

DEPARTMENT OF TRANSPORTATION  
FEDERAL AVIATION ADMINISTRATION

A-725  
Revision 4  
FS 2001 Corp.

J5A (Army L-4F)  
J5A-80  
J5B (Army L-4G)  
J5C  
AE-1  
HE-1

March 30, 2001

**AIRCRAFT SPECIFICATION NO. A-725**

Type Certificate Holder

FS 2001 Corp  
709 Dupont Street, P. O. Box 1678  
Bellingham, WA 98227-1678.

The New Piper Aircraft, Inc.  
2926 Piper Drive  
Vero Beach, FL 32960  
TC 725 transferred 9-25-00, reissued 3-30-01

**I - Model J5A (Army L-4F), 3 PCLM, Approved April 13, 1940; Model J5A-80, 3 PCLM, Approved July 31, 1942 and Model J5B (Army L-4G), 3 PCLM, Approved June 17, 1940.**

The three models are all similar except for engine installation.

Engine  
J5A: Continental A-75-8  
J5A-80: Continental A-80-8  
J5B: Lycoming GO-145-C2  
See Item 307 for optional engines.

Fuel  
J5A and J5B: 73 min. octane aviation gasoline  
J5A-80: 80 min. octane aviation gasoline

Engine Limits  
J5A: For all operations, 2600 rpm (75 hp.)  
J5A-80: For all operations, 2700 rpm (80 hp.)  
J5B: For all operations, 3200 rpm (75 hp.)

Airspeed Limits  
Level flight or climb 104 mph True Ind.  
Glide or dive 140 mph True Ind.

Propeller Limits  
(with Item 101 or 107)  
Static rpm at full throttle and diameter, respectively:  
J5A: Not over 2525, not under 2300  
Not over 82 inches, not under 68 inches  
  
J5A-80: Not over 2550, not under 2300  
Not over 70 inches, not under 68 inches  
  
J5B: Not over 3200, not under 2750  
Not over 83 inches, not under 74 inches  
No additional tolerance on rpm permitted.

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**I - Model J5A (Army L-4F), Model J5A-80, Model J5B (Army L-4G) (cont'd)**

<u>C. G. Range</u>	(+12.2) to (+21.0) or (+9.6) to (+21.0)	when elevator bungee per Piper Dwg. C-40 is installed.
<u>Empty Weight C. G. Range</u>	(+14.0) to (+17.4) for Serial Nos. 5-2 to 5-783 (+15.7) to (+19.2) for Serial Nos. 5-784 and up	Ranges are not valid for non-standard arrangements except that they may be used when auxiliary fuel tank Item 316 is installed. When empty weight C. G. falls within the pertinent range, computation of critical fore and aft C. G. positions is unnecessary.
<u>Datum</u>	Wing leading edge	
<u>Leveling Means</u>	Chord line at wing root rib - zero incidence when level.	
<u>Maximum Weight</u>	1450 lbs.	
<u>Number of Seats</u>	3 (one at +6 and two at +34)	
<u>Maximum Baggage</u>	41 lbs. (+566) When Serial Nos. 5-2 to 5-783 are flown solo from rear seat, maximum baggage is 20 lbs.	
<u>Fuel Capacity</u>	Serials 5-2 to 5-783: 19 gallons	Wing tank, 18 gallons at +23 and Header tank, 1 gallon at -21.
	Serials 5-784 and up: 25 gallons	Wing tank, 18 gallons at +23 and Header tank, 7 gallons at -15.5.
<u>Oil Capacity</u>	Serials 5-2 to 5-783: 4 quarts (-36). Serials 5-784 and up: 5 quarts (-36).	
<u>Control Surface Movements</u>	Elevators 30° Up 30° Down Ailerons 31° Up 25° Down Rudder 30 Right 30° Left Stabilizer 1°47' Up 4° 57' Down	
<u>Serial Numbers Eligible</u>	5-2 and up	
<u>Required Equipment</u>	J5A: Items 101, 102, 103 and 104 J5A-80: Items 101, 102, 103, 104 and 106. J5B: Items 101, 102, 103, 104 and 105.	

**II - Model J5C, 3 PCL-SM, Approved December 21, 1942 and Model AE-1 or HE-1, 2 PCL-SM Approved December 21, 1942.**

Model J5C same as model J5A except for redesigned landing gear and engine installation. Model AE-1, identical to Model HE-1, is same as model J5C except for the removal of rear seat and baggage compartment, the addition of several fuselage members to support the litter, and minor rudder and aileron control system changes.

<u>Engine</u>	Lycoming 0-235 (See Item 307 for optional engine.)		
<u>Fuel</u>	73 min. octane grade aviation gasoline		
<u>Engine Limits</u>	For all operations, 2550 rpm (100 hp.)		
<u>Airspeed Limits</u>	Level flight or climb	110 mph	True Ind.
	Glide or dive	140 mph	True Ind.
<u>Propeller Limits</u> (with Item 101 or 107)	Static rpm at full throttle: Landplane: Not over 2450, not under 2050. Seaplane: Not over 2450, not under 2290. No additional tolerance permitted. Diameter: Not over 74 in., not under 72 in.		

**II - Model J5C, Model AE-1 or HE-1** (cont'd)

<u>C.G. Range</u>	Landplane: J5C (+9.0) to (+18.6) AE-1, HE-1 (+10.9) to (+20.5) Seaplane: (+11.3) to (+18.2)  Landplane: J5C (+10.2) to (+14.3) AE-1, HE-1 (+12.3) to (+17.7) Seaplane: J5C (+13.1) to (+13.5) AE-1, HE-1 (+12.7) to (+14.4) Ranges are not valid for non-standard arrangements except that they may be used when auxiliary fuel tank Item 316 is installed. When empty weight C. G. falls within the pertinent range, computation of critical fore and aft C. G. positions is unnecessary.
<u>Datum</u>	Wing leading edge
<u>Leveling Means</u>	Plumb bob from machine screw at door frame channels near upper rear corner of door to hole in plate near rear seat.
<u>Maximum Weight</u>	1550 lbs.
<u>Number of Seats</u>	J5C: 3 (one at +6 and two at +34) AE-1, HE-1: 2 (one at +6 and one at +59)
<u>Maximum Baggage</u>	J5C: 41 lbs. (+56) AE-1, HE-1: None
<u>Fuel Capacity</u>	20 gallons (18 gallon tank in right wing at +23 and 2 gallon header tank in fuselage at -15.5). See Item 316 for auxiliary tank.
<u>Oil Capacity</u>	2 gallons (-40)
<u>Control Surface Movements</u>	Elevators 27° Up 32° Down Ailerons 31° Up 25° Down Rudder 20° Right 20° Left Stabilizer 0.5° Up 6° Down On AE-1 and HE-1 only: Elevator trim tab: 43° Up (fixed)
<u>Serial Numbers Eligible</u>	J5C: 5-1309, 5-1388 and up AE-1, HE-1: 5-1400 and up
<u>Required Equipment</u>	In addition to the pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed: Items 102, 103, 104 and 107

**Data Pertinent to All Models**

<u>Certification Basis</u>	Type Certificate No. 725 (CAR 4a)
<u>Production Basis</u>	None.
<u>Export Eligibility</u>	Deleted as of July 31, 1995

Equipment: A plus (+) or minus (-) sign preceding the weight of an item of equipment 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 an asterisk (\*). The asterisk denotes that approval has been obtained by someone other than the aircraft manufacturer. An item marked with an asterisk may not have been manufactured under an FAA monitored or approved quality control system, and therefore conformity must be determined if the item is not identified by a Form FAA-186, PMA or other evidence of FAA production approval.

<u>Propellers and Propeller Accessories</u>		<u>J5A</u>	<u>J5B</u>	<u>J5C</u>	<u>AE-1</u>	
		<u>J5A-80</u>			<u>HE-1</u>	
101.	Propeller - wood (fixed or adj pitch)	+12 lbs.	(-54)	(-56)	----	----
107.	Propeller - wood (fixed pitch)	----	----	----	14 lbs.	(-54)
*1.	Propeller - Beech, controllable, R002, Hub R002-101 or R-003-100, Blades R002-205-72 (including Beech mechanical propeller control) Diameter: 72 inches Pitch at 27 in station: Low 14 ½°, High 19° (Eligible on J5A with A-75 series engines only.)	+18 lbs.	(-54)	----	----	----
*2.	Propeller - McCauley 1A90					
a.	(Models J5A with Continental A-75 series engine) Static rpm at max. permissible throttle setting: Not over 2440, not under 2340. No additional tolerance permitted. Diameter: Not over 70 inches, not under 68.5 inches. See Items 307(d), (e) and (g) and NOTE 3 for other limits when those engines are installed.	+9 lbs.	(-54)	----	-----	-----
b.	(Models J5A, J5A-80 and J5B with Item 307(h) only) Static rpm at full throttle: Not over 2200, not under 2100. No additional tolerance permitted. Diameter: Not over 73 inches, not under 71.5 inches.	+9 lbs	(-54)	(-56)	----	-----
*3.	Propeller - Koppers Aeromatic F200/00-74E (Eligible with Item 307(f) only) Parts List Assembly No. 4330 Low pitch setting at 24 in. sta: 11° Static rpm at max. permissible throttle setting: Not over 2600, not under 2500. No additional tolerance permitted Diameter: Not over 74 inches, not under 72.5 inches. (When this Item is installed, installation and flight check must be done per Koppers "Installation Procedure and Operating Limitations" dated May 28, 1948.)	----	----	-----	+18 lbs.	(-54)

<u>Propellers and Propeller Accessories (cont'd)</u>		<u>J5A</u>	<u>J5B</u>		<u>J5C</u>	<u>AE-1</u>
		<u>J5A-80</u>				<u>HE-1</u>
*4.	Propeller - Beech, controllable R002, with R002-205-72 blades (including Beech Mechanical Control) Pitch settings at 27 in. station: Low 12.5°, High 19.25° Diameter: Not over 72 inches, not under 70.5 inches. Eligible on J5A with C-85-12 engine, Item 307(g). Harrison oil cooler HE-212 or equivalent must be installed.	+18 lbs. (-54)	-----	-----	-----	-----
*5.	Propeller - McCauley 1C90 (with Lycoming O-235-B engine only) Static rpm at max. permissible throttle setting: Not over 2300, not under 2150. No additional tolerance permitted. Diameter: Not over 72 inches, not under 70.5 inches.	-----	-----	23 lbs.	(-54)	(-54)
*6.	Propeller - Sensenich M74CK-2, fixed pitch metal (Model J5A with A75 engine only). Static rpm at max. permissible throttle setting: Not over 2440, not under 2340 No additional tolerance permitted Diameter: Not over 72 inches, not under 70 inches	21 lbs. (-54)	-----	-----	-----	-----
*7.	Propeller - Sensenich M76AK-2, fixed pitch metal.					
	(a) Model J5A with Continental C-75 engine only Static rpm at max. permissible throttle setting: Not over 2150, not under 2000. No additional tolerance permitted. Diameter: Not over 74 inches, not under 72.5 inches.	24 lbs. (-54)	-----	-----	-----	-----
	(b) Model J5A with Continental C-85 engine only Static rpm at max. permissible throttle setting: Not over 2430, not under 2170. No additional tolerance permitted. Diameter: Not over 74 inches, not under 72 inches.	24 lbs. (-54)	-----	-----	-----	-----
	(c) Model J5 with Continental C90 engine only Static rpm at max. permissible throttle setting: Not over 2250, not under 2100. No additional tolerance permitted. Diameter: Not over 74 inches, not under 72.5 inches.	24 lbs. (-56)	(-56)	-----	-----	-----

<u>Propellers and Propeller Accessories (cont'd)</u>		<u>J5A</u>			<u>J5C</u>	<u>AE-1</u>
		<u>J5A-80</u>	<u>J5B</u>			<u>HE-1</u>
*8.	Propeller - Sensenich M76AM-2, fixed pitch metal Model J5 with Lycoming O-235 engine only. Static rpm at max. permissible throttle setting: Not over 2300, not under 2150. No additional tolerance permitted. Diameter: Not over 74 inches, not under 72 inches.	----	-----	24 lbs.	(-54)	(-54)
<u>Engines and Engine Accessories - Fuel and Oil System</u>		<u>J5A</u>			<u>J5C</u>	<u>AE-1</u>
		<u>J5A-80</u>	<u>J5B</u>			<u>HE-1</u>
No aircraft of these models is eligible for original certification with single ignition engine after August 1, 1941.						
104.	Carburetor air and cabin heater	3 lbs.	(-33)	(-33)	3 lbs.	(-33)
106.	Oil cooler (Harrison HE212) (J5A-80 only)	5 lbs.	(-49)	----	----	----
*108.	Oil filter, Fram PB-5					
	(a) Kit No. 520, Fram Install. Dwg. No. 6158	5 lbs.	----	(-27.5)	----	----
	(b) Kit No. 510, Fram Install. Dwg. No. 61542	5 lbs.	(-27.5)	----	----	----
*307.	Engines					
	(a) Continental A-75-9	+3 lbs.	(-31)	----	----	----
	(b) Lycoming GO-145-C1	-11 lbs.	----	(-30)	----	----
	(c) Lycoming GO-145-C3	+2 lbs.	----	(-30)	----	----
	(d) Continental C-75-12 (Model J5A only) Engine Limits - for all operations, 2275 rpm (75 hp.) Propeller limits (With Item 101): (See NOTE 3 when installed with McCauley 1A90 propeller.) Static rpm at max. permissible throttle setting: Not over 2100, not under 2000. No additional tolerance permitted. Diameter: Not over 74 inches, not under 72.5 inches.	+12 lbs.	(-31)	----	----	----
	(e) Continental C-75-8 (Model J5A only) Engine and propeller limits same as for (d) above. See NOTE 3 when installed with McCauley 1A90 propeller.	+7 lbs.	(-32)	----	----	----
	(f) Lycoming O-235-B Engine limits - for all operations, 2600 rpm (104 hp.) Propeller limits same as for engine model O-235	----	----	----	Use actual weight change.	

<u>Engines and Engine Accessories - Fuel and Oil System (cont'd)</u>			<u>J5A</u>			<u>J5C</u>	<u>AE-1</u>
			<u>J5A-80</u>	<u>J5B</u>			<u>HE-1</u>
(g)	Continental C-85-12 (Model J5A only) Engine limits. For all operations, 2575 rpm (85 hp.) When this engine is installed, the following are required: Propeller Item 4 may be substituted for the McCauley propeller. Propeller -McCauley 1A90 Static rpm at max. permissible throttle setting: Not over 2430, not under 2170. No additional tolerance permitted. Diameter: Not over 71 inches, not under 69.5 inches. Oil cooler (Harrison HE-212)	+12 lbs.	(-31)	----	----	----	----
(h)	Continental C-90-8F Engine limits - for all operations 2475 rpm (90 hp.) Propeller limits (with Item 101) - Static rpm at max. permissible throttle setting: Not over 2200, not under 2100. No additional tolerance permitted. Diameter: Not more than 74 inches, not less than 72.5 inches No muffler installed. Bendix Stromberg Carburetor, Continental Part No. 530625	+14 lbs.	(-31)	(-31)	----	----	----
308.	Oil cooler (Harrison HE212) (J5A only)	5 lbs.	(-49)	----	----	----	----
309.	Starter installation - Hummer Model X (Piper Dwg. C-83)	11 lbs.	(-13)	(-13)	----	----	----
313.	Exhaust muffler						
a.	Piper Dwg. C-702	3 lbs.	(-31)	----	----	----	----
b.	Piper Dwg. C-72	3 lbs.	----	(-31)	----	----	----
316.	Left wing auxiliary fuel tank (18 gals.) Additional placards required: (a) "Auxiliary fuel system 18 gal. capacity." (b) Near left filler neck: "Fill right wing tank first."	----	----	----	16 lbs.	(+23)	(+23)
<u>Landing Gear and Floats</u>			<u>J5A</u>			<u>J5C</u>	<u>AE-1</u>
			<u>J5A-80</u>	<u>J5B</u>			<u>HE-1</u>
102.	8.00-4 wheels with brakes and 4-ply tires (Wheels must be placarded for these tires)	31 lbs.	(+1)	(+1)	31 lbs.	(+1)	(+1)
103.	Tail Wheels						
(a)	6x2.00 with solid rubber tire	2 lbs.	(+201)	(+201)	2 lbs.	(+201)	(+201)
(b)	2x2.50 steerable, full swivel-Maule Model SFS-14	6 lbs.	(+201)	(+201)	6 lbs.	(+201)	(+201)
(c)	6x2.50 steerable, straight-Maule Model SS-14	6 lbs.	(+201)	(+201)	6 lbs.	(+201)	(+201)
203.	Scott Aviation Corp. Model B-711 brake pressure unit (J5A, J5A-80, J5B and J5C only)		Neglect weight change				

<u>Landing Gear and Floats (cont'd)</u>		<u>J5A</u>	<u>J5B</u>		<u>J5C</u>	<u>AE-1</u>
		<u>J5A-80</u>				<u>HE-1</u>
204.	Edo 89-2000 floats with water rudder and seaplane fin Piper Dwg. No. 11030 in accordance with Edo Dwg. 89-S-180A. All airplanes must have additional fuselage brace tubes (Parts Nos. 11026 and 11027) in accordance with Piper Dwg. No. 11031.	----	----	+183 lbs.	(+14.5)	(+14.5)
*302.	Wheel streamlines	6 lbs.	(+2)	(+2)	6 lbs.	(+2)
303.	Parking brake	3 lbs.	(-8)	(-8)	3 lbs.	(-8)
306.	6x2.00 pneumatic tail wheel	Neglect weight change				
*311.	Skis (Eligible on any airplane of these models provided the propeller installation meets the minimum ground clearance. The maximum weight for the skiplane will be the same as for the corresponding landplane or that shown in parenthesis after ski model, whichever is less) (Use actual weight change)	Use Actual Weight Change				
	(a) Federal SC-2 (maximum 1650 lbs.)					
	(b) Heath 725 (maximum 1450 lbs.)					
	(c) Marston MFS-1600 (maximum 1600 lbs)					
	(d) Air Transport 1620-750 (maximum 1620 lbs.)					
	(e) Jack Carr Service 16 (maximum 1600 lbs)					
	(f) Wollam W-1650 (maximum 1650 lbs.)					
	(g) Heath 725A (maximum 1450 lbs.)					
	(h) Federal A-1500 or A-1500A (maximum 1500 lbs.) per Federal Dwg. 11R262. (Eligible on J5A and J5B only)					
	(i) Federal A-1850 (maximum 1850 lbs.) per Federal Dwg. 11R262					
	(j) Federal A-2000 or A-2000A (maximum 2000 lbs.) per Federal Dwg. 11R262.					
	(k) Wesco per Western Aircraft Equipment Company Dwg. Nos. 12 and 148:					
	(1) A-15 (maximum 1500 lbs.)					
	(2) A-20 or AS-2 (maximum 2000 lbs.)					
	(3) A-25, AS-2A or AS-2B (maximum 2500 lbs.)					



<u>Electrical Equipment</u>		<u>J5A</u>			<u>J5C</u>	<u>AE-1</u>
		<u>J5A-80</u>	<u>J5B</u>			<u>HE-1</u>
105.	Batteries					
	(a) Reading 333 LD or 324 LD (6 volt) Serial Nos. 5-784 and up	16 lbs.	----	(+57)	----	----
	(b) Exide 6AC-7-1 or Willard SYR-7-6 (with box) (12 volt Serial Nos. 5-784 and up)	16 lbs.	----	(+57)	----	----
201.	General Armature AG-40 or AG-42 wind-driven generator installation. Serial Nos. 5-784 and up	11 lbs.	----	(+2)	----	----
310.	Generator installation					
	(a) General Armature AG-40 or AG-42 (Wind-driven)					
	(1) Serial Nos. 5-2 to 5-783	11 lbs.	(+2)	(+2)	-----	-----
	(2) Serial Nos. 5-784 and up	11 lbs.	(+2)	-----	-----	-----
312.	Batteries					
	(a) Willard SYR-7-3 with box (6 volt)					
	(1) Serial Nos. 5-2 to 5-783	11 lbs.	(-20)	(-20)	-----	-----
	(2) Serial Nos. 5-784 and up	11 lbs.	(-20)	-----	-----	-----
	(b) Reading 333LD or 324LD (6 volt) Serial Nos. 5-784 and up	16 lbs.	(+57)	-----	-----	-----
	(c) Exide 6AC-7-1 or Willard SYR-7-6 (with box) (12 volt) Serial Nos. 5-784 and up	16 lbs.	(+57)	-----	-----	-----
314.	Landing light (Grime ST-250 retractable) (Generator, Item 310, required when Item 312(c) is used)	4 lbs.	(+15)	(+15)	-----	-----
<u>Interior Equipment</u>		<u>J5A</u>			<u>J5C</u>	<u>AE-1</u>
		<u>J5A-80</u>	<u>J5B</u>			<u>HE-1</u>
202.	Three 1½ minute flares (International)	17 lbs.	(+83)	(+83)	-----	-----
*317.	Litter	----	-----	-----	25 lbs.	(+67)
*318.	Splint	----	-----	-----	5 lbs.	(+32)
<u>Miscellaneous (not listed above)</u>		<u>J5A</u>			<u>J5C</u>	<u>AE-1</u>
		<u>J5A-80</u>	<u>J5B</u>			<u>HE-1</u>
*601.	Slip-not stabilizer control, Model 10-C (Installed in accordance with Westfield Industries, Salem, Illinois. Dwg. No. 1 and Kit installation instructions.)	+2 lbs.	(+72)	(+72)	2 lbs.	(+72)
*602.	Fuselage metal plating when installed in accordance with Met-Co-Aire's Dwg. 12108, 13108 and installation instructions dated June 17, 1954 issued by Met-Co-Aire Co., Municipal Airport, Fullerton, California.	Use Actual Weight Change and Moment Arm				

- NOTE 1 Current weight and balance report including list of equipment included in certificated empty weight, and loading instructions when necessary, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of air carrier operators having an approved weight control system).
- NOTE 2 Placard baggage compartment of models J5A and J5A-80 (Serial Nos. 5-2 to 5-783) as follows:  
"Maximum capacity 41 lbs."  
"Maximum when flown solo from rear seat 20 lbs."  
Placard required for models J5C, AE-1 and HE-1: "Main fuel valve must be "ON" for all operations. Main fuel system 20 gallon capacity."  
  
When left wing tank (Item 316) is installed, the following additional placards are required:  
(a) "Auxiliary fuel system 18 gallon capacity."  
(b) Near the left filler neck, "fill right wing tank first."  
  
The following placard must be displayed in full view of the pilot on models AE-1 and HE-1 only:  
"Intentional Spinning Prohibited."
- NOTE 3 With Item 307(d) or (e) the following Item may be installed:  
Propeller - McCauley 1A90 +9 lbs. (-54)  
Static rpm at maximum permissible throttle setting:  
Not over 2100, not under 2000.  
No additional tolerance permitted  
Diameter - not more than 74 inches, not less than 72.5 inches.

...END...