Weight and Balance
Info
Debionair 9742Y
Ser. No. CD-611

JO-DEL ELECTRONICS
Regional Airport, Rt. 1
Columbia, Missouri 65201
CRS SS2R172L

Revised Weight and Balance Data and Supplement Equipment List

Model : Beech 35-B33
Serial Number : CD-611
Registration No. : N9742Y
Date : July 14, 1992

Supercedes Weight and Balance dated : December 13, 1978

	Weight	Arm	Moment
Previous Empty Weight	1882.98	77.99	146855.82
	Weight	**Arm**	**Moment**
Equipment Removed;			
The following equipment was removed but was not previously included in the weight and balance.			
By Persons Unknown:			
Motorola ADF T-12B System			
Motorola M-400 Nav/Com System			
Removed by Jo-Del Electronics			
KX 170A/KI 208			
Equipment Installed;			
FN 200 Avionics Fan	1.20	59.60	71.52
KX155 Nav/Com S/N16016	4.74	62.85	297.91
KR87 ADF Receiver S/N47252	3.20	62.80	200.96
KI208 S/N58872	1.00	64.73	64.73
KA44B ADF Antenna S/N48024	3.20	106.10	339.52
KI227 ADF Indicator S/N35097	0.70	66.60	46.62
Totals	1897.02		147877.08

New Empty Weight	1897.02
New C.G.	77.95
New Moment	147877.08
Useful Load	1102.98
Gross Weight	3000.00

Del Albertson
JO-DEL ELECTRONICS
CRS SS2R172L

JO-DEL ELECTRONICS
RT.1, REGIONAL AIRPORT
COLUMBIA, MISSOURI 65201
(314) 874-4141
FAA REPAIR STATION NO. 363-34

Revised Weight and Balance Data and Supplemental Equipment List

Model: 35-B33
Serial Number: CD-611
Registration Number: N9742Y
Date: December 17, 1988

Supercedes Weight and Balance dated October 13, 1978

	Weight	Arm	Moment
Previous Empty Weight	1881.50	~~78.07~~ 77.97	146893.05 146704.01
Removed:			
KX 160 Nav/Com	5.40	63.00	340.20
KS 505 Power Supply	3.40	52.00	176.80
KI 201 Indicator	2.50	63.00	157.50
			146029.51
	1870.20		146218.55
Installed:			
KX 155 S/N 60352	5.30	63.18	334.85
KI 209 S/N 25557	1.20	65.10	78.12
Northstar M1 Loran S/N 18200	4.20	62.13	260.94
2011 Coupler	.28	103.00	28.84
CI 122SP Antenna	.40	104.00	41.60
AR 850 S/N 34151	.80	53.00	42.40
SPA 400 S/N 6020967	.60	65.88	39.52
	1882.98	~~78.09~~ 77.99	147044.82 146855.82

Superceded by wt+bal July 14, 1992

New Empty Weight	1882.98	
New C.G.	~~78.05~~ 77.99	
New Moment	~~147044.82~~ 146855.82	
Useful Load	~~1114.02~~ 1117.02	
Gross Weight	~~2997.00~~ 3000.00	

Del Whelman
Jo-Del Electronics
Certified Repair
Station 363-34

#1

AIRCRAFT EMPTY WEIGHT AND BALANCE

MODEL 35-B33

SERIAL NO. CD-611

REGIST. NO. N9742Y

COMPUTED BY LBP

CHECKED BY

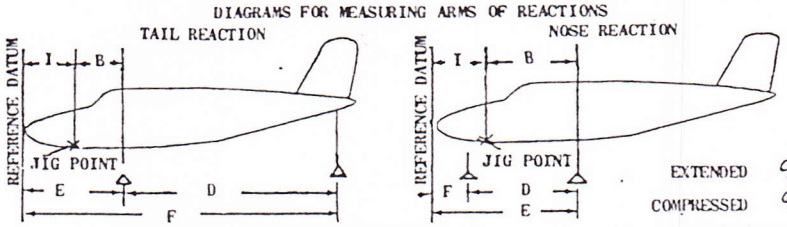
DATE 2-28-63

APPLICABLE FORM NO'S.

USEFUL LOAD WEIGHTS & MOMENTS
90-910

GROSS WEIGHT MOMENT LIMITS
90-910-1

DIAGRAMS FOR MEASURING ARMS OF REACTIONS



STRUT POSITION	E	F
EXTENDED	96	11.8
COMPRESSED	97	13.1

B= 0 — The distance from the jig point to the centerline of the main reactions. Obtain by measurement. (The jig point is usually identified in the "Datum" Definition on the Applicable FAA Aircraft Specification or Type Certificate Data Sheet.

I = 83.1 — The distance from the reference datum to the jig point of the Airplane from which a plumb bob can be dropped to the ground. Obtain from the applicable FAA Aircraft Specification or Type Certificate Data Sheet.

D= 187.9 — The wheel base (or the distance between fore and aft reactions). Obtain by measurement.

E= 83.1 — The distance from the Reference Datum to the centerline of the main reactions. E = I ∕ B (with jig point FWD of ℄ of main reactions). E = I - B (with jig point AFT of ℄ of main reactions). Check against approx. dimension 'E' above when aircraft is weighed on wheels.

F= 271.0 — The distance from the reference datum to the centerline of the nose or tail reaction. F = E - D (for nose reaction weighing). F = E ∕ D (for tail reaction weighing) Check against approx. dimension 'F' above when aircraft is weighed on wheels.

WEIGHTS ARE TO BE RECORDED IN POUNDS AND TENTHS OF A POUND. MEASUREMENTS ARE TO BE RECORDED IN INCHES AND TENTHS OF AN INCH. MOMENTS ARE TO BE RECORDED IN WHOLE INCH POUNDS.

REACTION (Wheels, Jack Points, ETC.)	SCALE Reading	TARE	NET WEIGHT	ARM	MOMENT
LEFT MAIN					
RIGHT MAIN					
SUB-TOTAL (BOTH MAIN)				× E =	
NOSE OR TAIL				× F =	
TOTAL (AS WEIGHED)					

IF USEFUL LOAD ITEMS ARE IN AIRPLANE AS WEIGHED, THEY SHOULD BE SUBTRACTED IN SPACE BELOW.
IF ALL EMPTY WEIGHT ITEMS ARE NOT IN AIRPLANE AS WEIGHED THEY SHOULD BE ADDED IN SPACE BELOW.

	1754	77.91	136647
	98		7884
CORRECTED EMPTY WEIGHT	1952	78.0	144531
UNUSABLE OIL	3	31	93
UNUSABLE FUEL	9	79	711
FAA CERTIFICATED WEIGHT Computed	1864	78.0	145305

90-761-1C INSTRUCTIONS FOR PROPER LOADINGS SHOWN ON REVERSE SIDE

INSTRUCTIONS FOR PROPER LOADING

It is the responsibility of the airplane owner and pilot to insure that the airplane is properly loaded. At the time of delivery, Beech Aircraft Corporation provides in this section the necessary weight and balance data for the pilot or owner to compute individual loadings with minimum effort. All subsequent changes in weight and balance are the responsibility of the airplane owner and are normally computed on FAA Form ACA-337, "Major Repair and Alteration Form", in accordance with the instructions contained in Federal Aviation Manual 18, "Maintenance, Repair, and Alteration of Airframes, Powerplants, Propellers, and Appliances."

The FAA Certificated Weight and Moment of the Airplane at the time of delivery is shown on the previous Aircraft Empty Weight and Balance Form. FAA approved Useful Load Weights and Moments of useful load items which may be loaded into the Airplane are shown on the Useful Load Weights and Moments Tables. Moment is the weight of an item multiplied by its arm (horizontal distance from the Reference Datum to the Center of Gravity of the item). The minimum and maximum moments approved by the FAA for various gross weights are shown on the Gross Weight Moment Limits Table. These Moments correspond to the forward and aft Center of Gravity flight limits for a particular weight. All Moments are divided as noted by either 1000 (last three digits dropped) or 100 (last two digits dropped) to simplify computations.

COMPUTING PROCEDURE

1. Record the FAA Certificated Weight and Moment from the Aircraft Empty Weight and Balance Form (or from the latest Repair and Alteration Form ACA-337 if the airplane has been altered and the latest information has not been entered on the Aircraft Empty Weight and Balance Form). The moment must be divided by 1000 or 100 to correspond to Useful Load Moments.

2. Record the weight and corresponding moment of each useful load item to be carried. These values are found on the Useful Load Weights and Moments Tables.

3. Total the weight column and moment column. The total weight must not exceed the maximum allowable gross weight for take-off, and the total moment must be within the minimum and maximum moments shown on the Gross Weight Moment Limits Table.

The airplane must be loaded properly throughout the flight; therefore the loading must be checked for fuel usage.

4. Record the weights and corresponding moments of fuel in the incremental sequence in which it will be used. Refer to the Procedures Section of the Flight Manual for possible fuel usage sequence restrictions.

EXAMPLE

Item	Weight	Mom. / 100
Corrected Empty Weight	1864	1453
Oil 10 QTS	19	5
Anti-Icer Fluid (Gal.)		
Pilot	170	145
Copilot	170	145
Passenger	170	199
Passenger	170	199
Passenger		
Baggage or Cargo	41	57
Fuel 44 GAL.	396	297
Total at Take-Off	3000	2500
Use Fuel 44 GAL.	-396	-297
Sub-Total		
Sub-Total		
Sub-Total		
Total at Landing	2604	2203

5. Subtract in steps, sub-totaling each step, the incremental weight and moment from the take-off weight and moment. The total weight at landing must not exceed the allowable landing weight. The moment for each sub-total must be within the minimum and maximum moments shown on Gross Weight Moment Limits Table for the nearest weight. In each of the above cases, if the total moment is less than the minimum moment allowed, useful load items must be shifted aft or forward load items reduced. If the total moment is greater than the maximum moment allowed, useful load items must be shifted forward or aft load items reduced. If the quantity or location of load items are changed, the calculations must be revised and the moments rechecked.

Serial CD-611
Registration N9742Y
Date 2-28-63

BEECHCRAFT MODEL 35-B33
EQUIPMENT LIST

X - Installed in Airplane O - Not Installed in Airplane

	Item	Weight	Arm
	10. Flottorp Propeller		
x	(a) F-12A-5 Propeller Assembly, Blades 8400-0	65	1
x	(c) Flottorp Governor, 1F-1 (Garwin 34-825)	5	10
x	(d) Flottorp Propeller Spinner FS 200-1	5	1
	101. Fuel Pumps		
x	(d) Engine Driven - Continental Motors 626062-2	2	39
X	(e) Weldon 4020-A-1-A or 4020-A-2-A or 4032A	3	74
O	(f) Thompson 221100-3	3	74
x	102. Oil Radiator (b) Harrison 8528220	5	11
x	103. Carburetor Air Cleaner	1	10
	104. Vacuum Pump		
X	(a) ARO A-513-DB or Pesco 3P-194F or Garwin G-450 or Garwin G-455	4	41
	105. Starter		
x	(d) Delco-Remy 1109684 (Continental Motors 627842)	13	39
	or (e) Delco-Remy 1109694 (Continental Motors 628482)	13	39
x	109. Starter Solenoid, Delco-Remy 1114213 or 1118823	Neg.	
X	111. Two 39-Gallon Auxiliary Fuel Tanks replacing two Standard 24.5-Gallon Tanks	+11	75
	201. Two Main Wheel-Brake Assemblies		
O	(b) Goodyear 6.50 - 8, Type III, No. PD 931 Wheel Assembly No. 9532135 Brake Assembly No. 9532167 or 9532475 or 9532412 or 9532679	25	97
	or (d) Cleveland 6.00 - 6	19	97
X	Wheel Assembly 40-37 Brake Assembly 30.24		
	202 Main Wheel Tires		
O	(b) Two 6.50 - 8 Side Inflatable 4 or 6-ply rating Tubeless Tires	21	97
	or (c) Two 6.00 - 6 Side Inflatable 4 or 6-ply rating		
X	Tubeless Tires	20	97
x	205. One Nose Wheel 5.00 - 5 (c) Cleveland Aircraft No. 21-100	4	12
x	206. (b) One Nose Wheel Side Inflatable 4-ply rating Tubeless Tire	5	12
O	211. Copilot Brakes	4	54
	301. Generator		
X	(c) 50-Amp Continental 627272 or Delco-Remy 1101912	16	37
O	or (d) 35-Amp Continental 627273 or Delco-Remy 1101913	16	37
x	302. Battery (c) 12-Volt, 33-Amp-Hr	28	45
x	303. Landing Light (b) One General Electric 4522 on Nose Strut	1	11

X - Installed in Airplane O - Not Installed in Airplane

	Item	Weight	Arm
X	304. Voltage Regulator		
	(b) Delco-Remy 1119224c (Used with 301. (c))	2	48
O	or (c) Delco-Remy 1119220c (Used with 301. (d))	2	48
X	Dual Control Column	+3	72
x	403. DMCR Approved Airplane Flight Manual		
	(m) Model 35-B33 dated August 30, 1962 latest revision		
O	405. (a) Tactair T-3 Autopilot per Beech Drawing 33-500000	19	100
O	(b) AH-1 Altitude Hold per Beech MCO 57557	2	58
O	406. Tactair T-2 Autopilot per Beech Drawing MCO 46005 (includes gyros)	13	79
O	408. Beech Power Flight Control Autopilot		
	(a) Autopilot per Beech Drawing 33-500013-1	6	87
O	(b) Autopilot per Beech Drawing 33-500013-5	10	79
x	601. Stall Warning Indicator Installation		
	(a) Safe-Flight - Beech Drawing 35-361025	Neg.	
X	602. Heated Pitot Head		
	(b) Beech Drawing 33-361010 or 33-001022	1	74
x	603. Aileron Trimmer Control	1	73
	SPECIAL EQUIPMENT		
	Instruments, Extra		
X	Directional Gyro	4	66
X	Horizon Gyro	4	66
X	Turn and Bank	2	66
X	Rate of Climb	1	66
O	Rotating Beacon Light	2	182
O	Instrument Post Lights	1	68
X	Dual Rotating Beacon	4	142
O	Headrests	1 each	Var.
X	Third Window	3	142
X	Right Hand Rudder Pedals	4	55
X	Center Arm Rests	2	83
X	Beech New-Matic Flight control/STC SA136WE	6	87

*Supplement Required

2-15-63

CD 611

N 9742Y

2-27-63

	Item	Weight	Arm
	Motorola M-400 NAV COMM w/550 omni		
X	350 A NAV COMM	7	63
X	401A power supply	2	52
X	A-15 Antenna	1	98
Y	Microphone and headset	1	83
X	speaker	1	102
X	Shelf	1	53
X	550 omni	3	66
X	wiring, plugs, etc.	2	57
X	VOR Antenna	1	190
	Motorola ADF-T-12B		
X	201 A Tuner	4	63
X	551 A INDICATOR	2	67
X	Sense Indicator	1	61
X	2321 E loop Antenna	1	163
X	Loop cable, harness, etc.	2	55
		29	2103

AIRCRAFT WEIGHT AND BALANCE

Beechcraft Debonair 35-B33 | N 9742Y | S/N# CD-611 DATE 10/13/78

OLD AIRCRAFT	Empty Weight. . . .	1879.4 LBS.
	Empty Weight C G	77.82
	Useful	1117.6 LBS.
	Moment	~~146506.3~~ 146317.3

Add 1 (one) Hoskins SilverStar I Strobe

2,125 LBS. at STA 182.00 Moment 386.75

NEW AIRCRAFT	Empty Weight	1881.5 LBS.
	Empty Weight C G	~~78.07~~ 77.97
	Useful	1115.5 LBS.
	Moment	~~146893.05~~ 146704.05

Bruce Rebechini
A&P2224931.

Superseded by wt & bal. Dated 12-17-80

CD 611

N 9742Y

2-27-63

	Item	Weight	Arm
	Motorola M-400 NAV COMM w/550 omni		
X	350A NAV COMM	7	63
X	401A Power Supply	2	52
X	A-15 Antenna	1	98
Y	Microphone and headset	1	83
X	speaker	1	102
X	Shelf	1	53
X	550 omni	3	66
X	wiring, plugs, etc.	2	57
X	VOR Antenna	1	190
	Motorola ADF-T-12B		
X	201A Tuner	4	63
X	551A INDICATOR	2	67
X	Sense Indicator	1	61
X	2321E loop Antenna	1	163
X	Loop cable, harness, etc.	2	55
		29	2103

INSTRUCTIONS

This form must be completed in duplicate each time a major repair and/or alteration is made of an aircraft, airframe, power-, propeller or appliance. After the repair and/or alteration has been inspected and item 8 completed, the original copy of this [illegible]m will be made available to the aircraft owner for retention as part of the aircraft records. The duplicate copy is retained by the FAA for administrative purposes.

See CAM 18 for detailed instructions concerning the information to be furnished with this form and instructions concerning its preparation.

8. DESCRIPTION OF WORK ACCOMPLISHED.*

1. Installed King KX-160, wt.5.4 lbs., in factory provided panel. Cut hole in panel the size of radio box and riveted 4(four) ½" by ½" extruded aluminum bulb angles to aft side of panel with 20(twenty), (five per angle) AN426 AD4-6 rivets. Box is secured to side attach angles with 8(eight), 10-32 machine screws and anchor nuts. (two per side).
2. Installed King KS-505 power supply, wt.3.4 lbs., on factory provided tray located on the rear side of left hand firewall. The power supply is attached to a factory provided mount, which in turn is attached to the tray by 4(four) 8-32 machine screws and stop nuts.
3. Installed King KI-201 omni head, wt.2.5 lbs., in an existing, factory provided hole in the instrument panel.
4. Installed Narco MBT-12,3 light marker beacon, wt.1.1 lbs., in existing factory provided holes at top, left hand side of instrument panel. Installed marker beacon antenna in center of belly, just aft of baggage compartment, between stations 151.00 and 179.00.
5. Installed whip antenna and doubler plate on top of fuselage at station 151.00. (just aft of baggage compartment) The antenna is mounted five-eights of an inch aft of the bulkhead and one inch to left of center. The doubler plate is fabricated of 2024 T-3 .032 alclad aluminum and is triangular in shape. The sides measure 6½" by 6½" with a three-eights inch flange running from the left side of the bulkhead (station 151.00) to the center stringer. The plate is secured with 21(twenty-one) AN456AD3-5 rivets. The above antenna's were installed in accordance with C.A.M. 18.30-22(k) and 18.30-22(m). No interference with static air vents noted.
6. The MBT-12 marker beacon is powered by the Motorola M-400 radio. The KX-160 is powered by the buss bar located at the right hand side of the instrument panel and is fused through a 10 amp. circuit breaker installed in a factory provided hole.
7. Cannon plugs, electrical connectors, and fittings supplied by equipment manufactuer. Wiring bundles manufactured by an outside agency.
8. The above installations were static load tested with 3g's up, 9g's forward, 6.6g's down and 1.5g's side load and were found to meet C.A.M.3.386 requirements. No permanent deformation of structure was evident. (Part 23.561)
9. Electrical load checked per C.A.M.18.30-12(1). The maximum continous running load @10% is 28.8 amps. which is within 80% of normal generator output of 50 amps. Delco-Remy 1101912 50amp., 12 volt generator installed.
10. The above installations have been operationally checked in flight in accordance with the manufacturers instructions and have been found to meet C.A.M.3.652 requirements. (Part 23.1301)

(weight & balance follows on sheet 2)

*If additional space is needed attach additional sheets bearing aircraft nationality and registration mark and date work completed.

Check block if additional sheets are attached. ☒

U.S. GOVERNMENT PRINTING OFFICE : 1961 O - [illegible]

Feb. 11, 1965 Sheet 2 of 2 N9742X (Sheet #2)

Weight & Balance

Item	Weight	Arm	Moment
Aircraft Empty Weight	1864.0	78.0	145305.0
King KX-160	5.4	63.0	340.2
King KS-505 Power Supply	3.4	52.0	176.8
KI-201 Omni Head	2.5	63.0	157.5
MBT-12 Marker Beacon	1.1	63.0	69.3
Marker Beacon Antenna	.5	161.0	80.5
Whip Antenna	.5	148.0	74.0
Wireing, Plugs, etc.	2.0	57.0	114.0
	1879.4		146317.3

146317.3 / 1879.4 = 77.91" New Empty Weight C.G.

C.G. Range---(77.1)-(86.7) @ 3000 Lb. Gross.
(77.0)-(86.7) @ 2600 Lbs. or Less.

Max. Gross Wt. 3000.0 Lbs.
Empty Wt. 1879.4 Lbs.
Useful Load 1120.6 Lbs.

New Index Unit 1463

It is the responsibility of the owner and pilot to insure that this aircraft is properly loaded.

---------- END ----------