

**DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION**

	5A4
	Revision 65
	Textron Aviation
50 (L-23A)	D50E-5990
B50 (L-23B)	E50 (L-23D,
C50	RL-23D)
D50 (L-23E)	F50
D50A	G50
D50B	H50
D50C	J50
D50E	
	November 27, 2017

TYPE CERTIFICATION DATA SHEET NO. 5A4

This data sheet which is a part of Type Certificate No. 5A4 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, KS 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 50, Twin Bonanza, (Military L-23A), 6 PCLM (Normal Category), Approved May 25, 1951

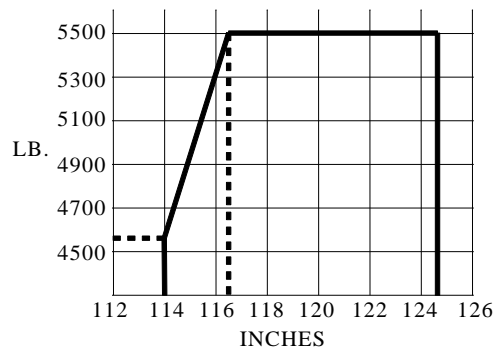
Engines	Two (2) Lycoming GO-435-C2 or GO-435-C2E	
Fuel	80/87 minimum grade aviation gasoline	
Engine limits (See also limits under Items 2(d) and 2(e))	Takeoff (one minute), 3400 rpm. (260 hp.) For all other operations, 3000 rpm. (240 hp.)	
Airspeed limits (TIAS)	Maneuvering	165 mph. (144 knots)
	Maximum structural cruising	180 mph. (157 knots)
	Never exceed	227 mph. (197 knots)
	Design dive	270 mph. (234 knots)
	Flaps extended	125 mph. (109 knots)
	Landing gear extended	125 mph. (109 knots)

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I. Model 50 (cont'd)

C.G. range (landing gear extended)

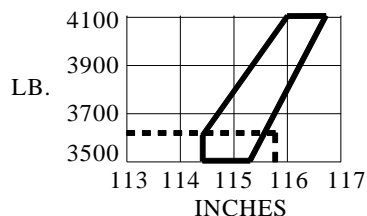
(+116.5) to (+124.6) at 5500 lb.
(+114.0) to (+124.6) at 4550 lb. or less
Straight line variation between points given.



Empty wt. C.G. range
(using baggage placard)

Forward compartment 100 lb.
Rear compartment 200 lb.
(+116.0) to (+116.7) at 4100 lb.
(+114.3) to (+115.6) at 3625 lb.
(+114.3) to (+115.3) at 3500 lb.
Straight line variation between points given.

When empty weight C.G. falls within this range, computation of critical fore and aft C.G. positions is unnecessary. Range is not valid for non-standard arrangements. For empty weight C.G. outside, both forward and rearward of the limits given, and for applicable range and pertinent baggage compartment placards, refer to weight and balance section of the operating limitations (loading schedule), or contact the manufacturer.



Maximum weight

5500 lb.

No. of seats

6 (3 at +116, 3 at +154)

Maximum baggage
(structural limits)

Forward compartment 395 lb. (+ 60)
Rear compartment 260 lb. (+193)
(For loading instructions, see weight and balance report.)

Fuel capacity

134 gal. (4 tanks in wings - two 44 gal. tanks at +139, two 23 gal. tanks at +117)
See NOTE 1 for data on system fuel.

Oil capacity

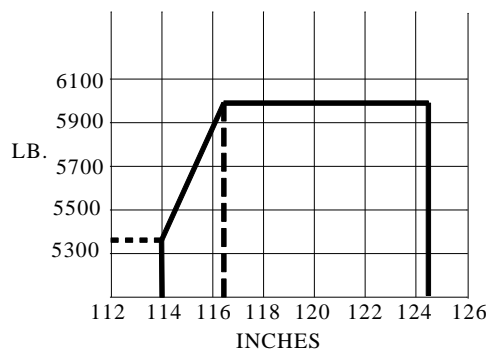
24 qt. (12 qt. in each engine at +72)
See NOTE 1 for data on system oil.

I. Model 50 (cont'd)

Control surface movements	Wing flaps		Down	30°
	Main surfaces			
	Aileron	Up	20°	Down 20°
	Elevator	Up	25°	Down 15°
	Rudder	Right	25°	Left 25°
	Tabs (main surface in neutral)			
	Aileron	Up	20°	Down 20°
	Elevator	Up	10°	Down 30°
	Rudder	Right	30°	Left 30°
Serial Nos. eligible	H-1 through H-11, LH-1 through LH-55			
Required equipment	Items 1, 101(a) and (b), 102(a) or (b), 103(a), 201(a), 202(a) or (b), 205(a), 206(a) or (b), 301(a), (b) or (c), 401(a) and 601			

II. Model B50, Twin Bonanza, (Military L-23B), 8 PCLM (Normal Category), Approved July 31, 1953

Engines	2 Lycoming GO-435-C2 or GO-435-C2B or GO-435-C2D6 or GO-435-C2E		
Fuel	80/87 minimum grade aviation gasoline		
Engine limits	Takeoff (one minute), 3400 rpm. (260 hp.) For all other operations, 3100 rpm. (245 hp.)		
Airspeed limits (TIAS)	Maneuvering	165 mph. (144 knots)	
	Maximum structural cruising	180 mph. (157 knots)	
	Never exceed	227 mph. (197 knots)	
	Design dive	270 mph. (234 knots)	
	Flaps extended	125 mph. (109 knots)	
	Landing gear extended	125 mph. (109 knots)	
C.G. range (landing gear extended)	(+116.8) to (+124.6) at 6000 lb.		
	(+114.0) to (+124.6) at 5350 lb. or less		
	Straight line variation between points given		



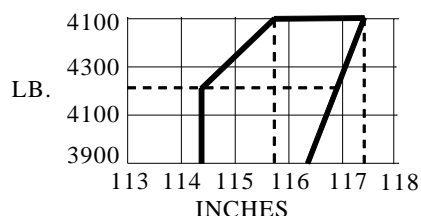
II. Model B50 (cont'd)

Empty wt. C.G. range
(using baggage placards)

Forward compartment 100 lb.
Rear compartment 200 lb.
(+115.7) to (+117.4) at 4500 lb.
(+114.3) to (+116.95) at 4253 lb.
(+114.3) to (+116.3) at 3900 lb.

Straight line variation between points given

When empty weight C.G. falls within this range, computation of critical fore and aft C.G. positions is unnecessary. Range is not valid for non-standard arrangements. For empty weight C.G. outside, both forward and rearward of the limits given, and for applicable range and pertinent baggage compartment placards, refer to weight and balance section of the operating limitations (loading schedule), or contact the manufacturer.



Maximum weight

6000 lb.

No. of seats

Maximum 8, Normal 6 (3 at +116, 3 at +154)

Maximum baggage
(structural limits)

Forward compartment 395 lb. (+ 60)
Rear compartment 260 lb. (+193)
(For loading instructions, see weight and balance report)

Fuel capacity

134 gal. (4 tanks in wings - two 44 gal. tanks at +139, two 23 gal. tanks at +117)
See NOTE 1 for data on system fuel.

Oil capacity

24 qt. (12 qt. in each engine at +72)
See NOTE 1 for data on system oil.

Control surface movements

Wing flaps		Down	30°
Main surfaces			
Aileron	Up	20°	Down 20°
Elevator	Up	25°	Down 15°
Rudder	Right	25°	Left 25°
Tab (main surface in neutral)			
Aileron	Up	20°	Down 20°
Elevator	Up	10°	Down 21°
Rudder	Right	30°	Left 30°

Serial Nos. eligible

CH-12 through CH-110, LH-56 through LH-95

Required equipment

Items 2(d) or (e) and (b) with GO-435-C2 or -C2E engines, or 4 with -C2D6 engines, or 6 with -C2B engines, 101(a) or (b), 102(b), 103(a), 201(a), 202(a) or (b), 205(a), 206(a) or (b), 301(b) or (c), 302(a) or (b), 401(d) and 601

III. Model C50, Twin Bonanza, 8 PCLM (Normal Category), Approved October 13, 1954

Engines

2 Lycoming GO-480-F6 or GO-480-F1A6

Fuel

80/87 minimum grade aviation gasoline

III. Model C50 (cont'd)

Engine limits	Takeoff (one minute), 3400 rpm. (275 hp.) For all other operations, 3100 rpm. (265 hp.)			
Airspeed limits (TIAS)	Maneuvering	165 mph. (144 knots)		
	Maximum structural cruising	180 mph. (157 knots)		
	Never exceed	230 mph. (200 knots)		
	Design dive	270 mph. (234 knots)		
	Flaps extended	125 mph. (109 knots)		
	Landing gear extended	125 mph. (109 knots)		
C.G. range (landing gear extended)	(+116.8) to (+124.6) at 6000 lb. (+114.0) to (+124.6) at 5350 lb. or less Straight line variation between points given (Refer to Section II for figure.)			
Empty wt. C.G. range	For standard arrangement, refer to empty weight C.G. range under Section II for Model B50. For range with 46 gal. auxiliary fuel tanks, refer to Item 106.			
Maximum weight	6000 lb.			
No. of seats	Maximum 8, Normal 6 (3 at +116, 3 at +154)			
Maximum baggage (structural limits)	Forward compartment	395 lb. (+ 60)		
	Rear compartment	300 lb. (+193)		
	(For loading instructions, see weight and balance report.)			
Fuel capacity	134 gal. (4 tanks in wings - two 44 gal. tanks at +139, two 23 gal. tanks at +117) See NOTE 1 for data on system fuel			
Oil capacity	24 qt. (12 qt. in each engine at +72) See NOTE 1 for data on system oil.			
Control surface movements	Wing flaps	Down	30°	
	Main surfaces			
	Aileron	Up	20°	Down 20°
	Elevator	Up	25°	Down 15°
	Rudder	Right	25°	Left 25°
	Tabs (main surface in neutral)			
	Aileron	Up	20°	Down 20°
	Elevator	Up	10°	Down 21°
	Rudder	Right	30°	Left 30°
Serial Nos. eligible	CH-111 through CH-360			
Required equipment	Items 3, 101(a) and (b), 102(b), 103(a), 201(a), 202(a) or (b), 205(a), 206(a) or (b), 301(b) or (c), 302(a) or (b), 401(e) or (i) and 601			

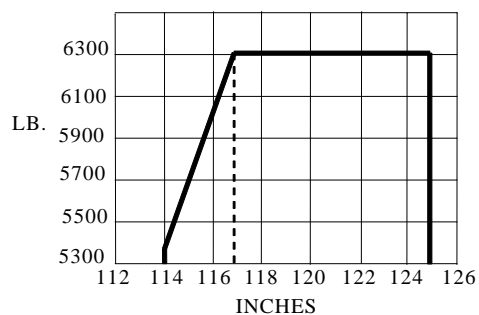
IV. Model D50, Twin Bonanza, (Military L-23E), 8 PCLM (Normal Category), Approved December 6, 1955

Engines	Two (2) Lycoming GO-480-C2C6 or GO-480-C2D6 (See Item 108 for optional engine.)
Fuel	100/130 minimum grade aviation gasoline
Engine limits	Takeoff (one minute), 3400 rpm. (295 hp.) For all other operations, 3100 rpm. (285 hp.)

IV. Model D50 (cont'd)

Airspeed limits (TIAS)	Maneuvering	175 mph. (152 knots)
	Maximum structural cruising	200 mph. (174 knots)
	Never exceed	252 mph. (219 knots)
	Design dive	280 mph. (243 knots)
	Flaps extended	135 mph. (117 knots)
	Landing gear extended	150 mph. (130 knots)

C.G. range (landing gear extended)	(+116.8) to (+124.6) at 6300 lb.
	(+114.0) to (+124.6) at 5350 lb. or less
	Straight line variation between points given



Empty wt. C.G. range	None			
Maximum weight	6300 lb.			
No. of seats	Maximum 8, Normal 6 (2 or 3 at +116, 3 at +154)			
Maximum baggage (structural limits)	Forward compartment	395 lb. (+ 60)		
	Rear compartment	300 lb. (+193)		
	(For loading instructions, see weight and balance report.)			
Fuel capacity	134 gal. (4 tanks in wings - two 44 gal. tanks at +139, two 23 gal. tanks at +117) See NOTE 1 for data on system fuel.			
Oil capacity	24 qt. (12 qt. in each engine at +72) See NOTE 1 for data on system oil.			
Control surface movements	Wing flaps		Down	30°
	Main surfaces			
	Aileron	Up	20°	Down 20°
	Elevator	Up	25°	Down 15°
	Rudder	Right	25°	Left 25°
	Tabs (S/N DH-1 through DH-143, except DH-18) (main surfaces in neutral)			
	Aileron	Up	20°	Down 20°
	Elevator	Up	10°	Down 21°
	Rudder	Right	30°	Left 30°
	Tabs (S/N DH-18, DH-144 and up) (main surfaces in neutral)			
	Aileron	Up	7-1/2°	Down 7-1/2°
	Tab, Anti-Servo (S/N DH-18, DH-144 and up) (main surface in extreme position)			
	Aileron	Up	14°	Down 8°
Serial Nos. eligible	DH-1 through DH-154			

V. Model E50 (cont'd)

Control surface movements	Wing flaps	Down	30°
	Main surfaces		
	Aileron	Up	20°
	Elevator	Up	25°
	Rudder	Right	25°
	Tab, Anti-Servo (main surface in extreme position)	Left	25°
	Aileron	Up	14°
	Down	8°	
	Tabs (main surface in neutral)		
	Aileron	Up	7-1/2°
	Down	7-1/2°	
	Elevator	Up	10°
	Down	21°	
	Rudder	Right	30°
	Left	30°	
Serial Nos. eligible	EH-1 through EH-70 (LH-96 and on, L-23D), (RLH-1 and on, L-23D remanufactured), (LHC-1 and on, LHD-1 and on, RLHE-1, RLHE-2, LHE-3 and on - different radar versions of RL-23D). Prior to civil certification, L-23D and RL-23D airplanes that have been operated by the military services must be modified by Beech Dwg. 50-001016 and 50-001062, respectively.		
Required equipment	Items 7, 101(c) and (d), 102(c), 103(b), 201(a), 202(a) or (b), 205(a), 206(a) or (b), 301(d) or (e), 302(a) or (b), 401(j) and 602		

VI. Model D50A, Twin Bonanza, 8 PCLM (Normal Category), Approved October 29, 1957

Engines	Two (2) Lycoming GO-480-G2D6
Fuel	100/130 minimum grade aviation gasoline
Engine limits	Takeoff (one minute), 3400 rpm. (295 hp.) For all other operations, 3100 rpm. (285 hp.)
Airspeed limits (TIAS)	Maneuvering 185 mph. (161 knots) Maximum structural cruising 205 mph. (178 knots) Never exceed 270 mph. (235 knots) Design dive 300 mph. (261 knots) Flaps extended 150 mph. (130 knots) Landing gear extended 150 mph. (130 knots)
C.G. range (landing gear extended)	(+116.8) to (+124.6) at 6300 lb. (+114.0) to (+124.6) at 5350 lb. or less Straight line variation between points given (Refer to Section IV for figure.)
Empty wt. C.G. range	None
Maximum weight	6300 lb.
No. of seats	Maximum 8, Normal 6 (2 or 3 at +116, 3 at +154)
Maximum baggage (structural limits)	Forward compartment 395 lb. (+ 60) Rear compartment 300 lb. (+193) (For loading instructions, see weight and balance report.)
Fuel capacity	134 gal. (4 tanks in wings - two 44 gal. tanks at +139, two 23 gal. tanks at +117) See NOTE 1 for data on system fuel.
Oil capacity	24 qt. (12 qt. in each engine at +72) See NOTE 1 for data on system oil.

VI. Model D50A (cont'd)

Control surface movements	Wing flaps		Down	30°
	Main surfaces			
	Aileron	Up	20°	Down 20°
	Elevator	Up	25°	Down 15°
	Rudder	Right	25°	Left 25°
	Tabs (main surface in neutral)			
	Aileron	Up	7-1/2°	Down 7-1/2°
	Elevator	Up	10°	Down 21°
	Rudder	Right	30°	Left 30°
	Tabs, Anti-Servo (main surface in extreme position)			
	Aileron	Up	14°	Down 8°
Serial Nos. eligible	DH-155 through DH-198			
Required equipment	Items 5, 101(a) and (b), 102(d), 103(a), 201(a), 202(a) or (b), 205(a), 206(a) or (b), 301(b) or (c), 302(a) or (b), 401(l) and 602			

VII. Model F50, Twin Bonanza, 8 PCLM (Normal Category), Approved October 29, 1957

Engines	Two (2) Lycoming GSO-480-B1B6				
Fuel	100/130 minimum grade aviation gasoline				
Engine limits	Straight line manifold pressure variation with altitudes shown				
		<u>HP</u>	<u>RPM</u>	<u>MP</u>	<u>ALT</u>
	Takeoff	340	3400	48.0	S.L.
	Takeoff	340	3400	44.5	8000
	Maximum continuous	320	3200	45.0	S.L.
	Maximum continuous	320	3200	43.0	7500
Airspeed limits (TIAS)	Maneuvering	185 mph. (161 knots)			
	Maximum structural cruising	205 mph. (178 knots)			
	Never exceed	270 mph. (235 knots)			
	Design dive	300 mph. (261 knots)			
	Flaps extended	150 mph. (130 knots)			
	Landing gear extended	150 mph. (130 knots)			
C.G. range (landing gear extended)	(+118.0) to (+124.6) at 7000 lb.				
	(+114.0) to (+124.6) at 5350 lb. or less				
	Straight line variation between points given				
	(Refer to Section V for figure)				
Empty wt. C.G. range	None				
Maximum weight	7000 lb.				
No. of seats	Maximum 8, Normal 6 (2 or 3 at +116, 3 at +154)				
Maximum baggage (structural limits)	Forward compartment	395 lb. (+ 60)			
	Rear compartment	300 lb. (+193)			
	(For loading instructions, see weight and balance report.)				
Fuel capacity	180 gal. (4 tanks in wings - two 44 gal. tanks at +139, two 46 gal. tanks at +127) See NOTE 1 for data on system fuel.				

VII. Model F50 (cont'd)

Oil capacity	32 qt. (16 qt. in each nacelle at +103) See NOTE 1 for data on system oil.			
Control surface movements	Wing flaps		Down	30°
	Main surfaces			
	Aileron	Up	20°	Down 20°
	Elevator	Up	25°	Down 15°
	Rudder	Right	25°	Left 25°
	Tabs, Anti-Servo (main surfaces in extreme position)			
	Aileron	Up	14°	Down 8°
	Tabs (main surfaces in neutral)			
	Aileron	Up	7-1/2°	Down 7-1/2°
	Elevator	Up	10°	Down 21°
	Rudder	Right	30°	Left 30°
Serial Nos. eligible	FH-71 through FH-96 (except FH-94)			
Required equipment	Items 7, 101(c) and (d), 102(c), 103(b), 201(a), 202(a) or (b), 205(a), 206(a) or (b), 301(d) or (e), 302(a) or (b), 401(m) and 602			

VIII. Model D50B, Twin Bonanza, 8 PCLM (Normal Category), Approved November 10, 1958

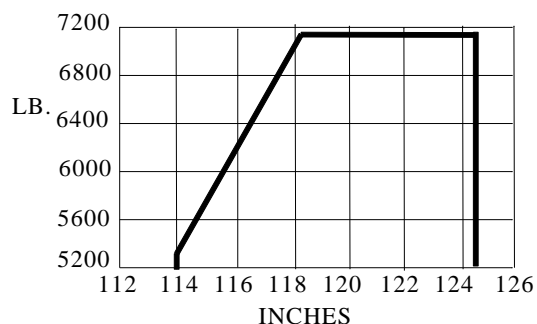
Engines	Two (2) Lycoming GO-480-G2D6		
Fuel	100/130 minimum grade aviation gasoline		
Engine limits	Takeoff (one minute), 3400 rpm. (295 hp.) For all other operations, 3100 rpm. (285 hp.)		
Airspeed limits (TIAS)	Maneuvering	185 mph. (161 knots)	
	Maximum structural cruising	205 mph. (178 knots)	
	Never exceed	270 mph. (235 knots)	
	Design dive	300 mph. (261 knots)	
	Flaps extended	150 mph. (130 knots)	
	Landing gear extended	150 mph. (130 knots)	
C.G. range (landing gear extended)	(+116.8) to (+124.6) at 6300 lb. (+114.0) to (+124.6) at 5350 lb. or less Straight line variation between points given (Refer to Section IV for figure.)		
Empty wt. C.G. range	None		
Maximum weight	6300 lb.		
No. of seats	Maximum 8, Normal 6 (2 or 3 at +116, 3 at +154)		
Maximum baggage (structural limits)	Forward compartment	395 lb. (+ 60)	
	Rear compartment	300 lb. (+193)	
	Rear compartment	125 lb. (+193) with Item 411	
(Item 411)	Optional baggage compartment	115 lb. (+223)	
	(For loading instructions, see weight and balance report.)		
Fuel capacity	134 gal. (4 tanks in wings - two 44 gal. tanks at +139, two 23 gal. tanks at +117) See NOTE 1 for data on system fuel.		

VIII. Model D50B (cont'd)

Oil capacity	24 qt. (12 qt. in each engine at +72) See NOTE 1 for data on system oil.			
Control surface movements	<div>Wing flaps Down 30°</div> <div>Main surfaces</div> <div>Aileron Up 20° Down 20°</div> <div>Elevator Up 25° Down 15°</div> <div>Rudder Right 25° Left 25°</div> <div>Tabs (main surfaces in neutral)</div> <div>Aileron Up 7-1/2° Down 7-1/2°</div> <div>Elevator Up 10° Down 21°</div> <div>Rudder Right 30° Left 30°</div> <div>Tabs, Anti-Servo (main surfaces in extreme position)</div> <div>Aileron Up 14° Down 8°</div>			
Serial Nos. eligible	DH-199 through DH-236			
Required equipment	Items 5, 101(a) and (b), 102(d), 103(a), 201(a), 202(a) or (b), 205(a), 206(a) or (b), 301(b) or (c), 302(a) or (b), 401(n) and 602			

IX. Model G50, Twin Bonanza, 8 PCLM (Normal Category), Approved November 10, 1958

Engines	Two (2) Lycoming IGSO-480-A1A6			
Fuel	100/130 minimum grade aviation gasoline			
Engine limits	Straight line manifold pressure variation with altitudes shown			
		<u>HP</u>	<u>RPM</u>	<u>MP</u> <u>ALT</u>
	Takeoff	340	3400	48.0 S.L.
	Takeoff	340	3400	44.5 11,000
	Maximum continuous	320	3200	45.0 S.L.
	Maximum continuous	320	3200	41.3 11,000
Airspeed limits (TIAS)	<div>Maneuvering 185 mph. (161 knots)</div> <div>Maximum structural cruising 205 mph. (178 knots)</div> <div>Never exceed 270 mph. (235 knots)</div> <div>Design dive 300 mph. (261 knots)</div> <div>Flaps extended 150 mph. (130 knots)</div> <div>Landing gear extended 150 mph. (130 knots)</div>			
C.G. range (landing gear extended)	<div>(+118.4) to (+124.6) at 7150 lb.</div> <div>(+114.0) to (+124.6) at 5350 lb. or less</div> <div>Straight line variation between points given</div>			



IX. Model G50 (cont'd)

Empty wt. C.G. range	None			
Maximum weight	Landing 7000 lb. Takeoff 7150 lb.			
No. of seats	Maximum 8, Normal 6 (2 or 3 at +116, 3 at +154)			
Maximum baggage (structural limits) Item 411	Forward compartment	395 lb. (+ 60)		
	Rear compartment	300 lb. (+193)		
	Optional baggage compartment	115 lb. (+223)		
	Rear compartment	200 lb. (+193) (with Item 411)		
	(For loading instructions, see weight and balance report.)			
Fuel capacity	180 gal. (4 tanks in wings - two 44 gal. tanks at +139, two 46 gal. tanks at +127) See NOTE 1 for data on system fuel			
Oil capacity	32 qt. (16 qt. in each nacelle at +103) See NOTE 1 for data on system oil			
Control surface movements	Wing flaps		Down	30°
	Main surfaces			
	Aileron	Up	20°	Down 20°
	Elevator	Up	25°	Down 15°
	Rudder	Right	25°	Left 25°
	Tab, Anti-Servo (main surface in extreme position)			
	Aileron	Up	14°	Down 8°
	Tabs (main surfaces in neutral)			
	Aileron	Up	7-1/2°	Down 7-1/2°
	Elevator	Up	10°	Down 21°
	Rudder	Right	30°	Left 30°
Serial Nos. eligible	GH-94, GH-97 through GH-119			
Required equipment	Items 7, 101(c) or (e) and (d), 102(c), 103(b), 201(a), 202(a) or (b), 205(a), 206(a) or (b), 301(d) or (e), 302(a) or (b), 401(o) or (p) and 602			

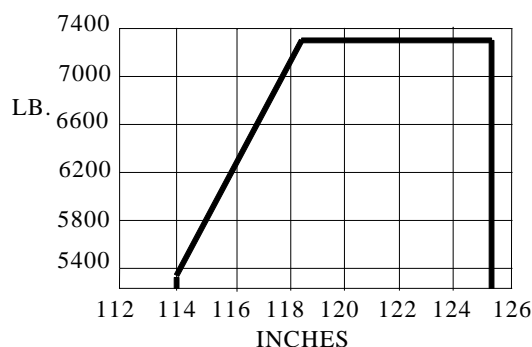
X. Model H50, Twin Bonanza, 7 PCLM (Normal Category), Approved November 13, 1959

Engines	Two (2) Lycoming IGSO-480-A1A6				
Fuel	100/130 minimum grade aviation gasoline				
Engine limits	Straight line manifold pressure variation with altitudes shown				
		<u>HP</u>	<u>RPM</u>	<u>MP</u>	<u>ALT</u>
	Takeoff	340	3400	48.0	S.L.
	Takeoff	340	3400	44.0	11,000
	Maximum continuous	320	3200	45.0	S.L.
	Maximum continuous	320	3200	41.3	11,000
Airspeed limits (TIAS)	Maneuvering	185 mph. (161 knots)			
	Maximum structural cruising	205 mph. (178 knots)			
	Never exceed	270 mph. (235 knots)			
	Design dive	300 mph. (261 knots)			
	Flaps extended	150 mph. (130 knots)			
	Landing gear extended	150 mph. (130 knots)			

X. Model H50 (cont'd)

C.G. range (landing gear extended)

(+118.4) to (+125.6) at 7300 lb.
 (+114.0) to (+125.6) at 5350 lb. or less
 Straight line variation between points given



Empty wt. C.G. range

None

Maximum weight

Landing 7000 lb.
 Takeoff 7300 lb.

No. of seats

Maximum 7, Normal 6 (crew at +116) (See loading instructions for passenger loading)

Maximum baggage (structural limits)

Forward compartment 395 lb. (+ 60)
 Rear compartment 200 lb. (+223)
 (For loading instructions, see weight and balance report.)

Fuel capacity

180 gal. (4 tanks in wings - two 44 gal. tanks at +139, two 46 gal. tanks at +127)
 See NOTE 1 for data on system fuel

Oil capacity

32 qt. (16 qt. in each nacelle at +103)
 See NOTE 1 for data on system oil

Control surface movements

Wing flaps		Down	30°
Main surfaces			
Aileron	Up 20°	Down	20°
Elevator	Up 25°	Down	15°
Rudder	Right 25°	Left	25°
Tabs, Anti-Servo (main surfaces in extreme position)			
Aileron	Up 14°	Down	8°
Tabs (main surfaces in neutral)			
Aileron	Up 7-1/2°	Down	7-1/2°
Elevator	Up 10°	Down	22°
Rudder	Right 30°	Left	30°

Serial Nos. eligible

HH-120 through HH-149

Required equipment

Items 7, 101(c) or (e) and (d), 102(c), 103(b), 201(a), 202(a) or (b), 205(a), 206(a) or (b), 301(d) or (e), 302(a) or (b), 401(v) and 602

XI. Model D50C, Twin Bonanza, 7 PCLM (Normal Category), Approved November 13, 1959

Engines

Two (2) Lycoming GO-480-G2D6

Fuel

100/130 minimum grade aviation gasoline

XII. Model D50E, Twin Bonanza, 7 PCLM (Normal Category), Approved November 10, 1960
Model D50E-5990, Twin Bonanza, 7 PCLM (Normal Category), Approved March 21, 1974

Engines	Two (2) Lycoming GO-480-G2F6		
Fuel	100/130 minimum grade aviation gasoline		
Engine limits	Takeoff (one minute), 3400 rpm. (295 hp.) For all other operations, 3100 rpm. (285 hp.)		
Airspeed limits (TIAS)	Maneuvering	185 mph. (161 knots)	
	Maximum structural cruising	205 mph. (178 knots)	
	Never exceed	270 mph. (235 knots)	
	Design dive	300 mph. (261 knots)	
	Flaps extended	150 mph. (130 knots)	
	Landing gear extended	150 mph. (130 knots)	
C.G. range (landing gear extended)	(+116.8) to (+125.6) at 6300 lb. (+116.1) to (+125.6) at 5990 lb. (D50E-5990) (+115.5) to (+125.6) at 5700 lb. Straight line variation between points given		
Empty wt. C.G. range	None		
Maximum weight	6300 lb. 5990 lb. (See NOTE 3)		
No. of seats	Maximum 7, Normal 6 (crew 2 at +116) (See loading instructions for passenger loading)		
Maximum baggage (structural limits)	Forward compartment	395 lb. (+ 60)	
	Rear compartment	200 lb. (+223)	
	(For loading instructions, see weight and balance report.)		
Fuel capacity	134 gal. (4 tanks in wings - two 44 gal. tanks at +139, two 23 gal. tanks at +117) See NOTE 1 for data on system fuel.		
Oil capacity	24 qt. (12 qt. in each engine at +72) See NOTE 1 for data on system oil.		
Control surface movements	Wing flaps		Down 30°
	Main surfaces		
	Aileron	Up 20°	Down 20°
	Elevator	Up 25°	Down 15°
	Rudder	Right 25°	Left 25°
	Tabs (main surfaces in neutral)		
	Aileron	Up 7-1/2°	Down 7-1/2°
	Elevator	Up 10°	Down 25°
	Rudder	Right 30°	Left 30°
	Tabs, Anti-Servo (main surface in extreme position)		
	Aileron	Up 14°	Down 8°
Serial Nos. eligible	DH-301 through DH-347		
Required equipment	Items 5, 101(a) and (b), 102(d), 103(a), 201(a), 202(a) or (b), 205(a), 206(a) or (b), 301(b) or (c), 302(a) or (b), 401(ee) and 602		

XIII. Model J50, Twin Bonanza, 7 PCLM (Normal Category), Approved November 16, 1960

Engines Two (2) Lycoming IGSO-480-A1B6

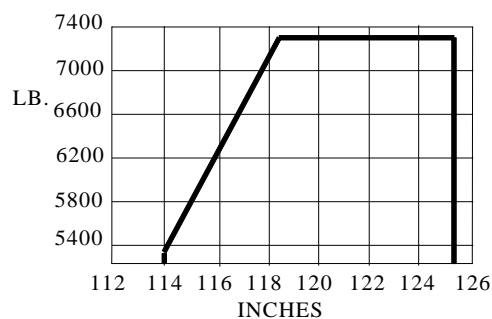
Fuel 100/130 minimum grade aviation gasoline

Engine limits Straight line manifold pressure variation with altitudes shown

	<u>HP</u>	<u>RPM</u>	<u>MP</u>	<u>ALT</u>
Takeoff	340	3400	48.0	S.L.
Takeoff	340	3400	44.0	11,000
Maximum continuous	320	3200	45.0	S.L.
Maximum continuous	320	3200	41.3	11,000

Airspeed limits (TIAS)	Maneuvering	185 mph. (161 knots)
	Maximum structural cruising	205 mph. (178 knots)
	Never exceed	270 mph. (235 knots)
	Design dive	300 mph. (261 knots)
	Flaps extended	150 mph. (130 knots)
	Landing gear extended	150 mph. (130 knots)

C.G. range (landing gear extended) (+118.4) to (+125.6) at 7300 lb.
 (+114.0) to (+125.6) at 5350 lb.
 Straight line variation between points given



Empty wt. C.G. range None

Maximum weight Landing 7000 lb.
 Takeoff 7300 lb.

No. of seats Maximum 7, Normal 6 (crew at +116) (See loading instructions for passenger loading.)

Maximum baggage (structural limits)	Forward compartment	395 lb. (+ 60)
	Rear compartment	200 lb. (+223)
	(For loading instructions, see weight and balance report.)	

Fuel capacity 180 gal. (4 tanks in wings - two 44 gal. tanks at +139, two 46 gal. tanks at +127)
 See NOTE 1 for data on system fuel

Oil capacity 32 qt. (16 qt. in each nacelle at +103)
 See NOTE 1 for data on system oil

XIII. Model J50 (cont'd);

Control surface movements	Wing flaps	Down	30°
	Main surfaces		
	Aileron	Up 20°	Down 20°
	Elevator	Up 25°	Down 15°
	Rudder	Right 25°	Left 25°
	Tabs, Anti-Servo (main surface in extreme position)		
	Aileron	Up 14°	Down 8°
	Tabs (main surfaces in neutral)		
	Aileron	Up 7-1/2°	Down 7-1/2°
	Elevator	Up 10°	Down 22°
	Rudder	Right 30°	Left 30°
Serial Nos. eligible	JH-150 through JH-176		
Required equipment	Items 7 or 10, 101(c) or (e) and (d), 102(c), 103(b), 201(a), 202(a) or (b), 205(a), 206(a) or (b), 301(d) or (e), 302(a) or (b) or (d), 401(ff) and 602		

Specifications Pertinent to All Models

Datum	125 in. forward of wing main spar centerline
Leveling means	Two screws provided on RH side of rear baggage compartment fuselage bulkhead. Plumb bob is used to level.
Certification Basis	<p><u>Model 50</u> Part 3 of Civil Air Regulations effective November 1, 1949, Amendments 1 through 5.</p> <p><u>Models B50, C50, D50, D50A, D50B, D50C, D50E, E50 and F50</u> Part 3 of Civil Air Regulations, Amendments 1 through 8 (except 3.668 of Amendment 7).</p> <p><u>Model D50E-5990</u> Part 3 of Civil Air Regulations, Amendments 1 through 8 and Para. 23.25 of FAR 23 as amended through Amendment 7.</p> <p><u>Models G50, H50 and J50</u> Part 3 of Civil Air Regulations, Amendments 1 through 8 and Para. 3.242 of Amendment 14 (except 3.668 of Amendment 7).</p>
Production Basis	Production Certificate No. 8. For all models except 50, B50 and S/N CH-111 through CH-352 of Model C50, delegation option manufacturer No. CE-2 authorized to issue airworthiness certificates under delegation option provisions of Part 21 of the Federal Aviation Regulations.
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 a Federal Aviation Administration 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.

Specifications Pertinent to All Models (cont'd)**Propeller and Propeller Accessories (except deicing equipment)**

1. Two Beech constant speed propeller installations
 - (a) Beech B200-115 hub with B200-247-96 blades and 62 lb. ea. (+ 47)
 B200-236 hydraulic motor (for Model 50 only)
 Pitch settings at 36 in. sta.:
 low 10.5°, high not under 33.5°
 Diameter: not over 96 in., not under 94-1/16 in.
 - (b) Beech B200-250 hydraulic governor assembly 3 lb. ea. (+ 90)
 - (c) Beech 50-960009 propeller spinner 5 lb. ea. (+ 44)
2. Two Beech full-feathering propeller installations
 - (a) Beech 214-100 hub with 214-211-96 blades, 214-200 85 lb. ea. (+ 47)
 transmission unit and 268-203 spinner (for Model 50 only)
 Pitch settings at 36 in. sta.:
 Positive stops in propeller hub
 low 10-1/2°, high 87° - 93°
 Stops in 214-200 transmission unit
 low (hydraulic) 11-1/4°
 low (electrical) 40° - 50°
 high (electrical) 83° - 93°
 Diameter: not over 96 in., not under 94-1/16 in.
 (Beech 50-960010 spinner eligible in place standard 268-203 spinner; with
 50-960010 spinner, propeller weight is 83 lb. ea. (+47))
 - or (d) Beech 214-102 hub with 272-234-98 aluminum alloy blades 102 lb. ea. (+ 47)
 214-200 transmission unit and 268-203 or 272-102 spinner
 (for Model 50 or B50)
 Pitch settings at 36 in. sta.:
 Positive stops in propeller hub:
 low 13°, high 87° - 93°
 Stops in 214-200 transmission unit:
 low (hydraulic) 13-3/4°
 low (electrical) 40° - 50°
 high (electrical) 83° - 85°
 Diameter: not over 98-1/2 in., not under 97-1/2 in.
 Engine limits: takeoff (one minute), 3400 rpm. (260 hp.)
 for all other operations, 3100 rpm. (245 hp.)
 Lycoming GO-435-C2 or -C2E engines with nameplate specifying 245 max. continuous
 hp. at 3100 rpm., Beech 50-939129 oil radiators (Item 102(b)), Beech 50-950030 exhaust stacks,
 engine tachometers marked with red arc between 2875 and 3075 rpm. indicating the restriction
 against continuous engine operation in this speed range are required with this propeller. Airplane
 Flight Manual Supplement (Item 401(b)) also required for Model 50.
 - or (e) Beech 272-100 hub with 272-234-98 aluminum alloy blades 102 lb. (+ 47)
 272-200 transmission unit and 268-203 or 272-102 spinner, (for Model 50 or B50)
 Pitch settings at 36 in. sta.:
 Positive stops in propeller hub:
 low 13°, high 87° - 93°
 Stops in 214-200 transmission unit:
 low (hydraulic) 13-3/4°
 low (electrical) 40° - 50°
 high (electrical) 83° - 85°
 Diameter: not over 98-1/2 in., not under 97-1/2 in.
 Engine limits: Takeoff (one minute), 3400 rpm. (260 hp.)
 For all other operations, 3100 rpm. (245 hp.)

Specifications Pertinent to All Models (cont'd)**Propeller and Propeller Accessories (except deicing equipment)** (cont'd)

2. (e) Lycoming GO-435-C2 or -C2E engines with nameplate specifying 245 max. continuous hp. at 3100 rpm., Beech 50-939129 oil radiators (Item 102(b)), Beech 50-950030 exhaust stacks, engine tachometers marked with a red arc between 2875 and 3075 rpm. indicating the restriction against continuous engine operation in this speed range are required with this propeller. Airplane Flight Manual Supplement (Item 401(b)) also required for Model 50.
- and (b) Beech B200-250 hydraulic governor assembly 3 lb. ea. (+ 90)

3. Two Beech full-feathering propeller installations (for Model C50 only)
 - (a) Beech 279-100 hub with 279-234-94.5 aluminum alloy blades and spinner 88 lb. ea. (+ 46)
 Pitch settings at 36 in. sta.:
 low 13.5°, high 84°
 Diameter: not over 94-1/2 in., not under 94 in. or
 not over 94-1/2 in., not under 92 in.
 Engine tachometers are to be marked with a red arc (1) between 2250 and 2500 rpm. for 94-1/2 to 94 inch diameter propellers or (2) between 2200 and 2500 rpm. for 94-1/2 to 92 inch diameter propellers indicating restriction against continuous engine operation in the pertinent speed range.
 - or (d) Beech 279-100 hub with 279-207-98 aluminum alloy blades and spinner 88 lb. ea. (+ 46)
 Pitch settings at 36 in. sta.:
 low 13.5°, high 84°
 Diameter: not over 98-1/2 in., not under 97-1/2 in. or
 not over 94-1/2 in., not under 92 in.
 Engine tachometers are to be marked with a red arc between 2200 and 2500 rpm. indicating the restriction against continuous engine operation in this speed range. Airplane Flight Manual, Item 401(e), revised May 10, 1955, or item 401(i) dated November 18, 1955, required with this propeller.
 - and (b) Propeller governor, Beech 279-220 (Woodward 210085) 3 lb. ea. (+ 53)
 - and (c) Feathering pump, Pesco 111059-011-01 7 lb. ea. (+ 86)

4. Two Beech full-feathering installations (for Model B50 with Lycoming GO-435-C2D6 engines)
 - (a) Beech 279 hub with 279-234-94-1/2 aluminum alloy blades and spinner 88 lb. ea. (+ 46)
 Pitch settings at 36 in. sta.:
 low 13.5°, high 84°
 Diameter: not over 94-1/2 in., not under 92 in.
 Engine tachometers marked with red arc between 2250 and 2450 rpm. indicating restriction against continuous operation in this speed range, and Airplane Flight Manual Supplement, Item 401(d), revised October 21, 1954, are required with this propeller.
 - (b) Propeller governor, Beech 279-220 (Woodward 210085) 3 lb. ea. (+ 55)
 - (c) Feathering pump, Pesco 111059-011-01 7 lb. ea. (+ 86)
 - (d) Feathering oil tank installation (See Note 1 for unusable oil) 7 lb. ea. (+ 77)

5. Two Hartzell full-feathering, three-blade propeller installations (D50, D50A, D50B, D50C, D50E)
 - (a) Hartzell HC-B3XF-2A or HC-A3XF-2A or HC-A3VF-2A hub with 103 lb. ea. (+ 47)
 9333C-3 aluminum alloy blades and spinner
 Pitch settings at 30 in. sta.:
 low 16°, high 85.5°
 Diameter: not over 90 in., not under 89 in.
 - (b) Propeller governor (Woodward 210190 or 210180 or 210150 or 4 lb. ea. (+ 55)
 RW 210150 or ZRW 210150 or Z210150 or 210125 or RW 210125)

Specifications Pertinent to All Models (cont'd)**Propeller and Propeller Accessories (except deicing equipment)** (cont'd)

- *6. Two Hartzell full-feathering propeller installations (for Model B50 with GO-435-C2B engines)
- (a) Hartzell HC-83X20-2C/9333C-3 three-blade full-feathering 102 lb. ea. (+ 44)
propeller with Aero Design Spinner Dome, Dwg. 3640014 and Hartzell bulkhead C-807-3
Pitch settings at 30 in. sta.:
low 16°, high 85°
Diameter: not more or less than 90 inches
 - (b) Propeller governor, Hamilton Standard 1Q12 Petrolite Corp., St. Louis, Mo., 3 lb. ea. (+ 53)
FAA Approved Airplane Flight Manual Supplement dated March 27, 1956, required
7. Two Hartzell full-feathering, three-blade propeller installations (E50, F50, G50, H50)
- (a) Hartzell HC-93Z20-2C1 or HC-B3Z20-2A hub with 10151-8 or 125 lb. ea. (+ 43)
10151-8R aluminum alloy blades and 836 spinner
Pitch settings at 30 in. sta.:
low 16°, high 87°
Diameter: not over 93 in., not under 90 in.
 - (b) Propeller governor (Woodward 210190) 4 lb. ea. (+ 50)
8. Propeller unfeathering system in accordance with Beech Dwg. 50-960058 13 lb. ea. (+ 49)
(eligible with Items 7 and 10 only)
9. Propeller unfeathering system in accordance with Beech Dwg. 50-960057 13 lb. ea. (+103)
(eligible with Item 5 only)
10. Two Hartzell full-feathering, three-blade propeller installations (J50)
- (a) Hartzell HC-93Z20-2C1 or HC-B3Z20-2A hub with 10151-8 or 125 lb. ea. (+ 43)
10151-8R aluminum alloy blades and 836 spinner
Pitch settings at 30 in. sta.:
low 16°, high 87°
Diameter: not over 93 in., not under 90 in.
 - (b) Propeller governor (Woodward 210365) 4 lb. ea. (+ 50)

Engine and Engine Accessories (Fuel and Oil Systems)

101. Fuel pumps
- (a) Two electric booster pumps: Adel 24000, 29172 or 56881; 3 lb. ea. (+142)
Beech 50-920073; or Pesco 122723-112-01 or 122723-113-01
 - (b) Two engine-driven pumps: Candler-Hill CH4502-1, Thompson TF-900-1, 3 lb. ea. (+ 88)
TFD-900-1 or TF-900-3; Pesco 2P-R400-BRD or 2P-R400-BRD-5;
Romec RG-9570; or Beech 50-921560-1
 - (c) Four electric booster pumps: Pesco 122723-112-01 or 122723-113-01 or
122723-113-02; or Adel 29172-1
(Two in auxiliary tanks) 3 lb. ea. (+146)
(Two in main tanks) 3 lb. ea. (+142)
 - (d) Two engine-driven pumps: Pesco 2P-R400-BRD or 2P-R400-BRD-5; 3 lb. ea. (+ 83)
or Romec RG-9570; or Candler-Hill CH4502-1; or Thompson TF-900-1; or
Beech 50-921560-3 or 50-921560-23 or 50-389141-7
 - (e) Four electric booster pumps, Adel 56881-1
(Two in auxiliary tanks) 3 lb. ea. (+146)
(Two in main tanks) 3 lb. ea. (+142)
Item 401(p) required for G50

Specifications Pertinent to All Models (cont'd)**Engine and Engine Accessories (Fuel and Oil Systems)** (cont'd)

102. Oil radiators (See Note 1 for data on system oil)
- | | |
|---|------------------|
| (a) Two Harrison 8517694 | 6 lb. ea. (+ 66) |
| or (b) Two Beech 50-939129 | 8 lb. ea. (+ 66) |
| (c) Two Harrison 8525330 | 8 lb. ea. (+ 93) |
| (d) Four: two Beech 50-939129 and | 8 lb. ea. (+ 66) |
| two Harrison 8527362 | 2 lb. ea. (+ 55) |
103. Two carburetor air cleaners
- | | |
|-------------------------------|------------------|
| (a) Beech 189187 | 1 lb. ea. (+ 64) |
| (b) Air Maze 120993 or 122172 | 1 lb. ea. (+ 65) |
104. Two vacuum pumps
- | | |
|--|------------------|
| (a) Aro A513DB or Pesco 3P-194F, Garwin G-450 or G-455 | 4 lb. ea. (+ 92) |
| (50, B50, C50, D50, D50A, D50B, D50C, D50E) | |
| (b) Pesco 3P-194F, Garwin G-450 or G-455 (E50, F50, G50, H50, J50) | 4 lb. ea. (+ 84) |
105. Two starters
- | | |
|---|-------------------|
| (a) Eclipse Pioneer (type E80): 756-54, 756-56, 756-60C, 756-62C, 756-62D | 19 lb. ea. (+ 91) |
| or 756-162D; Beech 50-91081 (50, B50, C50, D50, D50A, D50B, D50C, D50E) | |
| (b) Bendix 756-10C or Garwin G-760 (E50, F50, G50, H50, J50) | 19 lb. ea. (+ 83) |
106. Two 46 gal. auxiliary fuel tanks at (+127), replacing two standard 23 gal. auxiliary fuel tanks +22 lb. (+137)
- | | |
|---|--|
| (a) For Model C50 (See Note 1 for data on system fuel) | |
| Empty wt. C.G. range (using baggage placards) | |
| Straight line variation between points given | |
| Forward compartment 100 lb. | |
| Rear compartment 200 lb. | |
| (+116.1) to (+117.1) at 4500 lb. | |
| +114.3) to (+116.5) at 4210 lb. | |
| +114.3) to (+115.9) at 3900 lb. | |
| (b) or Models D50, D50A, D50B, D50C, D50E (See Note 1 for data on system fuel)) | |
| (c), (d), (e), (f) Delete | |
107. Two 71 gal. auxiliary fuel tanks at (+129), replacing two standard 46 gal. auxiliary fuel tanks. See Note 1 for data on system fuel (E50, F50, G50, H50, J50) +27 lb. (+136)
108. Engines
- | | |
|--|--|
| (a) Lycoming GO-480-G2D6 (same limits as for GO-480-C2C6 and C2D6) | |
| Two Harrison C-54934 or 8527362 oil coolers, 2 lb. ea. (+55) must be installed | |
| in accordance with Beech instructions. Item 401(k) required to replace 401(h). | |

Specifications Pertinent to All Models (cont'd)**Engine and Engine Accessories (Fuel and Oil Systems)** (cont'd)

109. Two Aerojet Model 15NS-250 installed per Beech Mod. C.O. B37082 or Beech kit Dwg. 50-001079 for Models B50, C50, D50, D50A, D50B, E50, F50, G50; per Beech Dwg. 50-910209 or 50-001079 for Models D50C and H50; per Beech Dwg. 50-910209-19 or 50-001079 for Model D50E; per Beech Dwg. 50-910209-15 or 50-001079 for Model J50.
- | | | |
|-------------------------|--------|--------|
| (1) Engines charged | 98 lb. | (+141) |
| (2) Engines not charged | 56 lb. | (+140) |
| (3) Engines removed | 14 lb. | (+130) |

Airplane Flight Manual Supplements as follows required:

B50, C50 (S/N CH-111 - CH-352); P/N 50-001080 dated August 27, 1959

C50 (S/N CH-353 - CH-360), D50, D50A, D50B, E50, F50; P/N 50-001081 dated August 2, 1959, or 50-590127-7 dated April 20, 1962, or later.

G50, P/N 50-590116-11 revision dated June 30, 1959, or 50-590127-7 dated April 20, 1962, or later.

H50, J50, P/N 50-590126-7 revision dated November 11, 1960, or 50-590127-7 dated April 20, 1962, or later.

D50C, P/N 50-590127-7 dated November 10, 1959, or 50-590127-7 dated April 20, 1962, or later.

D50E, P/N 50-590127-7 revision dated October 31, 1960, or later.

The gross takeoff weight of B50, C50, D50, D50A, D50B, D50C, D50E, E50, F50 and G50 is increased 100 lb., and the H50 or J50 is increased 50 lb. requiring extension of the forward and aft weight C.G. envelope lines to the values shown below:

B50, C50	(+117.2) to (+124.6) at 6100 lb.
D50, D50A, D50B	(+117.1) to (+124.6) at 6400 lb.
D50C	(+117.1) to (+125.6) at 6400 lb.
D50E	(+117.0) to (+125.6) at 6400 lb.
E50, F50 (same as G50 with Item 110)	(+118.2) to (+124.6) at 7100 lb.
G50	(+118.6) to (+124.6) at 7100 lb.
H50, J50	(+118.5) to (+125.6) at 7350 lb.

110. Fuel injection engines

- (a) Two Lycoming IGSO-480-A1A6 installed per Beech Dwg. 50-001085 for Models E50 and F50 S/N eligible EH-1 through EH-70 and FH-71 through FH-96 except FH-94.

Limitations: same as set forth in Sections V and VII of this specification except as noted below:

C.G. range (landing	(+119.6) to (+124.6) at 7300 lb.
gear extended)	(+114.0) to (+124.6) at 5350 lb. or less
	Straight line variation between points given.
Maximum weight	Landing 7000 lb.
	Takeoff 7300 lb.

Airplane Flight Manual Supplement dated September 20, 1963, for Models E50 and F50, Beech P/N 130364.

111. Heated fuel vents - two outboard heated fuel cell vents and two inboard heated fuel cell vents installed per Beech Dwg. 50-001090 (Models 50, B50, C50, D50, D50A, D50B, D50C, D50E, E50, G50, H50 and J50) Negligible weight
112. Two induction air heaters and temperature gage installed per Beech Dwg. 50-910235 and 50-590075 or 65-001074 (E50, F50 with Item 110, G50, H50, J50). 9 lb. (+112)
Airplane Flight Manual Supplement P/N 130042 dated January 15, 1962, or later required.
113. Induction system alcohol and anti-icing
- (a) Per Beech Dwg. 50-960069 or 65-001076 (with Item 501) for G50, H50, J50. 10 lb. (+105)
Airplane Flight Manual Supplement P/N 130062 dated January 10, 1962, or later required.
- (b) Per Beech Dwg. 50-960069-53 (without Item 501) including pump, 35 lb. (+111)
3 gal tank, lines and 20 lb. fluid (fluid arm is +114) for J50. Airplane Flight Manual Supplement, P/N 130062, dated January 10, 1962, or later required.

Specifications Pertinent to All Models (cont'd)**Engine and Engine Accessories (Fuel and Oil Systems)** (cont'd)

114. Rocket engines

- | | | |
|------------------------------|---------|--------|
| (1) Engines charged..... | 106 lb. | (+141) |
| (2) Engines not charged..... | 58 lb. | (+140) |
| (3) Engines removed..... | 14 lb. | (+130) |
- (a) Two Aerojet Model 12NS-350 installed per Beech Dwg. 50-910209 or kit Dwg. 50-001079. Airplane Flight Manual Supplements as follows required:
B50, C50 (S/N CH-111 through CH-352), P/N 50-001080 dated February 27, 1964, or March 9, 1965. C50 (S/N CH-353 through CH-360) D50, D50A, D50B, D50C, D50E, E50, F50, G50, H50 and J50, P/N 50-590127-7 dated February 28, 1964, or March 8, 1965.
- (b) Two Aerojet Model 12NS-350CBA installed per Beech Dwg. 50-910209 or kit Dwg. 50-001079. Airplane Flight Manual Supplements as follows required:
B50, C50 (S/N CH-111 through CH-352) P/N 50-001080 dated March 9, 1965. C50 (S/N CH-353 through CH-360), D50, D50A, D50B, D50C, D50E, E50, F50, G50, H50 and J50 P/N 50-590127-7 dated March 8, 1965.
The gross takeoff weight of B50, C50, D50, D50A, D50B, D50C, D50E, E50, F50, G50 is increased 100 lb. and of H50 and J50 is increased 50 lb. requiring extension of forward and aft weight C.G. envelope lines to the values shown below:
- | | |
|--------------------------------------|----------------------------------|
| B50, C50 | (+117.2) to (+124.6) at 6100 lb. |
| D50, D50A, D50B | (+117.1) to (+124.6) at 6400 lb. |
| D50C | (+117.1) to (+125.6) at 6400 lb. |
| D50E | (+117.0) to (+125.6) at 6400 lb. |
| E50, F50 (same as G50 with Item 110) | (+118.2) to (+124.6) at 7100 lb. |
| G50 | (+118.6) to (+124.6) at 7250 lb. |
| H50, J50 | (+118.5) to (+125.6) at 7350 lb. |

Landing Gear

- | | | |
|--|------------|--------|
| 201. Two main wheel-brake assemblies, 24 x 7.7, Type VII | 25 lb. ea. | (+142) |
|--|------------|--------|
- (a) Goodyear Model L24 x 7.7 HEM
wheel assembly No. 530840 or 530840M-1 or 9531395 or 9542891 or A9542623
Brake assembly No. 9530303
- | | | |
|---|------------|--------|
| 202. (a) Two main wheel 6-ply rating tires, 8.50-10 Type III (with regular tubes) | 26 lb. ea. | (+142) |
| or (b) Two main wheel 8-ply rating tires, 8.50-10, Type III (with regular tubes) | 27 lb. ea. | (+142) |
- | | | |
|--|-------|--------|
| 205. One nose wheel, 6.50-10, Type III | 8 lb. | (+ 13) |
|--|-------|--------|
- (a) Goodyear Model 610NBM
Assembly No. 9521176 or 9544061
- | | | |
|--|--------|--------|
| 206. (a) One nose wheel 4-ply rating tire, 6.50-10, Type III (with regular tube) | 14 lb. | (+ 13) |
| or (b) One nose-wheel 6-ply rating tire, 6.50-10, Type III (with regular tube) | 15 lb. | (+ 13) |

Electrical Equipment

301. Generators

- | | | |
|---|------------|--------|
| (a) Two 75 a. Eclipse 1298-1 (50, S/N H-1, H-3, H-4 only) | 23 lb. ea. | (+ 91) |
| (b) Two 50 a. Leece-Neville 24225 with Beech condenser support bracket..... | 20 lb. ea. | (+ 91) |
| (c) Two 75 a. Bendix 1273-1 or Beech 50-910227-7 (D50, D50A, D50B, D50C, D50E) | 32 lb. ea. | (+ 91) |
| (d) Two 100 a. Bendix 901-9B. | 27 lb. ea. | (+ 82) |
| (e) Two 50 a. Bendix 1345-3-A or 30824-1A | 15 lb. ea. | (+ 82) |
| (f) Two 125 a. alternator-rectifiers installed per Beech Dwg. 65-001078
for Models E50, F50, G50, H50, J50 | 29 lb. ea. | (+ 82) |

Specifications Pertinent to All Models (cont'd)**Electrical Equipment** (cont'd)

302. Battery
- (a) Two 12 v. 37 a. hr. 34 lb. ea. (+101)
 - or (b) Two 12 v. 33 a. hr. 28 lb. ea. (+104)
 - or (c) Two Sonotone, (1) 22000 type CA24A and (1) 22000 type CA24B, 52 lb. (+104)
installed per Beech Dwg. 50-001089 for Models 50, B50 and C50
(S/N CH-111 through CH-352), Item 401(z) required.
 - (d) Two Sonotone, (1) 22000 type CA24A and (1) 22000 type CA24B, 52 lb. (+104)
installed per Beech Dwg. 50-001089 for Models C50 (CH-353 through CH-360),
D50, D50A, D50B, D50C, D50E, E50, F50, G50, H50 and J50.
Item 401(y) required.
303. Two landing lights, 4523 General Electric..... 1 lb. ea. (+113)
- *304. Anti-collision light installed per Aircraftsmen Dwg. 54AED50-19..... 3 lb. ea. (+323)
305. Anti-collision light installed per Beech Dwg. 50-364224..... 3 lb. ea. (+325)
306. Dual anti-collision lights
- (a) Installed per Beech Mod. C.O. B38030..... 5 lb. (+234)
(Models D50, D50A, D50B, D50C, E50, F50, G50 and H50)
 - (b) Installed per Beech Mod. C.O. B54450 (Models D50C, H50) 6 lb. (+234)
 - (c) Installed per Beech Dwg. 50-364258 (Models D50E, J50) 5 lb. (+234)
307. Anti-collision light installed per Beech Dwg. 50-001098) 3 lb. (+140)
(Models 50, B50, C50, D50, D50A, D50B, D50C, E50, F50, G50, H50)

Interior Equipment

401. FAA Approved Airplane Flight Manual (AFM) or Airplane Flight Manual Supplement (AFMS) as noted below:
(FAA Approved AFM or AFMS of previous dates also acceptable provided latest manual or supplement not required by optional equipment item).
- (a) FAA Approved AFM dated January 2, 1953, for Model 50.
 - (b) FAA Approved AFMS revision dated February 10, 1954, for Model 50,
pertinent full-feathering metal propellers, Item 2(d) or (e).
 - (c) FAA Approved AFMS dated March 31, 1952, required with Item 405(a) or (b).
 - (d) FAA Approved AFM dated September 10, 1953, or revision dated October 21, 1954, for
Model B50, (Revision dated October 21, 1954, required with Item 4).
 - (e) FAA Approved AFM dated October 12, 1954, for Model C50; latest
revision dated May 10, 1955, required on airplanes with S/N CH-297 through CH-352.
 - (f) Deleted May 14, 1962.
 - (g) FAA Approved AFMS dated August 5, 1954, required with Item 405(d) for Model B50.
 - (h) DMCR Approved AFM revised February 15, 1957, for Model D50.
 - (i) DMCR Approved AFM dated November 18, 1955, for Model C50, S/N CH-353 through CH-360.
 - (j) DMCR Approved AFM dated December 1, 1956, for Model E50.
(Revision dated June 7, 1957, or later required with GSO-480-B1B6 engine).
Revision dated July 31, 1964, or later required when rounded tip blades (identified as 10151-8R) installed.
 - (k) DMCR Approved AFM dated November 18, 1955, and revised August 1, 1957,
or later required with Item 108(a).
 - (l) DMCR Approved AFM dated October 25, 1957, for Model D50A.
 - (m) DMCR Approved AFM revised February 17, 1958, for Model F50.
Revision dated July 31, 1964, or later required when rounded tip blades (identified as 10151-8R) installed.
 - (n) DMCR Approved AFM dated November 6, 1958, for Model D50B.
 - (o) DMCR Approved AFM dated April 16, 1963, for Model G50. Revision dated
July 31, 1964, or later required when rounded tip blades (identified as 10151-8R) installed.
 - (p) DMCR Approved AFM dated February 22, 1963, for Model G50 required with Item 101(e).
Revision dated July 31, 1964, or later required when rounded tip blades (identified as 10151-8R) installed.

Specifications Pertinent to All Models (cont'd)**Interior Equipment** (cont'd)

401. (q) Deleted December 4, 1961.
 (r) Deleted December 4, 1961.
 (s) DMCR Approved AFMS dated September 1, 1959, required with Item 110 for E50 and F50 only.
 (t) Deleted December 4, 1961.
 (u) DMCR Approved AFM dated November 10, 1959, revised April 21, 1960, for Model D50C.
 (v) DMCR Approved AFM dated February 22, 1963, for Model H50. Revision dated July 31, 1964, or later required when rounded tip blades (identified as 10151-8R) installed.
 (w) Deleted December 4, 1961.
 (x) Deleted December 4, 1961.
 (y) DMCR Approved AFMS dated November 20, 1959 (C50, D50, D50A, D50B, D50C, E50, F50, G50 and H50); revision dated November 11, 1960 (D50E and H50) required with Item 302(d).
 (z) FAA Approved AFMS dated November 20, 1959, required with Item 302(c) for Models 50, B50 and C50 (S/N CH-111 through CH-352).
 (aa) DMCR Approved AFMS revised December 20, 1960, required with Item 503.
 (bb) DMCR Approved AFMS dated April 5, 1960 (C50, D50, D50A, D50B, D50C, E50, F50, G50 and H50), revision dated November 11, 1960 (D50E and J50) required with Item 603.
 (cc) DMCR Approved AFM for Model H50 revised August 3, 1960, required with Item 406.
 (dd) DMCR Approved AFM for Model D50C revised August 3, 1960, required with Item 406.
 (ee) DMCR Approved AFM dated August 6, 1962, or later for Model D50E or DMCR Approved AFM dated October 25, 1960, and revised February 22, 1961, for D50E (S/N's DH-301 through DH-332), or DOA AFM dated October 16, 1973, for Model D50E-5990.
 (ff) DMCR Approved AFM dated February 22, 1963, for Model J50. Revision dated July 31, 1964, or later required when rounded tip blades (identified as 10151-8R) installed.
 (gg) DMCR Approved AFMS dated November 11, 1960, required with Item 502(c).
 (hh) FAA Approved AFMS dated May 2, 1955, required with Item 502(a)(1).
 (ii) FAA Approved AFMS dated May 10, 1955, required with Item 502(a)(2).
 (jj) DMCR Approved AFMS dated December 30, 1959, required with Item 502(b).
402. Beech 50-571010-298 cabin heaters (modified Stewart-Warner model 978-MC-24 or 979B-1.) 18 lb. (+113)
403. Beech 50-555015 cabin heater (modified surface combustion heater model 83A28), Beech 50-554098 blower and Beech 50-554010 connecting duct. 24 lb. (+ 47)
404. Two 3-minute parachute flares, Kilgore-International Wiley SA-8 (Model 50, S/N H-2 through H-5 only). 49 lb. (+130)
405. Automatic pilot installation
- (a) Lear L-2C according to Aircraftsmen, Inc. Dwg. 52-ACH-11 and Beech Dwg. 50-000001. (Model 50 only). Item 401(c) required. 56 lb. (+147)
- (b) Lear L-2C according to Aircraftsmen, Inc. Dwg. 52-ACH-111 and Beech Dwg. 50-000002. (Model 50 only). Item 401(c) required. 58 lb. (+160)
- *(c) Lear L-2C according to Lear Dwg. 700200, Rev. D (1350B approach coupler and 2203D altitude controller eligible but not included in above weight). (B50 and C50 only). AFM Supplement dated December 2, 1954 (B50) or April 6, 1962 (B50 and C50), required. 59 lb. (+213)

Pertinent to All Models (cont'd)**Interior Equipment** (cont'd)

405. *(d) Lear L-5 according to Lear Dwg. 700252B (Model B50 only)
 Item 401(g) required. Servo slip clutch stall torque in in.-lb. $\pm 10\%$: 87 lb. (+206)
- | | <u>L-2C</u>
(Item a) | <u>L-2C</u>
(Item b) | <u>L-2C</u>
(Item c) | <u>L-5</u>
(Item d) |
|----------|-------------------------|-------------------------|-------------------------|------------------------|
| Rudder | 90 | 175 | 175 | 175 |
| Aileron | 40 | 75 | 75 | 75 |
| Elevator | 20 | 40 | 18 | 18 |
- The following placard should be installed in a conspicuous place near the automatic pilot controller in full view of the pilot: "See Flight Manual for Autopilot Operations and Limitations."
- (e) SP-3 per Beech Dwg. 50-500019 or 50-001116 (Retro-Fit Kits) (B50, C50, D50, D50A, D50B, D50C, D50E, E50, F50, G50, H50, J50). AFM Supplement, P/N 130017 dated November 3, 1961, required. 33 lb. (+207)
- (f) SP-3 with altitude hold per Beech Dwg. 50-500019 or 50-001116 (Retro-Fit Kits) (B50, C50, D50, D50A, D50B, D50C, D50E, E50, F50, G50, H50, J50). AFM Supplement P/N 130017 dated November 3, 1961, required. 38 lb. (+212)
- (g) Sperry course director coupler per Beech Dwg. 50-500019 or 50-001116 (Retro-Fit Kits) (D50E and J50). Eligible with Items 405(e) or (f) when used in conjunction with ARC CD-3 or CD-4 course directors. 5 lb. (+248)
406. Dual control column (T-type) per Beech 35-524575-8. Item 401(cc) required for Model H50, Item 401(dd) required for Model D50C. Use act. wt. change
407. High pressure, continuous flow, oxygen system
- (a) Installed per Beech Dwg. 50-560000 43 lb. (+196)
- (b) Installed per Beech Dwg. 50-560000-113 43 lb. (+204)
- (c) Installed per Beech Mod. C.O. B37091 (Models D50, D50A, D50B, E50, F50, G50). 44 lb. (+203)
- (d) Installed per Beech Dwg. 50-560000-115 (Models D50C, H50) 43 lb. (+204)
- (e) Installed per Beech Dwg. 50-560000-191 (Models D50E, J50). 43 lb. (+214)
- (f) Installed per Beech Dwg. 50-001122-3 or -5 or -7 or -9 and 414-001058 or 414-001059. Use act. wt. change
408. 7-place couch and chair arrangement per Beech Mod. C.O. B12740 (replacing standard 3-place rear seat) (Models D50, E50, D50A, D50B, F50, G50). See Item 414 for subsequent models.
- One chair 33 lb. (+163)
- One 3-place couch 48 lb. (+166)
409. Double reclining chair arrangement per Beech Mod. C.O. B8413 (replacing standard 3-place rear seat) (Models D50, E50, D50A, D50B, F50, G50).
- Two chairs 66 lb. (+163)
410. AVQ-50 weather avoidance radar
- (a) Installed per Beech Mod. C.O. B30865 (Model E50 (L-23D), F50, D50A, D50B, G50) 107 lb. (+119)
- (b) Installed per Beech Mod. C.O. B42757 (Model D50C, D50E, H50, J50). 112 lb. (+ 62)
411. Baggage compartment chair and couch arrangement per Beech Mod. C.O. B32305 (D50B and G50, except S/N GH-94). 28 lb. (+223)
413. Reclining chair installation per Beech Mod. C.O. B37089 - to be used with Item 109 only. (Models D50, D50A, D50B, E50, F50, G50 only).
- One chair 36 lb. (+192)
414. 7-place couch and chair arrangement per Beech Dwg. 50-534300 (replacing two rear left-hand seats). Models H50, D50C, D50E and J50 eligible 48 lb. (+166)

Specifications Pertinent to All Models (cont'd)**Interior Equipment** (cont'd)

415. 8-place seating arrangement per Beech Dwg. 50-001150
for Models B50, C50, D50, D50A, D50B, E50, F50, G50. Use act. wt. change

De-Icing Equipment (Propellers, Wing and Windshield)

501. Propeller anti-icer (with propellers, Items 2(d), 2(e), 3, 4, 5 or 7)
 (a) 3 gal. tank, pump, lines and 20 lb. of fluid (fluid arm is +114)..... 32 lb. (+110)
 (b) Propeller slinger and blade feed strip installation 1 lb. ea. (+ 49)
 or (c) Propeller slinger ring and blade feed strip installation (with Item 7 only). 1 lb. ea. (+ 44)
502. Goodrich type 21 deicer boots
 (a) Installed per Beech Dwg. 50-970000 for:
 (1) Model 50, S/N H-1 Flight Supplement, Item 401(hh) 140 lb. (+152)
 (2) Model 50, B50, C50 (S/N CH-111 through CH-296 only)
 Flight Manual Supplement, Item 401(ii) required. 130 lb. (+153)
 (3) Model C50 (S/N CH-297 and up), D50, D50A, D50B, E50, F50, G50..... 130 lb. (+153)
 (b) Installed per Beech Mod. C.O. B44414 for Models H50 and D50C. 130 lb. (+153)
 D50C. Flight Manual Supplement, Item 401(jj), required.
 (c) Installed per Beech Mod. C.O. B58747 for Models D50E and J50
 Flight Manual Supplement, Item 401(gg) required. 130 lb. (+153)
503. Goodrich type 23 (lightweight) deicer boot installation according to:
 (a) Beech Dwg. 50-970002, 50-970003 and 50-001114 for H50, J50, D50C, D50E.
 Airplane Flight Manual Supplement 401(aa) revised December 20, 1960, required. 76 lb. (+130)
 or (b) Beech Dwg. 50-001114 for Models D50C and H50. Airplane Flight Manual
 Supplement 401(aa) revised December 20, 1960, required. 76 lb. (+130)
 or (c) Beech Dwg. 50-001105 for Models C50 (S/N's CH-353 through CH-360)
 D50, D50A, D50B, E50, F50 and G50. Airplane Flight Manual Supplement 401(aa)
 revised December 20, 1960, required. 76 lb. (+130)
 or (d) Beech Dwg. 65-001106-5 for Models G50, H50, J50.
 Airplane Flight Manual Supplement P/N 130356 dated December 6, 1963, required. 81 lb. (+150)
 or (e) Beech Dwg. 65-001106-3 for Models E50, F50, G50, H50, J50
 Airplane Flight Manual Supplement P/N 130356 dated December 6, 1963, required.
 The following are required when this item is installed:
 Item 501(a) and (b) or (c), 602, 603, heated pitot head per Beech Dwg. 50-320010
 and approved antenna masts. 89 lb. (+151)
504. Goodrich electrothermal propeller deicer installation per Beech Dwg. 50-960066
 for Model J50. DMCR Approved Airplane Flight Manual Supplement P/N 50-590130-13
 dated March 8, 1961, required. .. 12 lb. (+ 61)

Miscellaneous (not listed above)

601. Safe flight stall warning indicator No. 151
602. Safe flight stall warning indicator 168-2 (heated) or 168-3 (heated) when Item 503 installed.
603. Alternate instrument static air source per Beech Dwg. 50-320010..... Negligible weight
 for Models D50C, D50E, H50 and J50, or 50-001106 for Models B50, C50, D50, D50A,
 D50B, E50, F50 and G50. Item 401(bb) or Flight Manual Supplement dated May 12, 1961, required.

NOTE 1. Current weight and balance report together with list of equipment included in certificated empty weight and loading instructions when necessary, must be provided for 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:

- | | | |
|-----|--|---|
| (a) | Models 50 and B50 | Fuel 4 lb. at (+134) |
| | | Oil 5 lb. at (+ 68) with Item 102(a) |
| | | or 6 lb. at (+ 68) with Item 102(b) |
| (b) | Models C50, D50, D50A,
D50B, D50C, D50E | Fuel 4 lb. at (+134) (standard arrangement) |
| | | or 14 lb. at (+139) with Item 106 |
| | | Oil 12 lb. at (+ 79) (including 6 lb. feathering oil)
(C50 only) |
| | | or 6 lb. at (+ 68) (D50, D50A, D50B) |
| (c) | Models E50, F50, G50,
H50, J50 | Fuel 14 lb. at (+139) (standard arrangement) |
| | | 12 lb. at (+132) with Item 107 |
| | | Oil 8 lb. at (+ 76) |

NOTE 2. The following placard must be displayed:

- (a) In front of and in clear view of the pilots: "This airplane must be operated as a normal category airplane in compliance with the Airplane Flight Manual. No acrobatic maneuvers including spins approved."
- (b) On fuel selector panel: "Use 100/130 or next higher grade fuel only." "Press to purge fuel line." When optional auxiliary tanks installed, "Use auxiliary fuel in level flight only."

NOTE 3. Model D50E, when modified per Beech Kit No. 50-5001-1 and re-identified as Model D50E-5990, eligible for 5990 lb. maximum gross weight.

---- END ----