.

Model YS-11A-200 aircraft can be converted to Model YS-11A-500 and Model YS-11A-300 can be converted to Model YS-11A-600 by complying with the provisions of NAMC Service Bulletin No. 15-25 dated March 1970 or later.

...END...