

MODELS: Spartan 7W (Army UC-71), 5 PCLM

T.C. NUMBER: 628

Engine	P & W Wasp Jr. SB with one 4-1/2 N and one 9 N damper (see also item 222)
Placard limits	Maximum, except take-off
Fuel	(S.L.) 30.0 in.Hg., 2200 rpm (330 hp)
80 minimum octane (See NOTE 3)	(5000 ft.) 28.8 in.Hg., 2200 rpm (330 hp)
87 minimum octane (See NOTE 3)	(9600 ft.) 27.5 in.Hg., 2200 rpm (330 hp)
Propeller	Take-off (one minute) 36.5 in.Hg., 2300 rpm (450 hp)
Placard speeds	Maximum permissible diameter 103 inches (for clearance) Level flight or climb - 211 mph True Ind. Glide or dive - 257 mph True Ind.

Flaps extended - 125 mph True Ind.

Fuel capacity 112 gallons (5 tanks - 2 fuselage under floor 16-1/2 gallons each (+59.5), 2 in wings 32 gallons each (+42), one in fuselage 15 gallons (-10.5)

Oil capacity 7 gallons (-21)

No. passengers 4 (1 at +24, 1 at +58, 2 at +70) (crew +24)

Baggage 100 lbs. (+98)

Weights Empty - Use actual (approximately 2987 lbs. (+23) with Class I items only)
Standard - 4400 lbs.

C.G. limits (+19.4) and (+29.9)

Leveling means Leveling lugs between stations 5 and 6 on right side of fuselage

Specification basis Type Certificate No. 628 (Aero. Bulletin 7A)

Serial numbers 2, 6 and up eligible per NOTE A and all AAF numbers of Model UC-71. Use manufacturer's number when available.

EQUIPMENT:

(Datum is wing leading edge at rib number 2) (Second row rivets outboard from fuselage). (* Means net increase) (See NOTE 2)

Class I:

101.	Engine ring cowl	37 lbs.	(-38)
102.	Exhaust collector ring (Solar 12-385)	19 lbs.	(-38)
103.	Generator (Eclipse D-1)	25 lbs.	(-33)
104.	Battery and box (Exide 6TS-13-1)	43 lbs.	(+104)
105.	Pressure fire extinguisher (Lux A-1)	18 lbs.	(-12)
106.	Propeller - Hamilton Standard 2D30 with blades 6095A-12 or -13; 6167A-12 or -13. Diameter 8'6-1/8" maximum, 8'3-7/8" minimum. For interchangeable blades see Propeller Specification No. 206 (NOTE 6). (Low pitch set, 11'1/2 degrees at 42 in. rad.)	157 lbs.	(-62)
107.	Carburetor air intake valve	3 lbs.	(-31)
108.	Carburetor warm air muff (Solar 12-330)	3 lbs.	(-37)
109.	Oil radiator (UAP 6" U-3160)	18 lbs.	(-26)
110.	Fuel pump (hand wobble - Romec D-2)	5 lbs.	(+26)
111.	Wheels		
	(a) Main - 7.50-10 (Goodyear 10 S3M) with brakes and 8.50-10 6-ply H.D. tires	70 lbs.	(+11)
	(b) 10.5 inch streamline tail wheel and tire	7 lbs.	(+206)
112.	Hydraulic brake cylinders (Goodyear)	5 lbs.	(-5)
113.	Landing gear		
	(a) Retracting mechanism		
	Manual control (Drawing 7W418)		
	Motor (Eclipse Y-150)	18 lbs.	(+7)
	(b) Shock struts		
	Main (Cleveland XY262S)	78 lbs.	(+17)
	Tail (Cleveland YX162S)	7 lbs.	(+204)
114.	Control wheel - Throw-over (Drawing 7W330)	9 lbs.	(+11)
115.	Windsnield - Plexiglass .20"	9 lbs.	(+9)

Class II:

200.	Miscellaneous items as noted under this number in approved weight and balance report.		
201.	Starter (Eclipse F-141)	30 lbs.	(-27)
202.	Battery (Reading 6AR-9)	5 lbs.*	(+104)
203.	4-1/2 minimum flares (International MK-1)	21 lbs.	(+106)
204.	Oil radiator (Harrison C-2297)	Net decrease 5 lbs.	(-33)
205.	Fuel pump (Romec G-2)	4 lbs.	(-34)
206.	Engine lubrication - one shot (PEW 23332)	6 lbs.	(-47)
207.	Propeller spinner (Drawing 7W833)	9 lbs.	(-64)
208.	Vacuum pump, engine-driven (Romec RD 2112)	4 lbs.	(-34)
209.	Engine shielding (Breeze)	14 lbs.	(-41)
210.	7.50-10 wheels (Hayes 750A)	8 lbs.	(+11)
211.	Instruments		
	(a) Mixture analyzer (Cambridge) including indicator 2 lbs. (-1) and cells and tubing 5 lbs. (-17)	7 lbs.	(-12)
	(b) Extra instruments	29 lbs.	(-1)
212.	Cabin warm air muff (Solar 11-162)	2 lbs.	(-37)
213.	Stabilizer abrasion shoes (Goodrich)	3 lbs.	(+204)

214.	Windshield - shatter proof glass	12 lbs.*	(+9)
215.	Fuel tanks		
	(a) Two at 30 gallons each (replace two at 16-1/2 gallons each)	12 lbs.*	(+75)
	(b) One at 24 gallons (replaces one at 15 gallons)	4 lbs.*	(-10.5)
216.	Oil tank - one at 9 gallons (replaces one at 7 gallons)	1 lb.*	(-22)
217.	Radio installations		
	Antennas		
	(a) Retractable (Waller)	10 lbs.	(+99)
	Reel, fish, leadout	4 lbs.	(+128)
	Control head and cable	3 lbs.	(+53)
	Remote control	3 lbs.	(+107)
	(b) Fixed - Standard receiver	1 lb.	(+118)
	(c) Fixed - Compass receiver	2 lbs.	(+60)
	Receivers		
	(d) (RCA AVR-7 series)	29 lbs.	(+55)
	Chassis, power supply, support	20 lbs.	(+73)
	Controls, wiring, filter	9 lbs.	(+16)
	(e) (RCA AVR-8 series)	69 lbs.	(+68)
	Chassis, power supply, support	34 lbs.	(+73)
	Loop	15 lbs.	(+104)
	Controls and wiring	20 lbs.	(+36)
	Transmitters		
	(f) (Waller AB55-47)	65 lbs.	(+52)
	Chassis, power supply, support	29 lbs.	(+73)
	Dynamotor	27 lbs.	(+28)
	Cables, control, microphone	9 lbs.	(+57)
218.	Parachute seats	Use actual weights and arms	
219.	Parachutes	20 lbs.	(+24, +58, +70)
220.	Control wheel		
	(a) Throw-over (Drawing 7W310)	Net decrease 1 lb. (+11)	
	(b) Fixed - dual (Drawing 7W340)	4 lbs.*	(+11)
221.	Constant speed propeller control installation (including control unit 5 lbs. (-34) and Shakespeare C-2164-C flexible control 2 lbs. (-12)	7 lbs.	(-28)
222.	P&W Wasp Jr. SB-2 engine with one 4-1/2 N and one 9 N damper	13 lbs.*	(-41)
223.	Toe brake installation	5 lbs.	(-5)

Class III:

301.	Landing lights		
	(a) (Grimes ST-250)	7 lbs.	(+27.5)
	(b) (Grimes ST-1000)	11 lbs.	(+27.5)
302.	Puncture proof tubes	10 lbs.	(+11)

NOTE A. Each aircraft of model 7W manufactured after 10/20/41, for civil use, must, prior to original certification satisfactorily pass:

- (a) An inspection for workmanship, materials and conformity before any covering, metal priming or final finish is applied. All woodwork may be varnished.
- (b) A final inspection of the completed aircraft.
- (c) A check of flight characteristics.

NOTE 1. Eligible for export to all countries except Canada, Australia and New Zealand, subject to inspection for equipment specified in Chapter XII of Inspection Handbook.

NOTE 2. Weight and Balance Report including list of equipment included in certificated weight empty, and loading instructions when necessary, must be submitted for each aircraft with original inspector's report and each subsequent report covering change in such equipment.

NOTE 3.

- (a) Mark main fuel tank fillers:
"80 octane minimum."
- (b) Mark auxiliary fuel tank fillers:
"80 octane minimum."
- (c) Mark reserve fuel tank filler:
"87 octane minimum."
- (d) Mark fuel selector valve accordingly.