Chief Joseph Flyers, Inc

N3730R - 1967 Cessna 172H

Preflight Inspection

CABIN

- Airworthiness Cert.....CHECK
- Registration.....CHECK
- Operating Limits.....LEGIBLE
- Flight Manual.....CHECK
- Weight / Balance.....CHECK
- TACH/HOBBS.....RECORDED
- Control Lock.....REMOVE
- Ignition Switch.....OFF
- Avionics Master.....OFF
- Master Switch.....ON
- Fuel Quantity.....CHECK
- Wing Flaps.....DOWN
- Lights.....CHECK
- Pitot Heat.....CHECK
- Master Switch.....OFF
- Alternate Static Source.....NORMAL (IN)
- Fuel Selector Valve.....BOTH
- Fuel Strainer.....2 SEC
- Trim.....TAKEOFF

EMPENNAGE

- Baggage Door.....LOCKED
- Horizontal Stabilizer.....CHECK
- Elevator.....FREE / SECURE
- Vertical Stabilizer.....CHECK
- Rudder.....FREE / SECURE
- Tail Tie-Down.....REMOVE
- ELT,VOR Antenna / Beacon.....CHECK

RIGHT WING

- Wing Flap.....SECURE
- Aileron.....FREE / SECURE
- Wing Tip / Light.....CHECK
- Wing Tie-down.....REMOVE
- Leading Edge.....INSPECT
- Main Tire (24 PSI) / Brake.....CHECK
- Fuel Sump.....DRAIN / CHECK
- Fuel Quantity / CAP.....CHECK / SECURE

NOSE

- Windshield.....INSPECT / CLEAN
- Engine Oil.....6-8 qts (6 min)
- Dipstick.....SECURE
- Exhaust.....INSPECT / SECURE
- Engine Cool Inlets.....FREE & CLEAR
- Engine Door.....SECURE
- Nose Wheel (26 PSI) / Strut.....CHECK
- Propeller / Spinner.....CHECK
- Alternator Belt.....CHECK
- Air Filter.....CHECK
- Static Port.....CLEAR

LEFT WING

- Main Tire (24 PSI) / Brake.....CHECK
- Fuel Sump.....DRAIN / CHECK
- Fuel Quantity / CAP.....CHECK / SECURE
- Pitot Tube / Cover.....CHECK
- Fuel Vent.....CLEAR
- Wing Tie-down.....REMOVE
- Stall Warning Opening.....CHECK
- Leading Edge.....CHECK
- Wing Tip / Light.....CHECK
- Aileron.....FREE / SECURE
- Wing Flap.....SECURE

Version 4/24/2021

Passenger Briefing

- **S** eatbelts fastened for taxi, takeoff & landing
- **S** houlder harness fastened for takeoff & landing
- **S** eat position adjusted and locked in place
- **A** ir vents (location and operation)
- **A** ll environmental controls (discussed)
- **A** ction in case of any passenger discomfort
- **F** ire extinguisher (location and operation)
- **E** xit doors (how to secure; how to open)
- **E** mergency evacuation plan
- **E** mergency/survival kit (location / contents)
- **T** raffic (scanning, spotting, notifying pilot)
- **T** alking (sterile cockpit expectations)
- **Y** our questions (speak up!)

Before Engine Start

- Passenger Briefing.....COMPLETE
- Seats & Belts.....ADJUST / LOCK
- Doors.....CLOSED / LATCHED
- Circuit Breakers.....IN
- Avionics / Lights.....OFF
- Fuel Selector Valve.....BOTH
- Brakes.....SET / HOLD

Engine Start

- Mixture.....RICH
- Carburetor Heat.....OFF
- Propeller.....FULL FORWARD
- Master Switch.....ON
- Beacon.....ON

If engine is warm, do not prime

- Prime.....2-6 PUMPS AS NEEDED
- Primer.....LOCKED
- Throttle.....1/8 INCH
- Propeller Area.....CLEAR
- Ignition Switch.....START
- Throttle.....1000-1200 RPM
- Oil Pressure.....GREEN
- Ammeter.....CHARGING
- Wing Flaps.....UP
- Exterior Lights.....AS REQUIRED
- Avionics Master.....ON

Before Taxi

- Avionics / Radios.....SET
- ATIS and Clearance.....OBTAIN
- Lights.....AS REQUIRED
- Brakes.....RELEASE / CHECK

Run-Up

- Brakes.....SET / HOLD
- Seats & Belts.....SECURE
- Doors / Windows.....CLOSED / LATCHED
- Flight Controls.....FREE / CORRECT
- Flight Instruments.....SET / CHECK
- Fuel Selector Valve.....BOTH
- Fuel Quantity.....CHECK
- Mixture.....RICH
- Throttle.....1700 RPM
- Magnetos.....CHECK RPM DROP
  Max drop 125 / Difference 50)
- Carb Heat.....ON / RPM DROP / OFF
- Suction Gauge.....4.5 - 5.4
- Propeller.....CYCLE 3 TIMES
- Engine Instruments.....CHECK
- Ammeter.....CHARGING
- Throttle.....IDLE / Check Smooth
- Throttle Friction Lock.....ADJUST

Before Takeoff

Departure Brief // CLEAR for Traffic

- Mixture.....RICH / SET FOR DENSITY ALT
- Trim.....TAKEOFF
- Wing Flaps.....UP (or as required)
- Prop.....FULL FORWARD
- Carb Heat.....COLD
- Boost Pump.....ON
- Lights.....AS REQUIRED
- Transponder.....ALT / AS REQUIRED
- Time.....SET AND RECORD

Normal Takeoff

- Wing Flaps.....UP
- Throttle.....FULL POWER
- Rotate.....60 MPH
- Climb.....V_Y (~80 MPH)
- Prop @ 500FT.....2400 RPM
- Boost Pump @ 1000FT.....OFF

Short Field Takeoff

- Wing Flaps.....UP
- Brakes.....HOLD
- Throttle.....FULL POWER
- Brakes.....RELEASE
- Rotate.....60 MPH
- Climb.....V_X (~68 MPH)

Clear of obstacles climb at V_Y (~80 MPH)

Soft Field Takeoff

- Wing Flaps.....10°
- Elevator.....BACK PRESSURE

Avoid stopping when taxiing onto runway

- Throttle.....FULL POWER
- Lift-off.....AT SLOWEST POSSIBLE SPEED
- Elevator.....EASE BACK PRESSURE
  and remain in ground effect
- Accelerate & Climb.....V_X or V_Y (68 / 80 MPH)
- Wing Flaps.....RETRACT clear of obstacles

Normal Climb

- Wing Flaps.....UP / VERIFIED
- Airspeed.....80-90 MPH
- Power.....FULL THROTTLE
- Prop.....2400 RPM (> 500 FT)
- Boost Pump.....OFF @ 1000 FT
- Mixture.....RICH (unless engine is rough)
- Engine Gauges.....CHECK / MONITOR

Cruise

- Throttle.....20-24IN MP
- Propeller.....2300-2400 RPM
- Mixture.....LEAN rich of peak RPM
- Fuel Selector.....LEFT or RIGHT >5K' MSL
- Heading Indicator.....ADJUST
- Landing Light.....OFF

- Joseph State AWOS-3.....123.775
- Joseph / Enterprise CTAF.....122.80
- McMinnville Radio (FSS).....122.50
- Salt Lake Center (E/S/SW).....128.05
- Seattle Center (N/NE).....123.95
- Seattle Center (W of KLGD).....132.60
- Peavine / Reds / Dug Bar CTAF.....122.90

This checklist is not a substitute for the 1967 Cessna 172H Owner's Handbook and Supplements. All Information is deemed accurate but not guaranteed.

Descent

Engine Instruments.....CHECK
Throttle.....REDUCE as required
Mixture.....ENRICH
Carb Heat.....AS REQUIRED
Radios / ATIS.....SET / OBTAIN
Arrival / Approach Brief.....COMPLETE

Before Landing (BCGUMPS)

Boost Pump.....ON
Carburetor Heat.....ON
Gas.....FUEL SELECTOR - BOTH
Undercarriage.....CHECK GEAR
Mixture.....RICH
Propeller.....AS REQUIRED
Switches.....SET (Landing Light, etc.)

Normal Pattern / Landing

Abeam Numbers.....1500-1700 RPM
Downwind.....80 MPH / 10° FLAPS
Base.....70 MPH / 20° FLAPS
Final.....65 MPH / 20° - 40° FLAPS
When Landing Assured on Final
Carb Heat.....OFF
Propeller.....FULL FORWARD

No Flap Pattern Final Approach.....70 MPH

Short Field Landing

Wing Flaps.....40°
Final Approach Speed.....69 MPH
Touchdown.....W/IN 200' OF DESIRED PT
Brakes.....SMOOTHLY APPLY IMMEDIATELY
Elevator.....FULL BACK PRESSURE
Wing Flaps.....RETRACT for max braking

Soft Field Landing

Wing Flaps.....40°
Final Approach Speed.....65 MPH
In Flare.....ADD POWER to break descent
Touchdown.....GENTLY MAINS FIRST
Throttle.....SMOOTHLY REDUCE TO IDLE
Nosewheel.....HOLD OFF as long as poss
Elevator.....BACK PRESSURE dur rollout

Go-Around

Power.....FULL THROTTLE
Propeller.....FULL FORWARD
Carburetor Heat.....OFF
Wing Flaps.....20° IMMEDIATELY
Pitch.....TO GAIN AIRSPEED THEN V_Y
Wing Flaps.....RETRACT (>V_X & pos. climb)
Climb.....80 – 90 MPH

After Landing

Carburetor Heat.....CHECK OFF
Propeller .....CHECK FULL FORWARD
Wing Flaps.....RETRACT
Boost Pump.....OFF
Taxi Clearance.....OBTAIN / ANNOUNCE
Transponder.....As Required
Landing Time.....NOTE / RECORD

Shutdown / Secure

Lights.....OFF
Avionics Master Switch .....OFF
Mixture.....IDLE CUT-OFF
Ignition Switch.....OFF
Master Switch.....OFF
Control Lock (if available).....INSTALL
SPOT Unit (if applicable).....OFF
Pitot Cover (if available).....INSTALL
Aircraft Hobbs / Tach / Chocks / Tie-down
Flight Plan CLOSED
Post-Flight Walk-Around

Fires

Fire During Start on the GROUND

Cranking.....CONTINUE
(to suck fuel & flames into the engine)
If Engine Starts:
Throttle.....1700 RPM for few minutes
Engine.....SHUTDOWN
If Engine Fails to start:
Throttle.....FULL
Mixture.....IDLE CUTOFF
Boost Pump.....OFF
Continue Cranking.....30-60 Seconds
Master Switch.....OFF
Ignition Switch.....OFF
Fuel Selector Valve.....OFF
Fire Extinguisher.....OBTAIN
EXIT AIRCRAFT & EXTINGUISH FIRE

Engine Fire in Flight

Mixture.....IDLE CUTOFF
Fuel Selector Valve.....OFF
Boost Pump.....OFF
Master Switch.....OFF
Cabin Heat and Air.....OFF
Airspeed.....110 MPH
IF FIRE IS NOT EXTINGUISHED, INCREASE SPEED
EXECUTE FORCED LANDING

Electrical Fire in Flight

Master Switch.....OFF
All Switches except Ignition.....OFF
Cabin Heat / Air / Vents.....OFF
Fire Extinguisher.....ACTIVATE
If Fire is out:
Cabin Heat / Air / Vents.....OPEN
IF ELECTRICAL EQUIP REQ'D FOR FLIGHT
Master Switch.....ON
Circuit Breakers.....CHECK
Essential Switches.....ON (one at a time)
LAND AS SOON AS POSSIBLE

Cabin Fire

Master Switch.....OFF
Cabin Heat / Air / Vents.....OFF
Fire Extinguisher.....ACTIVATE
Cabin Air / Vents .....OPEN when fire is out
LAND AS SOON AS POSSIBLE

Engine Failures

During Take-Off Roll

Throttle.....IDLE
Brakes.....APPLY
Wing Flaps.....RETRACT
Mixture.....IDLE CUT-OFF
Ignition Switch.....OFF
Master Switch.....OFF

Immediately After Take-Off (Low Altitude)

Airspeed.....70 MPH (Flaps UP)
65 MPH (Flaps DOWN)
Wing Flaps.....AS REQUIRED
LAND STRAIGHT AHEAD
Mixture.....IDLE CUT-OFF
Fuel Selector Valve.....OFF
Ignition Switch.....OFF
Master Switch.....OFF

During Flight (Re-Start)

Airspeed.....80 MPH
Mixture.....RICH
Fuel Selector Valve.....BOTH
Carburetor Heat.....ON
Boost Pump.....ON
Ignition Switch.....BOTH
(START if Prop has Stopped)
Primer.....IN AND LOCKED
IF NO START, PROCEED W/ FORCED LANDING

Forced / Emergency Landing

Without Power

Airspeed.....80 MPH
Landing Location.....SELECT
Mixture.....IDLE CUT-OFF
Fuel Selector Valve.....OFF
Boost Pump.....OFF
Ignition Switch.....OFF
Wing Flaps.....AS REQUIRED
Master Switch.....OFF
Doors.....UNLATCHED
Touchdown.....SLIGHTLY NOSE HIGH

Landing With a Flat Tire

Approach.....NORMAL
Touchdown.....GOOD TIRE FIRST
HOLD AIRPLANE OFF OF FLAT TIRE AS LONG AS POSSIBLE

Local Area Airfields

Joseph State (KJSY) 0 nm
CTAF 122.8 / AWOS 123.775
Elev 4121 / Pattern 5100
Rwy 15/33 - 5200 ft

Baker City (KBKE) 206° / 39nm
CTAF 123.0 / ASOS 134.275
Elev 3373 / Pattern 4400
Rwy 08/26 - 3670 ft // Rwy 17/35 - 4395 ft
Rwy 13/31 - 5085 ft

McCall (KMYL) 106° / 56nm
CTAF 122.8 / ASOS 119.225
Elev 5024 / Pattern 6000
Rwy 16/34 - 6108 ft

Idaho County (KGIC) 038° / 59nm
CTAF 122.8 / AWOS 118.175
Elev 3313 / Pattern 4300
Rwy 08/26 - 5101 ft

Pendleton (KPDT) 274° / 70nm
Twr 119.7 / ASOS 118.325 / Gnd 121.9
Apch: "Chinook" 133.15
Elev 1497 / Pattern 2300
Rwy 08/26 - 6301 ft // Rwy 11/29 - 5582 ft

Enterprise (8S4) 328°/ 4nm
CTAF 122.8
Elev 3957 / Pattern 4900
Rwy 12/30 - 2850 ft

LaGrande (KLGD) 251° / 32nm
CTAF 122.8 / AWOS 135.075
Elev 2718 / Pattern 3700
Rwy 12/30 - 6261 ft / Rwy 16/34 - 3399 ft

Lewiston (KLWS) 355° / 62nm
Twr 119.4 / ASOS 135.575 / Gnd 121.9
Elev 1441 / Pattern 2500
Rwy 08/26 - 6511 ft / Rwy 12/30 - 5002 ft

Walla Walla (KALW) 302° / 62nm
Twr 118.5 / ASOS 135.875 / Gnd 121.6
Apch: "Chinook" 133.15
Elev 1194 / Pattern 2200
Rwy 02/20 - 6572 ft

Boise (KBOI) 144° / 116nm
Twr 118.1 / ATIS 123.9 / Gnd 121.7 / CD 125.9
Apch: "Big Sky" (N)126.9 / (S)119.6
Elev 2872 / Pattern 3800
Rwy 10L/28R - 10,000 ft // 10R/28L - 9763 ft

Private Pilot Syllabus Maneuvers

Pre-Maneuver Checklist:

Clearing Turns…..Two 90° turns
Fuel Selector…..Both
Mixture…..Rich
Engine Instruments…..Check
Winds / Altitude…..Check

Steep Turns:

Altitude…..Min. 1500ft. AGL
Power…..16-20 in. MP
Airspeed…..≤ V_A (100-120mph)
Bank…..45°
Power…..Add to maintain speed (1-2 in. MP)
Pitch…..Slight back-pressure
Trim…..As required
Roll-out…..Lead heading by 1/2 bank angle
2nd Turn…..Opposite direction

Slow Flight:

Altitude…..Recover ≥ 1500 ft. AGL
Throttle…..1500-1700 RPM (maintain alt)
Carb. Heat…..As Required
Flaps…..Down 1 notch at a time to 30°
Airspeed…..~60-65 mph (Flaps down)
~65-70mph (Flaps up)
Throttle…..As req to maintain alt/airspeed
—Recovery—
Throttle…..Full Open
Carb. Heat…..Off
Flaps…..Up one notch to 20° immediately
Pitch…..Maintain altitude
Flaps…..Retract when airspeed >V_X
Airspeed…..Resume Normal Cruise

Power-Off (Approach) Stall:

Altitude…..Recover ≥ 1500 ft. AGL
Throttle…..1500-1700 RPM (maintain alt)
Carb. Heat…..As Required
Flaps…..Down 1 notch at a time to 30°
Speed…..Slow to 65mph
Stabilized Approach…..Begin descent
Throttle…..Reduce to Idle
Pitch…..Up to landing attitude, maintain alt
—Recovery—
Elevator…..Reduce Back Pressure
Throttle…..Full Open
Carb. Heat…..Off
Wings…..Level
Flaps…..Up one notch to 20° immediately
Pitch…..for V_Y climb as airspeed increases
Flaps…..Retract w/ airspeed >V_X & pos. climb
Airspeed…..Resume Normal Cruise

Power-On (Departure) Stall:

Altitude…..Recover ≥ 1500 ft. AGL
Throttle…..1500-1700 RPM (maintain alt)
Airspeed…..Slow to 70mph
Pitch…..20° nose high (~feet on horizon)
(30° nose high max)
Throttle…..Increase (~18-19" MP)
—Recovery—
Elevator…..Reduce Back Pressure
Throttle…..Full Open
Pitch…..for V_Y climb as airspeed increases
Pitch / Bank…..Return to normal flight attitude

Rectangular Course:

Reference…..Rectangular field or set of roads
Entry…..45° to simulated downwind leg
Altitude…..600-1000 ft. AGL
Power…..≈16-17 inches MP
Airspeed…..90-100mph
Turns…..Start abeam corners
Bank…..As required (45° max)
Heading…..Apply drift correction to maintain constant distance from field edges
Throttle…..As req to maintain speed +/- 10mph
Pitch…..As req to maintain alt +/- 100 ft
Exit…..End of downwind leg 45° away from field

S-Turns:

Reference….Line on gnd perpendicular to wind
Entry…..Perpendicular to line flying downwind
Altitude…..600-1000 ft. AGL
Power…..≈16-17 inches MP
Airspeed…..90-100mph
Bank…..As req to track constant radius 180° turn back to reference line, 45° max
(adjust to correct for wind drift)
2nd Turn……Cross line, turn opposite direction
Throttle…..As req to maintain speed +/- 10mph
Pitch…..As req to maintain alt +/- 100 ft.
Exit…..Depart maneuver on entry heading

Turns Around a Point:

Reference…..Select prominent point
Entry…..Downwind abeam (≈ 1/2nm radius)
Altitude…..600-1000 ft. AGL
Power…..≈16-17 inches MP
Airspeed…..90-100mph
Bank…..As req'd to track constant radius turn around point (45° max); correct for drift
Throttle…..As req to maintain speed +/- 10mph
Pitch…..As reqd to maintain alt +/- 100 ft
Exit …..On entry heading

Useful Numbers

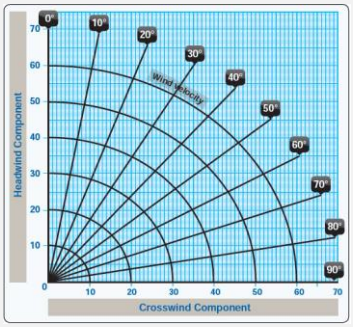
Flight Planning Info

Fuel: **36 gal** 2 wg tanks + 18 gal aux (54 gal)
Empty Weight: **1479 lbs** Max GW: **2300 lbs**
Cruise Power Settings (Std Day, 7000' MSL)
(60%) 2400 RPM / 20IN MP / 8.5 gph / 110 KTAS
(65%) 2350 RPM / 21IN MP / 9.5 gph / 115 KTAS
(75%) 2450 RPM / 23IN MP / 10.5 gph / 125 KTAS
T/O & Land (Std Day, 0 Wind, 5000' MSL, 2300 lbs)
T/O Dist (ground run / over 50' obst) ≈ 1115 / 1995 ft
Rate of Climb (80 mph) ≈ 525 ft/min
Landing Distance (over 50' obstacle) = 1385 ft

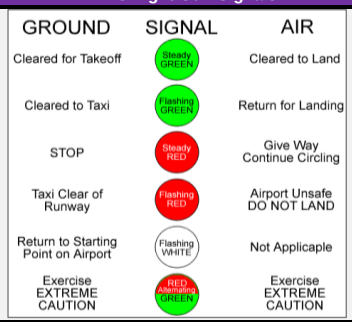
Cessna 172H Airspeeds (MPH)

V_{GLIDE}	Best Glide Speed	80
V_{S0}	Stall Speed Flaps Down	49
V_{S1}	Stall Speed Flaps Up	57
V_R	Rotate Speed	60
V_{FE}	Max Speed with Flaps Down	100
V_{NO}	Max Structural Cruising Speed	140
V_{NE}	Never Exceed Speed	174
V_A	Maneuvering Speed (2300 lbs)	122
V_X	Best Angle of Climb (5000' MSL)	68
V_Y	Best Rate of Climb (5000' MSL)	80
Max Crosswind Limit (knots)		15

Crosswind Component Chart



ATC Light Gun Signals



Briefing Guides

Passenger Briefing

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S houlder harness fastened for takeoff and landing
S eat position adjusted and locked in place
A ir vents (location and operation)
A ll environmental controls (discussed)
A ction in case of any passenger discomfort
F ire extinguisher (location and operation)
E xit doors (how to secure; how to open)
E mergency evacuation plan
E mergency/survival kit (location and contents)
T raffic (scanning, spotting, notifying pilot)
T alking (sterile cockpit expectations)
Y our questions (speak up!)

Departure Briefing

Who is PIC? Who is pilot flying?
Type of takeoff _____ Runway _____
Distance _____ Surface Condition - Dry / Wet / Ice / Grass / Paved
Rotate speed_____ / Climbout speed_____
Departure direction_____ Initial Climb Altitude_____
Departure Procedures (ODPs/SIDs/noise abatement)
Sterile cockpit (< 1000 feet AGL / During all critical phases of flight)
Exchange of flight controls (3-way verbal / visual check)
EMERGENCY PROCEDURES
o On runway: throttle to idle, maintain directional control, brake, taxi off runway, call
o Airborne (runway remaining): land, throttle idle, directional control, brake, taxi off, call
o Airborne (no runway): Under_____ ft. MSL make shallow turns to land at suitable area.
o Above _____ ft. MSL make shallow turns to (l/r) back to the airport, checklist.
"If you see anything unsafe let me know and I'll do the same"
"Did I miss anything? Do you have any questions?"

Arrival Briefing

Arrival airport ATIS or Weather (if no ATIS)
Set Altimeter
Relevant NOTAMS
Determine pattern altitude / direction / type of approach
Avionics – Set for arrival
Planned arrival runway – Usable length and condition
Planned runway exit point and taxi route
Instrument Approach Briefing (If appropriate)

Approach Briefing

APPROACH PROCEDURE..... CONFIRM CORRECT
COMM / NAV / PCL Frequencies .....SET and IDENT
GPS status, RAIM and OBS Coupling .....REVIEW and SET
Final approach course .....REVIEW AND SET
MSA and TDZ elevation ..... REVIEW
FAF Altitude and MDA / DA ..... REVIEW
Time from FAF to MAP (if applicable)..... REVIEW
Missed Approach Point / Procedure ..... …REVIEW