DEPARTMENT OF TRANSPORTATION
FEDERAL AVIATION ADMINISTRATION

6A2
Revision 9

BOEING
Super DC-3
R4D-8
R4D-8Z

September 27, 2010

AIRCRAFT SPECIFICATION NO. 6A2

| | |
|---|---|
| Type Certificate Holder | The Boeing Company<br>4000 Lakewood Boulevard<br>Long Beach, California 90808 |
| Type Certificate Ownership Record | McDonnell Douglas Corporation, Long Beach, California merged with The Boeing Company effective January 1, 2010. Transferred Type Certitificate to The Boeing Company on September 27, 2010.<br><br>Douglas Aircraft Company, Inc.<br>Santa Monica, California |

I - Model Super DC-3, Approved July 24, 1950

Engines )
Fuel )
Engine limits ) (See Item 101)

Airspeed limits

| | | |
|---|---|---|
| Vno | (Normal Operating) | 233 mph (202 knots) True Ind. (See NOTE 3 |
| Vne | (Never Exceed) | 273 mph (237 knots) True Ind. (re serials |
| Vp | (Maneuvering) | 144 mph (125 knots) True Ind. (43191 & 43192) |
| Vfe | (Flaps Down 1/4 to full) | 133 mph (115 knots) True Ind. |
| Vfe | (Flaps Down 0 to 1/4) | 147 mph (128 knots) True Ind. |
| Vlo | (Ldg Gr. Operation) | 166 mph (144 knots) True Ind. |
| Vle | (Ldg Gr. Extension) | 166 mph (144 knots) True Ind. |

C.G. range

Landing gear extended: (+244.6) to (+282.3)
Landing gear retracted: (+240.4) to (+280.8)
(Moment change due to retracting gear is -29,000 in.lbs. for regular gear and -32,750 in.lbs. for cross-wind gear, Item 201(a).)

Maximum weights Landing 30,400 lbs. (See NOTE 6 for restriction)
Takeoff 29,325 lbs. (Without automatic feathering or with system inoperative)
Takeoff 31,900 lbs. (Automatic feathering, Item 4, required) (See NOTE 6 for restriction)

Minimum crew: 2 (Pilot and Co-Pilot) (+31)

Maximum passengers: 31 plus attendant (CAR 4b.433 effective October 1, 1949.)
(See NOTE 1(e) for approved locations)

Maximum baggage

| | |
|---|---|
| Aft cargo compartment | 2330 lbs. (+549.0) |
| Baggage shelves | 500 lbs. (+458.5) |

(See NOTE 1(e) for alternate arrangements)

Fuel capacity: With Item 107(a)

| Installed | Total | Usable | |
|---|---|---|---|
| 2 front tanks | 210 gal. ea. | 206 gal. ea. | (+240.5) |
| 2 rear tanks | 201 gal. ea. | 192 gal. ea. | (+275.9) |

| | | | | |
|---|---|---|---|---|
| | 2 outer wing tanks | 411 gal. ea. | 409 gal. ea. | (+272.1) |
| | | (Item 107(d), Serial Nos. 43159) | | |
| or | 2 outer wing tanks | 200 gal. ea. | 198 gal. ea. | (+268.0) |
| | | (Item 107(e), Serial Nos. 43191, 43192 and 43193) | | |

(See Item 102(a) and NOTE 1(b) and (c) for System and Usable Fuel and NOTE 1(d) for fuel loading and usage)

Oil capacity — 55 1/2 gal. (1 tank in each nacelle at 27-3/4 gal.ea.) (+184.5)
(See Item 102(b) and NOTE 1 for System Oil)

Serial Nos. eligible — 43159, 43191, 43192, 43193

Required equipment — In addition to the pertinent required basic equipment specified in CAR 4b, the following items of equipment must be installed: 1(a); 2(a); 3(a); 101(a), (b) or (c); 102(a) or (c); 102(b); 103(a); 107(a), (b), (c), (d) or (e); 201(b), (c) or (d); 202(a); 203(a) 204(a) or (d) with 201(b) or (c); 204(b) or (c) with 201(a); 205(a), (b), (c) or (d); 206; 207; 208(a) or (b); 209(a),(b), (c), (d) or (e); 301(a) or (b); 302(a), (b) or (c); 303(a); 310; 401(a); 402(a); 403(a); 601(a) or (b).

II - Model R4D-8 (Troop and Cargo Transport) and Model R4D-8Z (Staff Transport); (Military versions of Super DC-3); Approved August 27, 1952

(See NOTE 4 for military exceptions)

Engines )
Fuel ) (See Item 101)
Engine limits )

Airspeed limits

| | | |
|---|---|---|
| Vno | (Normal Operating) | 233 mph (202 knots) True Ind. |
| Vne | (Never Exceed) | 273 mph (237 knots) True Ind. |
| Vp | (Maneuvering) | 144 mph (125 knots) True Ind. |
| Vfe | (Flaps Down 1/4 to Full) | 133 mph (115 knots) True Ind. |
| Vfe | (Flaps Down 0 to 1/4) | 147 mph (128 knots) True Ind. |
| Vlo | (Ldg Gr. Operation) | 166 mph (144 knots) True Ind. |
| Vle | (Ldg Gr. Extension) | 166 mph (144 knots) True Ind. |

C.G. range — Landing gear extended: (+244.6) to (+282.3)
Landing gear retracted: (+240.4) to (+280.8)
(Moment change due to retracting gear is -29,000 in.lbs. for regular gear Item 201(b) and -32,750 in.lbs. for cross-wind gear, Item 201(a).)

Maximum weights — Landing 30000 lbs.
Takeoff 29325 lbs. (Without automatic feathering or with system inoperative)
Takeoff 31000 lbs. (Automatic feathering, Item 4, required)

Maximum crew — 2 (Pilot and Co-Pilot) (+31)

Maximum passengers — None (R4D-8) 16 (R4D-8Z)

Maximum cargo (R4D-8)

| Compartment | Station | Capacity (lbs) | Maximum Floor Loading #/Ft$^2$ | Arm |
|---|---|---|---|---|
| A (Crew) | 0 - 97.5 | *(680 lbs. or four persons) | --- | 48.8 |
| B (Main Cabin) | 97.5-138.5 | 1025 | 250 | 118.0 |
| C (Main Cabin) | 138.5-200.5 | 2046 | 250 | 169.5 |
| D (Main Cabin) | 200.5-262.5 | 2046 | 250 | 231.5 |
| E (Main Cabin) | 262.5-324.5 | 2046 | 250 | 293.5 |
| F (Main Cabin) | 324.5-386.5 | 2046 | 250 | 355.5 |
| G (Main Cabin) | 386.5-450.5 | 2112 | 250 | 418.0 |
| H (Main Cabin) | 450.5-494 | 740 | 125 | 472.5 |
| I (Main Cabin) | 494 -538 | 748 | 125 | 516.0 |
| J (Lavatory) | 538 -583 | 350 | --- | 560.0 |

* This capacity includes the weight of crew.
All cargo loading must be secured with the tie-downs provided since there are no restraining net or crash bulkhead provisions.

Maximum/Compartment (Loading including passengers and baggage) (R4D-8Z)

| Compartment | Station | Capacity (lbs) | Arm |
|---|---|---|---|
| A (Crew) | 0 - 97.5 | 680 | 48.8 |
| B (Cabin) | 97.5-183.0 | 1841 | 140.3 |
| C (Cabin) | 183.0-287.5 | 2937 | 235.3 |
| D (Cabin) | 287.5-416.5 | 3364 | 352.0 |
| E (Entrance) | 416.5-538.0 | 1769 | 477.3 |
| F (Bunk) | 538.0-623.0 | 951 | 580.5 |

NOTE: Each compartment capacity, as listed may be increased by weight of furnishings removed from the compartment.

Fuel capacity

With Item 107(b) and (d).

| Installed | Total 1626 Gals. | Usable 1596 Gals. | |
|---|---|---|---|
| 2 Fwd Ctr tanks | 404 gals. | 396 gals. | (+240.5) |
| 2 Aft Ctr tanks | 400 gals. | 382 gals. | (+275.9) |
| 2 outer wing tanks | 822 gals. | 818 gals. | (+272.1) |

(See Item 102(c) and NOTE 1(b) and (c) for System and Usable Fuel and NOTE 1(f) for fuel loading and usage)

Oil capacity

55 1/2 gal. (1 tank in each nacelle at 27-3/4 gal.ea.) (+184.5)
(See Item 102(b) and NOTE 1 for System Oil)

Serial Nos. eligible

43303 - 43398 incl. (R4D-8)
43301, 43302, 43399 and 43400 (R4D-8Z)

Required equipment

1(a); 2(a); 3(a); 101(a), (b) or (c); 102(b), 102(c); 103(a); 107(a), (b), (c), or (d); 201(a), (b), (c) or (d); 202(a); 203(a) 204(a), (d) or (e) with 201(b), (c) or (d); 204(b) or (c) with 201(a); 205(a), (b), (c) or (d); 206; 207; 208(a), (b), (c) or (d); 209(a), (b), (c), (d) or (e); 301(a), (b), (c), (d) or (e); 302(a), (b), (c) or (d); 303(a); 402(a); 403(a); 601(a), (b) or (c).

Specifications Pertinent to All Models

Datum

39 in. aft of nose of fuselage (223 in. forward of centerline rear row of screws on center section front spar).

Leveling means

Pins on outside of fuselage at Station 390.5 and 411.5, below windows.

Control surface movements

Elevator ± 20° rudder right 15° left 15°
aileron up 20° down 14°

Certification basis

Type Certificate No. 6A2 (Transport Category, CAR 4b as amended October 1, 1949, except smoke detectors not installed in rear baggage compartment.)

Production basis

Production Certificate No. 27

Export eligibility

Eligible for export to all countries subject to the provisions of MOP 2-4 except as follows:
(a) Canada: Landplane only eligible

Equipment:

Propellers and Propeller Accessories (Except De-Icing Equipment)

1. Propellers
   (a) 2 Ham Std., Hubs 23E50, Blades 6615-0 to 6615-3, 851 lbs. (+101.5)

Diameter 11'6 1/4" max., 11' 3 1/4" min. allowable for repairs.
Pitch settings at 42" sta.:
Min. low +18°; feathered +88° approximately

2. Propeller governors
   (a) 2 Ham. Std. 4G8 — 13 lbs. (+110)
3. Propeller feathering pumps
   (a) 2 Ham. Std. 54772-21 — 43 lbs. (+191.5)
4. Automatic Propeller Feathering System — 67 lbs. (+138.5)
   (Douglas Dwgs. 3372157 and 7391526, Page 44K3)

Engine and Engine Accessories - Fuel and Oil System

101. (a) 2 Wright Cyclone 968C9HE2 engines with 16:9 propeller reduction gearing — 2741 lbs. (+121.5)
(See Item 103(a) for oil cooler)
Fuel: Aviation gasoline: Grade 100/130
Limits:

| Low Impeller Gear Ratio 7.21:1 | HP | RPM | MP IN.HG. | ALT. |
|---|---|---|---|---|
| Take-off (2 minutes) | 1475 | 2800 | 54.5 | S.L. |
| Take-off (2 minutes) | 1475 | 2800 | 54.0 | 1700' |
| Maximum continuous | 1275 | 2500 | 46.5 | S.L. |
| Maximum continuous | 1275 | 2500 | 45.5 | 3700' |

(Straight line manifold pressure variation with altitudes shown)
Placard required: "Avoid continuous engine operation below 1800 rpm."

(b) 2 Wright Cyclone 968C9HE1 engines with 16:9 propeller reduction gearing — 2732 lbs. (+121.5)
(See Item 103(a) for oil cooler)
Fuel: Aviation gasoline: Grade 100/130
Limits:

| Low Impeller Gear Ratio 7.21:1 | HP | MP RPM | IN.HG. | ALT. |
|---|---|---|---|---|
| Take-off (2 minutes) | 1475 | 2800 | 54.5 | S.L. |
| Take-off (2 minutes) | 1475 | 2800 | 54.0 | 1700' |
| Maximum continuous | 1275 | 2500 | 46.5 | S.L. |
| Maximum continuous | 1275 | 2500 | 45.5 | 3700' |

(Straight line manifold pressure variation with altitudes shown)
Placard required: "Avoid continuous engine operation below 1800 rpm."

(c) 2 Wright Military R1820-80 engines with 16:9 propeller reduction gearing — 2790 lbs. (+121.5)
(See Item 103(a) for oil cooler)
Fuel: Aviation gasoline: Grade 100/130
Limits:

| Low Impeller Gear Ratio 7.21:1 | HP | MP RPM | IN.HG. | ALT. |
|---|---|---|---|---|
| Take-off (2 minutes) | 1475 | 2800 | 54.5 | S.L. |
| Take-off (2 minutes) | 1475 | 2800 | 54.0 | 1700' |
| Maximum continuous | 1275 | 2500 | 46.5 | S.L. |
| Maximum continuous | 1275 | 2500 | 45.5 | 3700' |

(Straight line manifold pressure variation with altitudes shown)
Placard required: "Avoid continuous engine operation below 1800 rpm."

102. System Fuel and Oil (See NOTE 1 for effect on weight and balance)
   (a) System Fuel (4 tanks) — 37 lbs. (+200)
   (b) System Oil (969C9HE and R1820-80 engines) — 147 lbs. (+137)
   (c) System Fuel (with outer wing fuel tanks) — 92 lbs. (+255.5)
103. (a) 2 Oil Coolers, AiResearch 86615-1 (968C9HE and R1820-80) — 56 lbs. (+148.5)
107. Fuel Tanks and Supports
   (a) Tanks Nos. 5003541 and 5003542 or 5136536 and 5136537, or 5138270 and 5138271; Supports type 232769 (DC-3 type) — 334 lbs. (+258)
   (b) Tanks No. 5110508 and 5110509; Supports type 5132632 and 5132633 (C-47 type) — 439 lbs. (+259)
   (c) Tanks No. 5326180 and 5326110; Supports type 232769 (lightweight type) — 326 lbs. (+259)
   (d) Outer wing cells Nos. 5395982, 5395983, 5395984, 5395985, — 496 lbs. (+263)

| | |
|---|---|
| 5395986; center wing Nos. 5110508-1, 5110509-1, 5132632 and 5132635 | |
| (e) Outer wing tanks per Grand Central Aircraft Dwg. No. 20300 'A' | 475 lbs. (+268.0) |
| **Landing Gear** | |
| 201. 2 Main wheel-brake assemblies, 17.00-16, Type III | |
| (a) Goodyear Model CL16DHBM (Crosswind) | 569 lbs. (+219.5) |
| (Maximum takeoff weight 31,000 lbs., landing weight 30,000 lbs.) | |
| Wheel Assembly No. 9560065 | |
| Brake Assembly No. 9540451 | |
| Crosswind Gear Assembly No. 9560069 | |
| (b) Goodyear Model L17.00-16HBMS (See NOTE 6 for restriction) | 352 lbs. (+219.5) |
| Wheel Assembly No. 9540384 | |
| Brake Assembly No. 9540385 | |
| (c) Goodyear Model LF17.00-16HBM (See NOTE 6 for restriction) | 365 lbs. (+219.5) |
| Wheel Assembly No. 9540547 | |
| Brake Assembly No. 9540385 | |
| (d) Goodyear Model LF17.00-16HBM (See NOTE 6 for restriction) | 358 lbs. (+219.5) |
| Wheel Assembly No. 9540547 | |
| Brake Assembly No. 9540475 (Skydrol) | |
| Axle DACO No. 5367124 | |
| 202. (a) 2 Main wheel 12-ply rating tires, 17.00-16, Type III, nylon | 238 lbs. (+219.5) |
| 203. (a) 2 Main wheel tubes, 17.00-16, Type III, regular | 36 lbs. (+219.5) |
| 204. Tail Wheel Structure Installation | |
| (a) Douglas Dwg. 5371350 (Conventional gear) | 166 lbs. (+644) |
| (b) Douglas Dwg. 5371350-501 (Crosswind gear) | 170 lbs. (+644) |
| (c) Douglas Dwg. 5371350-5501 (Crosswind gear with Skydrol) | 170 lbs. (+644) |
| (d) Douglas Dwg. 5371350-5000 (Conventional gear with Skydrol) | 166 lbs. (+644) |
| (e) Deleted September 20, 1954 | |
| 205. Tail wheel, 9.00-6, Type III | |
| (a) Bendix #52058, Model B-1 | 10 lbs. (+670) |
| (b) Goodrich No. B-3-648 | 10 lbs. (+670) |
| (c) Firestone No. XSO-200-FM | 9 lbs. (+670) |
| (d) General No. 204-A-204M-1 | 8 lbs. (+670) |
| 206. Tail Wheel Tire, 10 ply rating, 9.00-6, Type III | 23 lbs. (+670) |
| 207. Tail Wheel Tube, 9.00-6, regular | 3 lbs. (+670) |
| 208. (a) Forged landing gear upper truss (Dwg. 5110569) | 168 lbs. (+220) |
| (b) Pressed landing gear upper truss (Dwg. 5141775) | 144 lbs. (+220) |
| (c) Forged landing gear upper truss (Douglas Dwg. No. 5367272) | 183 lbs. (+220) |
| (d) Pressed landing gear upper truss (Douglas Dwg. No. 5365799) | 147 lbs. (+220) |
| 209. Landing Gear Shock Struts | |
| (a) 4 Bendix No. 53420 | 223 lbs. (+220) |
| (b) 4 Bendix No. 53585 | 223 lbs. (+220) |
| (c) 4 Bendix No. 159577 (Suitable for Skydrol) | 226 lbs. (+220) |
| (d) 4 Bendix No. 65900 | 243 lbs. (+220) |
| (e) 4 Bendix No. 5003525 | 223 lbs. (+220) |
| **Electrical Equipment** | |
| 301. Starters | |
| (a) 2 Jack & Heintz JH6FR | 55 lbs. (+143) |
| (b) 2 Eclipse 36E00-2 | 52 lbs. (+143) |
| (c) 2 AN4116 R3A | 53 lbs. (+143) |
| (d) 2 Jack & Heintz R86-JH-6FR-3 | 54 lbs. (+143) |
| (e) 2 Eclipse 36E00-2 | 56 lbs. (+143) |
| 302. Generators | |
| (a) 2 Jack & Heintz G-26, 200 Amp. | 97 lbs. (+146) |
| (b) 2 Eclipse 1193-9, 200 Amp. | 96 lbs. (+146) |
| (c) 2 Jack & Heintz P-4, 200 Amp. | 97 lbs. (+146) |
| (d) 2 AN3633-1, 300 Amp. | 118 lbs. (+146) |
| 303. Batteries | |
| (a) 2 Exide 6 FHM-13 | 159 lbs. (+88) |
| 310. Stall Warning System | 3 lbs. (+82) |
| (Douglas Dwgs. 3394537, 4394487, 5369157, 5391068 and 7391526, Page 44W6.0) | |

Interior Equipment

401. CAA Approved Airplane Flight Manual (Not required for Models R4D-8 and R4D-8Z in military operation.) (A Manual containing information required for the Airplane Flight Manual may be carried in lieu thereof in aircraft operated under the provisions of Parts 40, 41 or 42 of the Civil Air Regulations.) The following table identifies the Airplane Flight Manuals and the revisions thereto currently approved for each airplane.

| Airplane Serial Number | Douglas Report Number | Latest Approved Revision Number | Date of Latest Approved Revision |
|---|---|---|---|
| (a) 43159, 43191 43192, 43193 | Super DC-3 | --- | 2-10-55 |

Grand Central Aircraft Co., Supplementary Log of Revisions dated 6-26-56 applies to Serial Nos. 43191 through 43193.

402. Instruments in accordance with the following drawings on file with the CAA Fourth Region.
   (a) Douglas Dwg. 7395917

403. Windshield Wipers
   (a) Douglas Dwg. 5390028 — 7 lbs. (+7)

421. Automatic Pilot
   (a) Pioneer P-1A (See NOTE 4(f) regarding this installation.) — 187 lbs. (+104)
   3 servos 15604-1-5-A2 with DY-7-1 pulleys (4" P.D.) and 1 servo 15622-1-A with DY-8-1 pulley (3 1/2" P.D.); 2 throttle servos 15621-1-A (Optional).
   (When flight path control and throttle controls are not installed, the weight and arm are 112 lbs. and (+90) respectively.
      (1) Servo stall torques measured at the servo pulleys with the control system cable disconnected:
         Elevator: Max. 150 in. lbs., Min. 100 in. lbs.
         Aileron: Max. 180 in. lbs., Min. 120 in. lbs.
         Rudder: Max. 180 in. lbs., Min. 120 in. lbs.
      (These torques are satisfactory for flight path control)
      (2) Maximum speed for automatic pilot operation is 218 MPH. Maximum altitude lost during automatic pilot malfunction: Cruise 580 ft., approach 110 ft. When using flight path control on approach, pilot's seat belt must be fastened and hand on control wheel.

De-Icing Equipment

501. (a) Wing Boot-Nacelle to Light-Removable portion — 12 lbs. (+202)
   (2) (Goodrich 1-728-1-1)
   (b) Wing Boot-Outboard of Light-Removable portion — 52 lbs. (+260.5)
   (2) (Goodrich 11-728-2-1)
   (c) Vertical Stabilizer Boot-Removable portion — 7 lbs. (+659.5)
   (Goodrich 11-728-6-1 as modified by Douglas Salvage E.O. 711 against Dwg. 5372106)
   (d) Horizontal Stabilizer Boot-Removable portion — 26 lbs. (+667.5)
   (2) (Goodrich 11-728-5-1 as modified by Douglas Salvage E.O.) 712 against Dwg. 5372152)
   (e) Vertical Stabilizer Boot-Removable portion — 7 lbs. (+660)
   (Goodrich 11-728-1)
   (f) Horizontal Stabilizer Boot-Removable portion — 27 lbs. (+667.5)
   (Goodrich 11-728-5-1)

502. (a) Alcohol System for Carburetors and Propellers Including Supply Tank and System (Douglas Dwg. 5372897 and 5367444) — 31 lbs. (+223)
   (b) Anti-Icing Alcohol (11 gal.) — 79 lbs. (+340.5)

Miscellaneous

601. Hydraulic Fluid in System and Reservoir (7.5 gal.)
   (a) Skydrol — 68 lbs. (+112)
   (b) Mineral Oil — 59 lbs. (+112)
   (c) Mineral Oil — 51 lbs. (+96)

NOTE 1. (a) Current weight and balance report including list of equipment included in certificated weight empty, and loading instructions, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of air carrier operators having an approved weight control system). Manufacturer's Master Equipment List contains list of approved equipment in addition to equipment listed in this specification.

(b) "System Fuel and Oil" (See Item 102), which must be included in the empty weight, is that amount required to fill both systems and the tanks up to the tank outlets to the engines, when the airplane is in the level attitude. The propeller feathering oil in aircraft incorporating Hamilton Standard propellers is not considered usable oil and is included in the "System Oil." The nacelle oil tank capacities shown in this specification include only the usable oil for which the tanks are to be placarded. All hydraulic system fluid must also be included in the empty weight of the airplane (See Item 601).

(c) The "unusable fuel" is that amount of fuel in the tanks which is unavailable to the engines under critical flight conditions as defined in CAR 4b.416 and may be obtained by taking the difference between the "total" and "usable" tank capacities shown on Sheet 1 of this specification. The "unusable fuel" must either be included in the airplane empty weight or be suitably accounted for in the airplane weight and balance report.

(d) Fuel must be loaded in the front tanks first and used in the reverse order except for take-off, climb and landings, at which time the front tanks must be used.

(e) For the interior arrangement of a particular airplane, see approved Douglas Report SM-13780, "Loading Chart and Actual Weight and Balance." This report shows the location of all passenger and crew member seats, location and capacity of all cargo and baggage compartments, buffets and storage spaces, and location and capacity of lounges and lavatories for each of the different airplane arrangements covered by the above mentioned report. Lounges, lavatories, and baggage or cargo compartments must be placarded for the capacities specified in the approved report. The airplane must always be loaded within the C.G. limits specified in this specification, accounting for crew and passenger movement and use of fuel and oil.

(f) Fuel must be loaded in the following order: (1) Front center wing tanks (2) Rear center wing tanks and (3) Outer wing tanks. Fuel must be used in the reverse order except for take-off, climb and landings, at which time the front center wing tanks must be used.

NOTE 2. The following placards shall be placed in the locations noted:

(a) On the instrument panel in full view of the pilot:

(1) "This airplane shall be operated in compliance with the operating limitations specified in the CAA Approved Airplane Operating Manual."

(2) "Avoid continuous engine operation below 1800 rpm."

(b) On inboard side of forward external baggage door, forward of and adjacent to handles: "Door handles must be accessible in flight."

NOTE 3. On Serial Nos. 43191 and 43192, the Vno should not exceed 220 mph True Ind., and the Vne should not exceed 261 mph True Ind., until Douglas part #5395110, "Cylinder Assem - Main Gear Retract," is installed per Douglas Drawing No. 5365959 "E", "Gear Installation - Main Landing," and Douglas part #5365355 "D", "Pump Assem - Engine Driven" is installed.

NOTE 4. The Navy Model R4D-8 is similar to the Model DC-3S except for new outer wing panels with collapsible fuel cells, interior arrangement with troop or cargo transport furnishings, radio operator's station, etc. The R4D-87 has an executive 16-place interior.

The military exceptions are as follows:

(a) Approved radio equipment must be installed for civil certification.

(b) Troop bench and litter installations were not evaluated. They must be removed or shown to comply with the civil requirements.

(c) Passenger seat installation in the R4D-8 and the radio operator and navigator seat installation in the R4D-8 and R4D-8Z must be removed or shown to comply with civil requirements.

(d) Inertia reel installation on the pilots' seats. This installation is to be removed or shown to comply with civil requirements.

(e) Urinal and relief tube installations must be removed prior to civil certification, and a thorough inspection made of the fuselage and empennage for corrosion and structural damage; damaged parts must be replaced.

(f) The Model P-1A automatic pilot has not been certified under TSO-C9 but the system and its installation have been approved in the Model R4D-8 aircraft on the basis of equivalent performance standards; however, to be eligible for civil operation, the following is required:

(1) The autopilot controller pitch control wheel must be in a vertical plane parallel to the longitudinal axis of the airplane.
(2) The controller turn control must be identified.
(3) The Flight Path Control panel must be identified.
(4) The Airplane Flight Manual must incorporate instructions covering autopilot engagement.

(g) The following equipment must be installed for civil certification:
(1) CAA approved Airplane Flight Manual
(2) CAA approved Loading Chart and Actual Weight and Balance Report
(3) Stall warning indicator installation
(4) Ash trays and/or no smoking signs in lavatory
(5) Fasten seat belt and no smoking signs in cabin.

NOTE 5. If the internal gust lock is to be installed on the rudder of the Model R4D-8Z airplane Serial Nos. 43301 and 43302 and the Model R4D-8 airplane, Serial Nos. 43303 up to and including 43320, Douglas angles Part No. 5372379-15-17 and channel Part No. 5390049-39 at fuselage Sta. 718 must be brought up to acceptable standards regarding edge distance of holes on these parts prior to civil certification.

NOTE 6. Landing and takeoff weights limited to 30,000 lbs. and 31,000 lbs. respectively unless Landing Gear Axle P/N 5367124 with Sleeve P/N 5367122 "C" change or later is installed.

.....END.....