DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

A-743
Revision 15
BOEING
A75L3
75 (Army PT-13)
A75 (Army PT-13A, -13B, -13C)
B75 (Navy N2S-5)
E75 (Army PT-13D, Navy N2S-5, PT-13D/N2S-5)
A75J1 (Army PT-18)
A75L300
A75N1 (Army PT-17, -17A; Navy N2S-1, -4)
B75N1 (Navy N2S-3)
D75N1 (Army PT-27)
IB75A
E75N1
October 15, 1987

AIRCRAFT SPECIFICATION A-743

Manufacturer: Boeing Airplane Company
Wichita Division
Wichita, Kansas 67210

I. Model A75L3, 2 PO-CLB, (Acrobatic Category) (see Note 7), approved June 3, 1941; 75 (Army PT-13), A75 (Army PT-13A, -13B, -13C), B75 (Navy N2S-5), E75 (Army PT-13D, Navy N2S-5, PT-13D/N2S-5), 2 PO-CLB, approved April 21, 1945

(Airplanes with the Model No. E75N1 marked on their name plates are actually Model E75 (Army PT-13D, Navy N2S-5 or PT-13D/N2S-5) airplanes and are eligible for certification without correction of the name plates.)

Engine	Lycoming R-680-B4B	506 lbs. (-55) or
	Lycoming R-680-B4C	497 lbs. (-55) or
	Lycoming R-680-B4D	490 lbs. (-55) or
	Lycoming R-680-B4E	512 lbs. (-55)
Fuel	65 minimum octane aviation gasoline	
Engine Limits	For all operations, 2100 rpm (225 hp)	
Airspeed Limits (TIAS)	Level flight or climb	125 mph
	Glide or dive	186 mph
Propeller Limits	See Item 1(a), 1(b), 1(d), or 1(e)	
C.G. Range	(-1.0) to (+7.1)	
Empty Weight C.G. Range	(-1.5) to (+0.5) solo from either seat (-4.4) to (+0.5) placard in front cockpit: "Solo from rear seat only." When empty weight C.G. falls within this range, computation of critical fore and aft C.G. positions is unnecessary. Ranges are not valid for non-standard arrangement or for crop duster or sprayer installations.	
Maximum Weight	2950 lbs. See Note 6 for 3200 lbs. maximum weight.	

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Number of Seats	2 (+19) and (+55)				
Maximum Baggage	60 lbs. (+84)				
Fuel Capacity	46 gals. (-5) (One tank in upper wing center section)				
Oil Capacity	4.4 gals. (-26)				
Control Surface Movements	Elevator trim tab	Up	15°	Down	15°
	Elevator	Up	24°	Down	22°
	Aileron	Up	23°	Down	18°
	Rudder	Right	30°	Left	30°
Serial Numbers Eligible	75001 and up and all Army and Navy serial numbers. Use manufacturer's number if available.				
Required Equipment	Items 1(a) or (b) or (d) or (e); 105(a), (b) or (c); 203(a) or (b); 204(a) or (b); 205(a) or (b); 401(a) or (b); 402				

II. Model A75N1 (Army PT-17, -17A, Navy N2S-1, -4); B75N1 (Navy N2S-3, D75N1 (Army PT-27), 2 PO-CLB, (Acrobatic Category) (See NOTE 7), approved April 21, 1945

Engine	Continental W-670-6A	465 lbs. (-55) or
	Continental W-670-6N	470 lbs. (-55)
Fuel	65 minimum octane aviation gasoline	
Engine Limits	For all operations, 2075 rpm (220 hp)	
Airspeed Limits (TIAS)	Level flight or climb	125 mph
	Glide or dive	186 mph
Propeller limits	See Item 1(b), 1(d), or 1(e)	
C.G. Range	(-1.0) to (+7.1)	
Empty Weight C.G. Range	(-1.5) to +0.5) Solo from either seat (-4.4) to (+0.5) placard in front cockpit: "Solo from rear seat only." When empty weight C.G. falls within this range, computation of critical fore and aft C.G. positions is unnecessary. Ranges are not valid for non-standard arrangements or for crop duster or sprayer installations.	
Maximum Weight	2950 lbs. See Note 6 for 3200 lbs. maximum weight.	
No. of Seats	2 (+19) and (+55)	
Maximum Baggage	60 lbs. (+84)	
Fuel Capacity	46 gals. (-5) (One tank in upper wing center section)	
Oil Capacity	4.4 gals. (-26)	

Control Surface Movements	Elevator trim tab	Up	15°	Down	15°
	Elevator	Up	24°	Down	22°
	Aileron	Up	23°	Down	18°
	Rudder	Right	30°	Left	30°
Serial Numbers Eligible	75001 and up and all Army and Navy serial numbers. Use manufacturer's number if available.				
Required Equipment	Items 1(b or (d) or (e); 105(a), (b) or (c); 203(a) or (b); 204(a) or (b); 205(a) or (b); 401(a) or (b); 402				

III. Model A75J1 (Army PT-18) 2 PO-CLB, (Acrobatic Category) (See NOTE 7), approved May 28, 1945

Engine	Jacobs R-755-7. See NOTE 4 for required modifications.				
Fuel	73 minimum octane aviation gasoline				
Engine Limits	For all operations, 2000 rpm (225 hp)				
Airspeed Limits (TIAS)	Level flight or climb Glide or dive	125 mph 186 mph			
Propeller Limits	See item 1(b).				
C.G. Range	(-1.0) to (+7.1)				
Empty Weight C.G. Range	(-1.5) to +0.5) Solo from either seat (-4.4) to (+0.5) placard in front cockpit: "Solo from rear seat only." When empty weight C.G. falls within this range, computation of critical fore and aft C.G. positions is unnecessary. Ranges are not valid for non-standard arrangements or for crop duster or sprayer installations.				
Maximum Weight	2950 lbs.				
No. of Seats	2 (+19) and (+55)				
Maximum Baggage	60 lbs. (+84)				
Fuel Capacity	46 gals. (-5) (One tank in upper wing center section)				
Oil Capacity	4.4 gals. (-26)				
Control Surface Movements	Elevator trim tab Elevator Aileron Rudder	Up 15° Up 24° Up 23° Right 30°	Down 15° Down 22° Down 18° Left 30°		
Serial Numbers Eligible	75001 and up and all Army and Navy serial numbers. Use manufacturer's number if available.				
Required Equipment	Items 1(b); 105(a), (b) or (c); 203(a) or (b); 204(a) or (b); 205(a) or (b); 401(a) or (b); 402				

IV. *Model A75L300 (applies only to models listed under Sections I, II, and III when modified according to Mississippi Valley Aircraft Service, Clarksdale, Mississippi, data; Mid-Continent Aircraft Corporation, Hayti, Missouri, data; or equivalent

**Note:* *Models listed under Sections 1, II, or III when modified according to Brandt, Perkins & Brandt, Marysville, California, data, eligible for certification with the following limitation but will retain original model designation:*

Engine	Lycoming B680-E3 Lycoming B680-E3A Lycoming R680-E3B	525 lbs. (-54) or 535 lbs. (-55) or 565 lbs. (-55)
Fuel	87 minimum octane aviation gasoline	
Engine Limits	Maximum, except takeoff Takeoff (one minute)	2200 rpm (285 hp) 2300 rpm (300 hp)
Airspeed Limits (TIAS)	Level flight or climb Glide or dive	125 mph 186 mph

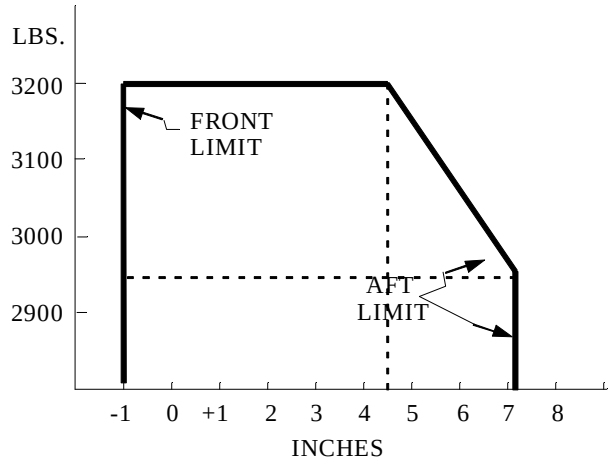
IV. Model A75L300 (cont'd)

Propeller Limits — See Item 1(f)

C.G. Range

	Maximum Weights		
	2950 lbs. or less	3200 lbs.	3520 lbs.
Fwd. C. G. Limit	(-1.0)	(-1.0)	(-1.0)
Aft C.G. Limit	(+7.1)	(+4.5)	(+4.5)

Note: Straight line variation aft of C.G. limit above 2950 lbs. with Item 601 not installed.



Empty Weight C.G. Range — (-1.3) to (-0.4) Solo from either seat.
(-3.7) to (-0.4) When front cockpit placarded: "Solo from rear seat only."
When empty weight C.G. falls within this range, computation of critical fore and aft C.G. positions is unnecessary. Ranges are not valid for non-standard arrangements or for crop duster or sprayer installations.

Maximum Weight — Takeoff: NC Certification, 3200 lbs.
***NR certification (prior to October 11, 1950), 3520 lbs.
Landing: 3200 lbs.

Placards
1. "Intentional spins prohibited at weights above 2950 lbs." with Item 601 not installed.
2. "Intentional spins prohibited" if elevator up-travel is more than 24°.
***3. For NR certification (prior to October 11, 1950): "Maneuvering speed at maximum weight not to exceed 115 m.p.h."

Required Equipment — Items 1(f); 105(a), (b), or (c); 204(a) or (b); 205(a) or (b); 401(a) or (b); 402

V. **Model IB75A (applies only to models listed under Sections I, II, or III when modified according to Inland Aviation Company, Los Banos, California, data, or equivalent).

***Note: Models listed under Sections I, II, or III modified according to Air-Repair, Clarksburgh, California, data, eligible for certification with the following limitations but will retain original model designation:*

Engine — Pratt & Whitney T1B-3 (R-985-AN-1 or -AN-3) 668 lbs. or 669 lbs. (-48.5)

Fuel — 87 minimum octane aviation gasoline

Engine Limits — Maximum, except takeoff 1950 rpm (310 hp)
Takeoff (one minute) 2300 rpm (450 hp)

V. Model IB75A (cont'd)

***All original certification in the Restricted Category after October 11, 1950, must be in accordance with CAR and CAM 8.*

Airspeed Limits (TIAS)	Level flight or climb	125 mph
	Glide or dive	150 mph
Propeller Limits	See Item 1(g) or 1(h).	
C.G. Range	(-2.1) to (+4.0)	
Empty Weight C.G. Range	(-5.3) to (-1.6) When empty weight C.G. falls within this range, computation of critical fore and aft C. G. positions is unnecessary. Ranges are not valid for non-standard arrangements or crop duster or sprayer installations.	
Maximum Weight	Takeoff: NC Certification, 3200 lbs ***NR certification (prior to October 11, 1950), 3520 lbs. Landing: 3200 lbs.	
Control surface movements	Elevator	Up 28° Down 22°
Placards	1. "METO power not to exceed 310 hp (1950 rpm)" 2. "Intentional spins prohibited" 3. "SOLO from rear seat only." ***4. NR certification (prior to October 11, 1950): "Maneuvering speed at maximum weight not to exceed 115 mph."	
Required Equipment	Items 1(g) or (h); 105(a), (b) or (c); 203(a) or (b); 204(a) or (b); 205(a) or (b); 401(a) or (b); 402	

SPECIFICATIONS PERTINENT TO ALL MODELS

Datum	Leading edge of lower wing
Leveling Means	Leveling lugs provided in front cockpit
Certification Basis	Type Certificate No. 743 (CAR 4a)
Production Basis	None. Each aircraft manufactured subsequent to October 3, 1945, for civil use must, prior to original certification, satisfactorily pass: A detailed inspection for workmanship, materials, and conformity with the approved technical data and a check of the flight characteristics by an FAA representative.
Export Eligibility	Eligible for export to all countries subject to the provisions of MOP 2-4, except as follows: Canada - Landplane - eligible Skiplane - not eligible

EQUIPMENT: A plus (+) or minus (-) sign preceding the weight of an item indicates net weight change when that item is installed.
Approval for the installation of all items of equipment listed herein has been obtained by the aircraft manufacturer except those items preceded by four asterisks (****). The asterisks denote that approval has been obtained by other than the aircraft manufacturer.

***All original certification in the Restricted Category after October 11, 1950, must be in accordance with CAR and CAM 8.*

Propellers and Propeller Accessories

1. Propellers

(a) Curtiss 55501-5 (eligible only with engines listed under Section I)..... 57 lbs. (-69)
Static rpm at maximum permissible throttle setting:
Not over 1750, not under 1650.
No additional tolerance permitted.
Diameter: Not over 102 in., not under 99 in.

(b) Sensenich 98AA64 or 98AA66 or Fahlin D760-68-94 (including hub) or any other fixed pitch wood propeller meeting following limits which is eligible for the engine power and speed:..... 57 lbs. (-69)
Static rpm at maximum permissible throttle setting:
Not over 1950, not under 1725.
No additional tolerance permitted.
Diameter: Not over 98 in., not under 94 in.
Reduce glide or dive speed to 150 mph. TIAS when using propeller with static rpm above 1775.
Indexing: When this propeller is installed on Continental W-670-6A or -6N engine, the propeller must be indexed in the 90 degree position (blades at right angles to the crankthrow).

(c) Deleted February 15, 1946.

(d) McCauley with the following hubs and blades:
(Eligible only when used with Continental W-670-6A, -6N (Army R-670) or Lycoming R-680-B4 engines.)

Hubs		Blades	
D-1093		SS-138-6	
	or	SS-135-6M	82 lbs. (-69)
41D5926		SS-135-6	82 lbs. (-69)

Static rpm, at maximum permissible throttle setting:
Not over 1925, not under 1575.
No additional tolerance permitted.
Pitch settings at 42 in. sta.: 9° to 11.7°
Diameter: Not over 102 in., not under 100 in.
When installed on Continental W-670-6A or -6N engine, this propeller must be indexed in the zero degree position (blades in line with the crankthrow) and the tachometer should be placarded as follows: "Avoid continuous operation between 1500 and 1650 rpm."

(e) Hamilton Standard blades 11C1 (Navy 4350, 4350F, 4350F1) in hub 5404, or other eligible 2-way ground adjustable hub. (Eligible only with engines listed under Sections I and II). ..... 87 lbs. (-69)
Static rpm at maximum permissible throttle setting:
Not over 1975, not under 1500. No additional tolerance permitted.
Diameter: Not over 102 in., not under 100 in. On Continental W-670 engines, index in the zero degree (blades in line with crankthrow) position and placard tachometer as follows: "Avoid continuous cruise operation above 1900 rpm."

(f) Hamilton Standard, constant speed, hub 2B20, blades 6135-9 through -16, with 1012G1 or 1012A1 governor, eligible on Lycoming R-680-E3, -E3A, and -E3B engines only. ..... 110 lbs. (-70)
Pitch settings at 42 in. sta.: Low 7° for 6135-9 blades and 10° for 6135-16 blades
Diameter: 8'3" max., 7' 7-1/8" min. allowable for repairs

(g) Hamilton Standard, ground adjustable 5406-AL hub, 1C1-12 through 1C1-14 blades. Eligible with P&W T1B3 engine only. ..... 99 lbs. (-67)
Pitch setting at 42 in. sta.: 13.0°
Diameter: 9'0" max., 8' 9-7/8" min. allowable for repairs

(h) Hamilton Standard, controllable, 2D30 hub, 6101-12 through -20 blades. ..... 163 lbs. (-67)
Eligible with P&W T1B3 engine only.
Pitch setting at 42 in. sta.: low 12-1/2°, high 16-1/2°
Diameter: 9'0" max., 8' 3-7/8" min. allowable for repairs

Engines and Engine Accessories - Fuel and Oil System

101. Starter and shaft (manual)
  (a) Eclipse M-2046-C (ACO 150976, Type B-11) ..... 24 lbs. (-36)
    (on Models A75L3, 75, A75, B75, and E75 only)
  (b) Eclipse 94C, Model 1 (ACO 150976, Type B-11) ..... 24 lbs. (-44)
    (on Models A75N1, B75N1, D75N1 only)
102. Magneto, booster
  (a) Bendix - Scintilla 10-12290-1 (modified to fit airplane) (on Model 75 only) ..... 4 lbs. (-11)
  (b) Bendix - Scintilla 10-15590-1 ..... 6 lbs. (-24)
103. Carburetor air cleaner, Air Maze 5AWA ..... 6 lbs. (-33)
104. Oil dilution system ..... 2 lbs. (-34)
105. Oil tank
  (a) Plain type, Boeing-Wichita Dwg. 75-3001 or 75-3028 ..... 6 lbs. (-26)
  (b) Hopper type, Boeing-Wichita Dwg. D75N1-3001 ..... 6 lbs. (-26)
  (c) Hopper type, Boeing-Wichita Dwg. E75N1-3002 ..... 8 lbs. (-26)
    Capacity: 4.76 gals.
106. Winter front cowl installation (on Models A75N1, B75N1 and D75N1 only) ..... 9 lbs. (-61)
107. Engine fire extinguisher system ..... 21 lbs. (-20)

Landing Gear and Floats

(Main gear shock struts of the air-oil type and conforming to Boeing-Wichita Dwg. 75-2602 and main landing gear carry-through structures conforming to Boeing-Wichita Dwg. 75-2603 may be used on Model 75 (Army PT-13) only.)

203. Main landing gear wheels
  (a) 24 in. streamline (Bendix or Hayes) with hyd. brakes and 24 in. 4-ply streamline tires ..... 94 lbs. (-17)
  (b) 24 in. streamline (Bendix or Hayes) with hyd. brakes and 8.90-12.50 4-ply low pressure tires. ..... 96 lbs. (-17)
204. Tail wheel
  (a) 8 in. smooth contour wheel and 6-ply tire ..... 4 lbs. (+196)
  (b) 10 in. smooth contour wheel and 6-ply tire ..... 7 lbs. (+196)
205. Tail wheel gear (less wheel and tire)
  (a) Steerable ..... 18 lbs. (+190)
  (b) Free swivel with lock ..... 18 lbs. (+190)

Electrical Equipment

301. Battery
  (a) 12 volt - 34 amp. hr. (5 hr. rate) ..... 41 lbs. (-16)
  (b) 24 volt - 11 amp hr. (5 hr. rate) ..... 34 lbs. (-16)
302. Interphone
  (a) Type TIC ..... 9 lbs. (-13)
  (b) Type RC-73 ..... 5 lbs. (+39)
303. (a) Wing (NAF 1021)
  (b) Wing (AN 3033)

Interior Equipment

401. Seats
  (a) Metal (Boeing-Wichita Dwg. 75-3720) ..... 8 lbs. (+26) & (+62)
  (b) Wood (Boeing-Wichita Dwg. B75N1-3610 ..... 13 lbs. (+26) & (+62)
402. Safety belts, Army Types B-6, B-10, B-11, and B-12 and NAF 1045-1
403. Fire extinguisher - portable
  (a) One quart carbon tetrachloride (Type A-2) ..... 7 lbs. (+51)
  (b) Two Pound CO_2 (Type 2TA 2TB) ..... 6 lbs. (+46)

Miscellaneous

601. Spoilers (spin strips) over leading edge upper and lower wings or lower wing only
602. (a) Blind flying hood ..... 6 lbs. (+67)
  (b) Fling flying hood provisions ..... 2 lbs. (+55)
603. Cockpit enclosure (Boeing). When this item is installed, airplane not eligible for night flying and must be placarded as follows:
    "Close hatches before entering spin or dive."

604. Windshield extension ..... 9 lbs. (+19)

****605. Cockpit enclosure (R.A.D. Air Devices, St. Louis, MO) ..... 47 lbs. (+50)

****606. Cockpit enclosure (Rawdon Dwg. PT-1050) ..... 10 lbs. (+44)

****607. Sprayer and Duster Installations (all 75 series airplanes unless otherwise noted)

(a) Goettl's Metalcraft Co., 2431 E. Buhanan, Phoenix, Arizona
Duster installation kit approved, subject to inspection, when installed according to drawings and installation instructions furnished with kit.

(b) Barrie Aeronautical Corp., Lee Airport, Lockport, New York
Model 20 dust hopper approved, subject to inspection, when installed according to Barrie Dwg. 001.

(c) Transland Company, 223 California St., El Segundo, California
Spray installation approved, subject to inspection, when installed in accordance with combination Spray Tank and Hopper Dwg. 1001, Dwgs. 1 through 10, and installation instructions:

Airspeed Limits:	Level flight or climb	100 mph TIAS
	Glide or dive	120 mph TIAS

(d) Transland Company, 223 California St., El Segundo, California
Duster installation approved, subject to inspection, when installed in accordance with combination Spray Tank and Hopper Dwg. 1001, Dwgs. 2001, 2004 and 2005 and installation instructions:

Airspeed Limits:	Level flight or climb	112 mph TIAS
	Glide or dive	134 mph TIAS

(e) Rawdon Bros. Aircraft, Inc., Box 1135, Wichita, Kansas
Spray kit approved, subject to inspection, when installed according to Rawdon Report PT-6025.

(f) Burnam Aviation Co., Arlington, Texas
Six venturi spray kit approved, subject to inspection, when installed according to Burnam Dwgs. and Instructions B-1, B-2, B-3, RB-100, RB-101, RB-102, RB-1 and RB-2.

Airspeed Limits:	Level flight or climb	119 mph TIAS
	Glide or dive	143 mph TIAS

(g) Independent Crop Dusting, Inc., Campbell, California
ICD Model 600 rotary spray two unit kit approved, subject to inspection, when installed according to ICD Dwgs. 600-102 to -106 inclusive and installation instructions, and when mounted to the wing structure in accordance with ICD Dwg. 600-101 or ICD Mounting Kit No. 600-1B.

Airspeed Limits:	Level flight or climb	92 mph TIAS
	Glide or dive	110 mph TIAS

(h) Airplane Vapor Spray Company, Route 3, Box 567b, Visalia, California
Duster, spray or combination duster and spray kit approved, subject to inspection, when installed according to assembly Dwg. No 8904-A and P-100 through P-107, inclusive, and installation Dwgs. 1001 through 1008 inclusive. Kits include instructions for Pratt and Whitney R-985-AN3 engine installation and the airplane was eligible for NR certification prior to October 11, 1950, with the engine and limitations listed in Section V.

(i) Ong Aircraft Corp., Kansas City, Missouri
Aero Dust King Model DS-12 kit approved, subject to inspection, when installed according to Ong Installation Instructions and DWg. DS-1200.

(j) Airplane Dust and Spray Equipment Company, Kern County Airport, Bakersfield, California
Sprayer pump and boom assembly kit, subject to inspection, when installed according to Dwg. 50320-207-75 and installation instructions.

Airspeed Limits:	Level flight or climb	92 mph TIAS
	Glide or dive	110 mph TIAS

(k) Rawdon Seeder-Duster, Rawdon Bros. Aircraft Inc., Box 1135, Wichita, Kansas
Kit approved, subject to inspection, when installed according to Rawdon Report No. PT-7100.

****608. Metal center wing section, Goettls Metalcraft Company, 2431 E. Buchanan Street, Phoenix, Arizona
Per Goettls Metalcraft Company Dwgs. Nos. G-2348-M, and/or G-2348-M modified.

****609. Wings made in accordance with Dwgs. 53040-1 through 53040-5, owned by Arvin-Wings, Inc., P.O. Box 668, Arvin, California, comply with the structural requirements of CAR 8 when installed on 75 Series aircraft. This configuration was substantiated under Part 8 for the following weights and speeds:

3200 lbs. gross weight, takeoff and landing
V_c = 110 mph V_{ne} - 139 mph

Airplanes equipped with these wings are eligible for certification under CAR 8 only. For certification at higher weights and speeds than those shown above, these airplanes should be flight tested in accordance with CAM 8.10-3 and the maximum weight established in accordance with CAM 8.10-4 for the intended special purpose.

****610. Wings made in accordance with Dwgs. NA101 through NA131, owned by National Aircraft Corporation, 8075 Woodley Avenue, Van Nuys, California, comply with structural requirements of CAR 8 only when installed on 75 series aircraft. This configuration was substantiated under Part 8 for the following weights and speeds:

3632 lbs. Gross weight, takeoff
3200 lbs. Gross weight, landing
V_C = 105 mph Vn_e - 141 mph

Airplanes equipped with these wings are eligible for certification under CAR 8 only. For certification at higher weights and speeds than those shown above, these airplanes should be flight tested in accordance with CAM 8.10-3 and the maximum weight established in accordance with CAM 8.10-4 for the intended special purpose.

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. Prior to original certification of any surplus military aircraft the following revisions must be made: (These revisions are also covered in Boeing Airplane Company, Wichita Division, Service Bulletin No. 75-1, A75-1, B75-1, E75-1, A75N1-1, D75N1-1, A75J1-1 (one bulletin).

(a) The 0.040 inch thick aluminum firewall must be replaced, covered, or backed by 0.015 inch thick stainless steel or 0.018 inch thick mild steel suitably protected against corrosion. As an alternative, the back of the present firewall may be covered with a sheet 1/8 inch thick asbestos covered, in turn, with 0.020 inch thick aluminum. The entire assembly should be securely riveted together. The asbestos and second sheet of aluminum need not be applied in one piece. However, any joints should be well matched and asbestos joints should not coincide with joints in the aluminum.

(b) A suitable stick or gauge for measuring the oil quantity shall be provided.

(c) The baggage compartment shall be marked "maximum capacity 60 lbs." or as limited by pertinent weight and balance report, if less.

NOTE 3. Prior to original certification of any surplus military aircraft of the subject models equipped with an electrical system, the following conditions should be complied with or electrical installations should be removed: (These revisions are also covered in Boeing Airplane Company, Wichita Division, Service Bulletin No. 75-1, A75-1, B75-1, E75-1, A75N1-1, B75N1-1, D75N1-1, A75J1-1 (one bulletin).)

(a) Any unapproved position lights must be replaced with Federal Aviation Administration certificated or approved lights. The wing lights on some airplanes are already of an approved type. These approved lights are NAF-1021 and AN 3033 models. However, if the AN 3033 lights have a streamlined glass cover, the sandblasted area on the inside of the cover should be painted black or the cover should be replaced with a glass globe and a streamlined metal cover which can be obtained from the light manufacturer. None of the rudder light assemblies incorporated on these military airplanes is approved.
(b) A battery switch must be installed that will disconnect the battery from the electrical system as near the battery as practicable.
(c) If the battery switch is operable from only one seat the airplane should be placarded for solo flight from that seat.

NOTE 4. Jacobs R-755-7 engines used in Army PT-18 airplanes must be inspected and modified as follows, prior to certification:
(a) The rear main engine crankcase must be part no. 30068. If any other rear main crankcase is installed it must be replaced.

(b) Inspect all gears and bushings in the engine starter gear train to assure that they are in airworthy condition. Any unsatisfactory parts must be replaced.
(c) Eclipse type 946 starters must not be used with the R-755-7 engine due to their excessively high clutch setting. In addition, no inertia type starters with a clutch setting above 300 ft. lbs. should be used with this engine.

NOTE 5. Rigging specifications are as follows:
(Complete maintenance instructions, including detailed rigging information, may be purchased from the Boeing Airplane Company, Wichita Division.)

Center section centering - With fuselage leveled laterally the center section is centered by hanging a plumb bob over the outboard side of the bushing at the front spar terminal bolt and measuring the lateral distance from the plumb line to the fuselage box tube. This dimension is normally 23" plus or minus 1/32" and should be equal within plus or minus 1/16" on both sides of the fuselage.

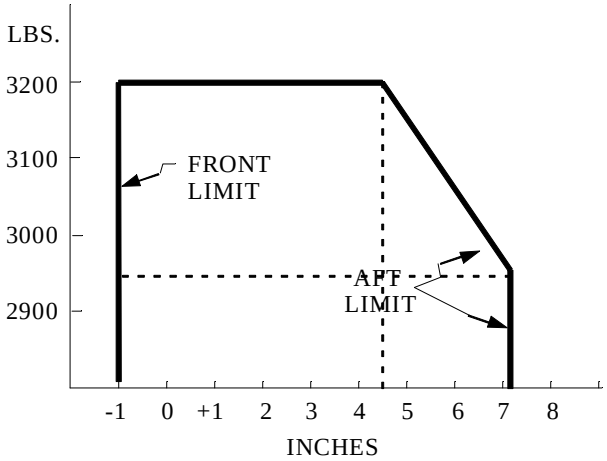
Dihedral	- Upper wing 1/2°, lower wing 1-1/2°
Incidence	- Upper wing 4°, lower wing 3°
Stagger	- 26-13/16" plus or minus 1/8" at strut point (spoilers on both wings or on neither wing)
	- 26-9/16" plus or minus 1/8" at strut point (spoilers on lower wing only)
Sweepback	- 0°

NOTE 6. Models with engines listed under Sections I and II are also eligible for NC certification at a maximum weight of 3200 lbs. under the following conditions:

Airspeed limits	Level flight or climb	123 mph TIAS
	Glide or dive	148 mph TIAS

Propeller limits
Static rpm, at maximum permissible throttle setting:
Not over 1970, not under 1870
No additional tolerance permitted
Diameter - Not over 102 in., not under 100 in.
Pitch setting: 9° at 42 in. station
(Limits shown in Item 1(d) and Item 1(e) are not applicable at 3200 lb. weight).

C.G. Range
(-1.0) to (+4.5) at 3200 lbs.
(-1.0) to (+7.1) at 2950 lbs. or less
Straight line variation of aft C.G. limit between 2950 lbs. and 3200 lbs.



Empty Wt. C.G. Range
(-1.3) to (-0.4) "Solo from rear seat only."
(-3.7) to (-0.4) When front cockpit placarded:
"Solo from rear seat only."
When empty weight C.G. falls within this range computation of critical fore and aft C.G. positions is unnecessary. Ranges are not valid for non-standard arrangements or for crop duster or sprayer installations.

Placards "Intentional spinning prohibited"
"80 minimum octane fuel to be used"

Item 1(d) or 1(e) required. Item 601 not be installed. Front windshield to be removed and front cockpit covered over.

NOTE: Above aircraft with external configuration changes such as approved dusters, sprayers, etc., listed under item 607, or similar, are eligible for NC or standard certification with the above limitations unless otherwise noted.

NOTE 7. The certification basis for these airplanes does not contain operating categories, i.e., normal, utility or acrobatic, as listed in the current certification regulations. However, since certain of these models were designed to perform and have demonstrated the capability to perform the acrobatic maneuvers not exceeding the load factors listed below, the words "acrobatic category" are included so that those persons concerned with these airplanes understand their capacity in terms of current practices. Maneuvering load factors are as follows:

A75L3, 75, A75, B75, E75, A75N1, B75N1, D75N1 and A75J1	+6.67 to -2.67

For the above reasons, the airworthiness certificate for A75L3, 75, A75, B75, E75, A75N1, B75N1, D75N1 and A75J1 airplanes is to be issued in the acrobatic category.

....END....