# OWNER'S HANDBOOK

OPERATING INSTRUCTIONS

4-46



CANUCK

FIRET AIRCRAFT LIMITED

FORT ERIE, CANADA

#### PILOT'S OPERATING INSTRUCTIONS

# Preflight Check

Check landing gear and tailwheel for dirt, grass or ice. See that the tires are properly inflated to 17 pounds. Check tires for cuts. Look over wing and tail surfaces for torn fabric. Check propellor for chips or loose bolts.

After entering cockpit see that all loose items are securely fastened. Tie down lugs are provided in the baggage compartment. When flying solo, fasten the unused safety belt. Any loose item in the cabin could become tangled in the controls and cause loss of control of the airplane.

Check controls by moving stick and pedals and watching the control surfaces. Check brake operation. Check fuel quantity gauge.

DO NOT ATTEMPT TO TAKE OFF WITH MEARLY EMPTY TANK.

Set Altimeter to zero, or to required setting. Set tab control for takeoff, nose up, less 1 1/2 turns.

# Starting Engine (Cold)

Turn fuel valve to "ON"

Check ignition switch "OFF".

Use primer or open throttle full and have propellor turned over twice,

Turn ignition switch to "ON", after making sure everyone is clear of propellor.

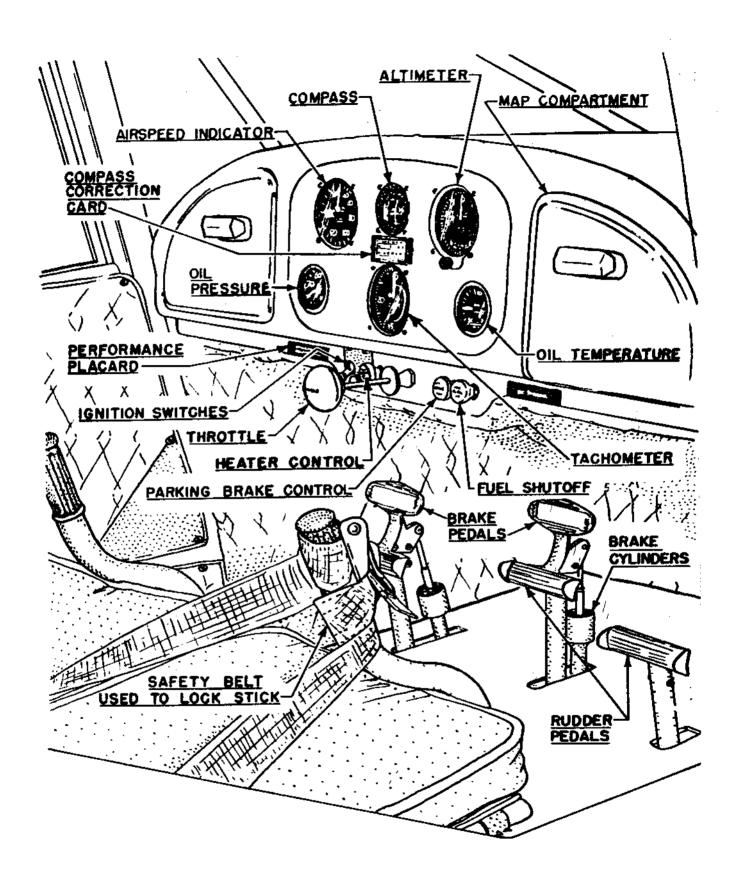
With throttle closed, to open one quarter, have propeller pulled over. Pulling prop over too fast sate out impulse mechanism in magazine.

Note: Always have checks under the wheels in burning provides.

NEVER THRN PROPELLOR OVER WITHOUT SOME THE GADAN.

#### Starting Engine ( 'arm)

In warm weather, and when engine has the abrule, being the day, do not price or turn propover before turning on switch. Intelligible priming is easily connected, but overpriming and flooding the engine makes that in, year difficult.



## Warming up the Engine.

Warm up the engine at about 1000 R.P.M. with aircraft headed into the wind, until the throttle can be quickly opened without causing backfire or missing. Oil temperature should be above 120° F. Oil pressure when idling should be about 10 pounds, normal operating pressure is 30 to 35 pounds.

If oil pressure does not register within 30 seconds after starting engine, SHUT OFF THE ENGINE.

Check engine operation on each magneto separately. Engine speed should not drop more than 50 to 75 R.P.M. when ignition switch is changed from "Both" to "Left" or "Right". Do not run engine on one magneto, except to test.

Check instruments for excessive oscillations of the pointers. During warm-up, watch all instruments for unreasonable readings.

Before taking off, check static engine speed to approx. 2000 R.P.M. (With Sensenich 74FC-48 Propellor)

## **Taxiing**

Have checks removed and release brakes. Open the throttle enough to start plane rolling, then close throttle enough to maintain a fast walking speed. The steerable tailwheel makes the rudder very effective for steering, with or without using the brakes. When the seat is adjusted, the runway is visible straight ahead over the engine cowling.

## Take-off.

Make sure that safety belts are fastened.

Use full throttle, headed into wind.

Move stick forward to raise tail.

When flying speed is attained, approximately 50 M.P.H., move stick back for takeoff. Move stick forward to level out until airspeed reaches 60 M.P.H. before starting to climb.

IF ENGINE FAILS DURING TAKEOFF UNDER 400 FEET - LAND STPAIGHT AHEAD.

If engine fails during takeoff, over 400 feet, select field and land into wind if possible. If a crash landing is unavoidable, make sure that the safety belts are fastened, maintain flying speed of 50 M.P.H. and keep plane under control to moment of impact. Try to take impact on a wing.

#### Climbing.

Best climbing speed is 65 M.P.H. For rate of climb see charts.

## Flight Characteristics.

The airplane has normal flying characteristics. Adjusting the trim tab permits flying hands off. The beginning of a stall is indicated by tail buffeting. When stalled the nose drops and recovery can be made, with power on, with a loss in altitude of 50 feet. Spinning is normal, the controls must be held to keep the plane in a spin. Releasing the controls will normally stop spinning, although opposite rudder will accelerate recovery.

Normal cruising speed is 98 M.P.H. at 2230 R.P.M. Avoid operating engine over normal cruising R.P.M., never exceed 2575 R.P.M.

Maximum permissable diving speed is 160 M.P.H.

For fuel consumption and range at different speeds see performance charts.

The airplane's fuel system is not designed for inverted flying. Consequently, inverted flight, outside loops, and banks over 70° are prohibited.

In glides and maneuvers where the engine is idling, use sufficient throttle to maintain normal operating temperature.

- Oil pressure must be 30 to 35 pounds.
- Oil temperature must not exceed 220° F.

If engine fails during flight, maintain gliding speed of 65 M.P.H. Each 600 ft. of altitude will permit a glide of one mile. Do not attempt to start the engine by diving.

## Approach and Landing

Maintain gliding speed of 60 M.P.H. with throttle slightly on. When 10 to 15 feet above ground, break glide by easing stick back. Do not land with brakes applied.

# Cross Wind Landing.

Care must be used in landing a light plane cross wind. Drop upwind wing slightly, using opposite rudder to prevent turning. Correct for drift before wheels touch.

#### Stopping Engine.

Allow engine to cool at idle for a minute or two before cutting switch. Allow engine to idle on each magneto separately. Cooling engine gradually leaves a film of oil on the cylinder walls.

If engine does not cease firing when switch is turned off, stop engine by turning fuel valve off.

DO NOT TOUCH PROPELLOR UNTIL THE THOUBLE MAS BEEN LOCATED AND CORRECTED.

# Check Before Leaving Cabin.

See that fuel, ignition and throttle are all "OFF".

Lock the brakes.

#### Control Lock.

Park the aircraft with nose Sacing into the wind.

Press toe brakes and pull parking brake control to lock the brakes.

Lock stick full back with safety belt. Using a small rope to a pedal, tie rudder full over.

## Tieing Down.

The airplane is tied down by the lifting handles on the rear foselage (or by the tail-wieel), and by rings on the Struts. If the aircraft is to be parked outside for any length of time, covers shoul be provided at least for the windshield and skylight, the engine and propellor. If freezing is possible, place straw or wood under the wheels. In high wind, park tail into wind, the controls opposite.

## Cold Weather Operation.

DO NOT PENDVE AIP FILTER - If the filter clogs with snow, a valve inside the cowl opens.

Frost, snow or ice must be removed from wings and tail surfaces before attempting to fly the airplane, not only because of the additional weight, but because lift is decreased and control effectiveness is lost. Ice may be removed by using hot water, and ther unleaded gasoline or keromene. On the windshield and windows use glycol. Do not use gasoline or any other solvent.

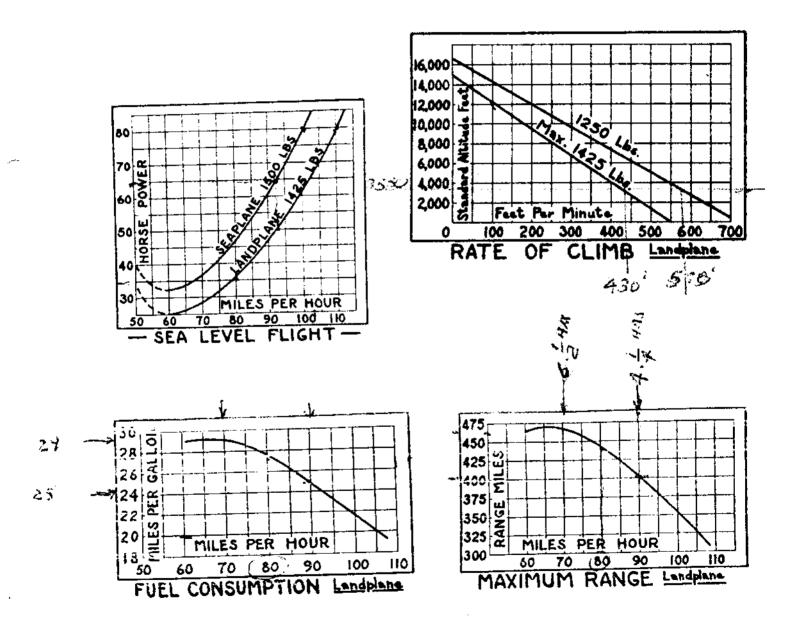
If the engine will not start, drain the oil and heat. Care must be taken to keep away from open flame, as the oil contains dissolved pasoline which will vaporize and is highly inflammable. Temperatures much below freezing may require draining the oil from the oil pressure line to the gauge, and replacing with instrument oil. The fuel injection acts as a primer when the throttle is full open and the prop is turned over. Two turns should be sufficient in the normal weather, up to six turns in extreme weather.

Carefully check full, free operation of all controls, doors and windows. Carefully inspect landing gear for ice that might interfere with proper operation of the landing gear or brakes. Avoid taxiing through pools and splashing freezing water. Do not apply brakes suddenly on ice.

In flight, when icing conditions are possible (air temperature between 15° - 35°F, or in fog or rain) avoid steep climbs, steep banks and spins. The stalling speed may be 10 M.P.H. or more higher than normal.

Land with power partly on.

Wear dark glasses when flying over snow, and use extra care in judging altitude



#### SEAPLANE OPERATION

Equipped with floats, the aircraft has no changes in flying characteristics. However, water handling is different in, that the aircraft is carried along by current and wind. It is particularly important that the engine idling adjustment is properly set.

Taxing should be very slow, or on the step. Intermediate speeds throw spray on the propellor. Stick is always held full back in taxing. Turns OUT OF THE WIND are made WITH POWER, turns INTO THE WIND are made WITHOUT POWER. In moderate to strong winds always keep plane facing into wind, shutting down power to travel backwards, using power and rudder to travel sideways. Approach moorings from lee side, or sideways. When flying alone, to tie up, stand on float having a line tied to a strut, and control plane from float. A mooring bridle should always be carried in the aircraft.

Taxing downwind, then turning and taking off over the same course will lessen the danger of hitting objects floating in the water. To take off, lift water rudders, trim tab to full nose up, open throttle full, and allow plane to trim itself. Takeoff is at about 55 M.P.H. Tendency to rock is curbed with slight back pressure on stick if necessary. Taking off with heavy load on very smooth water can be assisted by taxing over the takeoff run once to create small waves. Allerons may also be used to lift one float at a time.

In very light wind, takeoff with the current. Check floats for water regularly.

In case it is necessary to land on land, keep plane at 5 M.P.H. over stalling, select grass if possible. A smooth landing on grass should not damage the floats or aircraft in any way.

## SKI OPERATION

Ski operation varies so greatly with different snow conditions that only experience can determine correct procedure. Surface friction may be less or much more than wheels. Prevailing conditions determine the precautions to be taken.

When taxiing stops, skis always stick. Before starting to taxi, make sure skis are free.

In taking off from sticky snow difficulty may be overcome by taxing over the course once or twice to pack a runway. In landing it is safer to touch down with some flying speed to clear bottom of skis of pieces of ice or snow frozen to the bottom of the ski.

Stopping for a short time, taxi in a circle and park in the tracks. Stopping overnight, skis must be run up on poles, or onto a dry spot, or onto dry ice, to avoid freezing in solid.

Skis removed for summer storage require a liberal application of linseed oil.