

FEDERAL AVIATION AGENCY

A-696
 Sheet 1
 Revision 14
 UNIVERSAL
 (Taylorcraft)
 BC
 BCS
 BC-65
 BCS-65
 BC12-65 (Army L-2H)
 BCS12-65
 BC12-D
 BCS12-D
 BC12-DL
 BCS12-DL
 BC12D-85
 BCS12D-4-85
 BCS12D-4-85
 December 7, 1960

AIRCRAFT SPECIFICATION NO. A-696

Type Certificate Holder: Universal Aircraft Industries
 P. O. Box 5306
 Denver 17, Colo.

| | |
|--|--|
| <u>I - Model BC, 2 PGLM, Approved August 24, 1938; Model BCS, 2 PCSM, Approved April 5, 1939</u> | |
| Engine | Continental A-50-1 (See Item 308A for optional engines) |
| Fuel | 73 min. octane aviation gasoline |
| Engine limits | For all operations, 1900 rpm (50 hp) |
| Airspeed limits | Landplane: Level flight or climb 105 mph (91 knots) True Ind. Glide or dive 131 mph (114 knots) True Ind. Seaplane: Level flight or climb 95 mph (83 knots) True Ind. Glide or dive 129 mph (112 knots) True Ind. |
| Propeller limits | Diameter: Maximum 83 inches. |
| C.G. range | Landplane: (+14.5) to (+19.7) Seaplane: (+15.1) to (+19.4) |
| Empty weight | Landplane: (+15.3) to (+18.5) |
| C.G. range | Seaplane: (+15.9) to (+18.3) When Empty Weight C.G. falls within pertinent range, computation of critical fore and aft C.G. positions is unnecessary. Ranges are not valid for non-standard arrangements. |
| Maximum weight | Landplane: 1100 lbs. (Ser. Nos. 1407 and up are eligible at 1150 lbs.) Seaplane: 1228 lbs. |
| No. seats | 2 (+23) |
| Maximum baggage | 30 lbs. (+40) |
| Fuel capacity | 12 gals. (-9). See Item 312 for auxiliary tank. |
| Oil capacity | 1 gal. (-21). |
| Control surface movements | Elevators 25° Up 27° Down Rudders 26° Right 26° Left Ailerons Not available |
| Serial Nos. eligible | 1001 and up |
| Required equipment | In addition to pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed: Landplane: Items 101, 102, 103, 104, 105 and 317(a). Seaplane: Items 103, 104, 105 and 151. |

This is a copy of the specifications for the BC12D and other models. The latest copy of this specification should be consulted. It may be obtained from the Office of Aviation Information, Washington, D. C.

II - Model BC-65, 2 PCLM, Approved July 22, 1939; Model BCS-65, 2 PCSM, Approved Oct. 7, 1939
 (Same as Model BC except engine installation)

| | |
|----------------------------|--|
| Engine | Continental A-65-1 (See Item 308B for optional engines) |
| Fuel | 73 min. octane aviation gasoline |
| Engine limits | For all operations, 2350 rpm (65 hp) |
| Airspeed limits | Landplane: Level flight or climb 105 mph (91 knots) True Ind. Glide or dive 131 mph (114 knots) True Ind. Seaplane: Level flight or climb 95 mph (83 knots) True Ind. Glide or dive 129 mph (112 knots) True Ind. |
| Propeller limits | Static rpm at full throttle - A-65-1 engine: not over 2300, not under 2070 Optional engines: not over 2250, not under 2070 No additional tolerance permitted. |
| C.G. range | Diameter: (landplane) - not over 83 in., not under 70 in. (seaplane) - not over 79 in., not under 70 in. Landplane: (+14.5) to (+19.7) Seaplane: (+15.1) to (+20.1) |
| Empty weight C.G. range | Landplane: (+15.3) to (+18.5) Seaplane: (+15.9) to (+19.0) When empty weight C.G. falls within the pertinent range, computation of critical fore and aft C.G. positions is unnecessary. Ranges are not valid for non-standard arrangements. |
| Maximum weight | Landplane: 1100 lbs. (Serial Nos. 1407 and up are eligible at 1150 lbs.) Seaplane: 1228 lbs. (Serial Nos. 1432 and up are eligible at 1278 lbs.) |
| No. seats | 2 (+23) |
| Maximum baggage | 30 lbs. (+40) |
| Fuel capacity | 12 gals. (-9). See Item 312 for auxiliary tank. |
| Oil capacity | 1 gal. (-21) |
| Control surface movements | Elevators 27° Up 25° Down Rudder 26° Right 26° Left Ailerons Not available |
| Serial Nos. eligible | 1001 and up |
| Required equipment | In addition to pertinent required basic equipment specified in CAR 4a, the following items of equipment must be installed: Landplane: Items 101, 102, 103, 104, 105 and 317(a). Seaplane: Items 103, 104, 105 and 151. |

III - Models BCL2-65 (Army L-2H) and BCS12-65, 2 PCL-SM, Approved April 7, 1941

(Same as Model BC-65 except for minor structural changes and added elevator trim tab).

| | |
|---------------------------|--|
| Engine | Continental A-65-7 (See Item 308C for optional engines). |
| Fuel | 73 min. octane aviation gasoline |
| Engine limits | For all operations, 2300 rpm (65 hp) |
| Airspeed limits | Landplane: Level flight or climb 105 mph True Ind. Glide or dive 140 mph True Ind. Seaplane: Level flight or climb 95 mph True Ind. Glide or dive 129 mph True Ind. |
| Propeller limits | Static rpm at full throttle: not over 2250, not under 2070. No additional tolerance permitted. |
| C.G. range | Diameter: not over 72 in., not under 70 in. Landplane: (+14.2) to (+20.0) Seaplane: (+14.2) to (+20.0) with Edo floats (Item 151) (+14.6) to (+20.0) with Heath floats (Item 320) |
| Empty weight | Landplane: (+14.8) to (+17.9) |
| C.G. range | Seaplane: (+14.8) to (+18.3) with Edo floats (Item 151) (+15.2) to (+18.3) with Heath floats (Item 320) |
| Maximum weight | Landplane: 1200 lbs. Seaplane: 1278 lbs. |
| No. seats | 2 (+23) |
| Maximum baggage | Landplane: 50 lbs. (+40) Seaplane: 30 lbs. (+40) |
| Fuel capacity | 18 gals. (12 gals. in fuselage (-9) and 6 gals. in wing (+24)) |
| Oil capacity | 1 gal. (-21) |
| Control surface movements | Elevators 27° up 25° down Elevator tab 25° up 30° down Ailerons 25° up 25° down Rudder 26° right 26° left |
| Serial Nos. eligible | 2401, 2501, 2503, 2504, 2529 and up and all AAF numbers. Use Manufacturer's numbers if available. |
| Required equipment | Landplane: 101, 102, 103, 104, 105, 108 and 317(a) Seaplane: 103, 104, 105, 108 and 151. |

IV - Model BCL2-D, 2 PCLM, Approved Nov. 23, 1945; Model BCS-12D, 2 PCSM, Approved Feb. 19, 1946.

(Same as Model BCL2-65 except for alternate tail surface, revised aileron travel, alternate one piece windshield and other miscellaneous structural and non-structural changes.)

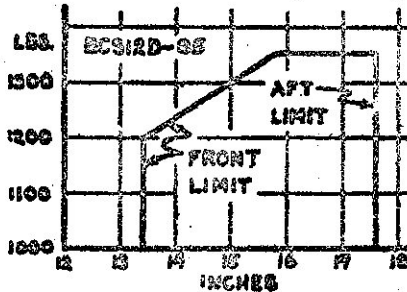
(Model BCL2-D1 eligible as Model BCL2-D when Items 106 and 107 and 6 gal. right hand wing tank are installed.)

| | |
|------------------|--|
| Engine | Continental A-65-8 (See Item 308D for optional engines). |
| Fuel | 73 min. octane aviation gasoline |
| Engine limits | For all operations, 2300 rpm (65 hp) |
| Airspeed limits | Landplane: Level flight or climb 105 mph True Ind. Glide or dive 140 mph True Ind. Seaplane: Level flight or climb 95 mph True Ind. Glide or dive 129 mph True Ind. |
| Propeller limits | Static rpm at full throttle: not over 2250, not under 2070. No additional tolerance permitted. |
| C.G. range | Diameter: Not over 72 in., not under 70 in. Landplane: (+14.2) to (+20.0) Seaplane: (+14.2) to (+20.0) with Edo floats (Item 151) (+14.6) to (+20.0) with Heath floats (Item 320) |

| | |
|---|---|
| Empty weight C.G. range | Landplane: (+14.8) to (+17.9) Seaplane: (+14.8) to (+18.3) with Edo floats (Item 151) (+15.2) to (+18.3) with Heath floats (Item 320) When Empty weight C.G. falls within pertinent range, computation of critical fore and aft C.G. positions is unnecessary. Ranges are not valid for non-standard arrangements. |
| Maximum weight | Landplane; 1200 lbs. Seaplane: 1278 lbs. |
| No. seats | 2 (+23) |
| ✓ Maximum baggage | Landplane: 50 lbs. (+40) <i>(MAKE 20 lbs)</i> Seaplane: 30 lbs. (+40) |
| Fuel capacity | 18 gals. (12 gal. fuselage tank at -9 and 6 gal. wing tank at +24). |
| Oil capacity | 1 gal. (-21) |
| Control surface movements | Elevators 27° up 25° down Elevator tab 25° up 30° down Ailerons 23° up 23° down Rudder 26° right 26° left |
| Serial Nos. eligible | 6402 and up. |
| Required equipment | Landplane: 101, 102, 103, 104, 105, 108 and 317(a). Seaplane: 103, 104, 105, 108 and 151. |
| <u>V - Model BCL2-D1 and BCS-12D1, 2 PCL-SM, Approved September 10, 1946</u> | |
| (Same as Models BCL2-D except for elimination of left hand door (Item 106), parking brake (Item 107) and 6 gal. R/H wing tank.) | |
| (Model BCL2-D1 eligible as Model BCL2-D when Items 106 and 107 and 6 gal. right hand wing tank are installed.) | |
| Engine | Continental A-65-8 (See Item 308D for optional engines). |
| Fuel | 73 min. octane aviation gasoline |
| Engine limits | For all operations, 2300 rpm (65 hp) |
| Airspeed limits | Landplane: Level flight or climb 105 mph True Ind. Glide or dive 140 mph True Ind. Seaplane: Level flight or climb 95 mph True Ind. Glide or dive 129 mph True Ind. |
| Propeller limits | Static rpm at full throttle: not over 2250, not under 2070. No additional tolerance permitted. |
| C.G. range | Diameter: not over 72 in., not under 70 in. |
| Empty weight | Landplane: (+14.2) to (+20.0) |
| C.G. range | Seaplane: (+14.2) to (+20.0) with Edo floats (Item 151) (+14.6) to (+20.0) with Heath floats (Item 320) |
| Empty weight | Landplane: (+14.8) to (+17.9) |
| C.G. range | Seaplane: (+14.8) to (+18.3) with Edo floats (Item 151) (+15.2) to (+18.3) with Heath floats (Item 320) |
| Maximum weight | When Empty weight C.G. falls within the pertinent range, computation of critical fore and aft C.G. positions is unnecessary. Ranges are not valid for non-standard arrangements. |
| No. seats | Landplane: 1200 lbs. Seaplane: 1278 lbs. |
| Maximum baggage | 2 (+23) |
| Fuel capacity | Landplane: 50 lbs. (+40) |
| Oil capacity | Seaplane: 30 lbs. (+40) |
| Control surface movements | 12 gals. (-9) 1 gal. (-21) Elevators 27° up 25° down Elevator tab 25° up 30° down Ailerons 23° up 23° down Rudder 26° right 26° left |
| Serial Nos. eligible | 6402 and up. |
| Required equipment | Landplane: 101, 102, 103, 104, 105, 108 and 317(a). Seaplane: 103, 104, 105, 108 and 151. |

VI - Models BC12D-65 and BC12D-65, 2 PCL-SM, Approved September 30, 1948
 (Same as Model BC12-3 except for increased tower and gross weight, fuel system changes, auxiliary wing fuel tank, revised wing fittings, and minor structural changes.)

Engines Continental C85-8P
Fuel 80 min. octano aviation gasoline
Engine limits For all operations, 2575 rpm (85 hp)
Airspeed limits Landplane: Level flight or climb 105 mph (93 knots) True Ind.
 Glide or dive 142 mph (124 knots) True Ind.
 Seaplane: Level flight or climb 95 mph (83 knots) True Ind.
 Glide or dive 128 mph (111 knots) True Ind.
Propeller limits with Item 103(f) Static rpm at maximum permissible throttle setting (No additional tolerance permitted):
 Landplane: not over 2350, not under 2100.
 Seaplane: not over 2310, not under 2010 (Exception: not under 2100 with Item 151a)
Diameter - Landplane: not over 72 in., not under 68 in.
 Seaplane: not over 72 in., not under 70 in.
C.G. range Landplane: (+14.2) to (+20.0)
 Seaplane: (+15.8) to (+17.6) at 1351 lbs.
 (+13.4) to (+17.6) at 1200 lbs. or less
 Straight line between points given.



Empty weight C.G. range Landplane: (+14.8) to (+17.9)
 Seaplane: (+13.7) to (+15.1)
 When Empty Weight C.G. falls within the pertinent range, computation of critical fore and aft C.G. positions is unnecessary. Ranges are not valid for non-standard arrangements.
Maximum weight Landplane: 1280 lbs.
 Seaplane: 1351 lbs.
No. seats 2 (+23)
Maximum baggage Landplane: 50 lbs. (+40)
 Seaplane: 30 lbs. (+40)
Fuel capacity 18 gals. (12 gal. tank in fuselage at -9 and 6 gal. tank in wing at +24)
Oil capacity 4 1/2 qts. (-21)
Control surface movements Elevators 27° up 25° down
 Elevator tab 25° up 30° down
 Ailerons 23° up 23° down
 Rudder 26° right 26° left
Serial Nos. eligible 12001 and up.
Required equipment Landplane: Items 101, 103(f), 104, 105, 108, 302 and 317(a)
 Seaplane: Items 103(f), 104, 105, 108 and 151.

VII - Models 10120-85 and 108120-85, 2 PCL-51. Approved July 13, 1949
(Same as Model 10120-85 except for engine, baggage compartment, side windows and sky-lights)

Engine Continental C85-12F
 Fuel 80 min. octane aviation gasoline
 Engine limits For all operations, 2575 rpm (85 hp)
 Airspeed limits
 Landplane: Level flight or climb 105 mph (91 knots) True Ind.
 Glide or dive 142 mph (124 knots) True Ind.
 Seaplane: Level flight or climb 95 mph (83 knots) True Ind.
 Glide or dive 128 mph (111 knots) True Ind.
 Propeller limits: Static rpm at maximum permissible throttle setting (No additional tolerance permitted):
 with Item 103(F) Landplane: not over 2350, not under 2100
 Seaplane: not over 2310, not under 2010 (Exception: Not under 2100 with Item 151a).
 Diameter - Landplane: not over 72 in., not under 68 in.
 Seaplane: not over 72 in., not under 70 in.
 C.G. range
 Landplane: (+14.2) to (+20.0)
 Seaplane: (+15.8) to (+17.6) at 1351 lbs.
 (+13.4) to (+17.6) at 1200 lbs. or less
 Straight lines between points given.)
 (See Figure under Section VI)
 Empty weight
 C.G. range
 Landplane: (+14.9) to (+16.3)
 Seaplane: (+13.8) to (+14.3)
 When Empty Weight C.G. falls within the pertinent range, computation of critical fore and aft C.G. positions is unnecessary. Ranges are not valid for non-standard arrangements.
 Maximum weight
 Landplane: 1260 lbs.
 Seaplane: 1351 lbs.
 No. seats 2 (+23)
 Maximum baggage Landplane: 50 lbs. (+70) - 20 lbs 55 lbs. p.
 Seaplane: 30 lbs. (+70)
 Fuel capacity 18 gals. (12 gal. tank in fuselage at -9 and 6 gal. tank in wing at +24)
 Oil capacity 4 1/2 qts. (-30)
 Control surface movements
 Elevators 27° up 25° down
 Elevator tab 25° up 30° down
 Ailerons 23° up 23° down
 Rudder 26° right 26° left
 Serial Nos. eligible 4-13010 and up
 Required equipment
 Landplane: Items 101, 103(F), 104, 105, 108, 302 and 317(a).
 Seaplane: Items 103(F), 104, 105, 108 and 151.

Specifications Pertinent to All Models

| | |
|---------------------|---|
| Datum | Leading edge of wing |
| Leveling means | Upper surface of horizontal stabilizer |
| Certification basis | Type Certificate No. 696 (CAR 4a) |
| Production basis | None. Prior to original certification, a FAA representative must perform a detailed inspection for workmanship, materials, and conformity with the approved technical data, and a check of the flight characteristics. |
| Export eligibility | Eligible for export to all countries, subject to the provisions of MOP 2-4, except as follows: Canada - Landplane and seaplane eligible with the exception of model BC12-D1. Model BC12-D1 eligible provided auxiliary door (Item 106) is installed. - Skiplane not eligible: however, structure complies with Canadian requirements as follows: (1) At 1100 lbs. maximum weight - Landing gear per Dwg. B-A50, ski height 10 in., tread 72 in. (centerline of ski 5.19 in. out from center of bolt attaching diagonal streamlined member to axle. (2) At 1150 and 1200 lbs. maximum weight - Landing gear per Dwg. B-A515, ski height 9 in., tread 72 in. (centerline of ski 5.19 in. out from center of bolt attaching diagonal streamline member to axle.) |

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 someone other than the aircraft manufacturer. An item marked with an asterisk may not have been manufactured under a FAA monitored or approved quality control system, and therefore conformity must be determined if the item is not identified by a Form ACA-186, PMA or other evidence of FAA production approval.

Propellers and Propeller Accessories103. Propellers

- (a) Approved wood (fixed or adjustable pitch).
(See static limits under individual models and Item 151(a) for minimum static rpm limits for models BCS12D-85 and BCS12D-4-85)
- 10 lbs. All except BCL12D-4-85
BCL12D-4-85 & 2
BCS12D-4-85 BCS12D-4-85
(-46) (-50)
- (b) Beech R003 controllable, hub R-002-101 or R-003-100, blades R-002-205-72.
Diameter 72 in. Pitch at 27 in. sta.:
Low 11-3/4°, high 17-3/4°. (Pitch limits under individual models are not applicable to these propellers.)
Includes Beech mechanical propeller control.
- +20 lbs. BC-65, BCL12-65
BCL12-D & BCL12-D1
(-47)
- (c) McCauley 1A90 with the following limits:
Static rpm at maximum permissible throttle setting:
Landplane: Not over 2210, not under 1960.
Seaplane: Not over 2210, not under 2070.
No additional tolerance permitted.
Diameter: Not over 74 in., not under 72.5 in.
- +21 lbs. BC-65, BCS-65,
BCL12-D, BCS12-D,
BCL12-D1 & BCS12-D1
(-46)
- (d) Hartzell ground adjustable, hub HA-12U, blades 7414 to 6814 or 7214M to 6814M.
Eligible at diameter and static rpm limits shown above for fixed pitch wood models.
- 18 lbs. All except BCL12D-4-85
BCL12D-4-85 &
BCS12D-4-85 BCS12D-4-85
(-46) (-50)
- (e) McCauley 1A90 with the following limits:
Static rpm at maximum permissible throttle setting: Not over 2250, not under 2070.
No additional tolerance permitted.
Diameter: Not over 74 in., not under 72.5 in.
- 21 lbs. BCL12-65
(-46)
- (f) Lewis 111CK-45 or any other fixed pitch wood propeller eligible for the engine power and speed and meeting static rpm and diameter limits noted for the various models eligible.
- 10 lbs. BCL12D-85 BCL12D-4-85
&
BCS12D-85 BCS12D-4-85
(-46) (-50)
- (g) McCauley 1A90 with the following limits:
Static rpm at maximum permissible throttle setting: Not over 2350, not under 2170.
No additional tolerance permitted.
Diameter: Not over 71 in., not under 69.5 in.
- +21 lbs. BCL12D-85 BCL12D-4-85
&
BCS12D-85 BCS12D-4-85
(-46) (-50)
- *(h) Sensenich M74CK, fixed pitch metal.
Static at max. permissible throttle setting:
Landplane: Not over 2210, not under 1960.
Seaplane: Not over 2210, not under 2070.
No additional tolerance permitted.
Diameter: Not over 74 in., not under 72.5 in.
- 21 lbs. BC-65
BCL12-D BCS-65
BCL12-D1 BCS12-D
BCL12-65 BCS12-D1
(-46) (-50)
- *(i) Sensenich M74CK-2 fixed pitch metal.
Static at max. permissible throttle setting:
Not over 2350, not under 2170.
No additional tolerance permitted.
Diameter: Not over 72 in., not under 70 in.
- 21 lbs. BCL12D-85 BCL12D-4-85
BCS12D-85 BCS12D-4-85
(-46) (-50)

Engines and Engine Accessories - Fuel and Oil Systems

No aircraft of these models shall be eligible for original certification with single ignition engines after August 1, 1941. In addition, no aircraft of these models shall be eligible for recertification with single ignition engines unless such aircraft were either previously certificated with single ignition engines or were originally certificated prior to August 1, 1941.

104. Carburetor air heater (Dwg. EC-L601)
108. Enclosed engine cowl (All except EC, ECS, EC-65, ECS-65)
109. McDowell starter installation (EC-12D, ECS-12D and BC12D-85) 11 lbs. (-34)
(EC-A6014 nose cowl must be installed)
110. McDowell starter installation using horizontal operating handle 13 lbs. (-34)
(BC12-D and ECS12-D)
111. Exhaust muffler, Ryan Aero. Co. Dwg. No. 52112 2 lbs. (-40)
(With Items 308B(a) and (b) only)
112. Oil filter, Fram PB-5, Kit No. 510. Weight includes 1 qt. oil. 4 lbs. (-20)
(a) Fram Installation Dwg. No. 61544 (EC, ECS, BC12-65, BC12S-65)
(b) Fram Installation Dwg. No. 61524 (BC12D, ECS12-D, BC12-D1 & ECS12-D1)
113. Starter (Delco Remy 1109656) (BC12D-4-85 only) 16 lbs. (-24)
308. Engines (Continental, see Engine Specs. Nos. 190 and 205) (-33)
- A. Models EC and ECS
- (a) A-50-2 +6 lbs.
- (b) A-50-3 or A-50-3 +10 lbs.
- (c) A-50-4 +3 lbs.
- (d) A-50-5 +13 lbs.
- (e) A-50-7 No weight change
- B. Models EC-65 and ECS-65
- (a) A-65-3, A-65-3J, A-65-3 or A-65-8J +10 lbs.
Engine limits: For all operations, 2300 rpm (65 hp)
- (b) A-65-7 or A-65-7J No weight change
Engine limits same as (a)
- C. Models BC12-65, ECS12-65
- (a) A-65-7J, A-65-8, A-65-8F, A-65-8J No weight change
Engine limits same as B(a)
- D. Models BC12-D, ECS12-D, BC12-D1, ECS12-D1
- (a) A-65-8F, A-65-8J
Engine limits same as B(a)
312. Auxiliary 6 gal. fuselage fuel tank installation (Fuel arm +35) 8 lbs. (+30)
(EC, ECS, EC-65 and ECS-65)
313. Enclosed type engine cowl (Dwg. BL-L628) (EC, ECS, EC-65 and ECS-65) 9 lbs. (-18)
315. Revised engine mount (Dwg. EC65-A128) (For engines incorporating integral rubber bushings) Neglect weight change

Landing Gear and Floats

101. Two main wheels, 6.00-6, Type III, Firestone 6C4 9 lbs. (+2)
102. Tail skid
107. Parking brake 1 lb. (-9)
151. Edo float installation
- (a) Model 60-1320 floats 165 lbs. (+20)
Auxiliary fin (required on all models except ECS12D-85 and BC12D-4-85 unless the seaplane aft C.G. limit for maximum weight is reduced to +18.9). (When propeller Item 103(a) or 103(f) is installed on models ECS12D-85 and BC12D-4-85 the minimum static rpm limit is increased to not under 2100 rpm.)
As an alternate method of installing these floats, Taylorcraft clamp-on fuselage fittings, Parts Nos. 2554, 2555 and 2556 may be used. 4 lbs. (+176)
- (b) Model 92-1400 floats 181 lbs. (+19)
Auxiliary fin (required on all models except ECS12D-85 and BC12D-4-85). 4 lbs. (+176)

201. Two main wheel-brake assemblies, 6.00-6, Type III
 (a) Cleveland Aircraft Products Co. Model 6.00 DHB +4 lbs. (+2)
 Wheel Assembly No. C-38500HMA
 Brake Assembly No. C-7000
302. Tail wheel assemblies (+193)
 (a) 6x2.00 steerable with brake-Baxter +5 lbs.
 (b) 6x2.00 steerable-Aircraft Associates +3 lbs.
 (c) 6x2.00 full swiveling-Firestone Industrial +3 lbs.
 (d) 6x2.00 steerable-Lake State Products 5-40-31 +4 lbs.
 (e) 6x2.00 steerable-Heath +2 lbs.
 (f) Maule SFS-12, SS-12, SFS-12, SFS-1-2-P8 +4 lbs.
 (g) Steerable - Lang (formerly Decker) D-501 6 lbs.
 (h) Scott Model 3-24B, steerable, full swiveling 6 lbs.
304. Two main wheel-brake assemblies, 6.00-6, Type III
 Firestone Model 6C9HB +4 lbs. (+2)
 305. Wheel streamlines (Dwg. A-9015 or A-9016) 6 lbs. (+2)
- *316. Skis (Eligible on any airplane of these models provided the propeller installation meets the minimum 9 in. ground clearance. The maximum weight for the skiplane will be the same as for the corresponding landplane or that shown in parenthesis after each ski model, whichever is less) Use actual wt. change
- (a) Marston 1200 (Maximum 1200 lbs.)
 (b) Air Transport 1220-480 (Maximum 1220 lbs.)
 (c) Air Transport 1224-580-1 (Maximum 1220 lbs.)
 (d) Federal SC-1 (Maximum 1400 lbs.)
 (e) Piper S-1000 (Maximum 1200 lbs.)
 (f) Jennings TY-2 (Maximum 1200 lbs.)
 (g) Federal SA-1 (Maximum 1200 lbs.)
 (h) Aviation Service B (Maximum 1650 lbs.)
 (i) Richards 1-B (Maximum 2220 lbs.)
 (j) Washington Aircraft 1200 (Maximum 1200 lbs.)
 (k) Heath 655 (Maximum 1210 lbs.)
 (l) Federal SC-2 (Maximum 1650 lbs.)
 (m) Aviation Service A (Maximum 1100 lbs.)
 (n) Federal SA-1A (Maximum 1300 lbs.)
 (o) Jacobsen (formerly Escanaba) EAS-100 (Maximum 1200 lbs.)
 (p) Richards 1-A (Maximum 1600 lbs.)
 (q) Marston MFS-1600 (Maximum 1600 lbs.)
 (r) Heath 725 (Maximum 1450 lbs.)
 (s) Aero. Sales & Service AS-6.00 (Maximum 1320 lbs.)
 (t) Jack Carr Service 16 (Maximum 1600 lbs.)
 (u) Fairbanks MF-5 (Maximum 1310 lbs.)
 (v) Heath 725A (Maximum 1450 lbs.)
 (w) Federal SK4-1 (Maximum 1400 lbs.)
 (x) Call S2 (Maximum 1800 lbs.)
 (y) Federal A-1500 (Maximum 1500 lbs.), Federal Instal. Dwg. 11R232
 (z) Federal A-1500A (Maximum 1500 lbs.), Federal Instal. Dwg. 11R232
 (aa) Federal A-1850 (Maximum 1850 lbs.), Federal Instal. Dwg. 11R232
 (ab) Federal A-2000 (Maximum 2000 lbs.), Federal Instal. Dwg. 11R232
 (ac) Federal A-2000A (Maximum 2000 lbs.), Federal Instal. Dwg. 11R232
 (ad) Federal GA-1850-6 (Max. 1850 lbs.), Federal Instal. Dwg. 11R232
 (ae) Wesco A-15, Western Aircraft Equipment Co. Dwg. 148, 202, 203.
 (af) Wesco A-20, Western Aircraft Equipment Co. Dwg. 148, 202, 203.

- 317. Two main wheel tires, 6.00-6, Type III with regular tubes
 - (a) 2-ply rating 12 lbs. (+2)
 - (b) 4-ply rating 25 lbs. (+2)
- +320. Heath L4601 float installation, 172 lbs. including auxiliary fan, 4 lbs. (+176) (DCS12-D and DCS-12TH only) +122 lbs. (+25)
- +321. Wheel fenders, Consolidair Model 16 (Consolidair installation Dwg. No. C129). 10 lbs. (+2)

Electrical Equipment

- 310. Battery and Box
 - (a) 6 volt 9 lbs. (+10)
 - (b) 12 volt 15 lbs. (+10)
 - (c) 12 volt. (DC12D-4-85 and DCS12D-4-85) 15 lbs. (+70)
- 319. Position lights
 - (a) Grines B (6 volt) 2 lbs. (+77)
 - (b) Grines D (6 volt) (DC12-D, DC12D-85 and DCS12-D only)
 - (c) Grines D (12 volt) (DC12D, DC12D-85, DCS12D-85, DC12D-4-85 and DCS12D-4-85)
- 312. Generator (Dalco-Remy 1101576) (DC12D-4-85 and DCS12D-4-85 only) 10 lbs. (-24)
- 323. Voltage regulator (Dalco-Remy 1118923) (DC12D-4-85 and DCS12D-4-85) 1 lb. (-18)

Interior Equipment

- 105. Wheel type control
- 306. Cabin heater (Taylorcraft EC-1606 or EC-1630) 2 lbs. (-22)
- 314. Stick type control Highest weight change

Miscellaneous. (not listed above)

- 106. Auxiliary door +5 lbs. (+25)

NOTE 1. Weight and balance report including list of equipment included in certificated weight empty, and loading instructions when necessary, must be in each aircraft at the time of original certification and at all times thereafter.

NOTE 2. Left hand wing tank eligible as 6 gal. auxiliary on all models except DCS-65 and DC12D-85.

....END....

A-65-1,-3,-6,-6A,-7
A-65-8(0-170-3, 0-170-7),-8B,-8F,-8PJ
A-65-9(0-170-5),-9A,-9B,-9C
A-65-12,-12A,-12B,-12F
A-65-14,-14A,-14F,-14PJ

March 29, 1957

AIRCRAFT ENGINE SPECIFICATION

Engines of models described herein conforming with this specification and approved data on file with the Civil Aeronautics Administration are rated as airworthy for use in certificated aircraft in accordance with pertinent aircraft specifications and applicable portions of the Civil Air Regulations provided they are installed, operated and maintained as prescribed by the manufacturer.

| Manufacturer | Continental Motors Corporation Muskegon, Michigan | | | | | | |
|--|--|---------------------------------------|---|---|---|--|--|
| Model A-65 | -1 | -3, -6 | -7 | -8, -9 | -12 | -14 | |
| Type | 4ROA | -- | -- | -- | -- | -- | |
| Rating: | | | | | | | |
| Max. continuous, hp, rpm, at sea level pressure altitude | 65-2350-S.L. | 65-2300-S.L. | -- | -- | -- | -- | |
| Takeoff, (5 min.) hp, rpm at full throttle | 65-2350 | 65-2300 | -- | -- | -- | 75-2675 | |
| Fuel (Minimum grade aviation gasoline) | 73 | -- | -- | -- | -- | 80 | |
| Lubricating Oil: | | | | | | | |
| Ambient Air temperature, °F | Oil Grade | | | | | | |
| Below 32 | SAE 20 | -- | -- | -- | -- | -- | |
| 32 - 70 | SAE 30 | -- | -- | -- | -- | -- | |
| 70 - 100 | SAE 40 | -- | -- | -- | -- | -- | |
| Over 100 | SAE 50 | -- | -- | -- | -- | -- | |
| Bore and stroke, in. | 3.875 x 3.625 | -- | -- | -- | -- | -- | |
| Displacement, cu. in. | 171 | -- | -- | -- | -- | -- | |
| Compression ratio | 6.3:1 | -- | -- | -- | -- | -- | |
| Weight (dry), lbs. (See NOTE 3) | 163 | 173, 176 | 163 | 170, 173 | 171 | 170 | |
| C.O. location | | | | | | | |
| Fwd. of mounting face, in. | 6.8 | 6.2 | 6.8 | 6.2 | -- | -- | |
| Below prop. shaft, in. | 1.2 | 1.5 | 1.2 | 1.5 | -- | -- | |
| Propeller shaft (See NOTE 2 for flanged type), SAE No. | 0(Taper) | -- | -- | -- | -- | -- | |
| Carburetor (See NOTE 2 for injectors) | Stromberg MA-31A1 or MA-33B carburetor with 1-1/4 in. venturi or Marvel MA-3-PA carburetor with 1-7/32 in. venturi | -- | -- | -- | -- | -- | |
| Ignition Magnets | Single Scintilla SF-4L or Eissmann AM-4 | Dual Scintilla SF-4R or Eissmann AM-4 | Single Scintilla SF-4L or Eissmann AM-4 | Dual Scintilla SURE-20, -21, SF-4R, SLM-20 or SLM-21; Eissmann LA-4 or AM-4; Case b-CAMA or b-CAME; (with impulse coupling on Eissmann and Case magnets retard 25°) | Scintilla SURE-20, -21, SF-4R, SLM-20 or SLM-21; Eissmann LA-4 or AM-4 (with impulse coupling retard 25°) | Scintilla SURE-20, -21, SF-4R, SLM-20 or SLM-21; Eissmann LA-4 or AM-4; Case b-CAMA or b-CAME; (with impulse coupling on Eissmann and Case magnets retard 25°) | |
| Timing, °BTC | 30 | -- | -- | -- | -- | -- | |
| Spark Plugs | EG 4B2, 4B2S, 417, 417S, 705, 706R, 706SR, 706S, EB485-S; Champion 1E-318, M-31A, M-26, C-26, C-26S, C-27, C-27S, 62S; Auto-Lite 18A-1, B4, B4S, SH-2A, SH-2H; Decker D26; Safir B-57; AC 488, 388, SE38 | -- | -- | -- | -- | -- | |
| Oil sump, capacity (qts.) | Net - 4 1/2 | -- | -- | -- | -- | -- | |
| Exhaust port | Up | -- | Down | -- | -- | -- | |
| NOTES | 1,3,5,6 | 1,2,3,5,6 | 1,3,5,6 | 1,2,3,4,5,7,8 | 1,2,3,5,8 | 1,2,3,5,7 | |

"--" indicates "same as preceding model."
"--" indicates "not applicable"

This is a copy of the specifications for the Continental A-65-8, the engine used on the BCL2D. Consult latest copy.

AIRCRAFT ENGINE SPECIFICATION - Continental A-65 Series

Certification basis Type Certificate No. 205
Production basis Production Certificate No. 7

NOTE 1. Various permissible cylinder head, barrel and oil inlet temperatures, 550°f, 350°f and 280°f, respectively.

NOTE 2. The following additional models of A-65 series engines are also eligible:

| Engine Model | Characteristic Component | Dry Weight Increase, lbs. |
|--------------------------|--|---------------------------|
| A-65-81, -82, -93 | High Model Fuel Injector or Excessive Model A12 | 4 |
| A-65-121, -113 | Excessive Model A-12 Fuel Injector | 4 |
| A-65-87, -97, -127, 117 | Flanged propeller shaft | 1 |
| A-65-87, -97, -127, -117 | Flanged propeller shaft and fuel injector as above | 4 or 5 |

NOTE 3. Engine serial numbers lower than 340793 incorporate a crankcase for use with conical rubber shock mountings. With SPUR magnetos add 5 lbs. to dry weight. With Case magnetos add 4 lbs. For the -1 engine add 3 lbs. for the SPUR magnetos.

NOTE 4. Military models O-170-3 and O-170-5 are identical to models A-65-8 and A-65-9 respectively. Model O-170-7 case as -3 except for improved valves and valve guides, pistons and piston rings; also provisions for Amelley 75 and Beach R-002 propellers. When these military engines are installed in certified aircraft, the appropriate civil model designation and T. C. 205 should be included on the engine measurements.

NOTE 5. The following typical accessories are eligible as noted at the indicated additional weight:

| Accessory | Weight, lbs. |
|---|--------------|
| Starter | 16 |
| Relapse Type 635 (Electric-models A-65-6 and -9, F and J only) | 16 |
| Relapse Type 9-80 (Electric-models A-65-6 and -9, F and J only) | 14 |
| Bussor Type I (Mechanical-models A-65-6 and -9, F and J only) | 16 |
| Delco-Remy CMC No. 50309 (Electric-model A-65-12, F and J only) | 16 |
| Generator | 10 |
| Delco-Remy CMC No. 10135 (Model A-65-12, F and J only) | 4 |
| Fuel Pump (provisions optional) | 2 |
| AG type CP 8527 | 4 |
| AG type 1523843 or 3843 (CMC No. 14552) | 2 |

- Miscellaneous
- Oil Filter, Para F2-500 (CMC No. 10341)
- Air Filter and Scoop Nos. A-5812 or A-40522
- Radio Salséine
- Harrison Oil Radiator Model H1131-9 (CMC No. 10601 - Models 12, J and F only)

NOTE 6. Approvals for models A-65-1, -3, -6, -66, -7 and -7J expired November 17, 1941. No engines of these models manufactured after that date or with serial nos. above the following are eligible for use in certificated aircraft:

| Model | Serial No. |
|---------|------------|
| A-65-1 | 37971 |
| A-65-3 | 387593 |
| A-65-6 | 33098 |
| A-65-6A | 37296 |
| A-65-7 | 575097 |

NOTE 7. Model A-65-14 differs from A-65-8 only in that it incorporates special pistons, rocker arms and exhaust valves, seats and guides.

NOTE 8. Model A-65-12 differs from A-65-8 only in that O-75-12 type crankcase and accessories section are incorporated.