

Briefings & Checks

Robinson RH44 Raven I



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:	2400 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	2400 lbs
Min gross weight	1550 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 99 %
Power off	Max 108 % Min 90 %
Low rpm warning	97 % RRPM

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	OAT – °C						
ALT-FT	-20	-10	0	10	20	30	40
SL	22.9	23.2	23.5	23.8	24.1	24.4	24.7
2000	22.5	22.8	23.1	23.4	23.7	24.0	24.2
4000	22.2	22.5	22.8	23.1	23.4	23.7	23.9
6000	21.8	22.1	FULL THROTTLE				

FOR MAX TAKEOFF POWER (5 MIN), ADD 1.6 IN. HG

NEVER EXCEED SPEED – KIAS

2200 LB TOGW & BELOW

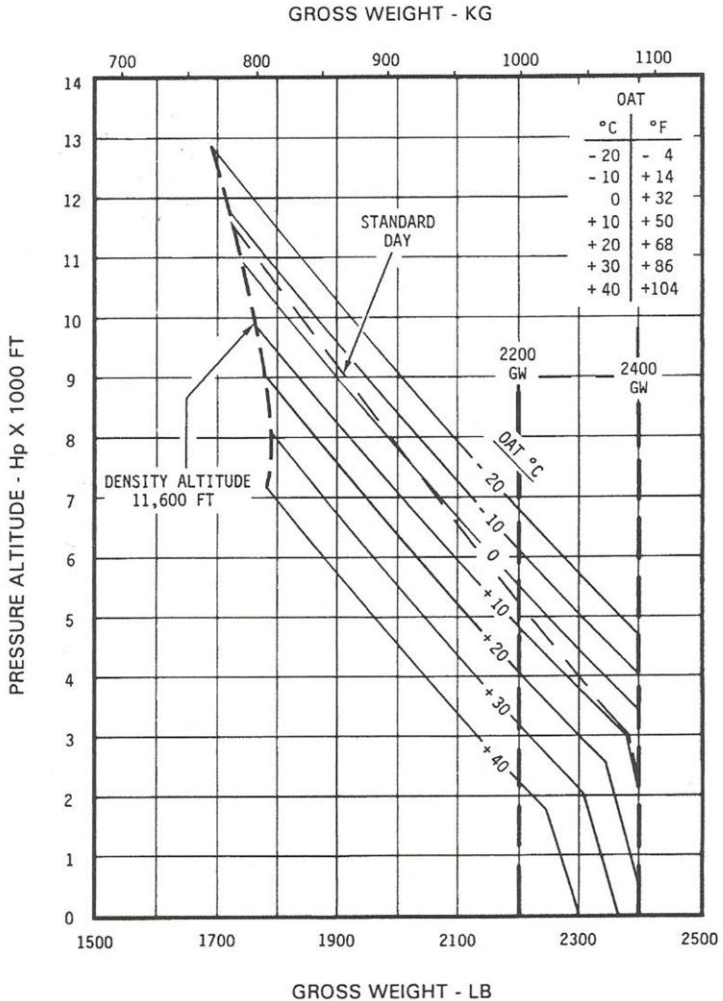
PRESS	OAT – °C								
ALT-FT	-20	-10	0	10	20	30	40		
SL	130								
2000								127	123
4000								126	122
6000	126	122	117	113	108	103			
8000	122	117	112	107	101	96	91		
10000	112	106	101	95	90	85			
12000	101	95	89						
14000	89	NO FLIGHT							

OVER 2200 LB TOGW, SUBTRACT 10 KIAS
FOR AUTOROTATION, SUBTRACT 30 KIAS

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Performance

OUT OF GROUND EFFECT, ZERO WIND
 TAKEOFF POWER OR FULL THROTTLE
 101-102% RPM



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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.	Carb heat	Off
	Mixture	Full rich
	Mixture guard	Installed
12.	Clutch	Disengaged
13.	Altimeter	Set
14.	Rotor brake	disengaged
15.	Start-up clearance	Received (if necessary)

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Engine starting (*Rotorblades level*)

	Throttle twists for priming	As required
1.	Throttle	Closed
2.	Master Switch	ON
3.	Aera	Clear
4.	Strobe light	On
6.	Ignition switch	Start, then both
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
	Carb heat check	CAT rise / drop
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
	Carb heat	As required
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
	Carb heat	>10°C
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
4.	Carb heat	As required

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Cruise-Check

1.	Governor	on
2.	Carb heat	As required
3.	Landing light	As required
4.	Fuel	Endurance
5.	T's & P's	Green arc
6.	Power	19 inch – MCP
7.	RRPM	101-102 %
8.	Warning lights	Out
9.	Altimeter	set

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

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Final-Check

1.	Carb heat	As required
2.	Power	>11 inch MP

Safety-Window

1.	Speed / Sinkrate	< 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

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|------------------------------|--|
| 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- > 500 ft AGL- Mixture full rich- Throttle closed- Starter engage |
| 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 | <ul style="list-style-type: none">- indicated by nose right yaw, cannot stopped by- left pedal- enter AR 70 KIAS- select landing site, roll throttle off, perf AR landing |
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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.

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|----------------------------|---|
| Loss of TR thrust in hover | <ul style="list-style-type: none">- immediately roll off throttle- raise collective just before touchdown to cushion landing |
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| 8. | HYD System failure | <ul style="list-style-type: none">- Adjust Airspeed for comfortable control- HYD switch – verify ON- If HYD not restored, HYD switch OFF- Land as soon as practical |
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| 9. | Tachometer failure | <ul style="list-style-type: none">- use remaining tach to monitor RPM- allow GOV to control RPM |
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Warning lights

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|----|-----------------|--|
| 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 |

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5.	TR CHIP	- Indicates metallic particles in TRGB
6.	LOW FUEL	- Indicates approx 3 USG Fuel - Engine will run out of fuel after 10 Min MCP
7.	CLUTCH	- Clutch actuator circuit is on - Max 7-8 sec, then pull CLUTCH circuit breaker - Reduce power - Land immediately and prepare to enter AR
8.	ALT	- Low voltage / ALT failure - Turn off nonessential electr equipment - ALT off, after 1 sec on - If light stays on, land as soon as practical
9.	BRAKE	- Rotor brake is engaged - Release immediately in flight or before starting engine
12.	STARTER- ON	- 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
10.	GOV OFF	- Indicates engine RPM throttle governor is off
11.	CARBON MONOXIDE	- Elevated levels of CO in cabin - Open nose doors an vents - Shut off heater - If hovering, transition to forward flight - If symptoms of CO poisoning (headache, drowsiness, dizziness) land immediately
12.	LOW RPM (and Horn)	- Rotor RPM is below safe limits - Roll throttle on, lower collective - In forward flight, apply aft cyclic

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Standard Circuit

