

SECTION 6 WEIGHT & BALANCE/ EQUIPMENT LIST

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INTRODUCTION

This section describes the procedure for establishing the basic empty weight and moment of the airplane. Sample forms are provided for reference. Procedures for calculating the weight and moment for various operations are also provided. A comprehensive list of all Cessna equipment available for this airplane is included at the back of this section.

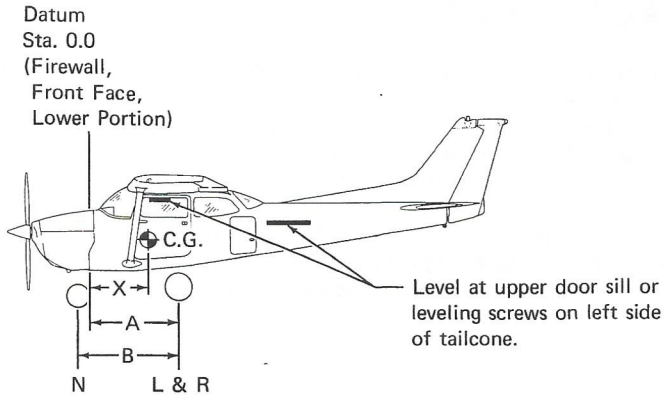
It should be noted that specific information regarding the weight, arm, moment and installed equipment list for this airplane can only be found in the appropriate weight and balance records carried in the airplane.

AIRPLANE WEIGHING PROCEDURES

- (1) Preparation:
 - a. Inflate tires to recommended operating pressures.
 - b. Remove the fuel tank sump quick-drain fittings and fuel selector valve drain plug to drain all fuel.
 - c. Remove oil sump drain plug to drain all oil.
 - d. Move sliding seats to the most forward position.
 - e. Raise flaps to the fully retracted position.
 - f. Place all control surfaces in neutral position.
- (2) Leveling:
 - a. Place scales under each wheel (minimum scale capacity, 500 pounds nose, 1000 pounds each main).
 - b. Deflate the nose tire and/or lower or raise the nose strut to properly center the bubble in the level (see Figure 6-1).
- (3) Weighing:
 - a. With the airplane level and brakes released, record the weight shown on each scale. Deduct the tare, if any, from each reading.
- (4) Measuring:
 - a. Obtain measurement A by measuring horizontally (along the airplane center line) from a line stretched between the main wheel centers to a plumb bob dropped from the firewall.
 - b. Obtain measurement B by measuring horizontally and parallel to the airplane center line, from center of nose wheel axle, left side, to a plumb bob dropped from the line between the main wheel centers. Repeat on right side and average the measurements.

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Scale Position	Scale Reading	Tare	Symbol	Net Weight
Left Wheel			L	
Right Wheel			R	
Nose Wheel			N	
Sum of Net Weights (As Weighed)			W	

$$X = \text{ARM} = \frac{(A) - (N) \times (B)}{W}, X = (\quad) - \frac{(\quad) \times (\quad)}{(\quad)} = (\quad) \text{ IN.}$$

Item	Weight (Lbs.)	X C.G. Arm (In.)	Moment/1000 (Lbs.-In.)
Airplane Weight (From Item 5, page 6-6)			
Add Oil:			
No Oil Filter (6 Qts at 7.5 Lbs/Gal)		-14.0	
With Oil Filter (7 Qts at 7.5 Lbs/Gal)		-14.0	
Add Unusable Fuel:			
Std. Tanks (3 Gal at 6 Lbs/Gal)		46.0	
L.R. Tanks (4 Gal at 6 Lbs/Gal)		46.0	
Equipment Changes			
Airplane Basic Empty Weight			

Figure 6-1. Sample Airplane Weighing

SAMPLE WEIGHT AND BALANCE RECORD

(Continuous History of Changes in Structure or Equipment Affecting Weight and Balance)

AIRPLANE MODEL		SERIAL NUMBER			PAGE NUMBER		
DATE	ITEM NO. In Out	DESCRIPTION OF ARTICLE OR MODIFICATION	WEIGHT CHANGE			RUNNING BASIC EMPTY WEIGHT	
			ADDED (+)		REMOVED (-)	Wt. (lb.)	Moment /1000
			Wt. (lb.)	Arm (In.)	Moment /1000	Wt. (lb.)	Moment /1000

Figure 6-2. Sample Weight and Balance Record

- (5) Using weights from (3) and measurements from (4) the airplane weight and C. G. can be determined.
- (6) Basic Empty Weight may be determined by completing Figure 6-1.

WEIGHT AND BALANCE

The following information will enable you to operate your Cessna within the prescribed weight and center of gravity limitations. To figure weight and balance, use the Sample Problem, Loading Graph, and Center of Gravity Moment Envelope as follows:

Take the basic empty weight and moment from appropriate weight and balance records carried in your airplane, and enter them in the column titled YOUR AIRPLANE on the Sample Loading Problem.

NOTE

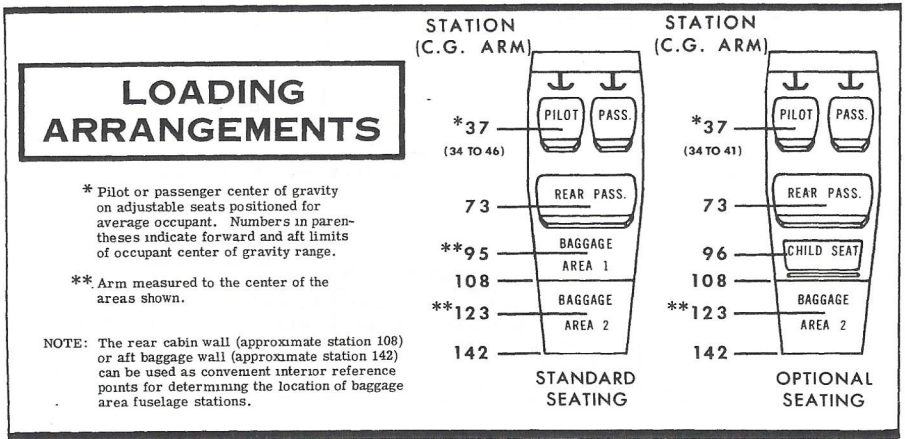
In addition to the basic empty weight and moment noted on these records, the c. g. arm (fuselage station) is also shown, but need not be used on the Sample Loading Problem. The moment which is shown must be divided by 1000 and this value used as the moment/1000 on the loading problem.

Use the Loading Graph to determine the moment/1000 for each additional item to be carried; then list these on the loading problem.

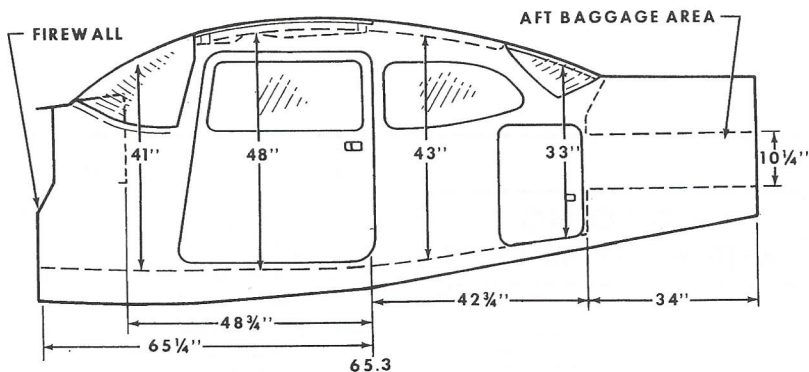
NOTE

Loading Graph information for the pilot, passengers, and baggage is based on seats positioned for average occupants and baggage loaded in the center of the baggage areas as shown on the Loading Arrangements diagram. For loadings which may differ from these, the Sample Loading Problem lists fuselage stations for these items to indicate their forward and aft c. g. range limitations (seat travel and baggage area limitation.). Additional moment calculations, based on the actual weight and c. g. arm (fuselage station) of the item being loaded, must be made if the position of the load is different from that shown on the Loading Graph.

Total the weights and moments/1000 and plot these values on the Center of Gravity Moment Envelope to determine whether the point falls within the envelope, and if the loading is acceptable.



CABIN HEIGHT MEASUREMENTS



DOOR OPENING DIMENSIONS

	WIDTH (TOP)	WIDTH (BOTTOM)	HEIGHT (FRONT)	HEIGHT (REAR)
CABIN DOOR	32"	37"	40"	41"
BAGGAGE DOOR	15 1/4"	15 1/4"	22"	21"

— WIDTH —
● LWR WINDOW LINE
* CABIN FLOOR

CABIN WIDTH MEASUREMENTS

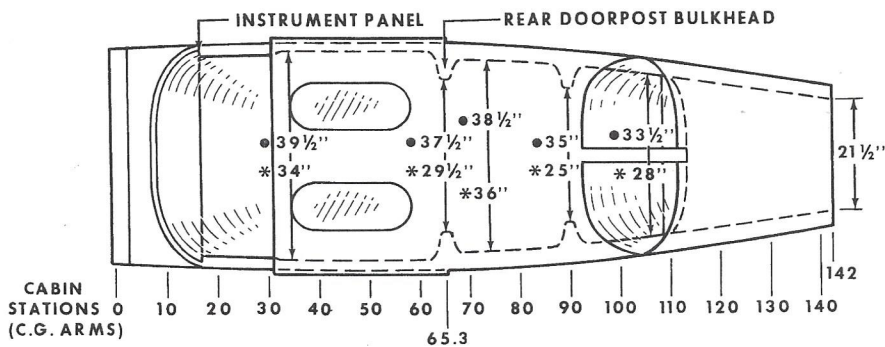
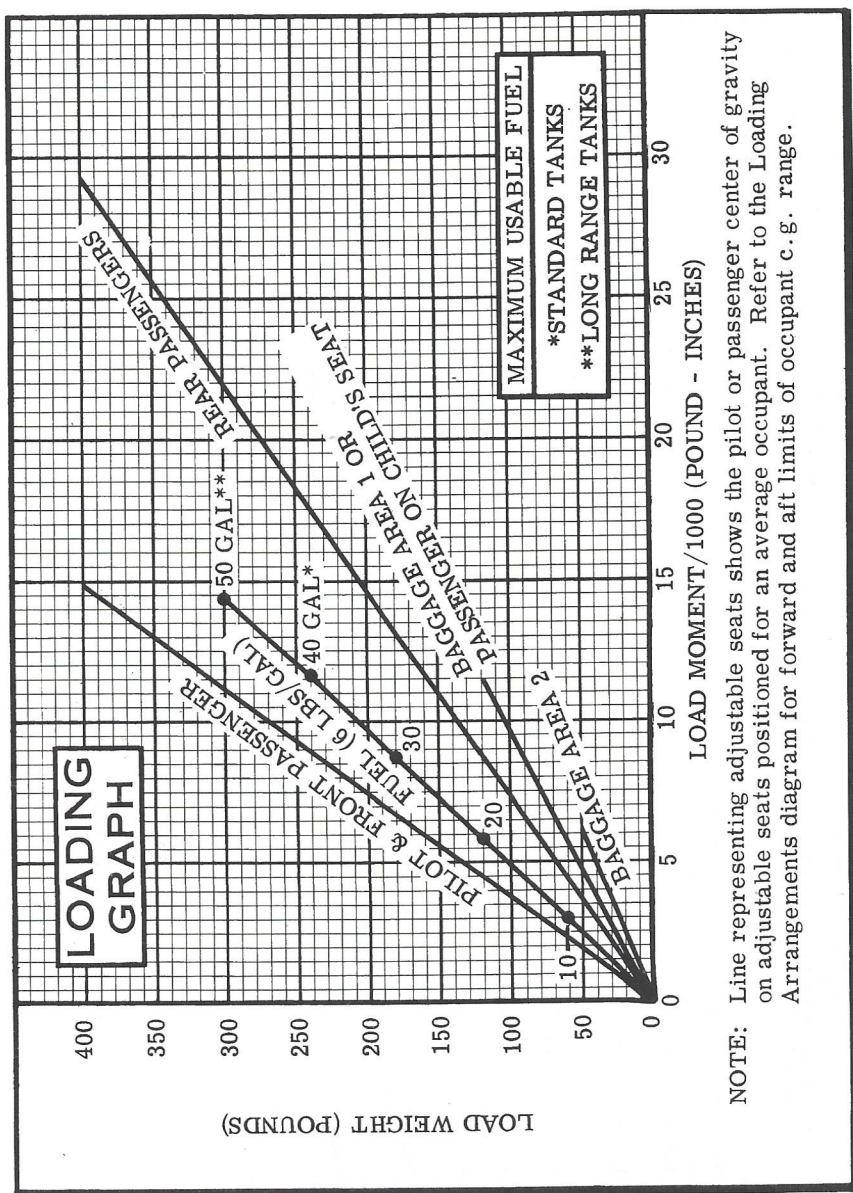


Figure 6-4. Internal Cabin Dimensions

SAMPLE AIRPLANE	YOUR AIRPLANE	
	Weight (lbs.)	Moment (lb.-ins./1000)
<p style="text-align: center;">SAMPLE LOADING PROBLEM</p> <p>1. Basic Empty Weight (Use the data pertaining to your airplane as it is presently equipped. Includes unusable fuel and full oil)</p> <p>2. Usable Fuel (At 6 Lbs./Gal.) Standard Tanks (40 Gal. Maximum) Long Range Tanks (50 Gal. Maximum)</p> <p>3. Pilot and Front Passenger (Station 34 to 46)</p> <p>4. Rear Passengers</p> <p>5. * Baggage Area 1 or Passenger on Child's Seat (Station 82 to 108) 120 Lbs. Max.</p> <p>6. * Baggage Area 2 (Station 108 to 142) 50 Lbs. Max.</p> <p>7. TOTAL WEIGHT AND MOMENT</p> <p>8. Locate this point (2300 at 103.2) on the Center of Gravity Moment Envelope, and since this point falls within the envelope, the loading is acceptable.</p> <p style="text-align: right;">NOTE</p> <p style="text-align: right;">* The maximum allowable combined weight capacity for baggage areas 1 and 2 is 120 lbs.</p>	1454	57.6
	240	11.5
	340	12.6
	170	12.4
	96	9.1
	2300	103.2

Figure 6-5. Sample Loading Problem



NOTE: Line representing adjustable seats shows the pilot or passenger center of gravity on adjustable seats positioned for an average occupant. Refer to the Loading Arrangements diagram for forward and aft limits of occupant c.g. range.

Figure 6-6. Loading Graph

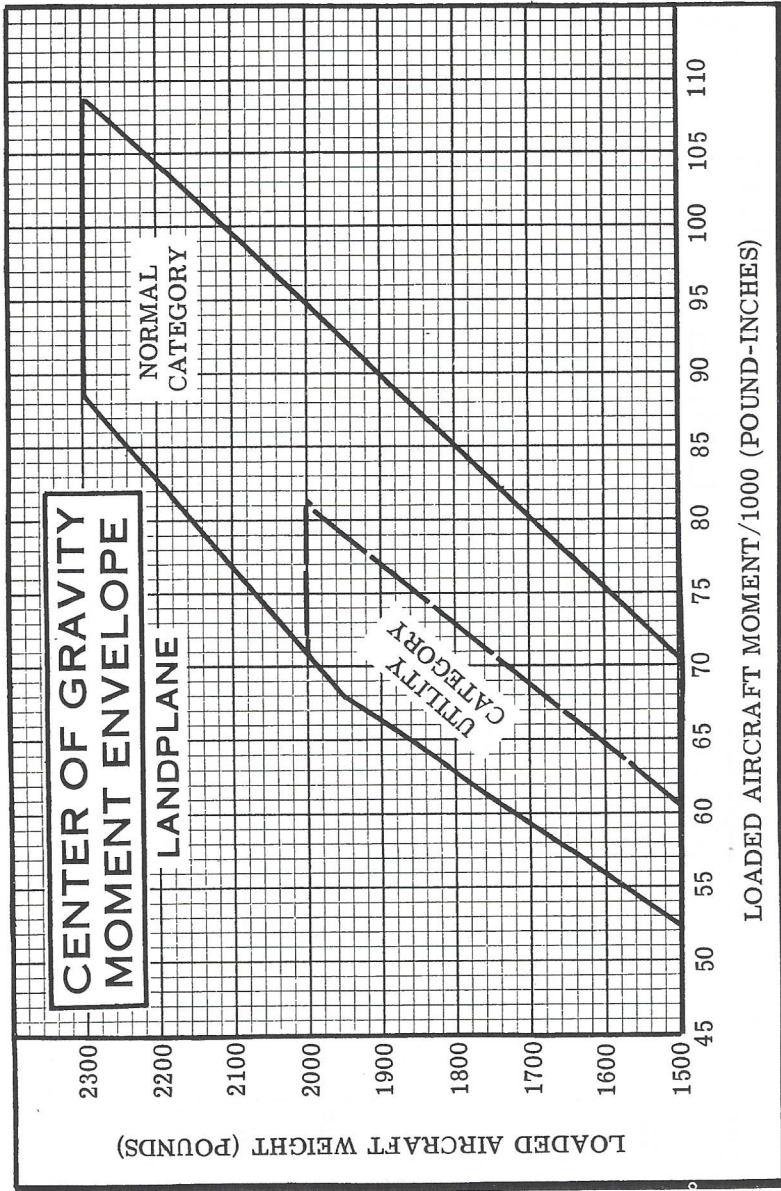


Figure 6-7. Center of Gravity Moment Envelope

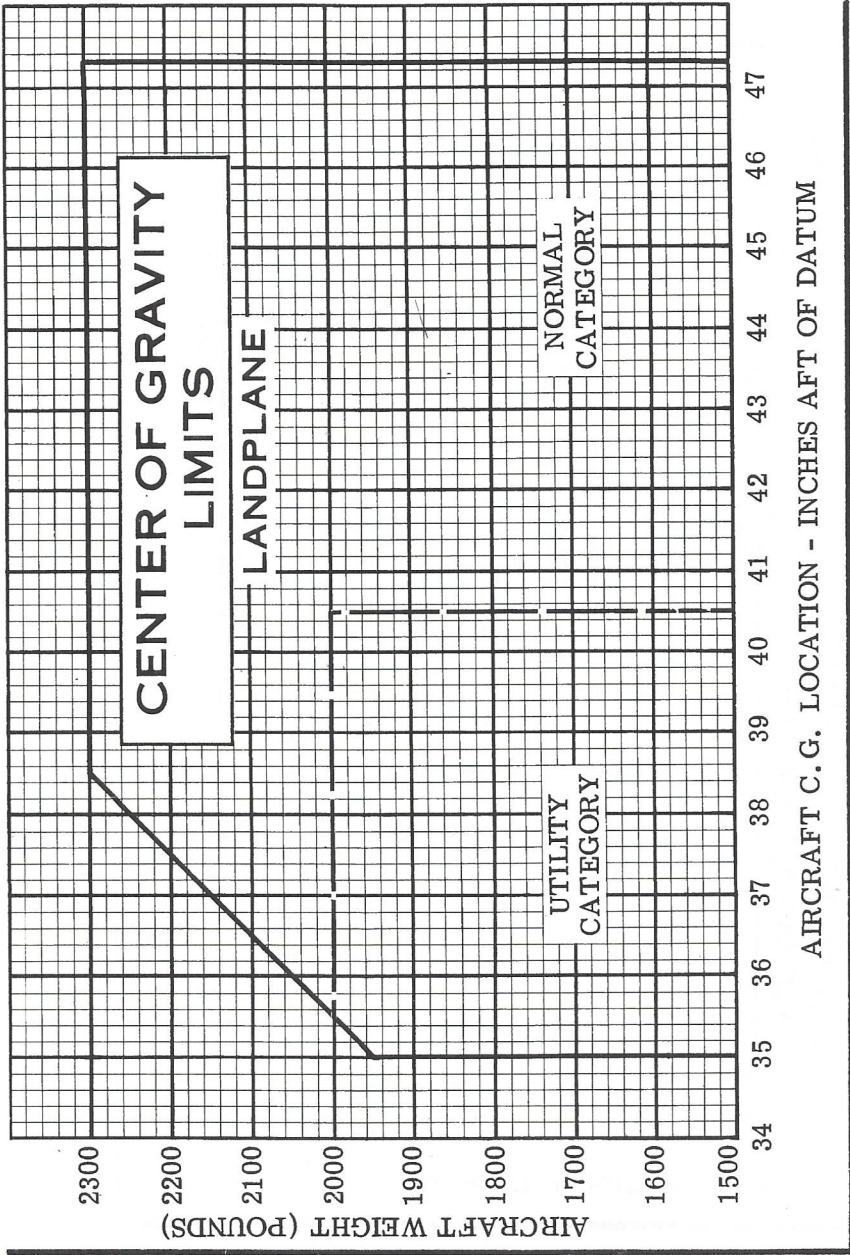


Figure 6-8. Center of Gravity Limits

EQUIPMENT LIST

The following equipment list is a comprehensive list of all Cessna equipment available for this airplane. A separate equipment list of items installed in your specific airplane is provided in your aircraft file. The following list and the specific list for your airplane have a similar order of listing.

This equipment list provides the following information:

An item number gives the identification number for the item. Each number is prefixed with a letter which identifies the descriptive grouping (example:

A. Powerplant & Accessories) under which it is listed. Suffix letters identify the equipment as a required item, a standard item or an optional item. Suffix letters are as follows:

- R = required items of equipment for FAA certification
- S = standard equipment items
- O = optional equipment items replacing required or standard items
- A = optional equipment items which are in addition to required or standard items

A reference drawing column provides the drawing number for the item.

NOTE

If additional equipment is to be installed, it must be done in accordance with the reference drawing, accessory kit instructions, or a separate FAA approval.

Columns showing weight (in pounds) and arm (in inches) provide the weight and center of gravity location for the equipment.

NOTE

Unless otherwise indicated, true values (not net change values) for the weight and arm are shown. Positive arms are distances aft of the airplane datum; negative arms are distances forward of the datum.

NOTE

Asterisks (*) after the item weight and arm indicate complete assembly installations. Some major components of the assembly are listed on the lines immediately following. The summation of these major components does not necessarily equal the complete assembly installation.

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ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS
	A. POWERPLANT & ACCESSORIES			
A01-R	ENGINE, LYCOMING O-320-H2AD (INCLUDES ELECTRIC STARTER, VACUUM PUMP PAD, SPARK PLUGS & CARBURETOR)	0550333	269.5*	-19.7*
A05-R	FILTER, TOR 14 VOLT, 60 AMP (BELT DRIVE)	C294510-0301	0.5	-26.0
A09-R	ALTERNATOR INSTALLATION	C611501-0102	10.5*	-29.5*
A17-R	OIL COOLER	0550333	2.1	-6.5
A21-A	OIL FILTER INSTALLATION (SPIN-ON ELEMENT)	105999A	2.5	-6.5
A33-R	PROPELLER ASSY. (FIXED PITCH-LANDPLANE)	0501060	35.9*	-38.5*
A33-O	PROPELLER ASSY. (MCCAULEY)	C161001-0310	30.1	-39.1
A41-R	PROPELLER ASSY. (FIXED PITCH-FLOATPLANE)	LC160/DTM7557	3.6	-35.4*
A61-S	PROPELLER ASSY. (FIXED PITCH-FLOATPLANE)	C4516	37.5*	-38.9*
	PROPELLER ASSY. (MCCAULEY)	C161001-0311	31.6	-35.4*
	PROPELLER ASSY. (MCCAULEY)	LA175/E TR8044	3.0*	-41.1*
	PROPELLER ASSY. (MCCAULEY)	C4516	2.0*	-45.1
	PROPELLER ASSY. (MCCAULEY)	0350320	1.2	-40.8
	PROPELLER ASSY. (MCCAULEY)	0550236-8	0.3	-40.3
	PROPELLER ASSY. (MCCAULEY)	0550321-4	0.4*	-37.3*
	PROPELLER ASSY. (MCCAULEY)	0501054	4.3*	-3.0*
	PROPELLER ASSY. (MCCAULEY)	C431003	2.0	-6.3
	PROPELLER ASSY. (MCCAULEY)	C294502-0201	0.2	-4.7
	PROPELLER ASSY. (MCCAULEY)	C668509-0101	0.1	16.2
	PROPELLER ASSY. (MCCAULEY)	C482001-0401	0.5	16.5
	PROPELLER ASSY. (MCCAULEY)	0501056-1	0.5	-12.0
	PROPELLER ASSY. (MCCAULEY)	1701015	0.0	-
	B. LANDING GEAR & ACCESSORIES			
B01-R	WHEEL, BRAKE & TIRE ASSY, 6.00X6 MAIN (2) WHEEL ASSY., MCCAULEY (LEFT) BRAKE ASSY., MCCAULEY (RIGHT) TIRE, 4-PLY BLACKWALL	C163015-0201 C163003-0101 C163032-0105 C163032-0106 C262003-0101	41.7* 6.4 1.9 8.5	57.8* 58.2 55.5 58.2

ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS
B04-R	WHEEL & TIRE ASSY, 5.00X5 NOSE (EACH) WHEEL ASSEMBLY, McCAULEY TIRE, 4-PLY BLACKWALL	C262023-0102 C163018-0101 C163005-0201 C262003-0102 C262023-0101 0541225-1	1.8* 8.7* 2.4 4.7 1.2 17.8* 4.0 5.7	58.2* -6.8 -6.8 -6.8 47.1* -4.9 60.3
B10-S	FAIRING INSTALLATION, WHEEL (SET OF 3) NOSE WHEEL FAIRING (EACH) MAIN WHEEL FAIRING			
C. ELECTRICAL SYSTEM				
C01-R	BATTERY, 12 VOLT, 25 AMP HOUR	0511319	23.0	0.0
C04-R	REGULATOR, 14 VOLT, 60 AMP ALTERNATOR	C611001-0201	0.5	3.5
C07-A	GROUND SERVICE PLUG RECEPTACLE	0501053	2.7	-2.6
C16-D	HEATING SYSTEM, PILOT (NET CHANGE)	0423355	0.6	16.5
C22-A	LIGHTS, INSTRUMENT PDS (REQUIRED) INSTALL- ATION OF E34-0 DELUXE GLARESHIELD)	0513094	0.5	
C25-A	LIGHT, MAP (CONTROL WHEEL MOUNTED)	0570087	0.2	21.5
C28-S	LIGHT, MAP & INSTRUMENT PANEL FLOOD (DOORPOST MOUNTED)	0700149	0.3	32.0
C31-A	LIGHTS, COURTESY ENTRANCE (SET OF 2)	0521101	0.5	61.0
C40-A	DETECT OR NAVIGATION LIGHT (SET OF 2)	0701013 -1, -2	NEGL	-
C43-A	LIGHT INSTALLATION, OMNIFLASH BEACON BEACON LIGHT ON FIN TIP	0506003	2.1*	184.2*
	FLASHER POWER SUPPLY	C261001-0105	0.4	243.8
	RESISTOR (MEMCOR)	C594502-0102	0.8	208.1*
C46-A	LIGHT INSTALLATION, WING TIP STROBE FLASHER INSTALLATION, WING TIP (SET OF 2)	0R35-1.5 0501027	0.3*	43.0*
C49-S	STROBE LIGHT, WING TIP (SET OF 2)	C622007-0101	2.3	43.1*
	LIGHT INSTALLATION, COWL MOUNTED LANDING LAMP, 250 WATT (G.E.)	C622006	1.9*	-27.1*
C49-O	LIGHTS, DUAL COWL MOUNTED LANDING LAMP, 250 WATT (G.E.) (EACH)	452102 452101 4509141 4509	0.8* 0.8* 3.2* 0.5	-23.0* -23.0* -29.0

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	D. INSTRUMENTS			
D01-R	INDICATOR, AIRSPEED	C661064-0102	0.6	16.2
D01-U	INDICATOR, TRUE AIRSPEED	0513279	0.7	16.3
D04-A	STATIC AIR ALTERNATE SOURCE	0501017	0.2	15.5
D07-R	ALTIMETER (SENSITIVE (50 FT. MARKINGS)	C661071-0101	1.6	14.0
D07-D-1	ALT (FEET AND MILLIBARS)	C661071-0102	1.0	14.0
D07-D-2	ALTIMETER (SENSITIVE) 20FT. MARKINGS	C661025-0102	1.0	14.0
D10-A	ALTIMETER, 2ND UNIT INSTALLATION (DUAL)	2001015	1.0	14.5
D16-A-1	ENCODING ALTIMETER (REQUIRES RELOCATION OF REGULAR ALTIMETER)	0501049	3.0	14.0
D16-A-2	ENCODING ALTIMETER, FEET & MILLIBARS (RE-QUIRES RELOCATION OF REGULAR ALTIMETER)	0501059	1.5*	14.4*
D16-A-3	ENCODING ALTIMETER, USED WITH TRANSPONDER; (INSTRUMENT PANEL MOUNTING NOT REQUIRED BECAUSE OF NO VISUAL READ OUT)			
D19-R	RECORDER			
D22-A	AMMETER	C744001-0101	1.3	14.6
D25-S	GAGE, CARBURETOR AIR TEMPERATURE	S-1320-5	0.3	16.5
D28-R	CLOCK, ELECTRIC	0513239	1.0	14.0
D38-R	COMPASS, S. MAGNETIC	C664508-0101	0.4	16.3
D41-R	INSTRUMENT CLUSTER, LH & PRESS, OIL TEMP.	0513262-10102	0.5	14.0
D64-S	GYROS, ATTITUDE & DIRECTIONAL INDICATORS (NON-NAV-O-MATIC)	C669511-0102	0.5	16.5
	(NON-NAV-O-MATIC)	0501054-1	5.8*	14.0*
D64-O-1	DIRECTIONAL INDICATOR (AV. OF 3)	C661075	2.7	13.2
	ATTITUDE INDICATOR (AV. OF 3)	C661076	2.2	13.4
	GYRO INSTALLATION (SIMILAR TO D64-S EXCEPT HEADING POINT)	1201126-1	6.3*	13.9*
	GYRO INSTALLATION (INDICATOR HAS A MOVEABLE HEADING POINT)		0.5	13.2
D64-O-2	GYRO INSTALLATION FOR 300A NAV-O-MATIC	0501054-2	6.9*	13.4*
D67-A	GYRO INSTALLATION FOR 300A NAV-O-MATIC	40760	3.3	13.3
D82-S	RECORDER, INSIDE AIR TEMPERATURE	0501052	0.8	12.3
D85-R	GAGE, OUTSIDE AIR TEMPERATURE	C668507-0101	0.1	28.6
	TACHOMETER INSTALLATION, ENGINE	0506004	1.0*	12.1*

ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS
D88-S	RECORDING TACH INDICATOR	C668020-0118	0.7	16.0
D88-0-1	FLEXIBLE TACH SHAFT INDICATOR, TURN COORDINATOR (FOR USE WITH NAV-O-MATIC AND 390A)	S-1605-10 C661003-0504 42320-0014	0.3 1.0 1.9	3.0 15.8 14.6
D88-0-2	INDICATOR, TURN & BANK (NOT COMPATIBLE WITH NAV-O-MATIC)	S-1413N2	2.0	14.5
D91-S	INDICATOR, RATE OF CLIMB	C661080-0101	1.0	14.9
E. CABIN ACCOMMODATIONS				
E02-S	ARM RESTS - 2ND ROW (SET OF 2)	0715039	1.5	72.5
E05-R	SEAT, ADJUSTABLE FORE & AFT - PILOT		12.0	44.0
E05-0	SEAT, INFINITE ADJUSTABLE - PILOT		23.0	44.0
E07-S	SEAT, ADJUSTABLE FORE & AFT - CO-PILOT		12.0	41.5
E09-S	SEAT, INFINITE ADJUSTABLE - CO-PILOT		22.0	79.5
E09-0	SEAT, REAR (ONE PIECE BACK CUSHION)		23.0	79.5
E11-A	SEAT, REAR (TWO PIECE BACK CUSHION)		8.4*	101.1*
	SEAT, INSTALLATION, CHILDS FOLD AWAY LAMP BELT ASSY	0501009	0.9	100.8
	SEAT ASSY	S-1746-5	6.0	100.8
E15-R	PILOT LAP BELT ASSY	0714005-1	1.0	37.0
E15-S	SHOULDER HARNESS INERT, IA REEL INSTALLATION	S-2275-103	0.6	37.0
E19-0	PILOT & CO-PILOT - REPLACES STD BELTS AND HARNESS (NET CHANGE)	S-2275-201 0501046-1	0.6 2.0	37.0 82.0
E23-S	BELT & SHOULDER ASSY (SET OF 2)	S-2275-3	1.6	37.0
E27-S	BELT ASSY, 2ND ROW DER INSTALLING	S1746-13	3.2	70.0
E27-0	SEAT BELT, 2ND ROW DER INSTALLING	S-2275-8		
E34-0	DELUXE 2ND ROW SEAT (NET CHANGE)	0515034	1.0	21.0
E35-A	LEATHER HINGED COVERING (NET CHANGE)	CES-1151	2.0	62.0
E37-A	WINDOW 5, OVERHEAD CABIN TOP (NET CHANGE)	0511803	2.3	47.0
E39-A	WINDOW 5, OVERHEAD CABIN TOP (NET CHANGE)	0511800	0.9	47.9
E43-A	VENTILATION SYSTEM, REAR SEAT	0700322	1.5	60.0
E49-A	BEVERAGE CUP HOLDER (WT EACH)	0501023	0.1	15.0
E50-A	HEADREST, 1ST ROW	1215073-11	0.7	47.0
E51-A	HEADREST, 2ND ROW	1215073-11	0.7	86.0
E53-A	MIRROR, REAR VIEW	0500312	0.3	15.0

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E55-S E57-A E65-S E71-A E75-A E85-A E87-A E93-R	SUN VISORS (SET OF 2) WINDOWS, TINTED FRONT, SIDE & REAR (NET CHANGE) BAGGAGE CARGO TIE-DOWN (STOWED)(USE ARM AS RINGS, TALLEST INSTALLATION - BOXED (USE ACTUAL STRETCHER AND ARM CHANGE) WEIGHT AND ARM CHANGE) CONTROLS INSTALLATION, DUAL RUDDER TRIM SYSTEM HEATING SYSTEM, CABIN & CARBURETOR AIR ((INCLUDES EXHAUST SYSTEM)	0500040 0500267 2015009 0500042 0700164-4 0513335 0513290-1 0550333 0506004	0.9 0.0 0.5 1.0 -- 4.9 1.9 17.5	32.8 -- 95.0 -- -- 12.4 19.4 -21.0
F01-R F01-O-1 F01-O-2 F01-O-3 F01-O-4 F01-O-5	F. PLACARDS & WARNING PLACARD, OPERATIONAL LIMITATIONS-DAY VFR PLACARD, OPERATIONAL LIMITATIONS-DAY NIGHT VFR PLACARD, OPERATIONAL LIMITATIONS-DAY NIGHT VFR PLACARD, OPERATIONAL LIMITATIONS-DAY VFR FLOAT PLANE PLACARD, OPERATIONAL LIMITATIONS-DAY NIGHT VFR FLOAT PLANE PLACARD, OPERATIONAL LIMITATIONS-DAY NIGHT VFR FLOAT PLANE NOTE THE ABOVE PLACARDS ARE INSTALLED ACCORDING TO AIRCRAFT EQUIPMENT INDICATOR, AUDIBLE PNEUMATIC STALL WARNING OVERVOLT WARNING LIGHT, ALTERNATOR	0505053-1 0505053-2 0505053-3 0505053-16 0505053-17 0505053-18	NEGL NEGL NEGL NEGL NEGL NEGL	-- -- -- -- -- --
F04-R F13-S	G. AUXILIARY EQUIPMENT TOW HOOK (INSTALLED) (STOWED) RINGS, AIRPLANE HOISTING (CABIN TOP) CORROSION PROOFING, INTERNAL	0523112 0500228 0541115 0500036	0.2 NEGL 0.5 0.5 1.1 10.0	28.5 -- 229.0 95.0 49.1 77.0

ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS
G16-A	STATIC DISCHARGERS	0501048	0.4	143.2
G19-A	STABILIZER ABRASION BOOTS	0500041	2.7	206.0
G22-S	TOW BAR (STOWED)	0501019	1.6	95.0*
G25-S	PAINT, ROLL OVER-ALL EXTERIOR COVER OVERALL WHITE BASE COLOR STRIPE	0504032	11.1*	91.6*
G25-Q	PAINT SCHEME - SKYHAWK II	0504032	10.8	90.5*
G31-A	CABLES, CORROSION RESISTANT CONTROL (NET CHANGE)	0500036	11.1	136.3
G55-A	FIRE EXTINGUISHER INSTALLATION (NEXT EXTINGUISHER INSTALLATION)	0501011	3.0*	43.8*
G58-A	FIRE EXTINGUISHER MOUNTING BRACKET	C421001	2.6	44.0
G88-A-1	STEPS & HANDLES, REFUELING ASSISTING WINTERIZATION KIT INSTALLATION, ENGINE BREATHERTH TUBE INSULATION TWO COWL INLET AIR COVERS (INSTALLED) (STOWED)	C421001-0101 0513415 0501008 0552011	0.7 0.8* 0.4 0.3	42.2 17.9* -22.7* -13.8
G88-A-2	WINTERIZATION KIT INSTL., FLOATPLANE ONLY BREATHERTH TUBE INSULATION COWL OUTLET COVER (1) (INSTALLED)	0552132-1, -2 0552011	0.3 0.4*	-32.0 -17.2*
G92-0	FUEL SYSTEM, LONG RANGE WING TANKS (NET CHANGE)	0520013	0.6 0.6 9.5	-12.0 -12.0 48.0
H. AVIONICS & AUTOPILOTS				
H01-A	CESSNA 300 ADF INSTALLATION CONSISTS OF RECEIVER WITH BFO (R-546E) INDICATOR (IN-346A) SENSE ANTENNA INSTALLATION LOOP ANTENNA INSTALLATION RECEIVER MOUNT, WIRES AND MISC ITEMS	3910159-2 41240-0101 40980-1001 0570400-632 3960104-1	7.0*	21.0*
H04-A	DME INSTALLATION, MARCO RECEIVER (DME-190) MOUNTING BOX ANTENNA,	3910166-1	2.2 7.5* 4.9	139.7 18.5* 11.5
H07-A	CESSNA 400 GLIDESLOPE RECEIVER (R-443B)	UDA-3 3910157-2 42100-0000	0.6 4.3* 2.1	86.1 82.6* 117.3

SECTION 6
WEIGHT & BALANCE/
EQUIPMENT LIST

CESSNA
MODEL 172N

ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS
H10-A	ANTENNA (LOCATED--UPPER WINDSHIELD) PANTONICS PT-10A HF TRANSCIVER 1ST UNIT TRANSCIVER (PANEL MOUNTED) ANTENNA LOAD BOX ANTENNA SUPPLY HF POWER SUPPLY NOTE-- 1ST UNIT INSTL. COMPONENTS CONSIST ARE AS LISTED	1200098-2 3910156-8 C582103-0102 C589502-0101 C582103-0201	0.2 24.8* 4.2 4.2 8.5	30.0 70.7* 10.4 112.5 114.4
H11-A-1	ANTENNA INSTALLATION, 351 INCHES LONG CABLE ASSEMBLIES HEADSET INSTALLATION MICROPHONE INSTALLATION AUDIO SWITCHING CONTROL NOISE FILTER CABIN SPEAKER ASSEMBLY RADIO COOLING PANTONICS PT-10A HF TRANSCIVER 2ND UNIT TRANSCIVER (PANEL MOUNTED)	0570400-616 3950122-15 3970125-4 3970124-1 3970121-1 3940148-1 C596504-0201 3930152-9 3910159-9 C582103-0102 C589502-0101 C582103-0201 0570400-715	0.3 2.5 0.2 0.3 10.9 10.1 1.1 1.1 20.2* 4.2 4.2 8.5 0.1 2.5 0.3 4.9 6.5 4.6 0.3 3.7 22.0*	144.4 41.0 17.2 17.2 22.5 12.5 -26.1 37.7 10.2 18.8* 10.4 12.5 114.4 41.0 -0.5 41.0 144.4 82.8* 112.0 117.0 170.4 144.4 57.5 82.8*
H11-A-2	SUNAIR ASB-125 HF TRANSCIVER, 2ND UNIT ANTENNA LOAD BOX ANTENNA SUPPLY (REMOTE) TRANSCIVER (PANEL MOUNTED) PANTONICS INSTALATION, 351 IN. LONG AND ETC. MISC SWITCHES, WIRES, AND ETC. ANTENNA PT-10A HF TRANSCIVER 3RD UNIT SUNAIR ASB-125 HF TRANSCIVER 3RD UNIT SAME AS 2ND UNIT (ITEM H-11-A-2)	0570400-616 3910158-1 39816 99680 0570400-616 3910156-11 3910158-5	22.0* 4.9 6.5 4.6 0.3 3.7 22.0*	144.4 82.8* 112.0 117.0 170.4 144.4 57.5 82.8*
H11-A-3	PANTONICS 2ND UNIT (ITEM H-11-A-1)	-	-	-
H11-A-4	SUNAIR ASB-125 HF TRANSCIVER SAME AS 2ND UNIT (ITEM H-11-A-2)	3910164-1 42410-5114 0770681-1 3910174-2 3940185-1 0770681-1 3910127-117 41420-1114 41530-0001	2.3* 0.7 0.7 3.1* 1.5 0.7 4.0* 2.7 0.3	34.5* 11.8 136.0 100.8* 115.9 136.0 125.8* 11.1 126.0
H13-A-1	CESSNA 400 MARKER BEACON RECEIVER (R-402A)			
H13-A-2	BENDIX MARKER BEACON RECEIVER, GM-247A			
H16-A-1	ANTENNA, L SHAPED ROD ANTENNA, L SHAPED ROD CESSNA 300 TRANSPONDER TRANSCIVER (RT-359A) ANTENNA (A-109A)			

ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS
H16-A-2	CESSNA 400 TRANSPONDER (USED FOR EXPORT) TRANSCIVER (RT-459A)	3910128-21	4.2*	25.1*
H19-A	ANTENNA (A-109A)	41470-1114	2.9	11.1
	CESSNA 300 VHF TRANSCIVER, 1ST UNIT	41530-0001	0.3	126.0
	TRANSCIVER (RT-524A)	391055-7	11.9*	16.3*
	1ST UNIT INSTALLATION ITEMS (AS LISTED BELOW) --	31390-1114	15.7	11.0
	RADIO COOLING		6.2	21.2
H20-A	ANTENNA L.H. VHF COM.	3930152-1	1.1	11.4
	AUDIO CONTROL PANEL, SWITCHES & WIRING	3960113-1	0.4	62.4
	CABIN SPEAKER	3970121-1	1.9	12.5
	HEADPHONE INSTALLATION	3970124-1	1.1	37.9
	HEAD SET INSTALLATION	3970124-4	1.3	17.8
	CESSNA 300 VHF COM TRANSCIVER- 2ND UNIT	3970125-8	0.2*	14.2*
	TRANSCIVER (RT-524A)	3910155-8	7.9*	14.9*
	RH COM ANTENNA VHF COM.	31390-1114	5.7	11.0
	MISC ITEMS & WIRING	3950122-2	0.4	27.8
	CESSNA 300 NAV/COM, 160 CH, FIRST UNIT	3960113-2	0.4	62.4
H22-A-1	WITH VOR/LOC	3910151-7	1.1	11.9
	RECEIVER-INDICATOR (RT-308C) VOR/LOC UNIT INSTALLATION COMPONENTS NOTE -- 1ST UNIT INSTALLATION COMPONENTS ARE AS LISTED	42450-1114 45010-1000	14.0*	32.0*
H22-A-2	AUDIO CONTROL SYSTEM	3970121	1.9	12.5
	HEADPHONE INSTALLATION	3970125-4	0.2	14.2
	MICROPHONE INSTALLATION (HAND-HELD)	3970124-1	0.3	17.2
	NOISE FILTER	3960148-1	0.1	17.1
	RADIO COOLING	3930152-1	1.1	-20.2
	SPEAKER INSTALLATION	3970123-2	1.2	27.8
	COMMUNICATIONS ANTENNA CABLE (CO-AX)	3950122-3	0.4	37.9
	OMNI ANTENNA INSTALLATION	3950122-4	0.6	116.0
	COMMUNICATIONS SPIKE ANTENNA INSTL	3960102-10	0.8	220.8
	CESSNA 300 NAV/COM, 720 CH, FIRST UNIT WITH VOR/LOC	3960113-1 3910150-20	0.4 14.5*	62.4 31.3*
H22-A-3	RECEIVER-INDICATOR (RT-328T) VOR/LOC INDICATOR (IN-5148)	43340-1124 45010-1000	6.9 0.6	11.5 16.3
	INSTL. COMPONENTS SIMILAR TO H22-A-1 WITH VOR/ILS	3910152-20	14.6*	31.2*

SECTION 6
WEIGHT & BALANCE/
EQUIPMENT LIST

CESSNA
MODEL 172N

ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS
H25-A-1	RECEIVER-TRANSMITTER (RT-328T) VOR/ILS INDICATOR (IN-525B) INSTL COMPONENTS SIMILAR TO H22-A-1 CESSNA 300 NAV/COM, 160 CH, SECOND UNIT WITH VOR/LOC RECEIVER-TRANSMITTER (RT-308C) VOR/LOC INDICATOR (IN-514B) NOTE--2ND UNIT INSTALLATION COMPONENTS ARE AS LISTED COMMUNICATION ANTENNA CABLE- RH SIDE OMNI ANTENNA COUPLER (SIGNAL SPLITTER) COMMUNICATION ANTENNA, RIGHT SIDE MISC. NAV/COM INSTL ITEMS-INCL MOUNT. CESSNA 300 NAV/COM, 720 CH, SECOND UNIT WITH VOR/LOC	43340-1124 45010-2000 3910151-8 42450-1114 45010-1000 3950122-2 3960111-1 3960113-2 3910150-21 42340-1124 45010-1000	6.9 0.7 9.5* 6.4 0.6 0.4 0.2 0.4 1.5 10.0* 6.9 0.6	11.5 16.3 14.4* 11.5 16.3 27.8 7.0 62.4 10.7 14.3* 11.5 16.3
H25-A-2	RECEIVER-TRANSMITTER (RT-328T) VOR/LOC INDICATOR (IN-514B) INSTL COMPONENTS SIMILAR TO H25-A-1 EMERGENCY LOCATOR TRANSMITTER ANTENNA CESSNA 300 NAV/COM, 720 CH, SECOND UNIT WITH VOR/LOC	0401008-2 C589510-0209 C589510-0203 0401008-5 C589510-0212 C589510-0107 3910162-1 3930144-6 42320-0014 0522632-1 42330 3910163-1 CA-395A 0513398 42320-0014 0522632-1 42330	2.0* 1.8 0.1 1.8* 1.6 1.7* 1.6 0.6 8.0* 5.8 13.4* 1.8 1.1 1.6 8.0* 5.8 10.7 10.3	116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6*
H28-A-1	RECEIVER-TRANSMITTER (RT-328T) VOR/LOC INDICATOR (IN-514B) INSTL COMPONENTS SIMILAR TO H25-A-1 EMERGENCY LOCATOR TRANSMITTER ANTENNA CESSNA 300 NAV/COM, 720 CH, SECOND UNIT WITH VOR/LOC	0401008-2 C589510-0209 C589510-0203 0401008-5 C589510-0212 C589510-0107 3910162-1 3930144-6 42320-0014 0522632-1 42330 3910163-1 CA-395A 0513398 42320-0014 0522632-1 42330	2.0* 1.8 0.1 1.8* 1.6 1.7* 1.6 0.6 8.0* 5.8 13.4* 1.8 1.1 1.6 8.0* 5.8 10.7 10.3	116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6*
H28-A-2	RECEIVER-TRANSMITTER (RT-328T) VOR/LOC INDICATOR (IN-514B) INSTL COMPONENTS SIMILAR TO H25-A-1 EMERGENCY LOCATOR TRANSMITTER ANTENNA CESSNA 300 NAV/COM, 720 CH, SECOND UNIT WITH VOR/LOC	0401008-2 C589510-0209 C589510-0203 0401008-5 C589510-0212 C589510-0107 3910162-1 3930144-6 42320-0014 0522632-1 42330 3910163-1 CA-395A 0513398 42320-0014 0522632-1 42330	2.0* 1.8 0.1 1.8* 1.6 1.7* 1.6 0.6 8.0* 5.8 13.4* 1.8 1.1 1.6 8.0* 5.8 10.7 10.3	116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6*
H31-A-1	NAV-O-MATIC 200A D88-O-1 TURN COORDINATOR (NET CHANGE) WING COORDINATOR (NET CHNG) (G-300A) SERVO UNIT (PA-295B) NAV-O-MATIC 300A (AF395) CONTROL PANEL-AMPLIFIER & MOUNT D84-A-2 GYRO INSTALLATION (NET CHANGE) D88-O-1 GYRO INSTALLATION (NET CHANGE) WING COORDINATOR (NET CHANGE) SERVO UNIT (PA-295B) RELAY INSTALLATION AVIONICS OPTION COMBO. INSTL (HEADSET STOWED) MIKE-HEARD ARM (DOWN) (INCLUDES ALL PURPOSE CONTROL WHEEL)	0401008-2 C589510-0209 C589510-0203 0401008-5 C589510-0212 C589510-0107 3910162-1 3930144-6 42320-0014 0522632-1 42330 3910163-1 CA-395A 0513398 42320-0014 0522632-1 42330	2.0* 1.8 0.1 1.8* 1.6 1.7* 1.6 0.6 8.0* 5.8 13.4* 1.8 1.1 1.6 8.0* 5.8 10.7 10.3	116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6*
H31-A-2	NAV-O-MATIC 200A D88-O-1 TURN COORDINATOR (NET CHANGE) WING COORDINATOR (NET CHNG) (G-300A) SERVO UNIT (PA-295B) NAV-O-MATIC 300A (AF395) CONTROL PANEL-AMPLIFIER & MOUNT D84-A-2 GYRO INSTALLATION (NET CHANGE) D88-O-1 GYRO INSTALLATION (NET CHANGE) WING COORDINATOR (NET CHANGE) SERVO UNIT (PA-295B) RELAY INSTALLATION AVIONICS OPTION COMBO. INSTL (HEADSET STOWED) MIKE-HEARD ARM (DOWN) (INCLUDES ALL PURPOSE CONTROL WHEEL)	0401008-2 C589510-0209 C589510-0203 0401008-5 C589510-0212 C589510-0107 3910162-1 3930144-6 42320-0014 0522632-1 42330 3910163-1 CA-395A 0513398 42320-0014 0522632-1 42330	2.0* 1.8 0.1 1.8* 1.6 1.7* 1.6 0.6 8.0* 5.8 13.4* 1.8 1.1 1.6 8.0* 5.8 10.7 10.3	116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6*
H43-A	NAV-O-MATIC 200A D88-O-1 TURN COORDINATOR (NET CHANGE) WING COORDINATOR (NET CHNG) (G-300A) SERVO UNIT (PA-295B) NAV-O-MATIC 300A (AF395) CONTROL PANEL-AMPLIFIER & MOUNT D84-A-2 GYRO INSTALLATION (NET CHANGE) D88-O-1 GYRO INSTALLATION (NET CHANGE) WING COORDINATOR (NET CHANGE) SERVO UNIT (PA-295B) RELAY INSTALLATION AVIONICS OPTION COMBO. INSTL (HEADSET STOWED) MIKE-HEARD ARM (DOWN) (INCLUDES ALL PURPOSE CONTROL WHEEL)	0401008-2 C589510-0209 C589510-0203 0401008-5 C589510-0212 C589510-0107 3910162-1 3930144-6 42320-0014 0522632-1 42330 3910163-1 CA-395A 0513398 42320-0014 0522632-1 42330	2.0* 1.8 0.1 1.8* 1.6 1.7* 1.6 0.6 8.0* 5.8 13.4* 1.8 1.1 1.6 8.0* 5.8 10.7 10.3	116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6*
H55-A	NAV-O-MATIC 200A D88-O-1 TURN COORDINATOR (NET CHANGE) WING COORDINATOR (NET CHNG) (G-300A) SERVO UNIT (PA-295B) NAV-O-MATIC 300A (AF395) CONTROL PANEL-AMPLIFIER & MOUNT D84-A-2 GYRO INSTALLATION (NET CHANGE) D88-O-1 GYRO INSTALLATION (NET CHANGE) WING COORDINATOR (NET CHANGE) SERVO UNIT (PA-295B) RELAY INSTALLATION AVIONICS OPTION COMBO. INSTL (HEADSET STOWED) MIKE-HEARD ARM (DOWN) (INCLUDES ALL PURPOSE CONTROL WHEEL)	0401008-2 C589510-0209 C589510-0203 0401008-5 C589510-0212 C589510-0107 3910162-1 3930144-6 42320-0014 0522632-1 42330 3910163-1 CA-395A 0513398 42320-0014 0522632-1 42330	2.0* 1.8 0.1 1.8* 1.6 1.7* 1.6 0.6 8.0* 5.8 13.4* 1.8 1.1 1.6 8.0* 5.8 10.7 10.3	116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6* 116.4 122.0 116.6*

ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS
J01-A	<p>J. SPECIAL OPTION PACKAGES</p> <p>SKYHAWK II EQUIPMENT CONSISTS OF ITEMS D01-O TRUE AIRSPEED IND. (NET CHANGE) E16-O HEATED PITOT SYSTEM E85-A DUAL CONTROL SYSTEM C40-A NAV LIGHT DETECTORS C41-A COURTESY LIGHTS C43-A FLASHING BEACON LIGHT SOURCE D04-A STATICAL TERMINATOR XMTR (ELI) H28-A EMERGENCY LOCATOR (NET CHANGE) G25-O SKYHAWK II PAINT (NET CHANGE) H22-A-1 NAV/COM 308C VOR/LOC NAV-PAC INSTALLATION (SKYHAWK II ONLY) H22-A-2 328T NAV/COM VOR/LOC 1ST UNIT H25-A-1 308C NAV/COM 1ST UNIT DELETED H01-A-1 308C NAV/COM VOR/LOC ADDED H01-A-1 300 ADP (546E) H16-A-1 300 ADP SPENDER (RT-359) FLOATPLANE FUSELAGE STRUCTURE (OPTIONAL) TIONS & FITTINGS (INSTALLED) FLOATPLANE COWLDECK V BRACE (STOWED) FLOATPLANE AILERON-RUDDER INTERCONNECT (INSTALLED) FLOATPLANE ONLY (STOWED)</p> <p>ITEMS J10-A & J13-A ARE ALSO APPROVED FOR LANDPLANE OPERATIONS. MODEL 89A2000 FLOATS & 502 ATTACHMENTS NET CHANGE BETWEEN STANDARD LANDING GEAR (ITEM NOS. B01-R, B04-R, B10-S AND BRAKE) AND NOSE WHEEL STEERING SYSTEMS) AND FLOATPLANE KIT (ITEM NO. J30-A-1) IS APPROXIMATELY 155 LBS. AT 58.3 IN. THE CORRECT VALUES OF WT & ARM CHANGE FOR WT & BALANCE CALCULATIONS SHOULD BE DETERMINED FROM THE ACTUAL INSTALLATION.</p>	<p>0500510 0313279 0422355 0513335 0701013 0521101 0506003 0501017 0401008 0504032 3910151-7 3910161</p> <p>0500083 0513003 0560012</p> <p>EDD-36335</p>	<p>24.4* 0.1 0.6 4.9 NEGL 0.5 2.1 0.2 2.0 0.0 0.0 14.0* 21.5 14.5 -14.0 9.5 7.0 6.1 1.1 1.1 0.4 0.4</p>	<p>48.3* 16.7 24.4 12.0 61.0 184.2 115.5 116.6 32.0* 18.7 31.3 32.0 14.0 21.0 26.2 95.0 69.6 95.0</p>
J04-A				
J10-A				
J13-A				
J15-A				
J27-A				

SECTION 6
WEIGHT & BALANCE/
EQUIPMENT LIST

CESSNA
MODEL 172N

ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS
J30-A-1	FLOATPLANE EQUIPMENT KIT, COMPLETE, OPTION A CONSISTS OF ITEMS A33-0 PROPELLER, FLOATPLANE, EXCHANGE F01-0- PLACER, FLOATPLANE OPERATION F01-A- CABLES, CORROSION RESIST, EXCH. G13-A- CORROSION PROOFING, INTERNAL G17-A- AIRPLANE HOISTING G07-A- RINGS, REFUELLING G58-A- STEP & HANDLE, LOCATION (OPT C) J10-A- FUSELAGE MODIFICATION (INSTALLED) J13-A- COWL DECK V-BRACE (INSTALLED) J15-A- INTERCONNECT SYSTEM (NET CHG)	0500083 0550320 0505053 0500036 0500036 0541115 0513415 0500083 0513003 0360012 0552162 0500083	21.7* 1.3 0.0 0.0 10.0 1.17 1.6 1.1 0.4 NEGL 20.4*	52.3* -41.4 - 77.0 49.1 17.8 45.2 26.6 69.1 62.5*
J30-A-2	FLOATPLANE EQUIPMENT KIT, PARTIAL OPTION B CONSISTS OF ITEMS F01-0- PLACER, CORROSION RESIST, EXCH G31-A- CABLES, CORROSION RESIST, INTERNAL G13-A- RINGS, AIRPLANE HOISTING G58-A- STEP & HANDLE, REFUELLING J10-A- FUSELAGE MODIFICATION (STOWED) J13-A- COWL DECK V-BRACE (STOWED) J15-A- INTERCONNECT SYSTEM (NET CHG)	0505053 0500036 0500036 0241115 0500083 0513003 0560012 0552162 0500083-17	0.0 0.0 10.0 1.17 1.6 1.1 0.4 NEGL 10.4*	- - 77.0 49.1 17.8 45.2 26.6 69.1 62.5*
J30-A-3	FLOATPLANE EQUIPMENT KIT B WITH NO INTERNAL CORROSION PROOFING) G07-A- RINGS, AIRPLANE HOISTING G58-A- STEP & HANDLE, REFUELLING J10-A- FUSELAGE MODIFICATIONS (INSTALLED) J13-A- COWL DECK V-BRACE (INSTALLED) J15-A- INTERCONNECT SYSTEM (STOWED) COWL ASSY, FLOATPLANE (NET CHG)	0541115 0513415 0500083 0513003 0560012 0552162 0500083-17	1.17 1.1 1.6 1.1 0.4 NEGL 10.4*	49.1 17.8 45.2 26.6 69.1 62.5* -