

The checklists provided in this document are

FOR TRAINING PURPOSES ONLY!!

Please contact Mauna Loa Helicopters to order a complete set of laminated and durable Robinson R22 and R44 checklists.

www.maunaloahelicopters.com / www.helicoptertrainingsoftware.com



ROBINSON R-22 PREFLIGHT CHECKLIST

Remove all covers and tie downs and store properly.

Initial Light Checks

Master switch	On
Clutch circuit breaker	Pull Off
Clutch	Engaged
Walkaround: Position, Navigation, Strobe and Landing Lights	On / Check / Off
Clutch	Disengaged
Clutch circuit breaker	Push In
Master switch	Off

Cowl Door Area

Master switch	On
Oil pressure, alternator, GOV lights	On
Warning light test switches	Push to test
Fuel quantity	Check
Master switch	Off
Aux fuel tank quantity	Check
Fuel filler cap	Tight
Aux fuel tank	No leaks
Aux tank fuel drain sample	No debris or water
Gearbox oil	Full, no leaks
Rotor brake	Actuation normal
Flex coupling / Yoke flanges	No cracks, nuts tight
Gearbox telatemp	Normal
Sprag clutch	No leaks / Check free wheeling
Static source	Clear
Control rod ends	Free without looseness
Steel tube frame	No cracks
All fasteners	Tight
Tail rotor control	No interference
Cowl door	Latched

Engine Right Side

Carb air ducts	Secure
Carb heat scoop	Secure
Engine sheet metal	No cracks
Electrical terminals	Tight
Fuel line	No leaks
Oil cooler door	Check
Oil lines	No leaks or chafing
Exhaust system	No cracks
Engine general condition	Check
V-belt condition / V-belt slack	Check
Sprag clutch	No leaks
Upper bearing / Telatemp	No leaks / Normal
Lower sheave groove wear	Smooth and uniform
Flex coupling / Yoke flanges	No cracks, nuts tight
Steel tube frame	No cracks
Tail rotor control	No interference

Engine Rear

Cooling fan nut	Pin in line with marks
Cooling fan / Fan scroll	No cracks
Lower bearing / Telatemp	No leaks / Normal

Empennage

Tail surfaces	No cracks
Fasteners	Tight
Position light	Check

Tailcone

Rivets	Tight
Skins	No cracks or dents
Strobe light condition	Check
Antenna	Check
Attachment bolts	Tight

Tail Rotor

Gearbox telatemp	Normal
Gearbox	Oil visible, no leaks
Blades	Clean and no damage / Cracks
Rod ends	Free without looseness
Pitch link jam nuts	Tight
Teeter bearings	Check condition
Teeter bearing bolt	Does not rotate
Control bellcrank	Free without looseness

Engine Left Side

Engine oil	4-6 quarts
Oil filter (if installed)	Secure, no leaks
Fuel lines	No leaks
Gascolator drain	Sample
Throttle linkage	Operable
Battery and relay (if located here)	Secure
Alternator belt tension	Check
Steel tube frame	No cracks
Engine sheet metal	No cracks
Exhaust system	No cracks
Engine general condition	Check

Fuel Tank (Main)

Quantity	Check
Filler cap	Tight
Leakage	None
Drain	Sample

Main Rotor

Blades	Clean, no damage / Cracks
Pitch change boots	No leaks
Main hinge bolts	Cotter pins installed
All rod ends	Free without looseness
Pitch link jam nuts / Safety wire	Tight / Secure
Fasteners	Tight
Swashplate scissors	No excessive looseness

Fuselage Left Side

Baggage compartment	Check
Removable controls	Secure if installed
Collective control	Clear
Seat belt	Check condition and fastened
Door	Unlocked and latched
Door hinge safety pin	Installed
Landing gear	Check
Ground handling wheel	Removed
Position light	Check

Nose Section

Pitot tube	Clear
Windshield condition and cleanliness	Check
Fresh air vent	Clear
Landing lights	Check

Fuselage Right Side

Landing gear	Check
Ground handling wheel	Removed
Position light	Check
Door hinge safety pin	Installed
Baggage compartment	Check

Cabin Interior

Loose articles	Removed or stowed
Seat belt	Check condition
Instruments, switches and controls	Check condition
Clock	Functioning

Personal Checklist Recommendations

Pilot's certificate, medical certificate, picture ID, fuel card, cell phone, flash light, charts, knee-board, pen, AF/D, NAVLOG, flight plan, airport gate codes, sun glasses, spare oil, survival equipment, life jacket, water, locator beacon, GPS.

ROBINSON R-22 STARTUP CHECKS

Aircraft walkaround Check
Blades Level

BEFORE STARTING ENGINE

Seat belts Fastened
Fuel shut-off valve On
Cyclic / Collective friction Off
Cyclic / Collective, Pedals Full travel free
Throttle Full travel free
Collective Full down, Friction On
Cyclic Neutral, Friction On
Pedals Neutral
Landing light Off
Governor On
Circuit breakers In
Carb heat Off
Mixture Full rich
Mixture guard Installed
Primer if installed Down and locked
All switches / Avionics Off
Clutch Disengaged
Altimeter Set
Rotor brake Disengaged

STARTING ENGINE AND RUN-UP

Master switch On
Strobe light On
Area Clear
Throttle twist for priming As required
Throttle Closed
Ignition switch Start, then Both
Starter-On light Out
Set engine RPM 50 to 60%
Clutch switch Engaged
Blades turning Less than 5 sec
Alternator switch On
Oil pressure in 30 sec 25 PSI minimum
Avionics, headset On
Wait for clutch light Out
Warm-up RPM 70 - 75%
Engine gages Green
Mag drop at 75% RPM 7% max in 2 sec
Carb heat check CAT rise/drop
Sprag clutch check 75%RPM Needles split
Doors (if installed) Closed and latched
Doors (if removed) Loose items secure
Limit MAP chart Check
Cyclic / Collective friction Off
Governor On, increase throttle RPM 102-104%
Warning lights Out
Lift collective, reduce RPM Horn/Light at 97%

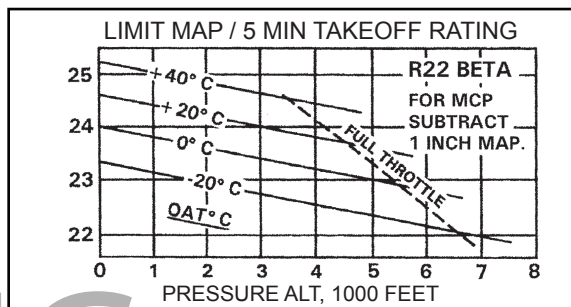
BEFORE TAKEOFF CHECKS

Lights Out --- Tachs match 104% --- Gages Green
Fuel OK ---- Ignition key Both --- Radio Freqs/Volume
Transponder ALT -- Carb heat as Required
Trim / Frictions Off - Governor On - Clear Area

SHUT DOWN

Collective Down
RPM 70 - 75%
Governor Off
Collective Friction On
Pedal / Cyclic Neutral
Cyclic Friction On
Radio / Transponder Off
CHT drop Wait 2 minutes
Throttle Closed
Clutch switch Disengage
Wait 30 sec Pull idle cut-off
Mixture guard Back on mixture
Wait 30 seconds Apply rotor brake
Blades stop / Clutch light out **All switches off**
Caution: Do not use left pedal or lift collective to slow blades
Fuel Quantity Confirm
Hobbs hours Note
Post Flight Check
Covers / Tie downs / Doors Install
Flight plan Confirm closed

R22 Beta



R22 Beta II

LIMIT MANIFOLD PRESSURE - IN. HG							
MAXIMUM CONTINUOUS POWER							
PRESSURE ALT-FT	OAT °C						
	-20	-10	0	10	20	30	40
SL	21.5	21.8	22.1	22.3	22.6	22.9	23.2
2000	21.1	21.4	21.6	21.9	22.2	22.5	22.8
4000	20.7	21	21.2	21.5	21.8	22	22.3
6000	20.3	20.6	20.8	21.1	21.3	21.6	21.9
8000	19.9	20.2	20.4	20.7	20.9	FULL THROTTLE	

FOR MAX TAKEOFF POWER (5MIN), ADD 0.9 IN.HG

PASSENGER BRIEFING

Main Rotor - Tail Rotor - Doors - Loose Objects
Seatbelts - Headsets - Sterile Cockpit
Emergencies - Emergency Exits
Ditching Procedures - Life Vests
Survival Equipment - No Smoking
Discomfort in Flight

ROBINSON R-44 PREFLIGHT CHECKLIST

Remove all covers and tie downs and store properly.

Initial Light Checks

Master switch	On
Clutch circuit breaker	Pull Off
Clutch	Engaged
Walkaround: Position, Navigation, Strobe and Landing Lights	On / Check / Off
Clutch	Disengaged
Clutch circuit breaker	Push In
Master switch	Off

Upper and Forward Cowl Doors - Right Side

Master switch	On
Oil pressure, alternator, governor lights	On
Warning light test switches	Push to test
Fuel quantity	Check gauges
Master switch	Off
Aux fuel tank quantity	Check
Fuel filler cap	Tight
Aux fuel tank / Fuel lines	No leaks
Aux fuel drain	Sample
Gascolator drain	Sample
Gearbox oil	Full, no leaks
Hydraulic system	Fluid full, no leaks
Rotor brake	Actuation normal
Flex coupling / Yoke flanges	No cracks, nuts tight
Gearbox telatemp	Normal
Control rod ends	Free without looseness
Steel tube frame	No cracks
All fasteners	Tight
Tail rotor control	No interference

Main Rotor

Blades	Clean, no damage / Cracks
Pitch change boots	No leaks
Main hinge bolts	Cotter pins installed
All rod ends	Free without looseness
Pitch link jam nuts / Safety wire	Tight / Secure
Fasteners	Tight
Swashplate scissors	No excessive looseness
Upper and forward cowl doors	Latched

Lower Cowl Door - Right Side

Carb air ducts	Secure
Carb heat scoop	Secure
Engine sheet metal	No cracks
Fuel lines	No leaks
Oil lines	No leaks or chafing
Exhaust system	No cracks
Primer (if installed)	Prime as req., Locked / No leaks
Lower cowl door	Latched

Aft Cowl Door - Right Side

Oil cooler door	Check
V-belt condition / V-belt slack	Check
Sprag clutch	No leaks / Check free wheeling
Upper bearing / Telatemp	No leaks / Normal
Flex coupling / Yoke flanges	No cracks, nuts tight
Steel tube frame	No cracks
Tail rotor control	No interference
Tailcone attachment bolts	Check
Aft cowl door	Latched

Engine Rear

Cooling fan nut	Pin in line with marks
Cooling fan / Fan scroll	No cracks
Tailpipe hanger	No cracks

Empennage

Tail surfaces	No cracks
Fasteners	Tight
Position light	Check
Tail rotor guard	No cracks

Tail Rotor

Gearbox telatemp	Normal
Gearbox	Oil visible, no leaks
Blades	Clean and no damage / Cracks
Pitch links	No looseness
Teeter bearings	Check condition
Teeter bearing bolt	Does not rotate
Control bellcrank	Free without looseness

Tailcone

Rivets	Tight
Skins	No cracks or dents
Strobe light condition	Check
Antenna	Check

Cowl Door - Left Side

Engine oil	7-9 qts
Oil filter (if installed)	Secure, no leaks
Throttle linkage	Operable
Battery and relay (if located here)	Secure
Steel tube frame	No cracks
Engine sheet metal	No cracks
Exhaust system	No cracks
Left cowl door	Latched

Fuel Tank (Main)

Quantity	Check
Filler cap	Tight
Leakage	None
Drain	Sample

Fuselage Left Side

Baggage compartments	Check
Removable controls	Secure if installed
Collective control	Clear
Seat belts	Check condition and fastened
Doors	Unlocked and latched
Door hinge safety pins	Installed
Landing gear	Check
Ground handling wheel	Removed
Position light	Check
Static port	Clear

Nose Section

Pitot tube	Clear
Windshield condition and cleanliness	Check
Fresh air vent	Clear
Landing lights	Check

Fuselage Right Side

Baggage compartments / Nitrogen tank	Check / Full
Floats trigger (if installed)	Locked
Seat belts	Check condition and fastened
Aft door	Unlocked and latched
Door hinge safety pins	Installed
Landing gear	Check
Ground handling wheel	Removed
Position light	Check
Static port	Clear

Cabin Interior

Loose articles	Removed or stowed
Instruments, switches, controls	Check condition
Clock	Functioning
Adjustable pedals (if installed)	Pins secure

Personal Checklist Recommendations.

Pilot's certificate, medical certificate, picture ID, fuel card, cell phone, flash light, charts, knee-board, pen, AF/D, NAVLOG, flight plan, airport gate codes, sun glasses, spare oil, survival equipment, life jacket, water, locator beacon, GPS.

ROBINSON R-44 STARTUP CHECKS

Aircraft walkaround Check
Blades Level

BEFORE STARTING ENGINE

Seat belts Fastened
Fuel shut-off valve On
Cyclic / Collective friction Off
Cyclic / Collective, Pedals Full travel free
Throttle Full travel free
Collective Full down, friction On
Cyclic Neutral, friction On
Pedals Neutral
Trim and landing light switches Off
Hydraulic / Governor switches On
Circuit breakers In
Carb heat Off
Mixture Rich
Mixture guard Installed
All switches / Avionics Off
Clutch Disengaged
Altimeter Set
Rotor brake Disengaged

STARTING ENGINE and RUN-UP

Master switch On
Strobe light On
Area Clear
Throttle twist for priming As required
Throttle Closed
Ignition switch Start, then Both
Starter-On light Out
Set engine RPM 50-60% RPM
Clutch switch Engaged
Blades turning Less than 5 seconds
Alternator switch On
Oil pressure in 30 sec 25 psi minimum
Avionics / Headsets On
Wait for clutch light Out
Warm-up RPM 60-70% RPM
Engine gauges Green
Mag drop at 75% RPM 7% max in 2 sec
Carb heat check CAT rise/drop
Sprag clutch check 75% RPM Needles split
Doors (if installed) Closed and latched
Doors (if removed) Loose items secure
Limit MAP chart Check
Cyclic / Collective friction Off
Cyclic trim or hydraulic system Check
Governor On, increase throttle RPM 101-102%
Warning lights Out
Lift collective, reduce RPM Horn/Light at 97%

BEFORE TAKEOFF CHECKS

Lights Out --- Tachs match 104% --- Gages Green
Fuel OK ---- Ignition key Both --- Radio Freqs/Volume
Transponder ALT -- Carb heat as Required
Trim / Frictions Off - Governor On - Clear Area

SHUT DOWN

Collective Down
RPM 60-70%
Governor Off
Collective friction On
Pedals / Cyclic Neutral
Cyclic friction On
Radio / Transponder Off
CHT drop Wait 2 minutes
Throttle Closed
Clutch switch Disengage
Wait 30 seconds Pull idle cut-off
Mixture guard Back on mixture
Wait 30 seconds Apply rotor brake
Blades stop / Clutch light out **All switches off**
Caution: Do not use left pedal or lift collective to slow blades
Fuel quantity Confirm
Hobbs hours Note
Post flight Check
Covers / Tie downs / Doors Install
Flight plan Confirm closed

R44 Raven I

LIMIT MANIFOLD PRESSURE - IN. HG								
MAXIMUM CONTINUOUS POWER								
PRESSURE ALT-FT	OAT - C°							
	-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 (5MIN), ADD 1.6 IN.HG								

All R44s

NEVER EXCEED SPEED - KIAS							
2200 LB TOGW & BELOW							
PRESSURE ALT-FT	OAT - C°						
	-20	-10	0	10	20	30	40
SL							
2000						127	123
4000				126	122	118	114
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							

PASSENGER BRIEFING

Main Rotor - Tail Rotor - Doors - Loose Objects
Seatbelts - Headsets - Sterile Cockpit
Emergencies - Emergency Exits
Ditching Procedures - Life Vests
Survival Equipment - No Smoking
Discomfort in Flight

ROBINSON R-44II PREFLIGHT CHECKLIST

Remove all covers and tie downs and store properly.

Initial Light Checks

Master switch	On
Clutch circuit breaker	Pull Off
Clutch	Engaged
Walkaround: Position, Navigation, Strobe and Landing Lights	On / Check / Off
Clutch	Disengaged
Clutch circuit breaker	Push In
Master switch	Off

Upper and Forward Cowl Doors - Right Side

Master switch	On
Oil pressure, ALT, aux fuel pump, GOV lights	On
Warning light test switches	Push to test
Fuel quantity	Check gauges
Master switch	Off
Aux fuel tank quantity	Check
Fuel filler cap	Tight
Aux fuel tank / Fuel lines	No leaks
Aux fuel drain	Sample
Gascolator drain	Sample
Gearbox oil	Full, no leaks
Hydraulic system	Fluid full, no leaks
Rotor brake	Actuation normal
Flex coupling / Yoke flanges	No cracks, nuts tight
Gearbox, hydraulic pump telatemp	Normal
Control rod ends	Free without looseness
Steel tube frame	No cracks
All fasteners	Tight
Tail rotor control	No interference

Main Rotor

Blades	Clean, no damage / Cracks
Pitch change boots	No leaks
Main hinge bolts	Cotter pins installed
All rod ends	Free without looseness
Pitch link jam nuts / Safety wire	Tight / Secure
Fasteners	Tight
Swashplate scissors	No excessive looseness
Upper and forward cowl doors	Latched

Lower Cowl Door - Right Side

Air box and duct	Secure
Engine sheet metal	No cracks
Fuel lines	No leaks
Oil lines	No leaks or chafing
Exhaust system	No cracks
Throttle linkage	Operable
Lower cowl door	Latched

Aft Cowl Door - Right Side

Oil cooler door	Check
V-belt condition / V-belt slack	Check
Sprag clutch	No leaks / Check free wheeling
Upper bearing / Telatemp	No leaks / Normal
Flex coupling / Yoke flanges	No cracks, nuts tight
Steel tube frame	No cracks
Tail rotor control	No interference
Tailcone attachment bolts	Check
Aft cowl door	Latched

Engine Rear

Cooling fan nut	Pin in line with marks
Cooling fan / Fan scroll	No cracks
Tailpipe hanger	No cracks

Empennage

Tail surfaces	No cracks
Fasteners	Tight
Position light	Check
Tail rotor guard	No cracks

Tail Rotor

Gearbox telatemp	Normal
Gearbox	Oil visible, no leaks
Blades	Clean and no damage / Cracks
Pitch links	No looseness
Teeter bearings	Check condition
Teeter bearing bolt	Does not rotate
Control bellcrank	Free without looseness

Tailcone

Rivets	Tight
Skins	No cracks or dents
Strobe light condition	Check
Antenna	Check

Cowl Door - Left Side

Engine oil	7-9 qts
Oil filter	Secure, no leaks
Battery and relay (if located here)	Secure
Steel tube frame	No cracks
Engine sheet metal	No cracks
Exhaust system	No cracks
Left cowl door	Latched

Fuel Tank (Main)

Quantity	Check
Filler cap	Tight
Leakage	None
Drain	Sample

Fuselage Left Side

Baggage compartments	Check
Removable controls	Secure if installed
Collective control	Clear
Seat belts	Check condition and fastened
Doors	Unlocked and latched
Door hinge safety pins	Installed
Landing gear	Check
Ground handling wheel	Removed
Position light	Check
Static port	Clear

Nose Section

Pitot tube	Clear
Windshield condition and cleanliness	Check
Fresh air vent	Clear
Landing lights	Check

Fuselage Right Side

Baggage compartments / Nitrogen tank	Check / Full
Floats trigger (if installed)	Locked
Seat belts	Check condition and fastened
Aft door	Unlocked and latched
Door hinge safety pins	Installed
Landing gear	Check
Ground handling wheel	Removed
Position light	Check
Static port	Clear

Cabin Interior

Loose articles	Removed or stowed
Instruments, switches, controls	Check condition
Clock	Functioning
Adjustable pedals	Pins secure

Personal Checklist Recommendations

Pilot's certificate, medical certificate, picture ID, fuel card, cell phone, flash light, charts, knee-board, pen, AF/D, NAVLOG, flight plan, airport gate codes, sun glasses, spare oil, survival equipment, life jacket, water, locator beacon, GPS.

ROBINSON R-44II STARTUP CHECKS

Aircraft walkaround Check
Blades Level

BEFORE STARTING ENGINE

Seat belts Fastened
Fuel shut-off valve On
Cyclic / Collective friction Off
Cyclic / Collective, Pedals Full travel free
Throttle Full travel free
Collective Full down, friction On
Cyclic Neutral, friction On
Pedals Neutral
Landing lights Off
Hydraulic / Governor switches On
Circuit breakers In
All switches / Avionics Off
Clutch Disengaged
Altimeter Set
Rotor brake Disengaged

STARTING ENGINE and RUN-UP

Throttle Closed
Master switch On
Area Clear
Strobe light On
Mixture Rich
Ignition switch Prime, then Both
Mixture Pull off
Starter Engage until engine fires
Mixture Move to full rich
Mixture guard Installed
Starter-On light Out
Set engine RPM 50-60% RPM
Clutch switch Engaged
Blades turning Less than 5 seconds
Alternator switch On
Oil pressure in 30 sec 25 psi minimum
Avionics / Headsets On
Wait for clutch light Out
Warm-up RPM 60-70% RPM
Engine gauges Green
Mag drop at 75% RPM 7% max in 2 sec
Sprag clutch check 75% RPM Needles split
Doors (if installed) Closed and latched
Doors (if removed) Loose items secure
Limit MAP chart Check
Cyclic / Collective friction Off
Hydraulic system Check
Governor On, increase throttle RPM 101-102%
Warning lights Out
Lift collective, reduce RPM Horn/Light at 97%

BEFORE TAKEOFF CHECKS

Lights Out --- Tachs match 104% --- Gages Green
Fuel OK --- Ignition key Both --- Radio Freqs/Volume
Transponder ALT -- Carb heat as Required
Trim / Frictions Off - Governor On - Clear Area

SHUT DOWN

Collective Down
RPM 60-70%
Governor Off
Collective friction On
Pedal / Cyclic Neutral
Cyclic friction On
Radio / Transponder Off
CHT drop Wait 2 minutes
Throttle Closed
Clutch switch Disengage
Wait 30 seconds Pull idle cut-off
Wait 30 seconds Apply rotor brake
Blades stop / Clutch light out **All switches off**
Caution: Do not use left pedal or lift collective to slow blades
Fuel quantity Confirm
Hobbs hours Note
Post flight Check
Covers / Tie downs / Doors Install
Flight plan Confirm closed

R44 Raven II

LIMIT MANIFOLD PRESSURE - IN. HG								
MAXIMUM CONTINUOUS POWER								
PRESSURE 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				
12000	FULL THROTTLE							
FOR MAX TAKEOFF POWER (5MIN), ADD 2.8 IN.HG								

All R44s

NEVER EXCEED SPEED - KIAS								
2200 LB TOGW & BELOW								
PRESSURE ALT-FT	OAT - C°							
	-20	-10	0	10	20	30	40	
SL								
2000							127	123
4000					126	122	118	114
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	NO FLIGHT							
OVER 2200 LB TOGW, SUBTRACT 10 KIAS FOR AUTOROTATION, SUBTRACT 30 KIAS								

PASSENGER BRIEFING

Main Rotor - Tail Rotor - Doors - Loose Objects
Seatbelts - Headsets - Sterile Cockpit
Emergencies - Emergency Exits
Ditching Procedures - Life Vests
Survival Equipment - No Smoking
Discomfort in Flight