



MORE PEOPLE BUY AND
FLY CESSNA AIRPLANES
THAN ANY OTHER MAKE

1972

WORLD'S LARGEST PRO-
DUCER OF GENERAL
AVIATION AIRCRAFT
SINCE 1956

MODEL 150



OWNER'S MANUAL

PERFORMANCE - SPECIFICATIONS

Model 150 *

GROSS WEIGHT	1600 lbs
SPEED:	
Top Speed at Sea Level.	122 mph
Cruise, 75% Power at 7000 ft	117 mph
RANGE:	
Cruise, 75% Power at 7000 ft	475 mi
22.5 Gallons, No Reserve	4.1 hrs
	117 mph
Cruise, 75% Power at 7000 ft	725 mi
35 Gallons, No Reserve	6.2 hrs
	117 mph
Optimum Range at 10,000 ft	565 mi
22.5 Gallons, No Reserve	6.1 hrs
	93 mph
Optimum Range at 10,000 ft	880 mi
35 Gallons, No Reserve	9.4 hrs
	93 mph
RATE OF CLIMB AT SEA LEVEL	670 fpm
SERVICE CEILING	12,650 ft
TAKE-OFF:	
Ground Run	735 ft
Total Distance Over 50-Ft Obstacle	1385 ft
LANDING:	
Ground Roll	445 ft
Total Distance Over 50-Ft Obstacle	1075 ft
STALL SPEEDS:	
Flaps Up, Power Off	55 mph
Flaps Down, Power Off	48 mph
BAGGAGE	120 lbs
POWER LOADING: Pounds/HP	16.0
FUEL CAPACITY: Total	
Standard Tanks	26 gal.
Optional Long Range Tanks	38 gal.
OIL CAPACITY: Total.	6 qts
PROPELLER: Fixed Pitch (Diameter).	69 inches
ENGINE: Continental Engine	O-200-A
100 rated HP at 2750 RPM	

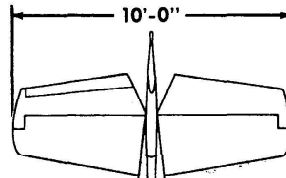
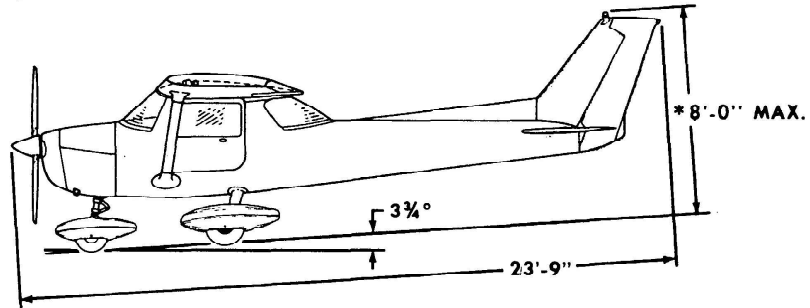
	Standard	Trainer	Commuter	F150
EMPTY WEIGHT: (Approximate)	980 lbs	1000 lbs	1065 lbs	985 lbs
USEFUL LOAD: (Approximate)	620 lbs	600 lbs	535 lbs	615 lbs
WING LOADING: Pounds/Sq Foot	10.2	10.2	10.0	10.0

*This manual covers operation of the Model 150 which is certificated as Model 150L under FAA Type Certificate No. 3A19. The manual also covers operation of the Model Reims/Cessna F150 which is certificated as Model F150L under French Type Certificate No. 38/3 and FAA Type Certificate No. A13EU. The Model F150, manufactured by Reims Aviation S.A., Reims (Marne), France, is identical to the 150 except that it is powered by an O-200-A engine manufactured under license by Rolls Royce, Crewe, England.

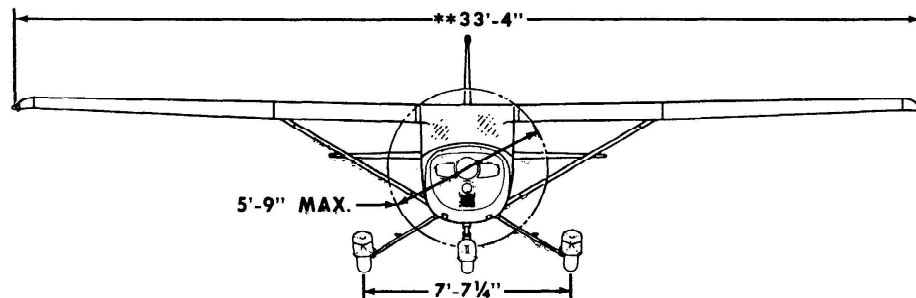
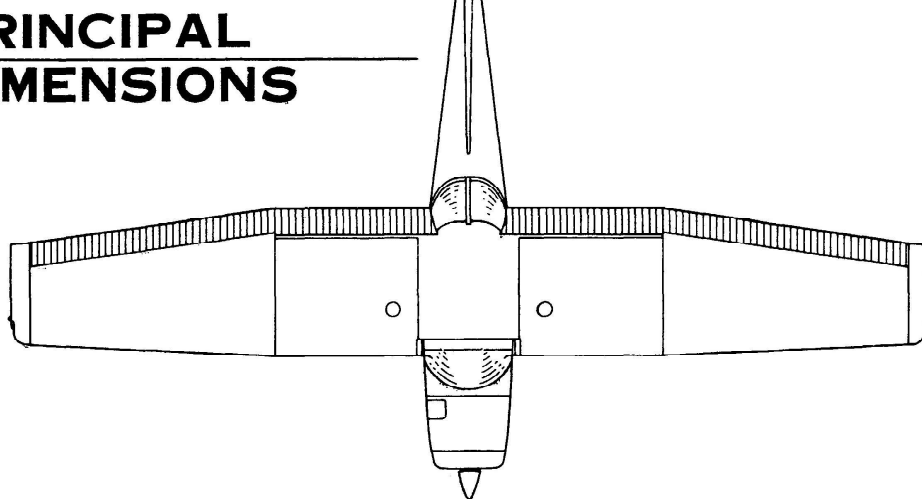
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* Maximum height of airplane with nose gear depressed, all tires and nose strut properly inflated, and optional flashing beacon installed.

** Maximum wing span if optional conical camber wing tips and optional strobe lights are installed. If standard wing tips without strobe lights are installed, wing span is 32'-8 1/2".



PRINCIPAL DIMENSIONS



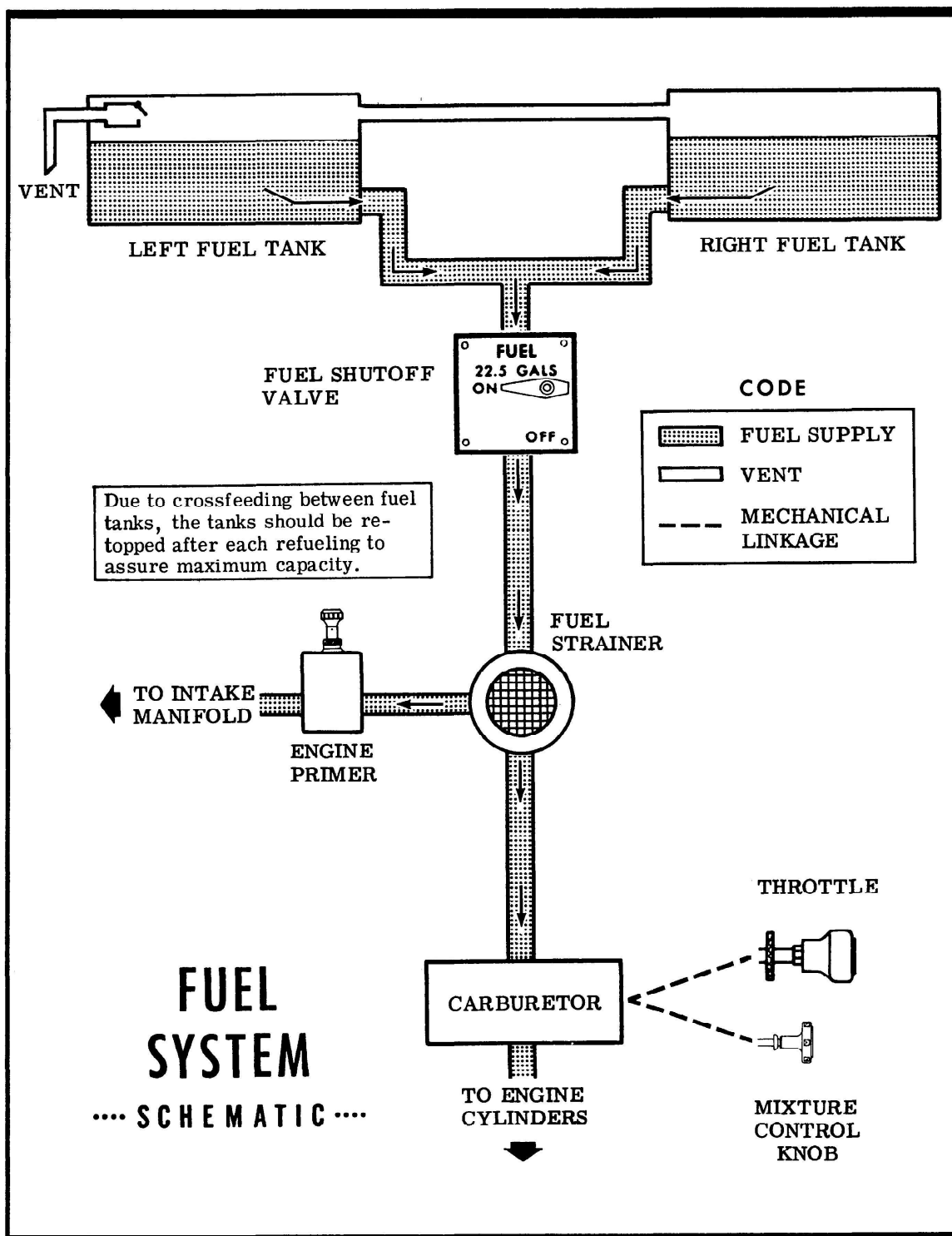


Figure 2-3.

To achieve the lean mixture fuel consumption figures shown in Section VI, the mixture should be leaned as follows: pull the mixture control out until engine RPM peaks and begins to fall off, then enrichen slightly back to peak RPM.

Carburetor ice, as evidenced by an unexplained drop in RPM, can be removed by application of full carburetor heat. Upon regaining the original RPM (with heat off), use the minimum amount of heat (by trial and error) to prevent ice from forming. Since the heated air causes a richer mixture, readjust the mixture setting when carburetor heat is to be used continuously in cruise flight.

The use of full carburetor heat is recommended during flight in very heavy rain to avoid the possibility of engine stoppage due to excessive water ingestion. The mixture setting should be readjusted for smoothest operation.

STALLS.

The stall characteristics are conventional for the flaps up and flaps down condition. Slight elevator buffeting may occur just before the stall with flaps down.

Stall speeds are shown in Section VI for aft c.g., full gross weight conditions. They are presented as calibrated airspeeds because indicated airspeeds are unreliable near the stall. The stall warning horn produces a steady signal 5 to 10 MPH before the actual stall is reached and remains on until the airplane flight attitude is changed.

SPINS.

Spins are approved in this airplane (see Section IV). For recovery from an inadvertent or intentional spin, the following procedure should be used.

- (1) Retard throttle to idle position.
- (2) Apply full rudder opposite to the direction of rotation.
- (3) After one-fourth turn, move the control wheel forward of neutral in a brisk motion.
- (4) As rotation stops, neutralize rudder, and make a smooth recovery from the resulting dive.

Application of aileron in the direction of the spin will greatly increase the rotation rate and delay the recovery. Ailerons should be held in a neutral position throughout the spin and the recovery. Intentional spins with flaps extended are prohibited.

LANDING.

Normal landing approaches can be made with power-on or power-off at speeds of 70 to 80 MPH with flaps up, and 60 to 70 MPH with flaps down. Surface winds and air turbulence are usually the primary factors in determining the most comfortable approach speeds.

Actual touchdown should be made with power-off and on the main wheels first. The nose wheel should be lowered smoothly to the runway as speed is diminished.

SHORT FIELD LANDINGS.

For a maximum performance short field landing in smooth air conditions, make an approach at 60 MPH with 40° flaps using enough power to control the glide path. After all approach obstacles are cleared, progressively reduce power and maintain 60 MPH by lowering the nose of the airplane. Touchdown should be made with power-off and on the main wheels first. Immediately after touchdown, lower the nose wheel and apply heavy braking as required. For maximum brake effectiveness, retract the flaps, hold full nose-up elevator, and apply maximum brake pressure without sliding the tires.

Slightly higher approach speeds should be used under turbulent air conditions.

CROSSWIND LANDINGS.

When landing in a strong crosswind, use the minimum flap setting required for the field length. Use a wing low, crab, or a combination method of drift correction and land in a nearly level attitude.

Excessive nose strut inflation can hinder nose wheel alignment with the airplane ground track in a drifting crosswind landing at touchdown and during ground roll. This can be counteracted by firmly lowering the nose wheel to the ground after initial contact. This action partially compresses the nose strut, permitting nose wheel swiveling and positive ground steering.

WEIGHT AND BALANCE.

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

Take the "Licensed Empty Weight" and "Moment" from the Weight and Balance Data Sheet (or changes noted on FAA Form 337) carried in your airplane, and write them down in the column titled "YOUR AIRPLANE" on the Sample Loading Problem.

NOTE

The Weight and Balance Data sheet is included in the aircraft file. In addition to the licensed empty weight and moment noted on this sheet, the c.g. arm (fuselage station) is shown. The c.g. arm figure need not be used on the Sample Loading Problem. The moment shown on the sheet 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 is based on seats positioned for average occupants and baggage loaded in the center of the baggage area. For other than average loading situations, the Sample Loading Problem lists fuselage stations for these items to indicate their forward and aft c.g. range limitation (seat travel or 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.

LOADING ARRANGEMENTS

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

** Arms measured to the center of the areas shown.

NOTE

The aft baggage wall (approximate station 94) can be used as a convenient interior reference point for determining the location of baggage area fuselage stations.

STATION
(C.G. ARM)

*39 —
(35 TO 41)

**64 —

**84 —

94



STANDARD
SEATING

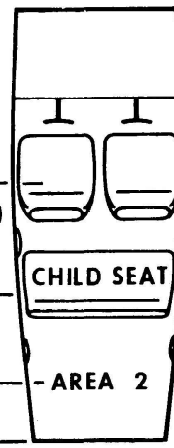
STATION
(C.G. ARM)

*39 —
(33 TO 41)

64 —

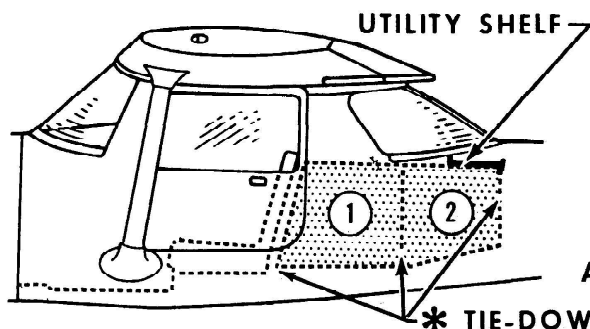
**84 —

94



OPTIONAL
SEATING

BAGGAGE LOADING AND TIE-DOWN



BAGGAGE AREA MAXIMUM ALLOWABLE LOADS

AREA ① = 120 POUNDS

AREA ② = 40 POUNDS

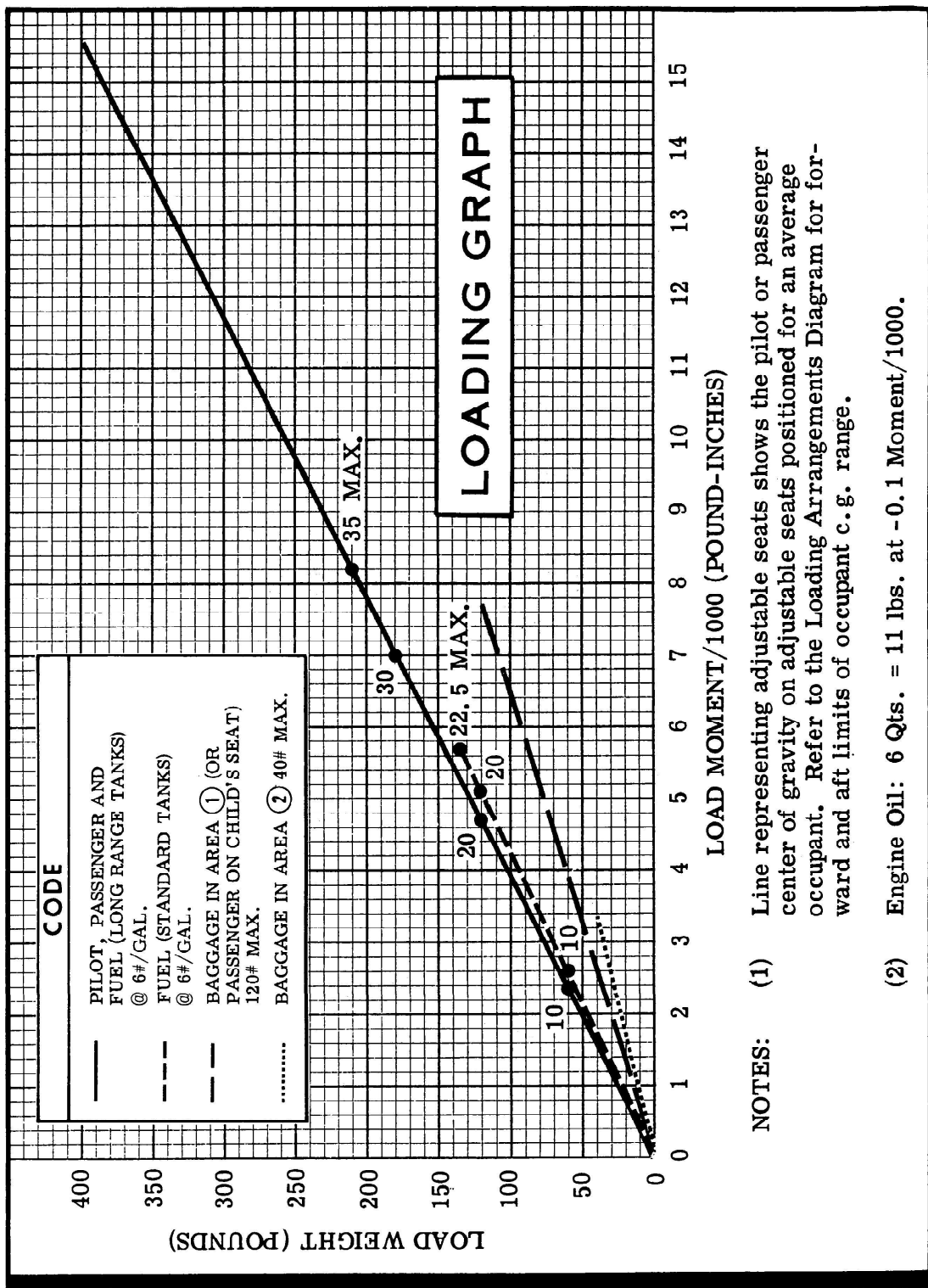
AREAS ① + ② = 120 POUNDS

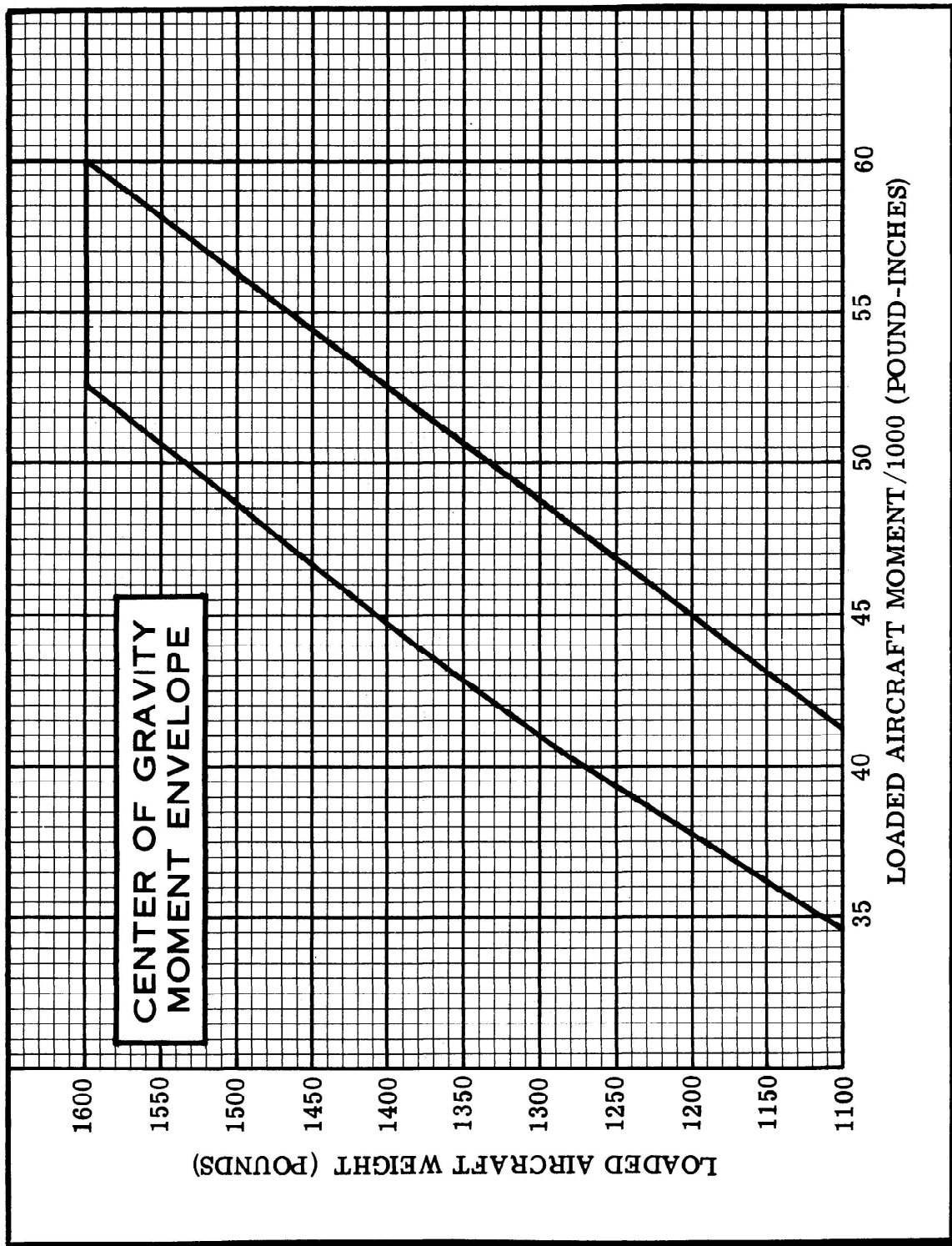
* TIE-DOWN NET ATTACH POINTS

* A cargo tie-down net is provided to secure baggage in the baggage area. The net attaches to six tie-down rings. Two rings are located on the floor just aft of the seat backs and one ring is located two inches above the floor on each cabin wall at the aft end of area ①. Two additional rings are located at the top, aft end of area ②. At least four rings should be used to restrain the maximum baggage load of 120#.

If the airplane is equipped with an optional utility shelf, it should be removed prior to loading and tying down large baggage items. (Slide the tab of the locking clips on each end of the shelf to disengage the shelf from the aircraft structure.) After baggage is loaded and secured, either stow the shelf or, if space permits, install it for storing small articles.

SAMPLE LOADING PROBLEM		SAMPLE AIRPLANE		YOUR AIRPLANE	
		Weight (lbs.)	Moment (lb.-ins. /1000)	Weight (lbs.)	Moment (lb.-ins. /1000)
1.	Licensed Empty Weight (Sample Airplane) . . .	1069	34.9		
2.	Oil (6 qts. - Full oil may be assumed for all flights)	11	-0.1	11	-0.1
3.	Fuel (Standard - 22.5 gal. at 6 lbs./gallon) . .	135	5.7		
	Fuel (Long Range - 35 gal. at 6 lbs./gallon) . .				
4.	Pilot and Passenger (Sta. 33 to 41)	340	13.3		
5.	Baggage - Area 1 (or passenger on child's seat) (Sta. 50 to 76)	45	2.9		
6.	Baggage - Area 2 (Sta. 76 to 94)				
7.	TOTAL WEIGHT AND MOMENT	1600	56.7		
8. Locate this point (1600 at 56.7) on the center of gravity moment envelope, and since this point falls within the envelope, the loading is acceptable.					





AIRSPEED CORRECTION TABLE										
FLAPS UP										
IAS-MPH	50	60	70	80	90	100	110	120	130	140
CAS-MPH	53	60	69	78	87	97	107	117	128	138
FLAPS DOWN										
IAS-MPH	40	50	60	70	80	90	100			
CAS-MPH	40	50	61	72	83	94	105			

Figure 6-1.

STALL SPEEDS – MPH CAS				
Gross Weight 1600 lbs.	ANGLE OF BANK			
CONDITION	 0°	 20°	 40°	 60°
Flaps UP 	55	57	63	78
Flaps 20° 	49	51	56	70
Flaps 40° 	48	49	54	67
POWER OFF — AFT CG				

Figure 6-2.