

Fuel capacity	40 gal. (20 gal. tank in each wing) (+25)		
Oil capacity	8 qt. (-41.3)		
Control surface movements	Wing Flaps		50° down
	Elevator trim tab	22° up	27° down
	Elevator	30° up	30° down
	Aileron	19° up	20° down
	Rudder	30° right	30° left
Serial Nos. (S/N) eligible	1 through 253		
Certification basis	<u>Model S-1B1</u> : Part 04 of the Civil Air Regulations as Amended to April 1, 1941, and additional amendments in effect on March 2, 1942. Date of Application for Type Certificate March 2, 1942.		
Required equipment	In addition to the pertinent basic required equipment as prescribed in the applicable airworthiness regulations (see Certification basis), the following items of equipment must be installed in the aircraft for certification: Items 1(a), 2, 101(a), 103(a), 201(a), and 202(a) or (b).		

II - 2PCL-SM (Normal Category), Approved July 25, 1975; 2PCSM (Normal Category), Approved August 2, 1976, Approved July 19, 2007

Model S-1B2 (1000 Block) same as Model S-1B1 except for wing, control surfaces, fuselage, equipment, landing gear, powerplant, engine mount, fuel system, and fuel grade.

Serial Nos. (S/N) eligible	1001 through 1029		
Engine	AVCO Lycoming or Textron Lycoming O-320-A2B or O-320-B2B, Engine Type Certificate No. 274		
Fuel	80/87 min. grade aviation gasoline for O-320-A2B engine 100 or 100LL min. grade aviation gasoline for O-320-B2B engine		
Engine limits	S/N 1001 through 1012	O-320-A2B engine	O-320-B2B engine
	All operations	2700 rpm (150 hp)	2700 rpm (160 hp)
	S/N 1013 through 1029	O-320-A2B engine	O-320-B2B engine
	Takeoff and climb (5 min. maximum)	2700 rpm (150 hp)	2700 rpm (160 hp)
	Max. continuous	2500 rpm (125 hp)	2500 rpm (125 hp)
Propeller limits	Static rpm at maximum permissible throttle setting: Not over 2450, not under 2300. No additional tolerance permitted. Diameter: Not over 82 in., not under 78 in. No further reduction permitted.		
Airspeed limits	Landplane:		
	Level flight or climb	117 mph (102 knots)	CAS
	Glide or dive	142 mph (123 knots)	CAS
	Flaps extended	75 mph (65 knots)	CAS
	Seaplane:		
	Never exceed	142 mph (123 knots)	CAS
	Maneuvering	105 mph (91 knots)	CAS
	Max. structural cruising	105 mph (91 knots)	CAS
	Flaps extended	75 mph (65 knots)	CAS
C.G. range	Landplane	(+11.4) to (+15.8)	
	Seaplane	(+13.2) to (+15.6) at 1850 lb. (+ 9.6) to (+15.6) at 1470 lb. or less Straight line variation between points given	

Empty weight C.G. range	None		
Maximum weight	Landplane	1650 lb.	
	Seaplane	1850 lb.	
No. of seats	S/N 1001 through 1020	2 (one at +7 and one at +37)	
	S/N 1021 through 1029	2 (one at +9, or +10, or +11, and one at +37)	
Maximum baggage	100 lb. (baggage compartment at +67)		
Fuel capacity	40 gal. (20 gal. tank in each wing) (+25)		
Oil capacity	8 qt. (-39)		
Control surface movements	Wing Flaps		50° down
	Elevator trim tab	22° up	27° down
	Elevator	30° up	30° down
	Aileron	19° up	20° down
	Rudder	30° right	30° left
Serial Nos. (S/N) eligible	1001 through 1029		
Required equipment	In addition to the pertinent basic required equipment as prescribed in the applicable airworthiness regulations (see Certification basis), the following items of equipment must be installed in the aircraft for certification:		
	<p>Landplane: Items 1(b), 101(b) or (c), 103(b), 201(b), (c), (d), or (e), and 202(c), (d), or (e). Item 403(a) is required for S/N 1012 through 1029.</p> <p>Seaplane: Items 1(b), 101(b) or (c), 103(b), and 204(a) (S/N 1001 through 1011 with Lycoming O-320-A2B engine only) or 204(b). Item 403(b) is required with Item 204(b) for S/N 1001 through 1011. Item 403(c) required with Item 204(b) for S/N 1012 through 1029.</p>		
Certification basis	<u>Model S-1B2 Landplane:</u>		
	S/N 1001 through 1011: Part 04 of the Civil Air Regulations as Amended to April 1, 1941, and additional amendments in effect on March 2, 1942, except §§ 04.50 through 04.57, 04.5811, 04.5813, 04.5822, 04.625, and 04.740.		
	The following sections of Title 14 of the Code of Federal Regulations, Part 23 (14 CFR Part 23) effective February 1, 1965, as amended by Amendments 23-1 through 23-10: §§ 23.25(a)(2), 23.29, 23.955, 23.959, 23.1301 through 23.1305, 23.1307(a), 23.1357, and 23.1553.		
	S/N 1012: Part 04 of the Civil Air Regulations as amended to April 1, 1941, and additional amendments in effect on March 2, 1942, except §§ 04.50 through 04.57, 04.5811, 04.5813, 04.5822, 04.625, and 04.740.		
	S/N 1012: (Continued)		
	The following sections of Title 14 of the Code of Federal Regulations, Part 23 (14 CFR Part 23) effective February 1, 1965, as amended by Amendments 23-1 through 23-10: §§ 23.25(a)(2), 23.29, 23.955, 23.959, 23.1301 through 23.1305, 23.1307(a), 23.1357, and 23.1553.		
	The following section of Title 14 of the Code of Federal Regulations, Part 21 (14 CFR Part 21) effective February 1, 1965, as amended by Amendments 21-1 through 21-46: § 21.5.		
	S/N 1013 through 1029: Part 04 of the Civil Air Regulations as Amended to April 1, 1941, and additional amendments in effect on March 2, 1942, except §§ 04.50 through 04.57, 04.5811, 04.5813, 04.5822, 04.625, and 04.740.		
	The following sections of Title 14 of the Code of Federal Regulations, Part 23 (14 CFR Part 23) effective February 1, 1965, as amended by Amendments 23-1 through 23-10:		

§§ 23.25(a)(2), 23.29, 23.955, 23.959, 23.1301 through 23.1305, 23.1307(a), 23.1357, and 23.1553.

The following section of Title 14 of the Code of Federal Regulations, Part 21 (14 CFR Part 21) effective February 1, 1965, as amended by Amendments 21-1 through 21-46: § 21.5.

The following sections of Title 14 of the Code of Federal Regulations, Part 36 (14 CFR Part 36) effective December 1, 1969, as amended by Amendments 36-1 through 36-10: §§ 36.1(a)(2), 36.1(e), 36.9, 36.501, and Appendix F.

Date of application to amend Type Certificate by adding Model S-1B2
April 1, 1971.

Model S-1B2 Seaplane:

S/N 1001 through 1011 equipped with Pee-Kay Model 1800 or Model B1800 floats: Part 04 of the Civil Air Regulations as Amended to April 1, 1941, and additional amendments in effect on March 2, 1942, except §§ 04.21 through 04.234, 04.25 through 04.2570, 04.50 through 04.57, 04.5811, 04.5813, 04.5822, 04.625, and 04.740. The following sections of Title 14 of the Code of Federal Regulations, Part 23 (14 CFR Part 23) effective February 1, 1965, as amended by Amendments 23-1 through 23-16: §§ 23.25(a)(2), 23.29, 23.301(d), 23.521, 23.955, 23.959, 23.1301 through 23.1305, 23.1307(a), 23.1357, 23.1553, and Appendix A.

Date of application to amend Type Certificate by adding seaplane configuration of Model S-1B2 September 2, 1975.

S/N 1001 through 1012 equipped with EDO Model 089-2000 or Model 089A-2000 floats: Part 04 of the Civil Air Regulations as Amended to April 1, 1941, and additional amendments in effect on March 2, 1942, except §§ 04.21 through 04.234, 04.25 through 04.2570, 04.50 through 04.57, 04.5811, 04.5813, 04.5822, 04.625, and 04.740. The following sections of Title 14 of the Code of Federal Regulations, Part 23 (14 CFR Part 23) effective February 1, 1965, as amended by Amendments 23-1 through 23-21: §§ 23.25(a)(2), 23.29, 23.301(d), 23.521, 23.785(b), 23.955, 23.959, 23.1301 through 23.1305, 23.1357, 23.1553, 23.1581 through 23.1589, and Appendix A.

S/N 1013 through 1029 equipped with EDO Model 089-2000 or Model 089A-2000 floats: Part 04 of the Civil Air Regulations as Amended to April 1, 1941, and additional amendments in effect on March 2, 1942, except §§ 04.21 through 04.234, 04.25 through 04.2570, 04.50 through 04.57, 04.5811, 04.5813, 04.5822, 04.625, and 04.740. The following sections of Title 14 of the Code of Federal Regulations, Part 23 (14 CFR Part 23) effective February 1, 1965, as amended by Amendments 23-1 through 23-21: §§ 23.25(a)(2), 23.29, 23.301(d), 23.521, 23.785(b), 23.955, 23.959, 23.1301 through 23.1305, 23.1357, 23.1553, 23.1581 through 23.1589, and Appendix A. The following sections of Title 14 of the Code of Federal Regulations, Part 36 (14 CFR Part 36) effective December 1, 1969, as amended by Amendments 36-1 through 36-10: §§ 36.1(a)(2), 36.1(e), 36.9, 36.501, and Appendix F.

Date of Application for Supplemental Type Certificate to approve installation of EDO Model 089-2000 or Model 089A-2000 floats on Model S-1B2 airplane
March 31, 1978.

Model S-1B2 (block 2000) same as Model S-1B2, block 1000, with aluminum spar wing, aluminum wing struts, constant speed propeller, updated powerplant & flight instrumentation, avionics, baggage compartment and electrical system.
Aircraft must conform to the specifications and equipment listed in IETDC, List of Approved Drawings, revision N, dated June 1, 2007, or later FAA approved revision

Serial Nos. (S/N) eligible	2001 and on.		
Engine	Lycoming O-320-D1A (160 HP)		
Fuel	100 <u>or 100 LL</u>		
Engine limits	All operations 2700 rpm (160 hp)		
Propeller	Hartzell HC-C2YL-1BF-F8468A-4R/SM4 Hartzell Spinner Assembly A-4203-P (Required) McCauley Governor D-20893-42		
Propeller limits	Diameter: not over 80.0 in., not under 78.4 in. Pitch settings: low 10.7°, +/-0.1°, high 22.5°, +/- 1.0°		
Airspeed limits	Landplane:		
	Level flight or climb	117 mph (102 knots)	CAS
	Glide or dive	142 mph (123 knots)	CAS
	Flaps extended	75 mph (65 knots)	CAS
	Seaplane:		
	Never exceed	142 mph (123 knots)	CAS
	Maneuvering	105 mph (91 knots)	CAS
	Max. structural cruising	105 mph (91 knots)	CAS
	Flaps extended	75 mph (65 knots)	CAS
C.G. range	Landplane	(+11.4) to (+15.8) at 1650 lb.	
	Seaplane	(+13.2) to (+15.6) at 1850 lb. (+ 9.6) to (+15.6) at 1470 lb. or less Straight line variation between points given (See Optional Equipment 204)	
Empty weight C.G. range	None		
Maximum weight	Landplane	1650 lb.	
	Seaplane	1850 lb.	
No. of seats	2 (one adjustable at +8, +9, +10, or +11, and one at +37)		
Maximum baggage	Under passenger seat storage	<u>Capacity</u>	<u>CG</u>
	On passenger seat (seat back down)	150 lb.	(+39)
	Behind passenger seat (seat back up)	250 lb.	(+39)
	Aft cargo compartment (forward of red line)	50 lb.	(+47)
	Aft cargo compartment (aft of red line)	250 lb.	(+67)
		150 lb.	(+108)
Fuel capacity	21 gal. tank in each wing, total quantity	42 gal	(+25)
Oil capacity		8 qt.	(-39)
Control surface movements	Wing Flaps	40° down +/-2°	
	Elevator trim tab	22° up +/-2°	27° down +/-2°
	Elevator	30° up +/-2°	30° down +/-2°
	Aileron	19° up +/-2°	20° down +/-2°
	Rudder	30° right +/-2°	30° left +/-2°
Type of Operation	Day VFR		

Certification Basis

- (1) The following sections of Part 04 of the Civil Air Regulations effective July 1, 1941, as amended to July 1, 1944: 04.0 through 04.204, 04.265 through 04.270, 04.272 through 04.332, 04.36 through 04.438, 04.46 through 04.4630, 04.4633 through 04.467, 04.60 through 04.623, 04.626 through 04.637, 04.69 through 04.690, and 04.700 through 04.708.
- (2) The following sections of Title 14 of the Code of Federal Regulations, Part 21 (14 CFR Part 21) effective February 1, 1965, as amended by Amendments 21-1 through 21-56: 21.21(b)(2), 21.35(a), (b)(1), (d), and (e), 21.37, and 21.39.
- (3) The following sections of Title 14 of the Code of Federal Regulations, Part 23 (14 CFR Part 23) effective February 1, 1965, as amended by Amendments 23-1 through 23-28: 23.2, 23.3, 23.21, 23.23, 23.25, 23.29, 23.31, 23.33, 23.45, 23.49, 23.301, 23.303, 23.305, 23.307(a), 23.471, 23.473, 23.477, 23.479, 23.481, 23.483, 23.485, 23.493, 23.497, 23.505, 23.561(b1)23.561(b2), 23.625, 23.629(d), 23.723, 23.725, 23.726, 23.727, 23.729, 23.731, 23.733, 23.735, 23.737, 23.751, 23.753, 23.755, 23.757, 23.785(b), 23.785(l), 23.853(a), 23.853(c), 23.901, 23.903, 23.905, 23.907, 23.925, 23.959, 23.963, 23.973, 23.993, 23.1091, 23.1105, 23.1141, 23.1143, 23.1145, 23.1147, 23.1149, 23.1163, 23.1165, 23.1191, 23.1193, 23.1301, 23.1303, 23.1305, 23.1307, 23.1309, 23.1321, 23.1322, 23.1323, 23.1325, 23.1327, 23.1331, 23.1337, 23.1351, 23.1353, 23.1357, 23.1361, 23.1365, 23.1367, 23.1381, 23.1383, 23.1385, 23.1387, 23.1389, 23.1391, 23.1393, 23.1395, 23.1397, 23.1399, 23.1401, 23.1413, 23.1501, 23.1505, 23.1507, 23.1511, 23.1519, 23.1521, 23.1524, 23.1525, 23.1529, 23.1541, 23.1543, 23.1545, 23.1547, 23.1549, 23.1551, 23.1553, 23.1555, 23.1557, 23.1559, 23.1563, 23.1567, 23.1581, 23.1583, 23.1585, 23.1587, 23.1589, including Appendix A, Appendix C, and Appendix D.
- (4) The following sections of Title 14 of the Code of Federal Regulations, Part 36 (14 CFR Part 36) effective December 1, 1969, as amended by Amendments 36-1 through 36-10: §§ 36.1(a)(2), 36.1(e), 36.9, 36.501, and Appendix F.
- (5) The FAA approved Aircraft Flight Manual, IETDC Doc. No. A2B-8500, dated July 11, 2007, complies with the following sections of Title 14 of the Code of Federal Regulations, Part 23 (14 CFR Part 23), effective February 1, 1965, as amended: 23-1 through 23-7: 23.1581, 23.1583, 23.1585, 23.1587.
- (6) Compliance with 14 CFR Part 23.1529 and Appendix G at amendment 23-26 for Instructions for Continued Airworthiness has been shown.

Date of Application to amend Type Certificate by incorporating type design changes effective with S/N 2001, February 7, 2001.

Required equipment

In addition to the pertinent basic required equipment as prescribed in the applicable airworthiness regulations (see Certification basis), the following items of equipment must be installed in the aircraft for certification:

1. FAA Approved S-1B2 Arctic Tern (S/N 2001 and subsequent) Airplane Flight Manual, IETDC Doc. No. A2B-8500, Revision 1, dated July 11, 2007, or later FAA approved revision.

Data Pertinent to all Models:

Datum	Wing leading edge at side of fuselage
Leveling means	Level front and rear spars of stabilizer at fuselage.
Production basis	<p><u>Model S-1B1</u>: None. Prior to original certification of each aircraft manufactured subsequent to February 23, 1945, a CAA or FAA representative must perform a detailed inspection for workmanship, materials, and conformity with the approved technical data, and a check of the flight characteristics.</p> <p><u>Model S-1B2 (block 1000)</u>: 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.</p> <p><u>Model S-1B2 (block 2000)</u>: None. Before original airworthiness 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. In the even of an application for a standard airworthiness certificate or, if an applicant intends to produce a new aircraft under 14 CFR § 21.183(d), and the applicant is manufacturing, building, or assembling to another person's type certificate, the applicant must provide evidence of permission from the type certificate holder. Conduct of such activity without written evidence of permission may be a violation of 49 U.S.C. § 44704(a)(3).</p>
Optional Equipment:	A plus (+) or minus (-) sign preceding the weight of an optional item indicates the 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 (*). This symbol denotes that approval has been obtained by someone other than the aircraft manufacturer. An item so marked may not have been manufactured under a CAA or FAA monitored or approved quality control system and, therefore, its conformity with CAA or FAA approved technical data must be determined if the item is not identified by a CAA Form ACA-186, FAA Form 186, FAA Form 8130-3, FAA PMA, or other evidence of CAA or FAA conformity inspection or production approval.

Propellers and Propeller Accessories

1. Propeller
 - (a) U.S. Propellers, Inc., Model 76FGSA-64 fixed pitch wood, 25 lb. (-58.9)
Propeller Type Certificate No. 787,
mounted on Kinner No. 8031 hub with four 7/16 in. diameter bolts on
5-1/4 in. bolt circle. Serial Nos. 10732 through 10861 of this model
propeller were furnished for use on the L-6 aircraft and were stamped
"76FGS-64", but are identical to the Model 76FGSA-64 propeller
(Model S-1B1)
 - (b) McCauley 1A175/GM8241 through 8244 fixed pitch metal, 33 lb. (-60)
Propeller Type Certificate No. 857
(Model S-1B2)
2. Propeller spinner installation in accordance with Interstate Aircraft and 0.5 lb. (-62.3)
Engineering Corporation Drawing No. D-1B-6075
(Model S-1B1)

Engine and Engine Accessories - Fuel and Oil Systems

101. Oil cooler installation
 - (a) G. & O. Model B-3670 in accordance with Interstate Aircraft and 8 lb. (-41.2)
Engineering Corporation Drawing No. R-1B-6001
(Model S-1B1)
 - (b) Stewart Warner 8406-E in accordance with Arctic Aircraft Company, 3 lb. (-35.3)
Inc., Drawing No. R-2B-6001
(Model S-1B2)
 - (c) Harrison AP07AU06-03 in accordance with Arctic Aircraft Company, 3 lb. (-35.3)
Inc., Drawing No. R-2B-6001
(Model S-1B2)

102. Starter - 12 volt
- (a) Auto-Lite Model MBG-4011 in accordance with Interstate Aircraft and Engineering Corporation Drawings No. R-1B-6001, No. B-1B-8002 (S/N 1 through 14), No. G-1B-8137 (S/N 15 through 253), and No. R-1B-8138 (Model S-1B1)
(Item 301(a) battery and Item 310 engine-driven generator required) 16 lb. (-30.8)
 - (b) Prestolite Model MZ-4206, MZ-4222, or MZ-4224 in accordance with Arctic Aircraft Company, Inc., Drawings No. R-2B-6001 and No. G-2B-8002 (Model S-1B2)
(Item 301(b) battery and Item 311(a), (b), or (c) engine-driven alternator required) 18 lb. (-49.0)
 - (c) Delco-Remy Part No. 1109506 or 1109511 in accordance with Arctic Aircraft Company, Inc., Drawings No. R-2B-6001 and No. G-2B-8002 (Model S-1B2)
(Item 301(b) battery and Item 311(a), (b), or (c) engine-driven alternator required) 18 lb. (-49.0)
 - (d) Electrosystems Part No. 234 in accordance with Arctic Aircraft Company, Inc., Drawings No. R-2B-6001 and No. G-2B-8002 (Model S-1B2)
(Item 301(b) battery and Item 311(a), (b), or (c) engine-driven alternator required) 18 lb. (-49.0)
103. Carburetor air filter installation
- (a) Air-Maze R-81 (U.S. Army Air Force Specification R28466), in accordance with Interstate Aircraft and Engineering Corporation Drawings No. P1-D-1B-6001, No. D-1B-6110, and No. B-1B-6115 (Model S-1B1) 2.2 lb. (-48)
 - (b) AC A130-C or Fram CA101P.L. in accordance with Arctic Aircraft Company, Inc., Drawings No. R-2B-6001 and No. D-2B-6102 (Model S-1B2) 2 lb. (-37.5)
104. Fuel pump installation in accordance with Arctic Aircraft Company, Inc., Drawings No. R-2B-6002 and No. G-2B-8002 (Model S-1B2)
(Item 301(b) battery and Item 311(a), (b), or (c) engine-driven alternator required)
- (a) Engine-driven fuel pump - AC 40295 2 lb. (-32.3)
 - (b) Electric auxiliary fuel pump - Bendix 476087 2 lb. (-23.8)
105. Cabin heater installation
- (a) Cabin heater in accordance with Interstate Aircraft and Engineering Corporation Drawing No. R-1B-6001 (Model S-1B1) 1.2 lb. (-36.8)
 - (b) Surface combustion heater - Surface Combustion Corporation Model S582, in accordance with Interstate Aircraft and Engineering Corporation Drawing No. R-1B-8178 (Model S-1B1) 11 lb. (-23.6)
 - (c) Cabin heater in accordance with Arctic Aircraft Company, Inc., Drawing No. R-2B-6001 (Model S-1B2) 1 lb. (-31.7)

Landing Gear

201. Two main wheel/brake assemblies and tires
- (a) Firestone 6C5YFB, 6.00 - 6 wheels with brakes and Firestone 7.00 - 6, 4-ply tires (Model S-1B1) 34 lb. (-1.4)
 - (b) Cleveland 40-28, 6.00 - 6 wheels with Cleveland 30-18 brakes and Uniroyal 8.50 - 6, 4-ply tires (Model S-1B2) 43.6 lb. (-1.4)
 - (c) Cleveland 40-86B, 6.00 - 6 wheels with Cleveland 30-55 brakes and Uniroyal 8.50 - 6, 4-ply tires (Model S-1B2) 44.6 lb. (-1.4)

(d)	Cleveland 40-28, 6.00 - 6 wheels with Cleveland 30-18 brakes and McCreary (Specialty Tires of America) "Air Trac" 8.50 - 6, 6-ply tires (Model S-1B2)	49.7 lb. (-1.4)
(e)	Cleveland 40-86B, 6.00 - 6 wheels with Cleveland 30-55 brakes and McCreary (Specialty Tires of America) "Air Trac" 8.50 - 6, 6-ply tires (Model S-1B2)	50.7 lb. (-1.4)
202.	Steerable tail wheel and tire	
(a)	Firestone Model 206-8B tail wheel and tire in accordance with Interstate Aircraft and Engineering Corporation Drawings No. G-1B-5002 and No. G-1B-5034 (Model S-1B1)	3 lb. (+174.8)
(b)	Maule 6 in. diameter x 2.00 in. wide solid streamline tail wheel and tire in accordance with Interstate Aircraft and Engineering Corporation Drawings No. G-1B-5002, No. G-1B-5034, and No. B-1B-5040 (Model S-1B1)	3 lb. (+174.8)
(c)	Maule Model SFS-P8A-1-4 tail wheel assembly in accordance with Arctic Aircraft Company, Inc., Drawing No. D-2B-5002 (Model S-1B2)	6.7 lb. (+204.8)
(d)	Scott Model 3000-A1 tail wheel assembly with Scott Part No. 1478 spacer; installation otherwise in accordance with Arctic Aircraft Company, Inc., Drawing No. D-2B-5002 (Model S-1B2)	5.1 lb. (+204.2)
(e)	Scott Model 3200 tail wheel assembly with Scott Part No. 3243-1 bushing and spacer kit, in accordance with Arctic Aircraft Company, Inc., Drawing No. D-2B-5002 (Model S-1B2)	7.7 lb. (+205.5)
203.	Two main wheel replacement skis (Eligible provided the propeller installation meets the minimum 9-in. ground clearance requirement specified by § 04.611 of CAR Part 04 as amended to April 1, 1941)	
(a)	Federal Model SC-2	Use actual weight change
(b)	United Airmotive Model 25-A in accordance with Arctic Aircraft Company, Inc., Drawing No. G-1B-8185	Use actual weight change
204.	Two seaplane floats	
(a)	Pee Kay Model 1800 or Model B1800 in accordance with Devore Aviation Service Corporation Pee Kay Float Division Installation Drawing No. 18-4000 (Model S-1B2 S/N 1001 through 1011 with Lycoming O-320-A2B engine only)	233 lb. (+10.7)
(b)	EDO Model 089-2000 or Model 089A-2000 in accordance with Supplemental Type Certificate No. SA710AL (Model S-1B2)	253 lb. (+12.2)
<u>Electrical and Radio Equipment</u>		
301.	Battery installation	
(a)	Battery - 12 volt, Reading Model R-24, and box in accordance with Interstate Aircraft and Engineering Corporation Drawings No. R-1B-1081, No. B-1B-8002 (S/N 1 through 14), No. G-1B-8137 (S/N 15 through 253), No. D-1B-8021, No. D-1B-8022, and No. R-1B-8138 (Model S-1B1)	28 lb. (-14.3)
(b)	Battery - 12 volt, Gill Model G-35, and box in accordance with Arctic Aircraft Company, Inc., Drawings No. R-2B-6001 and No. G-2B-8002, and Interstate Aircraft and Engineering Corporation Drawings No. D-1B-8021 and No. D-1B-8022 (Model S-1B2)	28 lb. (-24.4)
302.	Position light installation	

- (a) Position lights - U. S. Army Air Force Type A-8 (U. S. Army Air Force Drawing No. 37B4962), 37B4962-5 left and right tail lights, 37B4962-1 upper left wing light, 37B4962-2 upper right wing light, 37B4962-3 lower left wing light, and 37B4962-4 lower right wing light, and wiring, in accordance with Interstate Aircraft and Engineering Corporation Drawings No. R-1B-0003, No. R-1B-1081, No. R-1B-2002, No. D-1B-3012 prior to Rev. I, No. B-1B-8002 (S/N 1 through 14), and No. G-1B-8137 (S/N 15 through 253) (Model S-1B1)
(Item 301(a) battery required) 2.3 lb. (+64.4)
- (b) Position lights - Grimes Model S (No. A-2064) tail light, Soderberg No. S-1085-R left wing light, and Soderberg No. S-1085-G right wing light, and wiring, in accordance with Arctic Aircraft Company, Inc., Drawings No. R-2B-0003, No. R-2B-1081, No. R-2B-2002, and No. G-2B-8002, and Interstate Aircraft and Engineering Corporation Drawing No. D-1B-3012 Rev. I (Model S-1B2)
(Item 301(b) battery required) 1.5 lb. (+39)
303. Anti-collision light installation - Grimes No. 399 strobe light kit, with Grimes No. 30-0465 strobe light assembly, Grimes No. 60-2250-1 power supply, and wiring, in accordance with Arctic Aircraft Company, Inc., Drawings No. R-2B-0003, No. R-2B-1081, and No. G-2B-8002, and Interstate Aircraft and Engineering Corporation Drawing No. D-1B-3012 Rev. I (Model S-1B2)
(Item 301(b) battery and Item 311(a), (b), or (c) engine-driven alternator required) 1.3 lb. (+145.3)
304. Radio communications equipment installation in accordance with Interstate Aircraft and Engineering Corporation Drawings No. B-1B-8002 (S/N 1 through 14), No. G-1B-8137 (S/N 15 through 253), and No. R-1B-8044 (Model S-1B1)
(Item 301(a) battery and Item 310 engine-driven generator required)
- (a) Receiver - Learadio Model AMR-12 7 lb. (+15)
- (b) Transmitter - Learadio Model AMT-12 8 lb. (+25)
- (c) Power supply - Learadio Model AMVP-12 or Model AMG-12 8 lb. (-25.9)
- (d) Antenna - overhead fixed, Air Associates TR-16 antenna wire with Lear No. FT-5 antenna loading coil, Air Associates No. 8979 strain Insulator, and mast in accordance with Interstate Aircraft and Engineering Corporation Drawing No. B-1B-8084 1 lb. (+70)
- (e) Antenna - trailing reel, Learadio "Unihand" antenna reel Type INM-603, Learadio No. 3888A trailing antenna fairlead, and trailing antenna weight in accordance with Interstate Aircraft and Engineering Corporation Drawing No. A-1B-8145 (S/N 1 through 22) or Learadio No. A19511-A trailing antenna weight (S/N 23 through 253) 4 lb. (0)
- (f) Crystal - Learadio No. A-23743, No. A-23744, No. A-23745, No. A-23746, or No. A-23747, and crystal holder in accordance with Interstate Aircraft and Engineering Corporation Drawing No. B-1B-8081; Line filter - Learadio Model FBL-25; controls, and wiring 4 lb. (+6)
305. Radio navigation and communications equipment installation in accordance with Arctic Aircraft Company, Inc., Drawings No. R-2B-1081, No. G-2B-7001, No. G-2B-8002, and No. D-2B-8044 (Model S-1B2)
(Item 301(b) battery and Item 311(a), (b), or (c) engine-driven alternator required)
- (a) Transceiver - Genave Alpha Model 200A or B, or King Model KX 145 7 lb. (-17)
- (b) Antenna - VHF broadband communications, Genave Model C160, Lambda-100, or Antenna Specialties Company (R. A. Miller) Model RA-529 0.6 lb. (+17.5)
- (c) Antenna - Omni VOR navigation, Genave Model C172 or Antenna Specialties Company (R. A. Miller) Model AV-532L 1 lb. (+186)

306. Radio transmitter - emergency locator, Dorne & Margolin Model ELT-6 with Dorne & Margolin Model Q18-1/A antenna and Dorne & Margolin ELT 6.3 cable, in accordance with Arctic Aircraft Company, Inc., Drawing No. A-2B-8077 (Model S-1B2) 3.25 lb. (+30.7)
307. Instrument light installation in accordance with Interstate Aircraft and Engineering Corporation Drawings No. R-1B-1081, No. B-1B-8002 (S/N 1 through 14), No. G-1B-8137 (S/N 15 through 253), and R-1B-8138 (Model S-1B1)
(Item 301(a) battery required)
- (a) Standard Aircraft Products No. 1274A cockpit lamp with switch and wiring (S/N 3 and 4) 0.5 lb. (-3.4)
- (b) Fairchild Aviation Corporation "Moonglow" instrument light in accordance with Interstate Aircraft and Engineering Corporation Drawing No. A-1B-8099, with switch and wiring (S/N 1, 2, and 5 through 253) 0.5 lb. (-3.4)
308. Instrument light installation- Grimes Model A1425-2-12 cockpit spotlight with wiring, controlled by position light switch; installation otherwise in accordance with Interstate Aircraft and Engineering Corporation Drawing No. R-1B-1081 and Arctic Aircraft Company, Inc., Drawing No. G-2B-8002 (Model S-1B2)
(Item 301(b) battery required) 0.3 lb. (+0.4)
309. Landing light installation - General Electric No. 4509 or No. Q4509, and wiring, in accordance with Arctic Aircraft Company, Inc., Drawings No. R-2B-0003 Rev. A, No. G-2B-6040, No. G-2B-7001, and No. G-2B-8002 (Model S-1B2)
(Item 301(b) battery and Item 311(a), (b), or (c) engine-driven alternator required) 0.5 lb. (-50.5)
310. Engine-driven generator - 12 volt, Auto-Lite Model GDY-4106, in accordance with Interstate Aircraft and Engineering Corporation Drawings No. R-1B-6001, No. B-1B-8002 (S/N 1 through 14), No. G-1B-8137 (S/N 15 through 253), and No. R-1B-8138 (Model S-1B1)
(Item 301(a) battery required) 12 lb. (-30.3)
311. Engine-driven alternator installation - 12 volt, in accordance with Arctic Aircraft Company, Inc., Drawings No. R-2B-6001 and No. G-2B-8002 (Model S-1B2)
(Item 301(b) battery required)
- (a) Alternator - Prestolite Model ALE-8406 (40 amp), Model ALY-8403 or Model ALY-8420 (60 amp), or Model ALX-8421 (70 amp), Prestolite No. VSF-7203S transistor voltage regulator, and Prestolite No. X-17621 or No. FOC-4002A overvoltage relay 15.1 lb. (-48.8)
- (b) Alternator - Delco-Remy Part No. 1100717 (70 amp), Delco-Remy No. 9000590 transistor voltage regulator, and Delco-Remy No. 1116887 overvoltage relay 14.7 lb. (-48.7)
- (c) Alternator - InterAv Part No. 015-01237 (55 amp), InterAv Part No. 625-61623 transistor voltage regulator, and InterAv Part No. 635-62448 overvoltage relay 11.0 lb. (-51.8)

Interior Equipment

401. Relief tube installation in accordance with Interstate Aircraft and Engineering Corporation Drawing No. R-1B-1081 (Model S-1B1) 1.2 lb. (+26.5)
402. Shoulder harness installations in accordance with Arctic Aircraft Company, Inc., Drawing No. B-2B-8026

- (Model S-1B2)
- (a) Shoulder harness installation - front seat (S/N 1010 through 1029) 0.7 lb. (+17.3)
- (b) Shoulder harness installation - rear seat (S/N 1028 and 1029) 0.7 lb. (+56.2)
403. FAA Approved Airplane Flight Manual (Model S-1B2 S/N 1001 through 1029) Neglect weight change
- (a) Airplane Flight Manual Revision 7 dated April 15, 1986 (S/N 1012 through 1029)
- (b) Supplemental Airplane Flight Manual dated June 5, 1981, for seaplanes equipped with EDO Model 089-2000 or Model 089A-2000 floats (Item 204(b)) (S/N 1001 through 1011)
- (c) Airplane Flight Manual Supplement Rev. 1 dated June 5, 1981, for seaplanes equipped with EDO Model 089-2000 or Model 089A-2000 floats (Item 204(b)) (S/N 1012 through 1029)

Miscellaneous (not listed above)

601. Auxiliary fuel tank installation - 32 gallon external auxiliary fuel tank and auxiliary fuel transfer system in accordance with Arctic Aircraft Company, Inc., Drawing No. R-2B-8079 (Model S-1B2(S/N 1001 through 1029 & S/N 2001 and on) landplane only) (Item 301(b) battery and Item 311(a), (b), or (c) engine-driven alternator required) 30.3 lb. (+19)

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

- NOTE 2: Placards
Model S-1B1 (block 1000):
- (a) On the instrument panel:
"DO NOT BEGIN TO LOWER FLAPS ABOVE 75 MPH"
- (b) On the instrument panel:
"INTENTIONAL SPINS PROHIBITED WITH FLAPS EXTENDED"
- (c) On the instrument panel:
"FLY SOLO FROM FRONT SEAT ONLY"
- (d) On the fuel tank selector valve:
"USE LEFT WING TANK FOR TAKE-OFF AND LANDING
RIGHT ON 20 GAL., LEFT ON 16¼ GAL., RES. ON 3¾ GAL., OFF"
- (e) On or immediately adjacent to the front of the baggage compartment:
"BAGGAGE COMPARTMENT
MAXIMUM CAPACITY 40 LB."
- (f) In clear view of the pilot:
"OCCUPANT OF REAR SEAT MUST FACE FORWARD ON TAKE-OFF AND LANDING"
- (g) In clear view of the pilot:
"INTENTIONAL ACROBATICS PROHIBITED" (This placard may be removed when the upper portion of the cockpit enclosure has been modified in accordance with Interstate Aircraft and Engineering Corporation Service Bulletin No. 150-13 dated September 14, 1944.)

Model S-1B2 (block 1000) Landplane:

- (a) On the instrument panel:
"DO NOT BEGIN TO LOWER FLAPS ABOVE 75 MPH"
- (b) On the instrument panel:
"INTENTIONAL SPINS PROHIBITED"
- (c) On the instrument panel:
"FLY SOLO FROM FRONT SEAT ONLY"
- (d) On the fuel tank selector valve:
"RIGHT ON 20 GAL., LEFT ON 19 GAL., RES. ON 1 GAL., OFF"
- (e) On the baggage compartment door:
"MAXIMUM BAGGAGE 100 LB. IT IS THE PILOT'S RESPONSIBILITY TO ENSURE PROPER LOADING"

OF THIS AIRPLANE. NO LOAD AFT OF RED LINE."

- (f) Adjacent to the anti-collision strobe light switch:
"TURN OFF STROBE LIGHTS WHEN TAXIING IN VICINITY OF OTHER AIRCRAFT OR DURING FLIGHT THROUGH CLOUDS, FOG OR HAZE. STANDARD POSITION LIGHTS TO BE ON FOR ALL NIGHT OPERATIONS."

Model S-1B2 (block 1000) Seaplane:

- (a) On the instrument panel:
"SEAPLANE OPERATING LIMITATIONS
The Markings And Placards Installed In This Airplane Contain The Operating Limitations Which Must Be Complied With When Operating This Airplane In The Normal Category. Solo Front Seat Only. Flight Into Known Icing Prohibited. No Acrobatic Maneuvers, Including Spins, Approved. Flight Maneuver Load Factors - Flaps Up +3.8, -1.9, Flaps Down +1.9. DAY OR NIGHT VFR"
- (b) On the instrument panel:
"DO NOT BEGIN TO LOWER FLAPS ABOVE 75 MPH"
- (c) Adjacent to the airspeed indicator:
"SEAPLANE MANEUVERING SPEED - 105 MPH (CAS)"
- (d) On the fuel tank selector valve:
"RIGHT ON 20 GAL., LEFT ON 19 GAL., RES. ON 1 GAL., OFF."
- (e) On the baggage compartment door:
"MAXIMUM BAGGAGE 100 LB. IT IS THE PILOT'S RESPONSIBILITY TO ENSURE PROPER LOADING OF THIS AIRPLANE. NO LOAD AFT OF RED LINE."
- (f) Adjacent to the anti-collision strobe light switch:
"TURN OFF STROBE LIGHTS WHEN TAXIING IN VICINITY OF OTHER AIRCRAFT OR DURING FLIGHT THROUGH CLOUDS, FOG OR HAZE. STANDARD POSITION LIGHTS TO BE ON FOR ALL NIGHT OPERATIONS."

Model S-1B2 (block 2000) Land and Seaplane:

The placards specified in the FAA Approved S-1B2 Arctic Tern (S/N 2001 and subsequeant) Airplane Flight Manual, IETDC Doc. No. A2B-8500, Revision 1, dated July 11, 2007, § 2-G, Limitations - Markings and Placards, must be displayed as indicated.

NOTE 3: Maintenance Manual for Interstate Model S-1B2 , IETDC Doc. No. A2B-8501, revision 1, dated July 17, 2007, has been FAA accepted.

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