

CIVIL AERONAUTICS ADMINISTRATION

A-533 WACO YKC YKC-S YKS-6 ZKS-6 January 3, 1949
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AIRCRAFT SPECIFICATION NO. A-533

Manufacturer Waco Aircraft Co.
 Troy, Ohio

I - Models YKC, YKC-S and YKS-6, 4-5 PCL-SB (See Note 1 for explanation of model designation).

Engine	Jacobs L-4
Engine limits	For all operations, 2000 rpm (225 H.P.)
Airspeed limits	Not available
Propeller limits	Not available
C.G. range	Landplane: (-14.4) to (-2.4) Seaplane: (-12.7) to (-3.7)
E.W.C.G. range	Landplane: (-10.4) to (-15.0) Seaplane: (-12.3) to (-13.1) Both valid as 3, 4 or 5 place, with or without optional fuel tanks. If empty weight C.G. falls within range given, it is unnecessary to check critical forward and aft C.G. positions. These ranges are not valid for non-standard arrangements, except as noted herein.
Maximum weight	(a) Landplanes serials 3873 to 3877, inclusive, and 3975 (not equipped with spoilers) are eligible at 2850 lbs. (b) Landplanes serials 3978 and up eligible at 3000 lbs. These serials also eligible at 3250 lbs. provided: (1) Landing gear per Waco Dwg. 20497 is installed and structural changes per pages 8 and 9 of Waco Report 383 are made, and (2) Wing spoilers or Model UMF vertical tail surfaces are installed. (c) Seaplanes: 3250 lbs.
No. seats	3, 4 or 5 (Front - 2.5, rear +27). Five-place airplanes must have: (a) Additional safety belt on rear seat. (b) Baggage capacity reduced to 70 lbs., unless actual weight and balance substantiates lesser restriction.
Maximum baggage	100 lbs. (+49)
Fuel capacity	50 gals. (-11) (Two 25-gal. tanks in upper wings)
Oil capacity	5 gals. (-44)
Serial Nos. eligible	3873 and up mfd. prior to Sept. 30, 1939. Approval expired as of that date.
Required equipment	Landplanes: Items 101, 102, 103, 104, 107, 108, 109, 110. Seaplanes: Items 101, 104, 109, 110, 151, 152, 153, 154, 155, 156. Seaplanes serials 3873 to 3877, inclusive, and 3975 must have wing spoilers installed in accordance with approved data.

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II - Model ZKS-6, 4-5 PCL-SB (Same as Model YKS-6, except engine installation.
See Note 1 for explanation of model designation).

Engine	Jacobs L-5	
Engine limits	Take-off and climb	2000 rpm (285 hp)
	For all other operations	1910 rpm (250 hp)
Airspeed limits	Level flight or climb	140 mph True Ind.
	Glide or dive	168 mph True Ind.
Propeller limits	Not available	
C.G. range)	
Empty weight C.G. range)	
Maximum weights	(Same as given under Part I above.	
No. seats)	
Maximum baggage)	
Fuel capacity	50 gals. (-11) (Two 25-gal. tanks in upper wings)	
	Fuel valves must be placarded: "Both tanks should be turned to "ON" position during take-off, climb and landing".	
Oil capacity	5 gals. (-44)	
Serial Nos. eligible	3873 and up manufactured prior to September 30, 1939. Approval expired as of that date.	
Required equipment	Landplanes: Items 101, 102, 103, 104, 107, 108, 109, 110, 323. Seaplanes : Items 101, 104, 109, 110, 151, 152, 153, 154, 155, 156, 323.	

Specifications Pertinent to All Models

Datum	Leading edge lower wing
Leveling means	Not available
Certification basis	Approved type certificate No. 533. (Expired September 30, 1939)
Export eligibility	Will be supplied on request to Office of Aviation Safety, Washington.
Equipment:	A plus (+) or minus (-) sign preceding the weight of an item indicates net weight change when that item is installed.

Propellers and Propeller Accessories

109. Propeller - wood (fixed pitch)	45 lbs. (-79.5)
204. Propeller - Hamilton Standard hub 2B20, blades 6109A-6 to 6109A-16 incl., or 6135A-6 to 6135A-16 incl., - Diameter 8'6" maximum, 7'7" minimum. (For use with Jacobs L-4 only)	104 lbs.
305. Propellers	
(a) Adj. pitch metal - Ham. Std.	+37 lbs. (-80)
(b) Fixed pitch metal - Curtiss 55501	+9 lbs. (-80)

Engines and Engine Accessories - Fuel and Oil System

101. Engine ring cowl	22 lbs.
102. Starter (direct electrical)	20 lbs.
153. Starter	30 lbs.
155. Heater	5 lbs. (-51)
306. Fuel capacity	
(a) 70 gals. (Two 35 gal. tanks in upper wings)	+18 lbs. (-11)
(b) 100 gals. (Two 35 gal. tanks in upper wings and two 15 gal. tanks in lower wings)	+53 lbs. (-11)
307. Four or 6 1/2 gal. oil tank	No weight change

312. Engine crankcase cooling disc (Mounted on forward part of engine crankcase).	3 lbs.
314. (a) Heater	5 lbs. (-51)
(b) Ventilator	2 lbs.
318. Lux remote fire extinguisher	19 lbs. (+12) or (-48)
323. Oil cooler	

Landing Gear

107. 8-in. streamline tail wheel	(+181)
108. 6.50-10 wheels (Autofan) with 7:50-10 or 8:50-10 tires (wheels must be placarded for these tires)	(-24)
151. Edo P-3300 or 38-3430 floats	
304. Wheel streamlines	24 lbs. (-24)
315. 7:50-10 cactus proof tubes	10 lbs. (-24)
316. Tail wheel lock	(+87)
324. Skis	Use actual weight
(a) Washington Aircraft 3600	
(b) Federal SA-6	

Electrical Equipment

103. Generator	13 lbs.
104. Battey - ahead of firewall	42 lbs.
154. Generator	10 lbs.
301. Landing lights - Grimes retractable	11 lbs. (+7)
320. Generator - Eclipse LV-180	18 lbs.

Interior Equipment

110. "Throwover" type control column	
201. Ambulance equipment (litter)	12 lbs. (+97)
303. Flexible instrument pane	15 lbs. (-34)
308. Flares (a) Three 1 1/2 min.	17 lbs. (+70)
(b) Five 1 min.	13 lbs. (+70)
319. "Y" type control column	
321. Baggage compartment and door	3 lbs. (+54)

Miscellaneous

152. Large vertical surfaces including extra fin underneath fuselage replacing tail wheel.	
156. Wing root fairing	
310. Air brakes	10 lbs. (0)
317. Extra door and wing walk	16 lbs. (+19)

Note 1. Yearly models: 1934 YKC or ZKS
 1935 YKC-S or ZKS-S
 1936 YKS-6 or ZKS-6

In the case of the 1936 designation: First letter shows engine; second letter shows wing; third letter shows type; number indicates year.

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