

Engine Oil Capacity 60 gal. Total (See note 10 for approved oil)
 30 gal. Right
 30 gal. Left

Rotor Blade and Control Movements For rigging information, refer to Department of the Army Manual TM55-1520-203-20, "Organizational Maintenance Manual, CH-37B Helicopter", including changes Nos. 1 through 11, dated July 1965.

Other Operating Limitations Department of the Army TM55-1520-203-10 "Operator's Manual Model CH-37B Helicopter" dated June, 1965, with Changes 1 through 4.

Serial Nos. Eligible All Army Model CH-37B (H-37B) Serial Nos.

II - Model CH-37C (HR2S-1) (Restricted Category), approved 8 March 1972

Engines 2 Pratt and Whitney R-2800-54 (See note 9 regarding eligible spark plugs)

Fuel 115/145 - 100/130 minimum grade AV gas

Engine Limits

	<u>115/145</u>	<u>HP</u>	<u>RPM</u>	<u>MP</u>	<u>ALT</u>
(1) Maximum Continuous		1725	2600	46.0	S.L.
(2) Maximum Continuous		1725	2600	43.0	8000 ft.
(3) Takeoff (5 Min.)		2100	2700	57.5	S.L.
(4) Takeoff (5 Min.)		2100	2700	56.2	2000 ft.

(Straight line manifold pressure variation with altitudes shown)

	<u>100/130</u>	<u>HP</u>	<u>RPM</u>	<u>MP</u>	<u>ALT</u>
(1) Maximum Continuous		1725	2600	46.0	S.L.
(2) Maximum Continuous		1725	2600	43.0	8000 ft.
(3) Takeoff (5 Min.)		1950	2600	54.5	S.L.
(4) Takeoff (5 Min.)		1950	2600	53.0	4000 ft.

(Straight line manifold pressure variation with altitudes shown)

Rotor Limits Maximum 215 r.p.m.
 Minimum 164 r.p.m.

Airspeed Limits Vne (Never exceed) 80 knots IAS (14°, 21.5 inch chord blades)
 Vne (Never exceed) 120 knots IAS (8°, 23.65 inch chord blades)

C.G. Range (+228.0) to (+245.1)

Maximum Weight 31,000 lb.

Minimum Crew 2 (pilot, co-pilot)

Fuel Capacity Left Main 203 gal. total (198 gal. usable)
 Right Main 203 gal. total (198 gal. usable)
 (1) Auxiliary 150 gal. total ea. (144 gal. usable)
 (2) Auxiliary 300 gal. total ea. (292 gal. usable)

Total Usable Fuel:
 (1) Without Auxiliary Tanks 396 gal.
 (2) With 2 ea. - 150 gal. Aux tanks 684 gal.
 (3) With 2 ea. - 300 gal. Aux tanks 980 gal.

Engine Oil Capacity	Total volume each engine 20 gal. (See note 10 for approved oils) Fill each engine 13.3 gal. For extended flights fill each engine 17 gal. (See table (4) NAVWEPS 01-230-HKA-2-1)
Rotor Blade and Control Movements	For rigging information, refer to NAVWEPS 01-230HKA-22 "Handbook Maintenance Instructions Navy Model HR2S-1 Helicopter" dated 1 November 1960. Rev. 15 February 1972
Other Operating Limitations	U.S. Navy NAVWEPS 01-230HKA-1 "Flight Handbook Navy Model HR2S-1 Helicopter" dated 15 March 1961.
Serial Nos. Eligible	All Marine and Navy CH-37C (HR2S-1) Serial Nos.

Data Pertinent to Both Models

Datum	Station 0
Leveling Means	Plum line from intercostal inside cabin, AFT of cargo door
Certification Basis	FAR 21.25, (a)(2) dated 1 February 1965 including Amendments 21-1 through 21-36, effective February, 1965. Type Certificate No. H7EA issued 8 March 1972 for special purpose of carriage of external loads. Date of application for Type Certificate 1 April 1971.
Production Basis	None. No helicopter may be produced under this approval.
Equipment	Equipment necessary for the particular special purpose operation must be installed.

NOTE 1. A current weight and balance report containing a list of the equipment included in the certificated empty weight, and loading instructions when necessary, must be in each helicopter at the time of original airworthiness certification and at all times thereafter. Refer to Department of the Army Technical Manual TM55-1520-203-10 "Operators Manual, Army Model CH-37B Helicopter" dated June 1965, including Changes 1 through 4 and to NAVWEPS 01-230HKA-1 "Flight Handbook, Navy Model CH-37C (HR2S-1)".

NOTE 2. The following placard must be prominently displayed in the cockpit in full view of the pilots:
"This rotorcraft must be operated in accordance with the restricted category operating limitations of FAR 91.39."

NOTE 3. Service life limited parts must be retired in accordance with the replacement schedule shown in Army Manual TM55-1520-203-20 for the Army Model CH-37B (H-37B) and Navy Handbook NAVWEPS 01-230-HKA-7 for the Navy Model CH-37C (HR2S-1). Inserted in the above will be additional replacement times entitled "Sikorsky Aircraft Engineering Recommended and Customer Approved Component Overhaul Intervals and Replacement Times". The Army Approved Times, consisting of Part I (Rev. J dated 1/31/64), six pages, are applicable to the Army CH-37B (H-37B) and the Navy Approved Times, consisting of Part II (Rev. J dated 1/31/64), five pages, are applicable to the Navy CH-37C (HR2S-1).

NOTE 4. The CH-37B (H-37B) Helicopter must be serviced and maintained in compliance with the following Department of Army Technical Manuals:

- TM55-1520-203PMD Preventive Maintenance Daily Inspection Checklist, dated 23 July 1968.
- TM55-1520-203PMI Preventive Maintenance Intermediate Inspection Checklist, dated 22 July 1968, Changes 1 and 2.
- TM55-1520-203PMP Preventive Maintenance Periodic Inspection Checklist, dated 23 July 1968, Changes 1, 2, and 3.
- TM55-1520-203-20 Organizational Maintenance Manual, dated July 1965, with changes 1 through 11.
- TM55-1520-203-20P Organizational Maintenance, Repair Parts & Special Tools List, dated July 1969.
- TM55-1520-203-35 DS, GS, and Depot Maintenance Manual, dated July 1965 with changes 1 through 6.
- TM55-1520-203-35P-1, -2, DS, GS, and Depot Maintenance, Repair Parts & Special Tools, dated July 1969.
- TM55-1520-203-35-P-3 DS, GS, and Depot Maintenance, Repair Parts & Special Tools List, dated July 1969.

NOTE 5. The CH-37C helicopter must be serviced and maintained in compliance with the following Department of the Navy Technical Manuals:

NAVWEPS 01-230HKA-2-1	General Information	2/15/62
NAVWEPS 01-230HKA-2-2	Airframe Group	2/15/62
NAVWEPS 01-230HKA-2-3	Power Plant Systems	2/15/62
NAVWEPS 01-230HKA-2-4	Transmission System	2/15/62
NAVWEPS 01-230HKA-2-5	Rotor Activating Mechanisms	2/15/62
NAVWEPS 01-230HKA-2-6	Hydraulic & Pneumatic Systems	2/15/62
NAVWEPS 01-230HKA-2-7	Utility Systems	2/15/62
NAVWEPS 01-230HKA-2-8	Instruments	1/10/61
NAVWEPS 01-230HKA-2-9	Stabilization Equipment	2/15/62
NAVWEPS 01-230HKA-2-12	Electrical Systems	2/15/62
NAVWEPS 01-230HKA-2-13	Wiring Data	2/15/62
NAVWEPS 01-230HKA-3	Structural Repair	1/5/61
NAVWEPS 01-230HKA-4	Illustrated Parts Breakdown	2/15/62
NAVWEPS 01-230HKA-6	Daily and Preflight Inspections	3/1/63
NAVWEPS 01-230HKA-7	Intermediate and Major Inspections	3/15/66

NOTE 6. Modification to these rotorcraft or special equipment will be necessary. Reference FAR 21.25 (A) (2) prior to civil airworthiness certification for special purpose of carriage of external loads and for any other FAA approved special purpose operation.

NOTE 7. Prior to civil airworthiness certification, compliance with the following must be accomplished:

(A) CH-37B (H-37B) Models

<u>Technical Bulletins (TB)</u>	<u>Modification Work Orders (MWO)</u>
TB55-1520-203-10/1	MWO55-1520-203-34/4
TB55-1520-203-10/2	MWO55-1520-203-34/5
TB55-1520-203-20/1	MWO55-1520-203-34/6
TB55-1520-203-20/2	MWO55-1520-203-34/7
TB55-1520-203-20/3	MWO55-1520-203-34/11
TB55-1520-203-30/1	MWO55-1520-203-34/12
TB55-1520-203-30/2	MWO55-1520-203-34/14
TB55-1520-203-34/1	MWO55-1520-203-34/16
TB55-1520-203-34/2	MWO55-1520-203-40/3
TB55-1520-203-34/3	MWO55-1680-200-20/1
TB55-1520-203-40/1	MWO55-2925-200-30/1
TB55-1615-251-30/1	

(B) CH-37C (HR2S-1) Models

- (1) BUWEPS Airframe Bulletins Nos. 1, 2, 3, 4, 5, 6, 7, 8, 9, and 10.
- (2) BUAER Aircraft Service Changes Nos. 8, 9, 10, 12, 13, 14, 18, 19, 20, 21B, 22, 23, 26, 29, 33, 35, 35B, 36, 39, 40, 41, 41A, 41B, 41C, 43, 44B, 45A, 46, 46A, 48, 49, 49A, 51, 54, 57, 58, 59, 60, 60A, 60B, & 61.

(C) CH-37B (H-37B) and CH-37C (HR2S-1) Models

- (1) Engine Bulletins (R-2800-54) - Navy Nos. 534, 560, 579, 596, 605, 605 AM-1, 614 AM-1, & 615
- (2) Pratt and Whitney Bulletins Nos. 1278 Rev B, 1301 Rev D, 1490 Rev B, 1524 Rev B, 1567 Rev B, and Suppl. 1, 1625, 1732 Rev A.

NOTE 8. Optional Airplane Inc. Technical Bulletin A, B, C, and D may be incorporated on either the CH-37B or CH-37C Helicopter.

NOTE 9. For eligible spark plugs refer to Pratt and Whitney Service Bulletin No. 1175 Revision F or Subsequent.

NOTE 10. For approved oils refer to Pratt and Whitney Service Bulletin No. 1183 Revision E or Subsequent.

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