

3. Emergency procedures

This section provides checklist and amplified procedures for coping with emergencies that may occur. Emergencies caused by airplanes or engine malfunction are extremely rare if proper preflight inspections and maintenance are practiced.

However, should an emergency arise, the basic guidelines described in this section should be considered and applied to correct the problem.

Emergency landing:

1. Set airspeed for best rate of Descent 45 kt, flaps up
2. Shut off fuel
3. Shut off engine
4. Tighten seat belts and harness

Avoid tight turns. In some cases, the flaps may be extended before touchdown. Land as usual, straight ahead power-off approach. Do not try to do any turns - the loss of altitude while gliding is marginal.

Accidental spins:

To recover from a spin:

1. Pull throttle to idle position
2. push rudder opposite the spin's rotation
3. bring the pitch control slightly forward.

Fire:

On the ground, before engine is started.

1. Go on pushing starter
2. Shut off fuel
3. Open throttle full as soon as engine starts to blow the fire out

On the ground, engine running.

1. Cabin heat off
2. shut off fuel
3. throttle open to blow fire out

In the air.

1. Cabin heat off
2. Fuel off
3. Ignition off
4. Electrics off
5. Perform an emergency landing

Do Not attempt to restart engine after in-flight fire !!!!!

Fire in cockpit

1. Electrics off
2. Cabin heat off
3. Use fire extinguished

To restart engine in flight (after fuel starvation):

Pull choke before starting and choke in as soon as engine starts.

Note: Make sure that the aircraft is equipped with a functioning fire extinguisher which easily accessible to the pilot. It is recommended to equip the aircraft with an Emergency Locator Transmitter (ELT) and First Aid Kit.

4. Normal procedures

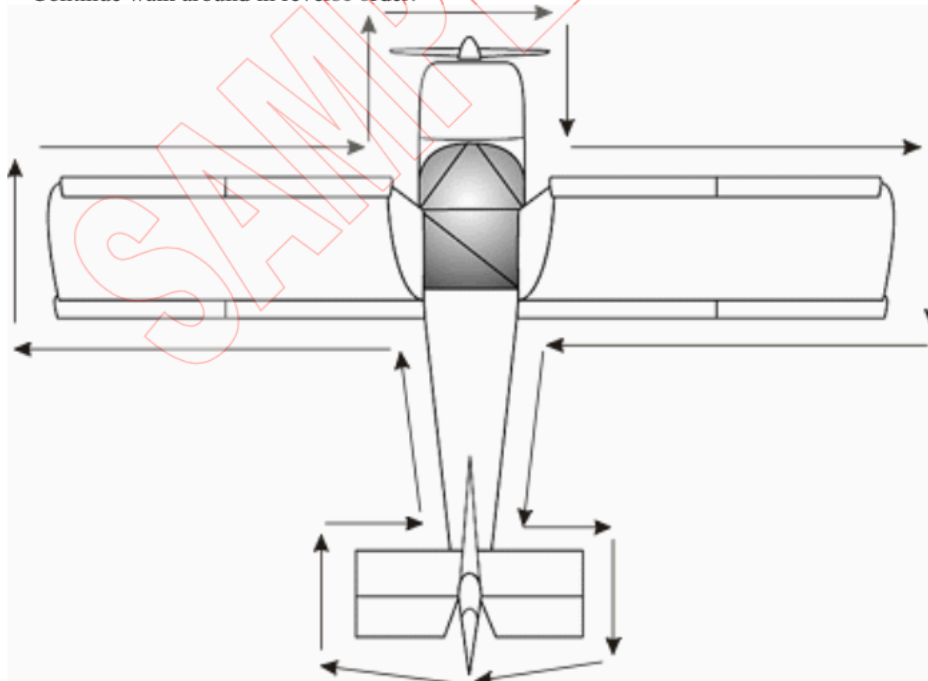
Section 4 provides checklist and amplified procedures for the conduct of normal operation.

Obtain adequate professional flight training on the STOL CH 701 and the required pilot license before attempting operation of the aircraft.

Pre-flight inspection: ("walk around" before each flight):

1. Ignition switch off, fuel open, controls free.
2. Drain gascolator and all drain valves to ensure that no water is in the fuel lines check cowl fasteners for looseness, check spinner and prop. You may want to remove the cowl to check the exhaust and general engine condition for safety. Check fuel quantity as well as coolant level and water pump.
3. Make a visual check of the front wing attachment points, pitot static, upper forward strut attachment (remove tie down), condition of slats and wing tip. Folding wings (option) confirm that the push-pull tubes' quick release connections are secure.
4. Flaperon, check general condition, hinges, rear strut attachment, flaperon control and rear wing attachment points
5. Landing gear condition, attachments, tires
6. Stabilator attachments, elevator and rudder hinges, cables and attachments, controls stops (remove rear tie down).

Continue walk around in reverse order.



Walk around

Before starting the engine:

Operate controls and make a rapid visual check for proper operation. Make sure the windshield is clean for maximum visibility. Check brakes, and fasten and check safety belt.

Starting engine:

(Refer also to the engine Manual for detailed information)

1. fuel valve ON
2. cock - pull (only for cold engine)
3. throttle - idle
4. master switch -ON
5. ignition switch ON
6. turn starter key to start the engine

When the engine starts, set RPM to 2 500. Check oil pressure - it must raise during 10 sec. After the engine start **DO NOT** increase RPM before oil pressure of 2 bar is reached.

7. Release choke gradually when engine starts.
8. Avionics and other switches ON

Warm-up and ground test:

(Refer also to the engine Manual for detailed information)

Warm-up the engine until the oil temperature is 50°C. Set RPM to 3850 and proceed with ignition check Drop must not be greater than 300. The difference between each circuit must be less than 115. After check of take-off setting let the engine cold.

On cold days, wait for the temperature gauge to register before taxing, allowing the engine to warm up.

Note: For winter operation, the radiator size may have to be reduced to keep engine within operating range. Wrap wide tape around the exposed surfaces of the radiator as required.

Taxing:

With the tricycle configuration taxiing is facilitated by use of a steerable nose wheel. Avoid steering the aircraft with the brakes. When winds exceed 20 to 25 mph, taxi very slowly to prevent inadvertent lift-off.

Before take-off:

1. set altimeter
2. set trim
3. check avionics and other switches - ON
4. flaps **up** (handle back)
5. check freedom and deflection of controls
6. check that doors are locked
7. fasten seat belts, not uncomfortably tight (can you reach fuel shut off valves ?)
8. check that choke is full in

Take off:

1. set throttle gradually to full
2. check RPM and gauges
3. release brakes

4. draw stick slightly back

Note: For short field take-off: same as above but use the middle flaps setting and climb at the best angle of climb.

Note: As you become more familiar with your STOL you can try various flaps settings and speeds. This may improve short field take-off performances depending on piloting techniques and skills.

Climb

Best rate of climb (Vy): approx. 55 mph, flaps up. This will provide the greatest altitude gain in shortest time.

Best angle of climb (Vx): approx. 60 – 70 mph, flaps in middle setting (if no middle setting flaps down). This will provide the greatest altitude gain in the shortest distance.

Make sure that limit values for temperatures and pressures are not exceeded.

Cruise:

75 % cruise is achieved at:

Sea level	5 300 RPM
5 000 ft	5 500 RPM
8 000 ft	5 800 RPM
Cruise	80 mph

Lower RPM means slower cruise speed, quieter flying, better fuel economy and increased endurance. Above figured are for standard adjusted propellers.

Descent:

Use some power to prevent engine from cooling too much (approx. 3 000 RPM when descending at 40 to 50 kt)

Best rate of descent – 70 mph, flaps up

Approach:

Throttle full back, 70 mph and flaps down (handle forward) will result in a steep approach for landing in tight spots. Use power to stretch the approach or no flaps - extent them only in short final.

Landing:

When over the runway, move the stick slowly back to prevent touch down until the main wheels make smooth contact. The nose will drop as soon as the stick pressure is released.

Cross wind landings and wind limitations:

Approach with one wing low, recommended.

Straighten the aircraft out just before touchdown. When winds are over 25 kt, simply takeoff and/or land into the wind as practically no ground run is required.

Missed landings:

Apply full power. Pull flaps up when speed is above 50 mph. Continue with circuit pattern

Shut down (engine):

After normal flight and taxing is engine cold enough to turn it off. When long taxing full full power were made, let the engine cold.

1. switches -OFF

2. ignition switch OFF
3. master switch -OFF
4. fuel valve OFF

Remove ignition key when aircraft is unattended

Note: The hourmeter counts "engine time" from the moment the master switch is turned on. Do not forget to turn the master switch off.

Tie down:

When the aircraft is not in use, tie it down at each forward strut at wing junction (loop rope through the hole to prevent it from slipping down and bending the strut) and at the rear fuselage tie down ring. Tie down the stick forward (use a bungee around Y stick secured at the wheels). Make sure the doors are properly latched. The optional cabin cover will minimize dust, or damage to the windshield and windows (and keep curious onlookers out).

Note: As the aircraft is not equipped with a "parking brake" it is important to tie down the plane when it is not attended.