

DEPARTMENT OF COMMERCE  
CIVIL AERONAUTICS ADMINISTRATION

A-709 Revision 5 STINSON HW-75 10  November 9, 1956
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AIRCRAFT SPECIFICATION NO. A-709

Manufacturer Stinson Division  
Consolidated Vultee Aircraft Corp.

I - Model HW-75, 3 PCLM, Approved May 20, 1939 and Model 10, 3 PCLM, Approved April 22, 1940  
 (Model 10 is same as HW-75 except for wider cabin and minor structural changes.)

Engine	Continental A-75-3 (See item 314 for optional engines).
Fuel	73 min. grade aviation gasoline
Engine limits	For all operations, 2650 rpm (75 hp)
Propeller limits (with item 101)	(75 hp): Max. permissible diameter 81 in. (80 hp): Static rpm at max. permissible throttle setting: Not over 2635, not under 2325. No additional tolerance permitted. Diameter: Not over 81 in., not under 67.5 in.
Airspeed limits	Level flight or climb    120 mph (104 knots) True Ind. Glide or dive            144 mph (125 knots) True Ind. Flaps extended            85 mph ( 74 knots) True Ind.
C.G. range	(+14.7) to (+19)
Empty weight C.G. range	(+14.6) to (+15.5) 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.
Datum	Wing leading edge
Leveling means	Top of door frame
Maximum weight	1580 lbs.
No. seats	3 (2 front at +16 and one rear at +39).
Maximum baggage	24 lbs. (+39). Baggage may be increased to 194 lbs. when rear seat passenger is not carried - 100 lbs. on rear seat and 94 lbs. on floor.
Fuel capacity	HW-75: 18 gals. (+22) See item 305 for extra tanks 10: 20 gals. (+22)
Oil capacity	4 1/2 qts. (-40) See item 305 for extra capacity.
Control surface movements	Not available.

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Serial Nos. eligible	HW-75: 7000 and up manufactured prior to Feb. 28, 1941. Approval expired as of that date. 10: 7501 and up manufactured prior to Feb. 28, 1941. Approval expired as of that date.
Required equipment	Items 101, 102, 103, 104 and 105

#### SPECIFICATIONS PERTINENT TO ALL MODELS

Certification basis	Type Certificate No. 709 (CAR 4a)
Production basis	Not pertinent - see "Serial Nos. Eligible."
Export eligibility	Eligible for export to all countries except as follows subject to the provisions of MOP 2-4 . Canada - Landplane - eligible Seaplane - not eligible. However, structure complies with Canadian requirements for ski installation with a maximum ski height of 8-11/16 in. and a tread of 6 ft. 11-5/8 in. (centerline of ski 3-1/16 in. out from edge of torque plate).

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

101. Propeller - wood (fixed or adj. pitch)	13 lbs. (-60)
317. Propeller - controllable wood Static rpm at max. permissible throttle setting: Not over 2500, not under 2325. No additional tolerance permitted. Low pitch setting 14° at 22 in. sta.	
(a) Beech R-1 hub C-100, blades R100-70 Diameter: Not over 70 in., not under 68 in.	+12 lbs. (-60)
(b) Flottorp R002, hub R002-208, blades R002-205-72 (See Prop. Spec. P-804, NOTE 6, for interchangeable blades) Diameter: Not over 72 in., not under 68 in.	+18 lbs. (-60)
(c) Propeller control (Beech Dwg. R000-000) to be used with either of above propellers	2 lbs. (-30)
318. Propeller - McCauley 1A90 Static rpm at max. permissible throttle setting: Not over 2440, not under 2340. No additional tolerance permitted. Diameter: Not over 70 in., not under 68.5 in.	26 lbs. (-60)
319. Propeller - Beech controllable, hub R002-101 or R003-100, blades R003-201-72T includes Beech mechanical pitch control. (See Prop. Spec. P-804, NOTE 6 for interchangeable blades) Static rpm at max. permissible throttle setting: (low pitch): Not over 2500, not under 2325 No additional tolerance permitted. Diameter: Not over 72 in., not under 72 in. Placard required: "Do not exceed 2575 engine rpm in level flight or climb."	29 lbs. (-60)
320. Propeller - Sensenich M74CK-2 fixed pitch metal (A75 engine only) Static rpm at max. permissible throttle setting: Not over 2440, not under 2340. No additional tolerance permitted. Diameter: Not over 72 in., not under 70 in.	21 lbs. (-60)

Engines and Engine Accessories - Fuel and Oil System

105. Carburetor air heater (Dwg. T-3225)	3 lbs. (-35)
301. Starters	
(a) (Eclipse E-80) (Item 304(b) required)	18 lbs. (-33)
(b) (Eclipse No. 635) (Item 304(b), (c) or (d) required)	16 lbs. (-33)
(c) Wiring and switch	2 lbs. (-6)
305. Extra tanks	
(a) 18 gal. fuel tank (Model HW-75 only)	15 lbs. (+22)
(b) 20 gal. fuel tank (Model 10 only)	15 lbs. (+22)
(c) 2 gal. oil tank	1 lb. (-40)
313. Revised engine mount (Dwg. T-3830) for engines with No wt. change integral rubber bushings	
314. Engines (Continental - see Engine Specs. Nos. 213 and 217)	
(a) A-75-6 (Limits same as for A-75-3)	+3 lbs.
(b) A-75-8	No wt. change
Engine limits: For all operations, 2600 rpm (75 hp)	
(c) A-75-9 (Limits same as for A-75-8)	+3 lbs.
(d) A-80-6, A-80-6J, A-80-9, A-80-9J	+3 lbs.
Engine limits: For all operations, 2700 rpm (80 hp)	
Fuel: 80 min. octane	
(See NOTE 1 for further restrictions.)	
(e) A-80-8 or A-80-8J	No wt. change
Limits same as for (d).	
(See NOTE 1 for further restrictions.)	

Landing Gear

102. 6.00-6 wheels with brakes (Goodrich 600M) and 4-ply tires (Wheels must be placarded for these tires)	28 lbs. (+1)
103. 6x2.00 solid tail wheel (Firestone No. 206-7B)	2 lbs. (+168)
107. Parking brake	3 lbs. (+13)
302. Wheel streamlines	6 lbs. (+1)
311. Puncture seal tubes	2 lbs. (+1)
315. Skis	Use actual wt. change
(a) Federal SC-2	
316. Wheels	
(a) 8.00-4 (Goodrich 841) with brakes and 4-ply tires (Wheels must be placarded for these tires)	No wt. change
(b) Steerable tail wheel control	+1 lbs. (+155)

Electrical Equipment

104. Battery - 6 volt (Reading No. 324) with box	14 lbs. (-25)
303. Landing lights (Grimes ST-250) one or two	5 lbs. ea. (+14)
304. Battery and box	
(a) (Reading R-24, 12 vo.)	27 lbs. (-25)
(b) (Exide 6TS-7-1, 12 vo.)	28 lbs. (+15)
(c) (Exide 6TS-7-1, 12 vo.)	28 lbs. (-25)
(d) (Exide 6TS-13-1, 12 vo.) (For serial nos. 7601 and up of model 10 only)	40 lbs. (+15)
(e) (Exide 6TS-13-1, 12 vo.)	40 lbs. (+29)

310. Generator - wind driven (Air Associates 6 or 12 volt) 8 lbs. (+10)

Interior Equipment

201. Flares - three 1 minute International 8 lbs. (+34)

306. Cabin heater 2 lbs. (-35)

Miscellaneous (not listed above)

106. Two cabin doors 16 lbs. (+16)

NOTE 1. The approval of Continental A-80 Series engines expired May 11, 1949. The only A-80 series engines eligible for installation in certificated aircraft are those manufactured or converted to this series prior to May 11, 1949. Such engines installed in Stinson Model HW-75 and Model 10 aircraft are acceptable provided the following conditions are observed:

- (a) Propeller Item 101, 317, 318 or 319 must be installed.
- (b) Fuel tank filler neck or cap must be placarded for 80 octane minimum.
- (c) Revised engine baffles in accordance with Stinson Dwg. 2-4306 for up-exhaust engine and 2-4305 for down-exhaust engine must be installed.
- (d) Tachometer must be marked for maximum of 2700 rpm.

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