WEIGHT AND 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. For additional information regarding Weight and Balance procedures, refer to the Aircraft Weight and Balance Handbook (FAA-H-8083-1). A comprehensive list of Cessna equipment available for this airplane is included at the back of this section.

Specific information regarding the weight, arm, moment and installed equipment for this airplane as delivered from the factory can be found in the plastic envelope in the back of this POH.

WARNING

IT IS THE RESPONSIBILITY OF THE PILOT TO MAKE SURE THE AIRPLANE IS LOADED PROPERLY. OPERATION OUTSIDE OF PRESCRIBED WEIGHT AND BALANCE LIMITATIONS COULD RESULT IN AN ACCIDENT AND SERIOUS OR FATAL INJURY.

AIRPLANE WEIGHING PROCEDURES

- 1. Preparation:
 - a. Inflate tires to recommended operating pressures.
 - b. Defuel airplane. Refer to the Maintenance Manual.
 - Service engine oil as required to obtain a normal full indication (approximately 7 quarts on dipstick).
 - 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.
 - g. Remove all non-required items from airplane.

(Continued Next Page)

AIRPLANE WEIGHING PROCEDURES (Continued)

2. Level:

- a. Place scales under each wheel (minimum scale capacity, 1000 pounds).
- Deflate the nose tire and/or lower or raise the nose strut to properly center the bubble in the level (Refer to Figure 6-1 Sheet 1).

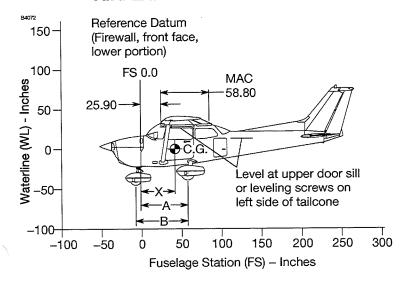
3. Weigh:

- Weigh airplane in a closed hangar to avoid errors caused by air currents.
- With the airplane level and brakes released, record the weight shown on each scale. Deduct the tare, if any, from each reading.

4. Measure:

- a. Obtain measurement A by measuring horizontally (along the airplane centerline) 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 centerline, from center of nosewheel axle, left side, to a plumb bob dropped from the line between the main wheel centers. Repeat on right side and average the measurements.
- Using weights from step 3 and measurements from step 4, the Basic Empty Weight and C.G. can be determined by completing Figure 6-1 (Sheet 2).
- Changes to the Airplane Weight and Balance due to alteration or repair must be documented in a permanent record within the POH similar to that shown in Figure 6-2.
- 7. A new Basic Empty Weight and CG Arm based on actual airplane weight (as weighed) is required after a major repair or alteration. It is recommended that the airplane be weighed to verify Basic Empty Weight and CG Arm at intervals not to exceed 5 years.

AIRPLANE WEIGHING FORM



NOTE

It is the responsibility of the pilot to make sure that the airplane is loaded properly.

0510T1005

Figure 6-1 (Sheet 1 of 2)

AIRPLANE WEIGHING FORM

	А	IRPLANE V	VEI	GHIN	3 FUI	ZIVI	
B40		ith Airplane on L	andi	ng Gear	_		
	X (Inches Aft of Datum) = A $-\left[\frac{\text{Nosewheel Weight x B}}{\text{Total Weight*}}\right]$						
	Locating Perce	ent MAC		*(1)	lose + L	+ R Wheel Weigh	nts)
	CG Percent MA	$C = \frac{(CG \text{ Arm of } A)}{C}$	Airpla 0.588	ne) – 25. 0	90		
				Me	easuring	A and B	
	Leveling Longitudinal – at FS 108.00 a	ne	Measure A and B per pilot's operating handbook instructions to assist in locating CG with airplane weighed on				
				landing	gear.		
		Airplane as	s We	ighed Ta	ble		
	Position	Scale reading	Sc	ale drift	Tare	Net weight	
	Left Wheel						
	Right Wheel						
	Nose Wheel						
		Airplane total as	weig	hed			

Basic Empty Weight and Center-of-Gravity Table

ltem	Weight Pounds	CG Arm (Inches)	Moment (Inch-Pounds /1000)
Airplane (calculated or as weighed) (includes all undrainable fluids and full oil)			
Drainable unusable fuel at 6.0 pounds per gallon – (3 gallons)	18.0	46.00	0.83
Basic Empty Weight			

Figure 6-1 (Sheet 2)

SAMPLE WEIGHT AND BALANCE RECORD

B3099										_		 		 		
	ance)	ber	Running basic emoty	weight	Moment /1000											
	d bal	unu	Page number	Rt basi	8	WT. (lb.)										
	veight an	Page		Removed (-)	Moment /1000											
ORD	cting 1		Ф	emov	Arm (in.)											
: REC	nt affe	nmber	chang	Œ	WT. (lb.)											
3ALANCE	eduipme	Serial number	Weight change	Added (+)	Arm Moment WT. Arm Moment WT. Moment (in.) /1000 (ib.) (in.) /1000											
AND F	ıre or			Adde	Arm (in.)											
GHT,	struct				WT. (lb.)											
SAMPLE WEIGHT AND BALANCE RECORD	(Continuous history of changes in structure or equipment affecting weight and balance)	Airplane model		Description of article or	modification		As delivered									
	ų snor	Airpla	tem no	<u>.</u>	Out											
	ontinı		Hem		띡											
	Ŏ			Date	3											
		0585T1009							09							

Figure 6-2

CESSNA MODEL 172S NAV III KAP 140 AUTOPILOT

WEIGHT AND BALANCE

The following information will enable you to operate your Cessna within the prescribed weight and center of gravity limitations. To determine weight and balance, use the Sample Loading Problem (Figure 6-3), Loading Graph (Figure 6-4), and Center of Gravity Moment Envelope (Figure 6-7) as follows:

Enter the appropriate basic empty weight and moment/1000 from the weight and balance records for your airplane in the YOUR AIRPLANE column of the Sample Loading Problem.

NOTE

In addition to the basic empty weight and moment noted on these records, the C.G. arm (FS) 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 (FS) for these items to indicate their forward and aft C.G. range limitations (seat travel and baggage area limitation). Refer to Figures 6-5 and 6-6 for additional loading information Additional moment calculations, based on the actual weight and C.G. arm (FS) 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.

(Continued Next Page)

WEIGHT AND BALANCE (Continued)

BAGGAGE TIEDOWN

A nylon baggage net having four tiedown straps is provided as standard equipment to secure baggage on the cabin floor aft of the rear seat (baggage area A) and in the aft baggage area (baggage area B). Six eyebolts serve as attaching points for the net. Two eyebolts for the forward tiedown straps are mounted on the cabin floor near each sidewall just forward of the baggage door approximately at station FS 90; two eyebolts are installed on the cabin floor slightly inboard of each sidewall approximately at FS 107; and two eyebolts are located below the aft window near each sidewall approximately at FS 107. A placard on the baggage door defines the weight limitations in the baggage areas.

When baggage area A is utilized for baggage only, the two forward floor mounted eyebolts and the two aft floor mounted eyebolts (or the two eyebolts below the aft window) may be used, depending on the height of the baggage. When baggage is carried in the baggage area B only, the aft floor mounted eyebolts and the eyebolts below the aft window should be used. When baggage is loaded in both areas, all six eyebolts should be utilized.

U.S.

SAMPLE LOADING PROBLEM

		WEI	GHT AN		ENT
	ITEM DESCRIPTION		IPLE LANE		UR LANE
		Weight (lbs)	Moment (lb-ins/ 1000)	Weight (lbs)	Moment (lb-ins/ 1000)
	Basic Empty Weight (Use the data pertaining to your airplane as it is presently equipped. Includes unusable fuel and full oil)	1642	62.6		
	2 - Usable Fuel (At 6 Lbs./Gal.)				
	- Standard Fuel - 53 Gallons Maximum			,	
	- Reduced Fuel - 35 Gallons	210	10.1		
	3 - Pilot and Front Passenger (FS 34 to 46)	340	12.6		
	4 - Rear Passengers (FS 73)	310	22.6		
I	5 - *Baggage "A" (FS 82 to 108) 120 Pounds Maximum	56	5.3	***************************************	
	6 - *Baggage "B" (FS 108 to 142) 50 Pounds Maximum				
	7 - RAMP WEIGHT AND MOMENT	2558	113.2		
	8 - Fuel allowance for engine start, taxi and runup	-8.0	-0.4		
	9 - TAKEOFF WEIGHT AND MOMENT (Subtract Step 8 from Step 7)	2550	112.8		

^{10 -} Locate this point (2550 at 112.8) on the Center of Gravity Moment Envelope, and since this point falls within the envelope, the loading is acceptable.

Figure 6-3 (Sheet 1 of 2)

^{*}The maximum allowable combined weight capacity for baggage in areas "A" and "B" is 120 pounds.

SAMPLE LOADING PROBLEM

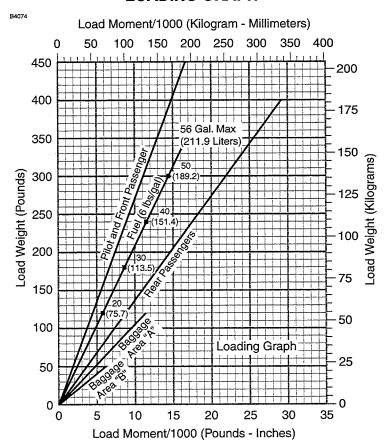
YO AIRP	UR LANE		UR LANE		UR LANE
Weight (lbs.)	Moment (Lb-ins, /1000)	Weight (lbs.)	Moment (Lb-ins, /1000)	Weight (lbs.)	Moment (Lb-ins, /1000)
	-				

NOTE

When several loading configurations are representative of your operations, it may be useful to fill out one or more of the above columns so specific loadings are available at a glance.

Figure 6-3 (Sheet 2)

LOADING GRAPH

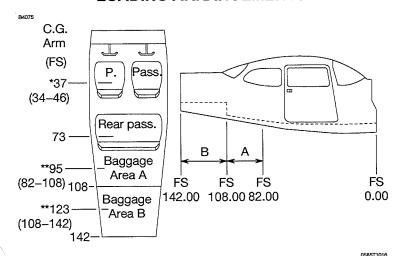


NOTE

Line representing adjustable seats shows the pilot and front seat passenger center of gravity on adjustable seats positioned for average occupant. Refer to the Loading Arrangements diagram for forward and aft limits of occupant C.G. range.

Figure 6-4

LOADING ARRANGEMENTS



*Pilot and front seat passenger center of gravity on adjustable seats positioned for average occupant. Numbers in parentheses indicate forward and aft limits of occupant center of gravity range.

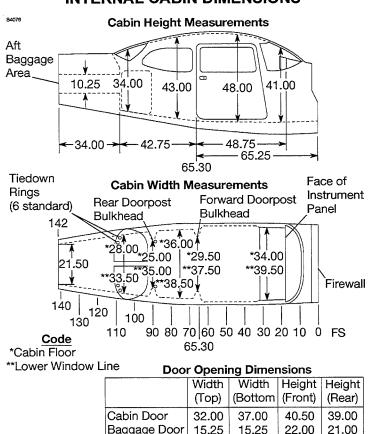
NOTE

- The usable fuel C.G. arm is located at FS 48.00.
- The aft baggage wall (approximate FS 108.00) or aft baggage wall (approximate FS 142.00) can be used as a convenient interior reference point for determining the location of baggage area fuselage stations.
- To achieve an airplane loading within the utility category, it may be necessary to remove the rear passenger seat assembly from the airplane. Refer to Figure 6-9 for applicable weight and arm.

Figure 6-5

^{**}Arm measured to the center of the areas shown.

INTERNAL CABIN DIMENSIONS



NOTE

15.25

15.25

22.00

- Maximum allowable floor loading is 200 pounds per square foot.
- All dimensions shown are in inches.

Baggage Door

Figure 6-6

0585T1023 0585T1004

CENTER OF GRAVITY MOMENT ENVELOPE

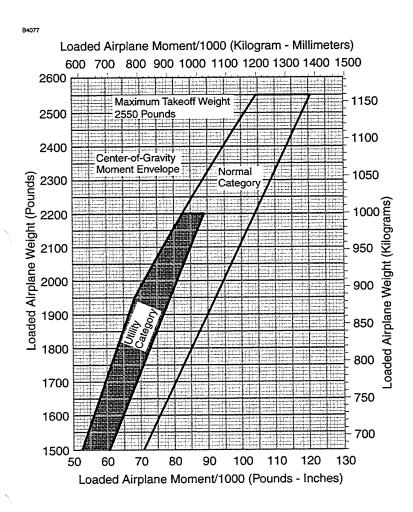


Figure 6-7

CENTER OF GRAVITY LIMITS

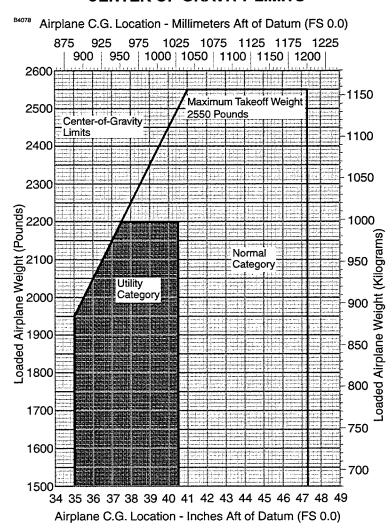


Figure 6-8

COMPREHENSIVE EQUIPMENT LIST

Figure 6-9 is a comprehensive list of all Cessna equipment which is available for the Model 172S airplane equipped with Garmin G1000 Integrated Cockpit System and KAP 140 Autopilot (if installed) (Serials 172S9810 thru 172S10467 and 172S10489 thru 172S10506 and 172S10508 thru 172S10639 and 172S10641 thru 172S10655). This comprehensive equipment list provides the following information in column fórm:

In the ITEM NO column, each item is assigned a coded number. The first two digits of the code represent the identification of the item within Air Transport Association Specification 100 (11 for Paint and Placards; 24 for Electrical Power, 77 for Engine Indicating, etc.). These assignments also correspond to the Maintenance Manual chapter for the airplane. After the first two digits, items receive a unique sequence number (01, 02, 03, etc.). After the sequence number, a suffix letter is assigned to identify equipment as a required item, a standard item or an optional item.

Suffix letters are as follows:

- Required items or equipment for FAA certification (14 CFR 23 or 14 R= CFR 91).
- S = Standard equipment items.
- Optional equipment items replacing required or standard items. 0 =
- Optional equipment items which are in addition to required or A = standard items.

In the EQUIPMENT LIST DESCRIPTION column, each item is assigned a descriptive name to help identify its function.

In the REF DRAWING column, a Cessna drawing number is provided which corresponds to the item.

NOTE

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

in the WT LBS and ARM INS columns, information is provided on the weight (in pounds) and arm (in inches) of the equipment item.

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



ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS.
	11 - PAINT AND PLACARDS			
11-01-S	PAINT, OVERALL WHITE WITH COLOR STRIPE	0500531	19.2*	95.4*
	- OVERALL WHITE COLOR		18.4	91.5
	- COLOR STRIPING	-constant and a state of the st	8.0	135.9
	21 - AIR CONDITIONING			
21-01-S	VENTILATORS, ADJUSTABLE, CABIN AIR	0513575-2	1.7	60.0
21-02-S	CABIN HEATER SYSTEM, SHROUDED MUFFLER TYPE	0550365	2.5	-20.75
21-03-R	FORWARD AVIONICS COOLING FAN - MC24B3	3930379	0.5	12.7
21-04-R	AFT AVIONICS COOLING FAN	3940397	1.1	109.0
	22 - AUTO FLIGHT			
22-01-O	KAP 140 TWO AXIS AUTOPILOT			
	- KAP 140 TWO AXIS AUTOPILOT	3930492	2.6	12.0
	- KS-270C PITCH SERVO	0501145-1	4.2	171.3
	- KS-272C PITCH TRIM SERVO	0501153-1	4.1	175.5
	- KS-271C ROLL SERVO	3940400-1	3.6	54.2
	23 - COMMUNICATIONS			
23-01-S	STATIC DISCHARGE WICKS, (SET OF 10)	0501048-1	0.4	143.2
23-02-R	AUDIO/INTERCOM/MARKER BEACON			
	- GMA 1347 AUDIO PANEL	3930377	1.7	16.3
	- CI-102 MARKER BEACON ANTENNA	3960193-5	0.5	129.0
23-03-R	NAV/COM/GPS #1 COMPUTER	3921155		
	- GIA 63 INTEGRATED AVIONICS UNIT	3940397	4.9	113.3
	- CI 2480-200 VHF COMM/GPS ANTENNA	3960220-3	0.5	61.2
23-04-S	NAV/COM/GPS #2 COMPUTER	3921155		
	- GIA 63 INTEGRATED AVIONICS UNIT	3940397	4.9	113.3
	- CI 2580-410 VHF COMM/GPS/XM ANTENNA	3960220-4	0.5	61.2
	24 - ELECTRICAL POWER			
24-01-R	ALTERNATOR, 28 VOLT, 60 AMP, -9910591-11	0550365	10.0	-29.0
24-02-R	BATTERY, 24 VOLT, 12.75 AMP HOUR	0518006	23.2	-5.0
24-03-R	POWER DISTRIBUTION MODULE \$3100-344	0518006	6.4*	-2.5*
	- ALTERNATOR CONTROL UNIT	AC2101	0.2	-2.5
	- MASTER CONTACTOR	X61-0007	0.7	-2.5
	- STARTER CONTACTOR	X61-0012	0.7	-2.5
	- AMMETER TRANSDUCER	CS3100	0.1	-2.0
24-04-S	BATTERY, STANDBY - AVT 200413	0518025	14.0	11.2

Figure 6-9 (Sheet 1 of 6)

	ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS.
		25 - EQUIPMENT/FURNISHINGS			
I	25-01-R	SEAT, PILOT, ADJUSTABLE, CLOTH/VINYL COVER	0719025-1	33.8	41.5
	25-02-O	SEAT, PILOT, ADJUSTABLE, LEATHER/VINYL COVER	0719025-4	34.3	41.5
	25-03-S	SEAT, FRONT PASSENGER, ADJUSTABLE, CLOTH/VINYL COVER	0719025-1	33.8	41.5
_	25 - 04-O	SEAT, FRONT PASSENGER, ADJUSTABLE, LEATHER/VINYL COVER	0719025-4	34.3	41.5
	25-05-S	SEAT, REAR PASSENGER, ONE-PIECE BACK, CLOTH/VINYL COVER	0719028-1	50.0	82.0
	25-06-O	SEAT, REAR PASSENGER, ONE-PIECE BACK, LEATHER/VINYL COVER	0719028-2	51.0	82.0
	25-07-R	SEAT BELT AND SHOULDER HARNESS, INERTIA REEL, AUTO ADJUST, PILOT AND FRONT PASSENGER		5.2	50.3
	25-08-S	SEAT BELT AND SHOULDER HARNESS, INERTIA REEL, AUTO ADJUST, REAR SEAT	0519031-1	5.2	87.8
I	25-09-S	SUN VISOR (SET OF 2)	0514166-2	1.1	32.8
ı	25-10-S	BAGGAGE RESTRAINT NET	2015009-7	0.5	95.0
ı	25-11-S	CARGO TIEDOWN RINGS (SET OF 6)	0515055-6	0.2	95.0
ı	25-12-S	TOW BAR, NOSE GEAR (STOWED)	0501019-1	1.7	124.0
I	25-13-R	PILOT'S OPERATING HANDBOOK AND FAA APPROVED AIRPLANE FLIGHT MANUAL (STOWED IN FRONT PASSENGER'S SEAT BACK)		2.2	50.0
	25-14-R	GARMIN G1000 COCKPIT REFERENCE GUIDE (STOWED IN COCKPIT SIDE PANEL POCKET)		1.5	15.0
ı	25-15-O	APPROACH PLATE HOLDER	0715083-1	0.1	22.0
	25-16-S	FUEL SAMPLING CUP (STOWED IN PILOT'S SEAT BACK)	S2107-1	0.1	50.0
ı	25-17-S	POINTER MODEL 3000-11 OR 4000-11 ELT	3940401-1		
ł		- 3000-11 ELT TRANSMITTER	3000-11-1	1.8	113.3
ı		- 4000-11 ELT TRANSMITTER	4000-11-3	1.8	113.3
ı		- ANTENNA AND CABLE ASSY	3003-45	0.1	122.0
ı	25-18-O	ARTEX ME406 - 2 FREQUENCY ELT	3940458-1	2.6*	134.6*
ı		- ELT TRANSMITTER	ME406	2.1	135.5
ı		- ANTENNA AND CABLE ASSY	110-338	0.5	130.0
ı	25-19-O	ARTEX C406-N - 3 FREQUENCY ELT	3940460-1	5.1*	135.0*
ı		- ELT TRANSMITTER	C406-N	4.6	135.5
ı		- ANTENNA AND CABLE ASSY	110-338	0.5	130.0

Figure 6-9 (Sheet 2)

ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS.
	26 - FIRE PROTECTION	27.15		
26-01-S	FIRE EXTINGUISHER	0501011-2	5.3*	43.0*
	- FIRE EXTINGUISHER, HAND TYPE	A352GS	4.8	44.0
	- MOUNTING CLAMP AND HARDWARE	1290010-1	0.5	42.2
	27 - FLIGHT CONTROLS			
27-01-S	DUAL CONTROLS, RIGHT SEAT		5.5*	12.4*
	- CONTROL WHEEL, COPILOT	0513576-4	2.6	26.0
	- RUDDER AND BRAKE PEDAL, COPILOT	0510402-16	1.1	6.8
27-02-A	RUDDER PEDAL EXTENSION (SET OF 2)	0501082-1	2.9	8.0
	(INSTALLED ARM SHOWN)			
	28 - FUEL			
28-01-R	AUXILIARY FUEL PUMP - 5100-00-4	0516015	1.9	9.5
28-02-R	FUEL SENDER - S3852-2	0522644	0.1	47.4
1047	30 - ICE AND RAIN PROTECTION	100		
30-01-S	PITOT HEAT	0523080	0.1	28.0
	31 - INDICATING/RECORDING SYSTEM			
31-01-S	RECORDING HOURMETER - C664503-0103	0506009	0.5	16.1
31-02-R	PNEUMATIC STALL WARNING SYSTEM	0523112	0.4	28.5
31-03-R	GEA 71 ENGINE/AIRFRAME UNIT	3930377	2.2	11.4
31-04-R	GTP 59 OUTSIDE AIR TEMPERATURE (OAT) PROBE	0518006	0.1	41.5
	32 - LANDING GEAR			
32-01-R	WHEEL BRAKE AND TIRE, 6.00 X 6 MAIN (2)		34.4*	57.8*
	- WHEEL ASSY (EACH)	C163001-0104	1	58.2
	- BRAKE ASSY (EACH)	C163030-0111		54.5
	- TIRE, 6-PLY, 6.00 X 6, BLACKWALL (EACH)	C262003-0101	1	58.2
	- TUBE, (EACH)	C262023-0102	1	58.2
32-02-R	WHEEL AND TIRE ASSY, 5.00 X 5 NOSE	0543062-17	9.5*	-6.8*
	- WHEEL ASSY	1241156-12	3.5	-6.8
1	- TIRE, 6-PLY, 5.00 X 5, BLACKWALL	C262003-0202	1	-6.8
	- TUBE	C262023-0101		-6.8
32-03-S	WHEEL FAIRING AND INSTALLATION	0541225-1	16.5*	48.1*
	- WHEEL FAIRING, NOSE	0543079-3	3.5	-3.5
	- WHEEL FAIRINGS, MAIN (SET OF 2)	0541223-1, -2		61.1
	- BRAKE FAIRINGS (SET OF 2)		1.1	55.6
	- MOUNTING PLATE (SET OF 2)	0541220-1, -2	8.0	59.5

Figure 6-9 (Sheet 3)

ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS.
	33 - LIGHTS			
33-01-S	MAP LIGHT IN CONTROL WHEEL	0706015	0.2	21.5
33-02-S	COURTESY LIGHTS UNDER WING	0521101-8	0.5	61.0
33-03-S	FLASHING BEACON	0506003-6	1.4	240.7
33-04-R	STROBE LIGHT	0723628	3.4	43.3
33-05-\$	LANDING AND TAXI LIGHT	0523029-7	2.4	28.7
	34 - NAVIGATION			
34-01-R	STANDBY AIRSPEED INDICATOR, - S3325-1	0506009	0.7	16.2
34-02-R	STANDBY ATTITUDE INDICATOR- S3326-2	0501135	2.2	14.0
34-03-R	STANDBY ALTIMETER, SENSITIVE WITH 20 FOOT MARKINGS, INCHES OF MERCURY AND MILLBARS - S3827-1	0506009	0.9	14.0
34-04-S	ALTERNATE STATIC AIR SOURCE	0501017-1	0.2	15.5
34-05-R	COMPASS, MAGNETIC	0513262-3	0.5	18.0
34-06-R	TRANSPONDER	3940397	İ	
	- GTX-33 TRANSPONDER	3910317-5	3.6	134.0
	- CI 105-16 TRANSPONDER ANTENNA	3960191	0.4	86.3
34-07-R	PFD DISPLAY	3930377		
	- GDU-1044 DISPLAY	3910317-1	6.3	16.4
34-08-R	MFD DISPLAY	3930377		
	- GDU-1044 DISPLAY	3910317-1	6.3	16.4
34-09-R	ATTITUDE HEADING REFERENCE SENSOR (AHRS)			
	- GRS 77 AHRS	3910317-3	2.4	134.0
	- GMU 44 MAGNETOMETER	3940398	0.4	52.7
34-10-R	AIR DATA COMPUTER	3940397		
	- GDC 74A AIR DATA COMPUTER	3910317-6	1.7	11.4
34-11-S	BLIND YAW RATE SENSOR (TURN COORDINATOR)	3930493	1.0	15.5
34-12-S	GDL-69A DATALINK	3940397	1.9	112.8
34-13-0	AUTOMATIC DIRECTION FINDER (ADF)			
	- KR 87 ADF RECEIVER	3930494	3.2	12.1
	- ADF ANTENNA	3960187	4.2	39.3
34-14-0	DISTANCE MEASURING EQUIPMENT (DME)			
	- KN 63 REMOTE DME	3940448	2.8	154.0
	- CI 105-16 DME ANTENNA	3960231	0.4	114.5

Figure 6-9 (Sheet 4)

ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS.
	37 - VACUUM			
37-01-R	ENGINE DRIVEN VACUUM PUMP			
	- VACUUM PUMP - AA3215CC	0501135	2.1	-5.0
	- COOLING SHROUD	1201998-1	0.2	-5.6
	- FILTER	1201075-2	0.3	2.0
	- VACUUM REGULATOR	AA2H3-2	0.5	2.0
37-02-R	VACUUM TRANSDUCER - P165-5786	0501135	0.3	10.3
	53 - FUSELAGE			
53-01-S	REFUELING STEPS AND HANDLE	0513415-2	1.7	16.3
225000000000000000000000000000000000000	56 - WINDOWS			
56-01-S	WINDOW, HINGED RIGHT SIDE (NET CHANGE)	0517001-40	2.3*	48.0
56-02-S	WINDOW, HINGED LEFT SIDE (NET CHANGE)	0517001-39	2.3*	48.0
	61 - PROPELLER			
61-01-R	FIXED PITCH PROPELLER ASSEMBLY	0550320-18	38.8*	-38.2*
	- MCCAULEY 76 INCH PROPELLER	IA170E/JHA7660	35.0	-38.4
	- MCCAULEY 3.5 INCH PROPELLER SPACER	C5464	3.6	-36.0
61-02-R	SPINNER INSTALLATION, PROPELLER	0550320-11	1.8*	-41.0*
	- SPINNER DOME ASSEMBLY	0550236-14	1.0	-42.6
	- FWD SPINNER BULKHEAD	0552231-1	0.3	-40.8
	- AFT SPINNER BULKHEAD	0550321-10	0.4	-37.3
	71 - POWERPLANT			
71-01-R	FILTER, INDUCTION AIR	0550365	0.3	-27.5
71-02-0	WINTERIZATION KIT INSTALLATION (STOWED) (INSTALLED ARM SHOWN)	0501128-3	0.8*	-20.3*
	- BREATHER TUBE INSULATION	0552011	0.4	-13.8
	- COWL INLET COVERS (INSTALLED)	0552229-3, -4	0.3	-32.0
	- COWL INLET COVERS (STOWED)	0552229-3, -4	0.3	95.0
	72 - ENGINES			
72-01-R	ENGINE, LYCOMING IO-360-L2A	0550365	297.8*	-18.6*

Figure 6-9 (Sheet 5)

CESSNA MODEL 172S NAV III KAP 140 AUTOPILOT

ITEM NO	EQUIPMENT LIST DESCRIPTION	REF DRAWING	WT LBS	ARM INS.
	73 - ENGINE FUEL AND CONTROL			- 11.5
73-01-R	FUEL FLOW TRANDUCER - 680501K	0501168	0.8	-22.6
	77 - ENGINE INDICATING			
77-01-R	ENGINE TACHOMETER SENSOR - 1A3C-1	0501168	0.2	-8.0
77-02 - S	CYLINDER HEAD THERMOCOUPLES	0501168	0.2	-12.0
	(ALL CYLINDERS) - 32DKWUE006F0126			
77-03-S	EXHAUST THERMOCOUPLES	0501168	0.3	-12.0
	(ALL CYLINDERS) - 86317			
THE RESERVE OF THE PERSON OF T	78 - EXHAUST			
78-01-R	EXHAUST SYSTEM	9954100-1	16.3*	-20.0*
	- MUFFLER AND TAILPIPE WELD ASSEMBLY	9954100-2	4.6	-22.7
	- SHROUD ASSEMBLY, MUFFLER HEATER	9954100-3	0.8	-22.7
	79 - OIL			
79-01-R	OIL COOLER - 10877A	0550365	2.3	-11.0
79-02-R	OIL PRESSURE SENSOR - P165-5281	0550365	0.2	-12.9
79-03-R	OIL TEMPERATURE SENSOR - S2335-1	0550365	0.2	-8.5

Figure 6-9 (Sheet 6)