DEPARTMENT OF TRANSPORTATION FEDERAL AVIATION ADMINISTRATION

A-777
Revision 62
Textron Aviation
35
A35 E35
B35 F35
C35 G35
D35 35R
November 27, 2017

TYPE CERTIFICATION DATA SHEET NO. A-777

This data sheet which is a part of Type Certificate No. A-777 prescribes conditions and limitations under which the product for which the type certificate was issued meets the airworthiness requirements of the Federal Aviation Regulations.

Type Certificate Holder Textron Aviation Inc.

One Cessna Boulevard Wichita, Kansas 67215

Type Certificate Holder Record Beech Aircraft Corporation transferred to

Raytheon Aircraft Company on April 15, 1996

Raytheon Aircraft Company transferred to

Hawker Beechcraft Corporation on March 26, 2007

Hawker Beechcraft Corporation transferred to Beechcraft Corporation on April 12, 2013

Beechcraft Corporation transferred to Textron Aviation Inc. on October 12, 2016

I. Model 35, Bonanza, 4 PCLM (Normal Category), 2 PCLM (Utility Category), Approved March 25, 1947

Engine Continental E-185-1 (See Item 111 for optional engine.)

Fuel 80 min. grade aviation gasoline

Engine Limits Takeoff (one minute) 2300 rpm (185 hp) For all other operations 2050 rpm (165 hp)

Airspeed Limits Maneuvering 130 mph (113 knots) True Ind.

Maximum structural cruising160 mph(139 knots)True Ind.Never exceed202 mph(176 knots)True Ind.Flaps extended100 mph(87 knots)True Ind.Landing gear extended100 mph(87 knots)True Ind.

Page No.	1	2	3	4	5	6	7	8	9	10	11	12
Rev. No.	62	55	55	55	56	55	56	55	56	56	56	54
Page No.	13	14	15	16	17	18	19	20	21	22	23	24
Rev. No.	54	54	54	54	54	56	56	54	56	54	55	61

A-777 2 Rev. 62

I. Model 35 (cont'd)

C.G. Range (landing gear extended)

Normal Category: (+82.4) to (+84.8) at 2550 lb.

(+80.2) to (+85.4) at 2405 lb.

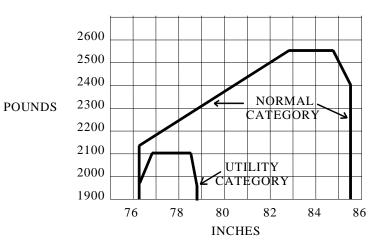
(+76.2) to (+85.4) at 2140 lb. or less

Utility Category: (+76.8) to (+78.6) at 2100 lb.

(+76.3) to (+78.8) at 1971 lb.

(+76.3) to (+78.9) at 1938 lb. or less

Straight line variation between points given.



Empty Weight C.G. Range

Maximum Weight Normal Category: 2550 lbs.

None

Utility Category: 2100 lbs.

No. of Seats 4 (2 at +86, 2 at +116)

Maximum Baggage Normal Category: 120 lb. at +139. When Item 107 installed, baggage

arm is +145 and total weight of fuel and baggage must

not exceed 120 lb.

Utility Category: None

Fuel Capacity <u>Tank</u> <u>Capacity Gal.</u> <u>Usable Gal.</u> <u>Arm</u>

L & R main 20 ea. 17 ea. (+75)

Optional Fuel System (Item 107)

Fuselage Aux. Systems 20 19.5 (+132)

or (+133)

See NOTE 1 for data on unusable fuel.

Oil Capacity 10 qt. (+45). See Items 106 and 108 for optional oil tanks and NOTE 1 for

data on unusable oil.

Control Surface Movements Wing flaps Down 20°

Aileron tab Fixed Aileron Up 20° Down 20° Elevator tab Down 30° Up 10° "V" tail elevator action Up 20° Down 30° "V" tail rudder action 21° 21° Up Down "V" tail maxim combination Up 35° Down 35°

rudder elevator action

Model 35 (cont'd)

Serial Nos Eligible D1 through 1500

Required Equipment Items 1, 101, 102, 103, 201, 202, 301, 302, 404(a) and (n) or 404(x), 601(a).

> Airplanes are eligible for certification with either fabric covered or magnesium flaps and ailerons provided they are installed in pairs, i.e., 2 fabric covered

ailerons or 2 magnesium ailerons, etc.

II. Model A35, Bonanza, 4 PCLM (Utility Category), Approved July 15, 1948

Continental E-185-1 (see Item 111 for optional engine) Engine

Fuel 80 min. grade aviation gasoline

2300 rpm (185 hp) **Engine Limits** Takeoff (one minute)

For all other operations 2050 rpm (165 hp)

130 mph (113 knots) True Ind. Airspeed Limits Maneuvering

> Maximum structural cruising 160 mph (139 knots) True Ind. Never exceed 202 mph (176 knots) True Ind. Flaps extended 105 mph (91 knots) True Ind. 125 mph (109 knots) True Ind. Landing gear extended

C.G. Range (landing gear

(+83.7) to (+84.4) at 2650 lb. extended)

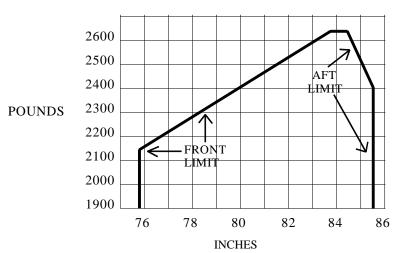
(+80.0) to (+85.4) at 2405 lb.

(+75.9) to (+85.4) at 2140 lb. or less

Straight line variation between points given.

The aft C.G. limit for all weights must be limited to (+84.4) unless the elevator cambered tabs, P/N 35-660040-52 and -53 are installed.

(Refer to AD-50-42-1.



Empty Weight C.G. Range None

2650 lbs. Maximum Weight

No. of Seats 4 (2 at +86, 2 at +116)

II. Model A35 (cont'd)

Maximum Baggage 270 lb. (+139). For Model A35 refer to Loading Chart (included in the

Airplane Flight Manual) for loading instructions. With rear seat removed

for cargo, maximum baggage is as follows:

Aft of spar cover 270 lb. (+135) On and forward of spar cover 200 lb. (+108)

Item 107, if installed, must also be removed.

Fuel Capacity <u>Tank</u> <u>Capacity Gal.</u> <u>Usable Gal</u>. <u>Arm</u>

L & R Main 20 ea. 17 ea. (+75)

Optional Fuel System (Item 107

Fuselage Aux. Sys. 20 19.5 (+132)

or (+133)

See NOTE 1 for data on unusable fuel.

Oil Capacity 10 qt. (+45). See Items 106 and 108 for optional oil tanks and

NOTE 1 for data on unusable oil.

Control Surface Movements Wing flaps Down 20°

Aileron tab Fixed Aileron Up 20° Down 20° Elevator tab Up 10° Down 30° "V" tail elevator action 20° 20° Up Down "V" tail rudder action Up 21° 21° Down "V" tail maximum combination Up 35° Down 35°

rudder elevator action

Serial Nos. Eligible D-1501 through D-2200 and D-15001

Required Equipment Items 1, 101, 102, 103, 201, 202, 301, 302, 404(b) and (n) or 404(v), 601(a)

III. Model B35, Bonanza, 4 PCLM (Utility Category), Approved December 28, 1949

Engine Continental E-185-8 with S/N 5122D and On (see Engine Spec. E-246)

(See also Item 111 for optional engine.)

Fuel 80 min. grade aviation gasoline

Engine Limits Takeoff (one minute) 2450 rpm. (196 hp)

For all other operations 2050 rpm. (165 hp)

Airspeed Limits Maneuvering 130 mph. (113 knots) True Ind.

Maximum structural cruising
Never exceed
Plaps extended
160 mph. (139 knots) True Ind.
202 mph. (176 knots) True Ind.
105 mph. (91 knots) True Ind.
125 mph. (109 knots) True Ind.

C.G. Range (landing (+83.7) to (+84.4) at 2650 lb. gear extended) (+80.0) to (+85.4) at 2405 lb.

 $\left(+75.9\right)$ to $\left(+85.4\right)\;$ at $\;2140\;lb.$ or less

For diagram see Section II.

Empty Weight C.G. Range None

Maximum Weight 2650 lb.

No. of Seats 4 (2 at +86, 2 at +116)

III. Model B35 (cont'd)

Maximum Baggage 270 lb. (+139). For Model B35 refer to Loading Chart (included in the

Airplane Flight Manual) for loading instructions. With rear seat removed

for cargo, maximum baggage is as follows:

Aft of spar cover 270 lb. (+135) On and forward of spar cover 200 lb. (+108)

Item 107, if installed, must also be removed.

Fuel Capacity <u>Tank</u> <u>Capacity Gal</u>. <u>Usable Gal</u>. <u>Arm</u>

L & R Main 20 ea. 17 ea. (+ 75)

Optional Fuel System (Item 107)

Fuselage Aux. Sys. 20 19.5 (+132)

or (+133)

See NOTE 1 for data on unusable fuel.

Oil Capacity 10 qt. (+36)

See NOTE 1 for data on unusable oil.

Control Surface Movements Wing flaps Down 30°

Aileron tab Fixed Aileron 20° Down 20° Up Elevator tab Up 10° Down 31° "V" tail elevator action Up 20° Down 20° "V" tail rudder action 21° Up Down 21° "V" tail maximum combination Up 35° Down 35°

rudder elevator action

Serial Nos. Eligible D-2201 through D-2680

Required Equipment Items 1, 101, 103, 113, 201, 202, 301, 302, 404(c) and (n) or 404(v).

IV. Model C35, Bonanza, 4 PCLM (Utility Category), Approved January 16, 1951

Engine Continental E-185-11 with S/N 5122D and On (see Engine Spec. E-246)

See also Item 111 for optional engine.

Fuel 80 min. grade aviation gasoline

Engine Limits Takeoff (one minute) 2600 rpm (205 hp)

For all other operations 2300 rpm (185 hp)

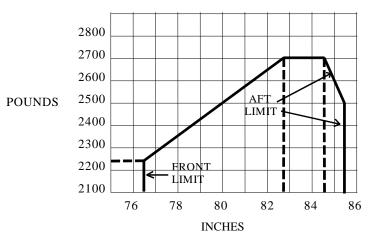
Airspeed Limits Maneuvering 130 mph (113 knots) True Ind.

Maximum structural cruising
Never exceed
160 mph (139 knots) True Ind.
202 mph (176 knots) True Ind.
105 mph (91 knots) True Ind.
Landing gear extended
125 mph (109 knots) True Ind.

IV. Model C35 (cont'd)

C.G. Range (landing gear extended)

(+82.9) to (+84.4) at 2700 lb. (+80.1) to (+85.4) at 2500 lb. (+76.5) to (+85.4) at 2240 lb. or less



Empty Weight C.G. Range Maximum Weight

None 2700 lb.

No. of Seats

4 (2 at +86, 2 at +116)

Maximum Baggage

270 lb. (+139). For Model C35 refer to Loading Chart (included in the Airplane Flight Manual) for loading instructions. With rear seat removed for cargo, maximum

baggage is as follows:

Aft of spar cover 270 lb. (+135) On and forward of spar cover 200 lb. (+108)

Item 107, if installed, must also be removed.

Fuel Capacity

See NOTE 1 for data on unusable fuel.

Oil Capacity

10 qt. (+36)

See NOTE 1 for data on unusable oil.

Control Surface Movements

Wing flaps			Down	30°
Aileron tab			Fixed	
Aileron	Up	20°	Down	20°
Elevator tab	Up	8°	Down	31°
"V" tail elevator action	Up	22.5°	Down	17.5°
"V" tail rudder action	Up	21°	Down	21°
"V" tail maximum combination	Up	35°	Down	30°

rudder elevator action

Serial Nos. Eligible

D-2681 through D-3400 (except D-3293)

Required Equipment

Items 1, 101, 103, 113, 201, 202, 301, 302, 404(u), 601(b), 608.

V. Model 35R, Bonanza, 4 PCLM (Utility Category), Approved June 6, 1951

Engine Continental E-185-8 with S/N 5122D and On (see Engine Spec. E-246).

(See also Item 111 for optional engine.)

Fuel 80 min. grade aviation gasoline

Engine Limits Takeoff (one minute) 2450 rpm (196 hp)

For all other operations 2050 rpm (165 hp)

Airspeed Limits Maneuvering 130 mph (113 knots) True Ind.

Maximum structural cruising
Never exceed
160 mph (139 knots) True Ind.
202 mph (176 knots) True Ind.
105 mph (91 knots) True Ind.
125 mph (109 knots) True Ind.
125 mph (109 knots) True Ind.

C.G. Range (landing (+83.7) to (+84.4) at 2650 lb. gear extended) (+80.0) to (+85.4) at 2405 lb.

(+75.9) to (+85.4) at 2140 lb. or less

For diagram see Section II.

Empty Weight C.G. Range None

Maximum Weight 2650 lb.

No. of Seats 4(2 at +86, 2 at +116)

Maximum Baggage 270 lb. (+139). Load in accordance with loading chart in Airplane Flight Manual.

Fuel Capacity Tank Capacity Gal. Usable Gal. Arm
L & R main 20 ea. 17 ea. (+75)

Optional Fuel System (Item 107)

Fuselage Aux. System 20 19.5 (+132)

or (+133)

See NOTE 1 for data on unusable fuel.

Oil Capacity 10 qt. (+36)

See NOTE 1 for data on unusable oil.

Control Surface Movements Wing flaps Down 30°

Aileron tab Fixed 20° Aileron Up 20° Down 31° Elevator tab Up 10° Down "V" tail elevator action 20° Down 20° Up "V" tail rudder action Down 21° Up 21° "V" tail maximum combination 35° Down 35° Up

rudder elevator action

Serial Nos Eligible D-25R1 and on (note that the "D-25" is the retained original Model 35

S/N and the number following the "R" designation is the numerical order of modification. All Model 35 (Section I) S/N's are eligible for modification by Beech Aircraft Corporation in accordance with Beech Dwg. 35-000009.

Required Equipment Items 1, 101, 103, 113, 201, 202, 301, 404(e) and (n) or 404(v) and (w), 601(b).

VI. Model D35, Bonanza, 4 PCLM (Utility Category), Approved January 5, 1953

Engine Continental E-185-11 with S/N 5122D and above (see Engine Spec. E-246)

(See also Item 111 for optional engine.)

Fuel 80 min. grade aviation gasoline

A-777 8 Rev. 62

VI. Model D35 (cont'd)

Engine Limits Takeoff (one minute) 2600 rpm (205 hp)

For all other operations 2300 rpm (185 hp)

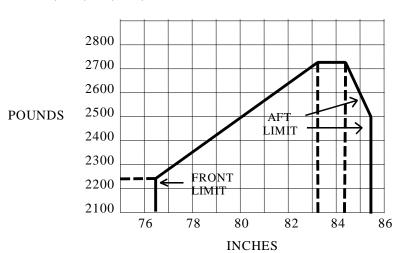
Airspeed Limits Maneuvering 130 mph (113 knots) True Ind.

Maximum structural cruising 160 mph (139 knots) True Ind. Never exceed 202 mph (176 knots) True Ind. 105 mph (91 knots) True Ind. Flaps extended 125 mph (109 knots) True Ind. Landing gear extended

C.G. Range (landing (+83.2) to (+84.3) at 2725 lb. gear extended)

(+80.1) to (+85.4) at 2500 lb.

(+76.5) to (+85.4) at 2240 lbs. or less



Empty Weight C.G. Range None

Maximum Weight 2725 lbs.

No. of Seats 4 (2 at +86, 2 at +116)

Maximum Baggage 270 lb. (+139). For Model D35 refer to the Loading Chart (included in Airplane

Flight Manual) for loading instructions. With rear seat removed for cargo, maximum

baggage is as follows:

Aft of spar cover 270 lb. (+135) On and forward of spar cover 200 lb. (+108)

Item 107, if installed, must also be removed.

Fuel Capacity Tank Capacity Gal. Usable Gal. Arm

L & R main 20 ea. 17 ea. (+75)

Optional Fuel System (Item 107)

Fuselage Aux. System 20 19.5 (+132)

(+133)or

See NOTE 1 for data on unusable fuel.

Oil Capacity 10 qt. (+36)

See NOTE 1 for data on unusable oil.

VI. Model D35 (cont'd)

Control Surface Movements	Wing flaps Aileron tab			Down Fixed	30°
	Aileron	Up	20°	Down	20°
	Elevator tab	Up	8°	Down	31°
	"V" tail elevator action	Up	22.5°	Down	17.5°
	"V" tail rudder action	Up	21°	Down	21°
	"V" tail maximum combination	Up	35°	Down	30°

rudder elevator action

Serial Nos Eligible D3401 through D3698

Required Equipment Items 1, 101, 103, 113, 201, 202, 301, 302, 404(t), 601(b), 608.

VII. Model E35, Bonanza, 4 PCLM (Utility Category), Approved January 15, 1954

Engine Continental E-185-11 with S/N 5122D and On (see Engine Spec. E-246)

(See also Item 111 for optional engine.)

Fuel 80 min. grade aviation gasoline

Engine Limits Takeoff (one minute) 2600 rpm (205 hp)

For all other operations 2300 rpm (185 hp)

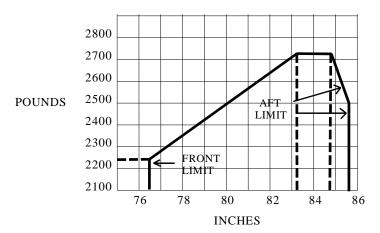
For all other operations 2300 rpm (185 hp)

Airspeed Limits Maneuvering 130 mph (113 knots) True Ind.

Maximum structural cruising
Never exceed
Plaps extended
175 mph (152 knots) True Ind.
202 mph (176 knots) True Ind.
105 mph (91 knots) True Ind.
125 mph (109 knots) True Ind.

C.G. Range (landing (+83.2) to (+84.9) at 2725 lb. gear extended) (+80.1) to (+85.7) at 2500 lb.

(+76.5) to (+85.7) at 2240 lb. or less



Empty Weight C.G. Range

None

VII. Model E35 (cont'd)

Maximum Weight 2725 lb.

Number of Seats 4 (2 at +86, 2 at +118)

Maximum Baggage 270 lb. (+140). For Model E35 refer to the Loading Chart (included in the

Airplane Flight Manual) for loading instructions. With rear seat removed for

cargo, maximum baggage is as follows:

Aft of spar cover 270 lb. (+135) On and forward of spar cover 200 lb. (+108)

Item 107, if installed, must also be removed.

Fuel Capacity Tank Capacity Gal. Usable Gal. Arm
L & R main 20 ea. 17 ea. (+75)

Optional Fuel System (Item 107)

Fuselage Aux. System 20 19.5 (+132)

or (+133)

See NOTE 1 for data on unusable fuel.

Oil Capacity 10 qt. (+36)

See NOTE 1 for data on unusable oil.

Control Surface Movements Wing flaps Down 30°

Aileron tab Fixed Aileron Up 20° Down 20° Elevator tab 31° Up 8° Down "V" tail elevator action Up 22.5° Down 17.5° "V" tail rudder action Down 21° 21° Up "V" tail maximum combination Up 35° Down 30°

rudder elevator action

Serial Nos Eligible D-3293 and D-3699 through D-3998

Required Equipment Items 1, 101, 103, 113, 201, 202, 301, 302, 404(r), 601(b), 608.

VIII. Model F35, Bonanza, 4 PCLM (Utility Category), Approved January 5, 1955

Engine Continental E-185-11 with S/N 5122D and On (see Engine Spec. E-246)

(See also Item 111 for optional engine.)

Fuel 80 min. grade aviation gasoline

Engine Limits Takeoff (one minute) 2600 rpm (205 hp)

For all other operations 2300 rpm (185 hp)

Airspeed Limits Maneuvering 130 mph (113 knots) True Ind.

Maximum structural cruising 175 mph (152 knots) True Ind. Never exceed 202 mph (176 knots) True Ind.

Flaps extended (normal) 105 mph (91 knots) True Ind.

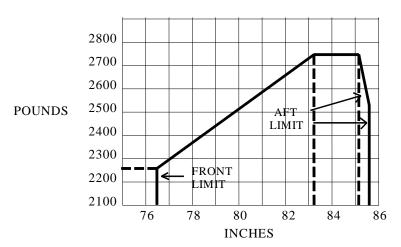
Landing gear extended (normal) 125 mph (109 knots) True Ind.

Rev. 62 11 A-777

VIII. Model F35 (cont'd)

C.G. Range (landing gear extended)

(+83.2) to (+85.1) at 2750 lbs. (+80.1) to (+85.7) at 2525 lbs. (+76.5) to (+85.7) at 2265 lbs. or less



Empty Weight C.G. Range

None

Maximum Weight

2750 lb.

No. of Seats

4 (2 at +86, 2 at +118)

Maximum Baggage

270 lb. (+140). For weight and balance information refer to FAA Approved Flight Manual. With rear seat removed for cargo, maximum baggage is as follows:

Aft of spar cover 270 lb. (+135) On and forward of spar cover 200 lb. (+108)

Item 107, if installed, must also be removed.

Fuel Capacity

Tank Capacity Gal. Usable Gal. <u>Arm</u> L & R main 20 ea. 17 ea. (+75)Optional Fuel System (Item 107 and 122) Fuselage Aux. System 20 19.5 (+132)(+133)19 Win Aux. System. 20 (+94)

See NOTE 1 for data on unusable fuel.

Oil Capacity

10 qt. (+36)

See NOTE 1 for data on unusable oil.

Control Surface Movements

Wing flaps			Down	30°
Aileron tab			Fixed	
Aileron	Up	20°	Down	20°
Elevator tab	Up	8°	Down	31°
"V" tail elevator action	Up	22.5°	Down	17.5°
"V" tail rudder action	Up	21°	Down	21°
"V" tail maximum combination	Up	35°	Down	30°

rudder elevator action

Serial Nos Eligible

D-3999 through D-4391 (except D-4376)

Required Equipment

Items 1, 101, 103, 113, 201, 202, 301, 302, 404(s), 601(b), 608.

IX. Model G35, Bonanza, 4 PCLM (Utility Category), Approved December 1, 1955

Engine Continental E-225-8 with S/N 30087 and On (see Engine Spec. E-246)

Fuel 80 min. grade aviation gasoline

Engine Limits Takeoff (one minute) 2650 rpm (225 hp)

For all other operations 2300 rpm (185 hp)

Airspeed Limits Maneuvering 130 mph (113 knots) True Ind.

Maximum structural cruising 175 mph (152 knots) True Ind. Never exceed 202 mph (176 knots) True Ind.

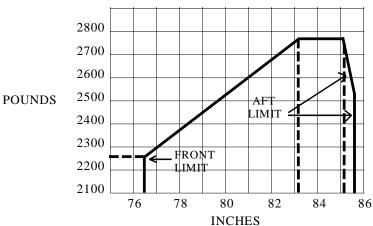
Flaps extended (normal) 120 mph (104 knots) True Ind.

Landing gear extended (normal) 140 mph (122 knots) True Ind.

C.G. Range (landing gear

extended)

(+83.2) to (+85.1) at 2775 lb. (+79.9) to (+85.7) at 2525 lb. (+76.5) to (+85.7) at 2265 lb. or less



Empty Weight C.G. Range None

Maximum Weight 2775 lb.

No. of Seats 4 (2 at +86, 2 at +118)

Maximum Baggage 270 lb. (+140). For weight and balance information refer to FAA Approved

Flight Manual. With rear seat removed for cargo, maximum baggage is as

follows:

Aft of spar cover 270 lb. (+125) On and forward of spar cover 200 lb. (+108)

Item 107, if installed, must also be removed.

Fuel Capacity <u>Tank</u> <u>Capacity Gal.</u> <u>Usable Gal. <u>Arm</u></u>

L & R Main 20 ea. 17 ea. (+ 75)

Optional Fuel System (Item 107 and 122)

Fuselage Aux. System 20 19.5 (+132)

(+133)

Wing. Aux. System 20 19 (+ 94)

See NOTE 1 for data on unusable fuel.

Oil Capacity 10 qt. (+36)

See NOTE 1 for data on unusable oil.

IX. Model G35 (cont'd)

Control Surface Movements	Wing flaps			Down	30°
	Aileron tab			Fixed	
	Aileron	Up	20°	Down	20°
	Elevator tab	Up	8°	Down	31°
	"V" tail elevator action	Up	22.5°	Down	17.5°
	"V" tail rudder action	Up	21°	Down	21°
	"V" tail maximum combination	Up	35°	Down	30°

rudder elevator action

Serial Nos Eligible D-15002, D-4376 and D-4392 through D-4865

Required Equipment Items 1, 101, 103, 113, 201, 202, 301, 302, 404(q), 601(b), 608.

Specifications Pertinent to All Models

Datum 83.1 inches forward of the jack pads on the front spars.

Leveling Means (Models 35, A35, B35, C35, 35R) Leveling plates inside baggage door.

(Models D35, E35, F35, G35) Two external screws in bulkhead aft of

baggage compartment on left side. (Use plumb bob).

Certification Basis Part 03 of the Civil Air Regulations effective November 13, 1945. Type Certificate No. 777

issued March 25, 1947. Application for Type Certificate dated June 20, 1945. Repair and alteration data may be approved under delegation option procedures of Federal Aviation

Regulations 21.

Production Basis (all models) Production Certificate No. 8. Original airworthiness certificates for airplanes with S/N's

D-3551 through D-4865 and D-15002 were issued under delegation option provisions of

FAR 21.

Required Equipment A plus (+) or minus (-) sign preceding the weight of an item of equipment 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 (*). 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 an FAA monitored or approved quality control system. Conformity must be determined if the item is not identified by a Form FAA-186, PMA or other evidence of FAA production approval. An item preceded by two asterisks (**) indicates approval under delegation option provisions of

Part 21 of the Federal Aviation Regulations.

Propeller and Propeller Accessories (excepting Deicing Equipment)

1. Beech controllable propeller

(a) Hub R203-100, blades R201-217-88 (eligible on Models 35, A35)

67 lb. (+ 2)

For interchangeable blade models, see Propeller Spec. P-807. (Note 6)

Diameter: not over 88 in., not under 86-1/4 in. Static rpm at maximum permissible throttle setting (no additional tolerance permitted):

Not over 1925, not under 1825

Pitch settings at 33 in. sta.:

Low 13° high - not under 26°

or (d) Hub B200-100, blades B200-88 (eligible on Models 35, A35, B35, 35R)

56 lb. (+ 2)

For interchangeable blade models, see Propeller Spec. P-867 (Note 6)

Diameter: not over 88 in., not under 86-1/4 in.

Static rpm at maximum permissible throttle setting (no additional tolerance permitted):

Not over 1950, not under 1850, or not over 2020, not under 1920

Pitch settings at 33 in. sta.:

Low 13°, high - not under 26°, or low 12°, high not under 26°

Only airplanes with engines having S/N 5122D and above are eligible to use 12° low

pitch and 2020-1920 static rpm range (see Engine Spec. E-246)

Propel or		nd Propeller Accessories (excepting Deicing Equipment) (cont'd) Hub 215-109, blades 215-207-88 (eligible on Models 35, A35, B35, C35, D35,	67 lb.	(+ 2)
	,	E35, F35, 35R). Also see Item 111(d) for E-225-8 engine eligibility). Diameter: (All models eligible except C35) not over 88 in., not under 86-1/4 in.		, ,
		(Model C35) not over 88 in., not under 86 in. with E185 engines having S/N below		
		22183 or not under 84 in. with E185 engines having S/N 22183 and above.		
		Static rpm at max. permissible throttle setting (no additional tolerance permitted): Models 35, A35, B35, 35R) not over 2040, not under 1940 or not over 2165, not		
		under 2065. (Models D35, E35, F35) not over 2230,not under 2130. (Model C35		
		with 88 in. prop.) not over 2230, not under 2130. (Model C35 with 84 in. prop.) not over 2250, not under 2150.		
		Pitch settings at 33 in. sta.: (Models 35, A35, B35, 35R) low 16°, high - not under		
		30° or low 15°, high - not under 30° (Models D35, E35, F35) low 13°, high - not under 30°		
		(Model C35 with 88 in. diam. prop.) low 13°, high - not under 30°		
		(Model C35 with 84 in. diam. prop.) low 13-3/4°, high - not under 30°		
		Only Models 35, A35, B35 and 35R airplanes with engines having S/N 5122D and above are eligible to use 15° low pitch and 2165-2065 rpm range (see Engine Spec. E-246).		
or	(f)	Hub 215-109, blades 215-213-84 (eligible on Models A35, B35, C35, D35, E35, F35 and G35 with E-225-8 engines having S/N 30087 and above) (See Items 111(b) and (d).	67 lb.	(+ 2)
		For interchangeable blade models, see Propeller Spec. P-873 (Note 6)		
		Diameter: not over 84 in., not under 84 in. (Models C35, D35) not over 84 in., not under 82 in. (Models A35, B35, E35, F35, G35)		
		Static rpm at max. permissible throttle setting (no additional tolerance permitted):		
		not over 2380, not under 2280 Pitch settings at 33 in. sta.: low 12-1/2°, high - not under 29-1/2°		
and	(b)	Pitch control motor installation	5 lh	(+23)
				(+ 8)
and	(c)		or	(+ 8)
and		Propeller spinner	or 3 lb.	(+ 8) (+ 0)
and or		Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and	or 3 lb.	(+ 8)
		Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6)	or 3 lb.	(+ 8) (+ 0)
		Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35)	or 3 lb.	(+ 8) (+ 0)
		Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35) not over 84 in., not under 84 in. (Models C35, D35) Static rpm at maximum permissible throttle setting: not over 2250, not under 2150.	or 3 lb.	(+ 8) (+ 0)
		Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35) not over 84 in., not under 84 in. (Models C35, D35) Static rpm at maximum permissible throttle setting: not over 2250, not under 2150. No additional tolerance permitted.	or 3 lb.	(+ 8) (+ 0)
		Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35) not over 84 in., not under 84 in. (Models C35, D35) Static rpm at maximum permissible throttle setting: not over 2250, not under 2150.	or 3 lb.	(+ 8) (+ 0)
or	(g)	Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35) not over 84 in., not under 84 in. (Models C35, D35) Static rpm at maximum permissible throttle setting: not over 2250, not under 2150. No additional tolerance permitted. Pitch settings at 33 in. sta.: Low 13-3/4°, high - not under 30°	or 3 lb. 67 lb.	(+ 8) (+ 0) (+ 2)
	(g)	Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35) not over 84 in., not under 84 in. (Models C35, D35) Static rpm at maximum permissible throttle setting: not over 2250, not under 2150. No additional tolerance permitted. Pitch settings at 33 in. sta.: Low 13-3/4°, high - not under 30° ch constant speed propeller (eligible on Models 35, A35, B35, C35, D35, E5, 35R) Hub B200-105, blades B200-220-88 (includes Beech B200-236 hydraulic motor).	or 3 lb. 67 lb. 58 lb.	(+ 8) (+ 0)
or	(g)	Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35) not over 84 in., not under 84 in. (Models C35, D35) Static rpm at maximum permissible throttle setting: not over 2250, not under 2150. No additional tolerance permitted. Pitch settings at 33 in. sta.: Low 13-3/4°, high - not under 30° ch constant speed propeller (eligible on Models 35, A35, B35, C35, D35, E5, 35R) Hub B200-105, blades B200-220-88 (includes Beech B200-236 hydraulic motor). For interchangeable blade models, see Propeller Spec. P-867 (Note 6).	or 3 lb. 67 lb. 58 lb.	(+ 8) (+ 0) (+ 2)
or	(g)	Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35) not over 84 in., not under 84 in. (Models C35, D35) Static rpm at maximum permissible throttle setting: not over 2250, not under 2150. No additional tolerance permitted. Pitch settings at 33 in. sta.: Low 13-3/4°, high - not under 30° ch constant speed propeller (eligible on Models 35, A35, B35, C35, D35, E5, 35R) Hub B200-105, blades B200-220-88 (includes Beech B200-236 hydraulic motor).	or 3 lb. 67 lb. 58 lb.	(+ 8) (+ 0) (+ 2)
or 2.	Bee (a)	Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35)	or 3 lb. 67 lb. 58 lb. 58 lb.	(+ 8) (+ 0) (+ 2) (+ 2) (+ 2)
or	Bee (a)	Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35) not over 84 in., not under 84 in. (Models C35, D35) Static rpm at maximum permissible throttle setting: not over 2250, not under 2150. No additional tolerance permitted. Pitch settings at 33 in. sta.: Low 13-3/4°, high - not under 30° ch constant speed propeller (eligible on Models 35, A35, B35, C35, D35, E5, 35R) Hub B200-105, blades B200-220-88 (includes Beech B200-236 hydraulic motor). For interchangeable blade models, see Propeller Spec. P-867 (Note 6). Diameter: not over 88 in., not under 86-1/4 in. Pitch settings at 33 in. sta.:	or 3 lb. 67 lb. 58 lb. 58 lb.	(+ 8) (+ 0) (+ 2)
or 2.	Bee (a)	Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35) not over 84 in., not under 84 in. (Models C35, D35) Static rpm at maximum permissible throttle setting: not over 2250, not under 2150. No additional tolerance permitted. Pitch settings at 33 in. sta.: Low 13-3/4°, high - not under 30° ch constant speed propeller (eligible on Models 35, A35, B35, C35, D35, E5, 35R) Hub B200-105, blades B200-220-88 (includes Beech B200-236 hydraulic motor). For interchangeable blade models, see Propeller Spec. P-867 (Note 6). Diameter: not over 88 in., not under 86-1/4 in. Pitch settings at 33 in. sta.: Low 8.5°, high - not under 25° Hub 215-112, blades 215-207-88 (includes Beech B200-236 (hydraulic motor)) Diameter: not over 88 in., not under 86 in. with E-185 engines having S/N below 22183 or not under 84 in. with E-185 engines having S/N 22183 and above.	or 3 lb. 67 lb. 58 lb. 58 lb.	(+ 8) (+ 0) (+ 2) (+ 2) (+ 2)
or 2.	Bee (a)	Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35)	or 3 lb. 67 lb. 58 lb. 58 lb.	(+ 8) (+ 0) (+ 2) (+ 2) (+ 2)
or 2.	Bee (a)	Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35)	or 3 lb. 67 lb. 58 lb. 58 lb.	(+ 8) (+ 0) (+ 2) (+ 2) (+ 2)
or 2.	(g) Beee (a) (e)	Propeller spinner Hub 215-109, blades 215-213-84 (eligible on Models C35, D35, and F35 with E-185-11 engines having S/N 22183 and above). For interchangeable blade models, see Propeller Spec. P-873 (Note 6) Diameter: not over 84 in., not under 82 in. (Model F35)	or 3 lb. 67 lb. 58 lb. 58 lb. 7 lb.	(+ 8) (+ 0) (+ 2) (+ 2) (+ 2)

Propeller and Propeller Accessories (excepting Deicing Equipment) (cont'd)

3. Constant speed propeller

*(a) Hub B200-100, blades B200-220-88 (eligible on Models 35, A35, B35, 35R).

56 lb. (+ 2)

For interchangeable blade models, see Propeller Spec. P-867 (Note 6). Diameter: not over 88 in., not under 86-1/4 in.

Pitch settings at 33 in. sta.:

Low 9.5°, high - not under 26° (Models 35, A35)

Low 8-1/2°, high - not under 25° (Model B35)

or *(e) Hub R203-100, blades R201-217-88 (eligible on Models 35 and A35);

67 lb.(+ 2)

For interchangeable blade models, see Propeller Spec. P-807 (Note 6).

Diameter: not over 88 in., not under 86-1/4 in.

Pitch settings at 33 in. sta.:

Low 9.5° , high - not under 22.5°

or (f) Hub 215-107, blades 215-207-88 (eligible on Models 35, A35, B35, C35, D35,

67 lb. (+ 2)

E35, F35, 35R and G35. (See also Item 111(d) for E-225-8 engine eligibility). Diameter: not over 88 in., not under 86 in. with E-225 engines with S/N 30087 and above.

Pitch settings at 33 in. sta.:

Low 11°, high - not under 30°

or (g) Hub 215-107, blades 215-213-84 (eligible on Models A35, B35, C35, D35, E35,

67 lb. (+ 2)

F35, G35 with E-225-8 engines having S/N 30087 and above - see Items 111(b) and (d), and on Models C35, D35, F35 with E-185-11 engines having S/N 22183 and above).

(u), and on violets Coo, Doo, 100 with E-100-11 engines having 5/10 22100 at

For interchangeable blade models, see Propeller Spec. P-873 (Note 6)

Diameter: not over 84 in., not under 82 in. (Models A35, B35, E35, F35, G35)

Not over or under 84 in. (Models C35, D35)

Pitch settings at 33 in. sta.:

Low 11-1/2°, high not under 30°

and (b) Propeller governor (including Flight Research Engineering Corp. automatic propeller control Model 31A) installation to be accomplished per Flight Research Dwg. 31-175.

7 lb. (+59)

and (c) Propeller spinner

3 lb. (+ 0)

and (d) Pitch control motor installation

5 lb. (+23) or (+ 8)

Approved Airplane Flight Manual, Item 404 dated October 11, 1950, required when Item 3(f) installed. Flight Research Airplane Flight Manual Supplement dated July 20, 1950, must be appended to Approved Airplane Flight Manual, Item 404 or Approved Airplane Flight Manual, Item 404 dated October 11, 1950, required when Items 3(a) or (e) installed.

*4. Hartzell controllable propeller (eligible on Models 35, A35)

69 lb. (+ 2)

(installation per Hartzell Dwg. B-1121)

Hub HC-12x20-7B blades, 8433-0 (includes propeller control valve and installation components).

Diameter: not over 84 in., not under 82-1/2 in.

Static rpm at maximum permissible throttle setting: (no additional tolerance permitted):

not over 2050, not under 2000

Pitch settings at 30 in. sta.: Low 16-1/2°, high 27°

Counterweight length, 4-1/8 in.

Only airplanes with engines having silver main thrust bearings, CMC P/N 40644, eligible for this propeller installation. Hartzell Airplane Flight Manual Supplement dated July 1, 1949, must be appended to Approved Airplane Flight Manual, Item 404, when this propeller is installed.

*5. Hartzell constant speed propeller (eligible on Models 35, A35, B35) (installation per Hartzell Installation Instruction No. 1 dated October 25, 1950, revised August 22, 1951, and Hartzell Dwg. B-161 and B-145)

(a) Hub HC-12x20-7C, blades 8433-0

69 lb. (+ 2)

Diameter: not over 84 in., not under 82-1/2 in.

Pitch settings at 30 in. sta.:

Low 11°, high 25°

Counterweight length 4-1/8 in.

Only airplanes with engines having silver main thrust bearings, CMC P/N 40644 eligible for this propeller installation.

Prope	ller and Propeller Accessories (excepting Deicing Equipment) (cont'd)	
	(b) Governor installation includes Hartzell Model A-1 governor and C-137-1 Tee drive. Hartzell Airplane Flight Manual Supplement dated August 22, 1951, must be appended to Approved Flight Manual, Item 404, when this propeller installed.	7 lb. (+ 42)
*6.	Hartzell constant speed propeller (eligible with Item 111(c) only) (a) Hub HC-12x20-1, blades 9333C-3 Diameter: not over 90 in., not under 88-1/8 in.	64 lb. (+ 0)
	Pitch settings at 34 in. sta.: Low 15°, high 35°	
	(b) Propeller spinner, Hartzell	6 lb. (+ 9)
and	(c) Hamilton Standard 1Q12-G1 propeller governor	5 lb. (+ 9)
	es and Engine Accessories - Fuel and Oil Systems	
101.	Fuel pumps (a) Deleted May 20, 1948	
	(b) Engine-driven, Romec RD-7750, RD-7750-1, RD-7790, RD-7420, RD-7420B or RD-7420	C 1 lb. (+40)
or	(e) Engine-driven, Thompson TF-1100-M2, TF-1100-2 or TF-1900	1 lb. (+40)
and	(c) Wobble-Saval No. 5262	2 lb. (+74)
or	(d) Wobble-Beech 35-921171 or 35-924065 or 35-924230, 35-924065 or 35-924230 required in Models A35, B35 and C35. 35-942430 required in Models D35, E35, F35, G35 and 35R. When 35-924230 installed, Beech Airplane Flight Manual Supplement No.1 dated July 28, 1951, must be appended to Approved Airplane Flight Manual, Item 404, if manual is dated earlier than May 2, 1951.	2 lb. (+74)
102.	Oil radiator - Harrison 8513295	10 lb.(+37)
103.	Carburetor air cleaner	1 lb. (+11)
104.	Vacuum pump - ARO A51DA or A-513DB or Pesco 3P-194-F	4 lb. (+37)
	Starter (a) Delco-Remy 1190658 (with CMC E-185-1 engine only) (b) Delco-Remy 1109660 (with CMC E-185-1 engine only) (c) Beech 35-369005 (with CMC E-185-8 or -11 engine only) *(d) Precision Machine Works E-80-1001 (with CMC-E-185-8 engine only) (e) Eclipse type 36E14 or 36E14-1-C (with CMC E-185-8 or -11 or E-225-8 engines only) *(f) Eclipse type E80-13B (with Item 111(c) only) (g) Eclipse E80 Type 397 Model 13 with mounting pad modified per Beech Dwg. 35-369005 and clutch setting 200 ftlb. (with CMC E-225-8 engine only) equivalent to CMC P/N 530983. Models 35, 35R, A35, B35, C35, D35	15 lb. (+41) 21 lb. (+42) 18 lb. (+42) 18 lb. (+42) 19 lb. (+42) 19 lb. (+43)
	(S/N's D-3401 through D-3550)	
106.	Oil cooler tank (Beech 35-929013) replacing Item 102 and standard oil tank. Arm of oil is +43. See Note 1 for data on unusable oil.	-9 lb. (+35)
107.	20 gal. auxiliary fuel tank. When this item is installed in Model 35, baggage arm is +145 and weight of baggage and fuel must not exceed 120 lb. <i>See Note 1 for data on unusable fuel</i> .	17 lb. (+132) or (+133)
108.	Oil cooler tank (Beech 35-929144, 35-939160, 35-939164 or 35-939172) replacing Item 102 and standard oil tank. Arm of oil is +36. <i>See Note 1 for data on unusable oil</i> .	-10 lb. (+32)
109.	Fuel booster pump installation - includes Adel 20653 (with suffix "H" or later revision letter in serial number or 1/8 red band around pump body) or Thompson TF-36700 electric fuel pump. (Thompson TF-1900 or Romec R-7420B engine-driven fuel pump required with this item.)	6 lb. (+57)
110.	Winterization equipment (a) Engine cooling air inlet baffle, Beech 35-910277 (for airplanes with Item 108) (b) Oil cooler tank valve, Beech 35-090076 (for airplanes with Item 106) 	1 lb. (+10) 2 lb. (+45)

Engines and Engine Accessories - Fuel and Oil Systems (cont'd)

111. Engine

(a) VMV R-185-8 or -11 (same limits as for E-185-1 or -8 in specific airplane model). Installation E-185-11 in Models 35 and A35 will require rework of engine mounts in accordance with Beech instructions. Use actual weight

(b) Continental E-225-8 with S/N 30087 and up (see Engine Spec. E-267 replacing E-185-11 in Model E35 or F35 only.

Engine limits: Takeoff (one minute), 2650 rpm (225 hp)

For all other operations, 2300 rpm (185 hp)

Fuel: 80 min. grade aviation gasoline

One of the following propellers must be installed:

Beech controllable propeller

As listed under Item 1(e) or (f) whichever is applicable

Beech constant speed propeller

As listed under Item 3(f) or (g) whichever is applicable

- or *(c) Lycoming GO-435-D1 in Models C35 and D35 only. See Note 4 for limitations.
- or *(d) Continental E-225-8 replacing E-185 engine in Models 35, A35, B35, C35 and D35 with S/N's D-3698 and below, and 35R with S/N D-25R1 and up.

Engine limits: (Model 35)

Takeoff (one minute) 185 hp., 2300 rpm 26.5 in. Hg MP

For all other operations 165 hp, 2050 rpm, 27.5 in. Hg MP

(Models A35, B35, C35, D35, F35, 35R)

Takeoff (one minute) 225 hp, 2650 rpm, full throttle or 205 hp, 2600 rm, 26.5 in. Hg. MP. For all other operations, 185 hp, 2300 rpm, 26.5 in. Hg MP

Fuel: 80 min. grade aviation gasoline

Propeller: Item 1(e) with 13° low pitch for Models A35, B35, C35, D35, and 15° low pitch for Model 35; or Item 1(f), 3(f), or 3(g)

Continental E-225-8 engine is mechanically interchangeable with the E-185 engine without major installation alterations. Use of E-185-11 engine mounts and revised airplane supporting brackets may be necessary to adapt the E-225 engine (see Item 111(a)). Beech 35-924230 hand fuel pump is required for 225 hp takeoff rating (see Item 101(d)). Engine tachometer and manifold pressure guage markings are to agree with pertinent E-225 engine limits. Airplane Flight Manual Supplement covering revised engine operating limitations should be submitted to Regional Chief, Engineering and Manufacturing Branch, for approval before attachment to Airplane Flight Manual, Item 404.

*112. Engine fire extinguisher system (Van's Air Service Dwg. 5-4 dated July 15, 1949, with operation instructions 5-4).

22 lb. (+75)

113. Oil cooler tank (Beech 35-939172). See Note 1 for data on unusable oil.

6 lb. (+39) 12 lb. (+127)

*114. 10 gal. auxiliary fuel tank installed per Aircraftsmen, Inc. (Oklahoma City, Oklahoma) installation instructions and Dwg. AT-A35 for Models A35, B35, C35, D35, E35, F35, G35 or AT-35 for Model 35. Approved Airplane Flight Manual (Item 404) Model 35 dated May 22, 1950, or later; Model A35 dated May 22, 1950, or later; Model B35 dated December 16, 1949, or later; Model C35 dated July 27, 1951, or later; Model D35 dated January 5, 1953, or later; Model E35 dated December 15, 1953, or later; Model F35 dated January 1, 1955, or later; or Model G35 dated November 18, 1955, or later is required with this installation.

*115. Oil cooler shutter. Installed in acordance with Aircraftsmen, Inc., Oklahoma City, Oklahoma, installation instructions and Dwg. AOS 35-1 and -2. (For airplanes with oil cooler tank mounted to engine, see Items 108 and 113).

1 lb. (+45)

*116. Engine breather oil separator installed in accordance with Roscoe Turner Aeronautical Corporation, Indianapolis, Indiana, installation instructions dated July 20, 1951. (Eligible on airplanes having S/N 1885 and up and prior airplanes equipped with proper engine breather system).

No weight change

	es and Engine Accessories - Fuel and Oil Systems (cont'd) 18 gal. auxiliary fuel tank installed in accordance with Remmert-Werner, Inc., St. Louis, Mo., Dwg. 35-01002, sheets 1 and 2, Models 35, A35, B35, C35, 35R. Remmert-Werner Airplane Flight Manual Supplement dated August 27, 1952, is required with this installation. Fuel arm at +135.	35 lb. (+133)			
*118.	Fuel pumps (with Item 111(c) only) (a) Engine-driven - Thompson AN-4100TF (b) Wobble-Beech 35-924230 With 35-924230 pump installed, Beech Airplane Flight Manual Supplement No. 1 dated July 28, 1951, must be appended to Approved Airplane Flight Manual, Item 404, if manual is dated earlier than May 2, 1951.				
*119.	Oil radiator, Heat Exchangers, Inc., Model 102-G (with Item 111(c) only)	8 lb. (+13)			
*120.	Vacuum pump, Pesco B-11, 194-F (with Item 111(c) only)	4 lb. (+43)			
+121.	20 gal. auxiliary fuel tank installed in accordance with Santa Monica Aviation, Municipal Airport, Santa Monica, CA., Dwg 19543 and 19544 (Models D35 and E35)	17 lb. (+132)			
122.	Two 10 gal. auxiliary wing fuel tanks. See NOTE 1 for data on unusable fuel.	18 lb. (+ 94)			
123.	Heated fuel tank vents installed per Dwg. 35-001043, Models 35, A35, B35, C35, D35 (S/N D-3401 through D-3550)	Neglect weight			
Landii 201.	Main wheel-brake assemblies (a) Two 6.50-8, Type III with 6.50-8 4- or 6-ply rating tires and regular tubes (1) Goodyear Model L6.50-8HBM Wheel assembly 530869M or 9530949 Brake assembly 517731M	44 lb. (+97)			
or	(b) Two 7.00-8, Type III with 6.50-8 4-ply rating tires and regular tubes (1) Firestone Model DFA-234 Wheel assembly DFA-233 Brake assembly CFA-299	48 lb. (+97)			
or	 (c) Two 6.50-8, Type III with side inflatable 6.50-8 4- or 6-ply rating tubeless tires (1) Goodyear PD-931 Wheel assembly 9532135 Brake assembly 9532167 	49 lb. (+97)			
	(d) Goodyear 6.50-8, Type III, PD-931 Wheel Assembly 9532135 Brake assembly 9532412 (Use on aircraft S/N D15002 only)	25 lb. (+97)			
or	(e) Two Cleveland 6.00-6, No. 20-69, Type III with 7.00-6 6-ply rated tires and regular tubes. Wheel assembly 40-83 Brake assembly 30-54 (Use on aircraft modified per Beech Dwg. 35-8004)	43 lb. (+97)			
202.	Nose wheels (a) Goodyear L5NBM or L5NBD or Firstone DFA 531-1 with 5.00-5 4-ply tire and tube (b) Goodyear 9532102 with 5.00-5 side inflatable 4-ply rating tubeless tire	10 lb. (+12) 9 lb. (+12)			
203.	Co-pilot brakes	2 lb. (+54)			

Electri	cal E	Equipment		
301.	Ger	nerator		
	(a)	25 a. Delco-Remy P/N 1101879 or 1101886	14 lb.	(+42)
or	(b)	35 a. CMC P/N 533730 (includes CMC generator 532701 equivalent to Delco-Remy	16 lb.	(+42)
		1101887)		
or	(c)	`		
		Delco-Remy 1101888) or Delco-Remy P/N 1101908	16 lb.	(+42)
		Models 35 (S/N D-3351 through D-3698), E35, F35, G35		
302.	Bat	terv		
302.		12 v. 33 a. hr.	28 lb.	(+44)
	(4)	12 1. 33 u. m.		r (+54)
or	(b)	12 v. 24 a. hr. Sonotone 22500 installed per Beech Dwg. 35-001040. Item 404(1) or (m)	J	1 (101)
	(-)	required with this installation.	28 lb.	(+54)
	(c)	12 v. 33 a. hr. (mounted forward of firewall in engine compartment)	28 lb.	,
	()	per Beech Dwg. 35-3001.		` /
303.	Lan	ding lights, General Electric 4522	1 lb. ea.	+72)
202.	Lui	ung ng.ns, contin 2.00m to 22	1 10. 0	/
*304.	Ger	nerator, 5 a. Lear Dwg. A43977	15 lb.	(+42)
		tage regulator, Delco-Remy 1118340 (with Item 301(a) only)	Negligible	weight
	6. Generator, 35 a. Leece-Neville E7A (with Item 111(c) only) 22 lb. (+41)			
307.				
	(a)	Grimes D7080-1-12		
or	(b)	Beech 33-3800001-3 (Whelen)		
Interio	r Ea	uipment		
401.		ee 1-1/2 min. parachute flares, International	15 lb. ((+164)
		•	·	
402.	Dua	al control column (T-Type) Beech 35-524575	3 lb. ((+ 72)

- 403. Ballast
 (a) Beech 35-410236 (9 lb. max)

 Use actual weight change (+270) or (+271)

 (b) Beech 35-410374 (15 lb. max.)

 Use actual weight change (+11)
- 404. FAA Approved Airplane Flight Manual (Models 35, A35 and B35. Approved AFM's of previous dates also acceptable provided latest manual not required by optional equipment item).
 - (a) Model 35 dated October 11, 1950, S/N D-1 through D-1500; or Item 404(x).
 - (b) Model A35 dated October 11, 1950, S/N D-1501 through D-2200 and D-15001; or Item 404(v).
 - (c) Model B35 dated October 11, 1950, S/N D-2201 through D-2680; or Item 404(v).
 - (d) Deleted.
 - (e) Model 35R dated May 2, 1951, S/N D-25R1 and up; or Item 404(v) and (w).
 - (f) Deleted.
 - (g) Deleted.
 - *(h) Rawdon Bros. FAA Approved Airplane Flight Manual Supplement dated September 24, 1954 (required with Item 111(c)).
 - (i) Deleted.
 - (j) Deleted.
 - (k) Deleted.
 - (1) FAA Approved Airplane Flight Manual Supplement dated November 20, 1959, required with Item 302(b), (35, A35, B35, C35, D35, S/N D-3401 through D-3550).
 - (m) DMCR Approved Airplane Flight Manual Supplement dated November 20, 1959, required with Item 302(b) (D35, S/N 3551 and up, E35, F35, G35).
 - (n) Airplane Flight Manual Supplement dated May 12, 1972.

Interior Equipment (cont'd)

- (o) FAA Approved Airplane Flight Manual Supplement dated June 14, 1972, required with Item 111(b) engine in Model F35 airplane with Item 3(f) propeller.
- (p) FAA Approved Airplane Flight Manual Supplement dated January 9, 1973, required for Model G35 with Item 3(f) propeller.
- (q) Model G35 Pilot's Operating Handbook and FAA Approved Airplane Flight Manual as revised March 1987 or later.
- (r) Mode E35 Pilot's Operating Handbook and FAA Approved Airplane Flight Manual as revised March 1987 or later.
- (s) Model F35 Pilot's Operating Handbook and FAA Approved Airplane Flight Manual as revised March 1987 or later.
- (t) Model D35 Pilot's Operating Handbook and FAA Approved Airplane Flight Manual as revised March 1987 or later.
- (u) Model C35 Pilot's Operating Handbook and FAA Approved Airplane Flight Manual as revised March 1987 or later.
- (v) Models A35 and B35 Pilot's Operating Handbook and FAA Approved Airplane Flight Manual dated January 1977 or later.
- (w) Model 35R Pilot's Operating Handbook and FAA Approved Airplane Flight Manual Supplement dated January 1977 or later, S/N D-25R1 and On.
- (x) Model 35 Pilot's Operating Handbook and FAA Approved Airplane Flight Manual dated March 1977 or later.
- 405. Ambulance conversion installation (litter and attendant chair replace rear seat and copilot's seat back)

(a) Model 35, A35 and B35

12 lb. (+102)

(b) Model C35, D35, E35, F35 and G35

No weight change

(c) Model 35, A35, B35 and 35R with shoulder harness installed

5 lb. (+85)

406. Air conditioner installation (including water)

16 lb. (+144)

*407. Lear Model L-2B automatic pilot and

44 lb. (+119)

Model 1404A altitude controller (optional equipment installed per Lear Dwg. 82861. Either Item 301(b) or 304 and 305 required with this installation.

2 lb. (+176)

The following placard (required for aircraft having Manuals (a), (b) and (c) only) should be installed in a conspicuous place near the autopilot controller in full view of the pilot:

- "1. Do not use autopilot below 300 ft. above terrain except during approach or landing when autopilot not to be used below 100 ft. above terrain. Minimum altitudes do not override any higher minimum oprational altitudes.
 - 2. Do not override autopilot to increase angle of bank."

Servo slip clutch stall torque settings in in.-lb. \pm 10%; rudder 40; aileron 25; elevator 9. Servo drum pitch diametrs for all three axes are 1.375 in.

Lear Model 1350-A2 approach coupler

with Model C35 installation.

8 lb. (+144) 3 lb. (+175)

and Lear Model 2203A altitude controller installed per Lear Dwg. 83861AB

(a) FAA Approved Airplane Flight Manual Supplement dated April 6, 1951, required

- with Models 35, A35 and B35.
 (b) FAA Approved Airplane Flight Manual Supplement dated March 29, 1951, required
- (c) FAA Approved Airplane Flight Manual Supplement (Lear Dwg. 96120) may be used in lieu of above supplements on all models. Revision dated September 3, 1952, required when altitude controller installed.
- (d) FAA Approved Airplane Flight Manual Supplement dated November 24, 1954, required with 1350A-2 approach coupler and 2203A altitude controller.
- (e) FAA Approved Airplane Flight Manual Supplement dated May 20, 1955, required with only autopilot. (Models 35 through F35)
- (f) FAA Approved Airplane Flight Manual Supplement dated May 23, 1955, required with autopilot with approach coupler. (Models 35 through F35)
- (g) FAA Approved Flight Manual Supplement dated September 24, 1956, required with autopilot with approach coupler (Models 35 through G35)
- (h) FAA Approved Flight Manual Supplement dated September 25, 1956, required with autopilot only (Models 35 through G35)

	Interior	Equipment	(cont'	'd)
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*408. Mitchell Co-pilot model AK-044 per Mitchell Bulletin 102 (1-655)

(Weight includes horizon and directional gyros, 8 lb. at +66)

Aileron slip clutch stall torque $20 \pm in$.-lb.

Pilot overpower force at wheel rim 8 lb.

FAA Approved Airplane Flight Manual Supplement dated January 13, 1955, required.

*409. Lear ARCON automatic rudder control per Lear Dw. 703088 including one servo Model 3000A with capstan pulley (dia. 2.688 in.) and clutch slip torque 76 ± in.-lb. FAA Approved Lear Airplane Flight Manual Supplement dated February 15, 1955, or March 31, 1955, required.

15 lb. (+152)

23 lb. (+67)

*410. Tactair T-1 autopilot installed per Tactair instruction dated December 6, 1954. Maximum servo cable forces: aileron 30 lb., elevator 30 lb. Item 104 (Pesco 3P-194F) vacuum pump required. FAA Approved Tactair Airplane Flight Manual Supplement for the Model T-1 autopilot dated December 6, 1954, required.

10 lb. (+129)

*411. Fedeal Telephone and Radio Co. Model F-200 autopilot installed per Manual of Installation Instructions No. 105 dated December 15, 1955, applicable to autopilot S/N 1882, 1945, 1946, 1000 and 1001 (Model D35 only)

19 lb. (+151)

*412. Federal Telephone and Radio Co. Model F-200 autopilot installed per Section 2 manual 110 dated July 27, 1956, applicable to autopilot S/N 2001 and up (Model C35, D35, E35, F35, G35 only). Servo slip clutch torque aileron and elevator 35 in-lb. ± 10%. FAA Approved Flight Manual Supplement dated March 21, 1956, required.

19 lb. (+151)

413. Beech Power Flite Control single axis autopilot.

(a) Basic autopilot system per Beech Dwg. 35-001062-1 (D35, S/N D-3551 through D-3698, E35, F35, G35 only). Airplane Flight Manual Supplement P/N 33-500013-65 dated September 29, 1961, required.

6 lb. (+87)

(b) Autopilot system with course selector directional gyro per Beech Dwg. 35-001062-1,
 -3, (D35, S/N D-3551 through D-3698, E35, F35, G35 only). Airplane Flight Manual Supplement P/N 33-500013-65 dated September 29, 1961, required.

10 lb. (+ 79)

414. FAA Approved Flight Manual

- (a) FAA Approved Airplane Flight Manual Supplement P/N 130472 dated June 4, 1965, required with Item 606 (35, A35, B35, C35, D35 (S/N D-3401 through D-3550), and 35R.
- (b) DOA Approved Airplane Flight Manual Supplement P/N 130471 dated June 7, 1965, required with Item 606 (D35 (S/N D-3551 and up), E35, F35, and G35)

Miscellaneous (Not listed above)

- 601. Stall warning indicator installation
 - (a) Beech Dwg. 35-361005
 - (b) Safe Flight, Beech Dwg. 35-361025

602. Heated pitot head installation, Beech Dwgs. 35-361100

1 lb. (+74)

*603. Aileron trimmer control installation per Aircraftsmen, Inc., Oklahoma City, Oklahoma, Dwg. ATC-35.

604. Landing gear door modification installed per installation instructions and drawings as listed in Beech Installation Bulletins.

Use actual weight change

- (a) 35-604 (Model 35)
- (b) 35-603 (Models A35, B35, C35, D35 and E35)
- 605. Zep oxygen system per Beech Dwg. 35-001-55-1 or -3
- and (1) Beech Dwg. 414-001058
- or (2) Beech Dwg. 414-001059

Miscellaneous (Not listed above) (cont'd)

606. Landing Gear Safety System per Beech Dwg. 35-8001

(Models 35R, 35, A35, B35, C35, D35 (S/N D-3401 through D-3550), E35, F35 and G35).

Item 414(a) or (b) required with this item.

607. Emergency Static Source Installation

Negligible Weight

(a) Beech Drawing 35-5013 eligible on 35 through G35 and 35R. Airplane Flight Manual Supplement 35-324428-13 dated January 4, 1965, or later required D35 (D3551 and after), E35, F35 and G35. Airplane Flight Manual 35-324428-19 dated March 5, 1965, required 35R, 35 through D35 (through D3550).

608. Structural modification per Beech Drawing 35-4016.

3 lb. (+225)

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 locations must include system (undrainable) oil (not included in oil capacity) and unusable fuel (not included in usable fuel) as follows:

With Item 102, unusable oil of 7 lb. at (+39).

OR With Item 106, 108, or 113, unusable oil of 3 lb. at (+37).

OR With Item 111(c) and 119, unusable oil of 2 lb. at (+20).

With standard wing fuel tanks, unusable fuel of 36 lb. at (± 79) .

Installation of auxiliary fuel tank, Item 107, requires inclusion of additional unusable fuel of 3 lb. at (+132 or +133).

Installation of auxiliary fuel tank, Item 122, requires inclusion of additional unusable fuel of 5 lb. at (+94).

NOTE 2. The following placards must be displayed in front of and in clear view of pilots:

Model 35:

"This airplane must be operated as a Normal or Utility Category airplane in compliance with the approved operating limitations applicable in each case. All markings and placards on this airplane apply to its operation as a Normal Category Airplane. For Utility Category operations, refer to the Airplane Flight Manual (or Approved Operating Limitations) document for airspeed, weight and maneuvering limitations. No acrobatic maneuvers (including spins) approved for Normal Category Operations."

Model A35, B35, C35, E35, F35, G35 or 35R:

"Utility Category Airplane. Operate in accordance with FAA Airplane Flight Manual. Intentional spins prohibited. No acrobatic maneuvers approved except those listed in the Airplane Flight Manual."

NOTE 3. Deleted January 12, 1950.

NOTE 4. Lycoming GO-435-D1 engine eligible for installation in Models C35 and D35 (Normal Category) as accomplished by Rawdon Bros. Aircraft, Inc., Wichita, Kansas, per approved technical data and the following limitations:

Engine Lycoming GO-435-D1

Fuel 80/87 minimum grade aviation gasoline

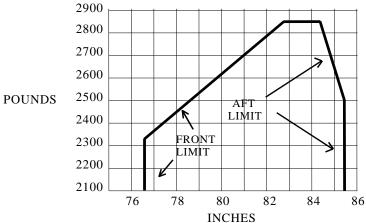
Engine Limits Takeoff (one minute) 3400 rpm (260 b. hp)

Maximum continuous 3000 rpm (24p b. hp)

Airspeed Limits Maneuvering 130 mph (113 knots) True Ind. Max. structural cruising 160 mph (139 knots) True Ind. Never exceed 202 mph (176 knots) True Ind. Flaps extended 105 mph (91 knots) True Ind. Landing gear extended 125 mph (109 knots) True Ind.

C.G. Range (landing gear extended)

(+82.8) to (+84.4) at 2850 lb. (+78.6) to (+85.4) at 2500 lb. (+76.5) to (+85.4) at 2325 lb.



Maximum Weight 2850 lb.

No. of Seats 4 (2 at +85, 2 at +116)

Maximum Baggage 270 lb. (+139). Refer to loading chart revised September 10, 1954 (included

in Rawdon Bros. Flight Manual Supplement) for loading instructions.

Fuel Capacity Tank Capacity Gal. Usable Gal. L & R Main 20 ea. 17 ea. (+75)Optional Fuel System (Item 107) Fuselage Aux. Sys. 20

19.5 (+132) (+133)or

35°

Down

30°

See NOTE 1 for data on unusable fuel.

Oil Capacity 4 gal. (+57)

Control Surface Wing flaps Down 30° Aileron tab Fixed Movements Aileron Up 20° Down 20° Elevator tab 10° Down 31° Up "V" tail elevator action Up 22.5° 17.5° Down "V" tail rudder action 21° Up 21° Down

"V" tail maximum Up combination rudder elevator action

Serial No. Eligible D-2681 through D-3550

Required Equipment 4, 103, 118, 119, 201, 202, 302(a), 306, 307, 404(h), 601(b) Items

Certification Basis CAR 3 effective November 1, 1949, and 3.112C of Amendment 3-4 effective

January 15, 1951.

NOTE 5. When Item 604 installed, landing gear may be lowered at following airspeeds under emergency conditions:

Model	<u>Item</u>	<u>Airspeed</u>
35	604(a)	160 mph (139 knots) True Ind.
A35	604(b)	175 mph (152 knots) True Ind.
B35	604(b)	175 mph (152 knots) True Ind.
C35	604(b)	175 mph (152 knots) True Ind.
D35	604(b)	175 mph (152 knots) True Ind.
E35	604(b)	175 mph (152 knots) True Ind.

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