

<u>Propeller and Propeller Limits.</u>	2 (two) Hartzell HC-B3TN-3B/T10173B-3 or 2(two)Hartzell HC-B3TN-3B/T10173NB-3 Propeller Type Certificate: P15EA	
	Metal Propellers	
	Blades	3
	Diameter (Max)	98 in
	Minimum Allowable for Repair	97 in
	Pitch Setting	
	Feathered	87° ± 0.5°
	Reverse	-14° 1
	Ground Idle	See NOTE 4(d)
	Flight Idle	See NOTE 4(e)
<u>Airspeed Limits (CAS)</u>	V _{MC} (Minimum Control Speed)	69 knots (127 km/hr)
	V _{FE} (Flaps Extended Speed) (Both 10° and 20°)	104 knots (192 km/hr)
	V _A (Maneuvering Speed)	126 knots (234 km/hr)
	V _{MO} (Maximum Operating Speed)	162 knots (300 km/hr)
<u>Center of Gravity(C.G.) Limits</u>	214.44 in (5447mm) to 220.47 in (5600mm) at 12,500 lb (5670kg) 213.03 in (5411mm) to 220.47 in (5600mm) at 11,907 lb (5400kg) 210.12 in (5337mm) to 220.47 in (5600mm) below 10,688 lb (4847kg) Straight line variation between points given	
<u>Datum</u>	Located at airplane structure horizontal line in up and down directions, at the symmetric centerline of airplane in left and right directions, and at the nose in forward and rear directions.(Drawing Y11T-0000-03P)	
<u>Empty Weight C.G. Range</u>	None	
<u>Mean Aerodynamic Chord (MAC)</u>	77.24 in (1962mm) long with leading edge 195.43 in (4964mm) from datum.	
<u>Leveling Means</u>	Leveling points on airplane will be used for leveling during manufacture and operation.	
	Leveling Diagram	Y11T-0000-03P
	Painting Diagram	Y11T-0000-041
<u>Maximum Weights</u>	Ramp	12,568 lb (5700 Kg)
	Takeoff	12,500 lb (5670 Kg)
	Zero Fuel (See NOTE 1)	11,440 lb (5188 Kg)
	Landing	11,907 lb (5400 Kg)
<u>Minimum Crew</u>	Two (2) pilots: Seats at 101.58 in (2580 mm)	
<u>Number of Seats</u>	19 seats (See Airplane Flight Manual for approved seating configuration(s))	

<u>Maximum Baggage</u>	Forward Baggage Compartment	220 lb (100 kg) at 35.43 in (900 mm)	
	Rear Baggage Compartment	573 lb (260 kg) at 342.13 in (8690 mm)	
<u>Fuel Capacity</u>	Left Fuel Tank	215.3 gal (815 L) at 225.40 in (5725 mm)	
	Right Fuel Tank	215.3 gal (815 L) at 225.40 in (5725 mm)	
	See NOTE 1(a) for data on unusable fuel		
<u>Oil Capacity</u>	9.24 qt (8.74 L) each engine at 179.54 in (4560 mm)		
	18.47 qt (17.48 L) total both engines		
	See NOTE 1(b) for data on unusable oil		
<u>Max. Operating Altitude</u>	23,000 ft (7,000M)		
	Airplane shall be operated under FAR Parts 91 and 135 operating requirements when there is no oxygen system installed.		
<u>Control Surface Movements</u>	Elevator	Up 25°	Down 10°
	Elevator Trim Tab	Up 7°	Down 20°
	Rudder	Left 22°	Right 22°
	Rudder Trim Tab	Left 9°	Right 9°
	Aileron	Up 25°	Down 18°
	Aileron Trim Tab	Up 20°	Down 20°
	Flaps	Maximum 20°	

DATA PERTINENT TO ALL MODELS

<u>Serial Nos. Eligible</u>	Serial Number: 008 and on The CAAC Certificate of Airworthiness for Export must be submitted for each individual airplane. See "Import Requirements."
<u>Import Requirements</u>	A United States Certificate of Airworthiness may be issued on the basis of a CAAC Certificate of Airworthiness for Export, signed by a representative of the CAAC Authority, containing the following statement: "The airplane covered by this certificate has been examined, tested and found to conform to the type design approved under FAA Type Certificate A00006WI, and is in a condition for safe operation." Instructions for Continued Airworthiness complying with FAR 23.1529, must be furnished before delivery of the first airplane or issuance of a standard certificate of airworthiness, whichever occurs later.

Certification BasisFor MODEL Y12 IV

FAR 21.29 and FAR 23, effective February 1, 1965, including Amendments 23-1 through 23-42 for Commuter Category.

FAR 36, effective December 1969, including Amendments 36-1 through 36-20.

FAR 34, effective September 10, 1990.

Compliance has been demonstrated with requirements of 14 CFR, Section 23.1419: Ice Protection.

Date of application for original Type Certificate: September 20, 1992

Equipment

The basic required equipment prescribed in the applicable airworthiness regulations (see Certification Basis) must be installed in the airplane. In addition, the following equipment is also required:

FAA approved Airplane Flight Manual Y12 IV, Document No. Y12 IV SJWI, dated March 14, 1995, or later approved revision.

NOTES:

NOTE 1

Current weight and balance data, loading information, and a list of equipment included in empty weight must be provided for each airplane at the time of original certification.

- (a) Basic empty weight includes unusable fuel of 66.15 lb (30kg) at 225.40 in (5725mm).
- (b) Basic empty weight includes engine oil of 38.36 lb (17.4kg) with 13.45 lb (6.1kg) being unusable.

NOTE 2

All placards required in FAA approved Airplane Flight Manual must be installed in appropriate location.

NOTE 3

Mandatory retirement times for all structural components are contained in Chapter 5 of approved Y12 IV Airplane Maintenance Manual according to the requirements for Instructions for Continued Airworthiness.

These limitations may not be changed without AAD CAAC engineering approval.

NOTE 4

- (a) The maximum propeller shaft overspeed limit (Np) is 2288 rpm.
- (b) 100% Ng (gas generator speed) is defined as 37,500 rpm.
- (c) Gas generator speeds up to 102.6% Ng (starting and acceleration) are permissible for 2 seconds.
- (d) The engine speed Ng is 52% \pm 1% at ground idle (low idle).
- (e) The engine speed Ng is not more than 75% and the torque is 200 ft-lb at flight idle (high idle).

At low altitude and low ambient temperatures the engines may produce more power at takeoff than that which the airplane is certificated. Under these conditions the placarded torque limitations shall not be exceeded. The FAA Airplane Flight Manual prescribes a static torque at takeoff, which must be obtained without exceeding the ITT or Ng limitations.

NOTE 5

Current weight and balance report, including list of equipment included in the certified empty weight and loading instructions, must be in each airplane at the time of original certification, and at all times thereafter (except in the case of operators having an approved weight control system).

NOTE 6

The following placards must be displayed in full view of the pilot:

- a) "This airplane must be operated as a commuter category airplane in compliance with the operating limitations stated in the form of placards, markings and manuals. No aerobatic maneuvers, including spins, approved."

All placards required in the approved Airplane Flight Manual must be installed in the appropriate locations.

- b) Each individual airplane will be supplied with a placard that specifies the kinds of operations, such as VFR or IFR, Day or Night, to which the operation of the airplane is limited by the equipment installed.

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