

A-691  
Revision 34  
Piper Aircraft, Inc  
J3C-40  
J3C-50  
J3C-50S  
J3C-65  
J3C-65S  
PA-11  
PA-11S  
  
March 8, 2011

Type Certificate Holder	Piper Aircraft, Inc. 2926 Piper Drive Vero Beach, Florida 32960
Type Certification Holder Record	The New Piper Aircraft, Inc transferred TC A-691 to Piper Aircraft, Inc on August 7, 2006.

<u>Engine</u>	Continental A-40-4 (See Item 311A for optional engine)
<u>Fuel</u>	73 minimum octane aviation gasoline
<u>Engine Limits</u>	For all operations, 2575 r.p.m. (40 hp)
<u>Airspeed Limits (CAS)</u>	Level flight or climb 85 mph (74 knots) Glide or dive 115 mph (100 knots)
<u>Propeller Limits</u>	Maximum permissible diameter 81 inches
<u>C. G. Range</u>	(+10.6) to (+22.7) See NOTE 3 for restricted limits on certain Serial Nos. below 4502.
<u>Empty Weight C. G. Range</u>	If placard "Solo flying in rear seat only" is installed (See NOTE 2): (+7.8) to (+20.0)  When empty weight C. G. falls within range given, computation of critical fore and aft C. G. positions is unnecessary. Range is not valid for non-standard arrangements.
<u>Maximum Weight</u>	1025 lb.
<u>Number of Seats</u>	2 (one at +9 and one at +36)
<u>Maximum Baggage</u>	20 lb. (+49)
<u>Fuel Capacity</u>	12 gallons (-18)
<u>Oil Capacity</u>	1 gallon (-39)

[illegible]

**I - Model J3C-40** (cont'd)Control Surface Movements

Elevator	34° Up	29° Down
Rudder	30° Left	30° Right
Aileron	18° Up	18° Down
Stabilizer	2.5° Up	4° Down

Serial Numbers Eligible

2325, 2327, 2339, 2340, 2342, 2344, 2345, 2347, 2349, 2351 and up;  
2356-A and up; and 8277-1 through 8277-40.

Required Equipment

In addition to the pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed:  
Items 101, 102, 103 and 104(b).

**II - Model J3C-50, 2 PCLM, Approved July 14, 1938.**

Same as Model J3C-40 except engine installation.

Engine

Continental A-50-1 (See Item 311B for optional engines)

Fuel

73 minimum octane aviation gasoline

Engine Limits

For all operations, 1900 r. p.m. (50 hp)

Airspeed Limits (CAS)

Level flight or climb	90 mph ( 78 knots)
Glide or dive	122 mph (106 knots)

Propeller Limits

Maximum permissible diameter 81 inches

C. G. Range

(+10.6) to (+22.7)  
See NOTE 3 for restricted limits on certain Serial Nos. below 4502.

Empty Weight C. G. Range

If placard "Solo flying in rear seat only" is installed (See NOTE 2): (+8.1) to (+21.1)

When empty weight C. G. falls within range given, computation of critical fore and aft C. G. positions is unnecessary. Range is not valid for non-standard arrangements.

Maximum Weight

1100 lb.

Number of Seats

2 (one at +9 and one at +36)

Maximum Baggage

20 lb. (+49)

Fuel Capacity

12 gallons (-18)

Oil Capacity

1 gallon (-29)

Control Surface Movements

Elevator	34° Up	29° Down
Rudder	30° Left	30° Right
Aileron	18° Up	18° Down
Stabilizer	2.5° Up	4° Down

Serial Numbers Eligible

2325, 2327, 2339, 2340, 2342, 2344, 2345, 2347, 2349, 2350, 2351, and up;  
2356-A and up; and 8277-1 through 8277-40.

Required Equipment

In addition to the pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed:  
Items 101, 103 and 104(a).

**III - Model J3C-50S, 2 PCSM, Approved July 14, 1938.**

Same as Model J3C-50 except landing gear.

<u>Engine</u>	Continental A-50-1 (See Item 311B for optional engines)			
<u>Fuel</u>	73 minimum octane aviation gasoline			
<u>Engine Limits</u>	For all operations, 1900 r.p.m. (50 hp)			
<u>Airspeed Limits (CAS)</u>	Level flight or climb	90 mph	( 78 knots)	
	Glide or dive	122 mph	(106 knots)	
<u>Propeller Limits</u>	With Edo floats:	Maximum permissible diameter - 76 inches		
	With McKinley floats:	Static r.p.m. at maximum permissible throttle setting:		
		Not over 1900, not under 1725.		
		No additional tolerance permitted		
		Diameter: Not over 83 inches, not under 73 inches.		
<u>C. G. Range</u>	(+10.6)	to	(+19.7)	with Edo floats
	(+13.7)	to	(+19.7)	with McKinley floats.
	See NOTE 3 for restricted limits on certain Serial Nos. below 4502.			
<u>Empty Weight C. G. Range</u>	If placard "Solo flying in rear seat only" is installed (See NOTE 2):			
	(+8.3)	to	(+16.8)	with Edo floats
	(+13.2)	to	(+18.7)	with McKinley floats
	When empty weight C. G. falls within range given, computation of critical fore and aft C. G. positions is unnecessary. Range is not valid for non-standard arrangements.			
<u>Maximum Weight</u>	1160 lb. with Edo floats			
	1130 lb. with McKinley floats			
<u>Number of Seats</u>	2	(one at +9 and one at +36)		
<u>Maximum Baggage</u>	20 lb.	(+49)		
<u>Fuel Capacity</u>	12 gallons	(-18)		
<u>Oil Capacity</u>	1 gallon	(-29)		
<u>Control Surface Movements</u>	Elevator	34°	Up	29° Down
	Rudder	30°	Left	30° Right
	Aileron	18°	Up	18° Down
	Stabilizer	2.5°	Up	4° Down
<u>Serial Numbers Eligible</u>	2325, 2327, 2339, 2340, 2342, 2344, 2345, 2347, 2349, 2351, 2355 and up; 2356-A and up; and 8277-1 through 8277-40.			
<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 101, 104(a) and 151.			

**IV. - Model J3C-65 (Army L-4, L-4A, L-4B (Navy NE-1), L-4H, L-4J (Navy NE-2)), 2 POLM, Approved July 6, 1939.****See NOTE 7 regarding conversion to 2 PCLM.**

Army L-4 (previously Army 0-59) is the same as Model J3C-65. Army L-4A (previously Army 0-59A) and Army L-4B are the same as Model J3C-65 except for transparent turtledeck enclosure, revised rear seat with seat back belts, addition of rear shelf and rear floorboard. Army L-4H is same as L-4A except for G. F. radio equipment and revised method of installing the transparent cockpit enclosure. Army L-4J (Navy NE-2) same as any L-4, L-4A, L-4B and L-4H except for installation of propeller, Item 1.

**IV. - Model J3C-65, L-4H, L-4J** (cont'd)

<u>Engine</u>	Continental A-65-1 (See Item 311C for optional engines)			
<u>Fuel</u>	73 minimum octane aviation gasoline			
<u>Engine limits</u>	For all operations, 2350 r.p.m. (65 hp)			
<u>Airspeed Limits (CAS)</u>	Level flight or climb	90 mph	( 78 knots)	
	Glide or dive	122 mph	(106 knots)	
<u>Propeller Limits</u>	Static r.p.m. at maximum permissible throttle setting (No additional tolerance permitted):			
	(a) With A-65-1 engine: Not over 2300, not under 2000.			
	(b) With optional engines (Item 311C) and propeller Item 2 or 101:			
	Not over 2300, not under 1950.			
	Diameter: Not over 81 inches, not under 69.7 inches (with fixed pitch wood propeller).			
	Not over 74 inches, not under 72 inches (with propeller Item 2).			
<u>C. G. Range</u>	(+10.6) to (+22.7)			
	See NOTE 3 for restricted limits on certain Serial Nos. below 4502.			
<u>Empty Weight C. G. Range</u>	If placard "Solo flying in rear seat only" is installed (See NOTE 2):			
	(+8.5) to (+20.3)			
	When empty weight C. G. falls within range given, computation of critical fore and aft			
	C. G. positions is unnecessary. Range is not valid for non-standard arrangements.			
<u>Maximum Weight</u>	Serial Nos. 7842, 7845 through 7883, and 7912 and up are eligible for 1170 lb. maximum			
	weight. These airplanes are also eligible for 1220 lb. maximum weight provided the			
	landing gear is revised in accordance with Piper Dwgs. 31472 and 31423.			
	Serial Nos. prior to 7912, and not listed above, are eligible for 1100 lb. maximum weight.			
	These airplanes are also eligible for 1170 lb. maximum weight provided the lift			
	struts and attachments are revised in accordance with Piper Dwgs. No. 12352,			
	13233 and 21642 and for further increase to 1220 lb. upon revision of the landing			
	gear in accordance with Piper Dwgs. No. 31472 and 31423.			
	Serial Nos. 10339 and up and 2356-A and up of Model J3C-65 eligible for 1220 lb.			
	maximum weight.			
<u>Number of Seats</u>	2 (one at +9 and one at +36)			
<u>Maximum Baggage</u>	20 lb. (+49)			
<u>Fuel Capacity</u>	12 gallons (-18)			
<u>Oil Capacity</u>	1 gallon (-29)			
<u>Control Surface Movements</u>	Elevator	34°	Up	29° Down
	Rudder	30°	Left	30° Right
	Aileron	18°	Up	18° Down
	Stabilizer	2.5°	Up	4° Down
<u>Serial Numbers Eligible</u>	2325, 2327, 2339, 2340, 2342, 2344, 2345, 2347, 2349, 2351, 2355 and up;			
	2356-A and up; and 8277-1 through 8277-40.			
<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 101, 102, 103 and 104(a).			

**V - Model J3C-65S, 2 PCSM, Approved May 27, 1940.**

Same as J3C-65 except landing gear.

<u>Engine</u>	Continental A-65-1 (See Item 311C for optional engines)
<u>Fuel</u>	73 minimum octane aviation gasoline
<u>Engine Limits</u>	For all operations, 2350 r.p.m. (65 hp)
<u>Airspeed Limits (CAS)</u>	Level flight or climb 90 mph (78 knots) Glide or dive 122 mph (106 knots)
<u>Propeller Limits</u>	<p>Static r.p.m. at maximum permissible throttle setting (No additional tolerance permitted):</p> <p>With Edo floats (Items 151, 206 or 208):</p> <ol style="list-style-type: none"> <li>With A-65-1 engine (Not eligible with Item 208): Not over 2300, not under 2000.</li> <li>With optional engines (Item 311C) and Item 2 or 101: Not over 2250, not under 1930.</li> </ol> <p>With McKinley floats:</p> <ol style="list-style-type: none"> <li>With A-65-1 engine: Not over 2300, not under 2100.</li> <li>With optional engines (Item 311C) and Item 2 or 101: Not over 2250, not under 2050.</li> </ol> <p>With Wollam floats:</p> <ol style="list-style-type: none"> <li>With optional engines (Item 311C) and Item 2 or 101 and 1200 lb. maximum weight: Not over 2250, not under 2050.</li> <li>With A-65-1 engine and 1300 lb. maximum weight: Not over 2300, not under 2050.</li> <li>With optional engines (Item 311C) and Item 2 or 101 and 1300 lb. maximum weight: Not over 2300, not under 2000.</li> </ol> <p>With Heath floats:</p> <ol style="list-style-type: none"> <li>With A-65-1 engine or any engine of Item 311C and Item 2 or 101: Not over 2300, not under 2100.</li> </ol> <p>Diameter:</p> <p>With Edo, McKinley, Wollam and Heath floats, with any engine of Item 311C and Item 2 propeller: Not over 74 inches, not under 72 inches.</p> <p>With Edo floats (at maximum weight up to 1200 lb.) and McKinley floats, with A 65-1 or any Item 311C engine and Item 101 propeller: Not over 76 inches, not under 69.7 inches.</p> <p>With Wollam and Heath floats, with A-65-1 or any Item 311C engine, and Item 101 propeller: Not over 72 inches, not under 70 inches.</p> <p>With Edo 60-1320 or 92-1400 floats at 1300 lb. maximum weight with A-65-1 or any Item 311C engine and Item 2 or 101 propeller: Not over 76 inches, not under 70 inches.</p>

**C. G. Range**

See NOTE 3 for restricted limits on certain Serial Nos. below 4502.

(+10.6)	to	(+19.7)	with Edo floats and 1200 lb. maximum weight
(+13.7)	to	(+19.7)	with McKinley floats
(+10.6)	to	(+19.7)	with Wollam floats and 1200 lb. maximum weight
(+10.2)	to	(+17.1)	with Heath floats
(+10.6)	to	(+19.0)	with Edo 60-1320 or Wollam 1200 floats and 1300 lb. maximum weight
(+10.6)	to	(+18.4)	with Edo 92-1400 floats and 1100 lb. maximum weight or less
(+12.0)	to	(+17.0)	with Edo 92-1400 floats and 1300 lb. maximum weight

<u>Empty Weight C. G. Range</u>	If placard "Solo flying in rear seat only" is installed (See NOTE 2): (+8.4) to (+17.4) with Edo floats and 1200 lb. maximum weight (+13.2) to (+17.3) with McKinley floats and 1160 lb. maximum weight (+8.4) to (+17.4) with Wollam floats and 1200 lb. maximum weight (+7.8) to (+14.0) with Heath floats and 1200 lb. maximum weight (+8.7) to (+16.8) with Edo 60-1320 or Wollam 1200 floats and 1300 maximum weight (+8.1) to (+15.3) with Edo 92-1400 floats and 1100 lb. maximum weight (+10.8) to (+14.3) with Edo 92-1400 floats and 1300 lb. maximum When empty weight C. G. falls within pertinent range, computation of critical fore and aft C. G. positions is unnecessary. Range is not valid for non-standard arrangements.			
<u>Maximum Weight</u>	1160 lb. with McKinley floats 1200 lb. with Edo, Wollam or Heath floats 1300 lb. with Edo 60-1320, Edo 92-1400 or Wollam 1200 floats			
<u>Number of Seats</u>	2 (one at +9 and one at +36)			
<u>Maximum Baggage</u>	20 lb. (+49)			
<u>Fuel Capacity</u>	12 gallons (-18)			
<u>Oil Capacity</u>	1 gallon (-29)			
<u>Control Surface Movements</u>	Elevator	34° Up	29° Down	
	Rudder	30° Left	30° Right	
	Aileron	18° Up	18° Down	
	Stabilizer	2.5° Up	4° Down	
<u>Serial Numbers Eligible</u>	2325, 2327, 2339, 2340, 2342, 2344, 2345, 2347, 2349, 2351, 2355 and up; 2356-A, and up; and 8277-1 through 8277-40.			
<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 101, 104(a) and 151.			

**VI - Model PA-11, 2 PCLM, Approved April 30, 1947. See NOTE 7 regarding conversion to 2 POLM.**

Model PA-11 is generally similar to the J3C-65 except vertical location of engine mount, cowling, forward fuselage structure, types of seats, fuel system (including gas tank location), lift struts, required equipment, and eligibility of certain equipment items, as listed. Elevator bungee (Piper Drawing number 80352) must be installed in order that the aircraft conform to the pertinent flight requirements.

<u>Engine</u>	Continental A-65-8F (See Item 311D for optional engines)		
<u>Fuel</u>	73 min. octane aviation gasoline 80 min. octane aviation gasoline with Item 311D(3) when it is approved for use as 75 hp engine in this model aircraft. Also required with Items 311D(4) and 311D(5).		
<u>Engine Limits</u>	For all operations, 2300 r.p.m. (65 hp)		
<u>Airspeed Limits (CAS)</u>	Level flight or climb	90 mph	(78 knots)
	Glide or dive	122 mph	(106 knots)
<u>Propeller Limits</u>	Static r.p.m. at maximum permissible throttle setting: Not over 2300, not under 1950. No additional tolerance permitted. (Same limits for Items 311D(1), 311D(2) and 311D(3).) Diameter: Not over 72 inches, not under 70 inches.		

<u>C. G. Range</u>	(+12.9) to (+22.0) or (+12.9) to (+20.0) when Item 311D(4) or 311D(5) is installed.												
<u>Empty Weight C. G. Range</u>	(+13.8) to (+18.3) or (+13.8) to (+15.5) when Item 311D(4) or 311D(5) is installed. Both ranges valid for solo from either seat. When empty weight C. G. falls within pertinent range, computation of critical fore and aft C. G. positions is unnecessary. Ranges are not valid for non-standard arrangements.												
<u>Maximum Weight</u>	1220 lb.												
<u>Number of Seats</u>	2 (one at +9 and one at +36)												
<u>Maximum Baggage</u>	20 lb. (+55)												
<u>Fuel Capacity</u>	17 gallons (wing tank) (+24)												
<u>Oil Capacity</u>	1 gallon (-33.5)												
<u>Control Surface Movements</u>	<table><tr><td>Elevator</td><td>34° Up</td><td>29° Down</td></tr><tr><td>Rudder</td><td>30° Left</td><td>30° Right</td></tr><tr><td>Aileron</td><td>18° Up</td><td>18° Down</td></tr><tr><td>Stabilizer</td><td>2.5° Up</td><td>4° Down</td></tr></table>	Elevator	34° Up	29° Down	Rudder	30° Left	30° Right	Aileron	18° Up	18° Down	Stabilizer	2.5° Up	4° Down
Elevator	34° Up	29° Down											
Rudder	30° Left	30° Right											
Aileron	18° Up	18° Down											
Stabilizer	2.5° Up	4° Down											
<u>Serial Nos. Eligible</u>	11-1 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: Item 101, 304(d), and 305(c).												

#### **VII - Model PA-11S, 2 PCSM, Approved September 11, 1947.**

Same as PA-11 except for landing gear and seaplane finish in accordance with Piper Specification No. 10, or equivalent.

<u>Engine</u>	Continental A-56-8F (See Item 311D for optional engines)
<u>Fuel</u>	80 minimum octane aviation gasoline
<u>Engine Limits</u>	For all operations, 2300 r.p.m. (65 hp)
<u>Airspeed Limits</u>	Level flight or climb 90 mph (78 knots)
<u>(CAS)</u>	Glide or dive 122 mph (106 knots)
<u>Propeller Limits</u>	Static r.p.m. at maximum permissible throttle setting: Not over 2250, not under 2050. No additional tolerance permitted. Diameter: Not over 72 inches, not under 70.5 inches.
<u>C. G. Range</u>	(+12.9) to (+20.0)
<u>Empty Weight C. G. Range</u>	(+13.7) to (+16.1) solo from either seat. When empty weight C. G. falls within this range, computation of critical fore and aft C. G. positions is unnecessary. Range is not valid for non-standard arrangements.
<u>Maximum Weight</u>	1350 lb.
<u>Number of Seats</u>	2 (one at +9 and one at +36)
<u>Maximum Baggage</u>	20 lb. (+55)

**VII - Model PA-11S** (cont'd)

<u>Fuel Capacity</u>	17 gallons (wing tank) (+24)				
<u>Oil Capacity</u>	1 gallon (-33.5)				
<u>Control Surface Movements</u>	Elevator	34°	Up	29°	Down
	Rudder	30°	Left	30°	Right
	Aileron	18°	Up	18°	Down
	Stabilizer	2.5°	Up	4°	Down
<u>Serial Nos. Eligible</u>	11-1 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 101, 206 or 209.				

**SPECIFICATIONS PERTINENT TO ALL MODELS**

<u>Datum</u>	Wing leading edge.
<u>Leveling Means</u>	Top longeron between front and rear seats.
<u>Certification Basis</u>	Type Certificate No. 691 (CAR 4a).
<u>Production Basis</u>	Approved for manufacture of spare parts only under Production Certificate No. 206.
<u>Export Limitations</u>	None.
<u>Equipment</u>	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 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 a FAA monitored or approved quality control system, and therefore attention should be paid to workmanship and conformity with pertinent data called for in this specification.

**Propellers and Propeller Accessories**

1. Propeller - Beech (Roby) R-002-205 blades +15 lb. (-51)  
Eligible on Models J3C-65 (L-4J - See NOTE 5) and J3C-65S
  - (a) Pitch setting at 27 in. station: Low 13°, High 18.5°  
with Items 311C(1), (2) or (3) engines
  - (b) Pitch setting at 27 in. station: Low 9.5°, High 16.5°  
with Item 311C(5) engines
2. Propeller - McCauley 1A90CF or 1B90CM +26 lb. (-51)  
Eligible with Item 311C (1 through 6) or Item 311D (1 through 3) engine  
Limits:  
Static r.p.m. at maximum permissible throttle setting:
  - (a) Landplane and skiplane:  
Not over 2250, not under 1950.  
No additional tolerance permitted.
  - (b) Seaplane:  
Not over 2250, not under 2050.  
No additional tolerance permitted.
Diameter: Not over 74 inches, not under 72.5 inches



Propellers and Propeller Accessories (cont.)

3. Propeller - McCauley 1A90CF or 1B90CM. Eligible with Item 311D(4) or 311C(9) engine +21 lb. (-53)  
 Static r.p.m. at maximum permissible throttle setting:  
     Not over 2550, not under 1950.  
     No additional tolerance permitted.  
 Diameter: Not over 71 inches, not under 68.5 inches.
4. Propeller - Hartzell ground adjustable hub HA12U, blades 7414 to 6814 or 7214M to 6814M. +18 lb. (-51)  
 Eligible on all models and all engines at diameter and static r.p.m. limits shown on specification for fixed pitch wood propellers. Where no limits are specified use those of the propeller being replaced.  
 NOTE: 7414 blades not eligible on Item 311C(5) for takeoff rating or on Item 311C(8).
5. Propeller - McCauley 1B90 or 1A90. +21 lb. (-53)  
 Eligible with Item 311C(10) and Item 311D(5) engines.
6. Propeller - McCauley 1A90 to 1B90. +21 lb. (-53)  
 Eligible with Item 311C(7), 311C(8), 311C(10) or 311D(5) engines.
7. Propeller - Koppers F200/00-73E +30 lb. (-51)  
 Eligible with Item 311D(5) engine on landplane or seaplane.  
 Parts List Assembly No 4348.  
 Low pitch setting 12.5° measured at 24 in. station.  
 Static r.p.m. at maximum permissible throttle setting:  
     Not over 2425, not under 2375.  
     No additional tolerance permitted.  
 Diameter: Not over 73 inches, not under 71.5 inches.  
 Installation and operation must be accomplished in accordance with Koppers' "Installation Procedure and Operating Limitation" No. 33.
8. Propeller - Koppers F200/00-72D +30 lb. (-51)  
 Eligible with Item 311C(9) or 311D(4) engine on landplane or skiplane only.  
 Parts List Assembly No. 4369.  
 Low pitch setting 12.7° measured at 24 in. station.  
 Static r.p.m. at maximum permissible throttle setting:  
     Not over 2525, not under 2475.  
     No additional tolerance permitted.  
 Diameter: Not over 72 inches, not under 70.5 inches.  
 Installation and operation must be accomplished in accordance with Koppers' "Installation Procedure and Operating Limitation" No. 29.
9. Propeller - Sensenich fixed pitch metal model M76AK-2. +24 lb. (-53)  
 Eligible with Items 311D(5) and 311C(9) engines only.  
 Static r.p.m. at maximum permissible throttle setting:  
     No additional tolerance permitted.  
     Item 311D(5): Not over 2425, not under 1950.  
     Item 311C(9): Not over 2550, not under 1950.  
 Diameter: Not over 74 inches, not under 72.5 inches.
10. Propeller - Sensenich fixed pitch metal model M76AM-2. +24 lb. (-53)  
 Eligible with Item 311D(6) engine only.  
 Diameter: Not over 74 inches, not under 72.5 inches.
11. Propeller - McCauley fixed pitch metal model 1C90-LM7249. +23 lb. (-53)  
 Eligible with Item 311D(6) engine only.  
 Diameter: Not over 72 inches, not under 70.5 inches.

Propeller and Propeller Accessories (cont.)

12. Propeller - Sensenich fixed pitch metal model M74CK +21 lb. (-53)  
 Eligible with Items 311C(1) through 311C(6) engines only  
 Static r.p.m. at maximum permissible throttle setting:  
   Landplane and skiplane only:  
     Not over 2250, not under 2050.  
   Seaplane only:  
     Not over 2250, not under 2100.  
   No additional tolerance permitted.  
 Diameter: Not over 74 inches, not under 72.5 inches.
13. Propeller - Sensenich fixed pitch metal model M74CK-2. +21 lb. (-51)  
 Eligible with Item 311C(8) engine only.  
 Static r.p.m. at maximum permissible throttle setting:  
   Not over 2440, not under 2340.  
   No additional tolerance permitted.  
 Diameter: Not over 72 inches, not under 70 inches.
101. Propeller - Wood (fixed or adjustable pitch). +9 lb. (-51)

Engines and Engine Accessories - Fuel and Oil System

No aircraft of these models shall be eligible for original certification with single ignition engines after August 1, 1941. In addition, no aircraft of these models shall be eligible for recertification with single ignition engines unless such aircraft was either previously certificated with single ignition engines or was originally certificated prior to August 1, 1941.

104. Carburetor air heater:  
   (a) D78C (for Models J3C-50, J3C-50S, J3C-65 and J3C-65S) +2 lb. (-39)  
   (b) J2-A902 (for Model J3C-40) +2 lb. (-39)
105. Carburetor air intake and filter (Continental A5810) (for Models J3C-65 and J3C-65S) +3 lb. (-44)
106. Carburetor air scoop and air filter (Skinner Purifiers, Inc. +3 lb. (-43)  
 Model S-300-A scoop and F-300 filter) (for Models J3C-65 and J3C-65S)
107. Starter and controls: McDowell Manufacturing Company +11 lb. (-33)  
 (Installation Dwg. No. 26) (for A-65 and A-75 engines only)
108. Alternate fuel gauge (Scott Model A-22P) +0.5 lb. (-18)  
 (Installed in accordance with Scott Bulletin No. I-136)
109. Oil filter, Fram PB-5  
   (a) Kit No. K-510, Fram Installation Dwg. No. 61542  
     (Models J3C-50 and J3C-50S) +5 lb. (-22.5)  
     (Models J3C-65 and J3C-65S) +5 lb. (-27)  
   (b) Kit No. 510, Fram Installation Dwg. No. 61624 +5 lb. (-28)  
     (PA-11 with Continental A-65 engine)
- \*110. Caulkins Model I, Mark II mufflers and Model I, -12 lb. (-39)  
 Mark I carburetor heat system eligible on Models J3C-65 and J3C-65S with Continental A-65 series engine when installed in accordance with Caulkins Instructions and Kit No. 1 dated June 9, 1949.
- \*111. Auxiliary Fuel Tank (6 gallon capacity) +6 lb. (+24)  
   (a) Installed in accordance with Kit and Dwg. No. P-18 supplied by J. J. Villnave, 5607 Virginia, Kansas City, Missouri. (Eligible only on Model J3C-65 with metal spars.)  
   (b) Installed in accordance with Kit and Dwg. Nos. P-18 and P-19 supplied by J. J. Villnave, 5607 Virginia, Kansas City, Missouri. (Eligible on land and seaplanes with wood spars.)

Engines and Engine Accessories - Fuel and Oil System (cont.)

302. Heater:
- (a) Carburetor air, Model D723C (for Models J3C-50, J3C-50S, J3C-65, and J3C-65S) +1 lb. (-39)
  - (b) Cabin and carburetor, Model D743-C (for Models J3C-50, J3C-50S, J3C-65, and J3C-65S) +1 lb. (-39)
  - (c) Cabin and carburetor, Model J2-A929 (for Model J3C-40) +1 lb. (-39)
308. Alternate fuel tank (9 gallons) Use actual weight change
311. Engine (Continental unless otherwise noted) (-39)  
(See Engine Spec. Nos. 72, 180, 205, 233)
- A. Model J3C-40:
    - (1) A-40-5 +12 lb.
  - B. Models J3C-50 and J3C-50S:
    - (1) A-50-2 +6 lb.
    - (2) A-50-3 or A-50-8 +10 lb.
    - (3) A-50-4 +3 lb.
    - (4) A-50-5 or A-50-9 +13 lb.
    - (5) A-50-6 +16 lb.
    - (6) A-50-7 No weight change
  - C. Models J3C-65 and J3C-65S:
    - (1) A-65-3 or A-65-8 +10 lb.  
Engine Limits: All operations, 2300 r.p.m. (65 hp)
    - (2) A-65-6 or A-65-9 +13 lb.  
Engine Limits: All operations, 2300 r.p.m. (65 hp)
    - (3) A-65-7 No weight change
    - (4) A-65-14 (with Item 2 or 101 propeller) Use actual weight change  
Engine Limits: All operations, 2300 r.p.m. (65 hp)
    - (5) A-65-14 (with Item 1B propeller) Use actual weight change  
Engine Limits:  
Takeoff (one minute), 2675 r.p.m. (75 hp), 29 in. Hg.  
All other operations, 2300 r.p.m. (65 hp), 29 in. Hg.
    - (6) A-65-8F +8 lb.  
Engine Limits: All operations, 2300 r.p.m. (65 hp)
    - (7) C-75-8 or C-75-12 Use actual weight change  
(with Item 6 or 101 propeller)  
Engine Limits: For all operations, 2275 r.p.m. (75 hp)  
Propeller Limits:  
Static r.p.m. at maximum permissible throttle setting:  
Not over 2100, not under 2000.  
No additional tolerance permitted.  
Diameter: Not over 74 inches, not under 72.5 inches.
- NOTE: The installation of Item 311C(7) or Item 311C(8) engine is satisfactory only if no changes are made to structure, engine mount, engine cowl, carburetor heater, exhaust stacks, fuel systems, etc. Any alterations or substitutions are subject to special approval.

Engines and Engine Accessories - Fuel and Oil System (cont.)

311. C. (8) A-75-8-9 (land and seaplane) Use actual weight change  
 (See NOTE above regarding installation changes.)  
 Engine Limits: For all operations, 2600 r.p.m. (75 hp)  
 Propeller Limits:  
 Static r.p.m. at maximum permissible throttle setting:  
 Not over 2425, not under 1950 (with Items 101 and 6).  
 No additional tolerance permitted.  
 Diameter: Not over 70 inches, not under 68.5 inches (Items 101 and 6).
- (9) C-85-8 or C-85-12 (landplane skiplane and seaplane) Use actual weight change  
 Engine Limits: Takeoff, 2575 r.p.m. (85 hp)  
 All other operations, 2525 r.p.m. (80 hp)  
 Fuel: 80 minimum octane aviation gasoline  
 Oil capacity: 4½ qts.  
 Propeller Limits:  
 (a) with Item 101 propeller:  
 Static r.p.m. at maximum permissible throttle setting:  
 Not over 2350, not under 1950.  
 No additional tolerance permitted.  
 Diameter: not over 72 inches, not under 70 inches.  
 (b) Item 3, 4 and 8 propellers as specified:  
 NOTE: C-85 engine installation may be accomplished using original engine  
 installation components or in accordance with Kit and Dwg. P4-400 by  
 Ong Aircraft Corporation, P.O. Box 214, Kansas City, Missouri.
- (10) C-90-8F (landplane, skiplane and seaplane) Use actual weight change  
 Engine Limits: Takeoff, 2475 r.p.m. (90 hp)  
 All other operations, 2375 r.p.m. (80 hp)  
 Fuel: 80 minimum octane aviation gasoline  
 Oil Capacity 5 qts.  
 Propeller Limits:  
 Static r.p.m. (with Item 101, 5 or 6 propellers) at maximum permissible throttle setting:  
 Not over 2300; not under 1950 for land and skiplane, and and not under 2100 for seaplane.  
 No additional tolerance permitted.  
 Diameter:  
 (a) With Item 5 or 6 propellers:  
 Not over 71 inches, not under 69.5 inches.  
 (b) With Item 101 propeller:  
 Not over 76 inches, not under 70 inches.  
 Carburetor heat system must be modified to provide required heat rise.  
 Approved modification made by M. Mullis, York, South Carolina.
- D. Model PA-11:  
 (1) A-65-3 of A-65-8  
 Engine Limits: All operations, 2300 r.p.m. (65 hp) -1 lb. (-40)  
 (2) A-65-6 or A-65-9  
 Engine Limits: (same as Item 311D(1)) +2 lb. (-40)  
 (3) A-65-14  
 Engine Limits: (same as Item 311D(1)) +12 lb. (-40)  
 (4) C-85-8FJ or C-85-12 with Item 101, 3 or 8 propeller Use actual weight and arm  
 Eligible on landplane only.  
 Engine Limits: All operations, 2575 r.p.m. (85 hp.)  
 Propeller Limits (with Item 101 propeller):  
 Static r.p.m. at maximum permissible throttle setting:  
 Not over 2350, not under 1950.  
 No additional tolerance permitted.  
 Diameter: Not over 72 inches, not under 70 inches.  
 NOTE: C-85-8FJ engine should be installed in accordance with or equivalent  
 to Piper Dwg. No. SK-192. Because fuel valve is not accessible from rear  
 seat, rear cockpit must be placarded: "Solo flying from front seat only"

Engines and Engine Accessories - Fuel and Oil System (cont.)

311. D. (5) C-90-8F (with propeller Item 5, 6, 7, 9, or 101) Use actual weight change  
(Bendix-Stromberg carburetor, Continental Part No. 530726 and engine cooling baffles per Piper Dwg. 11258 Change E are required with this engine.)  
Engine Limits: All operations, 2475 r.p.m. (90 hp)  
Propeller Limits:  
Static r.p.m. at maximum permissible throttle setting:  
Not over 2350, not under 1950 for landplane and not under 2050 for seaplane.  
No additional tolerance permitted.  
Diameter: (with Item 5 propeller) not over 71 inches, not under 69.5 inches.  
(with Item 101 propeller) not over 76 inches, not under 70 inches.
- (6) Lycoming O-235-C Use actual weight and arm  
Eligible on landplane only and when installed in accordance with Piper Dwg. No 12447.  
Engine Limits: All operations, 2600 r.p.m. (100 hp)  
Fuel: 80 minimum octane aviation gasoline.  
Oil Capacity: 6 qts. (-31)  
Propeller Limits: (with propeller, Item 10 or 11 only)  
Static r.p.m. at maximum permissible throttle setting:  
Not over 2450, not under 2250.  
No additional tolerance permitted.  
C. G. Range: (+12.9) to (+17.3)  
Aircraft weight and balance should be checked to determine need for 11¼ lb. ballast at (+179) or limitation to solo from rear seat only.  
Placard required in full view of pilot: "All acrobatics, including spins, prohibited."
312. Revised engine mount (Dwg. D71112-C, Change E) No weight change  
for engines incorporating integral rubber bushings.
313. Muffler and heater installation. +3 lb. (-39)

Landing Gear and Floats

(Note: The listed floats are eligible only on those models whose designation ends with "S", unless otherwise indicated.)

102. 8.00-4 wheels (Goodrich 840) with tires +20 lb. (+3)
103. Tail skid +4 lb. (+190)
151. Edo 54-1140 floats with water rudder (147 lb.) +106 lb. (+18)
201. McKinley pneumatic PF-2 floats (118 lb.) +77 lb. (+18)  
Placard float inflation pressure:  
Minimum operating internal pressure: 1.25 psi  
Maximum operating internal pressure: 1.75 psi  
Recommended operating internal pressure: 1.50 psi
203. Dual brake installation (Dwg. D4101-C) Use actual weight change
204. Heath Model 1460A float installation (Model J3C-56S only) (166 lb.) +121 lb. (+14)  
Bungee must be installed in the elevator control system per Piper Dwg. 80352.
205. Scott Aviation Corporation Model B-711 brake pressure unit Neglect weight change
206. Edo 60-1320 floats with water rudders (171 lb.) +130 lb. (+17)  
(Maximum seaplane weight 1200 lb. for all models except J3C-65S and PA-11S only 1300 lb.).
207. Scott Model 4200 -B1 hydraulic parking brake valve Neglect weight change  
(see Scott Bulletin No. 1-116, Parking Brake Installation Instructions)  
(Not eligible on Model PA-11)

Landing Gear and Floats (cont.)

208. Edo 92-1400 floats with water rudder (Model J3C-65S only) +118 lb. (+1)  
Bungee must be installed in the elevator control system per Piper Dwg. 80352.
209. Edo 92-1400 floats (Model PA-11S only) +115 lb. (+9)  
Note: When these floats are installed, revised engine cooling baffles in accordance with Piper Dwg. 11258 must be installed on airplanes Serial Nos. 11-1 through 11-1391, except Serial Nos. 11-233, 11-243, 11-248, 11-260, 11-261, 11-266, 11-288, 11-290, 11-300 through 11-1353, 11-1389, and 11-1390. Serial Nos. 11-1392 and up incorporate these baffles.
210. One nose wheel, 5.00-4, Type III, Firestone Model 5C2M-1, +8 lb. (-31)  
with 5.00-4 4-ply rating tire and tube. (Use with Testerman Tricycle-Type Landing Gear, Item 211)
- \*211. Tricycle landing gear - Testerman Model SPM-1 (Models J3C-65 and PA-11) +17 lb. (-29.5)  
Install in accordance with Stewart-Pearce Company, Tulsa, Oklahoma, Dwg. Nos. SPD-1-1 through SPD-1-15 and Installation Manual (Report No. SPR-6) dated July 9, 1949. Placard all airplanes "SOLO FROM REAR SEAT" and restrict C. G. range to:  
Model J3C-65: (+11.2) to (+18.3)  
Model PA-11: (+12.9) to (+20)  
New weight change for SPM-1 installation (including Items 210 and 305(c)).
- \*212. Scott parking brake installation Neglect weight change  
(Scott Aviation Corporation, Lancaster, New York,  
Kit No. 2715-AK installed in accordance with their Bulletin No. I-169).
- \*213. LCN shock strut in accordance with LCN Corporation +7 lb. (+3)  
Dwg. 11000 and kit installation instructions.  
Each shock strut must be identified with the symbol "FAA-PMA".
- \*214. Consolidair Model 17 wheel fenders installed in accordance with +9 lb. (+3)  
Dwg. 0041 per Consolidair Inc., Alliance, Ohio.
- \*215. Tandem Gear Model GW-100 installed in accordance with +46 lb. (+3)  
with A. W. Whitaker, 5001 N.E. Union Avenue, Portland, Oregon,  
Dwg. T-10 and Installation Instructions dated June 8, 1949.
216. Shock strut - cord and hydraulic type, Piper P/N 12843, +4 lb. (+3)  
installed per Piper Dwg. 10534.
304. Tail wheels
- |  | Models J3C-40,<br>J3C-50, J3C-65 | Model PA-11   |
|--|----------------------------------|---------------|
| (a) 6x2.00 steerable, Aircraft Associates                          | +3 lb. (+197)                    | -1 lb. (+197) |
| (b) 6x2.00 steerable, Scott Model CST-12                           | +3 lb. (+197)                    | -1 lb. (+197) |
| (c) 6x2.00 steerable, Scott Model 3-21                             | +5 lb. (+197)                    | +1 lb. (+197) |
| (d) 6x2.00 steerable, Scott Model 3000                             | +4 lb. (+197)                    | Req. (+197)   |
| (e) 6x2.50 steerable full-swivel<br>Maule Model SFS-14             | +2 lb. (+197)                    | -2 lb. (+197) |
| (f) 6x2.50 steerable, straight,<br>Maule Model SS-12               | +2 lb. (+197)                    | -2 lb. (+197) |
| (g) 6x2.50 steerable automatic full-swivel,<br>Maule Model SAFS-14 | +2 lb. (+197)                    | -2 lb. (+197) |
| (h) Imperial Model B-100   | +2 lb. (+197)                    | -2 lb. (+197) |
| (i) Maule Model SFS-1-4-P8   | +2 lb. (+197)                    | -2 lb. (+197) |
| * (j) Steerable - Lang<br>(Formerly Decker) Model D-501A           | +2 lb. (+197)                    | -2 lb. (+197) |

Landing Gear and Floats (cont.)

## 305. Wheels

- (a) 18x8-3 Goodyear 3LNBM with tires (Not eligible on Model PA-11) -2 lb. (+3)
- (b) 7.00-4 Firestone 2A or 2AV with tires (Not eligible on Model PA-11) -1 lb. (+3)
- (c) 8.00-4, Type III, wheel brake assemblies Goodrich Model 841: +12 lb. (+3)
  - Wheel Assembly No. D-3-13, Brake Assembly No. D-2-113, with 8.00-4, 4-ply rating tires and tubes (Delivered equipment on Model PA-11 at 20 lb. at +3).
  - Used with Item 211.
- (d) Goodyear Model CL6HBM, 7.00-6, (cross-wind wheel) +29 lb. (+3)
  - Wheel Assembly No. 266AX36
  - Brake Assembly No. 266AX55
  - Wheel Installation No. 266AX54

## 307. Wheel streamlines +6 lb. (+3)

## 310. Skis

Use actual weight change

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.

- (a) Piper S-1000 (maximum 1200 lb.)
- (b) Fairbanks MF-5 (maximum 1310 lb.)
- (c) Federal SA-1 (maximum 1200 lb.)
- (d) Federal SC-1 (maximum 1400 lb.)
- (e) Aviation Service B (maximum 1100 lb.)
- (f) Air Transport 1220-480 (maximum 1220 lb.)
- (g) Air Transport 1460-580 (maximum 1460 lb.)
- (h) Marston MFS-1600 (maximum 1600 lb.)
- (i) Heath 655 (maximum 1310 lb.)
- (j) Heath 725 (maximum 1450 lb.)
- (k) Air Transport 1224-580-1 (maximum 1220 lb.)
- (l) Marston MFS-1200 (maximum 1200 lb.)
- (m) Wollam W-1650 (maximum 1650 lb.)
- (n) Heath 725A (maximum 1450 lb.)
- (o) Federal SKT-1 (maximum 1400 lb.)
- (p) Federal SA-2 (maximum 1400 lb.)
- (q) Federal SC-2 (maximum 1650 lb.)
- (r) Washington Aircraft 1200 (maximum 1200 lb.)
- (s) Federal A-1500 or A-1500A (maximum 1500 lb.)
- (t) Call S1 (with 8.00-4 tires only) in accordance with Call Dwg. 1002 (maximum 1800 lb.)
- (u) Federal A-1850 (maximum 1850 lb.) per Federal Dwg. 11R262
- (v) Federal A-2000 or A-2000A (maximum 2000 lb.) per Federal Dwg. 11R262
- \*(w) Federal Model AWB-1500A wheel-ski, installed in accordance with Federal Aircraft Works, Minneapolis, Minnesota, Dwg. 11R560. The following placards are required on ski position selector box:

"SKI CONTROL"  
"UP-NEUTRAL-DOWN"

- \*(x) Federal AWB-2100 wheel-ski  
Installed in accordance with Federal Aircraft Works,  
Minneapolis, Minnesota Dwg. 11R1101  
The following placards are required:  
(1) "Do not extend or retract skis while in motion on the ground."  
(2) On the ski position selector box:

"SKI CONTROL"  
"UP-NEUTRAL-DOWN"

- \*(y) Wesco A-15 (maximum 1500 lb.)  
A-20 or AS-2 (maximum 2000 lb.)  
A-25, AS-2A or AS-2B (maximum 2500 lb.)  
per Western Aircraft Equipment Company Dwg. Nos. 12 and 148.

Landing Gear and Floats (cont.)

315. Wollam Model 1200 plywood float installation (Model J3C-65S only) +137 lb. (+16)  
(182 lb.) Bungee must be installed in the elevator control system per Piper Drawing C-85.

Electrical Equipment

303. Batteries  
 (a) Exide 3AC-7 +10 lb. (-19)  
 (b) Willard SYR-7-3 +10 lb. (-19)  
 (c) Reading 3-BRL-6 +8 lb. (+41)  
 (d) Reading 324 LD (with box) +16 lb. (-19)
314. Generator installations (wind driven)  
 (a) General Armature AG-40 +11 lb. (+3)
316. Landing lights in wing leading edge per Piper Dwg. 12534 +4 lb. (+5)

Interior Equipment

401. Cabin heater installation - surface combustion 10 lb. (+53)  
 Model AAV-15M-L2 (Models L-4A and L-4B only)
402. Windshield defroster (Not applicable to Model PA-11) +1 lb. (-17)

Miscellaneous (Not listed above)

306. Emergency exit Neglect weight change
309. Frieze type ailerons replacing unbalanced type Neglect weight change
501. Two hinge tail surfaces (Dwgs. D-4152-C and D-4157-C) Neglect weight change
- \*601. Arresting Gear Model UN-11 (installed in accordance +22 lb. (+65)  
 with All American Aviation Dwg. 3250)  
 Upon installation of the arresting gear device the aircraft must be placarded in the following manner:
- (a) The following placard should be located at the control box:  
 "DANGER - Aircraft Arrester, WARNING - Before flight, after use of this gear, the aircraft must be inspected in accordance with instructions in the All American Aviation Handbook of Instructions for Model UN-11 Aircraft Arresting Gear (Piper J3 Cub)."
- (b) The following placard should be located at the arresting cord box:  
 "After arresting gear has been used, and before the airplane is again considered airworthy, a certified airplane mechanic or other authorized personnel must visually inspect the entire airplane for any evidence of damage with particular attention to the following points:  
 (1) Right rear landing gear fitting where the static cable is attached.  
 (2) Tail wheel and its supporting structure.  
 (3) Alignment of the aft portion of fuselage.  
 (4) Tube cluster adjacent to the aft cable fairlead.  
 (5) Tube structure supporting the "UNOLYN" holding box and firing tube.  
 After this inspection, the aircraft must be signed off as airworthy."
- \*602. Crop spraying installation, "Aero Spray King Model P-1" +65 lb. (+41)  
 (Model J3C-65 only) (Installed in accordance with Ong Dwg. P-1-100 and Data No. P1-101 submitted by Ong Aircraft Corporation, P.O. Box 214, Kansas City, Mo.)  
 The following placards are required:  
 (a) "Never exceed 100 mph TIAS with spray equipment installed."  
 (b) "All acrobatics including spins prohibited with spray equipment installed."



Miscellaneous (Not listed above) (cont.)

- \*603. Slip-Not stabilizer control Model 10-C +2 lb. (+72)  
(installed in accordance with Westfield Industries, Salem, Illinois, Dwg. 1 and Kit installation instructions)
- \*604. ODA spraying installation (Models J3C-65 and PA-11 only) +77 lb. (+13)  
installed in accordance with ODA Spray and Equipment Company,  
Buffalo, Oklahoma, Dwgs. H-100 and H-102.  
The following placards are required:  
(a) "Never exceed 100 mph TIAS with spray equipment installed."  
(b) "All acrobatics including spins prohibited with spray equipment installed."
- \*605. Crop dusting installation (Models J3C-65 and PA-11 only) installed in accordance with Use actual weight  
A. W. Whitaker, 5001 N.E. Union Avenue, Portland, Oregon, Dwgs. 100 and 100A, and  
Data Sheet No. 100B. See NOTE 6 for limitations applicable to crop dusters.
- \*606. Crop spraying installation, "Aero Spray King Model P1-49" +85 lb. (+40)  
(Models J3C-65 and PA-11 only) installed in accordance with Ong Aircraft Corporation,  
P.O. Box 214, Kansas City, Missouri, Dwg. P1-100-49.  
The following placards are required:  
(a) "Never exceed 100 mph TIAS with spray equipment installed."  
(b) "All acrobatics including spins prohibited with spray equipment installed."
- \*607. Crop spraying installation (Models J3C-65 and PA-11 only) +51 lb. (+26)  
installed in accordance with Johnson Flying Service, Inc., P.O. Box 1382, Missoula,  
Montana, Dwgs. S-100 through S-106.  
The following placards are required:  
(a) "Never exceed 100 mph TIAS with spray equipment installed."  
(b) "All acrobatics including spins prohibited with spray equipment installed."
- \*608. Crop spraying installation, "Arrow Sprayer Model C-1" Use actual weight  
(Model J3C-65 only) installed in accordance with Arrow Sprayer Manufacturing  
Company, Clinton Airport, Box 188, Clinton, Illinois, Installation Instructions dated  
November 1, 1948.
- \*609. Crop spraying installation, "Pipestone Aviation Services Sprayer" +69 lb. (+42.5)  
(Models J3C-65 and PA-11 only) installed in accordance with Pipestone Aviation Service,  
Pipestone, Minnesota, Drawing and Installation Instructions dated January 19, 1949.  
The following placards are required:  
(a) "Never exceed 100 mph TIAS with spray equipment installed."  
(b) "All acrobatics including spins prohibited with spray equipment installed."
- \*610. Crop spraying installation (Models J3C-65 and PA-11 only) installed in accordance with  
Broyhill Company's, Dakota City, Nebraska, following drawings:  
Dwg. No. BC-J3-1 for Model J3C-65 +73 lb. (+24.5)  
Dwg. No. BC-PA11-1 for Model PA-11 +68 lb. (+16.5)  
The following placards are required:  
(a) "Never exceed 100 mph TIAS with spray equipment installed."  
(b) "All acrobatics including spins prohibited with spray equipment installed."
- \*611. Crop spraying installation (Models J3C-65 and PA-11 only) +54 lb. (+22.5)  
installed in accordance with Savdy-Sorensen Aviation Inc., Worthington, Minnesota  
Installation Instructions dated March 8, 1949.  
The following placards are required:  
(a) "Never exceed 100 mph TIAS with spray equipment installed."  
(b) "All acrobatics including spins prohibited with spray equipment installed."

Miscellaneous (Not listed above) (cont.)

- \*612 Crop spraying installation "Safe-Way Model P.M." +63 lb. (+30)  
 (Models J3C-65 and PA-11 only) installed in accordance with Beedleston Air Service, Municipal Airport, Docatur, Illinois, Installation Instructions dated April 11, 1949.  
 Eligible for certification in Normal and/or Restricted Category (See NOTE 6).  
 The following additional placard is required when certificated in the Restricted Category in accordance with NOTE 6: "All acrobatics including spins prohibited with spray equipment installed."
- \*613. Crop spraying installation (Models J3C-65 and PA-11 only) +56 lb. (+23)  
 Martin Airways Model A in accordance with Martin Airways, Inc., Municipal Airport, Monmouth, Illinois, Installation Instructions dated March 1, 1949.  
 The following placards are required:  
 (a) On instrument panel in full view of pilot: "All acrobatics including spins prohibited when spray equipment is installed."  
 (b) On tank "Maximum capacity \_\_\_\_ gal. water or \_\_\_\_ lb." Values to be determined from weight and balance of aircraft.  
 Eligible for certification in Normal and/or Restricted Category (See NOTE 6).  
 When certificated in Restricted Category in accordance with NOTE 6, the C. G. range is (+11.5) to (+19.4) and the following static r.p.m. limits at maximum permissible throttle setting apply (no additional tolerance permitted):  
 (a) With Items 311C (1 through 6) and Item 311D (1 through 3) engines and Items 2, 4, and 101 propellers: Not over 2250, not under 2000.  
 (b) With Item 311C(8) engine and Items 6 or 101 propellers: Not over 2425, not under 2000.  
 (c) With Item 311C(7) engine and Items 6 or 101 propellers: Not over 2100, not under 2000.
- \*614. Crop spraying installation (Model PA-11 with C-90 engine only) installed +80 lb. (+19.5)  
 in accordance with A. W. Whitaker, 5001 N.E. Union Avenue, Portland, Oregon, Installation Instructions and Dwg. W-49 dated January 1, 1949.  
 The following placard is required:  
 "All acrobatics including spins prohibited with spray equipment installed."
- \*615. Crop spraying installation "NAAC Sprayer" +53 lb. (+22)  
 (Models J3C-65 and PA-11 only) installed in accordance with Northwest Agricultural Aviation Corporation, Chouteau, Montana, Dwg. No. N-14S.  
 Disposable spray fluid (Weight at loaded) (+34)  
 The following placards are required:  
 (a) "Never exceed 100 mph TIAS with spray equipment installed."  
 (b) "All acrobatics including spins prohibited with spray equipment installed."
- \*616. Crop installation, "Frye Model 113" (Models J3C-65 and PA-11 only) +36 lb. (+12)  
 installed in accordance with Frye Manufacturing Company, Anadarko, Oklahoma, Installation Instructions:  
 Disposable spray fluid (Weight at loaded) (+33)  
 The following placards are required:  
 (a) "Never exceed 100 mph TIAS with spray equipment installed."  
 (b) "All acrobatics including spins prohibited with spray equipment installed."
- \*617. Wing tip spill plates (Models J3C-65 and PA-11 only) Neglect weight change  
 installed in accordance with Flo-Trol Splate Company, Wahpeton, North Dakota, Kit No. 100, dated September 1, 1949, for wings with wood spars and Kit No. 200, dated October 1, 1949, for wings with metal spars. The following lower static r.p.m. propeller limits apply:  
 (a) With Item 311C (1 through 6), 311D (1 through 3) and 311C(8), not under 2200 r.p.m.  
 (b) With Items 311C(7), 311C(10) and 311D(5), with Item 101 propeller, not under 2200 r.p.m.  
 (c) With Items 311C (10) and 311D (5) with Items 5 and 6 propellers, not under 2000 r.p.m.  
 (d) With Items 311C (9) and 311D (4) with Items 101, 3 or 4 propellers, not under 2000 r.p.m. and with Items 8 propeller with limits as specified.  
 (e) With Item 311D(5) with Item 7 propeller limits as specified.  
 (f) With Item 311D(5) with Item 9 propeller, not under 2000 r.p.m.

Miscellaneous (Not listed above) (cont.)

- \*618. Crop spraying installation for Model J3C-65 and Model PA-11 when installed in accordance with Independent Crop Dusting, Inc., Campbell, California, instruction, "I-C-D Model 700 Rotary Sprayer Installation," revised June 1, 1949, or "Instructions for Installation Two Series 700 Rotors," dated January 14, 1930. Use actual weight and balance change
- The following placards are required:
- (a) "Never exceed 100 mph TIAS with spray equipment installed."
  - (b) "All acrobatics including spins prohibited with spray equipment installed."
- Independent Crop Dusting, Inc. Spray Tank may be used in conjunction with the above Rotary Spray Units or with other approved sprayer installations when installed in accordance with "Instructions for Installation Spray Tank Kit," dated February 1, 1950. Use actual weight and balance change
- \*619. Brodie Suspending Gear  
(Aircraft of 1220 lb. maximum weight, and 65 hp minimum)  
installed in accordance with Brodie Engineering Corporation, 2107 Maryland Avenue, Baltimore, Maryland, Dwg. No. X46R6187.
- (a) Complete installation including fixed mount, hook, arm and cables. The following placards are required: +37 lb. (-2)
    - (1) "Intentional spins prohibited with Brodie Hook installed: (Spins permitted with fixed mount only installed)".
    - (2) At the release handle: "Warning - Suspending gear hook release."
  - (b) Installation of fixed mount only, in accordance with Dwg. X45D17370, X45G17375, X45C17393 and X45B17394 +15 lb. (-3)
- Aircraft incorporation Item (a) may be operated, in accordance with required operating instructions, on the Brodie Aerial Track Airport erected at Diffendall (Eastern) Airport, Baltimore, Maryland. These operating instructions are contained in the CAA (FAA) approved Brodie Pilot Operating Manual entitled "Pilot Operating Instructions for Piper J3 and PA-11 Airplanes for Landing and Takeoff on Aerial Track Airports" which must remain in the airplane during such operation, and must retain its identity as an individual manual.
- \*620. Crop dusting installation, "Aero Dust King, Model DP-7" +56 lb. (35)  
(Models J3C-65 and PA-11 only) installed in accordance with Ong Aircraft Corporation, P.O. Box 214, Kansas City, Missouri, Installation Instructions and Dwg. DP-700.
- Disposable dust (Weight as loaded) (+32)  
Eligible for certification in Normal or Restricted category.  
See NOTE 6 for applicable limitations and placards.
- \*621. Crop spraying installation, "Aero Spray King Jr., Model SP-9" +48 lb. (+25)  
(Models J3C-65 and PA-11 only) installed in accordance with Ong Aircraft Corporation, P.O. Box 214, Kansas City, Missouri, Installation Instructions and Dwg. SP-900
- Disposable spray fluid (Weight as loaded) (+36)  
Eligible for certification in Normal or Restricted category.  
See NOTE 6 for applicable limitations and placards.
- \*622. Crop spraying installation, "Pipestone Aviation Services Model 100" (Models J3C-65 and PA-11 only) installed in accordance with Pipestone Aviation Services, Pipestone, Minnesota, Installation Instructions dated February 23, 1950 and installation drawing. +60 lb. (+28)  
The following placards are required:
- (a) "Never exceed 90 mph TIAS with spray equipment installed."
  - (b) "All acrobatics including spins prohibited with spray equipment installed."
- Eligible with propellers as listed except Item 101 which requires static r.p.m. limits:  
Not over 2300, not under 2050.

Miscellaneous (Not listed above) (cont.)

- \*623. Crop spraying installation "Sevdy-Sorenson Model 10 Low Gallonage" (Models J3C and PA-11 having 80 hp. engines or higher) installed in accordance with Sevdy-Sorenson instructions dated April 1, 1950. Eligible for certification in Normal and/or Restricted Category (See NOTE 6). +56 lb. (+29)  
The following placards are required:  
(a) "Never exceed 100 mph TIAS with spray equipment installed."  
(b) "All acrobatics including spins prohibited with spray equipment installed."
- \*624. Ross control system conversion kit Models 7R100, 7R100A and 7R100B. Use actual weight and balance change  
Install in accordance with Ross (Frederick W. Ross, 719 North Melborn Avenue, Dearborn, Michigan) Dwgs. 7R100 through 7A120 revised November 4, 1955, and Ross Installation Instructions dated April 6, 1953. Model 7R100 approved for Models J3C-65 and PA-11 only when both a 65 hp engine and Item 211, Testerman Tricycle Landing Gear, are installed. Models 7R100A and 7R100B approved for Models J3C-65 and PA-11 with any approved 65 to 90 hp engine and either type landing gear. The following placard is required on the instrument panel:  
"Equipped with Ross Control System."
- \*625. Clipped wing installation. 40 ½ inches removed from root of each wing in accordance with Reed Aircraft Modification Manual dated October 7, 1953. Use actual weight and balance change  
(Earl C. Reed, Kansas City, Missouri). The following restrictions apply:  
(1) C. G. Range: (+10.9) to (+19.4)  
(2) Maximum Weight: 1100 lb.  
(3) Items 311C(1) through 311C(6), and 311C(8) engines only with McCauley 1A90-CF, 1A90-CH, and 1B90-CM fixed pitch metal propellers only at following static r.p.m. and diameter limits: 2250 to 2150 and 71.0 to 69.5 inches, respectively (No other tolerances permitted).  
(4) Required placard in view of pilot:  
"Equipment with Reed Clipped Wing"
- 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 Placard front cockpits of Models J3C-50, J3C-65, J3C-50S with McKinley floats and J3C-65S with McKinley floats: "Solo flying from rear seat only." Placard may be removed if individual aircraft actual weight and balance shows that the approved C. G. limits will not be exceeded under any loading condition. Manufacturer recommends that all J-3 airplanes be flown solo from the rear seat.
- NOTE 3 Serial Nos. 4373, 4419, 4435, 4438, 4445, 4446, 4447, 4449, 4450, 4451, 4452, 4457, 4458, 4459, 4460, 4464, 4466, 4467, 4471, 4473, 4474, 4475, 4477, 4478, 4495, and 4502 are eligible with the following C. G. range:
- |           |                   |         |    |         |
|-----------|-------------------|---------|----|---------|
| Landplane |                   | (+10.6) | to | (+21.5) |
| Seaplane  | (Edo floats)      | (+10.6) | to | (+18.5) |
| Seaplane  | (McKinley floats) | (+13.7) | to | (+18.5) |
- NOTE 4 Army TG-8 gliders having Serial Nos. G-1 and up are eligible for certification as J3C series airplanes under the provisions of this specification provided that they have been converted to J3C airplanes and are in conformity with the approved Piper data. Conversion procedure is given in Safety Regulation Release No. 188.
- NOTE 5 The following parts from TG-8 gliders can be used directly on Piper J3C series airplanes. The replacement of such complete component parts is considered a minor repair in accordance with FAA Advisory Circular 43.13-1. Tail surfaces; landing gear tires and wheels; tail wheel; wing, provided the spoiler and spoiler controls are removed; the control system from (and including) the middle occupant aft; wing struts; instruments, same as or equivalent to those used on powered aircraft.

NOTE 6 Models J3C-65 and PA-11 aircraft certificated in the Restricted Category prior to October 11, 1950 for crop dusting, spraying or seeding may continue to operate with the additional limitations:

	<u>Model J3C-65 eligible at 1100 lb.</u>	<u>Model J3C-65 eligible at 1220 lb.</u>	<u>Model PA-11</u>
(a) Maximum landing weight	1100 lb.	1220 lb.	1220 lb.
Maximum takeoff weight	1210 lb.	1250 lb.	1250 lb.
Maneuvering speed at maximum weight	93 mph	78 mph	84 mph

(b) The following placard must be in full view of pilot:

"Maneuvering speed at maximum weight not to exceed (See NOTE 6(a) above) mph -- all acrobatics including spins prohibited."

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

NOTE 7 Model J3C-65 or PA-11 may be converted from a closed (2 PCLM) to an open landplane (2 POLM) by removal of doors and side windows in accordance with Piper Dwg. 10670, at a decrease of 13.5 lb. at +16 inches from datum.

....END....