# Appendix 12. AIRPLANE DATA

1. BACKGROUND.

a. Airplane physical characteristics have operational and economic significance which materially affect an airport's design, development, and operation. Their consideration when planning a new airport or improving existing airport facilities maximizes their possible utilization and safety within expected demands. For example, they influence the design aspects of runways, taxiways, ramps, aprons, servicing facilities, gates, and life safety facilities. In addition, airport designers should consider anticipated growth in air traffic and the effects of near future model airplane operating weights and physical dimensions on ground operating areas.

b. Military airplanes frequently operate at civil airports. Joint-use airports should also meet the physical characteristics of military airplanes. Hence, during airport facility design, consider routine military operations such as medical evacuation, strategic deployment and dispersal, and Reserve and National Guard training missions.

c. Civil airplane versions of military counterparts are shown below.

| MILITARY DESIGNATION | CIVIL DESIGNATION |
|---|---|
| C-7 | DeHavilland Caribou |
| C-9A | McDonnell Douglas DC-9-30 |
| C-12 | Beech Huron |
| C-45 | Twin Beech 18 |
| C-46 | Curtis-Wright Commando |
| C-47/R-5D | Douglas DC-3, Skytrain |
| C-54/R-4D | Douglas DC-4, Skymaster |
| C-97 | Boeing Stratocruiser |
| C-118/R-6D | Douglas DC-6, Liftmaster |
| C-119 | Fairchild/Republic Flying Box Car |
| C-121/R-7 | Lockheed 749, 1049 Constellation |
| C-123 | Fairchild/Republic Provider |
| C-130 | Lockheed L-382 Hercules |
| C-131, T-29 | Convair 240/340/580 |
| C-135 | Boeing 707-120B, Starlifter |
| C-137, VC-137B, C | Boeing 707-320B |
| C-140 | Lockheed 1329 JetStar |
| C-141 | Lockeed StarLifter |
| E-4 | Boeing 747-200B |
| KC-10A | McDonnell Douglas, DC-10-30CF, Extender |
| KC-135A | Boeing 707, Stratotanker |
| P-3 | Lockheed L-188 Electra, 185/285 Orion |
| T-34 | Beech Mentor |
| T-37 | Cessna 318 |
| T-39 | Rockwell International NA-265-40 Sabreliner |
| T-42 | Beech Cochise |
| T-43A | Boeing 737-200 |
| T-47A | Cessna 552 |
| U-3 | Cessna 310/T310 |
| U-9 | Aero Commander 560 |
| U-18 | DeHavilland Twin Otter |

2. EXPLANATORY INFORMATION.

a. Presentation of data is in three forms:

(1) Figures A12-1 to A12-8 are representatives of general types of airplanes and not a specific model.

(2) Most figures illustrate a particular model with its specific data.

(3) Some figures present data for several similar models or series of airplanes by a single representative drawing (e.g., General Dynamics/Convair 880 and 990).

b. The alpha-symbols in the data tables and drawings use the following list of airplane physical characteristics:

| Alpha-Symbol | Airplane Physical Characteristics |
|---|---|
| A | Wingspan |
| B | Length Overall |
| C | Height Overall |
| D | Wheelbase |
| E | Nose to centerline of main gear |
| F | Wheel track (tread) |
| G | Centerline of fuselage to centerline of inboard engine |
| H | Centerline of fuselage to centerline of outboard engine |
| J | Outside of main gear to wingtip |
| K | Vertical clearance of inboard engine or propeller at maximum weight |
| L | Vertical clearance of outboard engine or propeller at maximum weight |
| M | Centerline of fuselage to approximate pivot point based on maximum nosewheel steering angle or locked wheels |
| N | Vertical clearance of wingtip at maximum weight |
| P | Height of exhaust of jet engine on centerline of fuselage (three-engine jet airplane only) |

c. Measurement of turn radius is either at maximum nosewheel steering angle or with locked wheels, whichever produces the larger radius. It is a horizontal measurement from the pivot point to the farthest point of the airplane during execution of a turn. This dimension represents a maximum effort maneuver not normally used by the airlines due to excessive tire wear. THIS DIMENSION IS NOT FOR AIRPORT FACILITY DESIGN PURPOSES. Contact the airline(s) involved for the turn radius to use for design purposes.

d. The abbreviation "SRS" denotes "series."

e. The abbreviation "NA" denotes "datum is not available."

f. The weight and dimensional information for transport type airplanes are from aircraft manufacturer publications titled "Airplane Characteristics, Airport Planning." Each airplane model has a publication that is available from its manufacturer. Since each publication has considerably more information of interest to an airport designer than assembled in this advisory circular, revisions are frequent. For example, weight and dimensional data is subject to change as a result of modifications and improvements to the airplane that differs from this advisory circular. Hence, it is advisable during airport facility planning and design to contact manufacturers of applicable airplanes.

| BUILDER | MODEL | NAME | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BELLANCA | 7 | CITABRIA | 1,650 LB<br>748 KG | 1,650 LB<br>748 KG | 33'5"<br>10.19M | 22'8"<br>6.91M | 6'8"<br>2.03M | 16'1"<br>4.90M | 6'4"<br>1.93M | 2 | |
| CESSNA | 120<br>140 | | 1,450 LB<br>658 KG | 1,450 LB<br>658 KG | 32'10"<br>10.00M | 21'0"<br>6.40M | 6'3"<br>1.91M | | 6'5"<br>1.96M | 2 | |
| | 170 | | 2,200 LB<br>998 KG | 2,200 LB<br>998 KG | 36'0"<br>10.97M | 25'0"<br>7.60M | 6'7"<br>2.00M | | | 4 | |
| | 180<br>185 | SKYWAGON | 2,800 LB<br>1 270 KG | 2,800 LB<br>1,270 KG | 36'2"<br>11.04M | 25'9"<br>7.85M | 7'9"<br>2.34M | | 7'8"<br>2.31M | 4 | 21'10"<br>6.65M |
| | 190<br>195 | | 3,350 LB<br>1 520 KG | 3,350 LB<br>1,520 KG | 36'2"<br>11.04M | 27'1"<br>8.26M | 7'2"<br>2.16M | | | 4 | |
| HELIO AIRCRAFT | H-250<br>H-295 | HELIO COURIER | 3,400 LB<br>1,542 KG | 3,400 LB<br>1,542 KG | 39'0"<br>10.87M | 31'6"<br>9.59M | 8'10"<br>2.70M | 23'5"<br>7.22M | 9'0"<br>2.75M | 6 | |
| | HST-550 | HELIO STALLION | 5,000 LB<br>2 268 KG | 5,100 LB<br>2,313 KG | 41'0"<br>12.49M | 39'7"<br>11.04M | 9'3"<br>2.83M | | 9'8"<br>2.96M | 11 | |

MODEL 185 HAS MAXIMUM WEIGHTS OF 3,350 LB (1 520 KG) AND 6 SEATS.
MODEL 195 HAS LENGTH OF 27'4" (8.33M).

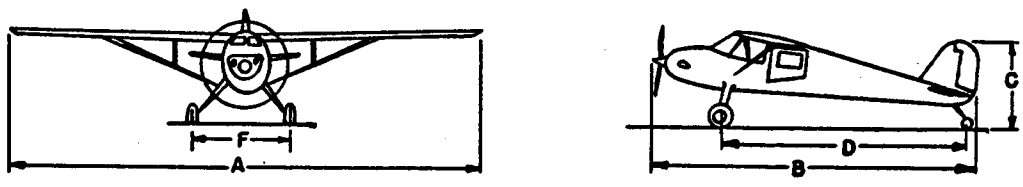



**Figure A12-1. Single engine, high wing, tailwheel airplanes 8,000 lb. (3,628 Kg) or less**

| BUILDER | MODEL | NAME | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| PIPER | PA-12, 14, 15 | SUPER CRUISER | 1,750 LB<br>794 KG | 1,750 LB<br>794 KG | 35'6"<br>10.80M | 22'6"<br>6.85M | 6'10"<br>2.08M | | 6'3"<br>1.91M | 3 | 20'8"<br>6.29M |
| | PA-18 | SUPER CUB | 1,500 LB<br>680 KG | 1,500 LB<br>680 KG | 35'3"<br>10.72M | 22'5"<br>6.83M | 6'8"<br>2.03M | | | 2 | 20'7"<br>2.26M |
| | PA-20 | PACER | 1,650 LB<br>748 KG | 1,650 LB<br>748 KG | 29'4"<br>8.90M | 20'5"<br>6.20M | 6'3"<br>1.91M | | | 4 | |
| SILVAIRE | 8 | | 1,400 LB<br>635 KG | 1,400 LB<br>635 KG | 35'0"<br>10.67M | 20'0"<br>6.10M | 6'3"<br>1.91M | | 6'4"<br>1.93M | 2 | |
| TAYLOR-CRAFT | BC-12 | | 1,150 LB<br>522 KG | 1,150 LB<br>522 KG | 36'0"<br>10.97M | 22'0"<br>6.72M | 6'8"<br>2.03M | | 6'0"<br>1.83M | 2 | |
| UNIVAIR AIRCRAFT | 108 | VOYAGER | 2,150 LB<br>975 KG | 2,150 LB<br>975 KG | 33'11"<br>10.34M | 24'6"<br>7.46M | 6'10"<br>2.08M | 18'7"<br>5.66M | 7'1"<br>2.16M | 4 | 20'6"<br>2.24M |

NOTE: MODEL PA-20 MAY HAVE MAXIMUM WEIGHTS OF 1,800 LB (816 KG).

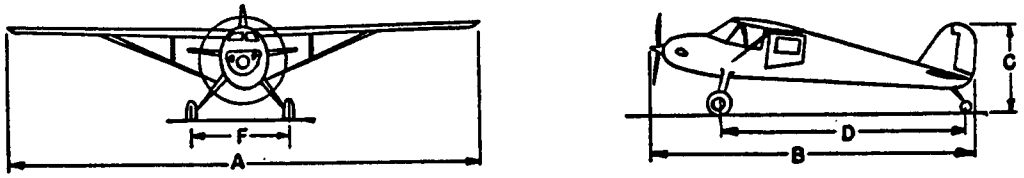



**Figure A12-2. Single engine, high wing, tailwheel airplanes 8,000 lb. (3,628 Kg) or less (cont'd)**

| BUILDER | MODEL | NAME | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| BEDE AIRCRAFT | BD-4 | | 1,400 LB<br>635 KG | 1,400 LB<br>635 KG | 25'6"<br>7.77M | 21'11"<br>6.68M | 6'3"<br>1.91M | | 8'3"<br>2.51M | 4 | |
| CESSNA | 150 | | 1,600 LB<br>726 KG | 1,600 LB<br>726 KG | 32'9"<br>9.98M | 23'10"<br>7.26M | 8'0"<br>2.44M | 4'10"<br>1.48M | 6'7"<br>2.01M | 2 | 19'10"<br>6.05M |
| | 172 | SKYHAWK | 2,300 LB<br>1 043 KG | 2,300 LB<br>1 043 KG | 35'10"<br>10.93M | 26'11"<br>8.20M | 8'10"<br>2.84M | 5'4"<br>1.63M | 7'2"<br>2.23M | 4 | 19'8"<br>6.00M |
| | 177 | CARDINAL | 2,500 LB<br>1 134 KG | 2,500 LB<br>1 134 KG | 35'6"<br>10.82M | 27'2"<br>8.28M | 8'6"<br>2.59M | 6'5"<br>1.96M | 8'4"<br>2.54M | 4 | |
| | 182 | SKYLANE | 2,950 LB<br>1 338 KG | 2,950 LB<br>1 338 KG | 35'10"<br>10.93M | 28'1"<br>8.56M | 8'11"<br>2.72M | 5'7"<br>1.70M | 8'0"<br>2.44M | 4 | 21'4"<br>6.50M |
| | 206 | STATIONAIR | 3,600 LB<br>1 633 KG | 3,600 LB<br>1 633 KG | 35'10"<br>10.93M | 28'0"<br>8.53M | 9'8"<br>2.95M | 6'11"<br>2.11M | 8'2"<br>2.49M | 6 | |
| | 207 | SUPER SKYWAGON | 3,800 LB<br>1 724 KG | 3,800 LB<br>1 724 KG | 35'10"<br>10.93M | 31'9"<br>9.68M | 9'7"<br>2.92M | | 10'0"<br>3.04M | 6 | |
| | 210 | CENTURION | 3,800 LB<br>1 724 KG | 3,800 LB<br>1 724 KG | 36'9"<br>11.20M | 28'3"<br>8.61M | 9'8"<br>2.95M | 5'9"<br>1.76M | 8'6"<br>2.59M | 6 | 22'5"<br>6.84M |
| PIPER | PA-22 | TRI-PACER | 1,800 LB<br>816 KG | 1,800 LB<br>816 KG | 29'4"<br>8.97M | 20'4"<br>6.20M | 6'3"<br>1.91M | | | 3 | 19'11"<br>6.07M |




Figure A12-3. Single engine, high wing, tricycle gear airplanes 8,000 lb. (3,628 Kg) or less

| BUILDER | MODEL | NAME | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AEROSTAR AVIATION | 415 | ERCOUPE | 1,450 LB<br>658 KG | 1,450 LB<br>658 KG | 30'0"<br>9.14M | 20'7"<br>6.27M | 6'3"<br>1.91M | 5'4"<br>1.63M | 7'9"<br>2.36M | 2 | 18'9"<br>5.71M |
| | M-20 | | 2,525 LB<br>1 145 KG | 2,525 LB<br>1 145 KG | 35'0"<br>10.67M | 23'7"<br>7.06M | 8'4"<br>2.54M | 5'7"<br>1.70M | 9'1"<br>2.77M | 4 | 22'1"<br>6.72M |
| | M-22 | MARK 22 | 3,680 LB<br>1 669 KG | 3,680 LB<br>1 669 KG | 35'0"<br>10.67M | 27'0"<br>8.23M | 9'10"<br>3.00M | 8'3"<br>2.51M | 11'0"<br>3.35M | 5 | |
| BEECH-CRAFT | 23 | MUSKETEER | 2,450 LB<br>1 111 KG | 2,200 LB<br>998 KG | 32'9"<br>9.98M | 25'0"<br>7.62M | 8'3"<br>2.51M | 6'4"<br>1.91M | 11'10"<br>3.61M | 4 | |
| | V-35B | BONANZA | 3,400 LB<br>1 542 KG | 3,400 LB<br>1 542 KG | 33'6"<br>10.21M | 26'5"<br>8.05M | 6'7"<br>2.01M | 7'0"<br>2.13M | 9'7"<br>2.92M | 4 | 21'6"<br>6.55M |
| | F-33 | BONANZA | 3,050 LB<br>1 383 KG | 3,050 LB<br>1 383 KG | 32'10"<br>10.00M | 25'6"<br>7.77M | 8'3"<br>2.51M | 7'5"<br>2.26M | 9'7"<br>2.92M | 5 | 21'3"<br>6.48M |
| | F-33A | BONANZA | 3,400 LB<br>1 542 KG | 3,400 LB<br>1 542 KG | 33'6"<br>10.21M | 26'8"<br>8.13M | 8'3"<br>2.51M | 7'5"<br>2.26M | 9'7"<br>2.92M | 5 | 21'3"<br>6.48M |
| BELLANCA | 260<br>300 | VIKING | 3,000 LB<br>1 361 KG | 3,000 LB<br>1 361 KG | 24'2"<br>10.41M | 23'6"<br>7.15M | 7'4"<br>2.23M | 6'8"<br>2.03M | 9'0"<br>2.75M | 4 | |

NOTE: MODEL M-20 MAY BE KNOWN AS: CHAPARRAL, EXECUTIVE, MUSTANG, RANGER, STATESMAN.

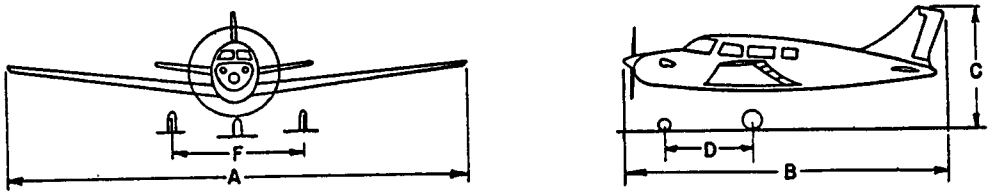



**Figure A12-4. Single engine, low wing, tricycle gear airplanes 8,000 lb. (3,628 Kg) or less**

| BUILDER | MODEL | NAME | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| GRUMMAN | AA-1 | YANKEE | 1,500 LB<br>680 KG | 1,500 LB<br>680 KG | 24'6"<br>7.47M | 19'3"<br>5.87M | 6'10"<br>2.08M | 4'5"<br>1.35M | 8'3"<br>2.51M | 2 | |
| NAVION | G-1 | RANGE-MASTER | 3,315 LB<br>1 504 KG | 3,150 LB<br>1 489 KG | 34'9"<br>10.59M | 27'6"<br>8.38M | 8'4"<br>2.54M | 5'8"<br>1.74M | 8'9"<br>2.67M | 4 | |
| PIPER | PA-24 | COMMANCHE | 2,550 LB<br>1 157 KG | 2,550 LB<br>1 157 KG | 36'0"<br>10.97M | 24'9"<br>7.54M | 7'5"<br>2.25M | 6'7"<br>2.01M | 9'8"<br>2.94M | 4 | 22'10"<br>6.96M |
| | PA-28-180 | CHEROKEE | 2,400 LB<br>1 089 KG | 2,400 LB<br>1 089 KG | 30'0"<br>9.14M | 23'6"<br>7.16M | 7'4"<br>2.22M | 6'3"<br>1.89M | 10'0"<br>3.04M | 4 | 20'0"<br>6.08M |
| | PA-28-200 | CHEROKEE ARROW | 2,600 LB<br>1 179 KG | 2,600 LB<br>1 179 KG | 30'0"<br>9.14M | 24'2"<br>7.37M | 8'0"<br>2.44M | 7'5"<br>2.26M | 10'6"<br>3.20M | 5 | 20'3"<br>6.17M |
| | PA-32 | CHEROKEE SIX | 3,400 LB<br>1 542 KG | 3,400 LB<br>1 542 KG | 32'10"<br>10.00M | 27'9"<br>8.45M | 7'11"<br>2.41M | 7'10"<br>2.39M | 10'7"<br>3.22M | 6 | 21'9"<br>6.63M |
| ROCKWELL INTERNAT. | 112 | | 2,475 LB<br>1 127 KG | 2,475 LB<br>1 127 KG | 35'0"<br>10.67M | 27'2"<br>8.28M | 10'1"<br>3.07M | | 7'2"<br>2.18M | 4 | |

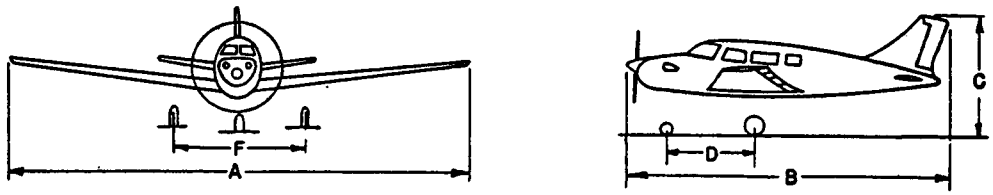



**Figure A12-5. Single engine, low wing, tricycle gear airplanes 8,000 lb. (3,628 Kg) or less (cont'd)**

| BUILDER | MODEL | NAME | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| AEROSTAR AVIATION | 600<br>601 | AEROSTAR | 5,500 LB<br>2 495 KG | 5,500 LB<br>2 495 KG | 34'3"<br>10.44M | 34'10"<br>10.62M | 12'2"<br>3.71M | | 10'3"<br>3.12M | 5 | |
| BEECH-CRAFT | B-55 | BARRON | 5,100 LB<br>2 313 KG | 5,100 LB<br>3 313 KG | 37'10"<br>11.53M | 28'0"<br>8.53M | 9'2"<br>2.79M | 7'0"<br>2.13M | 7'0"<br>2.13M | 4 | 23'8"<br>7.21M |
| | E-55 | BARRON | 5,300 LB<br>2 404 KG | 5,300 LB<br>2 404 KG | 37'10"<br>11.53M | 29'0"<br>8.88M | 9'2"<br>2.79M | 8'0"<br>2.44M | 8'0"<br>2.44M | 4 | 23'8"<br>7.21M |
| | B-60 | DUKE | 6,775 LB<br>3 073 KG | 6,775 LB<br>3 073 KG | 39'3"<br>11.96M | 33'10"<br>10.32M | 12'4"<br>3.76M | 9'3"<br>2.82M | 11'0"<br>3.35M | 6 | |
| CESSNA | 310 | | 5,100 LB<br>2 313 KG | 5,100 LB<br>2 313 KG | 37'6"<br>11.43M | 29'7"<br>9.02M | 9'11"<br>3.03M | 9'6"<br>2.90M | 12'0"<br>3.66M | 6 | 24'0"<br>7.31M |

NOTE: E-55 TURBO HAS MAXIMUM WEIGHTS OF 5,900 LB (2 676 KG).
310 TURBO HAS MAXIMUM WEIGHTS OF 5,500 LB (2 495 KG).

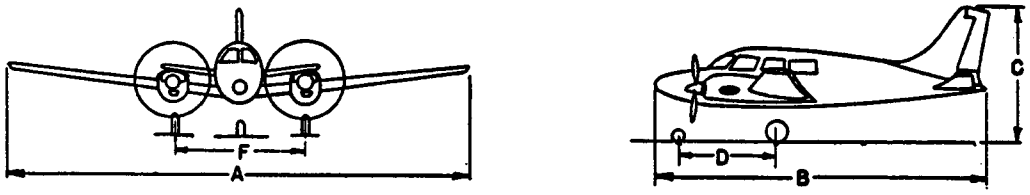



**Figure A12-6. Twin engine, low or mid wing, tricycle gear airplanes 8,000 lb. (3,628 Kg) or less**

| BUILDER | MODEL | NAME | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CESSNA | 401, 402, 421 | TWIN CESSNA | 6,300 LB<br>2 858 KG | 6,200 LB<br>2 812 KG | 39'10"<br>12.27M | 36'2"<br>11.02M | 11'8"<br>3.56M | 10'6"<br>3.20M | 14'8"<br>4.47M | 6 | |
| PIPER | PA-23-160 | APACHE | 3,800 LB<br>1 724 KG | 3,800 LB<br>1 724 KG | 37'2"<br>11.32M | 27'5"<br>8.34M | 9'6"<br>2.87M | 7'6"<br>2.28M | 11'0"<br>3.35M | 5 | 24'0"<br>7.31M |
| | PA-23-250 | AZTEC | 4,800 LB<br>2 177 KG | 4,800 LB<br>2 177 KG | 37'0"<br>11.27M | 27'7"<br>8.42M | 10'4"<br>3.15M | 7'6"<br>2.28M | 11'4"<br>3.45M | 6 | 24'0"<br>7.31M |
| | PA-30 | TWIN COMMANCHE | 3,600 LB<br>1 633 KG | 3,600 LB<br>1 633 KG | 36'0"<br>10.97M | 25'2"<br>7.67M | 8'3"<br>2.51M | 7'4"<br>2.23M | 9'10"<br>2.98M | 4 | 22'8"<br>6.90M |
| | PA-31 | NAVAJO | 6,200 LB<br>2 812 KG | 6,200 LB<br>2 812 KG | 40'8"<br>12.40M | 32'8"<br>9.94M | 13'0"<br>3.96M | 8'8"<br>2.64M | 13'9"<br>4.19M | 7 | 27'3"<br>8.32M |

NOTE: MODEL (421) HAS OPTIONAL TAKEOFF WEIGHT OF 6,350 LB (2 880 KG).
(421B) 7,450 LB (3 379 KG).

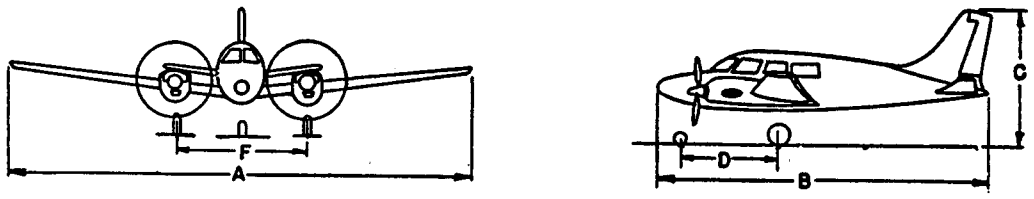
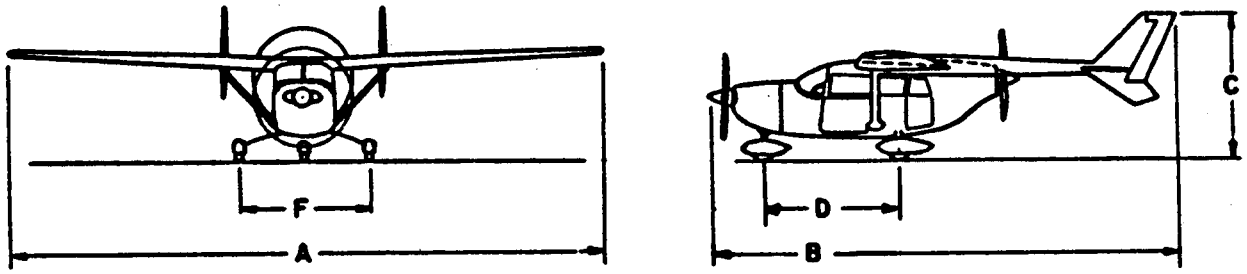


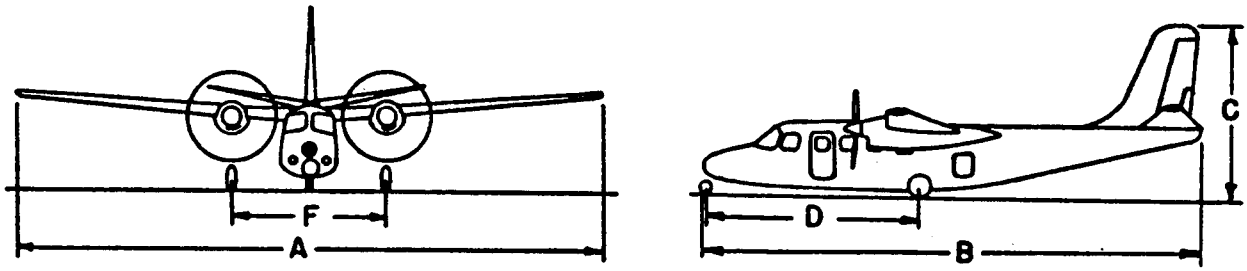

**Figure A12-7. Twin engine, low or mid wing, tricycle gear airplanes 8,000 lb. (3,628 Kg) or less (cont,d)**

| BUILDER | MODEL | NAME | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|
| CESSNA | 336<br>337 | SUPER<br>SKYMASTER | 4,630 LB<br>2 100 KG | 4,400 LB<br>1 996 KG | 38'2"<br>11.85M | 29'10"<br>9.10M | 9'4"<br>2.85M | 7'10"<br>2.39M | 8'2"<br>2.48M | 4 | |
| ROCKWELL INTERNAT. | 500 | AERO COMMANDER | 6,500 LB<br>2 948 KG | 6,500 LB<br>2 948 KG | 49'6"<br>15.09M | 35'1"<br>10.69M | 14'6"<br>4.42M | | 12'11"<br>3.94M | 7 | 31'2"<br>9.50M |
| | 560, 680<br>SHRIKE | GRAND<br>SHRIKE CDR | 7,700 LB<br>3 493 KG | 7,700 LB<br>3 493 KG | 49'1"<br>14.96M | 36'7"<br>11.15M | 14'6"<br>4.42M | 14'0"<br>4.28M | 12'11"<br>3.94M | 7 | |

NOTE: SHRIKE COMMANDER HAS MAXIMUM WEIGHTS OF 6,750 LB (3 062 KG).
MODEL 681, TURBO II, HAWK COMMANDER HAS WINGSPAN OF 44'0" (13.41M) AND MAXIMUM WEIGHTS OF 9,400 LB (4 264 KG); OTHERWISE AS MODEL 560.




CESSNA SUPER SKYMASTER.




ROCKWELL INTERNATIONAL AERO COMMANDER SERIES.

**Figure A12-8. Twin engine, high or mid wing, tricycle gear airplanes 8,000 lb. (3,628 Kg) or less**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| MOHAWK 298 | 23,480 LB<br>10 653 KG | 22,710 LB<br>10 301 KG | 71'11"<br>21.92M | 63'4"<br>19.30M | 20'5"<br>6.22M | 23'9"<br>7.24M | 29'9"<br>9.07M | 10'3"<br>3.12M | 9'8"<br>2.95M | 30'5"<br>9.27M | 5'5"<br>1.65M | 5.2"<br>1.60M | 12'6"<br>3.84M | 41'1"<br>12.52M |

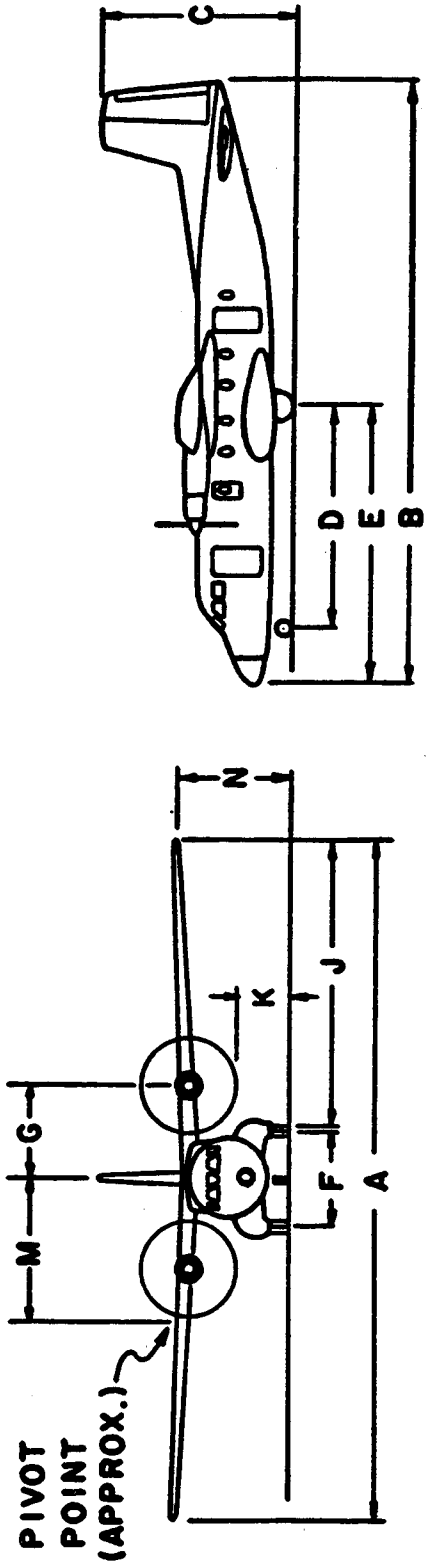



**Figure A12-9. Aérospatiale Nord 262**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CARAVELLE | 114,640 LB<br>52 000 KG | 104,990 LB<br>47 623 KG | 112'6"<br>34.29M | 105'0"<br>32.00M | 28'7"<br>8.72M | 38'6"<br>11.74M | 55'6"<br>16.92M | 17'1"<br>5.21M | 7'10"<br>2.39M | 46'7"<br>14.20M | 7'2"<br>2.18M | 33'2"<br>10.11M | 7'5"<br>2.26M | 90'3"<br>27.51M |

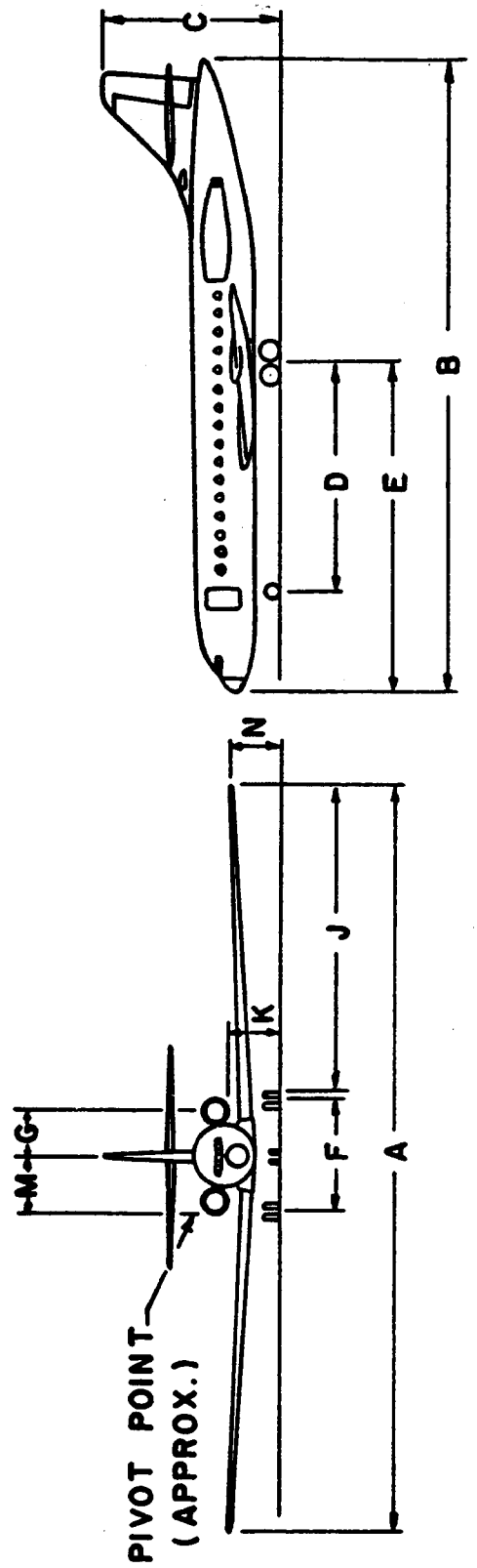



**Figure A12-10. Aérospatiale/Sud SE-210 Caravelle**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| A-300 -B2 | 302,000 LB<br>136 985 KG | 281,000 LB<br>127 459 KG | 147'1"<br>44.83M | 175'6"<br>53.49M | 55'6"<br>16.92M | 60'10"<br>18.54M | 82'8"<br>25.20M | 31'6"<br>9.60M | 26'0"<br>79.2M | 55'10"<br>17.02M | 2'7"<br>0.79M | 37'3"<br>11.35M | 19'4"<br>5.89M | 113'6"<br>34.59M |
| A-300 -B4 | 330,700 LB<br>150 003 KG | 293,200 LB<br>132 993 KG | 147'1"<br>44.83M | 175'6"<br>53.49M | 55'6"<br>16.92M | 60'10"<br>18.54M | 82'8"<br>25.20M | 31'6"<br>9.60M | 26'0"<br>7.92M | 55'5"<br>16.89M | 2'7"<br>0.79M | 37'3"<br>11.35M | 19'4"<br>5.89M | 113'6"<br>34.59M |
| A-300 -600 | 363,763 LB<br>165 000 KG | 304,238 LB<br>138 000 KG | 147'1"<br>44.83M | 177'6'<br>54.08M | 54'8"<br>16.66M | 61'1"<br>18.26M | 82'11"<br>25.27M | 31'6"<br>9.60M | 26'0"<br>7.92M | 55'5"<br>16.89M | 3'3"<br>0.98M | 37'11"<br>11.55M | 18'9"<br>5.70M | 109'3"<br>33.31M |
| A-310 -300 | 330,693 LB<br>150 000 KG | 271,169 LB<br>123 000 KG | 144'1"<br>43.90M | 153'2"<br>46.67M | 52'4"<br>15.95M | 49'11"<br>15.21M | 71'9"<br>21.87M | 31'6"<br>9.60M | 25'3"<br>7.70M | 54'2"<br>16.51M | 2'2"<br>0.65M | 34'2"<br>10.41M | 16'11"<br>5.17M | 108'2"<br>32.97M |
| A-320 -100 | 145,505 LB<br>66 000 KG | 134,482 LB<br>61 000 KG | 111'3"<br>39.91M | 123'3"<br>37.57M | 39'1"<br>11.91M | 41'6"<br>12.64M | 58'1"<br>17.70M | 24'11"<br>7.59M | 18'10"<br>5.74M | 40'10"<br>12.45M | 1'10"<br>0.55M | 15'1"<br>4.61M | 13'5"<br>4.08M | 72'3"<br>21.99M |

NOTE: A-310-200 HAS OPTIONAL (TAKEOFF) WEIGHT OF 305,560 LB (138 610 KG) AND 313,055 LB (141 999 KG).
264,963 LB (122 000 KG).
(LANDING)




**Figure A12-11. Airbus Industries A300, 310, and 320**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | H | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| ATR-42 200 | 34,725 LB<br>15 751 KG | 34,170 LB<br>15 499 KG | 80'7"<br>24.56M | 74'5"<br>22.68M | 25'5"<br>7.75M | 28'10"<br>8.79M | 34'4"<br>10.46M | 13'5"<br>4.09* | 13'3"<br>4.04M | 32'5"<br>9.88M | 3'6"<br>1.07M | 16'8"<br>5.08M | 12'1"<br>3.68M | 57'1"<br>17.40M |
| ATR-42 300 | 35,605 LB<br>16 150 KG | 35,275 LB<br>16 000 KG | 80'7"<br>24.56M | 74'5"<br>22.68M | 25'5"<br>7.75M | 28'10"<br>8.79M | 34'4"<br>10.46M | 13'5"<br>4.09M | 13'3"<br>4.04M | 32'5"<br>9.88M | 3'6"<br>1.07M | 16'8"<br>5.08M | 12'1"<br>3.68M | 57'1"<br>17.40M |
| ATR-72 | 44,070 LB<br>19 990 KG | 43,870 LB<br>19 899 KG | 88'9"<br>27.05M | 89'2"<br>27.18M | 25'1"<br>7.65M | 35'1"<br>10.69M | 40'11"<br>12.47M | 13'5"<br>4.09M | 13'3"<br>4.04M | 36'6"<br>11.13M | 3'6"<br>1.07M | 20'5"<br>6.22M | 12'3"<br>3.73M | 64'10"<br>19.76M |

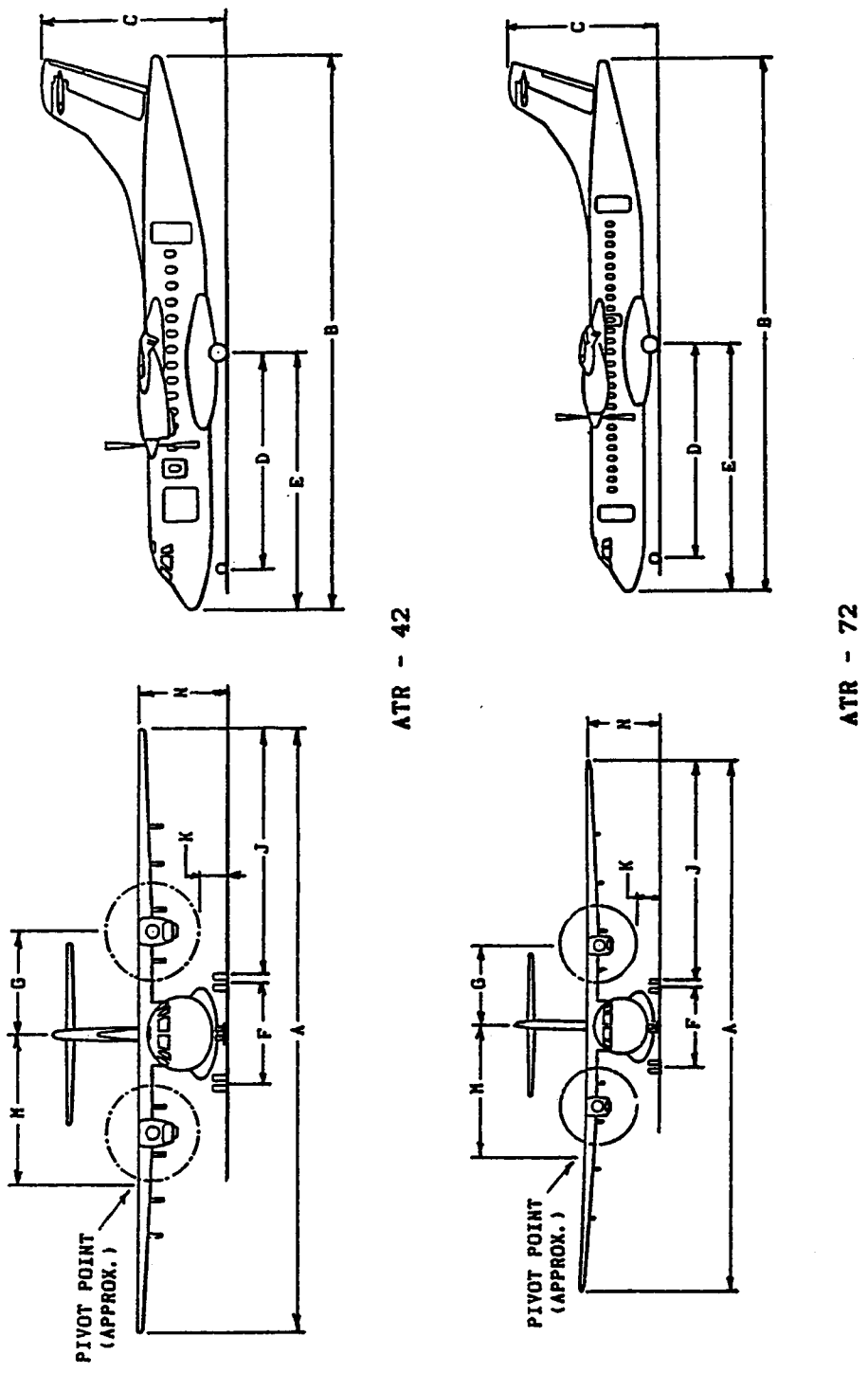



**Figure A12-12. Avions de Transport Regional ATR-42 & -72**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 18,740 LB<br>8 500 KG | 17,640 LB<br>8 001 KG | 42'11"<br>13.08M | 45'6"<br>13.87M | 15'1"<br>4.60M | | | | | | | | | |
| 20 | 28,660 LB<br>13 000 KG | 27,320 LB<br>12 392 KG | 53'6"<br>16.31M | 56'3"<br>17.14M | 17'5"<br>5.31M | 18'10"<br>5.74M | | 12'2"<br>3.71M | 5'6"<br>1.68M | 18'11"<br>5.77M | 5'8"<br>1.72M | 15'3"<br>4.65M | 4'10"<br>1.47M | 42'0"<br>12.80M |
| 50 | 37,480 LB<br>17 001 KG | 35,715 LB<br>16 200 KG | 61'11"<br>18.87M | 60'9"<br>18.52M | 22'11"<br>6.98M | 23'9"<br>7.24M | | 13'1"<br>3.99M | | | | | | |
| 200 | 30,650 LB<br>13 903 KG | 28,800 LB<br>13 063 KG | 53'6"<br>16.31M | 56'3"<br>17.14M | 17'5"<br>5.31M | | | | | | | | | |
| 900 | 45,500 LB<br>20 638 KG | 42,000 LB<br>19 051 KG | 63'5"<br>19.33M | 66'3"<br>20.19M | 24'10"<br>7.57M | | | | | | | | | |

NOTE: MODEL 50 HAS OPTIONAL MAXIMUM TAKEOFF WEIGHT OF 40,780 LB (18 497 KG).

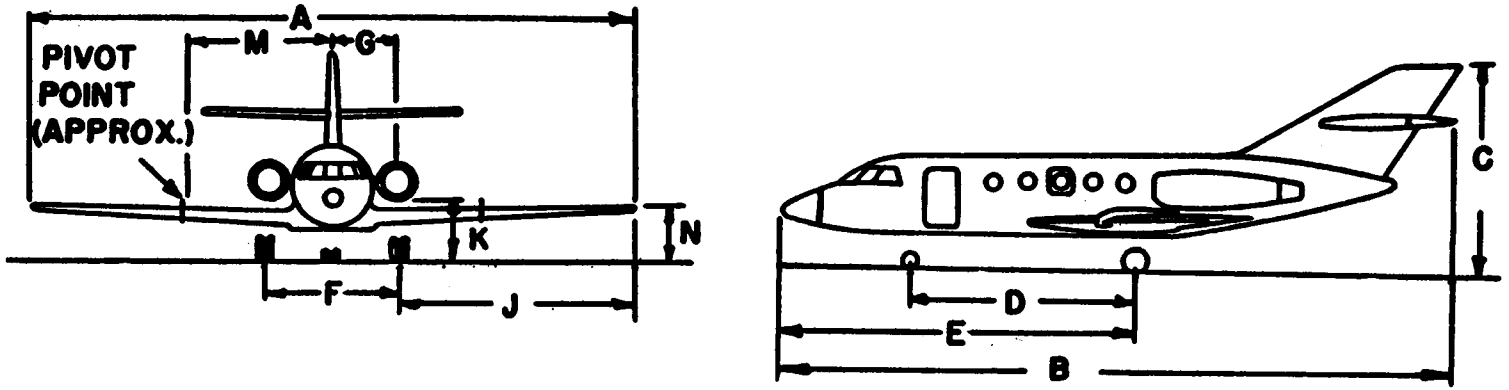



Figure A12-13. Avions Marcel Dassault Mystère 20 (Fan Jet Falcon)

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 200 | 79,000 LB | 69,000 LB | 88'6" | 93'6" | 24'6" | 33'1" | 48'5" | 14'3" | 8'2" | 35'9" | 6'7" | 7'8" | 7'4" | 52'6" |
| 400 | 35 834 KG | 31 298 LB | 26.97M | 28.48M | 7.46M | 10.15M | 14.49M | 4.34M | 2.49M | 10.90M | 2.01M | 2.34M | 2.24M | 15.95M |
| 500 | 104,500 LB | 86,000 LB | 93'6" | 107'0" | 24'6" | 41'5" | 56'9" | 14'3" | 8'2" | 42'8" | 6'7" | 7'8" | 7'4" | |
| | 47 400 KG | 39 009 KG | 28.49M | 32.61M | 7.46M | 12.35M | 17.30M | 4.34M | 2.49M | 13.00M | 2.01M | 2.34M | 2.24M | |

SRS 400 HAS MAXIMUM (TAKEOFF) WEIGHT OF 87,000 LB (39 463 KG).
(LANDING) 76,000 LB (35 380 KG).

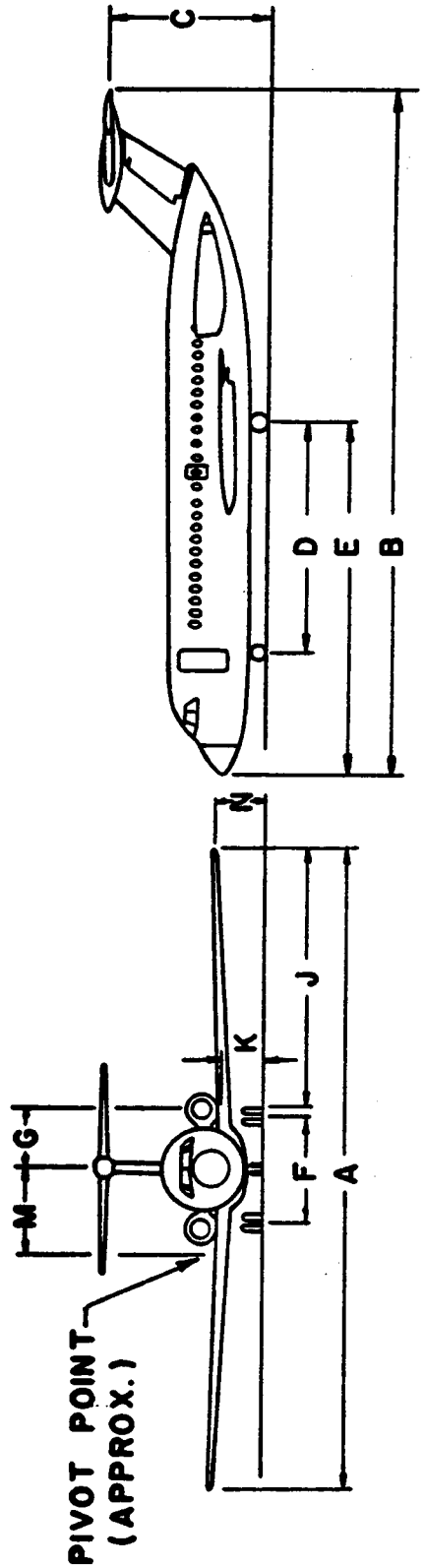



**Figure A12-14. BAe 1-11**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CONCORDE | 408,000 LB<br>185 066 KG | 245,000 LB<br>111 130 KG | 83'10"<br>25.55M | 205'5"<br>62.61M | 37'5"<br>11.40M | 59'6"<br>18.19M | 122'10"<br>37.44M | 25'4"<br>7.72M | 18'1"<br>5.51M | 27'3"<br>8.31M | 6'1"<br>1.85M | 32'5"<br>9.88M | 8'6"<br>2.59M | 127'0"<br>38.71M |

•TIP OF PROBE, NOSE FULLY LOWERED 8'6" (2.59M).

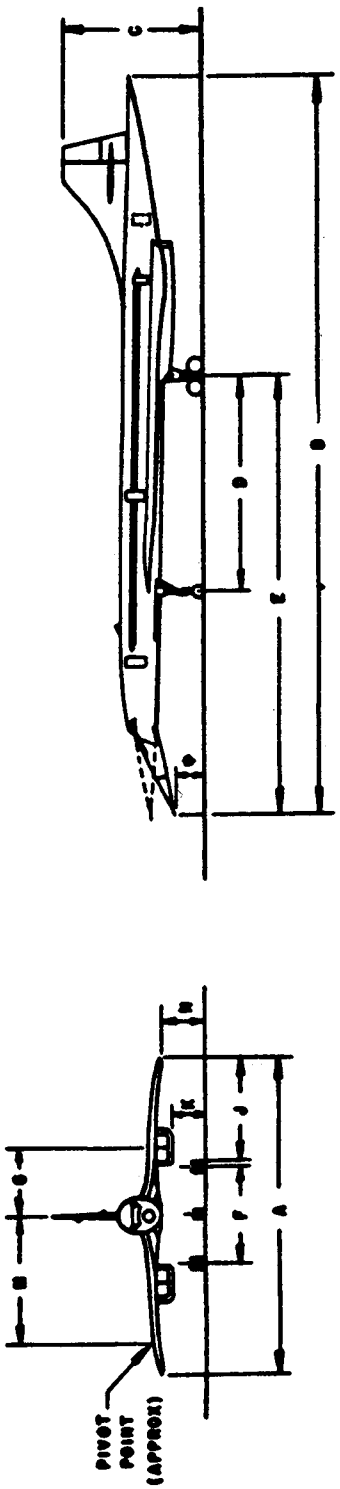



Figure A12-15. B.A.C./SNIAS Concorde

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| VC-10 | 312,000 LB | 216,000 LB | 146'2" | 158'9" | 39'6" | 65'10" | | 21'5" | | | | | | |
| -1100 | 141 521 KG | 97 976 KG | 44.60M | 48.39M | 12.04M | 20.06M | | 6.53M | | | | | | |
| VC-10 | 335,100 LB | 237,000 LB | 146'2" | 171'8" | 39'6" | 72'1" | | 21'5" | | | | | | |
| -1150 | 151 999 KG | 107 501 KG | 44.60M | 52.32M | 12.04M | 21.97M | | 6.53M | | | | | | |

SRS 1150 KNOWN AS VC-10 SUPER.

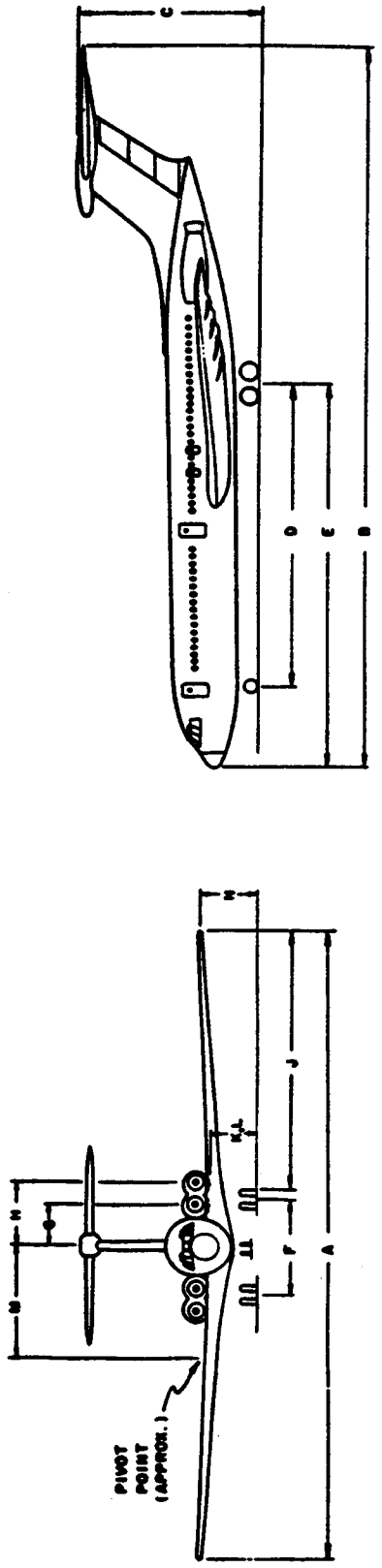



**Figure A12-16. B.A.C./Vickers VC-10**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 745 | 64,500 LB<br>29 257 KG | 57,500 LB<br>26 082 KG | 93'9"<br>28.57M | 81'10"<br>24.94M | 26'9"<br>8.15M | 25'3"<br>7.70M | 35'8"<br>10.87M | 23'10"<br>7.32M | 12'9"<br>3.88M | | 33'9"<br>10.29M | 1'1"<br>0.33M | | 20'10"<br>6.56M | 8'7"<br>2.62M | 67'8"<br>20.62M |
| 810 | 72,500 LB<br>32 885 KG | 62,000 LB<br>28 123 KG | 94'0"<br>28.65M | 85'8"<br>25.83M | 26'10"<br>8.18M | 29'1"<br>8.86M | 39'6"<br>12.04M | 23'10"<br>7.32M | 12'9"<br>3.88M | | 33'9"<br>10.29M | 1'1"<br>0.33M | | 24'5"<br>7.39M | 8'7"<br>2.62M | 71'3"<br>21.72M |

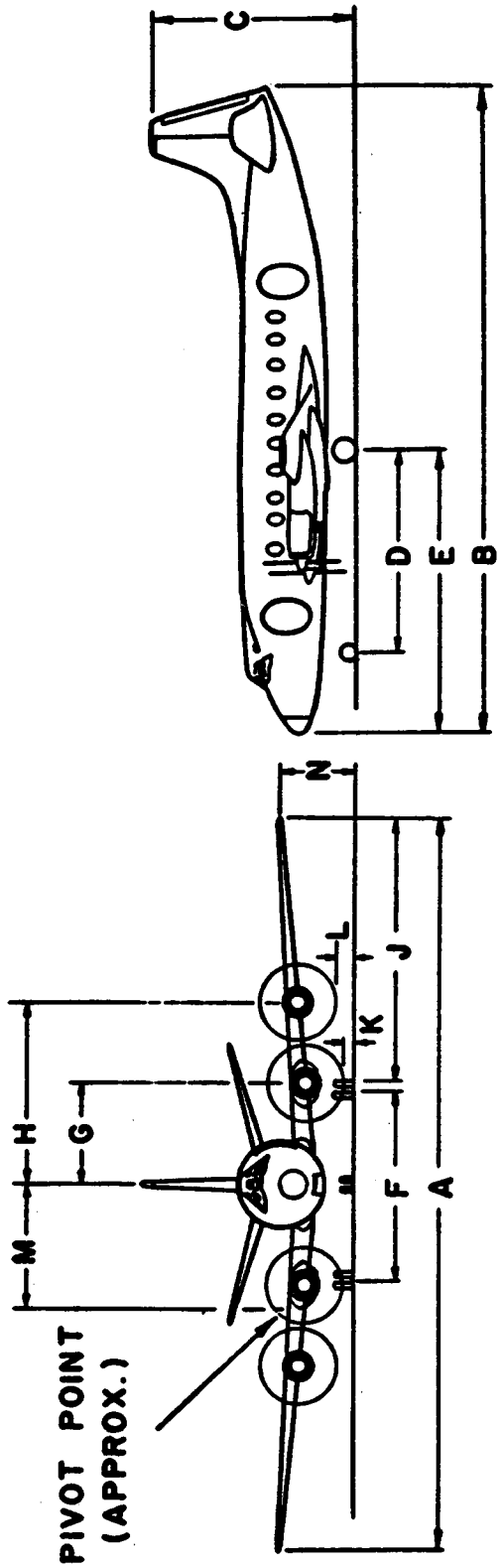



Figure A12-17. B.A.C./Vickers Viscount

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 14,000 LB<br>6 350 KG | 13,300 LB<br>6 033 KG | 54'5"<br>16.59M | 46'1"<br>14.05M | 12'11"<br>3.94M | 22'6"<br>6.86M | 28'8"<br>8.74M | 16'10"<br>5.13M | 4'10'<br>1.47M | 18.1"<br>5.51M | 2'11"<br>0.89M | | | 4'6"<br>1.37M |

NOTE: FORWARD WING SPAN:
AFT POSITION 20'11" (6.38M).
FORWARD POSITION 24'11" (7.59M).

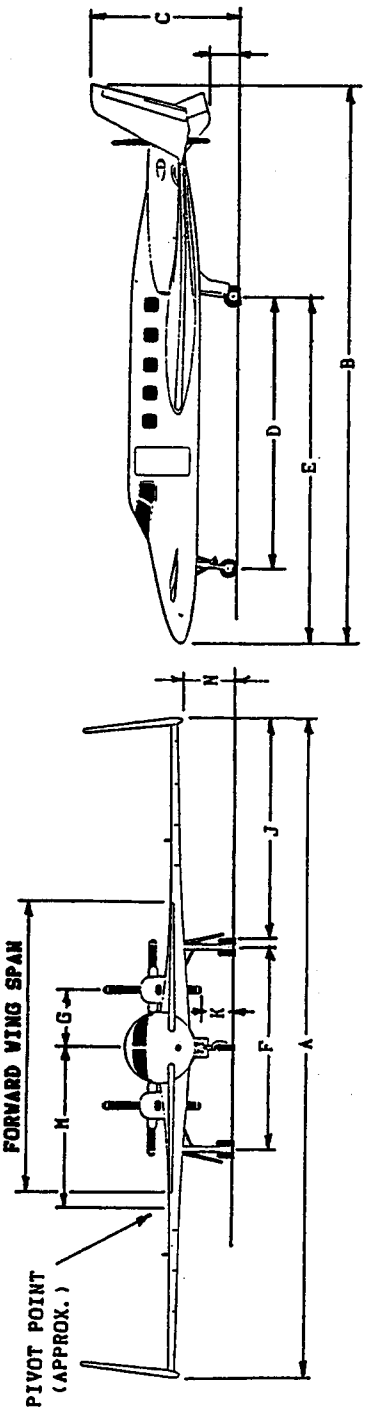



**Figure A12-18. Beech Starship**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|
| C99 | 11,300 LB<br>5 126 KG | 11,300 LB<br>5 126 KG | 45'11"<br>14.00M | 44'7"<br>13.59M | 14'5"<br>4.39M | 18'0"<br>5.49M | 13'0"<br>3.97M | 17 | 40'0"<br>12.19M |
| 1900 | 16,600 LB<br>7 530 KG | 16,100 LB<br>7 303 KG | 54'6"<br>16.61M | 57'10"<br>17.63M | 14'11"<br>4.55M | 23'10"<br>7.26M | 17'2"<br>5.23M | 19 | 39'4"<br>11.99M |

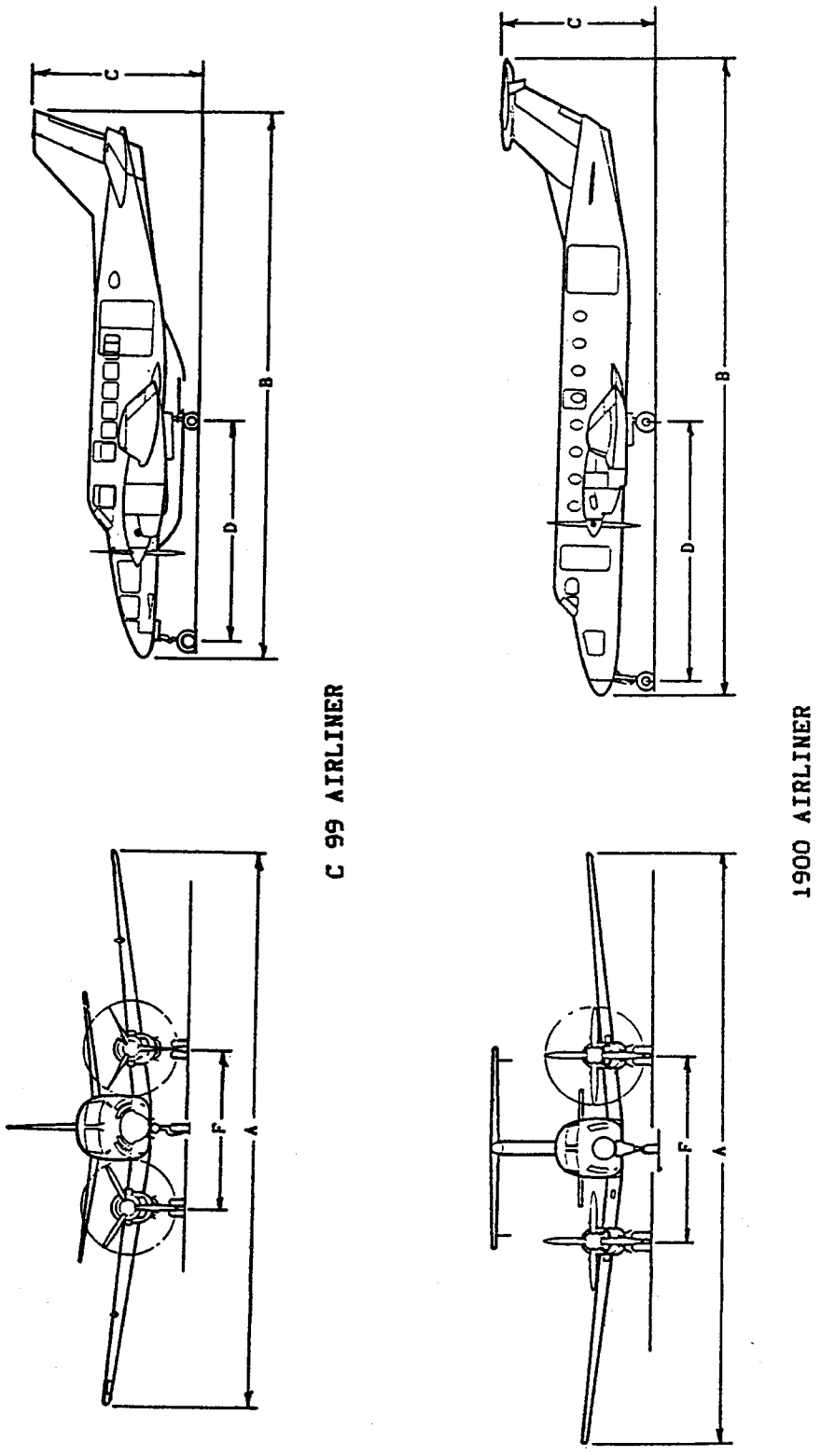



**Figure A12-19. Beechcraft Airliner**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|
| A-90 | 9,650 LB<br>4 391 KG | 9,500 LB<br>4 323 KG | 50'3"<br>15.32M | 36'6"<br>11.14M | 14'8"<br>4.47M | 12'4"<br>3.76M | 12'9"<br>3.89M | 8 | |
| A-100 | 10,600 LB<br>4 823 KG | 10 500 LB<br>4 778 KG | 45'11"<br>14.00M | 39'11"<br>12.18M | 15'4"<br>4.67M | 14'11"<br>4.55M | 13'0"<br>3.97M | 10 | |

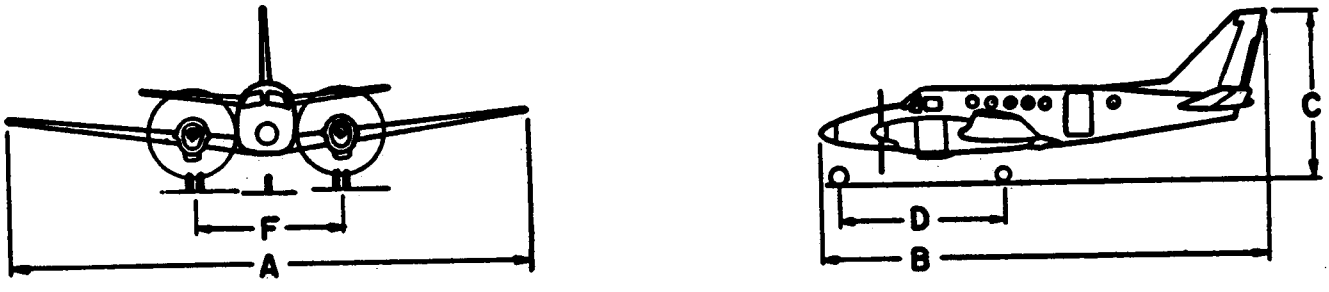



**Figure A12-20. Beechcraft King Air**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|
| 18 | 9,900 LB<br>4 500 KG | 9,500 LB<br>4 323 KG | 49'8"<br>15.14M | 35'3"<br>10.74M | 9'4"<br>2.87M | 23'9"<br>7.24M | 12'11"<br>3.94M | 10 | 30'3"<br>9.53M |
| TURBO 18 | 10,280 LB<br>4 673 KG | 9,775 LB<br>4 444 KG | 46'0"<br>14.03M | 37'5"<br>11.40M | 9'7"<br>2.95M | | | 12 | |
| VOLPAR TURBOLINER | 11,500 LB<br>5 324 KG | 11,000 LB<br>5 000 KG | 46'0"<br>14.03M | 44'3"<br>13.49M | 9'7"<br>2.95M | | | 15 | |

NOTES: MODEL 18 HAS RECIPROCATING ENGINES.
TURBOPROP CONVERSIONS HAVE TRICYCLE LANDING GEAR.

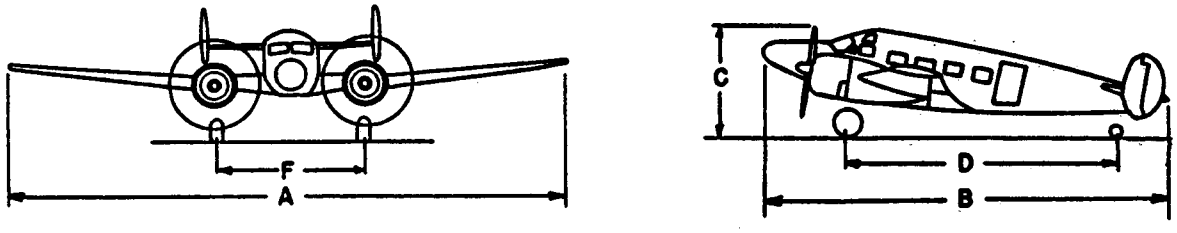



Figure A12-21. Beechcraft Model 18 and Conversions

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|
| A-65 | 7,700 LB<br>3 493 KG | 7,350 LB<br>3 334 KG | 45'11"<br>14.00M | 35'6"<br>10.83M | 14'3"<br>4.34M | 12'4"<br>3.76M | 12'9"<br>3.89M | 6 | 29'4"<br>8.94M |
| B-80 | 8,800 LB<br>3 992 KG | 8,800 LB<br>3 992 KG | 50'3"<br>15.31M | 35'6"<br>10.83M | 14'3"<br>4.34M | 12'4"<br>3.76M | 12'9"<br>3.89M | 8 | 29'4"<br>8.94M |

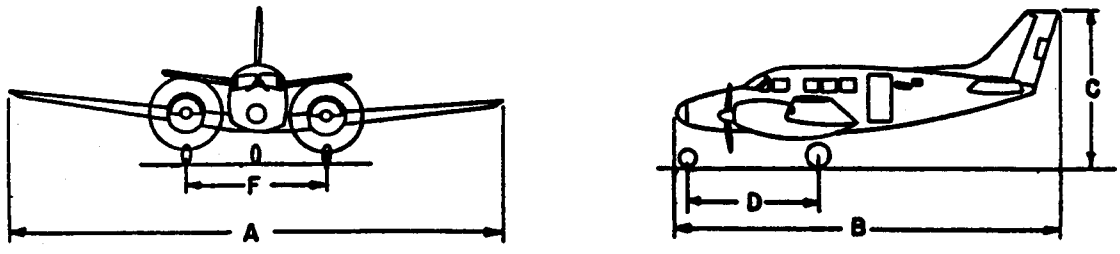
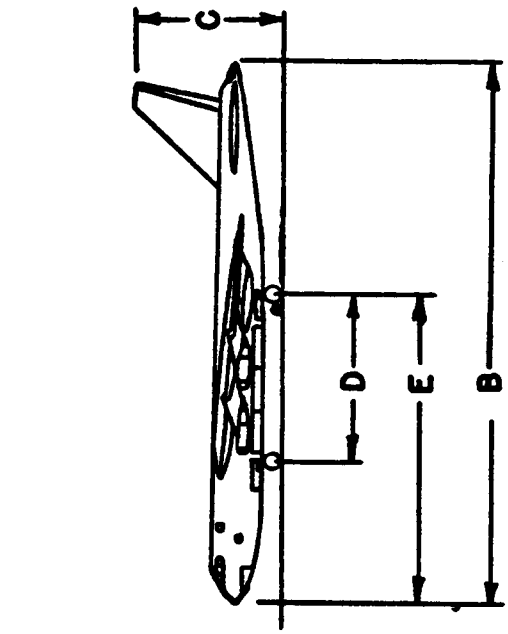



**Figure A12-22. Beechcraft Queen Air**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STRATO-FORTRESS | 488,000 LB<br>221 353 KG | 450,000 LB<br>204 117 KG | 185'0"<br>56.39M | 156'7"<br>47.73M | 40'10"<br>12.45M | 49'9"<br>15.16M | 89'10"<br>17.16M | 11'4"<br>3.45M | 32'2"<br>9.80M | 60'0"<br>18.29M | 86'2"<br>26.26M | 6'4"<br>1.93M | 4'8"<br>1.42M | 39'0"<br>11.89M | 5'6"<br>1.68M | 132'0"<br>40.23M |



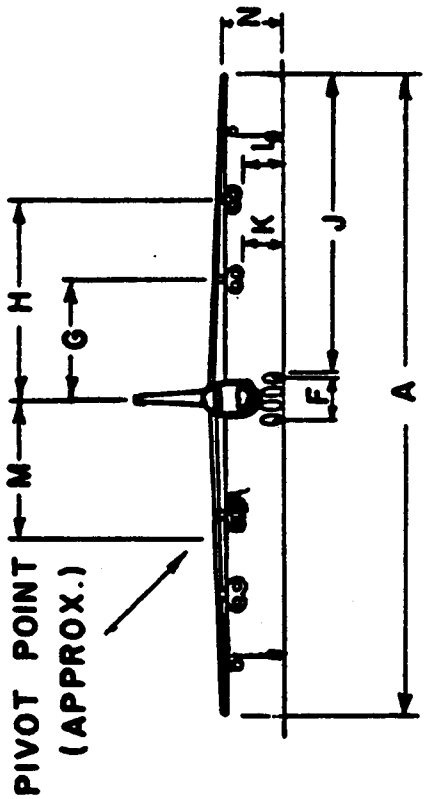




**Figure A12-23. Boeing B-52 Stratofortress**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | N | M | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| STRATO-CRUISER | 145,600 LB<br>66 134 KG | 121,700 LB<br>55 202 KG | 141'3"<br>43.05M | 110'4"<br>33.63M | 38'3"<br>11.65M | 39'2"<br>11.93M | 42'10"<br>13.06M | 28'6"<br>8.70M | 14'1"<br>4.29M | 31'2"<br>9.50M | 55'4"<br>16.87M | 1'5"<br>0.43M | 2'7"<br>0.79M | 14'3"<br>4.34M | | 84'10"<br>25.86M |

NOTE: OPTIONAL TAKEOFF WEIGHTS: 153,000 LB (69 400 KG) AND 175,000 LB (79 379 KG).

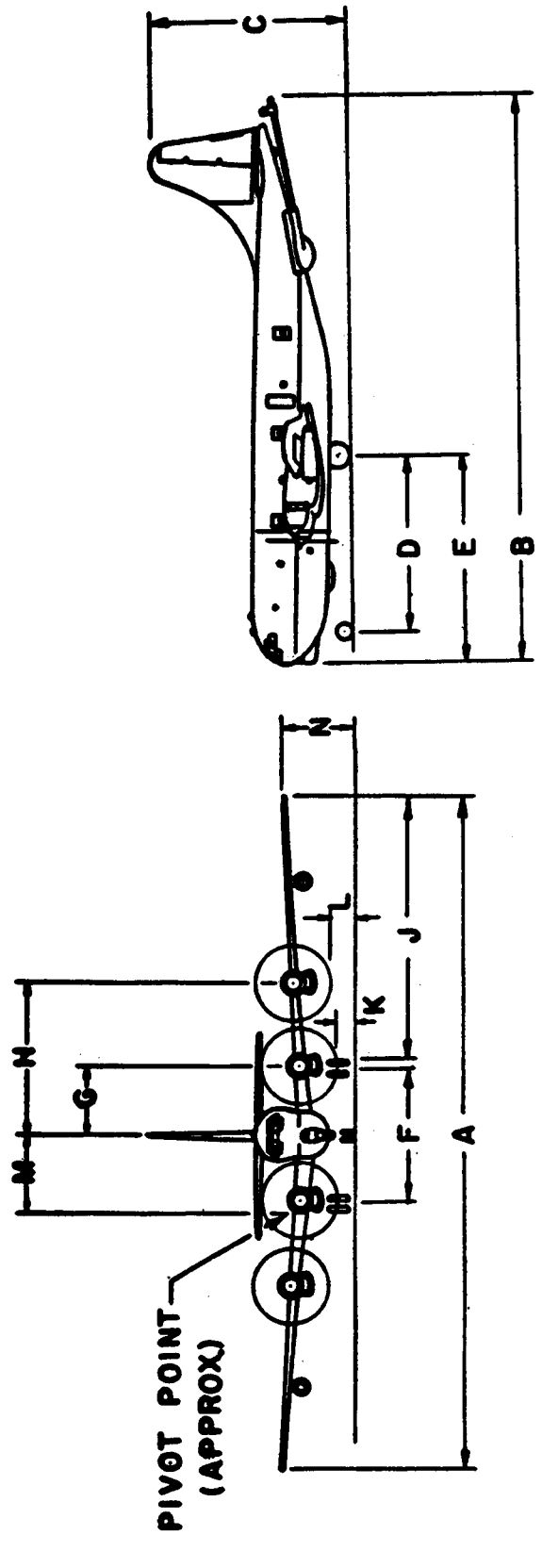



Figure A12-24. Boeing KC-97L

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | 301,600 LB<br>136 803 KG | 185,000 LB<br>83 915 KG | 130'10"<br>39.88M | 136'3"<br>41.53M | 38'5"<br>11.71M | 45'8"<br>13.92M | 63'1"<br>19.23M | 22'1"<br>6.73M | 27'2"<br>8.28M | 46'1"<br>14.25M | 51'11"<br>15.90M | 2'4"<br>0.71M | 4'8"<br>1.42M | 36'7"<br>11.15M | 12'4"<br>3.76M | 107'0"<br>32.60M |




**Figure A12-25. Boeing KC-135A**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 720 | 229,300 LB<br>104 009 KG | 175,000 LB<br>79 379 KG | 130'10"<br>39.88M | 136'2"<br>41.50M | 41'5"<br>12.62M | 50'8"<br>15.44M | 68'1"<br>20.75M | 21'11"<br>6.67M | 27'2"<br>8.28M | 46'1"<br>14.05M | 52'6"<br>16.00M | 2'7"<br>0.79M | 4'3"<br>1.30M | 32'9"<br>9.98M | 10'10"<br>3.30M | 102'5"<br>31.22M |
| 720B | 234,300 LB<br>106 277 KG | 175,000 LB<br>79 379 KG | 130'10"<br>39.88M | 136'9"<br>41.68M | 41'2"<br>12.55M | 50'8"<br>15.44M | 68'1"<br>20.75M | 21'11"<br>6.67M | 27'2"<br>8.28M | 46'1"<br>14.05M | 52'6"<br>16.00M | 2'1"<br>0.64M | 3'9"<br>1.14M | 32'9"<br>9.98M | 10'10"<br>3.30M | 102'5"<br>31.22M |
| 707-<br>120B | 257,340 LB<br>116 727 KG | 190,000 LB<br>86 183 KG | 130'10"<br>39.88M | 145'1"<br>44.22M | 41'8"<br>12.70M | 52'4"<br>15.95M | 69'9"<br>21.25M | 22'1"<br>6.73M | 27'2"<br>8.28M | 46'1"<br>14.05M | 52'3"<br>15.93M | 2'4"<br>0.71M | 4'2"<br>1.27M | 36'7"<br>11.15M | 11'7"<br>3.53M | 107'0"<br>32.61M |
| 707-<br>320/420 | 312,000 LB<br>141 521 LB | 207,000 LB<br>93 894 KG | 142'5"<br>43.41M | 152'11"<br>46.61M | 42'2"<br>12.85M | 59'0"<br>17.98M | 76'5"<br>23.28M | 22'1"<br>6.73M | 32'6"<br>9.91M | 51'5"<br>15.67M | 58'1"<br>17.70M | 2'9"<br>0.84M | 4'7"<br>1.40M | 38'4"<br>11.68M | 12'1"<br>3.68M | 114'0"<br>34.75M |
| 707-<br>320B,C | 327,000 LB<br>148 325 KG | 207,000 LB<br>93 894 KG | 145'9"<br>44.42M | 152'11"<br>46.61M | 42'1"<br>12.83M | 59'0"<br>17.98M | 76'5"<br>23.28M | 22'1"<br>6.73M | 32'6"<br>9.91M | 51'5"<br>15.67M | 59'9"<br>18.21M | 2'9"<br>0.84M | 4'7"<br>1.40M | 38'4"<br>11.68M | 12'1"<br>3.68M | 116'0"<br>35.36M |

NOTE: OPTIONAL TAKEOFF AND LANDING WEIGHTS:

707 333,600 LB (151 318 KG) MAXIMUM TAKEOFF WEIGHT.
320B 215,000 LB ( 97 522 KG) MAXIMUM LANDING WEIGHT.

707 333,600 LB (151,318 KG) MAXIMUM TAKEOFF WEIGHT.
320C 247,000 LB (112 037 KG) MAXIMUM LANDING WEIGHT.

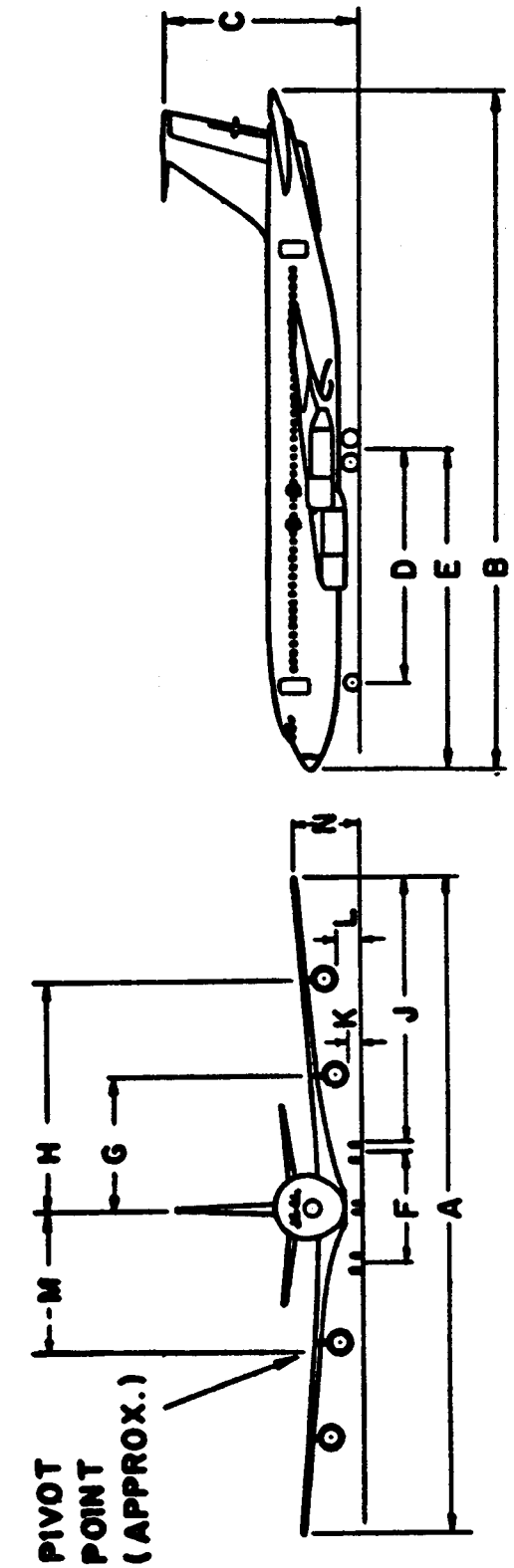


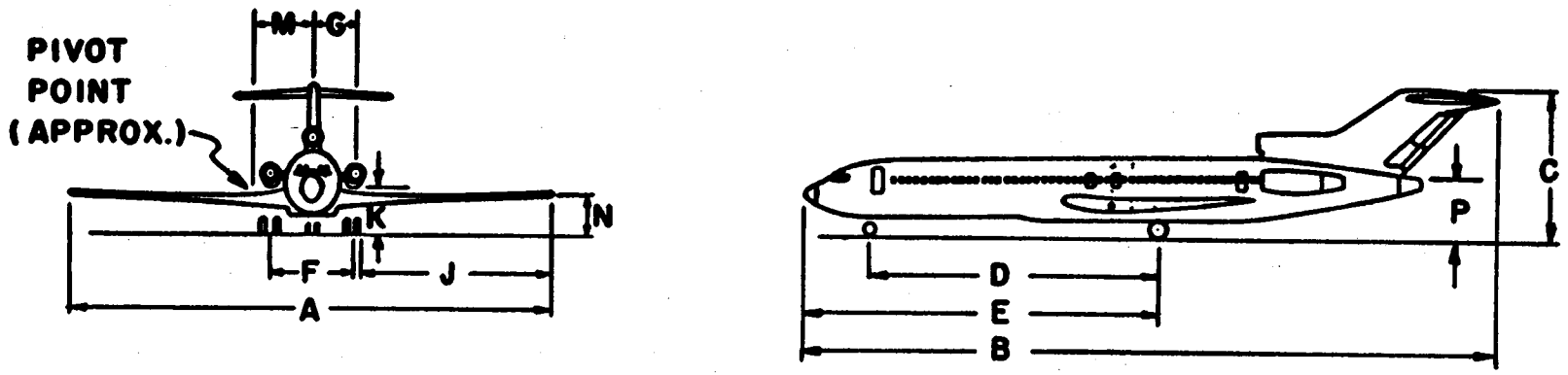

**Figure A12-26. Boeing 707-720**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | P | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 160,000 LB<br>72 575 KG | 137,500 LB<br>62 369 KG | 108'0"<br>32.92M | 133'2"<br>40.59M | 34'3"<br>10.44M | 53'3"<br>16.23M | 68'4"<br>20.83M | 18'9"<br>5.72M | 9'3"<br>2.82M | 42'6"<br>12.95M | 10'4"<br>3.15M | 14'4"<br>4.37M | 5'8"<br>1.72M | 12'0"<br>3.66M | 72'0"<br>21.95M |
| 100-C | 160,000 LB<br>72 575 KG | 137,500 LB<br>62 369 KG | 108'0"<br>32.92M | 133'2"<br>40.59M | 34'3"<br>10.44M | 53'3"<br>16.23M | 68'4"<br>20.83M | 18'9"<br>5.72M | 9'3"<br>2.82M | 42'6"<br>12.95M | 10'4"<br>3.15M | 14'4"<br>4.37M | 5'8"<br>1.72M | 12'0"<br>3.66M | 72'0"<br>21.95M |
| 200 | 172,000 LB<br>78 018 KG | 150,000 LB<br>68 039 KG | 108'0"<br>32.92M | 153'2"<br>46.68M | 34'11"<br>10.65M | 63'3"<br>19.28M | 78'4"<br>23.88M | 18'9"<br>5.72M | 9'3"<br>2.82M | 42'4"<br>12.90M | 10'4"<br>3.15M | 16'11"<br>5.16M | 4'9"<br>1.44M | 12'0"<br>3.66M | 82'0"<br>24.99M |

NOTE: OPTIONAL TAKEOFF AND LANDING WEIGHTS:

| | | | | | |
|---|---|---|---|---|---|
| 100 | 160,000 LB (72 575 KG) | 169,000 LB (76 657 KG) | MAXIMUM TAKEOFF WEIGHT. | | |
| | 142,500 LB (64 637 KG) | 142,500 LB (64 637 KG) | MAXIMUM LANDING WEIGHT. | | |
| 100C | 160,000 LB (72 575 KG) | 169,000 LB (76 657 KG) | MAXIMUM TAKEOFF WEIGHT. | | |
| | 140,000 LB (63 503 KG) | 142,500 LB (64 637 KG) | MAXIMUM LANDING WEIGHT. | | |
| 200 | 184,800 LB (83 824 KG) | 190,500 LB (86 409 KG) | 197,000 LB (89 358 KG) | 209,500 LB (95 028 KG) | MAXIMUM TAKEOFF WEIGHT. |
| | 154,500 LB (70 080 KG) | 154,500 LB (70 080 KG) | 154,500 LB (70 080 KG) | 161,000 LB (73 028 KG) | MAXIMUM LANDING WEIGHT. |

Figure A12-27. Boeing 727



| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 97,000 LB<br>43 998 KG | 89,700 LB<br>40 687 KG | 93'0"<br>28.35M | 94'0"<br>28.65M | 37'2"<br>11.33M | 34'4"<br>10.46M | 47'4"<br>14.42M | 17'2"<br>5.23M | 15'10"<br>4.83M | 36'1"<br>11.00M | 1'8"<br>0.51M | 9'2"<br>2.80M | 10'0"<br>3.05M | 57'2"<br>17.42M |
| 200 | 100,000 LB<br>45 359 KG | 95,000 LB<br>43 091 KG | 93'0"<br>28.35M | 100'2"<br>30.53M | 37'3"<br>11.35M | 37'4"<br>11.38M | 50'4"<br>15.34M | 17'2"<br>5.23M | 15'10"<br>4.83M | 36'1"<br>11.00M | 1'8"<br>0.51M | 10'0"<br>3.05M | 10'0"<br>3.05M | 58'2"<br>17.73M |
| 300 | 124,500 LB<br>56 472 KG | 114,000 LB<br>51 710 KG | 94'9"<br>28.88M | 109'7"<br>33.40M | 36'7"<br>11.15M | 40'10"<br>12.45M | 54'0"<br>16.46M | 17'2"<br>5.23M | 15'10"<br>4.83M | 36'11"<br>11.25M | 1'6"<br>0.46M | 11'0"<br>3.35M | 10'0"<br>3.05M | 64'0"<br>19.51M |
| 400 | 138,500 LB<br>68 823 KG | 121,000 LB<br>54 885 KG | 94'9"<br>28.88M | 119'7"<br>36.45M | 36'7"<br>11.15M | 46'10"<br>14.27M | 60'0"<br>18.29M | 17'2"<br>5.23M | 15'10"<br>4.83M | 36'11"<br>11.25M | 1'6"<br>0.46M | 12'6"<br>3.81M | 10'0"<br>3.05M | 68'4"<br>20.83M |
| 500 | 115,500 LB<br>52 390 KG | 110,000 LB<br>49 895 KG | 94'9"<br>28.88M | 101'9"<br>30.01M | 36'7"<br>11.15M | 36'4"<br>11.07M | 49'6"<br>15.09M | 17'2"<br>5.23M | 15'10"<br>4.83M | 36'11"<br>11.25M | 1'6"<br>0.46M | 9'8"<br>2.95M | 10'0"<br>3.05M | 60'7"<br>18.47M |

NOTE: OPTIONAL TAKEOFF AND LANDING WEIGHTS.

| | | | | | | |
|---|---|---|---|---|---|---|
| 100 | 103,000 LB (46 720 KG)<br>98,000 LB (44 452 KG) | 110,000 LB (49 895 KG)<br>99,000 LB (44 906 KG) | | | | MAXIMUM TAKEOFF WEIGHT.<br>MAXIMUM LANDING WEIGHT. |
| 200 | 103,000 LB (46 720 KG)<br>95,000 LB (43 091 KG) | 109,000 LB (49 442 KG)<br>98,000 LB (44 452 KG) | 110,000 LB (49 895 KG)<br>99,000 LB (44 906 KG) | 115,500 LB (52 390 KG)<br>103,000 LB (46 720 KG) | | MAXIMUM TAKEOFF WEIGHT.<br>MAXIMUM LANDING WEIGHT. |
| 200<br>CONV | 109,000 LB (49 442 KG)<br>98,000 LB (44 452 KG) | 110,000 LB (49 895 KG)<br>99,000 LB (44 906 KG) | 110,000 LB (49 895 KG)<br>103,000 LB (46 720 KG) | 115,500 LB (52 390 KG)<br>103,000 LB (46 720 KG) | 115,500 LB (52 390 KG)<br>103,000 LB (46 720 KG) | MAXIMUM TAKEOFF WEIGHT.<br>MAXIMUM LANDING WEIGHT. |
| 200 ADV<br>C,QC | 115,500 LB (52 390 KG)<br>103,000 LB (46 720 KG) | 117,000 LB (53 070 KG)<br>105,000 LB (47 627 KG) | 119,500 LB (54 204 KG)<br>105,000 LB (47 627 KG) | 124,500 LB (56 472 KG)<br>107,000 LB (48 534 KG) | 128,100 LB (58 105 KG)<br>107,000 LB (48 534 KG) | MAXIMUM TAKEOFF WEIGHT.<br>MAXIMUM LANDING WEIGHT. |
| 300 | 130,000 LB (58 967 KG)<br>114,000 LB (51 710 KG) | 135,000 LB (61 235 KG)<br>114,000 LB (51 710 KG) | 137,000 LB (62 142 KG)<br>114,000 LB (51 710 KG) | 138,500 LB (62 823 KG)<br>115,800 LB (52 526 KG) | | MAXIMUM TAKEOFF WEIGHT.<br>MAXIMUM LANDING WEIGHT. |
| 400 | 142,500 LB (64 637 KG)<br>121,000 LB (54 885 KG) | 150,000 LB (68 039 KG)<br>124,000 LB (56 245 KG) | 142,500 LB (64 637 KG)<br>124,000 LB (56 245 KG) | 150,000 LB (68 039 KG)<br>124,000 LB (56 245 KG) | | MAXIMUM TAKEOFF WEIGHT.<br>MAXIMUM LANDING WEIGHT. |
| 500 | 124,500 LB (56 472 KG)<br>110,000 LB (49 895 KG) | 133,500 LB (60 555 KG)<br>110,000 LB (49 895 KG) | 124,500 LB (56 472 KG)<br>110,000 LB (49 895 KG) | 133,500 LB (60 555 KG)<br>110,000 LB (49 895 KG) | | MAXIMUM TAKEOFF WEIGHT.<br>MAXIMUM LANDING WEIGHT. |

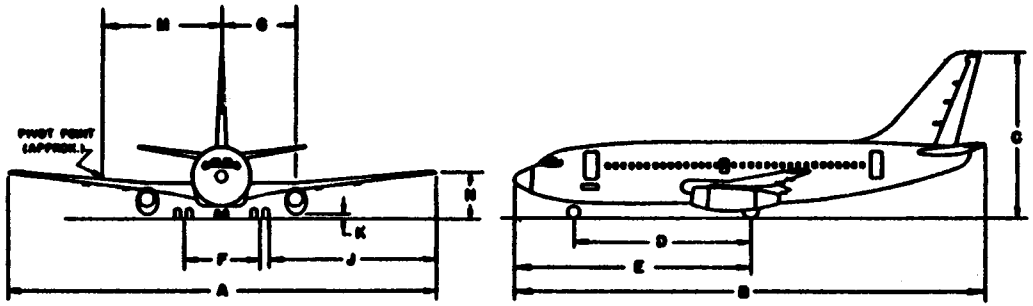



Figure A12-28. Boeing 737

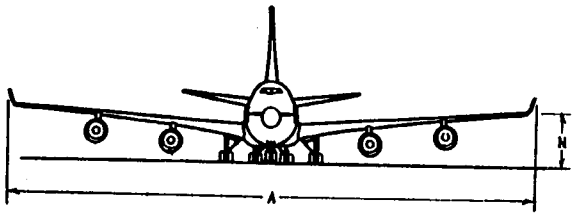
| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100B<br>200B, C<br>300PASS | SEE NOTE | SEE NOTE | 195'8"<br>59.64M | 231'10"<br>70.66M | 64'3"<br>19.58M | 84'0"<br>25.60M | 109'5"<br>33.35M | 36'1"<br>11.00M | 39'9"<br>12.12M | 69'10"<br>21.29M | 77'3"<br>23.55M | 3'9"<br>1.14M | 4'11"<br>1.50M | 40'0"<br>12.19M | 17'7"<br>5.36M | 151'0"<br>46.02M |
| 200C<br>200F<br>CARGO | SEE NOTE | SEE NOTE | 195'8"<br>59.64M | 231'10"<br>70.66M | 64'8"<br>19.71M | 84'0"<br>25.60M | 109'5"<br>33.35M | 36'1"<br>11.00M | 39'9"<br>12.12M | 69'10"<br>21.29M | 77'3"<br>23.55M | 3'9"<br>1.14M | 6'0"<br>1.83M | 40'0"<br>12.19M | 17'7"<br>5.36M | 151'0"<br>46.02M |
| SP | SEE NOTE | SEE NOTE | 195'8"<br>59.64M | 184'9"<br>56.31M | 65'10"<br>20.07M | 67'4"<br>20.52M | 92'9"<br>28.27M | 36'1"<br>11.00M | 39'2"<br>11.94M | 69'6"<br>21.18M | 77'4"<br>23.57M | 3'7"<br>1.09M | 5'7"<br>1.70M | 40'0"<br>12.19M | 17'2"<br>5.23M | 151'0"<br>46.02M |
| 400 | SEE NOTE | SEE NOTE | 213'0"<br>64.92M | 231'10"<br>70.66M | 64'3"<br>19.58M | 84'0"<br>25.60M | 109'5"<br>33.35M | 36'1"<br>11.00M | 39'2"<br>11.94M | 69'6"<br>21.18M | 85'10"<br>26.16M | 3'9"<br>1.14M | 6'0"<br>1.83M | 40'0"<br>12.19M | 16'9"<br>5.11M | 159'0"<br>48.46M |

NOTE: OPTIONAL TAKEOFF AND LANDING WEIGHTS. 564-585 DENOTES STANDARD AND OPTIONAL WEIGHT IN THOUSANDS OF POUNDS.

| | | | | | |
|---|---|---|---|---|---|
| 100/100B | 710,000 LB | 750,000 LB | •735,000 LB | #571,000 LB | #600,000 LB | MAXIMUM TAKEOFF WEIGHT. |
| •100SF | 564,000 LB | 585,000 LB | •564,000 LB | #564,000 LB | #564,000 LB | MAXIMUM LANDING WEIGHT. |
| #100B SR | | | | | | |
| 200B | 775,000 LB | 785,000 LB | 800,000 LB | 823,000 LB | 833,000 LB | MAXIMUM TAKEOFF WEIGHT. |
| | 564,000 LB | 564,000 LB | 585,000 LB | 630,000 LB | 630,000 LB | MAXIMUM LANDING WEIGHT. |
| 200B | 775,000 LB | 785,000 LB | 800,000 LB | 820,000 LB | 833,000 LB | MAXIMUM TAKEOFF WEIGHT. |
| COMBI | 585-630 LB | 630,000 LB | 630,000 LB | 630,000 LB | 630,000 LB | MAXIMUM LANDING WEIGHT. |
| 200C P | 775,000 LB | 800,000 LB | •785,000 LB | •820,000 LB | •833,000 LB | MAXIMUM TAKEOFF WEIGHT. |
| •200C C | 630,000 LB | 630,000 LB | •630,000 LB | •630,000 LB | •630,000 LB | MAXIMUM LANDING WEIGHT. |
| 200F | 775,000 LB | 785,000 LB | 800,000 LB | 823,000 LB | 833,000 LB | MAXIMUM TAKEOFF WEIGHT. |
| CARGO | 630,000 LB | 630,000 LB | 630,000 LB | 630,000 LB | 630,000 LB | MAXIMUM LANDING WEIGHT. |
| 300 | 710,000 LB | 735,000 LB | 750,000 LB | •520,000 LB | •600,000 LB | MAXIMUM TAKEOFF WEIGHT. |
| •300 SR | 564,000 LB | 564,000 LB | 564,000 LB | •515,000 LB | •535,000 LB | MAXIMUM LANDING WEIGHT. |
| 300/200B | 775,000 LB | 785,000 LB | 800,000 LB | 820,000 LB | 833,000 LB | MAXIMUM TAKEOFF WEIGHT. |
| | 574-630 LB | 574-630 LB | 574-630 LB | 574-630 LB | 574-640 LB | MAXIMUM LANDING WEIGHT. |
| 300 | 775,000 LB | 785,000 LB | 800,000 LB | 820,000 LB | 833,000 LB | MAXIMUM TAKEOFF WEIGHT. |
| COMBI | 605-630 LB | 605-630 LB | 605-630 LB | 605-630 LB | 605-630 LB | MAXIMUM LANDING WEIGHT. |
| SP | 630,000 LB | 660,000 LB | 670,000 LB | 690,000 LB | 696,000 LB | MAXIMUM TAKEOFF WEIGHT. |
| | 450-465 LB | 450-465 LB | 450-465 LB | 450-465 LB | 450-465 LB | MAXIMUM LANDING WEIGHT. |
| 400 | 800,000 LB | 800,000 LB | 833,000 LB | 833,000 LB | 850-870 LB | MAXIMUM TAKEOFF WEIGHT. |
| | 574-585 LB | 630,000 LB | 574-585 LB | 630,000 LB | 630,000 LB | MAXIMUM LANDING WEIGHT. |

**METRIC CONVERSION TABLE**

| POUNDS | KILOGRAMS | POUNDS | KILOGRAMS |
|---|---|---|---|
| 450,000 | 204 117 | 690,000 | 312 979 |
| 465,000 | 210 920 | 696,000 | 315 700 |
| 515,000 | 233 600 | 710,000 | 322 051 |
| 520,000 | 235 868 | 735,000 | 333 390 |
| 535,000 | 242 672 | 750,000 | 340 194 |
| 564,000 | 255 826 | 775,000 | 351 534 |
| 571,000 | 250 001 | 785,000 | 356 070 |
| 574,000 | 260 362 | 800,000 | 362 874 |
| 585,000 | 265 352 | 820,000 | 371 946 |
| 600,000 | 272 155 | 823,000 | 373 307 |
| 605,000 | 274 423 | 833,000 | 377 842 |
| 630,000 | 285 763 | 850,000 | 385 554 |
| 660,000 | 299 371 | 870,000 | 394 625 |
| 670,000 | 303 907 | | |




747-400

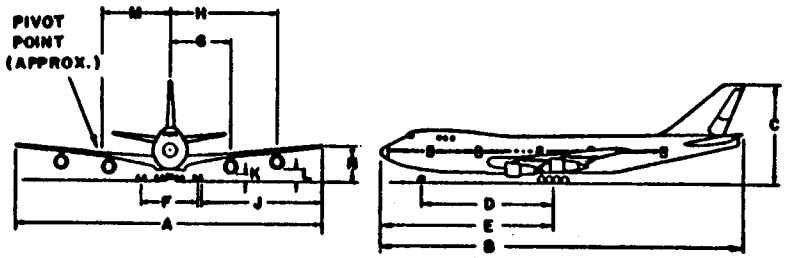



Figure A12-29. Boeing 747

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 757-200 | SEE | SEE | 124'10" | 155'3" | 45'1" | 60'0" | 79'4" | 24'0" | 21'3" | 48'2" | 2'5" | 35'0" | 15'4" | 98'0" |
| -200PF | NOTE | NOTE | 38.05M | 47.32M | 13.74M | 18.29M | 24.18M | 7.32M | 6.48M | 14.68M | 0.74M | 10.67M | 4.67M | 29.87M |

NOTE: OPTIONAL TAKEOFF AND LANDING WEIGHTS.

| | | | |
|---|---|---|---|
| 757-200 | 220,000 LB ( 99 790 KG) | 230,000 LB (104 326 KG) | 240,000 LB (108 862 KG) |
| RB211 | 198,000 LB ( 89 811 KG) | 198,000 LB ( 89 811 KG) | 198,000 LB ( 89 811 KG) |
| -535C | | | |
| -535E4 | | | |
| -535E4B | | | |
| PW2037 | | | |
| PW2040 | | | |
| 757 | 250,000 LB (113 398 KG) | 255,000 LB (115 666 KG)* | MAXIMUM TAKEOFF WEIGHT. |
| -200PF | 210,000 LB ( 95 254 KG) | 210,000 LB ( 95 254 KG) | MAXIMUM LANDING WEIGHT. |

* 255,500 LB (115 893 KG) FOR AIRPORT ALTITUDES BELOW 1,500 FT.




Figure A12-30. Boeing 757

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 200 | 282,000 LB<br>127 913 KG | 257,000 LB<br>116 573 KG | 156'1"<br>47.57M | 159'2"<br>48.51M | 52'11"<br>16.13M | 64'7"<br>19.69M | 79'6"<br>24.23M | 30'6"<br>9.30M | 26'0"<br>7.92M | 60'1"<br>18.31M | 2'8"<br>0.81M | 36'0"<br>10.97M | 16'3"<br>4.95M | 117'0"<br>35.66M |
| 200ER | 335,000 LB<br>151 953 KG | 278,000 LB<br>126 099 KG | 156'1"<br>47.57M | 159'2"<br>48.51M | 52'11"<br>16.13M | 64'7"<br>19.69M | 79'6"<br>24.23M | 30'6"<br>9.30M | 26'0"<br>7.92M | 60'1"<br>18.31M | 2'8"<br>0.81M | 36'0"<br>10.97M | 16'3"<br>4.95M | 117'0"<br>35.66M |
| 300 | 345,000 LB<br>156 489 KG | 300,000 LB<br>136 078 KG | 156'1"<br>47.57M | 180'3"<br>54.94M | 52'7"<br>16.03M | 74'8"<br>22.76M | 89'7"<br>27.31M | 30'6"<br>9.30M | 26'0"<br>7.92M | 60'1"<br>18.31M | 2'10"<br>0.86M | 41'0"<br>12.50M | 16'1"<br>4.90M | 123'0"<br>37.49M |
| 300ER | 380,000 LB<br>172 365 KG | 300,000 LB<br>136 078 KG | 156'1"<br>47.57M | 180'3"<br>54.94M | 52'7"<br>16.03M | 74'8"<br>22.76M | 89'7"<br>27.31M | 30'6"<br>9.30M | 26'0"<br>7.92M | 60'1"<br>18.31M | 2'10"<br>0.86M | 41'0"<br>12.50M | 16'1"<br>4.90M | 123'0"<br>37.49M |

NOTE: OPTIONAL TAKEOFF AND LANDING WEIGHTS:

| | | | | | |
|---|---|---|---|---|---|
| 200 | 300,000 LB (136 078 KG)<br>270,000 LB (122 470 KG) | 310,000 LB (140 614 KG)<br>270,000 LB (122 470 KG) | 315,000 LB (142 882 KG)<br>272,000 LB (123 377 KG) | MAXIMUM TAKEOFF WEIGHT.<br>MAXIMUM LANDING WEIGHT. | |
| 200ER | 345,000 LB (156 489 KG)<br>278,000 LB (126 099 KG) | 351,000 LB (159 211 KG)<br>278,000 LB (126 099 KG) | 380,000 LB (172 365 KG)<br>285,000 LB (129 274 KG) | 387,000 LB (175 540 KG)<br>285,000 LB (129 274 KG) | MAXIMUM TAKEOFF WEIGHT.<br>MAXIMUM LANDING WEIGHT. |
| 300 | 350,000 LB (158 757 KG)<br>300,000 LB (136 078 KG) | MAXIMUM TAKEOFF WEIGHT.<br>MAXIMUM LANDING WEIGHT. | | | |
| 300ER | 387,000 LB (175 540 KG)<br>300,000 LB (136 078 KG) | 400,000 LB (181 437 KG)<br>320,000 LB (145 150 KG) | 407,000 LB (184 612 KG)<br>320,000 LB (145 150 KG) | MAXIMUM TAKEOFF WEIGHT.<br>MAXIMUM LANDING WEIGHT. | |

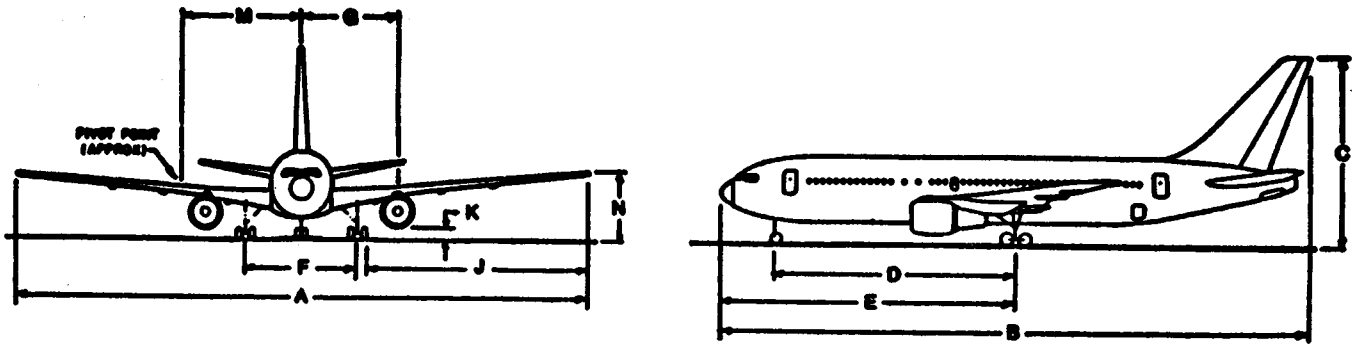



Figure A12-31. Boeing 767

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 74,600 LB<br>33 838 KG | 71,800 LB<br>32 591 KG | 86'5"<br>26.34M | 85'10"<br>26.16M | 28'3"<br>8.61M | 33'1"<br>10.08M | 40'7"<br>12.37M | 15'6"<br>4.72M | 13'7"<br>4.14M | 22'4"<br>6.81M | 33'8"<br>10.26M | 5'0"<br>1.52M | 4'8"<br>1.42M | 15'6"<br>4.72M | 13'11"<br>4.24M | 37'10"<br>11.53M |
| 200 | 88,250 LB<br>40 030 KG | 77,000 LB<br>34 927 KG | 86'5"<br>26.34M | 93'8"<br>28.55M | 28'3"<br>8.61M | 36'9"<br>11.20M | 44'2"<br>13.46M | 15'6"<br>4.72M | 13'7"<br>4.14M | 22'4"<br>6.81M | 33'8"<br>10.26M | 5'0"<br>1.52M | 4'7"<br>1.40M | 15'6"<br>4.72M | 13'11"<br>4.24M | 41'2"<br>12.55M |
| 300 | 104,000 LB<br>47 174 KG | 90,000 LB<br>40 823 KG | 86'5"<br>26.34M | 104'2"<br>31.75M | 28'1"<br>8.56M | 36'9"<br>11.20M | 48'10"<br>14.88M | 15'6"<br>4.72M | 13'7"<br>4.14M | 22'4"<br>6.81M | 33'8"<br>10.26M | 5'0"<br>1.52M | 4'7"<br>1.40M | 15'6"<br>4.72M | 13'11"<br>4.24M | 46'8"<br>14.22M |

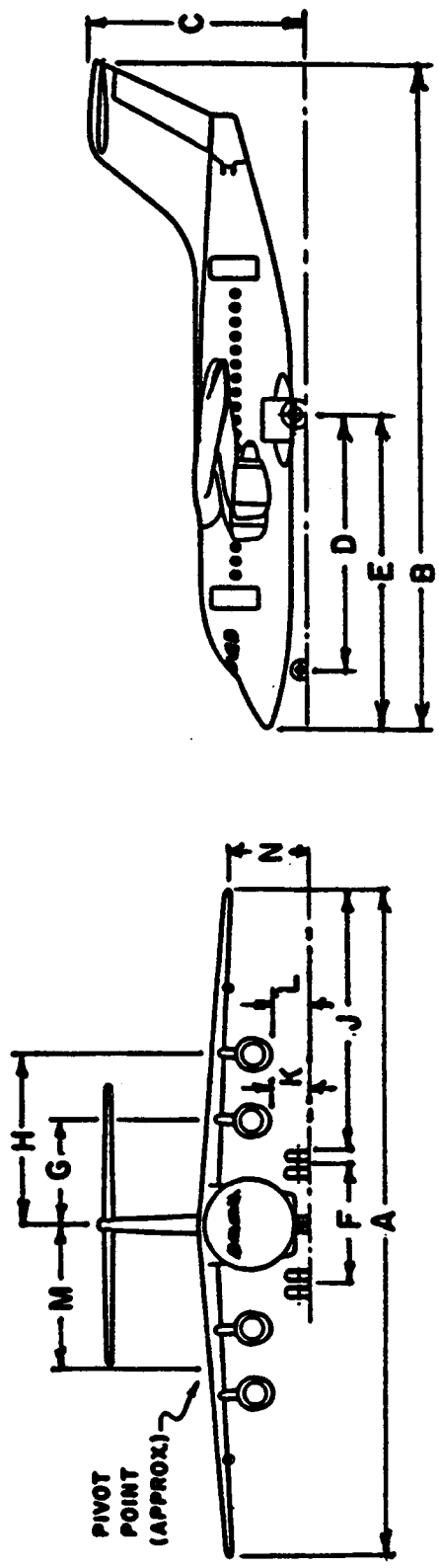



Figure A12-32. British Aerospace 146

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 44D4 | 210,000 LB<br>95 254 KG | 165,000 LB<br>74 843 KG | 142'4"<br>43.38M | 136'10"<br>41.71M | 38'5"<br>11.71M | 49'11"<br>15.21M | 62'8"<br>19.10M | 31'0"<br>9.45M | 15'6"<br>4.72M | 31'8"<br>9.65M | 53'11"<br>16.43M | 1'2"<br>0.36M | 1'8"<br>0.51M | | 10'3"<br>3.12M | 113'0"<br>34.44M |
| 44-6 | 205,000 LB<br>92 986 KG | 165,000 LB<br>74 843 KG | 142'4"<br>43.38M | 136'10"<br>41.71M | 38'5"<br>11.71M | 49'11"<br>15.21M | 62'8"<br>19.10M | 31'0"<br>9.45M | 15'6"<br>4.72M | 31'8"<br>9.65M | 53'11"<br>16.43M | 1.2"<br>0.36M | 1'8"<br>0.51M | | 10'3"<br>3.12M | 113'0"<br>34.44M |
| 44-J | 210,000 LB<br>95 254 KG | 175,000 LB<br>79 379 KG | 142'4"<br>43.38M | 152'0"<br>46.33M | 38'5"<br>11.71M | 60'0"<br>18.29M | 72'9"<br>22.17M | 31'0"<br>9.45M | 15'6"<br>4.72M | 31'8"<br>9.65M | 53'11"<br>16.43M | 1'2"<br>0.36M | 1'8"<br>0.51M | | 10'3"<br>3.12M | |




**Figure A12-33. Canadiar CL-44**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | M | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 66 | 58,156 LB<br>26 379 KG | 53,000 LB<br>24 040 KG | 105'4"<br>32.11M | 81'6"<br>24.84M | 29'2"<br>8.89M | 26'2"<br>7.98M | 35'3"<br>10.74M | 25'0"<br>7.62M | 12'6"<br>3.81M | 39'0"<br>11.89M | 1'0"<br>0.30M | | 13'0"<br>3.96M | 65'0"<br>19.81M |

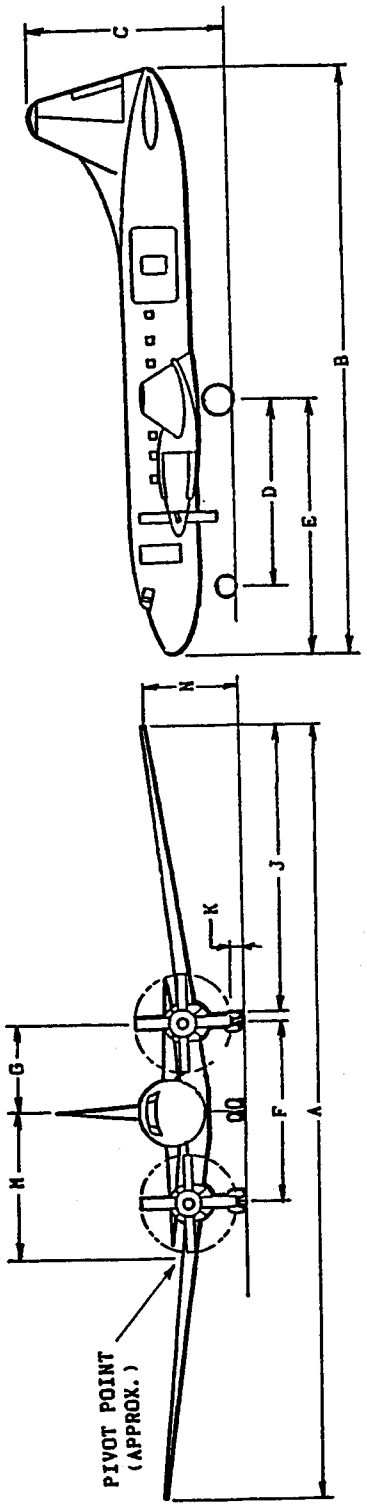



**Figure A12-34. Canadiar CL-66**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| I | 11,850 LB<br>5 375 KG | 11,350 LB<br>5 148 KG | 47'1"<br>14.35M | 43'6"<br>13.26M | 14'4"<br>4.37M | 15'2"<br>4.62M | | 12'7"<br>3.84M | | 14'11"<br>4.55M | | | | |
| II | 13,300 LB<br>6 033 KG | 12,700 LB<br>5 761 KG | 51'8"<br>15.75M | 47'2"<br>14.38M | 15'0"<br>4.57M | | | | | | | | | |
| II/S | 15,100 LB<br>6 849 KG | 14,400 LB<br>6 532 KG | 52'2"<br>15.90M | 47'2"<br>14.38M | 15'0"<br>4.57M | | | | | | | | | |
| III | 22,000 LB<br>9 979 KG | 20,000 LB<br>9 072 KG | 53'6"<br>16.31M | 55'6"<br>16.92M | 16'10"<br>5.13M | | | | | | | | | |
| V | 16,100 LB<br>7 303 KG | | 52'2"<br>15.90M | 49'11"<br>14.91M | 15'0"<br>4.57M | | | | | | | | | |




**Figure A12-35. Cessna Citation**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-212 200 | 16,976 LB 7 700 KG | 16,424 LB 7 450 KG | 62'3" 18.97M | 49'10" 15.19M | 20'6" 6.30M | 17'10" 5.44M | | 10'2" 3.10M | 8'8" 2.64M | 26'1" 7.95M | 4'2" 1.27M | | 9'2" 2.79M | 49'2" 14.99M |
| 235 | 31,752 LB 14 402 KG | 31,311 LB 14 202 KG | 84'8" 25.81M | 70'3" 21.41M | 26'10" 8.18M | 22'8" 6.91M | | 12'10" 3.91M | 11'6" 3.51M | 35'11" 10.95M | 5'2" 1.57M | | | |

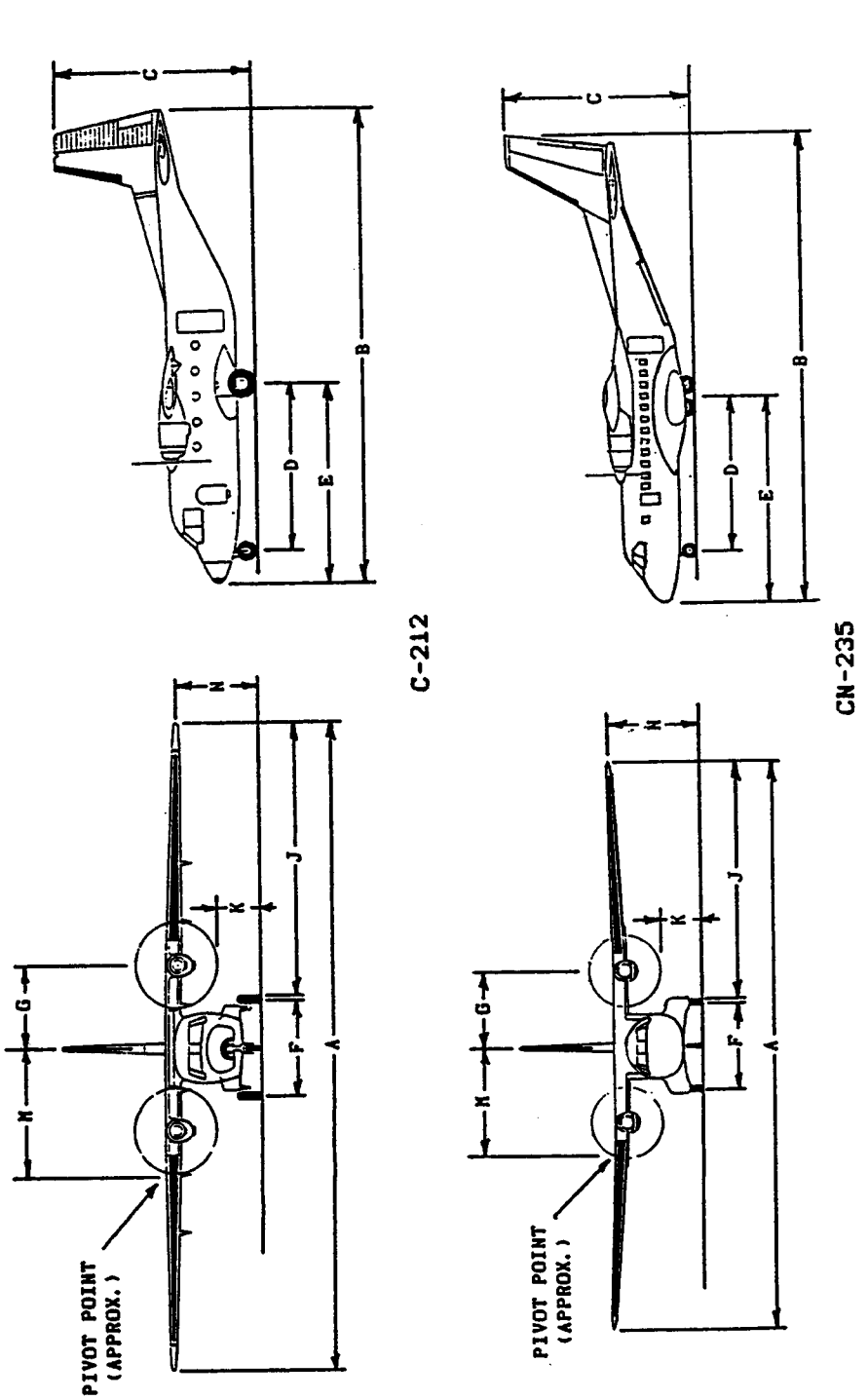



**Figure A12-36. Construcciones Aeronauticas CASA C-212 and 235**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 240 | 41,790 LB<br>18 956 KG | 39,800 LB<br>18 053 KG | 91'9"<br>27.97M | 74'8"<br>22.76M | 26'11"<br>8.20M | 24'10"<br>7.57M | 32'9"<br>9.98M | 25'0"<br>7.62M | 12'6"<br>3.81M | 32'2"<br>9.80M | 1'0"<br>0.31M | 14'8"<br>4.47M | 9'0"<br>2.74M | 60'6"<br>18.44M |
| 340 | 49,100 LB<br>22 271 KG | 46,500 LB<br>21 092 KG | 105'4"<br>32.18M | 81'6"<br>24.84M | 28'2"<br>8.59M | 26'2"<br>7.98M | 34'1"<br>10.39M | 25'0"<br>7.62M | 12'6"<br>3.81M | 38'7"<br>11.76M | 1'0"<br>0.31M | 14'8"<br>4.47M | 11'0"<br>3.35M | 67'4"<br>20.52M |
| 440 | 49,100 LB<br>22 271 KG | 47,650 LB<br>21 614 KG | 105'4"<br>32.18M | 81'6"<br>24.84M | 28'2"<br>8.59M | 26'2"<br>7.98M | 36'5"<br>11.10M | 25'0"<br>7.62M | 12'6"<br>3.81M | 38'7"<br>11.76M | 1'0"<br>0.31M | 14'8"<br>4.47M | 11'0"<br>3.35M | 67'4"<br>20.52M |
| 580 | 54,600 LB<br>24 766 KG | 52,000 LB<br>23 587 KG | 105'4"<br>32.18M | 81'6"<br>24.84M | 29'2"<br>8.89M | 26'2"<br>7.98M | 36'5"<br>11.10M | 25'0"<br>7.62M | 12'6"<br>3.81M | 38'7"<br>11.76M | 1'0"<br>0.31M | 14'8"<br>4.47M | 11'0"<br>3.35M | 67'4"<br>20.52M |
| 600 | 46,200 LB<br>20 956 KG | 44,000 LB<br>19 958 KG | 91'9"<br>27.97M | 74'8"<br>22.76M | 26'11"<br>8.20M | 24'10"<br>7.57M | 32'9"<br>9.98M | 25'0"<br>7.62M | 12'6"<br>3.81M | 32'2"<br>9.80M | 1'3"<br>0.38M | 14'8"<br>4.47M | 9'0"<br>2.74M | 60'6"<br>18.44M |
| 640 | 55,000 LB<br>24 948 KG | 52,500 LB<br>23 814 KG | 105'4"<br>32.18M | 81'6"<br>24.84M | 28'2"<br>8.59M | 26'2"<br>7.98M | 36'5"<br>11.10M | 25'0"<br>7.62M | 12'6"<br>3.81M | 38'7"<br>11.76M | 1'1"<br>0.33M | 14'8"<br>4.47M | 11'0"<br>3.35M | 67'4"<br>20.52M |

NOTE; MODELS 240, 340, 440 HAVE RECIPROCATING ENGINES. ALL OTHERS HAVE TURBOPROP ENGINES.




**Figure A12-37. Convair-liner and Turboprop Conversions**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| CARIBOU | 28,500 LB<br>12 927 KG | 28,500 LB<br>12 927 KG | 95'7"<br>29.13M | 72'7"<br>22.12M | 31'10"<br>9.70M | | | 23'1"<br>7.04M | | 35'3"<br>10.74M | | | | |

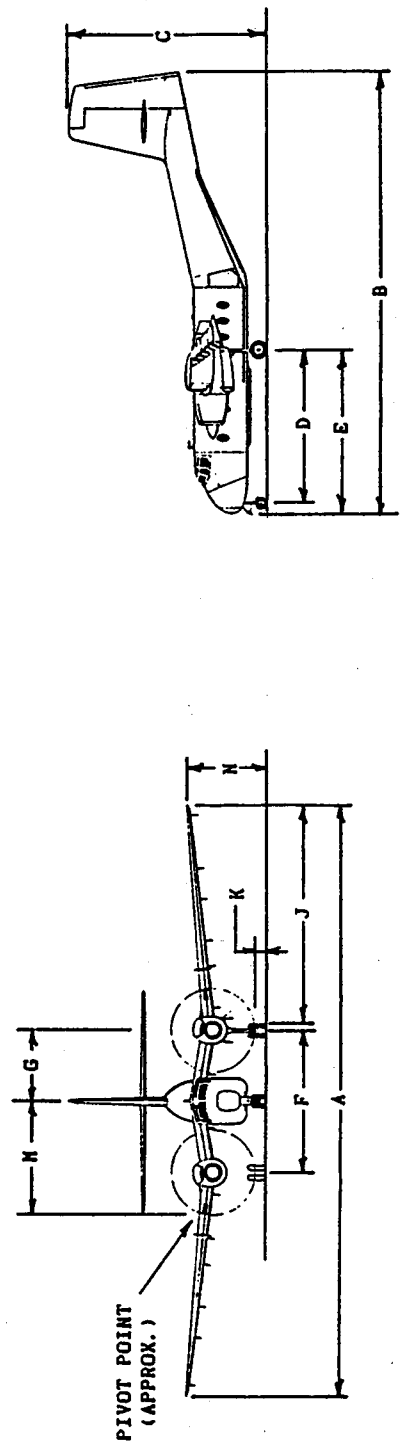



**Figure A12-38. De Havilland Canada C-7 Caribou**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DASH 7 | 43,000 LB<br>19 504 KG | 41,000 LB<br>18 597 KG | 93'0"<br>28.35M | 80'8"<br>24.59M | 26'2"<br>7.98M | 27'6"<br>8.38M | | 23'6"<br>7.16M | | 33'8"<br>10.26M | 5'3"<br>1.60M | | 14'2"<br>4.32M | |
| DASH 8<br>100 | 34,500 LB<br>15 649 KG | 33,900 LB<br>15 377 KG | 90'0"<br>27.43M | 84'3"<br>25.68M | 24'7"<br>7.49M | 32'2"<br>9.80M | | 25'10"<br>7.87M | 12'11"<br>3.94M | | 3'1"<br>0.94M | | 11'11"<br>3.63M | |
| DASH 8<br>300 | 41,100 LB<br>18 643 KG | 40,000 LB<br>18 144 KG | 90'0"<br>27.43M | 84'3"<br>25.68M | 24'7"<br>7.49M | 32'2"<br>9.80M | | 25'10"<br>7.87M | 12'11"<br>3.94M | | 3'1"<br>0.94M | | 11'11"<br>3.63M | |

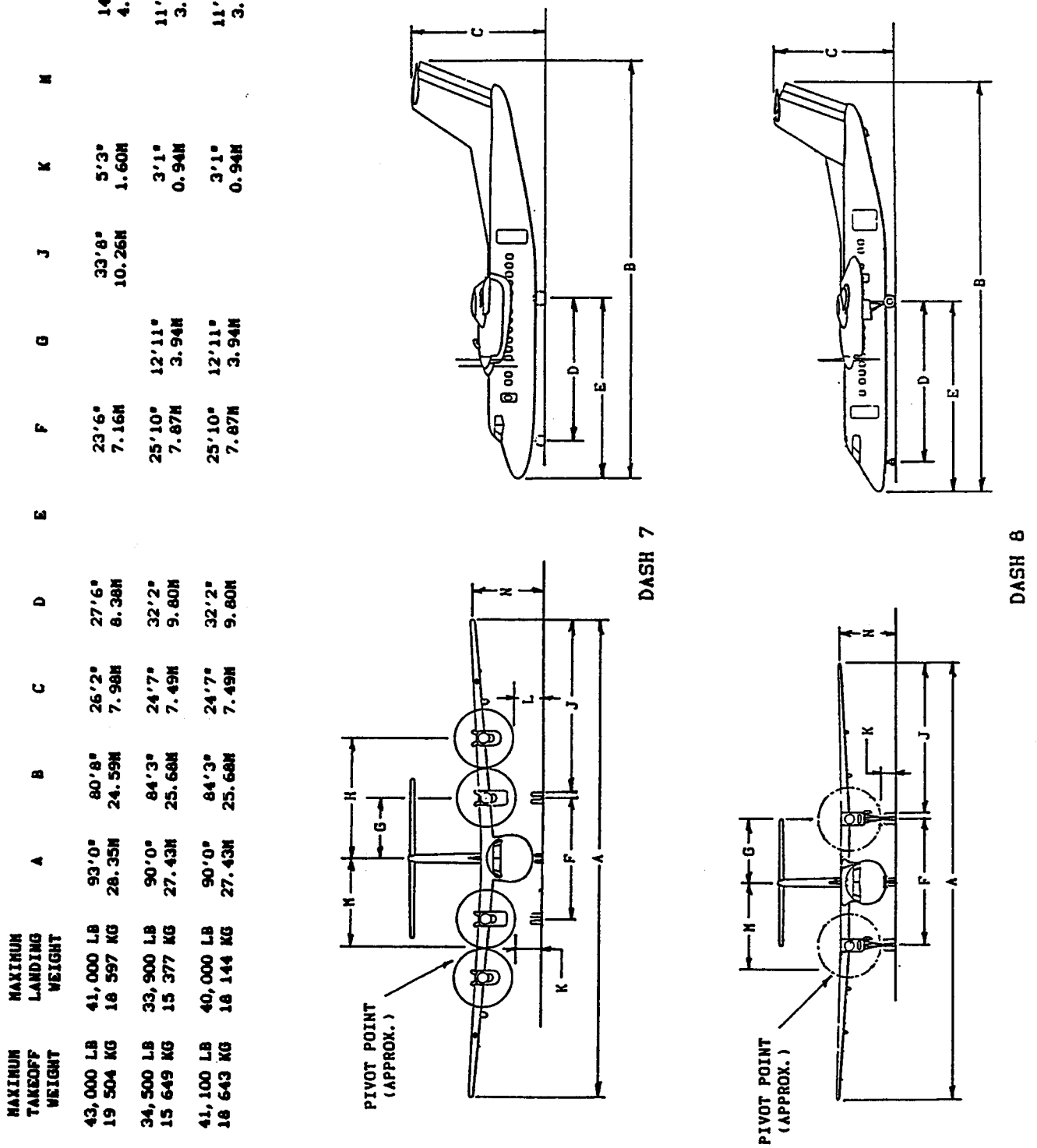
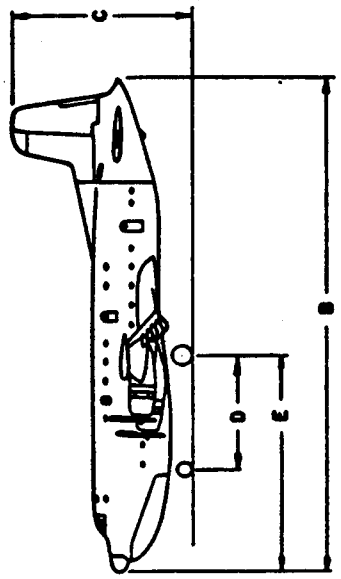



**Figure A12-39. De Havilland Canada DASH 7 & DASH 8**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GOLDE-MASTER | 175,000 LB 79 379 KG | 110,000 LB 49 895 KG | 174'2" 53.10M | 130'5" 39.77M | 48'4" 14.72M | 37'3" 11.35M | | 34'2" 10.41M | 17'1" 5.21M | | | 3'0" 0.91M | | | | |



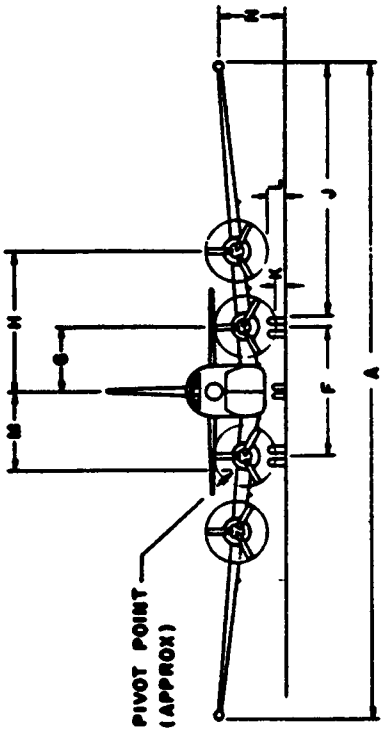




**Figure A12-40. Douglas C-124 Globemaster**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|
| TWIN OTTER | 12,500 LB<br>5 670 KG | 12,300 LB<br>5 579 KG | 65'0"<br>19.81M | 51'8"<br>15.75M | 19'6"<br>5.94M | 14'9"<br>4.50M | 12'6"<br>3.81M | 21 | 48'0"<br>14.63M |

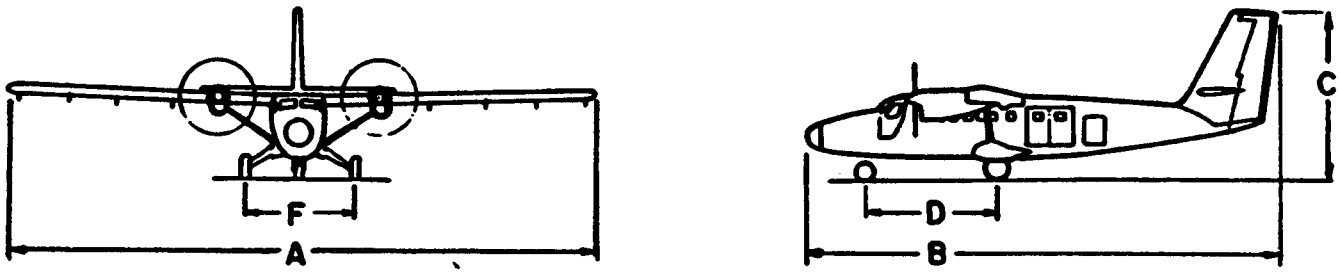



**Figure A12-41. De Havilland Canada DHC-6 Twin Otter**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | M | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 228-201 | 13,183 LB<br>5 980 KG | 13,007 LB<br>5 900 KG | 55'8"<br>16.97M | 54'4"<br>16.56M | 15'11"<br>4.85M | 20'8"<br>6.30M | 25'5"<br>7.75M | 10'10"<br>3.30M | 7'10"<br>2.39M | 21'11"<br>6.68M | 3'6"<br>1.07M | 21'4"<br>6.50M | 6'3"<br>1.91M | 48'6"<br>14.78M |
| 228-202 | 13,669 LB<br>6 200 KG | 13,007 LB<br>5 900 KG | 55'8"<br>16.97M | 54'4"<br>16.56M | 15'11"<br>4.85M | 20'8"<br>6.30M | 25'5"<br>7.75M | 10'10"<br>3.30M | 7'10"<br>2.39M | 21'11"<br>6.68M | 3'6"<br>1.07M | 21'4"<br>6.50M | 6'3"<br>1.91M | 48'6"<br>14.78M |

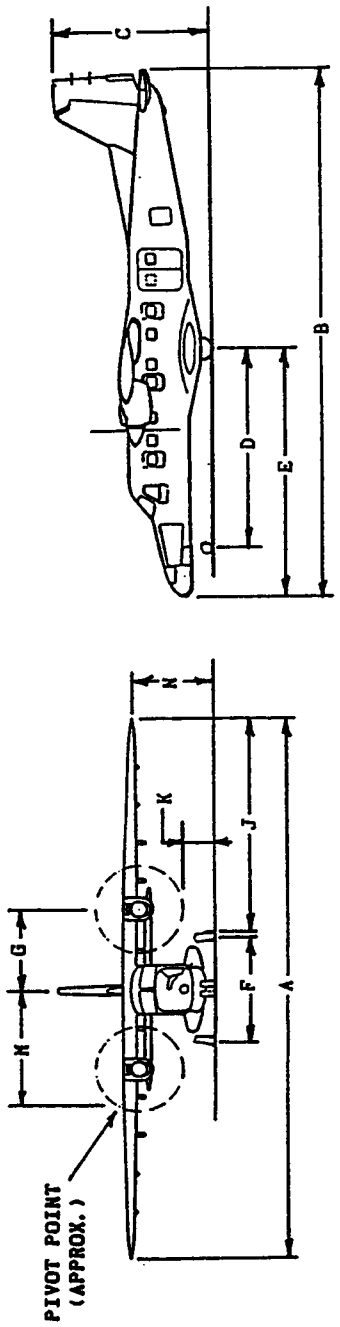
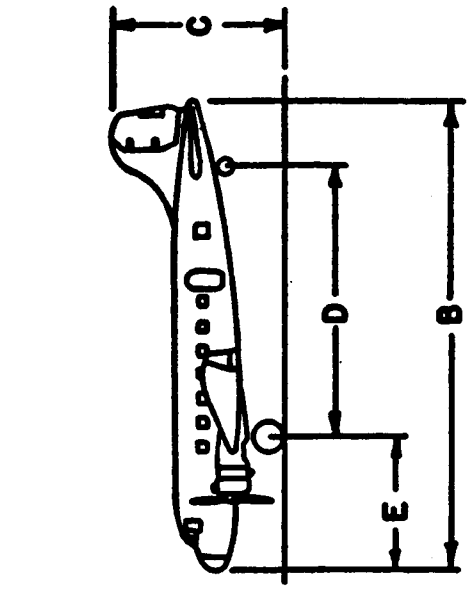



**Figure A12-42. Dornier Gmb H**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC-3 | 25,200 LB<br>11 431 KG | 25,200 LB<br>11 431 KG | 95'0"<br>28.96M | 64'6"<br>19.66M | 23'6"<br>7.16M | 37'11"<br>11.56M | 18'6"<br>5.64M | 18'6"<br>5.64M | 9'3"<br>2.82M | 37'7"<br>11.46M | 1'4"<br>0.41M | 9'3"<br>2.82M | 9'4"<br>2.84M | 57'3"<br>17.45M |



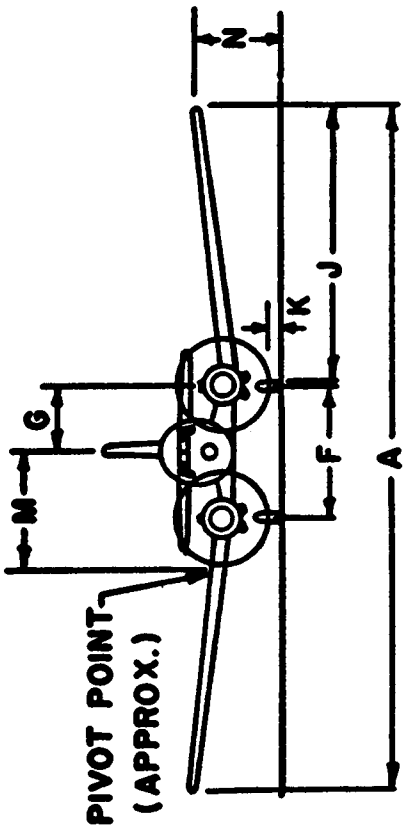




**Figure A12-43. Douglas DC-3**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DC-4 | 73,000 LB<br>33 112 KG | 63,500 LB<br>28 803 KG | 117'6"<br>35.81M | 93'11"<br>28.63M | 27'11"<br>8.51M | 27'5"<br>8.36M | 36'0"<br>10.98M | 24'8"<br>7.52M | 12'4"<br>3.76M | 26'4"<br>8.03M | 44'7"<br>13.59M | 2'2"<br>0.66M | 3'9"<br>1.14M | 13'6"<br>4.11M | 13'9"<br>4.19M | 86'2"<br>26.26M |
| DC-6 | 104,000 LB<br>47 174 KG | 86,200 LB<br>39 100 KG | 117'6"<br>35.81M | 105'7"<br>32.18M | 29'3"<br>8.92M | 36'2"<br>11.02M | 44'9"<br>13.64M | 24'8"<br>7.52M | 12'4"<br>3.76M | 26'4"<br>8.03M | 44'7"<br>13.59M | 1'11"<br>0.58M | 3'6"<br>1.07M | 13'6"<br>4.11M | 13'11"<br>4.24M | 72'8"<br>22.15M |
| DC-7 | 143,000 LB<br>64 864 KG | 111,000 LB<br>50 349 KG | 127'6"<br>38.86M | 112'3"<br>34.21M | 31'8"<br>9.65M | 39'6"<br>12.04M | 48'1"<br>14.66M | 34'8"<br>10.57M | 17'4"<br>5.28M | 31'4"<br>9.55M | 44'7"<br>13.59M | 1'3"<br>0.38M | 3'10"<br>0.87M | 13'6"<br>4.11M | 17'4"<br>5.28M | 81'1"<br>24.71M |

NOTE: MODEL DC-4 HAS ROUNDED VERTICAL STABILIZER AND CIRCULAR CABIN WINDOWS.

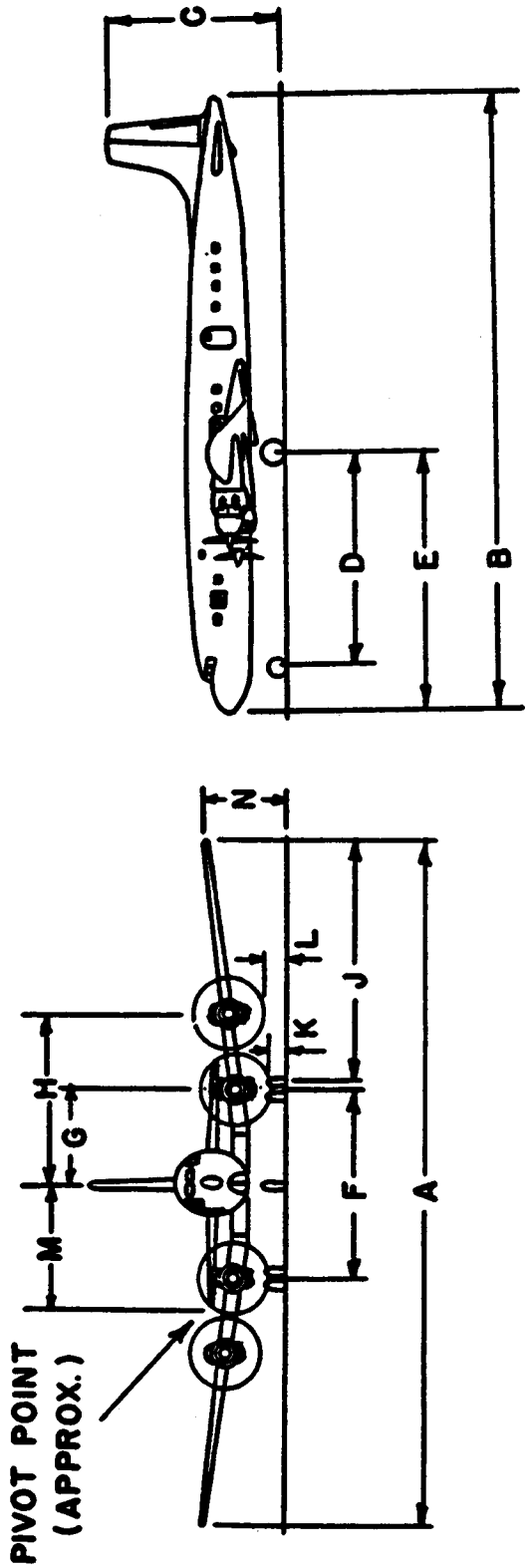



Figure A12-44. Douglas DC-4/6/7

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | M | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EMB-110P1 | 12,500 LB<br>5 670 KG | 12,500 LB<br>5 670 KG | 50'3"<br>15.32M | 49'6"<br>15.09M | 16'6"<br>5.03M | 16'2"<br>4.93M | 23'8"<br>7.21M | 16'3"<br>4.95M | 7'11"<br>2.41M | 16'9"<br>5.11M | 0'10"<br>0.25M | 16'6"<br>5.03M | 6'7"<br>2.01M | 47'7"<br>14.50M |
| EMB-110P1/41 | 13,007 LB<br>5 900 KG | 12,566 LB<br>5 700 KG | | | | | | | | | | | | |
| EMB-110P2 | 12,500 LB<br>5 670 KG | 12,500 LB<br>5 670 KG | | | | | | | | | | | | |
| EMB-110P2/41 | 13,007 LB<br>5 900 KG | 12,599 LB<br>5700 KG | | | | | | | | | | | | |

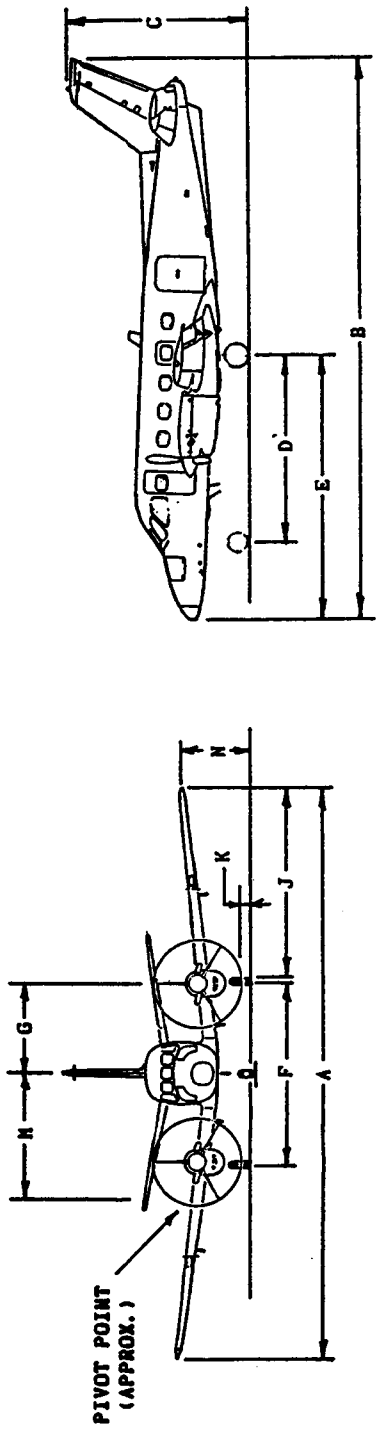
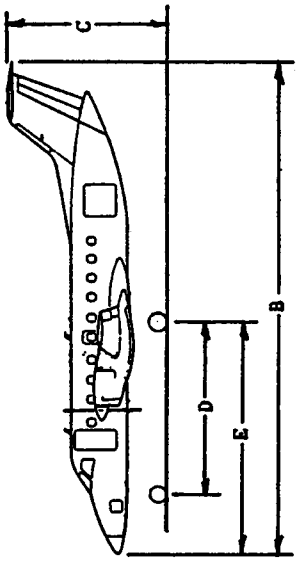



**Figure A12-45. Embraer EmB 110**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| EMB 120 | 11,500 LB 5 216 KG | 11,250 LB 5 103 KG | 64'11" 19.79M | 65'7" 19.99M | 20'10" 6.35M | 22'11" 6.99M | | 21'7" 21.58M | 10'10" 3.30M | 20'6" 6.25M | 1'9" 0.53M | 21'8" 6.60M | | 51'8" 15.75M |



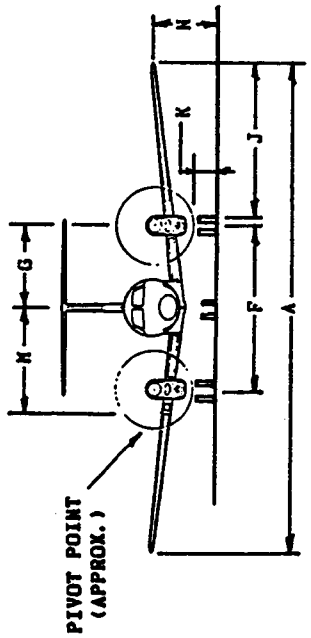
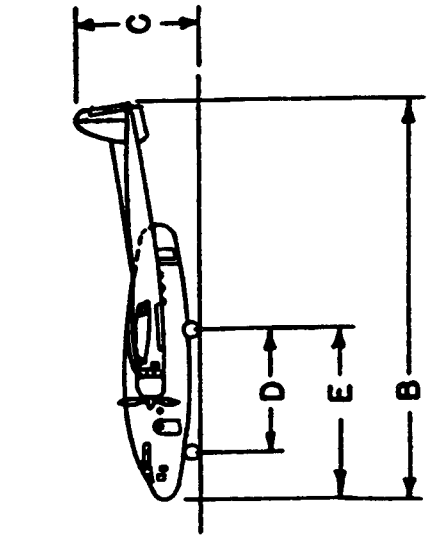




**Figure A12-46. Embraer EmB 120**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| FLYING BOXCAR | 77,000 LB<br>34 927 KG | 72,700 LB<br>32 976 KG | 109'3"<br>33.32M | 86'6"<br>26.38M | 27'6"<br>8.38M | | | 29'2"<br>8.89M | | 38'4"<br>11.68M | 3'0"<br>0.91M | | 15'0"<br>4.56M | 70'0"<br>21.34M |



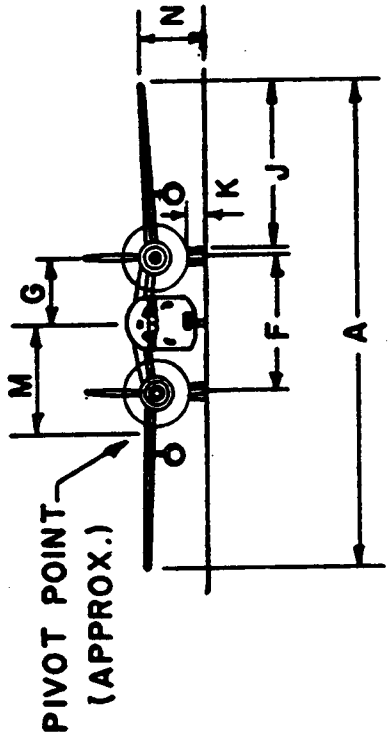




**Figure A12-47. Fairchild C-119K Flying Boxcar**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| PROVIDER | 60,000 LB<br>27 216 KG | 54,000 LB<br>24 494 KG | 110'0"<br>33.52M | 76'3"<br>23.24M | 34'6"<br>10.52M | | | 12'1"<br>3.68M | 14'10"<br>4.52M | 48'0"<br>14.63M | 3'8"<br>1.12M | 14'10"<br>4.52M | 14'0"<br>4.27M | 70'0"<br>21.34M |

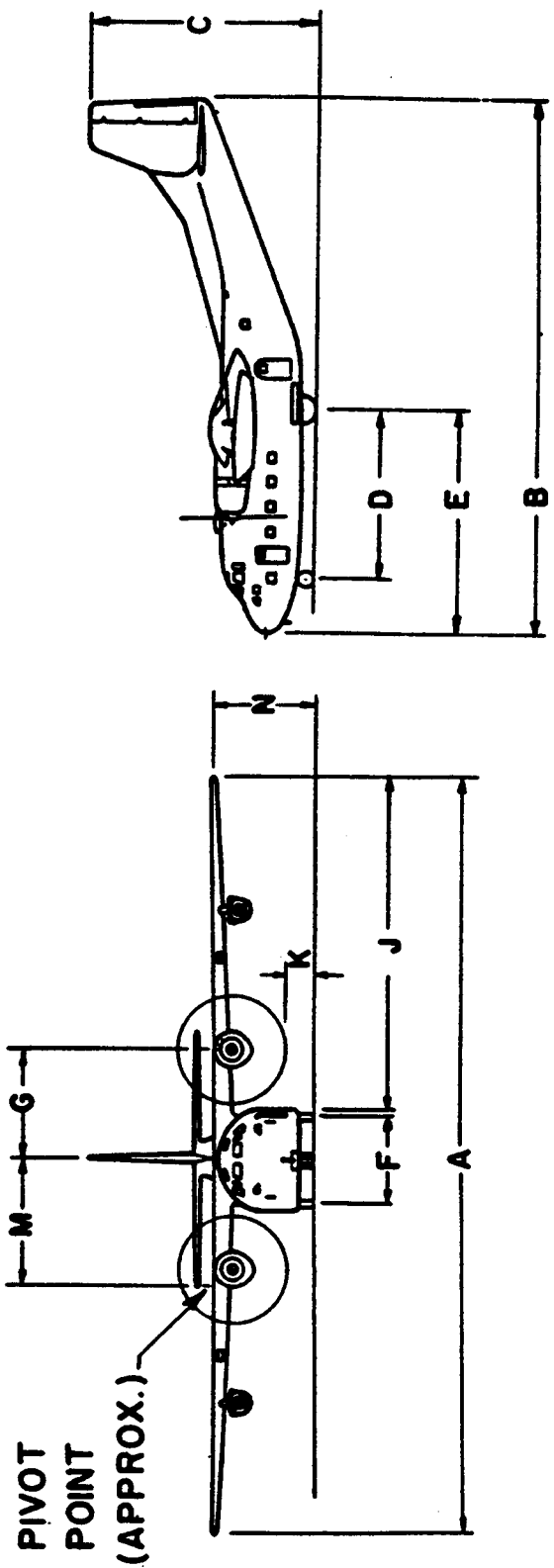
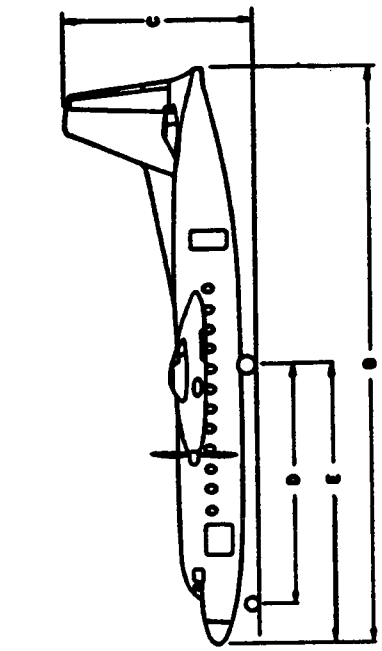



**Figure A12-48. Fairchild C-123K Provider**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| F-27, B | 40,500 LB<br>18 370 KG | 38,500 LB<br>17 463 KG | 95'2"<br>29.52M | 77'2"<br>23.52M | 27'6"<br>8.38M | 28'8"<br>8.73M | 34'6"<br>10.52M | 23'8"<br>7.22M | 11'10"<br>3.61M | 34'6"<br>10.52M | 2'10"<br>0.87M | 16'6"<br>5.03M | 11'10"<br>3.61M | 64'0"<br>19.51M |
| FH-227, C, E | 43,500 LB<br>19 731 KG | 43,000 LB<br>19 504 KG | 95'2"<br>29.01M | 83'1"<br>25.32M | 27'6"<br>8.38M | 34'7"<br>10.55M | 40'3"<br>12.27M | 23'8"<br>7.22M | 11'10"<br>3.61M | 34'9"<br>10.59M | 3'2"<br>0.97M | 12'4"<br>3.76M | 11'10"<br>3.61M | 59'7"<br>18.16M |

NOTE: F-27A, J HAVE MAXIMUM (TAKEOFF) WEIGHT OF 42,000 LB (19 051 KG).
(LANDING) 40,000 LB (18 144 KG).

FH-227B, D HAVE MAXIMUM (TAKEOFF) WEIGHT OF 45,500 LB (20 638 KG).
(LANDING) 45,000 LB (20 412 KG).



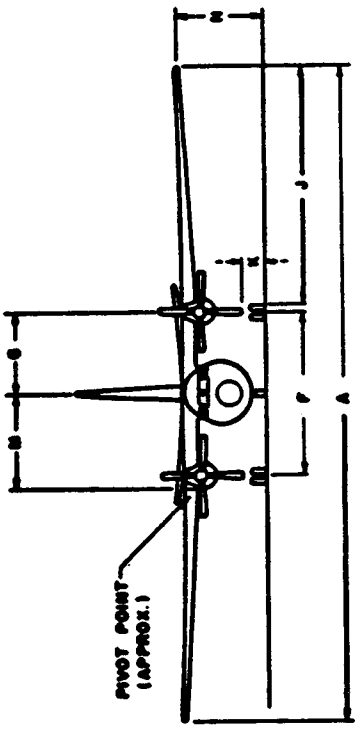



**Figure A12-49. Fairchild F-27**

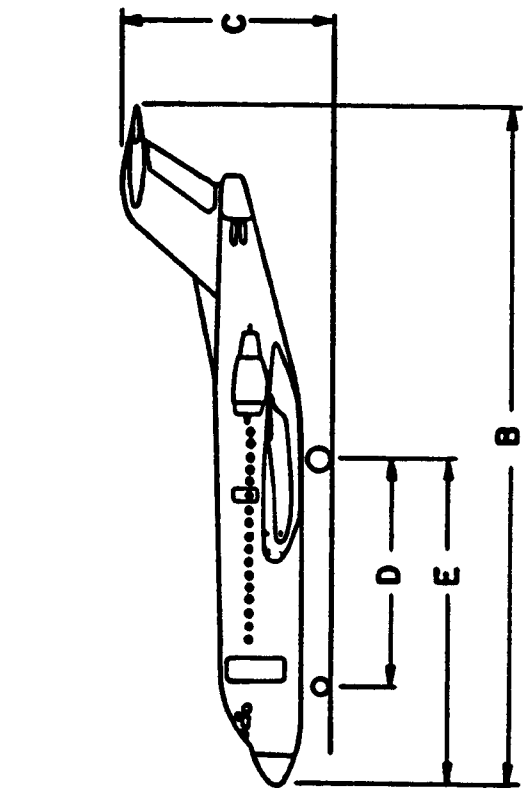
| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | NOTE | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 100 | 40,500 LB<br>18 370 KG | 40,000 LB<br>18 144 KG | 95'2"<br>29.01M | 77'2"<br>23.52M | 27'11"<br>8.51M | 28'8"<br>8.74M | | 23'8"<br>7.21M | | | | | | | |
| 200,400,600 | 45,000 LB<br>20 412 KG | 41,000 LB<br>18 597 KG | 95'2"<br>29.01M | 77'4"<br>23.57M | 28'8"<br>8.74M | 28'8"<br>8.74M | 34'6"<br>10.52M | 23'8"<br>7.21M | 11'10"<br>3.61M | 34'7"<br>10.54M | | | 12'2"<br>3.71M | 11'11"<br>3.63M | 28'2"<br>8.59M | 58'1"<br>17.70M |
| 500 | 45,000 LB<br>20 412 KG | 42,000 LB<br>19 051 KG | 95'2"<br>29.01M | 82'3"<br>25.07M | 29'3"<br>8.92M | 31'11"<br>9.73M | 37'9"<br>11.51M | 23'8"<br>7.21M | 11'10"<br>3.61M | 34'7"<br>10.54M | | | 13'7"<br>4.14M | 12'2"<br>3.71M | 28'2"<br>8.59M | 59'5"<br>18.11M |

NOTE: CENTERLINE OF FUSELAGE TO CENTERLINE OF PYLON TANKS IF INSTALLED.




**Figure A12-50. Fokker F-27**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | M | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1000 | 65,000 LB<br>29 484 KG | 59,000 LB<br>26 762 KG | 77'4"<br>23.57M | 89'11"<br>27.42M | 27'10"<br>8.48M | 29'3"<br>8.89M | | 16'7"<br>5.11M | 8'6"<br>2.59M | 28'10"<br>8.78M | 5'2"<br>1.60M | 8.3"<br>2.51M | 7'9"<br>2.37M | 50'0"<br>15.24M |
| 2000 | 65,000 LB<br>29 484 KG | 59,000 LB<br>26 762 KG | 77'4"<br>23.57M | 97'2"<br>29.62M | 27'10"<br>8.48M | 33'11"<br>10.34M | | 16'7"<br>5.11M | | | | | | |
| 3000 | 73,000 LB<br>33 112 KG | 64,000 LB<br>29 030 KG | 82'3"<br>25.07M | 89'11"<br>27.41M | 27'10"<br>8.48M | 29'3"<br>8.89M | | 16'7"<br>5.11M | | | | | | |
| 4000 | 73,000 LB<br>33 112 KG | 66,500 LB<br>30 164 KG | 82'3"<br>25.07M | 97'2"<br>29.62M | 27'10"<br>8.48M | 33'11"<br>10.34M | | 16'7"<br>5.11M | | | | | | |
| 5000 | 70,800 LB<br>32 114 KG | 64,000 LB<br>29 030 KG | 82'3"<br>25.07M | 89'11"<br>27.41M | 27'10"<br>8.48M | 29'3"<br>8.89M | | 16'7"<br>5.11M | | | | | | |
| 6000 | 73,000 LB<br>33 112 KG | 66,500 LB<br>30 164 KG | 82'3"<br>25.07M | 97'2"<br>29.62M | 27'10"<br>8.48M | 33'11"<br>10.34M | 46'4"<br>14.12M | 16'7"<br>5.11M | | | | | | |



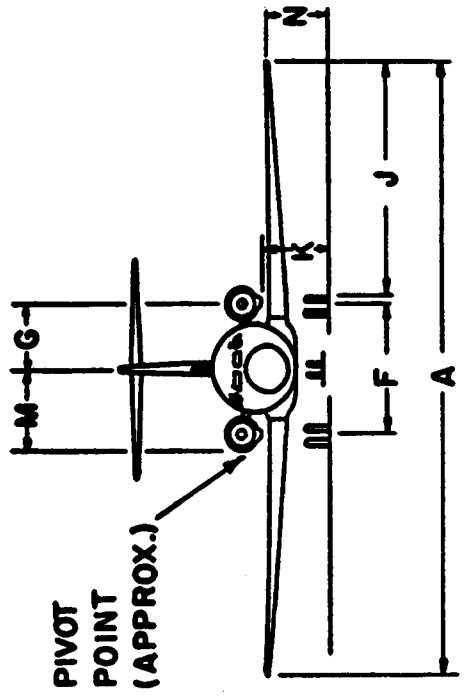




**Figure A12-51. Fokker F-28**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 24<br>240, F | 13,000 LB<br>5 897 KG | 11,880 LB<br>5 389 KG | 35'7"<br>10.85M | 43'3"<br>13.18M | 12'7"<br>3.84M | 16'2"<br>4.98M | 21'9"<br>6.63M | 8'3"<br>2.51M | 3'8"<br>1.12M | 12'9"<br>3.89M | 4'10"<br>1.49M | 16'0"<br>4.88M | 3'3"<br>0.99M | 34'0"<br>10.36M |
| 25<br>25B, C, D | 15,000 LB<br>6 804 KG | 13,300 LB<br>6 033 KG | 35'7"<br>10.85M | 47'7"<br>14.50M | 12'7"<br>3.84M | 16'2"<br>4.98M | 26'0"<br>7.92M | 8'3"<br>2.51M | 3'8"<br>1.12M | 13'1"<br>3.99M | 4'10"<br>1.49M | 16'0"<br>4.88M | 3'3"<br>0.99M | 34'0"<br>10.36M |
| 25G | 16,300 LB<br>7 394 KG | 13,700 LB<br>6 214 KG | 35'7"<br>10.85M | 47'7"<br>14.50M | 12'4"<br>3.76M | 17'3"<br>5.26M | 27'1"<br>8.25M | 8'3"<br>2.51M | 3'8"<br>1.12M | 14'4"<br>4.26M | 4'10"<br>1.49M | | 3'6"<br>1.07M | |
| 28/29 | 15,000 LB<br>6 804 KG | | 43'9"<br>13.34M | 47.7"<br>14.50M | 12'4"<br>3.76M | | | | | | | | | |
| 35/36 | 17,000 LB<br>7 711 KG | 13,300 LB<br>6 033 KG | 38'1"<br>11.61M | 48'8"<br>14.83M | 12'4"<br>3.76M | | | | | | | | | |
| 35A/36A | 18,300 LB<br>8 301 KG | 15,300 LB<br>6 940 KG | 39'6"<br>12.07M | 48'8"<br>14.83M | 12'4"<br>3.76M | | | | | | | | | |
| 55/56<br>55C, ER, LR | 21,500 LB<br>9 752 KG | 18,000 LB<br>8 165 KG | 43'9"<br>13.34M | 55'1"<br>16.79M | 14'8"<br>4.47M | | | | | | | | | |

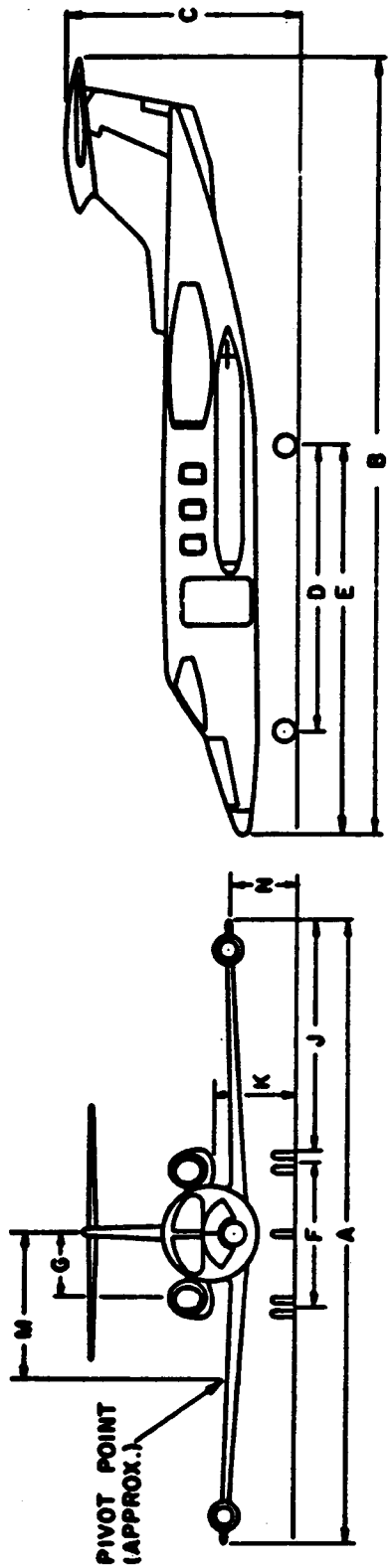



**Figure A12-52. Gates Learjet**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 880 | 184,500 LB<br>83 688 KG | 137,000 LB<br>62 142 KG | 120'0"<br>36.58M | 129'4"<br>39.42M | 36'0"<br>10.97M | 53'1"<br>16.18M | 64'10"<br>19.76M | 18'10"<br>5.74M | 22'2"<br>6.76M | 41'4"<br>12.60M | 49'3"<br>15.01M | 2'8"<br>0.81M | 3'11"<br>1.19M | 19'5"<br>5.52M | 10'11"<br>3.33M | 84'0"<br>25.60M |
| 990 | 246,200 LB<br>111 674 KG | 202,000 LB<br>91 626 KG | 120'0"<br>36.58M | 139'2"<br>42.42M | 39'6"<br>12.04M | 57'3"<br>17.45M | 68'11"<br>21.01M | 19'11"<br>6.07M | 22'2"<br>6.76M | 41'4"<br>12.60M | 48'10"<br>14.88M | 2'9"<br>0.84M | 4'0"<br>1.22M | 29'3"<br>8.92M | 12'9"<br>3.89M | 93'8"<br>28.55M |

NOTE: OPTIONAL TAKEOFF AND LANDING WEIGHTS.

880 193,500 LB ( 88 770 KG) MAXIMUM TAKEOFF WEIGHT.
155,000 LB ( 70 307 KG) MAXIMUM LANDING WEIGHT.

990 255,000 LB (115 666 KG) MAXIMUM TAKEOFF WEIGHT.

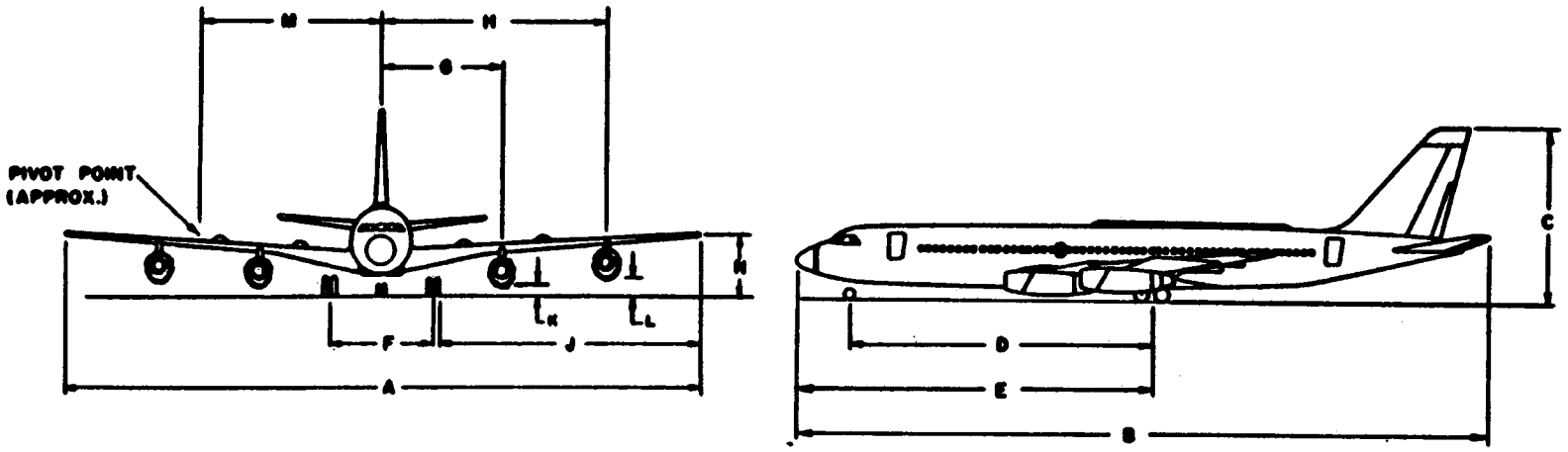



Figure A12-53. General Dynamics/Convair 880/990

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| G-159C | 33,600 LB<br>15 241 KG | 30,400 LB<br>13 789 KG | 78'4"<br>23.88M | 75'4"<br>22.96M | 23'0"<br>7.01M | 19'10"<br>6.04M | 26'8"<br>8.11M | 24'7"<br>7.47M | 12'1"<br>3.68M | 25'6"<br>7.77M | 1'6"<br>0.45M | 12'1"<br>3.68M | 8'8"<br>2.65M | 51'7"<br>15.67M |

NOTE: OPTIONAL MAXIMUM (TAKEOFF) WEIGHT 36,000 LB (16 329 KG).
(LANDING) 34,285 LB (15 551 KG).




**Figure A12-54. Grumman Gulfstream I**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| II | 65,300 LB<br>29 620 KG | 58,500 LB<br>26 535 KG | 68'10"<br>20.98M | 79'11"<br>24.36M | 24'6"<br>7.47M | 33'4"<br>10.16M | 40'5"<br>12.32M | 13'8"<br>4.15M | 6'3"<br>1.91M | 26'8"<br>8.11M | 8'10"<br>2.69M | 6'9"<br>2.07M | 6'0"<br>1.83M | 45'0"<br>13.72M |
| II-TT | 65,300 LB<br>29 620 KG | | 71'8"<br>21.84M | 79'11"<br>24.36M | 24'6"<br>7.47M | | | | | | | | | |
| III | 69,700 LB<br>31 615 KG | 58,500 LB<br>26 535 KG | 77'10"<br>23.72M | 83'1"<br>25.32M | 24'5"<br>7.44M | | | | | | | | | 47'6"<br>14.48M |
| IV | 71,780 LB<br>32 559 KG | 58,500 LB<br>26 535 KG | 77'10"<br>23.72M | 87'10"<br>26.77M | 24'5"<br>7.44M | | | | | | | | | 48'2"<br>14.68M |

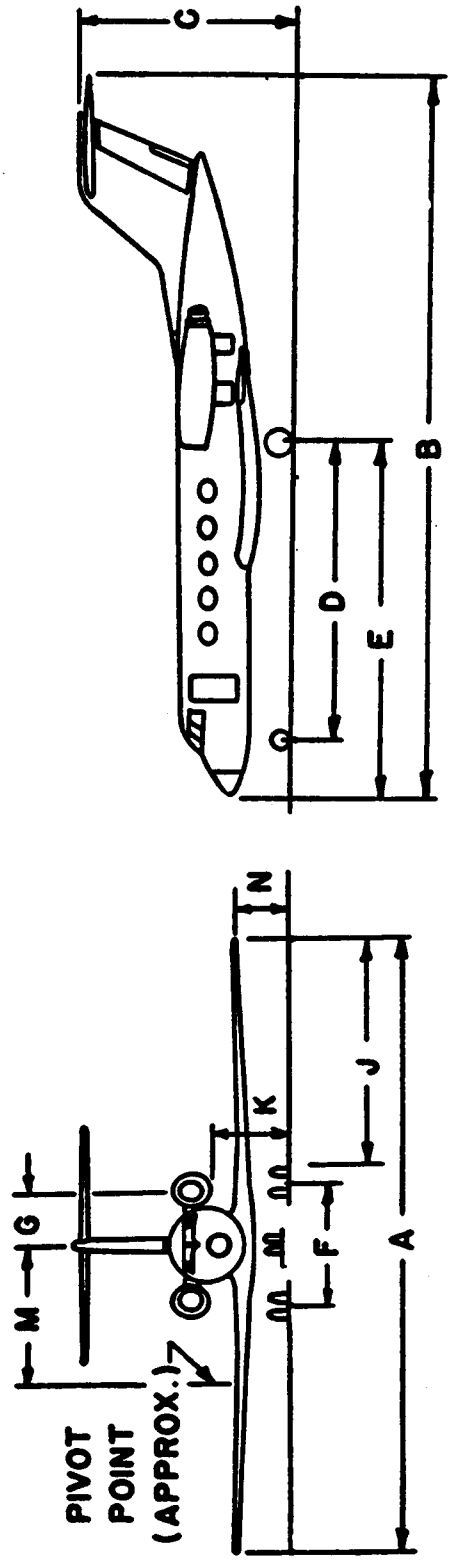



**Figure A12-55. Grumman Gulfstream II**

| BUILDER | MODEL | NAME | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | DRAFT | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRUMMAN | G-64/ G-111 | ALBATROSS | 31,150 LB 14 129 KG | 31,150 LB 14 129 KG | 96'8" 29.46M | 62'10" 19.15M | 25'10" 7.87M | 17'6" 5.33M | 17'8" 5.38M | 3'6" 1.07M | 28 | |

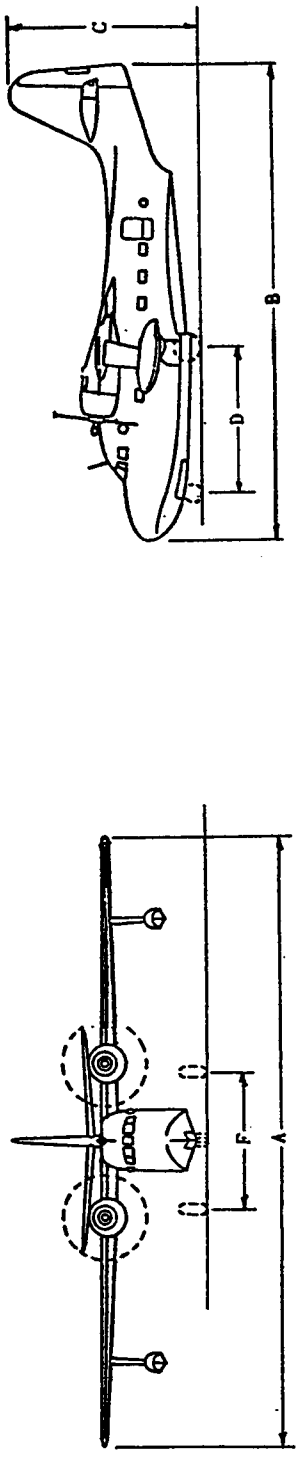



**Figure A12-56. Grumman G-64/G-III**

| BUILDER | MODEL | NAME | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | DRAFT | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|
| GRUMMAN | G-73 | MALLARD | 12,750 LB<br>5 783 KG | 12,750 LB<br>5 783 KG | 66'8"<br>20.32M | 48'4"<br>14.73M | 18'9"<br>5.72M | 14'10"<br>4.52M | 12'10"<br>3.91M | | 10 | |

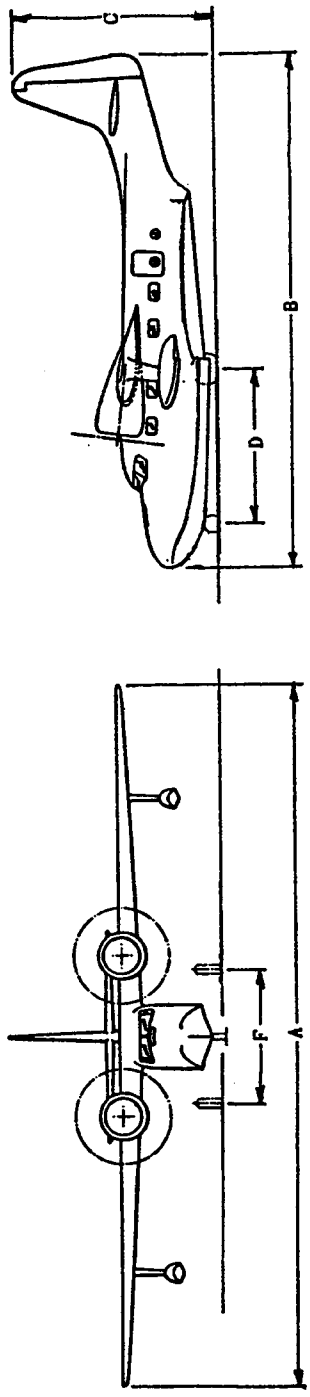
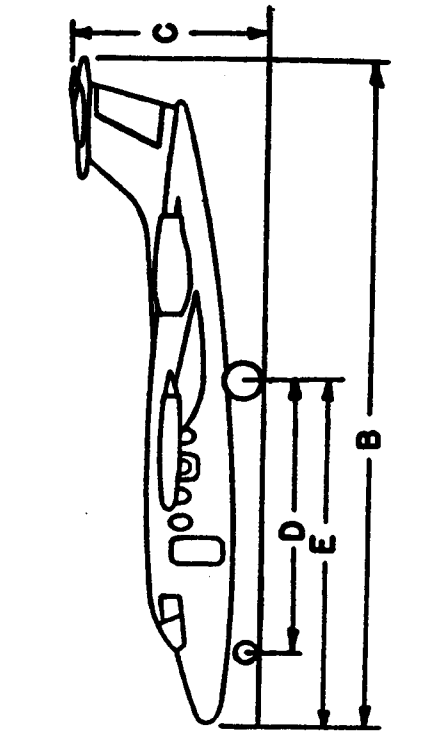



**Figure A12-57. Grumman G-73**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| HFB-320 | 20,280 LB<br>9 199 KG | 19,400 LB<br>8 800 KG | 47'6"<br>14.48M | 54'6"<br>16.61M | 16'2"<br>4.93M | 22'1"<br>6.73M | 28'2"<br>8.58M | 7'9"<br>2.39M | 4'8"<br>1.42M | 19'7"<br>5.97M | 5'11"<br>1.80M | 8'3"<br>2.51M | 7'3"<br>2.21M | 29'5"<br>8.94M |



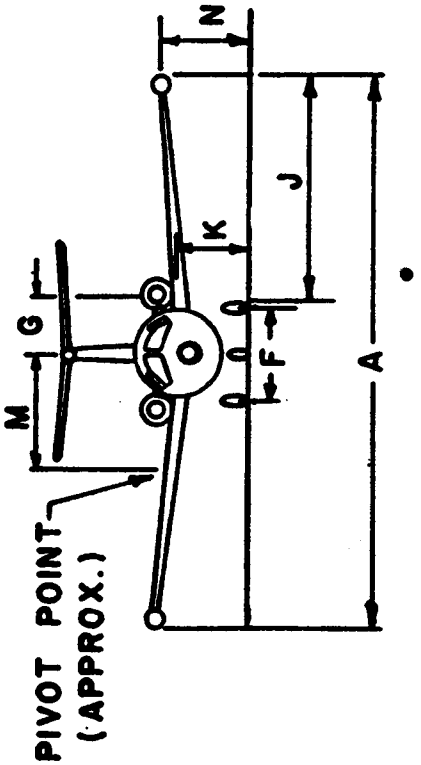




**Figure A12-58. Hamburger-Flugzeubau HFB-320 Hansa**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|
| DH.104 | 8,950 LB<br>4 060 KG | 8,500 LB<br>3 856 KG | 57'0"<br>17.61M | 39'3"<br>11.97M | 13'4"<br>4.07M | | 13'8"<br>4.17M | 9 | 35'4"<br>10.83M |

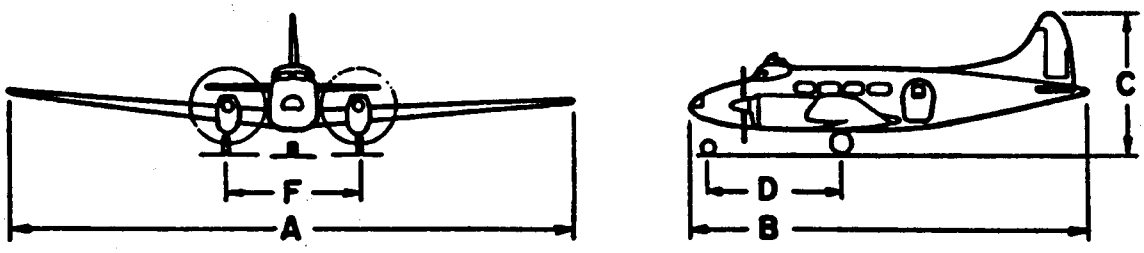
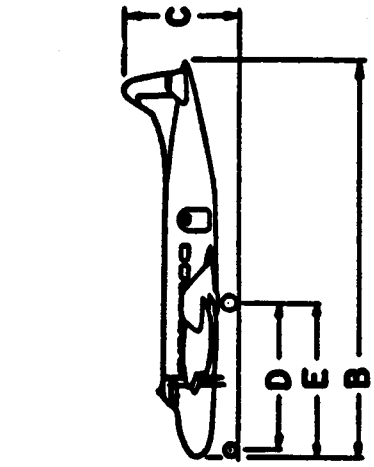



**Figure A12-59. Hawker Siddeley DH. 104 Dove**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| DH.114 | 13,500 LB<br>6 123 KG | 13,150 LB<br>5 965 KG | 71'6"<br>21.79M | 48'6"<br>14.78M | 15'7"<br>4.75M | 14'5"<br>4.39M | | 16'8"<br>5.14M | | | 15'0"<br>4.57M | | | | | |



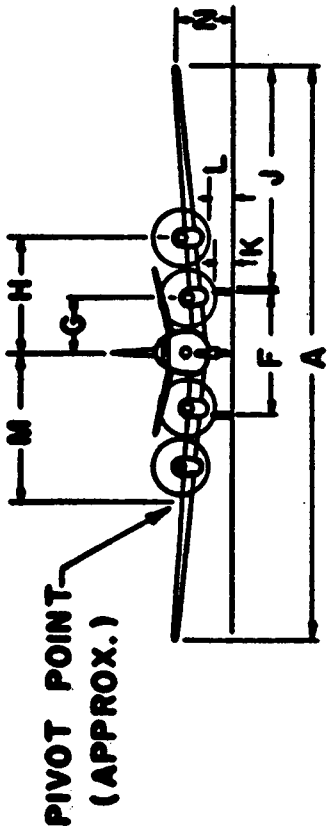




**Figure A12-60. Hawker Siddeley DH. 114 Heron**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | H | M | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 400A | 23,300 LB<br>10 569 KG | 20,000 LB<br>9 072 KG | 47'0"<br>14.33M | 47'5"<br>14.45M | 16'6"<br>5.08M | 18'9"<br>5.72M | 26'3"<br>8.00M | 9'2"<br>2.79M | 4'2"<br>1.27M | 18'7"<br>5.66M | 4'9"<br>1.45M | 19'0"<br>5.79M | 4'4"<br>1.32M | 43'0"<br>13.11M |
| 600A | 25,000 LB<br>11 340 KG | 22,000 LB<br>9 979 KG | 47'0"<br>14.33M | 50'6"<br>15.39M | 17'3"<br>5.26M | | | | | | | | | |
| 700A | 24,200 LB<br>10 977 KG | 22,000 LB<br>9 979 KG | 47'0"<br>14.33M | 50'8"<br>15.44M | 17'7"<br>5.36M | | | | | | | | | |
| 800A | 27,400 LB<br>12 428 KG | 23,350 LB<br>10 591 KG | 51'5"<br>15.67M | 51'2"<br>15.60M | 17'6"<br>5.33M | | | | | | | | | |

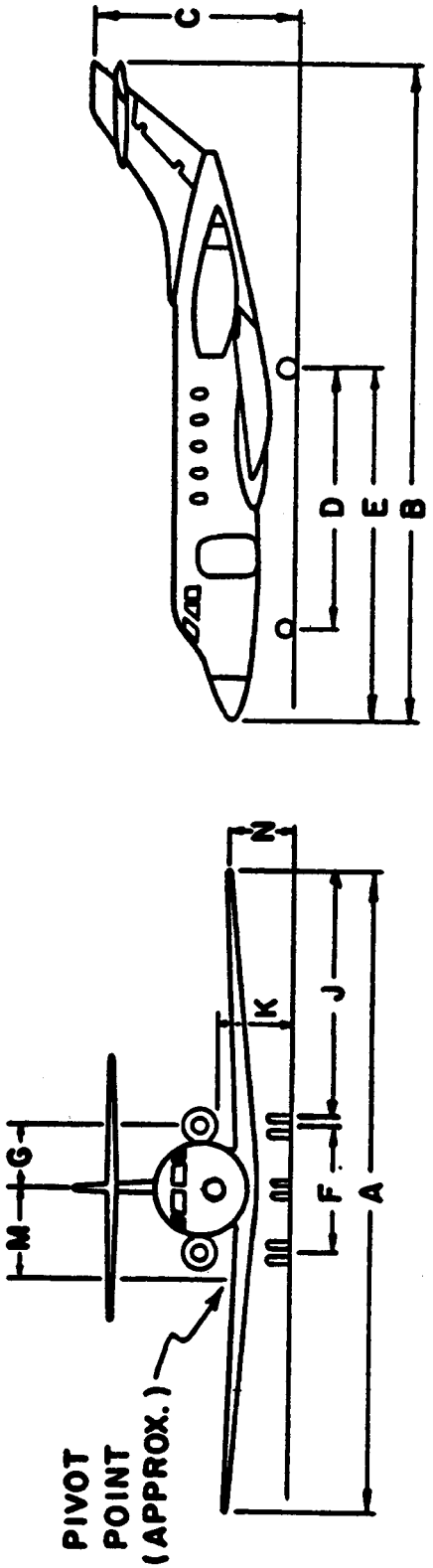
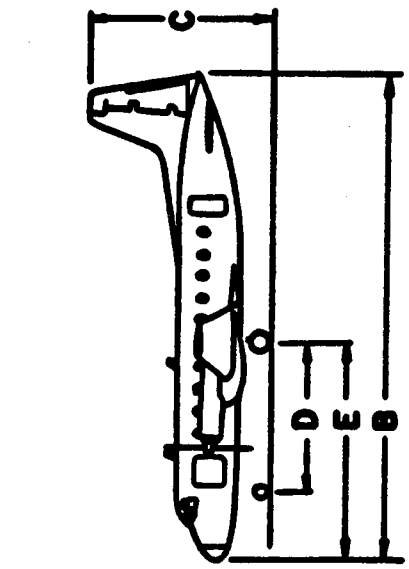



**Figure A12-61. Hawker Siddeley HS-125**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 2A | 44,490 LB<br>20 180 KG | 42,100 LB<br>19 096 KG | 98'6"<br>30.02M | 67'0"<br>20.49M | 24'10"<br>7.63M | 20'8"<br>6.32M | | 24'9"<br>7.60M | | 35'11"<br>10.95M | 2'0"<br>0.61M | | | 59'0"<br>17.98M |
| 2B | 46,500 LB<br>21 092 KG | | 102'6"<br>31.24M | 67'0"<br>20.49M | 24'10"<br>7.63M | | | | | | | | | |



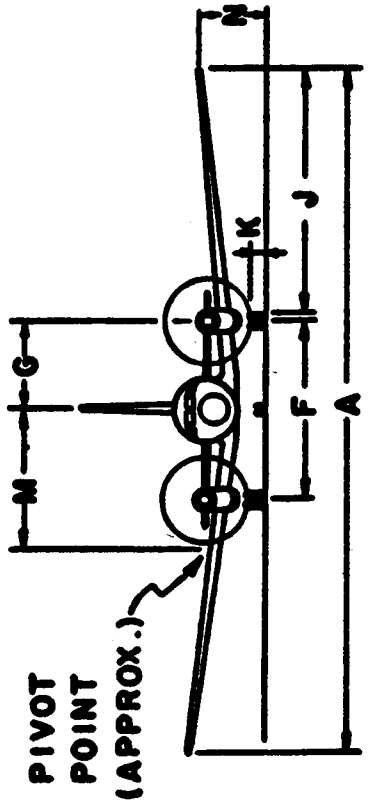




**Figure A12-62. Hawker Siddeley HS-748**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Il-62 | 337,000 LB<br>161 932 KG | 252,000 LB<br>114 305 KG | 141'9"<br>43.20M | 174'4"<br>53.13M | 40'6"<br>12.34M | 80'5"<br>24.57M | | 22'4"<br>6.80M | | | 59'0"<br>17.76M | | | | | |

NOTE: OPTIONAL TAKEOFF WEIGHT 367,760 LB (166 813 KG).

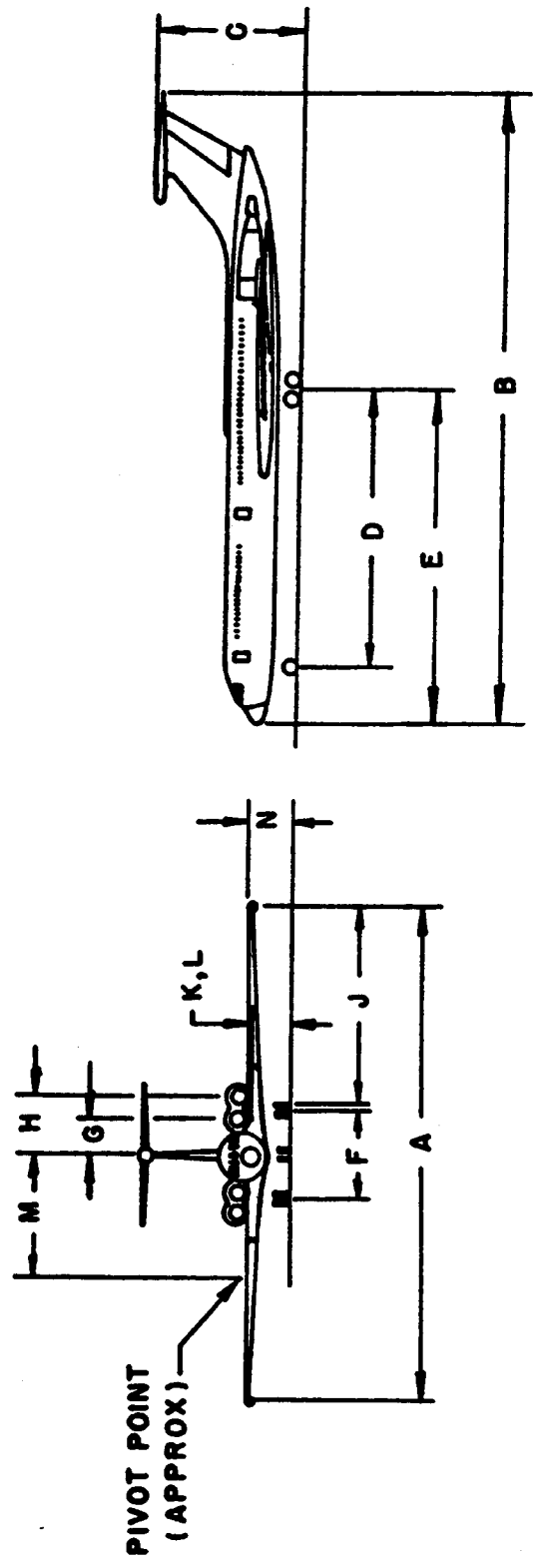



Figure A12-63. Ilyushin IL-62

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | M | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1121 | 16,800 LB<br>7 620 KG | 16,000 LB<br>7 257 KG | 43'4"<br>13.21M | 50'5"<br>15.37M | 15'9"<br>4.80M | 23'9"<br>7.24M | | 11'2"<br>3.40M | 3'4"<br>1.02M | 15'9"<br>4.80M | 5'2"<br>1.60M | 23'8"<br>7.21M | 4'11"<br>1.50M | 45'5"<br>13.84M |
| 1123 | 20,500 LB<br>9 299 KG | 19,000 LB<br>8 618 KG | 43'4"<br>13.21M | 52'3"<br>15.93M | 15'9"<br>4.80M | 23'9"<br>7.24M | | 12'0"<br>3.66M | 3'4"<br>1.02M | 15'9"<br>4.80M | 5'2"<br>1.60M | | | |
| 1124 | 22,850 LB<br>10 365 KG | 19,000 LB<br>8 618 KG | 44'10"<br>13.67M | 52'3"<br>15.93M | 15'10"<br>4.83M | 25'7"<br>7.80M | 28'5"<br>8.66M | 11'0"<br>3.35M | 4'2"<br>1.27M | 16'10"<br>5.13M | 4'3"<br>1.30M | | 4'0"<br>1.22M | |
| 1124A | 23,500 LB<br>10 659 KG | 19,000 LB<br>8 618 KG | 44'10"<br>13.67M | 52'3"<br>15.93M | 15'10"<br>4.83M | 25'7"<br>7.80M | 28'5"<br>8.66M | 11'0"<br>3.35M | 4'2"<br>1.27M | 16'10"<br>5.13M | 4'3"<br>1.30M | | 4'0"<br>1.22M | |
| 1125 | 23,500 LB<br>10 659 KG | 20,700 LB<br>9 389 KG | 52'8"<br>16.05M | 55'7"<br>16.94M | 18'2"<br>5.54M | 24'1"<br>7.34M | 30'9"<br>9.37M | 9'1"<br>2.77M | 4'4"<br>1.32M | 21'1"<br>6.43M | 7'0"<br>2.13M | | 3'10"<br>1.17M | |

NOTE: MODEL 1121 FORMERLY PRODUCED BY NORTH AMERICAN ROCKWELL AS "JET COMMANDER."

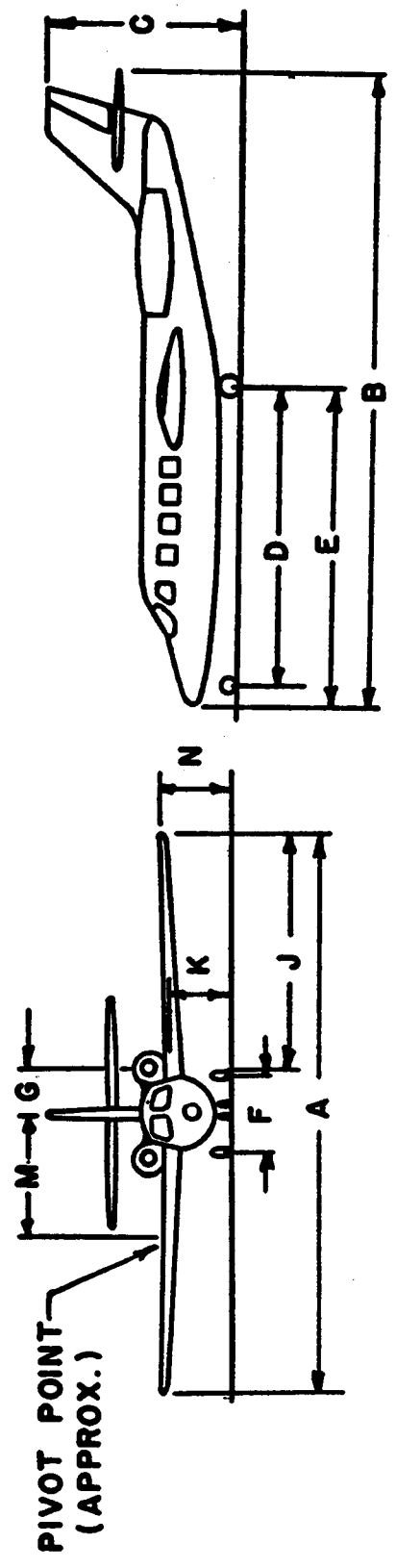



Figure A12-64. Israel Aircraft Industries Westwind

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 749A | 107,000 LB<br>48 534 KG | 89,500 LB<br>40 597 KG | 123'0"<br>37.49M | 95'2"<br>29.01M | 22'5"<br>6.83M | 33'0"<br>10.06M | 39'3"<br>11.96M | 28'0"<br>8.53M | 14'0"<br>4.27M | 29'10"<br>9.09M | 45'5"<br>13.84M | 1'9"<br>0.53M | 3'11"<br>1.19M | 31'1"<br>9.47M | 15'11"<br>4.85M | 92'7"<br>28.22M |
| 1049 | 120,000 LB<br>54 431 KG | 101,500 LB<br>46 040 KG | 123'0"<br>37.49M | 113'7"<br>34.62M | 24'10"<br>7.57M | 43'7"<br>13.28M | 49'11"<br>15.21M | 28'0"<br>8.53M | 14'0"<br>4.27M | 29'10"<br>9.09M | 45'5"<br>13.84M | 1'9"<br>0.53M | 3'11"<br>1.19M | 26'0"<br>7.92M | 16'3"<br>4.95M | 87'6"<br>20.07M |
| 1649A | 160,000 LB<br>72 575 KG | 123,000 LB<br>55 792 KG | 150'0"<br>45.72M | 116'2"<br>35.41M | 23'5"<br>7.14M | 45'7"<br>13.89M | 54'4"<br>16.56M | 38'5"<br>11.71M | 19'2"<br>5.84M | 37'4"<br>11.38M | 53'10"<br>16.41M | 1'5"<br>0.44M | 3'7"<br>1.09M | 28'4"<br>8.64M | 16'11"<br>5.16M | 103'5"<br>32.13M |

NOTE: MODEL 1049C HAS MAXIMUM (TAKEOFF) WEIGHT OF 137,500 LB (62 369 KG).
MAXIMUM (LANDING) WEIGHT OF 113,000 LB (51 256 KG).




Figure A12-65. Lockheed Constellation and Super Constellation

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-5B | 769,000 LB<br>348 813 KG | 635,850 LB<br>288 417 KG | 222'8"<br>67.87M | 247'10"<br>75.54M | 65'1"<br>19.84M | 82'1"<br>25.02M | 116'11"<br>35.64M | 37'5"<br>11.40M | 39'8"<br>12.09M | 61'11"<br>18.87M | 92'8"<br>28.25M | 10'9"<br>3.28M | 7'11"<br>2.41M | 38'4"<br>11.68M | 13'7"<br>4.14M | 162'6"<br>49.53M |

NOTE: OPTIONAL TAKEOFF WEIGHT 837,000 LB (379 657 KG).

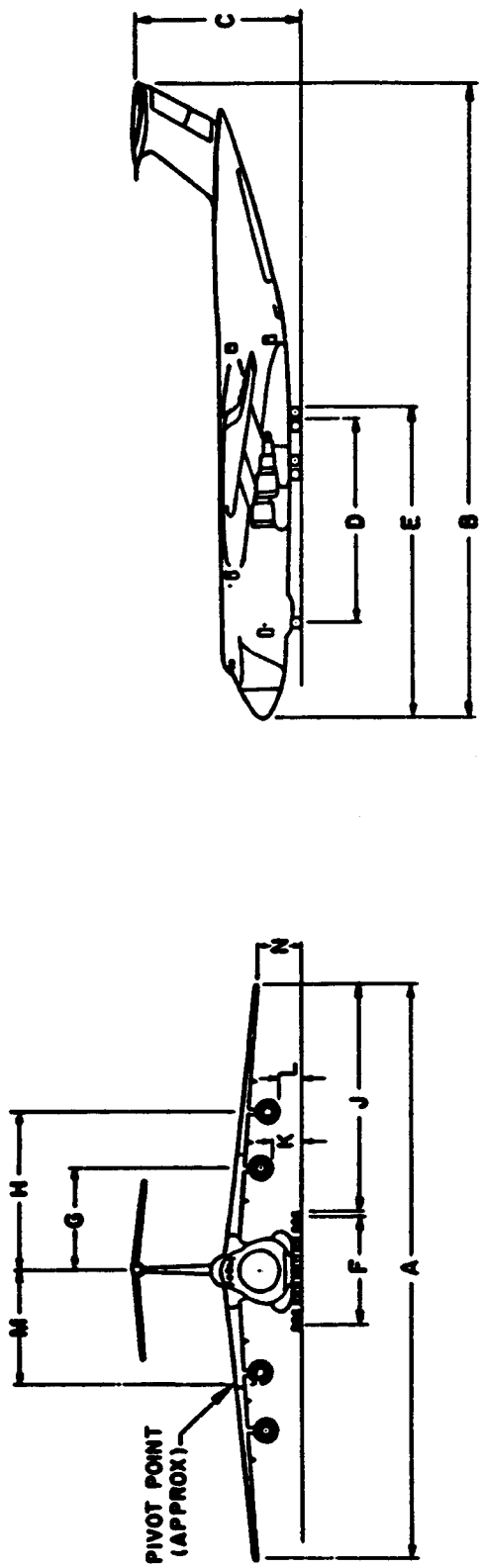
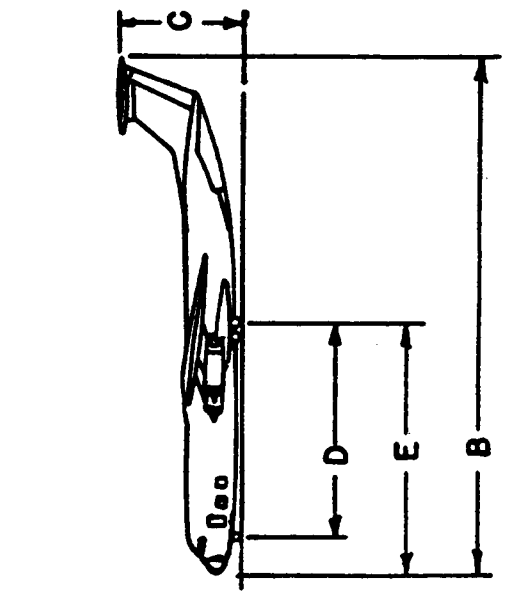



**Figure A12-66. Lockheed C-5B Galaxy**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| C-141A | 316,600 LB<br>143 607 KG | 316,100 LB<br>143 381 KG | 159'11"<br>48.74M | 145'0"<br>44.19M | 39'4"<br>11.99M | 55'0"<br>16.76M | 60'7"<br>18.46M | 17'6"<br>5.34M | 23'9"<br>7.24M | 38'4"<br>11.68M | 70'0"<br>21.34M | 3'11"<br>1.19M | 3'4"<br>1.01M | 10'0"<br>3.05M | 6'0"<br>1.83M | 92'0"<br>28.04M |
| C-141B | 343,000 LB<br>155 582 KG | | 159'11"<br>48.74M | 168'4"<br>51.31M | 39'4"<br>11.99M | | | | | | | | | | | |



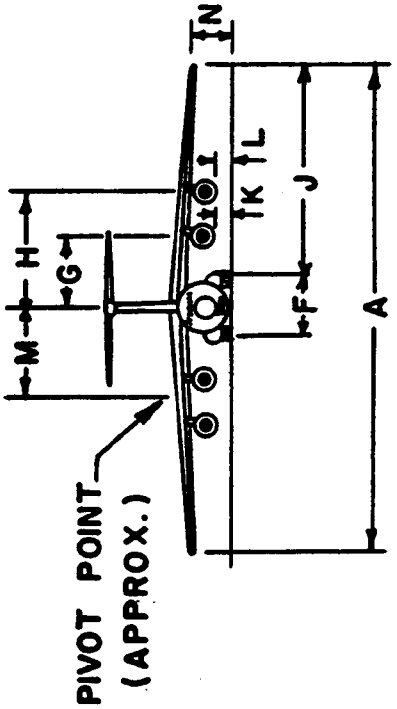




**Figure A12-67. Lockheed C-141 Starlifter**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L-188 | 116,000 LB<br>52 617 KG | 95,650 LB<br>43 386 KG | 99'0"<br>29'91M | 104'7"<br>31.88M | 33'8"<br>10.26M | 37'0"<br>11.27M | 48'3"<br>14.71M | 31'2"<br>9.50M | 15'7"<br>4.75M | 29'9"<br>9.07M | 37'9"<br>9.98M | 1'3"<br>0.33M | 2'6"<br>0.76M | 15'7"<br>4.75M | 10'11"<br>3.33M | 65'1"<br>19.84M |

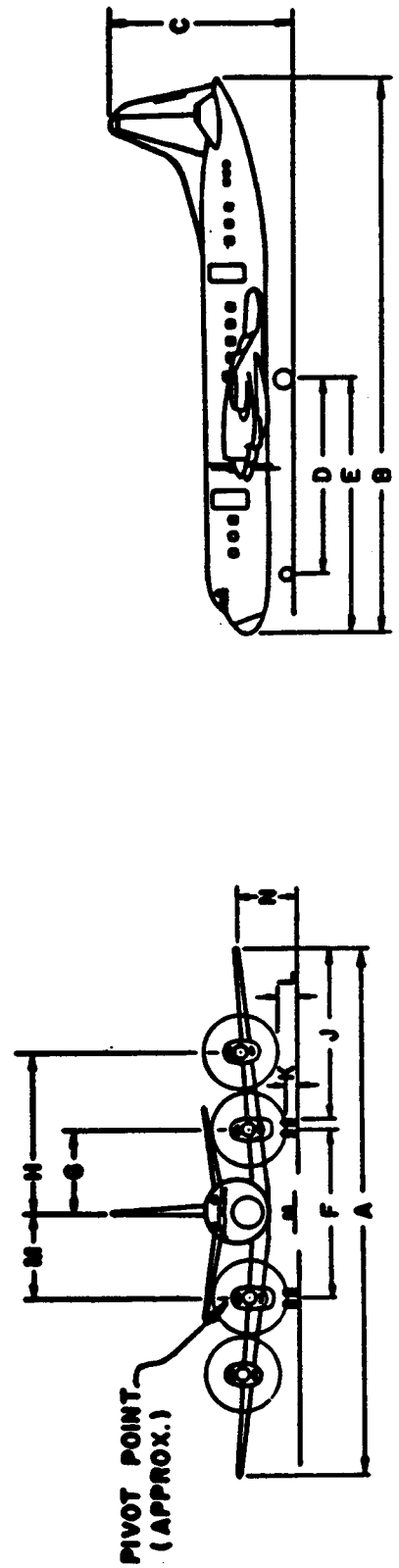



**Figure A12-68. Lockheed L-188 Electra II**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| L-100-20 | 155,000 LB<br>70 307 KG | 130,000 LB<br>58 967 KG | 132'7"<br>40.41M | 106'1"<br>32.33M | 39'4"<br>11.98M | 37'1"<br>11.30M | 48'7"<br>14.80M | 14'3"<br>4.34M | 16'9"<br>5.11M | 33'4"<br>10.16M | 57'5"<br>17.50M | 5'11"<br>1.80M | 6'11"<br>2.11M | 12'0"<br>3.65M | 15'4"<br>4.67M | 88'0"<br>26.82M |
| L-100-30 | 155,000 LB<br>70 307 KG | 135,000 LB<br>61 235 KG | 132'7"<br>40.41M | 112'9"<br>34.36M | 39'2"<br>11.93M | 40'5"<br>12.31M | 51'11"<br>15.81M | 14'3"<br>4.34M | 16'9"<br>5.11M | 33'4"<br>10.16M | 57'5"<br>17.50M | 5'11"<br>1.80M | 6'11"<br>2.11M | 14'0"<br>4.27M | 15'3"<br>4.64M | 90'0"<br>27.43M |
| C-130H | 175,000 LB<br>79 379 KG | 155,000 LB<br>70 307 KG | 132'7"<br>40.41M | 97'9"<br>29.79M | 39'5"<br>12.01M | 32'1"<br>9.78M | 43'7"<br>13.28M | 14'3"<br>4.34M | 16'9"<br>5.11M | 33'4"<br>10.16M | 58'4"<br>17.78M | 5'8"<br>1.73M | | | 13'8"<br>4.17M | 85'0"<br>25.91M |




**Figure A12-69. Lockheed L-100 Hercules**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | P | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1 | 430,000 LB | 358,000 LB | 155'4" | 177'8" | 55'10" | 70'0" | 99'9" | 36'0" | 34'10" | 56'8" | 2'11" | 38'10" | 16'1" | 18'9" | 121'3" |
| | 195 045 KG | 162 386 KG | 47.35M | 54.15M | 17.02M | 21.34M | 30.40M | 10.97M | 10.62M | 17.27M | 0.89M | 11.84M | 4.90M | 5.72M | 36.96M |
| 100 | 466,000 LB | 368,000 LB | 155'4" | 177'8" | 55'10" | 70'0" | 99'9" | 36'0" | 34'10" | 56'8" | 2'11" | 38'10" | 16'1" | 18'9" | 121'3" |
| | 211 374 KG | 166 922 KG | 47.35M | 54.15M | 17.02M | 21.34M | 30.40M | 10.97M | 10.62M | 17.27M | 0.89M | 11.84M | 4.90M | 5.72M | 36.96M |
| 200 | 466,000 LB | 368,000 LB | 155'4" | 177'8" | 55'10" | 70'0" | 99'9" | 36'0" | 34'10" | 56'8" | 2'11" | 38'10" | 16'1" | 18'9" | 121'3" |
| | 211 374 KG | 166 922 KG | 47.35M | 54.15M | 17.02M | 21.34M | 30.40M | 10.97M | 10.62M | 17.27M | 0.89M | 11.84M | 4.90M | 5.72M | 36.96M |
| 500 | 496 000 LB | 368,000 LB | 155'4" | 164'2" | 55'10" | 61'8" | 91'5" | 36'0" | 34'10" | 56'8" | 2'11" | 34'0" | 16'10" | 20'0" | 116'10" |
| | 224 982 KG | 166 922 KG | 47.35M | 50.04M | 17.02M | 18.80M | 27.86M | 10.97M | 10.62M | 17.27M | 0.89M | 10.36M | 5.13M | 6.10M | 35.61M |
| 500 | 496,000 LB | 368,000 LB | 164'4" | 164'2" | 55'10" | 61'8" | 91'5" | 36'0" | 34'10" | 61'2" | 2'11" | 34'0" | 16'10" | 20'0" | 122'0" |
| EX. WING | 224 982 KG | 166 922 KG | 50.09M | 50.04M | 17.02M | 18.80M | 27.86M | 10.97M | 10.62M | 18.64M | 0.89M | 10.36M | 5.13M | 6.10M | 37.19M |

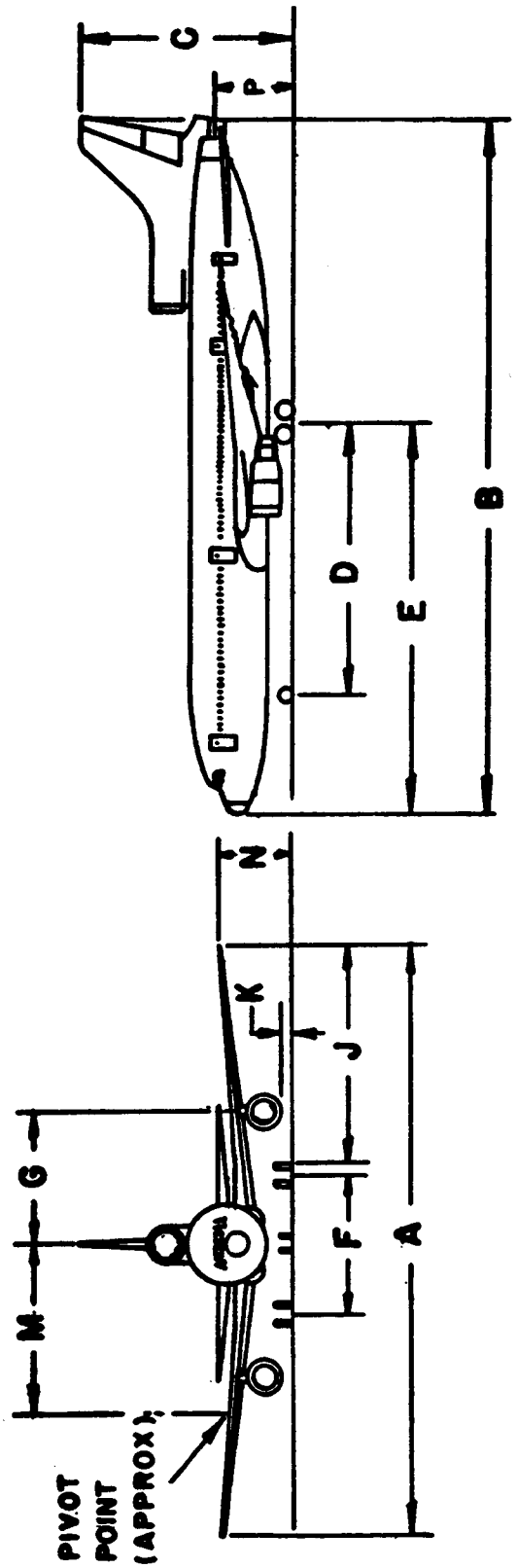



**Figure A12-70. Lockheed L-1011 Tristar**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1329 | 42,000 LB<br>19 501 KG | 35,000 LB<br>15 876 KG | 54'5"<br>16.29M | 60'5"<br>18.42M | 20'5"<br>6.22M | 20'7"<br>6.28M | 34'11"<br>10.65M | 12'4"<br>3.76M | 5'7"<br>1.71M | 7'11"<br>2.42M | 19'4"<br>5.90M | 5'2"<br>1.60M | 5'2"<br>1.60M | 7'2"<br>2.19M | 4'5"<br>1.34M | 43'4"<br>13.21M |

JETSTAR II HAS OPTIONAL MAXIMUM (TAKEOFF) WEIGHT OF 43,750 LB (19 845 KG).
(LANDING) 36,000 LB (16 329 KG).




**Figure A12-71. Lockheed L-1329 Jetstar**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 404 | 44,900 LB<br>20 366 KG | 43,000 LB<br>19 504 KG | 93'4"<br>28.45M | 74'7"<br>22.73M | 28'8"<br>8.24M | 22'5"<br>6.83M | 32'3"<br>9.83M | 25'0"<br>7.62M | 12'6"<br>3.81M | 32'8"<br>9.96M | 0'11"<br>0.28M | 12'6"<br>3.81M | 12'6"<br>3.81M | 59'2"<br>18.03M |

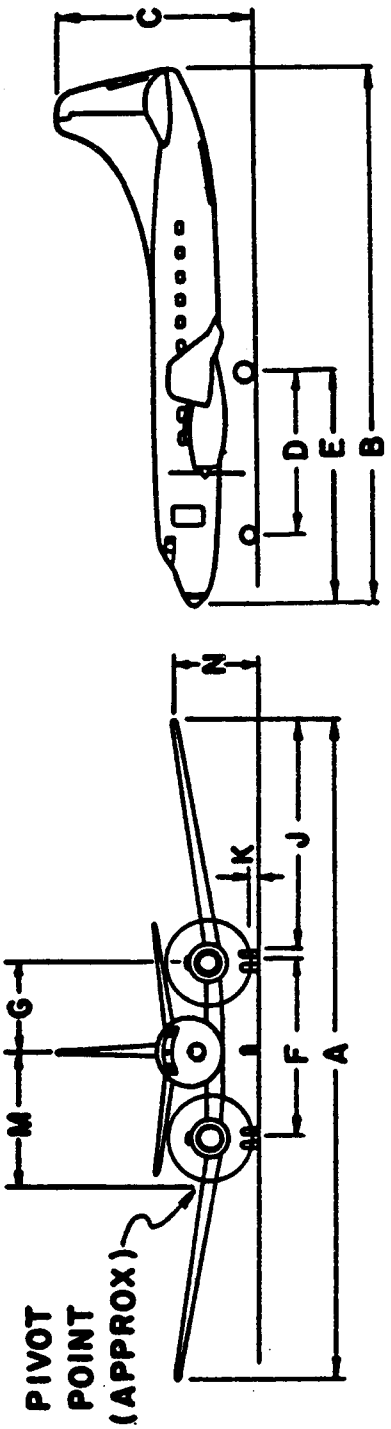



**Figure A12-72. Martin 404**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 20,30, | 315,000 LB | 207,000 LB | 142'5" | 150'9" | 43'4" | 57'6" | 73'5" | 20'10" | 25'9" | 44'7" | 58'10" | 4'0" | 5'5" | 21'1" | 15'3" | 96'10" |
| 40 | 142 884 KG | 93 895 KG | 43.41M | 45.95M | 13.21M | 17.53M | 22.38M | 6.35M | 7.85M | 13.59M | 17.93M | 1.22M | 1.63M | 6.43M | 4.65M | 29.51M |
| 55 | 325,000 LB | 217,000 LB | 142'5" | 150'9" | 43'4" | 57'6" | 73'5" | 20'10" | 25'9" | 44'7" | 58'10" | 3'1" | 4'7" | 21'1" | 15'3" | 96'10" |
| | 147 420 KG | 98 431 KG | 43.41M | 45.95M | 13.21M | 17.53M | 22.38M | 6.35M | 7.85M | 13.59M | 17.93M | 0.94M | 1.40M | 6.43M | 4.65M | 29.51M |
| 55F | 325,000 LB | 240,000 LB | 142'5" | 150'9" | 43'4" | 57'6" | 73'5" | 20'10" | 25'9" | 44'7" | 58'10" | 3'1" | 4'7" | 21'1" | 15'3" | 96'10" |
| | 147 420 KG | 108 864 KG | 43.41M | 45.95M | 13.21M | 17.53M | 22.38M | 6.35" | 7.85M | 13.59M | 17.93M | 0.94M | 1.40M | 6.43M | 4.65M | 29.51M |
| 61 | 325,000 LB | 240,000 LB | 142'5" | 187'5" | 43'0" | 77'6" | 93'5" | 20'10" | 25'9" | 44'7" | 58'10" | 3'3" | 4'7" | 27'0" | 15'1" | 106'11" |
| 71 | 147 420 KG | 108 864 KG | 43.41M | 57.12M | 13.11M | 23.62M | 28.47M | 6.35M | 7.85M | 13.59M | 17.93M | 0.99M | 1.40M | 8.23M | 4.60M | 32.59M |
| 61F | 328,000 LB | 258,000 LB | 142'5" | 187'5" | 43'0" | 77'6" | 93'5" | 20'10" | 25'9" | 44'7" | 58'10" | 3'3" | 4'7" | 27'0" | 15'1" | 106'11" |
| 71CF | 148 781 KG | 117 029 KG | 43.41M | 57.12M | 13.11M | 23.62M | 28.47M | 6.35M | 7.85M | 13.59M | 17.93M | 0.99M | 1.40M | 8.23M | 4.60M | 32.59M |
| 62,72, | 350,000 LB | 240,000 LB | 148'5" | 157'6" | 43'5" | 60'10" | 76'9" | 20'10" | 25'9" | 44'7" | 61'8" | 2'7" | 4'2" | 39'4" | 15'6" | 116'5" |
| 72AF | 158 760 KG | 108 864 KG | 45.24M | 48.00M | 13.23M | 18.54M | 23.39M | 6.35M | 7.85M | 13.59M | 18.80M | 0.79M | 1.27M | 11.99M | 4.72M | 35.48M |
| 62F | 350,000 LB | 250,000 LB | 148'5" | 157'6" | 43'5" | 60'10" | 76'9" | 20'10" | 25'9" | 44'7" | 61'8" | 2'7" | 4'2" | 39'4" | 15'6" | 116'5" |
| 72CF | 158 760 KG | 113 400 KG | 45.24M | 48.00M | 13.23M | 18.54M | 23.39M | 6.35M | 7.85M | 13.59M | 18.80M | 0.79M | 1.27M | 11.99M | 4.72M | 35.48M |
| 63 | 355,000 LB | 258,000 LB | 148'5" | 187'5" | 43'0" | 77'6" | 93'5" | 20'10" | 25'9" | 44'7" | 61'8" | 2'7" | 4'2" | 38'10" | 15'4" | 116'1" |
| 73 | 161 028 KG | 117 029 KG | 45.24M | 57.12M | 13.11M | 23.62M | 28.47M | 6.35M | 7.85M | 13.59M | 18.80M | 0.79M | 1.27M | 11.84M | 4.67M | 35.38M |
| 63F,73CF | 355,000 LB | 275,000 LB | 148'5" | 187'5" | 43'0" | 77'6" | 93'5" | 20'10" | 25'9" | 44'7" | 61'8" | 2'7" | 4'2" | 38'10M | 15'4" | 116'1" |
| 73AF | 161 028 KG | 124 740 KG | 45.24M | 57.12M | 13.11M | 23.62M | 28.47M | 6.35M | 7.85M | 13.59M | 18.80M | 0.79M | 1.27M | 11.84M | 4.67M | 35.38M |

NOTE: OPTIONAL TAKEOFF AND LANDING WEIGHTS:

72 335,000 LB (151 953 KG) MAXIMUM TAKEOFF WEIGHT.
240,000 LB (108 864 KG) MAXIMUM LANDING WEIGHT.

72AF 333,000 LB (151 953 KG) MAXIMUM TAKEOFF WEIGHT.
250,000 LB (113 400 KG) MAXIMUM LANDING WEIGHT.

NOTE: REDUCE NACELLE CLEARANCE DIMENSION (K AND L) BY 10 INCHES (0.25M) FOR DC-8-70 SERIES AIRCRAFT.

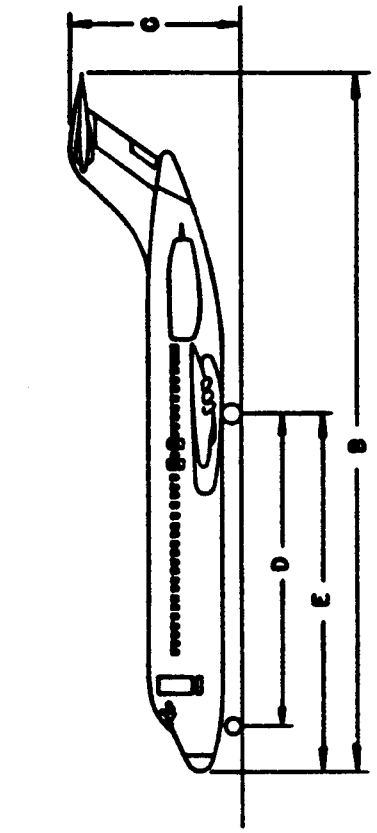



Figure A12-73. McDonnell-Douglas DC-8

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | H | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 15 | 90,700 LB<br>41 141 KG | 81,700 LB<br>37 058 KG | 89'5"<br>27.25M | 104'5"<br>31.83M | 27'7"<br>8.41M | 43'8"<br>13.31M | 51'4"<br>15.64M | 16'4"<br>4.98M | 8'11"<br>2.72M | 35'0"<br>10.67M | 6'5"<br>1.96M | 8'6"<br>2.59M | 7'2"<br>2.18M | 59'7"<br>18.16M |
| 15F | 90,700 LB<br>41 141 KG | 81,700 LB<br>37 058 KG | 89'5"<br>27.25M | 104'5"<br>31.83M | 27'7"<br>8.41M | 43'8"<br>13.31M | 51'4"<br>15.64M | 16'4"<br>4.98M | 8'11"<br>2.72M | 35'0"<br>10.67M | 6'5"<br>1.96M | 8'6"<br>2.59M | 7'2"<br>2.18M | 59'7"<br>18.16M |
| 21 | 98,000 LB<br>44 452 KG | 95,300 LB<br>43 227 KG | 93'4"<br>28.45M | 104'5"<br>31.83M | 27'5"<br>8.36M | 43'8"<br>13.31M | 51'4"<br>15.64M | 16'4"<br>4.98M | 8'11"<br>2.72M | 36'10"<br>11.23M | 6'5"<br>1.96M | 8'6"<br>2.59M | 7'3"<br>2.21M | 59'6"<br>18.14M |
| 32 | 110,000 LB<br>49 895 KG | 99,000 LB<br>44 906 KG | 93'4"<br>28.45M | 119'4"<br>36.37M | 27'9"<br>8.46M | 53'2"<br>16.21M | 60'9"<br>18.52M | 16'4"<br>4.98M | 8'11"<br>2.72M | 36'10"<br>11.23M | 6'5"<br>1.96M | 10'4"<br>3.15M | 7'3"<br>2.21M | 65'2"<br>19.86M |
| 33F | 110,000 LB<br>49 895 KG | 99,000 LB<br>44 906 KG | 93'4"<br>28.45M | 119'4"<br>36.37M | 27'9"<br>8.46M | 53'2"<br>16.21M | 60'9"<br>18.52M | 16'4"<br>4.98M | 8'11"<br>2.72M | 36'10"<br>11.23M | 6'5"<br>1.96M | 10'4"<br>3.15M | 7'3"<br>2.21M | 65'2"<br>19.86M |
| 41 | 114,000 LB<br>51 710 KG | 102,000 LB<br>46 266 KG | 93'4"<br>28.45M | 125'7"<br>38.28M | 28'5"<br>8.66M | 56'2"<br>17.12M | 63'8"<br>19.41M | 16'0"<br>4.88M | 8'11"<br>2.72M | 37'0"<br>11.28M | 6'11"<br>2.11M | 10'11"<br>3.33M | 7'2"<br>2.18M | 68'6"<br>20.88M |
| 51 | 121,000 LB<br>54 885 KG | 110,000 LB<br>49 895 KG | 93'4"<br>28.45M | 133'7"<br>40.72M | 28'9"<br>8.76M | 60'11"<br>18.57M | 66'6"<br>20.88M | 16'0"<br>4.88M | 8'11"<br>2.72M | 37'0"<br>11.28M | 6'10"<br>2.08M | 11'10"<br>3.61M | 7'1"<br>2.16M | 71'10"<br>21.89M |
| 81,82,<br>83,88 | SEE<br>NOTE | SEE<br>NOTE | 107'10"<br>32.87M | 147'10"<br>45.06M | 30'3"<br>9.22M | 72'5"<br>22.07M | 80'0"<br>24.38M | 16'8"<br>5.08M | 8'11"<br>2.72M | 43'9"<br>13.34M | 7'6"<br>2.29M | 14'0"<br>4.27M | 8'7"<br>2.62M | 81'2"<br>24.74M |
| 87 | SEE<br>NOTE | SEE<br>NOTE | 107'10"<br>32.87M | 130'5"<br>39.75M | 31'2"<br>9.50M | 62'11"<br>19.18M | 70'6"<br>21.49M | 16'8"<br>5.08M | 8'11"<br>2.72M | 43'9"<br>13.34M | 7'6"<br>2.29M | 12'2"<br>3.71M | 8'8"<br>2.64M | 71'7"<br>21.82M |

NOTE: TAKEOFF AND LANDING WEIGHTS:

| | | | |
|---|---|---|---|
| 81 | 140,000 LB (63 503 KG) | MAXIMUM TAKEOFF WEIGHT. | |
| | 128,000 LB (58 060 KG) | MAXIMUM LANDING WEIGHT. | |
| 82 | 149,500 LB (67 812 KG) | MAXIMUM TAKEOFF WEIGHT. | |
| | 130,000 LB (58 967 KG) | MAXIMUM LANDING WEIGHT. | |
| 83 | 160,000 LB (72 575 KG) | MAXIMUM TAKEOFF WEIGHT. | |
| | 139,500 LB (63 276 KG) | MAXIMUM LANDING WEIGHT. | |
| 88 | 149,500 LB (67 812 KG) | MAXIMUM TAKEOFF WEIGHT. | |
| | 130,000 LB (58 967 KG) | MAXIMUM LANDING WEIGHT. | |
| 87 | 149,500 LB (67 812 KG) | MAXIMUM TAKEOFF WEIGHT. | |
| | 130,000 LB (58 967 KG) | MAXIMUM LANDING WEIGHT. | |
| 87 | 140,000 LB (63 503 KG) | MAXIMUM TAKEOFF WEIGHT. | |
| | 128,000 LB (56 060 KG) | MAXIMUM LANDING WEIGHT. | |



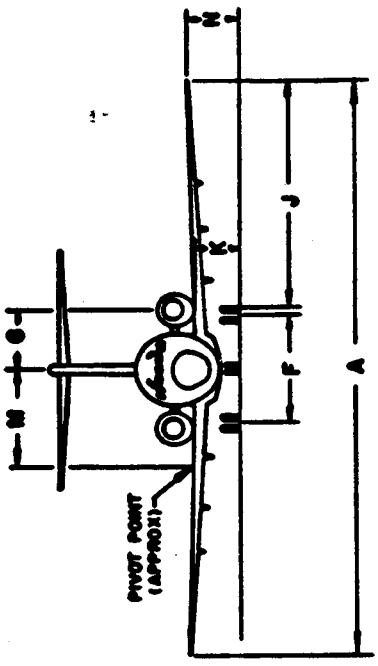




**Figure A12-74. McDonnell-Douglas DC-9 and MD-80**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | P | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 10 | 443,000 LB | 363,500 LB | 155'4" | 182'3" | 58'5" | 72'5" | 100'4" | 35'0" | 26'10" | 57'1" | 2'9" | 39'0" | 14'5" | 29'7" | 121'8" |
| | 200 941 KG | 164 881 KG | 47.35M | 55.55M | 17.81M | 22.07M | 30.58M | 10.67M | 8.18M | 17.40M | 0.84M | 11.89M | 4.32M | 9.02M | 37.08M |
| 30 | 590,000 LB | 411,000 LB | 165'4" | 181'7" | 58'7" | 72'5" | 100'4" | 35'0" | 26'10" | 62'1" | 2'10" | 37'2" | 14'4" | 29'6" | 125'4" |
| | 267 620 KG | 186 426 KG | 50.39M | 55.35M | 17.86M | 22.07M | 30.58M | 10.67M | 8.18M | 18.92M | 0.86M | 11.33M | 4.37M | 8.99M | 38.20M |
| 40 | 555,000 LB | 403,000 LB | 165'4" | 182'3" | 58'7" | 72'5" | 100'4" | 35'0" | 26'10" | 62'1" | 2'10" | 37'2" | 14'4" | 29'6" | 125'4" |
| | 251 744 KG | 182 798 KG | 50.39M | 55.55M | 17.86M | 22.07M | 30.58M | 10.67M | 8.18M | 18.92M | 0.86M | 11.33M | 4.37M | 8.99M | 38.20M |
| KC-10A | 590,000 LB | 436,000 LB | 165'4" | 181'7" | 58'7" | 72'5" | 100'4" | 35'0" | 26'10" | 62'1" | 2'10" | 37'2" | 14'4" | 29'6" | 125'4" |
| | 267 620 KG | 197 766 KG | 50.39M | 55.35M | 17.86M | 22.07M | 30.58M | 10.67M | 8.18M | 18.92M | 0.86M | 11.33M | 4.37M | 8.99M | 38.20M |

NOTE: TAKEOFF AND LANDING WEIGHTS:

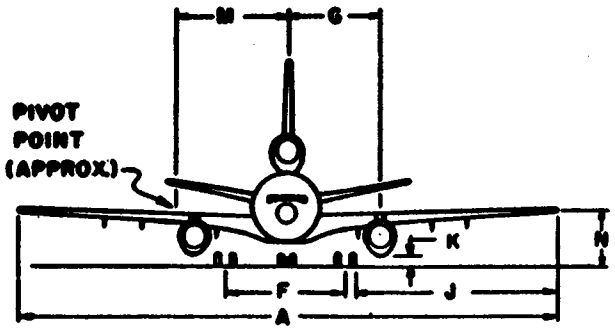
10CF 440,000 LB (199 581 KG) MAXIMUM TAKEOFF WEIGHT.
363,500 LB (164 881 KG) MAXIMUM LANDING WEIGHT.

15 455,000 LB (206 384 KG) MAXIMUM TAKEOFF WEIGHT.
363,500 LB (164 881 KG) MAXIMUM LANDING WEIGHT.

30CF 580,000 LB (263 084 KG) MAXIMUM TAKEOFF WEIGHT.
436,000 LB (197 766 KG) MAXIMUM LANDING WEIGHT.

40CF 555,000 LB (251 744 KG) MAXIMUM TAKEOFF WEIGHT.
411,000 LB (186 426 KG) MAXIMUM LANDING WEIGHT.

DC-10-10CF HAS SAME DIMENSIONS AS MODEL 10.
DC-10-15 HAS SAME DIMENSIONS AS MODEL 10.
DC-10-30CF HAS SAME DIMENSIONS AS MODEL 30.



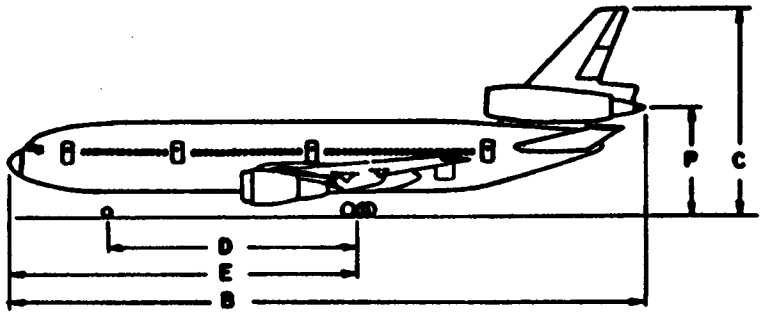




Figure A12-75. McDonnell-Douglas DC-10

| | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | P | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 11 | 602,500 LB<br>273 289 KG | 430,000 LB<br>195 045 KG | 169'10"<br>51.77M | SEE NOTE | 57'9"<br>17.60M | 80'9"<br>24.61M | 108'9"<br>33.15M | 35'0"<br>10.67M | 26'10"<br>8.18M | 64'4"<br>19.61M | 3'1"<br>0.94M | 29'7"<br>9.02M | SEE NOTE | 29'2"<br>8.89M | 135'8"<br>41.35M |
| 11 COMBI | 602,500 LB<br>273 289 KG | 456,000 LB<br>207 745 KG | 169'10"<br>51.77M | SEE NOTE | 57'9"<br>17.60M | 80'9"<br>24.61M | 108'9"<br>33.15M | 35'0"<br>10.67M | 26'10"<br>8.18M | 64'4"<br>19.61M | 3'1"<br>0.94M | 29'7"<br>9.02M | SEE NOTE | 29'2"<br>8.89M | 135'8"<br>41.35M |
| 11F | 602,500 LB<br>273 289 KG | 471,500 LB<br>213 869 KG | 169'10"<br>51.77M | SEE NOTE | 57'9"<br>17.60M | 80'9"<br>24.61M | 108'9"<br>33.15M | 35'0"<br>10.67M | 26'10"<br>8.18M | 64'4"<br>19.61M | 3'1"<br>0.94M | 29'7"<br>9.02M | SEE NOTE | 29'2"<br>8.89M | 135'8"<br>41.35M |

NOTE: OPTIONAL MAXIMUM TAKEOFF WEIGHT: 605,500 LB (274 650 KG).

"B" 201' 4" (61.37M) WITH CF6-80C2D1F ENGINES.
"B" 200'11" (61.24M) WITH PW 4360 ENGINES.

"N" TOP OF WINGLET 23'5" (7.14M).
"N" BOTTOM OF WINGLET 13'9" (4.19M).




**Figure A12-76. McDonnell-Douglas MD-11**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|
| MU-2N MARQUISE | 11,575 LB<br>5 250 KG | 10,260 LB<br>4 654 KG | 39'2"<br>11.94M | 39'6"<br>12.04M | 13'8"<br>4.17M | 14'5"<br>4.39M | 7'11"<br>2.41M | 7 | |
| MU-2P SOLITAIRE | 10,470 LB<br>4 749 KG | | 39'2"<br>11.94M | 33'3"<br>10.13M | 12'11"<br>3.94M | | | 9 | |

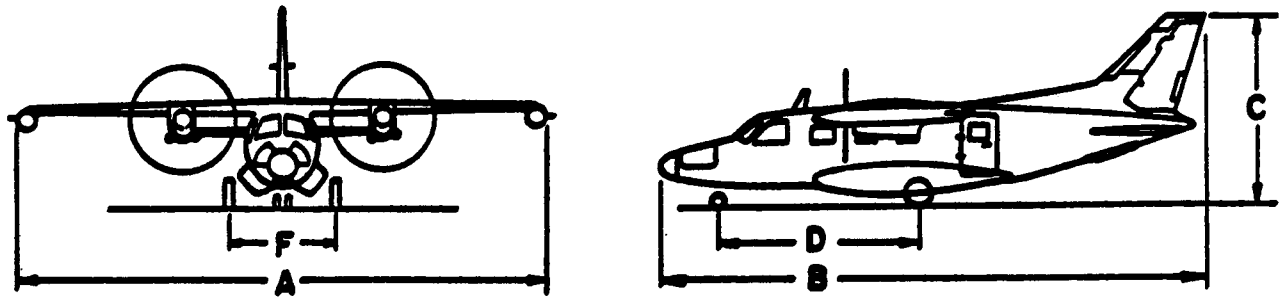
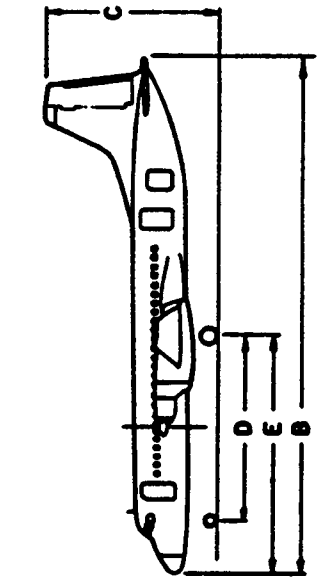



**Figure A12-77. Mitsubishi MU-2**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| YS-11A | 54,010 LB<br>24 499KG | 52,910 LB<br>24 000 KG | 105'0"<br>32.00M | 86'4"<br>26.31M | 29'6"<br>8.99M | 31'3"<br>9.53M | | 28'3"<br>8.61M | | 37'8"<br>11.38M | | | | |



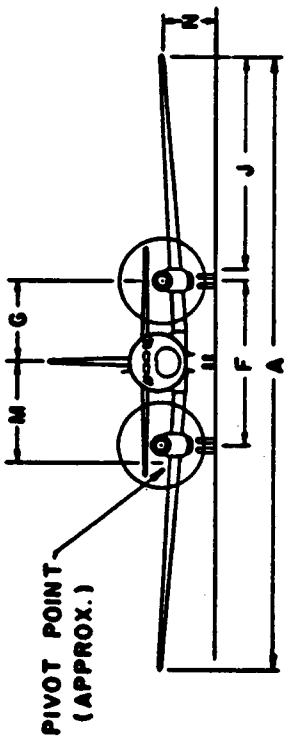




**Figure A12-78. Nihon/N.A.M.C. YS-11A**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | M | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 40 | 18,650 LB<br>8 459 KG | 17,500 LB<br>7 938 KG | 44'6"<br>13.56M | 43'9"<br>13.34M | 16'0"<br>4.88M | 14'6"<br>4.42M | 22'9"<br>6.93M | 7'3"<br>2.21M | 4'6"<br>1.37M | 18'4"<br>5.59M | 3'10"<br>1.16M | 17'8"<br>5.38M | 3'8"<br>1.12M | 43'6"<br>13.26M |
| 60 | 20,000 LB<br>9 072 KG | 17,500 LB<br>7 938 KG | 44'6"<br>13.56M | 48'4"<br>14.73M | 16'0"<br>4.88M | 15'11"<br>4.85M | 24'1"<br>7.34M | 7'3"<br>2.21M | 4'6"<br>1.37M | 18'4"<br>5.59M | 3'10"<br>1.16M | | 3'8"<br>1.12M | |
| 70,75A | 21,000 LB<br>9 525 KG | 18,500 LB<br>8 391 KG | 44'6"<br>13.56M | 47'2"<br>14.40M | 17'3"<br>5.24M | 15'10"<br>4.81M | | 8'4"<br>2.54M | 4'6"<br>1.37M | | 3'6"<br>1.05M | | 3'7"<br>1.08M | |

NOTE: MODEL 75A HAS MAXIMUM (TAKEOFF) WEIGHT OF 23,300 LB (10 569 KG).
(LANDING) 22,000 LB ( 9 979 KG).




**Figure A12-79. Rockwell International NA-265 Sabreliner**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | J | K | H | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| SF 340 | 27,275 LB<br>12 372 KG | 26,500 LB<br>12 020 KG | 70'4"<br>21.44M | 64'8"<br>19.71M | 22'6"<br>6.86M | 23'5"<br>7.14M | 30'0"<br>9.14M | 22'0"<br>6.71M | 10'10"<br>3.30M | 23'3"<br>7.09M | 1'11"<br>0.58M | 18'8"<br>5.69M | 8'4"<br>2.54M | |

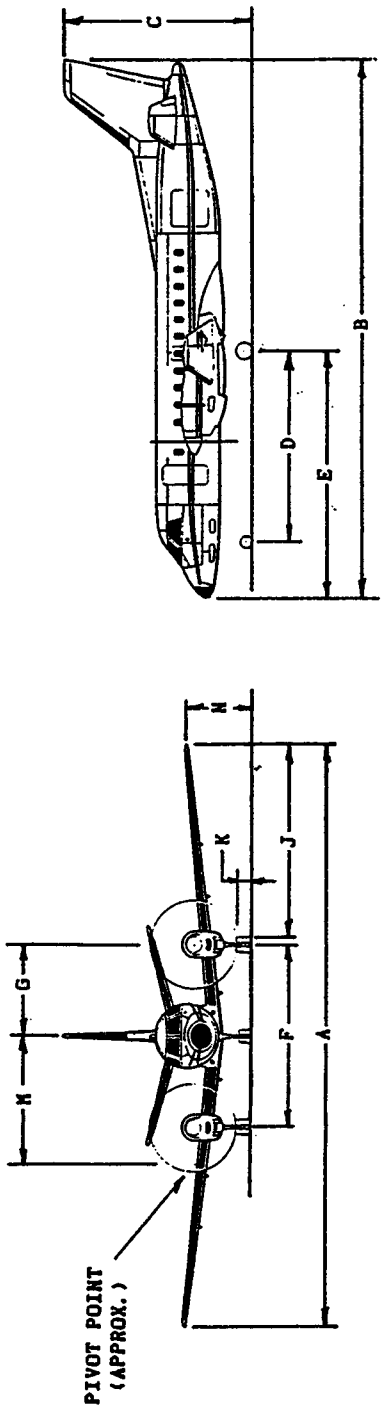



**Figure A12-80. SAAB SF 340**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|
| SC.7 | 12,500 LB<br>5 688 KG | 12,500 LB<br>5,688 KG | 64'11"<br>19.79M | 40'1"<br>12.22M | 15'0"<br>4.57M | 14'10"<br>4.52M | 13'10"<br>4.22M | 21 | |
| SC.7<br>-3M | 13,700 LB<br>6 214 KG | 13,500 LB<br>6 123 KG | 64'11"<br>19.79M | 40'1"<br>12.22M | 15'0"<br>4.57M | 14'10"<br>4.52M | 13'10"<br>4.22M | 22 | |
| SC.7<br>-3M | 14,500 LB<br>6 577 KG | 13,500 LB<br>6 123 KG | 64'11"<br>19.79M | 40'1"<br>12.22M | 15'0"<br>4.57M | 14'10"<br>4.52M | 13'10"<br>4.22M | 22 | |
| 330 | 22,600 LB<br>10 251 KG | 22,300 LB<br>10 115 KG | 74'8"<br>22.76M | 58'0"<br>17.68M | 16'3"<br>4.95M | 20'2"<br>6.15M | 13'11"<br>4.24M | 30 | 53'10"<br>16.41M |
| 330<br>-200 | 22,900 LB<br>10 387 KG | 22,600 LB<br>10 251 KG | 74'8"<br>22.76M | 58'0"<br>17.68M | 16'3"<br>4.95M | 20'2"<br>6.15M | 13'11"<br>4.24M | 30 | 53'10"<br>16.41M |
| 360 | 26,453 LB<br>11 999 KG | 26,100 LB<br>11 839 KG | 74'10"<br>22.81M | 70'10"<br>21.59M | 23'8"<br>7.21M | 23'2"<br>7.06M | 13'11"<br>4.24M | 36 | 53'10"<br>16.41M |

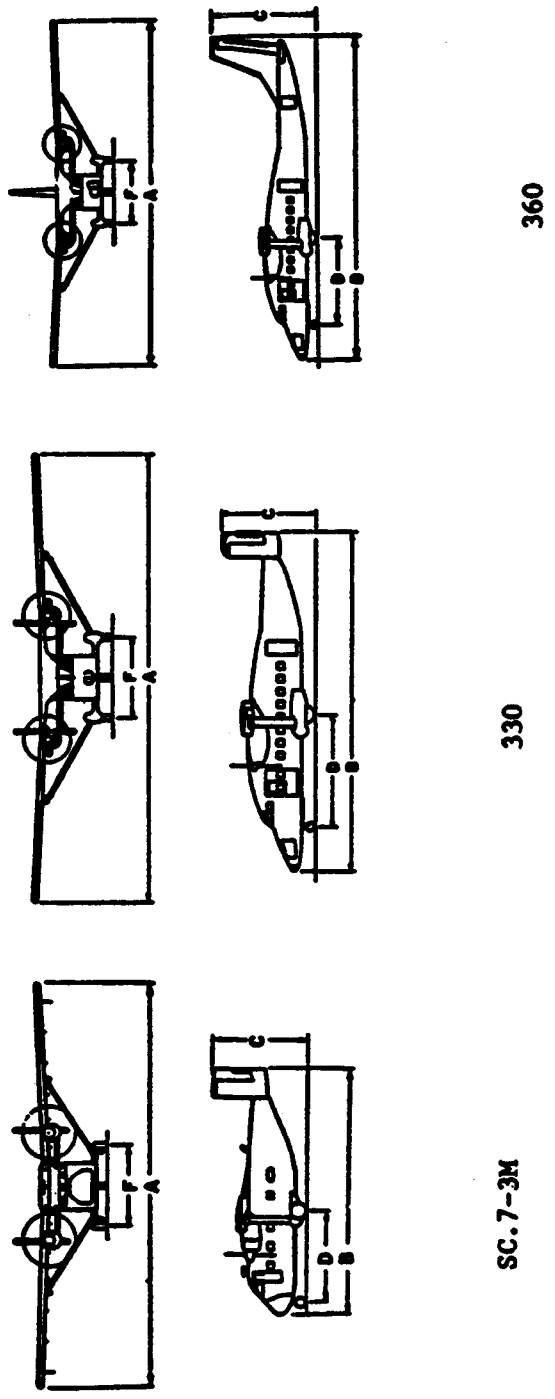



**Figure A12-81. Short Brothers**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | E | F | G | H | J | K | L | N | N | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| BELFAST | 230,000 LB<br>104 326 KG | 215,000 LB<br>97 522 KG | 158'10"<br>48.41M | 126'5"<br>41.58M | 47'0"<br>14.33M | 46'11"<br>14.66M | | 19'4"<br>5.89M | | | | | | | | |

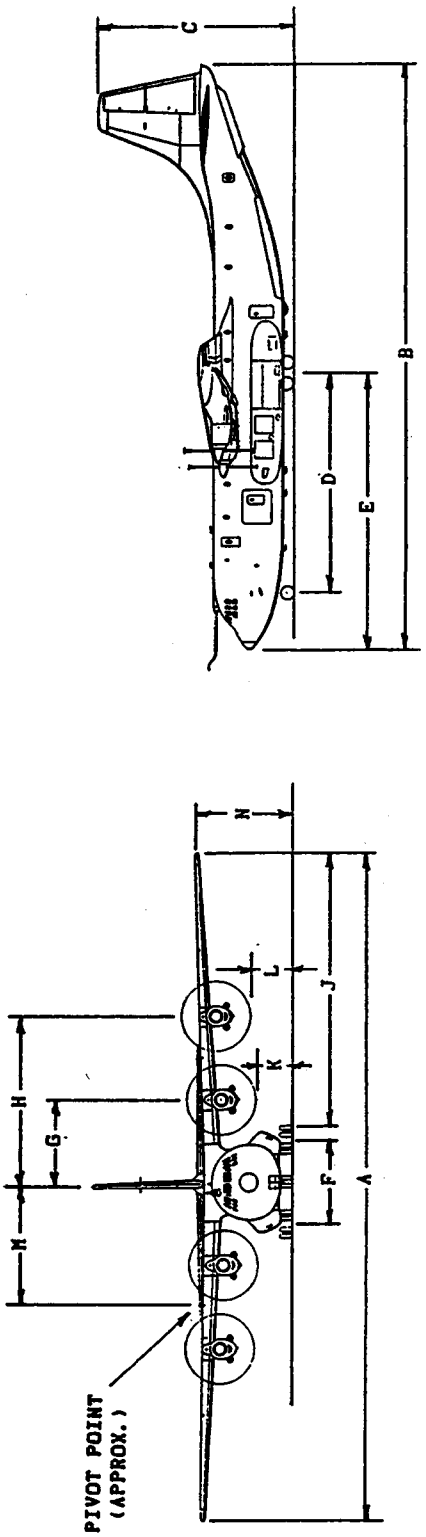



**Figure A12-82. Shorts SC. 5/10 Belfast**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|
| IIB | 10,000 LB<br>4 536 KG | 9,300 LB<br>4 218 KG | 45'11"<br>14.00M | 40'1"<br>12.22M | 14'4"<br>4.36M | | 15'0"<br>4.57M | 8 | |
| III | 12,500 LB<br>5 670 KG | 11,500 LB<br>5 216 KG | 46'3"<br>14.10M | 42'2"<br>12.85M | 16'8"<br>5.08M | | 15'0"<br>4.57M | 8 | |
| IV | 12,500 LB<br>5 670 KG | 11,500 LB<br>5 216 KG | 46'3"<br>14.10M | 59'5"<br>18.11M | 16'8"<br>5.08M | 19'2"<br>5.84M | 15'0"<br>4.57M | 12 | |
| IVC | 14,500 LB<br>6 577 KG | 14,000 LB<br>6 350 KG | 57'0"<br>17.37M | 59'5"<br>18.11M | 16'8"<br>5.08M | | | 12 | |

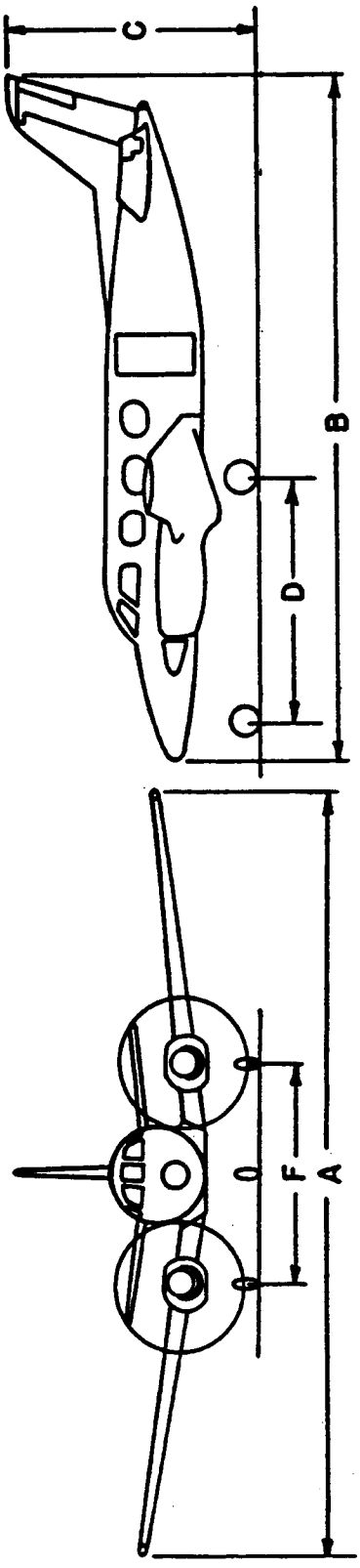
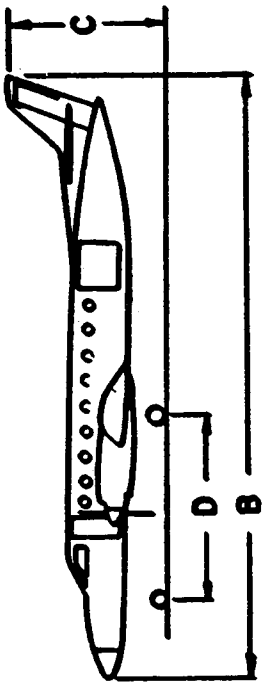



**Figure A12-83. Swearingen Merlin**

| MODEL | MAXIMUM TAKEOFF WEIGHT | MAXIMUM LANDING WEIGHT | A | B | C | D | F | NUMBER SEATS | TURN RADIUS |
|---|---|---|---|---|---|---|---|---|---|
| II | 12,500 LB<br>5 670 KG | 12,500 LB<br>5 670 KG | 46'3"<br>14.10M | 59'5"<br>18.11M | 16'8"<br>5.08M | 19'2"<br>5.84M | 15'0"<br>4.57M | 22 | |
| IIA | 13,230 LB<br>6 001 KG | 13,000 LB<br>5 897 KG | 46'3"<br>14.10M | 59'5"<br>18.11M | 16'8"<br>5.08M | | | | |
| III | 14,500 LB<br>6 577 KG | 14,000 LB<br>6 350 KG | 57'0"<br>17.37M | 59'5"<br>18.11M | 16'8"<br>5.08M | | | | |
| IIIH | 16,000 LB<br>7 257 KG | 15,500 LB<br>7 031 KG | 57'0"<br>17.37M | 59'5"<br>18.11M | 16'8"<br>5.08M | | | | |
| V | 16,500 LB<br>7 484 KG | 15,675 LB<br>7 110 KG | | | | | | | |



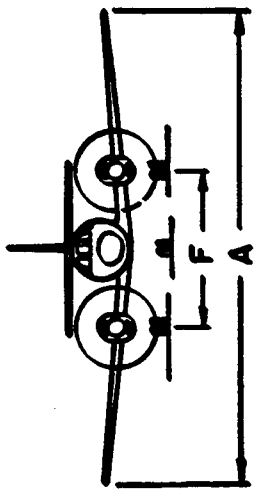




**Figure A12-84. Swearingen Metro**