

N285DS DA40

Preflight Cabin

1. Rudder Pedals - Adjust
2. Seat Belts - Fasten
3. Front Canopy –Position 1 or 2
4. Rear Door – Closed, Locked
5. Weight and Balance – Check
6. Passenger Brief - Complete
7. Ignition – Off
8. Avionics – Off
9. Trim – Set T/O
10. Circuit breakers - Check
11. Throttle - Idle
12. Mixture - Cutoff
13. Prop RPM - High
14. Master (BAT)- On
15. Annunc pn – hold 2” - check
16. Fuel quantity –check (17 max indicated, 20g each side)
17. Alternate Air – Closed
18. Alternate Static – Handle Aft
19. Lights – Check
20. Master – Off
21. Fire extinguisher – check

Right Wing

1. Flap, Aileron–Check Linkage
2. Flap safety pin - Check
3. Control Surfaces – Check
4. Leading Edge - Check
5. Tie Down, Chocks – Remove
6. Tire – 36 psi
7. 2 stall strips - Check
8. Brakes, Gear - Check
9. Fuel Tank Sump – Drain
10. Fuel Level - Check Visually
11. Fuel Cap – Secure
12. Full Vent – Check
13. Air intake – Check

Nose:

1. Gas, Oil leaks – Check
2. Oil Level – Check - 6qts
3. Cowling - Secure
4. Prop and Spinner – Check

5. Air Inlets and Filters – Check
6. Tire – 29 psi
7. Landing gear – Check
8. Fuel Strainer – Drain
9. Exhaust – Check

Left Wing

1. Flap, Aileron – Check
2. Flap safety pin - Check
3. Control Surfaces - Check
4. Leading Edge - Check
5. Tie Down, Chocks- Remove
6. Tire – 36 psi
7. 2 stall strips - Check
8. Brakes, Gear – Check
9. Fuel Tank Sump – Drain
10. Fuel Level - Check Visually
11. Fuel Cap – Secure
12. Pitot, Fuel Vent – Check
13. Stall Warning – Check
14. Air intake – Check

Fuselage, Left Side

1. Canopy, Left Side– Check
2. Rear cabin door/window-Check
3. Fuselage skin - Check
4. Antennas – Check

Tail

1. Control surfaces – Check
2. Elevator, Rudder, Trim-Check
3. Hinges - Check
4. Tail skid and lower fin – Check

Fuselage, Right Side

1. Canopy, Right Side– Check
2. Window - Check
3. Fuselage skin - Check

Startup, Cold Engine

1. Fuel Pump - On
2. Throttle – 1” Forward
3. Mixture –Rich 3-5”,then Lean
4. Throttle - .5” Forward
5. Ignition – “CLEAR PROP”– Start [10”Max] Mixture - Rich

6. Master [Alt] – On
7. Oil Pressure - Green
8. Fuel Pump – Off
9. Ammeter – Check

Startup, Warm Engine

1. Fuel Pump – On
2. Throttle - 1” Forward
3. Mixture –Rich 1-3”,then lean
4. Throttle - .5 Forward
5. Ignition – “CLEAR PROP”– Start [10”Max] Mixture – Rich
6. Master [Alt] – On
7. Oil Pressure - Green
8. Fuel Pump – Off
9. Ammeter – Check

Before Taxi

1. Avionics Master - On
2. Mixture – Ground Lean
3. Flaps – Up
4. Pitot Heat – Test
5. Fuel Tank – Change Tanks
6. Transponder – Check
7. Instruments – Set
8. Electric Trim – Check
9. Auto Pilot – Check
10. Lights – As required

Taxi

1. Parking Brake – Release
2. Taxi/Landing/Nav Lights – On
3. Brakes – Check
4. Turn Coordinator - Verify.

Run-up

1. Seat Belts - Check
2. Canopy/Rear Door – Locked
3. Fuel Tank – Fullest Tank
4. Engine Instruments – Green
5. Circuit Breakers – Check
6. Fuel Pump – On
7. Mixture – Rich
8. Flight Contrls–Free&Correct
9. Throttle – 2000 RPM
10. Prop – Cycle 3xs

11. Mag–Check Drop<175<50dif
12. Throttle – 1000 RPM
13. Throttle – Check Idle
14. Alt Air – Check and Close
15. Flaps – T/O
16. Trim – T/O
17. Lights – Check
18. Radio – Announce Intentions

Normal Takeoff

1. Flaps – T/O
2. Instruments – Check Green
3. Mixture - Rich
4. Throttle – Full
5. Rotate – 59kts
- 6.

Enroute Climb

1. Airspeed–Vy 73kts,Vx 66kts
2. >600’ AGL min – Flaps up
3. >1000’ AGL- 2400 RPM, Fuel pump off
4. Engine Instruments – Green

Cruise

1. Throttle/Prop –18-24”/2400
2. Trim – Adjust
3. Mixture – Lean as req
4. CHT 150-400°
5. Fast Cruise – 432°
6. never >450°

Before Landing

1. Seat Belts – Secure
2. Fuel Pump - On
3. Gas – Fullest Tank
4. Landing Light - On

Approach

1. Flaps – T/O <108kts
2. Mixture - Rich
3. Prop – Full Forward
4. Throttle – +/- 11”
5. On Base/short approach Flaps LDG – 91kts
6. Final 70kts, 65kts over #s

After Landing

1. Flaps - Up
2. Fuel Pump – Off
3. Mixture – Ground Lean
4. Lights – As req

Shut Down

1. Hobbs / Tach - Record
2. Avionics – Off
3. Lights, except Beacon – Off
4. Mag – Ground Check
5. Throttle – Idle
6. Mixture – Cutoff
7. Ignition – Off, Key Out
8. Master – Off
9. Control Lock – Install
10. Tie Downs – Secure
11. Covers, Plugs, Chocks -Install

V Speeds: Max Gross

Vr - Rotate	59kts
Vy - Best Rate of Climb	73kts
Vx - Best Angle of Climb	66kts
Va – Maneuvering	108kts
Vfe – Max Flap Ex 108kts T/O 20°	
Vfe – Max Flap Ex 91kts LDG 40°	
Vno – Max Cruise	129kts
Vne – Never Exceed	178kts
Vs – Stall (clean)	52kts
Vso – Stall (full flaps)	49kts
Cruise Climb	73kts
Best Glide	73kts
Final Approach (full flaps)	70kts
LDG over #s	65kts

N285DS – MARCH 2023

EMERGENCY PROCEDURES ---

ENGINE FAILURE - T/O ROLL

1. Throttle – Idle
2. Brakes – Apply
3. Flaps – Retract
4. Mixture – Cut Off
5. Ignition – Off
6. Master – Off

ENGINE FAILURE AFTER T/O

1. Flaps – T/O
2. Best Glide – 73kts
3. Fuel Tanks – Check Fullest
4. Fuel Pump – Check On
5. Ignition – Check On Both
6. Mixture – Check Rich
7. Throttle – Full Forward
8. RPM – Full Forward
9. Alt Air – Open

ROUGH ENGINE

1. Airspeed – 73kts
2. Fuel Pump – Check On
3. Fuel Selector – Fullest Tank
4. Engine Instruments - Check
5. Throttle - Check
6. RPM - Check
7. Mixture –set best performance
8. Alt Air – Open
9. Ignition – Check Both
10. Throttle/RPM/Mixture - adjust

RESTART ENGINE IN FLIGHT

Windmilling Prop - >70kts to Vne

1. Airspeed – 80kts
2. Fuel Tank - Fullest
3. Mixture – Check
4. Ignition – Check Both
5. Fuel Pump – Check On
6. Alt Air – Open
- IF No Restart**
7. Mixture - Lean
8. Mixture–slowly forward-start

Stationary Prop - >80kts to Vne

1. Airspeed – 80kts
2. Electrical Equip - Off
3. Avionics – Off
4. Master Switch Bat – On
5. Mixture – Check
6. Fuel Tank – Check
7. Fuel Pump – On
8. Alt Air – Open
9. Ignition - Start

EMERG LANDING, NO POWER

1. Airspeed – 73kts, Flaps UP
2. Fuel Tank Selector - OFF
3. Flaps - LDG
4. Seat Belts – Secure Tight
5. Mixture – Off
6. Ignition – Off
7. Masters - Off
8. Declare – Mayday
9. Land – Select Suitable Area
10. Touchdown – lowest speed

DOOR WARNING LIGHT ON

1. Airspeed – Immediate Reduce
2. Canopy – Check Closed
3. Rear Door – Check Closed

Canopy Unlocked

4. Airspeed – Below 140kts
5. Land – ASAP @ Airfield

Rear Door Unlocked

6. Airspeed – Below 140kts
7. Land – ASAP @ Airfield

Don't try lock rear door in flight

ENGINE FIRE - STARTUP:

1. Fuel Tank Selector - OFF
2. Mixture – Cutoff
3. Cabin Heat – Off
4. Brakes – Apply Full
5. Throttle – Full Forward
6. Masters - OFF
7. Ignition – Off
8. Canopy Open, Evacuate

ENGINE FIRE IN FLIGHT:

1. Cabin Heat - OFF
2. Airspeed – 73kts
3. Fuel Tank Selector - OFF
4. Throttle – Full Forward
5. Fuel Pump – Off
6. Masters – On
7. Canopy – Partial open
8. Emerg LDG – Engine Off

ELECTRICAL FIRE IN FLIGHT

1. Emergency Switch - On
2. Masters - OFF
3. Cabin Heat – Off
4. Canopy – Partial open
5. Land – ASAP

LOSS OF OIL PRESSURE

1. Oil pressure indicators – Check
2. Oil Temp – Check
3. CHT – Check
4. Power – Reduce
5. Land – ASAP

HIGH OF OIL TEMPS

1. CHT and EGT - Check
2. Mixture – Check
3. Power – Reduce
4. Land – ASAP

LOSS OF FUEL PRESSURE

1. Fuel Pump – On
2. Mixture - Rich
3. Fuel Selector – Fullest tank
4. Land – ASAP

LOSS OF RPM

1. Fuel Pump – On
2. Fuel Tank Selector – Check
3. RPM – Full Forward
4. Land – ASAP

ALTERNATOR FAILURE:

1. Electrical Load – Reduce
2. Circuit Breakers – Check
3. Essential Bus – On
4. Remaining Battery – 30m
4. Land – ASAP

SPIN RECOVERY:

- P – Power Idle
A – Ailerons Neutral
R – Rudder Opposite spin
E – Elevator full forward