DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A-790 Revision 36 CESSNA 190 (LC-126A,B,C) 195 195A 195B

March 31, 2003

AIRCRAFT SPECIFICATION NO. A-790

Manufacturer Cessna Aircraft Company

P. O. Box 7704 Wichita, Kansas 67277

I - Model 195 (LC-126A,B,C), 5 PCLM (Normal Category), Approved June 12, 1947; 2 PCLM (Utility Category), Approved November 21, 1947; 5 PCSM (Normal Category), Approved May 3, 1948.

(The LC-126C version incorporates relocated battery, aileron control system, and large baggage door to facilitate dual stretchers, reference Items 302(b), 605(c) and 609. Eligible landplane, seaplane and skiplane).

Engine Jacobs R755-A2 with magneto-battery combination ignition system

(See items 106 and 109 for optional engines)

Fuel 80 min. octane aviation gasoline

Engine limits For all operations, 2200 r.p.m. (300 hp.)

Airspeed limits Landplane: Maneuvering 125 m.p.h. (109 knots) True Ind.(Normal Category)

130 m.p.h. (113 knots) True Ind.(Utility Category)

Max. structural cruising Never exceed 178 m.p.h. (155 knots)True Ind. 200 m.p.h. (174 knots)True Ind. 130 m.p.h. (113 knots)True Ind.

(See Note 3 for item 610)

Seaplane: Maneuvering 125 m.p.h. (109 knots)True Ind.

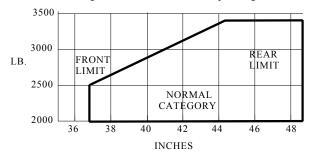
Max. structural cruising Never exceed 200 m.p.h. (144 knots)True Ind. Flaps extended 130 m.p.h. (113 knots)True Ind. 130 m.p.h. (113 knots)True Ind.

C.G. range Landplane: (See NOTE 3 for items 610 and 611)

(Normal Category) (+44.5) to (+48.3) at 3350 lb.

(+36.9) to (+48.3) at 2500 lb. or less

Straight line variation between points given



(Utility Category)

(+39.1) to (+42.2) at 2950 lb.

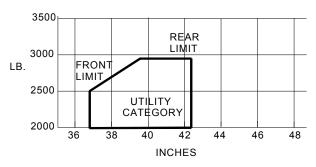
(+36.9) to (+42.2) at 2500 lb. or less

Straight line variation between points given

Page No.	1	2	3	4	5	6	7	8	9	10	11	12	13
Rev. No.	36	35	35	35	33	33	33	33	33	33	33	33	36

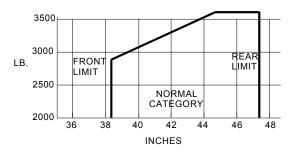
A-790 Page 2 of 13

I - Model 195 (cont'd)



Seaplane:

(Normal Category) (+44.5) to (+47.4) at 3600 lb. (+38.2) to (+47.4) at 2850 lb. or less Straight line variation between points given



Empty wt. C.G. range Not available

Maximum weight Landplane: (Normal Category) 3350 lb.

(Utility Category) 2950 lb.

Seaplane: (Normal Category) 3600 lb.

No. of seats 5 (two at +36, three at +69.5)

Maximum baggage 220 lb. (+92) (Model 195 Standard). No baggage for Utility Category.

(See item 606 for other baggage arrangements)

Fuel capacity 81 gal. total (two 40.5 gal. tanks in wings at (+63). (38 gal. usable fuel in each tank).

(See NOTE 1 for unusable fuel and item 108 for optional fuel tanks).

Oil capacity 5 gal. (+4.5) (See NOTE 1 for data on unusable oil)

Control surface movements Wing flaps Down 45°

Aileron tab Fixed Ailerons Up 25° Down Elevator tab (See NOTE 3 for item 611) Up 12.5° Down 31° Elevators Up 28° Down 17° Rudder Right 21° Left 21°

Serial Nos. eligible 7004 through 7999

16000 through 16183

Prior to civil certification of LC-126A,B and C aircraft, which have been operated by the Military Services, must be modified in accordance with Cessna Dwg. 0400115. This drawing and FAA approved airplane flight manual may be obtained thru Cessna's dealer organization. The dealer should also have a file of Cessna Service Letters which should be reviewed for applicability.

Page 3 of 13 A-790

I - Model 195 (cont'd)

Required equipment Landplane: Items 1(a) and (b), 102(a), 103, 104, 201, 202, 204, 301, 302(a), 303 (when

used in night operation if flap position indicator not installed), and 403(a)

or (b).

Skiplane: Items 1(a) and (b), 102(a), 103, 104, 204, 208, 301, 302(a), 303 (when used

in night operation if flap position indicator not installed), and 403(a).

Seaplane: Items 1(a) and (b), 102(a), 103, 104, 209, 301, 302, 302(a), 303 (when used

in night operation if flap position indicator not installed), 403(a) and 602.

II - Model 190 (5 PCLM (Normal Category)), Approved July 1, 1947; 2 PCLM (Utility Category), Approved November 21, 1947; 5 PCSM (Normal Category), Approved May 3, 1948. (Same as Model 195 except for engine installation)

Engine Continental W670-23. Eligible with either dual magnetos or magneto-battery

combination engine ignition system.

Fuel 80 min. octane aviation gasoline

Engine limits For all operations, 2200 r.p.m. (240 hp.)

Airspeed limits Landplane: Maneuvering 125 m.p.h.(109 knots) True Ind.

(Normal Category)

130 m.p.h.(113 knots) True Ind. (Utility Category)

Max.structural cruising
Never exceed
Plaps extended
178 m.p.h.(155 knots) True Ind.
200 m.p.h.(174 knots) True Ind.
130 m.p.h.(113 knots) True Ind.

(See NOTE 3 for item 610)

Seaplane: Maneuvering 125 m.p.h.(109 knots)True Ind.

Max.structural cruising Never exceed 165 m.p.h.(144 knots)True Ind. 200 m.p.h.(174 knots)True Ind. Flaps extended 130 m.p.h.(113 knots)True Ind.

C.G. range All limits same as Model 195 - see figures under Section I

Landplane: (See NOTE 3 for items 610 and 611)

(Normal Category) (+44.5) to (+48.3) at 3350 lb. (+36.9) to (+48.3) at 2500 lb. or less

(Utility Category) (+39.1) to (+42.2) at 2950 lb. (+36.9) to (+42.2) at 2500 lb. or less

Seaplane: (Normal Category) (+44.5) to (+47.4) at 3600 lb.

(+38.2) to (+47.4) at 3000 lb. or less

Straight line variation between points given.

Empty wt. C.G. range Not available

Maximum weight Landplane: (Normal Category) 3350 lb.

(Utility Category) 2950 lb.

Seaplane (Normal Category) 3600 lb.

No. of seats 5 (two at +36, three at +69.5)

Maximum baggage 220 lb. (+92). No baggage for Utility Category. See Item 606 for auxiliary baggage

compartment

Fuel capacity 81 gal. total (two 40.5 gal. tanks in wings at (+63).

(Usable fuel in each tank: 38 gal. with item 102(b); 37.5 gal. with gravity fuel system). (See NOTE 1 for unusable fuel, NOTE 2 for placard with gravity fuel system, and Item

108 for optional fuel tanks).

II - Model 190 (cont'd)

5 gal. (+4.5) See NOTE 1 for data on unusable oil. Oil capacity

Control surface movements Wing flaps Down 45°

> Aileron tab Fixed Ailerons Up 25°

Down 25° Elevator tab (See NOTE 3 for item 611) Down 31° Up 12.5° Elevators 28° Down 17° Up Rudder Right 21° Left 21°

Serial Nos. eligible 7004 through 7999

16000 through 16183

In addition to the pertinent required basic equipment specified in CAR 3, the following Required equipment

items of equipment must be installed:

Landplane: Items 1(a) and (c), 102(b), 103, 201, 202, 204, 301, 302(a), 303 (when

used in night operation if flap position indicator not installed), and 403(a)

or (b).

Skiplane: Items 1(a) and (c), 102(b), 103, 204, 208, 301, 302(a), 303 (when used in

night operation if flap position indicator not installed), 403(a).

Seaplane: Items 1(a) and (c), 102(b), 103, 209, 301, 302(a), 303 (when used in night

operation if flap position indicator not installed), 403(a) and 602.

III - Model 195A; 5 PCLM (Normal Category), Approved January 6, 1950; 2 PCLM (Utility Category), Approved January 6, 1950; 5 PCSM (Normal Category), Approved August 18, 1950. (Same as Model 195 except for engine.)

Jacobs L-4MB (R-755-9) with magneto-battery combination ignition system. Engine

Fuel 73 min. octane aviation gasoline

Engine limits Maximum continuous, 2000 r.p.m. (225 hp.)

Takeoff (one minute), 2200 r.p.m. (245 hp.)

Airspeed limits Landplane: Maneuvering 125 m.p.h.(109 knots)True Ind.

(Normal Category)

130 m.p.h.(113 knots)True Ind.

(Utility Category)

178 m.p.h.(155 knots)True Ind. Max. structural cruising Never exceed 200 m.p.h.(174 knots)True Ind. Flaps extended 130 m.p.h.(113 knots)True Ind.

(See Note 3 for item 610.)

Seaplane: Maneuvering 125 m.p.h.(109 knots)True Ind.

165 m.p.h.(144 knots)True Ind. Max. structural cruising 200 m.p.h.(174 knots)True Ind. Never exceed Flaps extended 130 m.p.h.(113 knots)True Ind.

C.G. range All limits same as Model 195 - See figures under Section I.

Seaplane:

Landplane: (See NOTE 3 for items 610 and 611)

> (Normal Category) (+44.5) to (+48.3) at 3350 lb.

(+36.9) to (+48.3) at 2500 lb. or less (+39.1) to (+42.2) at 2950 lb.

(+36.9) to (+42.2) at 2500 lb. or less (Normal Category) (+44.5) to (+47.4) at 3600 lb.

(+38.2) to (+47.4) at 2850 lb. or less

Straight line variation between points given

(Utility Category)

Empty wt. C.G. range Not available Page 5 of 13 A-790

III - Model 195A (cont'd)

Maximum weight Landplane: (Normal Category) 3350 lb.

(Utility Category) 2950 lb.

Seaplane: (Normal Category) 3600 lb.

No. of seats 5 (two at +36, three at +69.5)

Maximum baggage 220 lb. (+92). No baggage for Utility Category. See item 606 for auxiliary baggage

compartment.

Fuel capacity 81 gal. total (two 40.5 gal. tanks in wings at (+63)

(38 gal. usable fuel in each tank) (See NOTE 1 for unusable fuel)

Oil capacity 5 gal. (+4.5) (See NOTE 1 for data on unusable fuel)

Control surface movements Wing flaps Down 45°

Aileron tab Fixed Ailerons 25° Down 25° Up Elevator tab (See NOTE 3 for item 611) Up 12.5° 31° Down Elevators 28° Down 17° Up Rudder Right 21° Left 21°

Serial Nos. eligible 7004 through 7999

16000 through 16183

Required equipment In addition to the pertinent required basic equipment specified in CAR 3, the following

items of equipment must be installed:

Landplane: Items 1(a) and (b), 102(a), 103, 104, 201, 202, 204, 301, 302(a), 303 (when

used in night operation if flap position indicator not installed), and 403(e).

Skiplane: Items 1(a) and (b), 102(a), 103, 104, 204, 208, 301, 302(a), 303 (when used in night operation if flap position indicator not installed), and 403(a).

Seaplane: Items 1(a) and (b), 102(a), 103, 104, 209, 301, 302(a), 303 (when used in

night operation if flap position indicator not installed), 403(f) and 602.

IV - Model 195B: 5 PCLM (Normal Category), Approved March 31, 1952; 2 PCLM (Utility Category), March 31, 1952; 5 PCSM (Normal Category), Approved March 31, 1952. (Same as Model 195 except for engine.)

Engine Jacobs R-755B2 with magneto-battery combination ignition system

Fuel 80 minimum octane aviation gasoline

Engine limits For all operations, 2200 r.p.m. (275 hp.)

Airspeed limits Landplane: Maneuvering 125 m.p.h.(109 knots) True Ind.

(Normal Category)

130 m.p.h.(113 knots) True Ind.

(Utility Category)

Max. structural cruising
Never exceed
178 m.p.h.(155 knots) True Ind.
200 m.p.h.(174 knots) True Ind.
Flaps extended
130 m.p.h.(113 knots) True Ind.

(See Note 3 for item 610)

Seaplane: Maneuvering 125 m.p.h.(109 knots) True Ind.

Max. structural cruising
Never exceed
165 m.p.h.(144 knots) True Ind.
200 m.p.h.(174 knots) True Ind.
Flaps extended
130 m.p.h.(113 knots) True Ind.

IV - Model 195B (cont'd)

C.G. range All limits same as Model 195 - See figures under Section I.

Landplane: (See NOTE 3 for items 610 and 611)

(Normal Category) (+44.5) to (+48.3) at 3350 lb.

(+36.9) to (+48.3) at 2500 lb. or less

(Utility Category) (+39.1) to (+42.2) at 2950 lb.

(+36.9) to (+42.2) at 2500 lb. or less

Seaplane: (Normal Category) (+44.5) to (+47.4) at 3600 lb.

(+38.2) to (+47.4) at 2850 lb. or less

Straight line variation between points given

Empty wt. C.G. range Not available

Maximum weight Landplane: (Normal Category) 3350 lb.

(Utility Category) 2950 lb.

Seaplane: (Normal Category) 3600 lb.

No. of seats 5 (two at +36, three at +69.5)

Maximum baggage 220 lb. (+92). No baggage for Utility Category. See item 606 for auxiliary baggage

compartment.

Fuel capacity 81 gal. total (two 40.5 gal. tanks in wings at +63)

(38 gal. usable fuel in each tank) (See NOTE 1 for unusable fuel)

Oil capacity 5 gal. (+4.5) (See NOTE 1 for data on unusable oil)

Control surface movements Wing flaps Down 45°

Aileron tab Fixed Ailerons Up 25° Down 25° Elevator tab (See NOTE 3 for item 611) Up 12.5° Down 31° Elevators Down 17° Up 28° Rudder Right 21° Left 21°

Serial Nos. eligible 7004 through 7999

16000 through 16183

Required equipment In addition to the pertinent required basic equipment specified in CAR 3, the following

items of equipment must be installed:

Landplane: Items 1(a) and (b), 102(a), 103, 104, 201, 202, 204, 301, 302(a), 303

(when used in night operation if flap position indicator not installed), and

403(h).

Skiplane: Items 1(a) and (b), 102(a), 103, 104, 204, 208, 301, 302(a), 303 (when used

in night operation if flap position indicator not installed), and 403(h).

Seaplane: Items 1(a) and (b), 102(a), 103, 104, 209, 301, 302(a), 303 (when used in

night operation if flap position indicator not installed), 403(i) and 602.

SPECIFICATIONS PERTINENT TO ALL MODELS

Datum Front face of firewall

Leveling means Top of fuselage immediately aft of wing trailing edge

Certification basis CAR 3 dated December 15, 1946.

Model 195B certificated under delegation option provisions of Part 410 of the

Regulations of the Administrator.

Type Certificate No. A-790 issued June 12, 1947.

Production basis Production Certificate No. 4.

Page 7 of 13 A-790

Export eligibility Landplane, seaplane and skiplane eligible for export to all countries subject to the

provisions of FS P8130-1.

Equipment: 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 other than the aircraft manufacturer. An item marked with an asterisk may not have been manufactured under an 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.

An item preceded by two asterisks (**) indicates approval under Federal Aviation Regulations Part 21.

Propellers and Propeller	Accessories	(Excepting	Deicing	equipment)

riopene	s and Properler Accessories (Excepting Deleting equipment)					
			<u>195</u>	<u>190</u>	<u>195A</u>	<u>195B</u>
1.	Hamilton Standard constant speed					
	(a) Hub 2B20, blades 6135-15 or 6135-16	104 lb.	(-35)	(-32)	(-35)	(-35)
	Pitch settings at 42 in. sta.					
	** Model 190, 195A & 195B: Low 9° - 12°, high 24° - 27					
	** Model 195: Low 10.3° - 12°, high 25.3° - 2	27°				
	(Propeller to be indexed with blades in line with					
	crankthrow - 0° or 180° position)					
	Diameter: (Not over 93 in.,not under 91-1/8 in.	0.11.	(5)		(5)	(5)
	(b) Governor, Hamilton Standard - 1A4	8 lb.	(-5)	(25)	(-5)	(-5)
	(c) Governor, Hamilton Standard - 1M12 or 4M12 *(d) Montgomery spinner for Ham.Std.2B20 propeller	8 lb.	(-35)	(-25)	(-3 5)	(-35)
	*(d) Montgomery spinner for Ham.Std.2B20 propeller (Special Ham.Std.bolts,P/N70234 required for inst. this item)	8 10.	(-33)	(-32)	(-33)	(-33)
*	*(e) Spinner (Cessna Dwg. 0352171)	+4.5 lb.	(-35)	(-32)	(-35)	(-35)
	*(f) Spinner - Mfgr. Aircraft Access. Inc., 2630		(-35)	(-32)	(-35)	(-35)
	So. Wabash Ave., Chicago, Ill. (Dwg. Nos. 77596-1,-1A,	0 10.	(33)	(32)	(33)	(33)
	-2,-2A & -3). Special Ham. Std.bolts P/N 70234 required					
	for inst. this item					
Engine a	nd Engine Accessories - Fuel and Oil System					
101	Starter (Eclipse 397-13)	20 lb.	(-2)	(-6)	(-2)	(-2)
102.	Fuel pumps					
	(a) Engine-driven(Romec RD-4140 or Pesco 2F-R400-	2 lb.	(-5)	_	(-5)	(-5)
	BYLA remarked and reworked by Cessna dwg.0350284)					
	(b) Engine-driven(Candler Hill Titan Model 200,	2 lb.		(-4)	_	_
	H2E3-16) (not required with gravity fuel system)					
103.	Carburetor air filter	0.11	X	X	X	X
104.	Oil radiator (UAP Model U-3140C)	9 lb.	(-18)	_	(-18)	(-18)
105.	Vacuum pumps	5 11.	(5)		(5)	(5)
	(a) Engine-driven (Pesco 3P-194-E)	5 lb.	(-5)	_	(- 5)	(- 5)
	(b) Engine-driven (Romec P-207)(Elig. with	4 lb.		(-4)		
*106	gravity fuel system) Leachs I. (AMP. (P. 755.0)) Engines. Lies actual with	4 10.	_	(-4)	_	

*106. Jacobs L-4MB (R-755-9) Engines Use actual wt. Eligible on 195 landplane with following limits:

Fuel 73 min.octane aviation gasoline

Engine limits Takeoff (one min.), 2200 r.p.m. (245 hp.)

For all other operations, 2000 r.p.m. (225 hp.)

When this engine is installed, revised engine baffles, relocated oil cooler, modified engine mount bolts, relocated engine breather and oil separator vent lines, remarked power plant instruments, and FAA Approved Airplane Flight Manual Supplement dated October 21, 1948, as approved for the Purdue Aeronautics Corp., Lafayette, Ind., must be incorporated.

A-790 Page 8 of 13

107.	Winterization equipment (Cessna dwg. 0350285 & 0350286 for Model 195; Cessna dwg. 0350285 & 0350302 for	2 lb.	195 (-30)	190 (-27)	195A (-30)	195B (-30)
108.	Model 190). Item 403(c) required when this equipment installed. Two 50.5 gal. fuel tanks in wings installed per Cessna dwg. 0320001 (replaces two 40.5 gal. tanks). With this item installed, fuel capacity is 101 gal. total at (+63)(46 g usable in each tank). Item 403(d) required when these tanks are installed. (See NOTE 1 for weight of unusable fuel)		(+63)	(+63)	_	(+63)
*109.	Jacobs L-6MB engine Eligible on 195 landplane with the following limits: Fuel 80 min.octane aviation gasoline Engine limits Takeoff (one min.) 330 hp. 2200 r.p.m. 26 in.Hg.M.P. Max. continuous 300 hp. 2100 r.p.m. 24.5 in.Hg M.P.at S.L. 200 hp. 2100 r.p.m. 23.5 in.Hg M.P. at 3700' With propeller (item 1),Ham.Std.2B20/6135A-15 Pitch settings at 42" sta.: Low -13°, high 28° Installation of this item to be accomplished in accordance with data approved for Scott Aero Services, Inc., 4100 Donald Douglas Drive, Long Beach, Calif. 90808. Item 403(g) required when this item installed.	Use act	ual weight	_		_
Landing	Gear and Floats					
201.	Two main wheel-brake assemblies, Type III					
	(a) Goodyear Model L610HBM (6.50-10) Wheel Assembly 530858-M	29 lb.	(+25)	(+25)	(+25)	(+25)
	Brake Assembly 511613-M (b) Goodyear Model CL8HBM (6.50-8 castering) Wheel assembly 9530505 L.H. 9530506 R.H.	29 lb.	(+25)	(+25)	(+25)	(+25)
	Brake assembly 9530503 L.H. 9530504 R.H. Installed in accordance with Cessna dwg. 0341150					
202.		28 lb.	(+25)	(+25)	(+25)	(+25)
	(b) Two main wheel 6-ply rating tires, 7.50-10, Type III with regular tubes	38 lb.	(+25)	(+25)	(+25)	(+25)
	(c) Two main wheel 6-ply rating tires, 7.00-8, Type III with regular tubes	31 lb.	(+25)	(+25)	(+25)	(+25)
204.	Tail wheel assembly, General Model 204-A-702M with Type I tire	8 lb.	(+272)	(+272)	(+272)	(+272)
208.	Two skis. Skiplane elig. only in normal category. (Either a Cessna Skiplane Flight Manual dated February 10, 1949 (190), November 14, 1947 (195) or the following required	8 lb.	(+272)	(+272)	(+272)	(+272)
	as supplement to the Airplane Flight Manual with any of these skis installed:					
	"PERFORMANCE WITH SKIS INSTALLED					
	<u>Takeoff and Landing</u> : Under the most favorable conditions of smooth packed snow at temperatures approximately 30°F.					
	skiplane takeoff distance is approximately 10 percent greater					
	than the distance shown for the landplane. In applying the performance data, caution should be exercised in that					
	lower temperatures or other snow conditions will increase					
	the ski friction and hence increase the takeoff run and either increase or decrease the landing run.					
	Climb Performance: The skiplane rate of climb is approximately 50 feet per minute less than the landplane."					

Page 9 of 13 A-790

	(a) Federal A-3500 according to Cessna dwg. 0340001 or Federal Inst. dwg. 11R178	Use actual wt. cha	nge		
	 (b) Federal A-3500A Federal Inst. dwg. 11R178 (c) Federal AWB-3500 Main and AWT-3500 Tail Wheel Skis, in accordance with Federal Aircraft Works 	Use actual wt. cha Use actual wt. cha			
	dwg. 11R692 and 11R874 The following placard is required with this installation:				
	"Do Not Extend or Retract Skis while in motion on the Ground	." 195	190	195A	195B
209.	Float installation, two Edo 38-3430 per Cessna dwg. 0341102	+272 lb. (+43)	(+43)	(+43)	(+43)
210.	Two wheel streamlines per Cessna dwg. 0341143	10 lb. (+25)	(+25)	(+25)	(+25)
211.	Tail ski, Federal AT-3500 per Cessna dwg. 0342102	8 lb. (+272)	(+272)	(+272)	(+272)
212.	Two 3/4 in. tapered spring type landing gear per Cessna dwg. 0341109	-25 lb. (+25)	(+25)	(+25)	(+25)
*213.	Two "no drag" wheel fenders per Liquid Tool Co., Box 299, Morrow, Ohio, dwg. 105	8 lb. (+26)	(+26)	(+26)	(+26)
Electrica	1 Equipment				
301.	Generator (Eclipse 308-1A or Eclipse 309-8A)	22 lb. (- 2)	(-2)	(-2)	(-2)
302.	Battery - 12 v. 24 a. hr. (a) Installation in accordance with Cessna dwg. 0310005	36 lb. (+108)	(+108)	(+108)	(+108)
	(b) Installation in accordance with Cessna dwg. 031063	36 lb. (+ 86)	(+ 86)	(+ 86)	(+86)
303.	Landing lights (Grimes G-3800)	5 lb.ea.(+56)	(+ 56)	(+56)	(+56)
*304.	Generator (Eclipse 309A-8A, 50 a.	22 lb. (-2)	(-2)	(-2)	(-2)
*305.	Voltage regulator				
	(a) Delco-Remy 1118340	Neglect wt.			
*306.	(b) Delco-Remy 1118713 with shock mounting kit 1910966 Generator (Eclipse 30E01-1) 50 a. 24 lb.	(-2)			
*307.	Voltage regulator, Eclipse 1337-17	Neglect wt.	_	_	
*308.	Generator (Eclipse 790-1-B modified per Duryee	22 lb. (-2)		(-2)	(-2)
	Aero. Ser. dwg. DAS 47) 50 a. (Item 305 required)				
*309.	Voltage regulator, Delco Remy 1118884	Neglect wt.			
*310.	Generator (Eclipse 790-1-B modified per Garwin	22 lb. (-2)	_	(-2)	(-2)
	dwg. G50A and installed according to Garwin instructions dated July 25, 1955), 50 a. (Item 305 or 309 required).				
	duted stary 23, 1733), 30 d. (Item 303 of 307 required).				
Interior I	<u>Equipment</u>				
401.	Cabin heater (Exhaust manifold muff type)	3 lb. (0)	(0)	(0)	(0)
402.	Omitted				
403.	(a) FAA Approved Airplane Flight Manual and pertinent				
	revisions applicable to the particular model and serial number (b) FAA Approved Airplane Flight Manual dated September 14,				
	1949 (pertinent to decrease in landing distance)				
	(c) FAA Approved Supplement No. 1 to Airplane Flight				
	Manual (pertinent to winterization equipment, Item 107)				
	(d) FAA Approved Supplement No. 2 to Airplane Flight				
	Manual (pertinent to 50.5 gal. fuel tanks, item 108) (e) FAA Approved Airplane Flight Manual dated December 27,				
	1949 (Model 195A Landplane)				
	(f) FAA Approved Airplane Flight Manual dated August 18,				
	1950 (Model 195A Seaplane)				
	*(g) FAA Approved Airplane Flight Manual dated March 15, 1951				
	(Model 195 Landplane with item 109 installed)				
*	*(h) DOA Approved Airplane Flight Manual dated March 31, 1952				
*	(Model 195B Landplane and Skiplane) *(I) DOA Approved Airplane Flight Manual dated March 31, 1952				
	(Model 195B Seaplane only)				
*	*(j) DOA Approved Airplane Flight Manual dated April 22, 1953				
	(Model 190 Landplane and Skiplane with items 610 and 611 in	stalled)			

k k	**(l) **(m)	DOA Approved Flight Manual dated April 22, 1953 (Model 195 Landplane and Skiplane with items 610 and 611 in DOA Approved Flight Manual dated April 22, 1953 (Model 195A Landplane and Skiplane with items 610 and 611 DOA Approved Flight Manual dated April 22, 1953 (Model 195B Landplane and Skiplane with items 610 and 611 DOA Approved Flight Manual dated June 11, 1954 (Model 195 Seaplane with items 610 and 611 installed)	11 installed)						
*	**(o)								
404.	(a)	in heater installation (gasoline combustion type) Stewart Warner Model 977-B-1 Stewart Warner 979-B-1	17 lb.	195 (+70)	190 (+70)	195A (+70)	195B (+70)		
405.		d flying kit, Cessna dwg. 0300006	4 lb.	(+25)	(+25)	(+25)	(+25)		
*406.		Lear Model L-2B(1102B)autopilot installation according to Lear dwgs. 43733, 43654 and 43674. Items 304 and 305 required with this installation. The following placard should be installed in a conspicuous place near the auto-pilot controller: "Do not use autopilot below 500 feet above terrain except during approach when autopilot is not to be used below 100 feet above terrain. Minimum altitudes do not override any higher minimum operational altitudes." Servo stall forces measured at the pilot's controls on the ground: Rudder 20 to 25 lb.; aileron 12 to 15 lb.; elevator 8 to 12 lb. FAA Approved Lear Flight Manual Supplement dated May 9, 1952 or Manual Supplement dated December 1, 1954, required. With Manual Supplement dated December 1, 1954, the above placard is not required Lear Model 1404A altitude controller optional	40 lb. 2 lb.	190 (+111) (+84.5)	195 (+111) (+84.5)	195A (+111) (+84.5)	195B (+111) (+84.5)		
		s (not listed above) es (3 International 1 1/2 min. Mark I, Model I)	18 lb.	(+100)	(+100)	(+100)	(+108)		
601. 602.	Aux Fin	iliary seaplane fin per Cessna dwg. 0331135 eligible for installation on landplane in mal Category only. See NOTE 2 for required placard	8 lb.	(+108) (+264)	(+108) (+264)	(+108) (+264)	(+108)		
603. 604.	Ven Prov weig Cam use plac Insta	turi installation per Cessna dwg. 0310007 vision for Fairchild Camera. Maximum allowable ght for the camera and attachments is 92 lb. nera operator's stool to be placarded "Do not for takeoff or landing", making airplane two e when installed. allation in accordance with:	2 lb. Use actu	(+ 22) aal wt. cha	(+ 22) nge	(+ 22)	(+ 22)		
605.	(b) Gran (a)	Cessna dwg. 0310010, Station (+58) or Cessna dwg. 0310016, Station (+90) No provision for baggage with item (b) installed n portable stretcher installation Provision for single stretcher per Cessna dwg. 0300108 Single stretcher (stored location) The following placard must be displayed on the baggage door immediately above or below the baggage placard: "Baggage 158 lb. Maximum with stretcher installed." When in use the C.G. of the stretcher and occupant is at (+79)	17 lb.	(+95) (+92)	(+95) (+92)	(+95) (+92)	(+95) (+92)		

Page 11 of 13 A-790

	(c) Dual stretchers (stored location) Install in accordance with Cessna dwgs. 0300004, 0300108 and 0310001. Loading to be determined by weight and balance check or from applicable loading schedule. (Baggage 96 lb. maximum with both stretchers occupied). When in use the C.G. of stretcher and occupant is at (+79). Eligible only with relocated aileron control system and battery (item 302(b).	34 lb.	<u>190</u> (+92)	<u>195</u> (+92)	195A (+92)	195B (+92)
606.	Baggage Provision					
	(a) Auxiliary compartment, maximum capacity 50 lb. When this is installed, the maximum capacity of the standard baggage compartment is 148 lb., or as determined by weight and balance check	3 lb.	(+111)	(+111)	(+111)	(+111)
	(b) Large compartment, maximum capacity 320 lb. Reference Cessna dwgs. 0311061, 0311063, and 0310001). Less weight added under item 606(c). Loading to be determined by weight and balance check or from applicable loading schedule.		(+97)	(+97)	(+97)	(+97)
	(c) Baggage shelf, maximum capacity 75 lb. (Used for baggage and/or radio equipment, reference Cessna dwg. 0311837)		(+92)	(+92)	(+92)	(+92)
607.	Two abrasion boots, Cessna dwg. 0432161, installed	2 lb.	(+242)	(+242)	(+242)	(+242)
	per Cessna dwg. 0332000		, ,	, ,	, ,	,
*608.	(a) Removable stretcher installation according to installation instructions supplied by Clinton Aviation Co., Denver, Colo. The following additional placard must be displayed on the baggage door: "Baggage 116 lb. maximum when stretcher is used."	37 lb.	(+79)	(+79)	(+79)	(+79)
	(b) Right rear seat installation (optional when Item 608(a) stretcher is installed.	11 lb.	(+69.5)	(+69.5)	(+69.5)	(+69.5)
609.	Large baggage door in accordance with Cessna dwg. 0311062. Facilitates use of items 605(c) or 606(b).					
** 610.	12 inch chord wing flaps replacing 8 inch chord flaps, Cessna dwg. 0325001 (see NOTE 3 for limitations).	+2 lb.	(+87.0)	(+87.0)	(+87.0)	(+87.0)
**611.	Short chord elevators, Cessna dwg. 0334201 (see NOTE 3 for limitations).	-4 lb.	(+264)	(+264)	(+264)	(+264)
**612.	Stall warning indicator, Cessna Kit 52-3-535	+1 lb.	(+11)	(+11)	(+11)	(+11)
**613.	Seaplane conversion kit consisting of: (a) 0341102-46 spring (b) 0341102-47 tab extension	110.	(*11)	(*11)	(*11)	(*11)
*614.	(c) 0310202-1 tube assembly Woychik retractable lifting handles, Woychik Aircraft Aircraft Equipment, Middleton, Wisconsin (dwgs. 50 and 50A)	1 lb.	(+211)	(+211)	(+211)	(+211)

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

The certificated empty weight and corresponding center of gravity location must include unusable fuel of 30 lb. at (+63) with 40.5 gal. tanks and item 102(a) or (b), 34 lb. at (+63) with 40.5 gal. tanks and gravity fuel system, or 54 lb. at (+63) with 50.5 gal. tanks (item 108) (included in the fuel capacity) and unusable oil of 5 lb. at (-1) (not included in oil capacity).

NOTE 2. The following placards must be displayed in the locations noted:

- (a) In front of and in clear view of the pilot:
 - (1) "This airplane must be operated as a normal or utility category airplane in compliance with the flight manual."

NORMAL

"No acrobatic maneuvers, including spins, approved.

With 3 people on rear seat both front seats must be occupied."

UTILITY

"No acrobatic maneuvers except those listed in the Flight Manual.

Baggage compartments and rear seat must not be occupied."

or Aircraft using index type loading chart:

NORMAL

"No acrobatic maneuvers, including spins approved."

UTILITY

"No acrobatic maneuvers except those listed in Flight Manual. Baggage compartments and rear seat must not be occupied."

(2) When auxiliary seaplane fin is installed on landplane

"Landplane with auxiliary seaplane fins. This airplane must be operated as a Normal Category airplane in compliance with the Landplane Flight Manual. No acrobatic maneuvers, including spins, approved. With 3 people on the rear seat, both front seats must be occupied."

or Aircraft using index type loading chart:

"Landplane with auxiliary seaplane fins. This airplane must be operated as a Normal Category airplane in compliance with the Landplane Flight Manual. No acrobatic maneuvers, including spins, approved.

- (b) At the fuel selector valve with gravity fuel system in Model 190:
 - (1) "Takeoff and land with both tanks on."

NOTE 3. With the installation of items 610 and 611 the following additional limitations apply:

(1) C.G. range - Landplane:

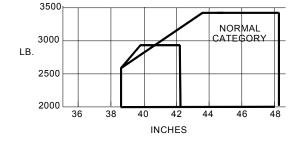
(Normal Category) (+43.7) to (+48.3) at 3350 lb.

(+38.3) at (+48.3) at 2636 lb.

(Utility Category) (+39.9) to (+42.2) at 2950 lb.

(+38.3) to (+42.2) at 2636 lb.

Straight line variation between points given.



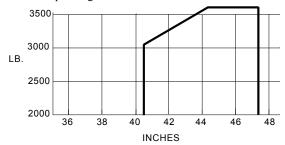
Page 13 of 13 A-790

Seaplane:

(Normal Category) (+44.4) to (+47.5) at 3600 lb.

(+40.6) to (+47.5) at 3100 lb. or less

Straight line variation between points given.



(2) Airspeed Limits: Flaps extended 110 m.p.h. (95 knots) True Ind.

(3) Control Surface Movements Elevator tab Up 10° Down 20°

Wing flaps Down 30° (Seaplane only)

(4) Required equipment: Landplane: Items 403(j) or (k) or (l) or (m) and 612

Seaplane: Items 403(n) or (o), 612 and 613

(5) Serial Nos. eligible: 16084 and up.

"WARNING: Use of alcohol-based fuels can cause serious performance degradation and fuel system component damage, and is therefore prohibited on Cessna airplanes."

....END....