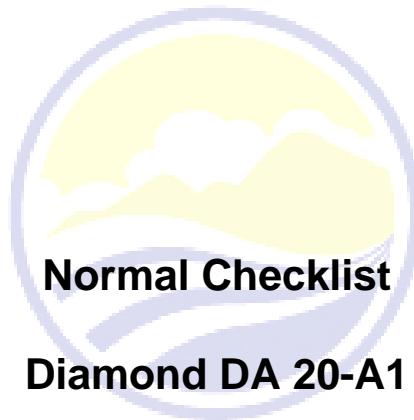




SEA LAND AIR
FLIGHT CENTRE



Normal Checklist

Diamond DA 20-A1

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Airspeeds for normal operation

Unless stated otherwise, following are the applicable airspeeds for maximum take-off and landing weight. The airspeeds may also be used for lower flight weights.

(All speeds at sea level)

Takeoff

	KIAS
<i>Climb over 50 ft obstacle.....</i>	<i>60</i>
<i>Best Rate-of-Climb (VY); Flaps: T/O.....</i>	<i>65</i>
<i>Best Angle-of-Climb (VX); Flaps: T/O.....</i>	<i>57</i>

Landing

<i>Recommended Approach; Flaps: LDG.....</i>	<i>57</i>
<i>Minimum Approach Speed; Flaps: LDG.....</i>	<i>57</i>
<i>Balked Landing Climb Speed; Flaps: LDG.....</i>	<i>57</i>

Max demonstrated X-wind speed, T/O & LDG.....15

Cruise

Maximum rough-air speed (VNO).....	118
Maximum full control-surface deflection (VA)....	104
Max Flaps Extended Speed	81

Best Glide Speed.....Flaps T/O.....72

Preparation

- Navigation.....Planned
- Performance & Range.....Computed & Safe
- Weight & Balance.....Within Limits
- Weather.....Suitable
- Airplane Documents.....Airworthy, onboard
- Baggage.....Weighed & Stowed
- Charts & Nav. Equipment.....Onboard

Preflight Inspection

Cabin Checks

- Flight Control Lock.....Remove
- Ignition Switch.....Off
- Fuel valve.....On
- Throttle free..... IDLE
- Props.....Max. RPM
- Carburetor Heat..... Free, OFF
- Cabin HeatFree and resetting
- ChokeFree, self-resetting
- Master Switch.....On
- Warning Lights.....On
- Fuel Quantity.....Check
- Circuit Breakers.....Check
- Flaps.....Extend to LDG
- Lights.....Check
- Lights.....Off
- Master Switch.....Off
- Fire Extinguisher Charged & Secure
- First Aid Kit.....On Board
- Rescue Hammer.....On Board

Left Wing

- Main Gear Inspect
- Entire Wing Inspect
- Stall Warning..... Inspect
- Pitot-Static Probe Inspect
- Taxi & Landing Lights Inspect
- Wing Tip Inspect
- Position Lights & Strobe Inspect
- Aileron Balancing Weight..... Inspect
- Aileron including inspection panel Inspect
- Wing Flap..... Inspect
- Main Gear Inspect from aft

Fuselage & Empennage

- Fuel Quantity..... Dip tank; min. ½
- Skin Inspect
- Fuel Tank Vent..... Inspect
- Fuel Drain Drain
- Maintenance Fuel Drains..... Inspect
- Antennae..... Inspect
- Stabilizer Inspect
- Rudder Inspect

Right Wing

- Main Gear Inspect from aft
- Wing Flap Inspect
- Aileron, including inspection panel Inspect
- Aileron Balancing Weight Inspect
- Position Lights & Strobe Inspect
- Wing Tip Inspect
- Main Gear Inspect
- Entire Wing Inspect

Nose

- Right Step Inspect
- Temperature Probe Check
- Air Intake (right) Clear
- Oil Quantity Check
(Min. 3.0qt; Max 3.5qt)
- Cowling Inspect
- Nose Gear Inspect
- Wheel Fairing Visual Inspection
- Tire Pressure Check
- Tire and Wheel Visual Inspection
- Wheel Chocks Remove
- Propeller & Spinner Inspect
- Propeller Blades perform Pitch Check by Hand
- Engine Cowling Air Inlets Clear
- Engine Air/Cabin Heat Vents Inspect
- Air Intake (left) Clear
- Left Step Inspect

Before Starting Engine

- Preflight inspection..... Complete
- Aircraft Documents On board
- Baggage..... Stowed & Secured
- Rudder Pedals Adjusted & Locked
- Hobbs Time..... Record
- Seatbelts Fastened & adjusted
- Flight Controls..... Free & Correct (Visual Check)
- Canopy..... Closed & Secure
- Circuit Breakers Check
- Parking BrakeSet
- Brake PressureCheck
- Fuel Shutoff Valve.....On
- Throttle Friction.....Check
- Throttle..... Free & Idle Position
- PropsFine (Max RPM)
- Carburetor HeatOff
- Avionics Master Switch& Electrics.....Off
- Cockpit Check.....Keys In Ignition
- Master Switch (Battery side).....On
- Fuel Pressure Warning Light.....Illuminated
- Generator Warning Light.....On
- Canopy Warning Light Off (press to check)
- Trim Indicator.....Neutral
- Taxi Light.....On
- Position Lights (night).....As required
- Instrument Lighting (night).....As required

Starting Engine

NOTE

Extreme low temperatures require that the engine be preheated prior to engine start.

- Electric Fuel Pump ON (noise of pump audible)
- Fuel Pressure Warning Light OFF
- Throttle
 - Cold Engine start..... IDLE
 - **Warm Engine start.....IDLE**
- Choke
 - Cold Start..... ON, Pull Fully and hold
 - **Warm Engine.....OFF**
- Toe Brakes..... Hold
- Propeller Area.....Clear
- Ignition KeySTART(Activate starter for max. 10 sec)

NOTE

During extreme cold weather starts, hold the choke on until the engine starts to warm up.

- ChokeOFF
- Throttle Maximum 1500 RPM
- Oil Pressure.....Green (Within 10 sec)
- Master (Generator side).....On

CAUTION

If Oil Pressure is below 22 psi (1.5 bar) shut down engine immediately (max. 10 seconds delay.

NOTE

Oil Pressure may advance to the yellow arc until Oil Temp. Reaches normal operating temperatures.

- The Electronic Ignition requires a min. of 100 Propeller RPM to start engine.
- Generator Warning Light.....OFF
- Exterior LightsRequired

Pre-Taxi

- Cabin Heat and Defrost.....As Required
- Flaps.....Check and Retract in Stages
- Dead Mag Check.....Both - Left - Right – Both
- Heading Indicator.....Set
- Avionics Master SwitchOn
- TransponderStandby
- ATISCopy
- Radios/Nav/GPSSet
- Taxi Clearance.....Obtain
- Warning Lights.....Push to Test
- Flight Instruments.....Set
- Fuel Pump.....Off
- Taxi Light.....On
- Engine Gauges.....Check (Green)
- Voltmeter.....Green
- Parking Brakes.....Off
- BrakesCheck
- Flight Instruments.....Check while rolling

Use Rudder First and Brakes Sparingly

CAUTION

**Warm-up engine to a minimum Oil Temperature of 122° F (50° C)
at 1100 to 1500 RPM (also possible during taxi).**

Run-up

NOTE

For OAT's less than -5° F (-20° C) turn cabin heat on for at least 10 minutes prior to take-off.

- AircraftInto Wind (nose wheel straight)
- Area Behind A/C.....Clear
- Parking Brake.....On
- BrakesOn
- Fuel Pressure Warning Light..... OFF
 - **If light illuminates, maintenance action is required and flight should not be initiated**
- Throttle.....1800 - 1900 RPM
- Propeller LeverCycle 3 times
 - **RPM drop: 50 - 250 RPM**
- Ignition SwitchCycle L - BOTH - R –BOTH
 - **Max. RPM drop: 150 RPM) Max. RPM difference (L/R): 50 RPM) Min. RPM difference (L/R): none, but RPM drop must be noticeable**

- Throttle.....1500 RPM
- Carburetor Heat.....ON
 - **RPM drop: max. 50 RPM**
- Throttle.....IDLE
- Carburetor Heat.....OFF
- Parking Brake..... OFF
- Circuit Breakers..... IN

Pre-Takeoff

- Safety BeltsFastened
- Engine Gauges.....Check Normal
- Props.....Full Fine(Max RPM)
- Fuel Quantity.....Check sufficient
- Flaps.....T/O
- Master Switch.....On (Both Sides)
- Magnetos.....Both
- Fuel Pump.....On
- Flight Instruments.....Set & Check
- Avionics.....Check & Set as Required
- Parking Brake.....Off
- Flight controlsFree and correct
- **Crew.....*Departure Briefing***
- **Crew*Take Off Safety Briefing***

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Crew Take Off Briefing

This will be a Normal/Soft Field/Short Field Take Off

- If the **Engine Fails On the runway** I will close the Throttle and **Stop Right Ahead**
- If the **Engine Fails After Take Off** with **Sufficient runway remaining** I will close the Throttle and Land Straight Ahead
- If the **Engine Fails After Take Off** with **Insufficient runway remaining** I will Lower the **Nose (60KIAS)** pick a Landing place within 45° either side of the nose

If altitude permits I will attempt to rectify the problem

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Hold Short/Runway Checks

- T/O Time.....Record
- Landing /Taxi Lights.....On
- Transponder.....Alt
- Heading Indicator.....Agrees with Rwy Heading
- Props.....Full Fine
- Tachometer Full Throttle(2400 RPM to 2550 RPM)
- Engine Gauges.....Green & Normal
- Airspeed..... Alive

After Takeoff /Climb Checks

- Power.....Normal
- Oil Temp & Pressure.....Normal(Green)
- Throttle.....Full
- Props.....2400
- Flaps (200ft).....Up (cruise config)
- Fuel Pump.....Off
- Strobe Lights.....On
- Throttle Friction.....Set

Level Off

- Throttle20"-25"
- Props.....2000-2300 RPM
- Fuel Pumps.....Off
- Lights.....As required
- Heading Indicator.....Set
- Engine Gauges.....Green & Normal

En-route Check

- Fuel.....Sufficient
- Radio.....Set
- Throttle.....Set
- Props.....2100-2300 RPM
- Oil Pressure & Temp.....Normal
- Heading Indicator.....Set
- Altimeter.....Set

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Before Decent Check

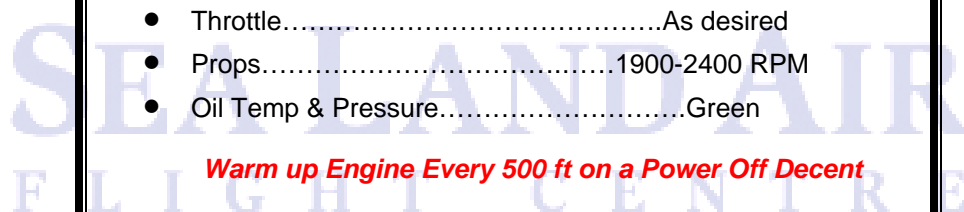
- Canopy.....Closed
- Canopy Warning Light.....Off
- Seatbelts.....Fastened
- Carburetor Heat.....Required
- Landing Light.....On
- Flight Instruments.....Set (HDG & ALT)
- Passenger Safety Briefing.....Complete

Crew Briefing on Airport Elevation Circuit Ht, Approach, Landing & Go Around Procedures

Descent

- Throttle.....As desired
- Props.....1900-2400 RPM
- Oil Temp & Pressure.....Green

Warm up Engine Every 500 ft on a Power Off Decent



Before Landing

- Seatbelts.....Fastened
- Circuit Breakers.....Check in
- Engine Gauges.....Check (Green &Normal)
- Fuel Quantity.....Check
- Props.....Full Fine
- Master Switch.....On (Both On)
- Fuel Pump.....On
- Magnetos.....Both
- Flight Instruments.....Set (HDG & ALT)
- Parking Brakes.....Off
- Brakes.....Check Pressure
- BaggageSecure

Confirm Runway Heading, Altitude and Circuit Height

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Approach

- Airspeed.....60 KIAS (**T/O Flaps**)
- Airspeed.....57 KIAS(**LDG Flaps**)

Go Around

- Props.....Full Fine
- Throttle.....Full
- Airspeed.....57 KIAS (**LDG Flaps**)
- Positive Climb.....ALT & VSI
- FlapsT/O
- Airspeed...Best Rate(Vx)....57KIAS (**T/O Flaps**)
- Airspeed...Best Rate(Vy)...65KIAS (**T/O Flaps**)
- 200FtFlaps up
- Props.....2400RPM

After Landing

- Throttle 1000 RPM
- Transponder Standby
- Flaps.....Up(Cruise)
- Landing/Taxi LightsAs required
- Strobe Lights.....Off
- Landing Time.....Record

Shut Down

- Throttle..... 1000 RPM
- Radio.....Check ELT(121.50)
- Avionics Master Switch.....Off
- Electrics & Fuel PumpOff
- Throttle.....Idle
- Ignition Switch.....Off
- Master SwitchOff
- Hobbs Time.....Record
- Flight Control Lock.....Install
- AircraftChocked & Secure
- Flight Plan.....Closed

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Passenger Briefing

Location and Use Of

- Survival Gear
- First aid Kit
- ELT
- Fire Extinguisher
- Seat belts
- **Flight Controls.....Do not touch**
- **While I am on the Radios.....Do not talk**
- **If you Spot TrafficPoint It Out To Me**

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