

R44 Raven Internal Check-list

CHECK FUEL sufficient for your flight + 10% + at least 20mins remaining after flight

GUIDELINE CONSUMPTION - 15usg or 55lbs per hr

BEFORE STARTING ENGINE

Seat BeltsFastened
Fuel Shut-off ValveON
Cyclic & Collective Frictions OFF
Cyclic, Collective, Pedals, Throttle Full travel free
Cyclic Neutral, friction ON
Collective Full down, friction ON
Pedals Neutral
Rotor Brake Disengaged
Circuit Breakers In
Carb heat OFF
Mixture FULL RICH
Mixture guard Installed
Landing Lights OFF
Avionics switch (if installed) OFF
Clutch Disengaged
All Instruments Reading correct
Altimeter set as required QFE or QNH
Governor & HydraulicsON

STARTING ENGINE & RUN-UP

Master & Strobe switchesON
Radio call For engine start (if required)
Throttle twists for prime As required
Throttle Closed
Check area CLEAR
Ignition switch.....Start, then Both
Starter-on LIGHT **Out**
Set engine RPM **50-60%**
Clutch switch **Engaged**
Blades turning **Less than 5 seconds**
Alternator switch **ON**
Oil pressure within 30 seconds min 25 psi
Avionics and headsets ON
Annunciator panel test (if equipped) All lights on
Audio alert (if equipped) Test
Wait for CLUTCH LIGHT OUT
Warm-up RPM 60-70%
Carb Heat FULL
Wait for engine gauges Green

WHILST WAITING FOR THE TEMPERATURES AND PRESSURES TO REGISTER IN THE GREEN:

Circuit breakers ON as required
Radio, GNSS & EC turned ON (as equipped)
DI set to compass
AH caged
Obtain ATIS
Altimeter set QFE/QNH
Set main and standby RADIO frequency & check volume
Transponder ON (or Alt if equipped)
Carry out Limitation Checks to determine MCP and T/O power
Check passengers' doors, belts, vents, headsets etc

POWER CHECKS

Mag Drop at 75% RPM 7% MAX in 2 Secs
Carb heatCAT rise/drop, set as required
Sprag Clutch Check Needles split
Throttle Fully ClosedEngine Idles
Doors (if installed) Closed and latched
Cyclic/Collective friction OFF
Hydraulic system Check
Governor ON, increase throttle RPM 101-102%

TAKE-OFF CHECKS

Low RRPM system checkH&L 97% to 90%
Warning lights OUT
RPM Stable at 101-102%
Engine T's & P's All green
Radio Call "Ready to lift"

CHECK AREA CLEAR, LIFT INTO HOVER

Check Lights, RPM, T's & P's, fuel, CAT, hover MAP

LIMITATION CHECKS - Use ISA datum 1013hPa

LIMIT MANIFOLD PRESSURE - IN. HG

MAXIMUM CONTINUOUS POWER								
PRESS ALT-FT	OAT-°C							
	-30	-20	-10	0	10	20	30	40
SL	22.6	22.9	23.2	23.5	23.8	24.1	24.4	24.7
2000	22.2	22.5	22.8	23.1	23.4	23.7	24.0	24.2
4000	21.8	22.2	22.5	22.8	23.1	23.4	23.7	23.9
6000	21.4	21.8	22.1	FULL THROTTLE				
FOR MAX TAKEOFF POWER (5 MIN), ADD 1.6 IN.								

NEVER EXCEED SPEED - KIAS

2200 LB TOGW & BELOW								
PRESS ALT-FT	OAT-°C							
SL	-30	-20	-10	0	10	20	30	40
2000		130					127	123
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								

SHUTDOWN

Throttle Closed
Collective fully down Friction on
Cyclic and pedals neutral Friction on
RPM 60-70%
Wait for CHT drop Throttle closed
Clutch switch Disengage
Wait 30 seconds Mixture OFF
Mixture guard Back on mixture
Wait 30 seconds Apply rotor brake
Clutch light Extinguishes
All avionics, alt, ignition, battery OFF