

Briefings & Checks

Robinson RH44 Raven II



Helicopter Data (Meteo / NOTAM / DABS / W&B)

1.	Immatriculation:	HB-
2.	Empty weight: lbs
3.	Main fuel: (USG x 6= lbs) lbs
5.	Pilot / Pax / Baggage: lbs
6.	actual TOM / HOGE: lbs / HOGE
7.	Max TOM:	2500 lbs or iaw HOGE perf. chart

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Limitations

Airspeed Limitation

up to 3000 ft DA	Vne
< 2200 lbs TOGW	130 KIAS
> 2200 lbs TOGW	120 KIAS
AR	100 KIAS Vne
>3000 ft DA	see Vne placard
above MCP	100 KIAS
with any door(s) removed	100 KIAS
Max operating Alt	14'000 ft DA / 9000 ft/G

Weight Limits

Max gross weight	2500 lbs
Min gross weight	1600 lbs
Max per seat incl baggage comp	300 lbs
Max per baggage comp	50 lbs
Min solo pilot (incl baggage comp)	150 lbs

Rotor (NR) Limitations

Power on	Max 102 % Min 101 %
Power off	Max 108 % Min 90 %
Low rpm warning	97 % R RPM

Altitude Limitations

Max operating alt	14'000 ft DA 9'000 ft / Gnd
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Limitations

LIMIT MANIFOLD PRESSURE - IN. HG
MAXIMUM CONTINUOUS POWER

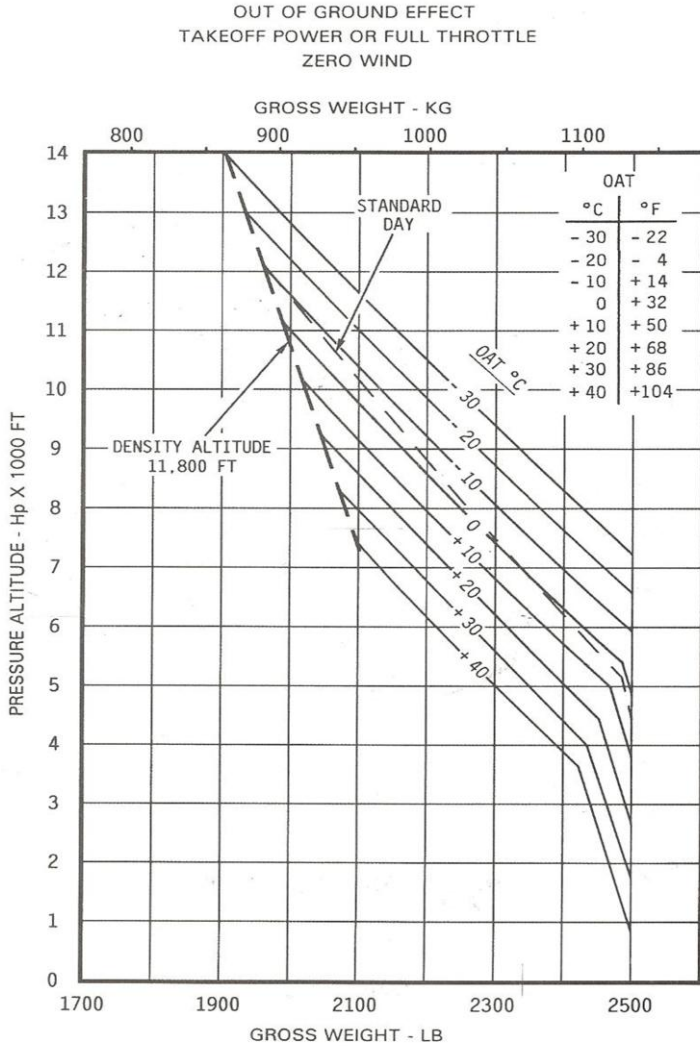
PRESS ALT-FT	OAT - °C							
	-30	-20	-10	0	10	20	30	40
SL	21.5	21.8	22.1	22.4	22.6	22.9	23.1	23.3
2000	20.9	21.2	21.5	21.8	22.1	22.3	22.5	22.8
4000	20.4	20.7	21.0	21.3	21.5	21.8	22.0	22.2
6000	19.9	20.2	20.5	20.8	21.0	21.3	21.5	21.7
8000	19.5	19.8	20.1	20.3	20.6	20.8	21.0	21.3
10000	19.1	19.4	19.6	19.9	FULL THROTTLE			
12000								
FOR MAX TAKEOFF POWER (5 MIN), ADD 2.8 IN.								

NEVER EXCEED SPEED - KIAS
2200 LB TOGW & BELOW

PRESS ALT-FT	OAT - °C							
	-30	-20	-10	0	10	20	30	40
SL	130							
2000								
4000					126	122	118	114
6000			126	122	117	113	108	103
8000	126	122	117	112	107	101	96	91
10000	117	112	106	101	95	90	85	
12000	107	101	95	89	NO FLIGHT			
14000	95	89						
OVER 2200 LB TOGW, SUBTRACT 10 KIAS FOR AUTOROTATION, SUBTRACT 30 KIAS								

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Performance



OGE HOVER CEILING VS. GROSS WEIGHT

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Departure Briefing

1.	Obstacle /Wind	checked
2.	Departure procedure	take off profile (HIGE/HOGE)
3.	Limitations	LMP / MCP / Vne
4.	Emergency	sector

Engine prestart check **Departure Briefing completed**

(METEO / NOTAM / DABS / W&B / Fuelcap / Cabin / PAX / Baggage / aft doors unlocked / limit MP / Vne)

1.	Seat belts	Fastened
2.	Fuel shut-off valve	On
3.	Cyclic / collective friction	Off
4.	Cyclic / collective / pedals	Full travel free
5.	Throttle	Full travel free - CLOSED
6.	Collective	Full down, friction on
7.	Cyclic	Neutral / friction on
8.	Pedals	Neutral
9.	Landing light	Off
10.	HYD and GOV switches	On
11.	Circuit breakers	All in
12.	Clutch	Disengaged
13.	Altimeter	Set
14.	Rotor brake	disengaged
15.	Start-up clearance	Received (if necessary)

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Engine starting

1.	Throttle	Closed
2.	Master Switch	ON
3.	Aera	Clear
4.	Strobe light	On
5.	Mixture	Full rich
6.	Ignition switch	Prime (3-5 sec), then both
7.	Mixture	Pull off
8.	Starter	Engage until engine fires
9.	Mixture	Move full rich
10.	Mixture guard	installed
11.	Starter-On light	out
12.	Set engine RPM	50 – 60 %
13.	Clutch switch	Engaged
14.	Blades turning	< 5 sec
15.	Alternator switch	On
16.	Oil pressure within 30 sec	>25 psi min
17.	Avionics, Headset	On
18.	Wait for clutch light	Out / warm up 60-70% RPM

Run-up Check

1.	Engine gages	Green
2.	Mag drop @ 75 % RPM	Max 7 % RPM in 2 sec
3.	Sprag clutch check from 75 % RPM	Needles split
4.	Doors	Closed and latched
5.	Cyclic / collective friction	Off
6.	Hydraulic system	Check
7.	Governor on, increase throttle	RPM 101 – 102 %
8.	Warning lights	Out
9.	Lift collective slightly, reduce RPM	Horn / light @ 97 %

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Check before departure

1.	Cyclic and Collective frictions	Off
2.	Governor	On
3.	Ldg light	As required
4.	Fuel	Endurance
5.	T&P's	Green arc
6.	RPM	101-102 %
7.	Warning lights	Out

Hover-Check

1.	Power Inch MP
2.	RRPM	101 – 102 %
3.	Wind	checked
4.	Departure sector	Clear

Climb-Check

1.	Climbspeed (Vy)	60 KIAS
2.	Power	20 inch – MTP (5 Min)
3.	Ldg light	As required

Cruise-Check

1.	Fuel	Endurance
2.	T's & P's	Green arc
3.	Power	19 inch – MCP
4.	RRPM	101-102 %
5.	Warning lights	Out
6.	Altimeter	set

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Approach Briefing

1.	REKO	W A HI BEL U PLA HÖ LEI
2.	Landing spot	Elevation
3.	Limitations	LMP / HOGE
4.	Emergency	Escape

Check for approach

1.	Landing light	As required
2.	Fuel	Endurance
3.	T's & P's	Green arc
4.	Speed	70 KIAS
5.	RPM	101 – 102%
6.	Warning lights	out

Final-Check

1.	Safety-Window	< 30 kts / < 300 ft ROD
2.	Decision	Land / go around

Shutdown

1.	Collective down, RPM 60 – 70%	Friction on
2.	Cyclic , Pedals	Neutral, friction on
3.	CHT	Drop (3'30" cooling down)
4.	Avionics	121.5 checked / off
5.	Throttle	Closed
6.	Clutch switch	Disengage
7.	Wait 30 sec / 30 sec	Mixture off / apply rotor brake
8.	Clutch light out	All switches / ignition off

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Emergencies

- | | | |
|----|---------------------------|--|
| 1. | Autorotation procedure | <ul style="list-style-type: none">- Collectiv down
(90- 108 RRPM / 70 KIAS)- High RRPM – increase rate off descent- Max 100 KIAS- Max glide: 90 % RRPM / 90 KIAS- Min rate of descent: 90 % RRPM / 55 KIAS |
| 2. | In flight relighting | <ul style="list-style-type: none">- Normal AR-procedure- > 2000 ft AGL- Mixture off- Throttle closed- Starter engage- Mixture slowly rich |
| 3. | GOV failure | <ul style="list-style-type: none">- Grip throttle firmly to override the GOV- GOV switch off- Manual throttle control |
| 4. | Electrical fire in flight | <ul style="list-style-type: none">- Master battery switch - OFF- Alt switch - OFF- Land immediately- Extinguish fire |
| 5. | Fire in flight | <ul style="list-style-type: none">- Enter AR- Master battery switch off- Cabin heat off- Cabin vent on- If engine running – normal landing- If engine stops running - AR |
| 6. | Engine fire during start | <ul style="list-style-type: none">- Cranking- if engine starts, run 60-70 % RPM short time- if engine fails to start, shut off fuel and battery- extinguish fire- inspect for damage |

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7. Loss of TR thrust in flight
- indicated by nose right yaw, cannot stopped by
 - left pedal
 - enter AR 70 KIAS
 - select landing site, roll throttle off, perf AR landing

Airflow around the vertical fin may permit controlled flight at low power levels and sufficient airspeed when a suitable landing site is not available; however, the touchdown shall be accomplished with the throttle in the full closed position.

- Loss of TR thrust in hover
- immediately roll off throttle
 - raise collective just before touchdown to cushion landing

8. HYD System failure
- Adjust Airspeed for comfortable control
 - HYD switch – verify ON
 - If HYD not restored, HYD switch OFF
 - Land as soon as practical

9. Tachometer failure
- use remaining tach to monitor RPM
 - allow GOV to control RPM

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Warning lights

1.	OIL	<ul style="list-style-type: none">- Loss of engine power or oil pressure- Check oil pressure gauge- If pressure loss, land immediately
2.	ENG FIRE	<ul style="list-style-type: none">- Indicates fire in engine compartment
3.	MR TEMP	<ul style="list-style-type: none">- Excessive temp of MRGB
4.	MR CHIP	<ul style="list-style-type: none">- Indicates metallic particles in MRGB
5.	TR CHIP	<ul style="list-style-type: none">- Indicates metallic particles in TRGB
6.	LOW FUEL	<ul style="list-style-type: none">- Indicates approx 3 USG Fuel- Engine will run out of fuel after 10 Min MCP
7.	AUX FUEL PUMP	<ul style="list-style-type: none">- Low aux fuel pump pressure- If no other indication of a problem, land as soon as practical- If accompanied by erratic engine operation, land immediately
8.	FUEL FILTER	<ul style="list-style-type: none">- Indicates fuel strainer contamination- Land as soon practical- If accompanied by AUX FUEL PUMP warning or erratic engine operation, land immediately
9.	CLUTCH	<ul style="list-style-type: none">- Clutch actuator circuit is on- Max 7-8 sec, then pull CLUTCH circuit breaker- Reduce power- Land immediately and prepare to enter AR
10.	ALT	<ul style="list-style-type: none">- Low voltage / ALT failure- Turn off nonessential electr equipment- ALT off, after 1 sec on- If light stays on, land as soon as practical
11.	BRAKE	<ul style="list-style-type: none">- Rotor brake is engaged- Release immediately in flight or before starting engine

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|-----|---------------------------|---|
| 12. | STARTER- ON | <ul style="list-style-type: none">- Indicates starter motor is on- If light does not go out when starter button is released, immediately pull mixture to idle cut off and turn master switch off |
| 13. | GOV OFF | <ul style="list-style-type: none">- Indicates engine RPM throttle governor is off |
| 14. | CARBON MONOXIDE | <ul style="list-style-type: none">- Elevated levels of CO in cabin- Open nose doors and vents- Shut off heater- If hovering, transition to forward flight- If symptoms of CO poisoning (headache, drowsiness, dizziness) land immediately |
| 15. | LOW RPM (and Horn) | <ul style="list-style-type: none">- Rotor RPM is below safe limits- Roll throttle on, lower collective- In forward flight, apply aft cyclic |

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Standard Circuit

