

C.G. range	(+26.6) to (+32.3)		
Empty weight C.G. range	None		
Maximum weight	1860 lb. See NOTE 3 regarding weight when spin strips (item 601) are not installed.		
No. of seats	2 (1 at +41, 1 at +71)		
Maximum baggage	10 lb. (+91)		
Fuel capacity	30 gal. (+13) (one tank in fuselage). See item 112 for optional tank.		
Oil capacity	4 gal. (-12)		
Control surface movements	Elevator	Up 30°	Down 18°
	Aileron	Up 28°	Down 26°
	Rudder	Right 31°	Left 31°
	Stabilizer	Up 2.5°	Down 5.5°
Serial Nos. eligible	1 and up. See NOTE 3 regarding eligibility of serials under 50 when spin strips (item 601) are not installed.		
Required equipment	Items 1, 105, 106, 107, 108, 109, 209, 210, 601. See NOTE 3 regarding removal of spin strips (item 601).		

III - Model OTW-KR, 2 POLB, Approved August 25, 1942

The specifications for this model are omitted inasmuch as no airplanes of the model are registered.

IV - Model OTW-160, 2 POLB, Approved December 9, 1943

Engine	Kinner R-56		
Fuel	73 min. grade aviation gasoline		
Engine limits	For all operations, 1850 r.p.m. (160 hp)		
Airspeed limits	Level flight or climb	115 m.p.h. (True Ind.)	
	Glide or dive	155 m.p.h. (True Ind.)	
Propeller limits	Wood, fixed pitch		
	Range 1		
	Static r.p.m. at maximum permissible throttle setting:		
	not over 1850, not under 1755		
	No additional tolerance permitted.		
	Diameter: not over 90 in., not under 87 in.		
	Range 2		
Static r.p.m. at maximum permissible throttle setting:			
Not over 1790, not under 1690			
No additional tolerance permitted.			
Diameter: Not over 92 in., not under 89 in.			
C.G. range	(+25.6) to (+31.3)		
Empty weight C.G. range	None		
Maximum weight	1910 lb.		
No. of seats	2 (1 at +41, 1 at +71)		
Maximum baggage	10 lb. (+91)		
Fuel capacity	Item 112 (24 gal. at +11)		
Oil capacity	3 gal. (-7)		
Control surface movements	Elevator	Up 30°	Down 18°
	Aileron	Up 28°	Down 26°
	Rudder	Right 31°	Left 31°
	Stabilizer	Up 2.5°	Down 5.5°
Serial Nos. eligible	1 and up.		
Required equipment	Items 1, 105, 106, 107, 108, 109, 209, 210, 601.		

Specifications Pertinent to All Models

Datum	Fuselage Station No. 1 (approx. 3 in. ahead of leading edge of upper wing)
Leveling means	Top of fuselage between Station No. 1 (firewall) and Station No. 3.
Certification basis	Part 04 of the Civil Air Regulations
Production basis	Type Certificate No. A-736 issued February 18, 1941
Export eligibility	None. Prior to original certification of each aircraft an FAA representative must perform a detailed inspection for workmanship, materials and conformity with the approved technical data and a check of the flight characteristics.
	Eligible for export to all countries (except as follow) subject to the provisions of Advisory Circular 21-2:
	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.

Special Note: So that all items of equipment might be in their proper categories, the following items were renumbered as indicated:

<u>1/</u> Item 1 was formerly item 101	<u>6/</u> Item 210 was formerly item 104
<u>2/</u> Item 2 was formerly item 201	<u>7/</u> Item 302 was formerly item 202
<u>3/</u> Item 111 was formerly item 203	<u>8/</u> Item 401 was formerly item 301
<u>4/</u> Item 112 was formerly item 204	<u>9/</u> Item 601 was formerly item 110
<u>5/</u> Item 209 was formerly item 102	<u>10/</u> Item 602 was formerly item 205

Propellers and Propeller Accessories

OTW

<u>1/</u> 1. Propeller - wood (fixed pitch) with hub	<u>OTW-145</u> 30 lb. (-48)	<u>OTW-160</u> 34 lb. (-44)
<u>2/</u> 2. Propeller - Ham.-Std. Adj. metal, hub 1595, blades 1827 (OTW only)	+15 lb. (-48)	

Engines and Engine Accessories - Fuel and Oil System

103. Engine ring cowl	8 lb. (-38)	
105. Carburetor air heater		
(a) Series 40 engine (OTW)	3 lb. (-43)	
(b) Series 50 engine (OTW)	4 lb. (-30)	
(c) OTW-145	6 lb. (-28)	
(d) OTW-160		6 lb. (-24)
106. Engine driven fuel pump		
(a) Candler-Hill L2A2-10	2 lb. (-24)	
(b) Candler-Hill L2E3-13		
107. Hand wobble pump (U.A.P. D-2) 4 lb. (-4)	4 lb. (-4)	
108. Inverted flight valve (Bendix SRA-5660-15)		
109. Fuel pressure relief valve		
<u>3/</u> 111. Starter (Heywood)		
(a) Air tank	20 lb. (-3)	
(b) Pump	10 lb. (-22)	
<u>4/</u> 112. 24 gal. fuel tank	- 2 lb. (+11)	15 lb. (+12)

Landing Gear and Floats

206. Parking brake	1 lb. (+60)	1 lb. (+60)
207. 6.50-10 wheels (Meyers EH 650W)	- 6 lb. (+14)	- 6 lb. (+14)
208. Skis (eligible on any airplane of these models provided the propeller installation meets the minimum 9 in. ground clearance)		Use actual weight change
(a) Federal SA-3 (maximum std. wt. 1800 lb.)		
<u>5/</u> 209. 6.50-10 wheels (Meyers EH650A) with brakes and 4-ply tires	56 lb. (+14)	56 lb. (+14)
<u>6/</u> 210. Tail wheel (swiveling) with 8 in. tire	4 lb. (+189)	4 lb. (+189)

Electrical Equipment

<u>7/</u> 302. Battery and box	13 lb. (-3)	13 lb. (-3)
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Interior Equipment

<u>8/</u> 401. Miscellaneous instruments in front cockpit	4 lb. (+26)	4 lb. (+26)
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Miscellaneous (not listed above)

<u>9/</u> 601. Spin strips - lower wings (dwg. Y-3) (required only for 1860 lb. and 1910 lb. standard weight) These strips are required equipment except that they may be removed on certain S/N as outlined in NOTE 3.	1 lb. (+31)	1 lb. (+31)
<u>10/</u> 602. Spin strips - upper wings (dwg. Y-3)	1 lb. (+2)	1 lb. (+2)

NOTE 1. Current weight and balance report including list of equipment included in certificated empty weight and loading instructions when necessary must be provided for each aircraft at the time of original certification.

NOTE 3. S/N 1 thru 50 (except 43, 45 and 47) are also eligible without spin strips in lower wings (item 601) with the following limitations:

Airspeed limits	Level flight or climb	115 m.p.h. (True Ind.)
	Glide or dive	168 m.p.h. (True Ind.)
Maximum weight		1787 lb.
C.G. range		(+25.8) to (+32.7)

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