

FLIGHT OPERATIONS
EXPRESS N713GM

BEFORE STARTING

ENGINE

1. Preflight Insp.—Complete
2. Passenger Brief—Complete
3. Avionics Master Switch & Other Electrical—Off
4. Circuit Breakers—Check in
5. Fuel Valve—Fullest Tank
6. Master Switch—On
7. Seats / Belts—Adjust & Lock
8. Brakes—Set
9. Cowl Flaps—Open

STARTING ENGINE

1. Mixture—Rich
2. Propeller—High RPM
3. Throttle—Full Open
4. Master Switch—On
5. Fuel Boost—High 5 sec./Off
6. Mixture—Idle cut-off
7. Throttle—1/4 open
8. Strobe Lights—On
9. Propeller Area—Clear
10. Ignition Switch—Start
11. Mixture—Advance to Full Rich while cranking
12. Throttle—1000 rpm after start
13. Oil Pressure—Check
14. Avionics Master—On
15. Autopilot—On test mode
16. Transponder—Standby-1200
17. Nav. Lights—On as required
18. Flaps—Retract for taxi
19. Mixture—Lean as necessary

TAXI CHECK

1. Radios—Set/Check
2. Taxi Area—Clear
3. Brakes / Steering—Check

BEFORE TAKEOFF

1. Brakes—Set
2. Seats / Belts—Check secure
3. Doors—Closed & Locked
4. Cowl Flaps—Open
5. Trims—Set for T/O
6. Autopilot—On/check
7. Flight Controls—Free/Correct
8. Flight Instruments—Ck/Set
9. Alt. Static Source—Check
10. Fuel Quantity—Check
11. Fuel Valve—Fullest Tank
12. Fuel Pump—Off
13. Mixture—Rich
14. Throttle—1700 RPM
15. Suction Gauge—Check
16. Engine Inst.—Check
17. Ammeter—Check
18. Magnetos—Ck (150 RPM max. drop ea., 50 RPM diff.)
19. Propeller—Cycle 3X
20. Throttle—Idle check
21. Throttle—1000 RPM or less
22. Throttle Fiction—Adjust
23. Radios / Avionics—Set
24. Circuit Breakers—Check
25. Wing Flaps—Set 10°
26. Mixture—Full Rich < 3000 ft.
>3000 ft. adjust for max. RPM
27. Propeller—High RPM
28. Heading / Compass—Check
29. Lights / Pitot Heat—On as req.
30. Transponder—On / ALT.
31. Time Off—Note
32. Brakes—Release

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NORMAL TAKEOFF

1. Wing Flaps—10 degrees
2. Throttle—Full Open
3. Rotate—60 KTS.
4. Climb Speed—100 KTS.

AFTER TAKEOFF

1. Climb Speed—100 KTS.
2. Flaps—Retract @ +200' AGL
3. Climb Power—Set @ 500' AGL
4. Trim—As Required

ENROUTE CLIMB

1. Airspeed—105 to 120 KTS.
2. Throttle—25" / 2500 RPM
3. Mixture—Lean as necessary
4. Cowl Flaps—Open as req.

CRUISE

1. Power—20" to 24" / 2200 to 2400 RPM
(75% power setting or less)
2. Cowl Flaps—Open as req.
3. Trims—Adjust
4. Mixture—Adjust for Fuel Flow, CHT, and EGT
(CHT-- 420° Max.)
(EGT ~ 1400°)
5. Fuel Valve—Switch tank every 30 min. to balance fuel
6. Engine Instruments--Monitor

DESCENT

1. Mixture—As Necessary
2. Power—As desired
3. Cowl Flaps—Closed

BEFORE LANDING

1. Fuel Valve—Fullest Tank
2. Mixture—Rich
3. Propeller—High RPM
4. Seats Belts—Secure
5. Landing Lights—On
6. Cowl Flaps—Closed

BALKED LANDING

(Go Around)

1. Throttle—Full Open
2. Wing Flaps—Retract to 10
3. Airspeed—100 KTS.
4. Cowl Flaps—Open

NORMAL LANDING

1. Airspeed—100 KTS. entering downwind (Flaps up)
2. Wing Flaps—Extend (< Vfe) 10° downwind abeam touchdown point; 20° on base; 30° on final if req.
3. Throttle—Maintain some power on final until flare
4. Airspeed—70 to 80 KTS
5. Throttle—to idle during flare
6. Touchdown—Main wheels
7. Rollout—Lower nose gently
8. Braking—Minimum required

AFTER LANDING

1. Cowl Flaps—Open
2. Wing Flaps—Retract
3. Landing Light, Pitot Heat—Off
4. Transponder—Standby-1200
5. Trims—Set for T/O
6. Mixture—Lean as necessary

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SECURING AIRPLANE

1. Brakes—Set
2. Electrical Equipment (except Strobes)—Off
3. Transponder—Standby-1200
4. Avionics Master—Off
5. Mixture—Idle Cut-off
6. Ignition Switch—Off
7. Strobes—Off
8. Interior Lights—Off
9. Master Switch—Off
10. Control Lock—Install

SPECIFICATIONS

Express Series 2000
Engine: Cont. IO-550-N1B
Max. H/P: 310 HP @ 2700 RPM
Max. Cruise: 240 HP @ 2500 RPM
Prop: Hartzell 3 blade CS

Length: 25 ft
Wingspan: 31 ft
Wing area: 130 sq ft
Aspect ratio: 7.4:1
Cabin width front: 46"
Cabin width rear: 44"
Cabin height: 42"

Gross weight 3400 lbs max.
Empty weight 1902 lbs*
Useful Load 1498 lbs
Fuel 92 gal
Payload (full fuel) 946 lbs*

***Note:** see weight & balance sheet for latest information

OTHER INFO

Est. fuel burn: 15 gal/hr
Endurance (w/ 45 minute reserve): 5.4 hr
Range @ 185 kts.
with reserve: 1000 miles

HOT ENGINE START

1. Fuel selector—On
2. Throttle—Closed
3. Mixture—Idle cut-off
4. Fuel Boost—High for 15-20 seconds
5. Perform normal start

FLOODED ENGINE

1. Discontinue cranking
2. Allow intake to drain
3. Perform normal start

Note: Do not crank flooded engine; allow intake to drain fuel before attempting start

AIRSPEEDS

V_r -- 60 KTS
V_x -- 75 KTS (flaps 10°)
V_y -- 98 KTS
V_{no} -- 185 KTS
V_{ne} -- 230 KTS
V_a -- 153 KTS
V_{fe} -- 120 KTS
V_{s1} -- 58 KTS
V_{so} -- 55 KTS

BEST GLIDE – 98 KTS