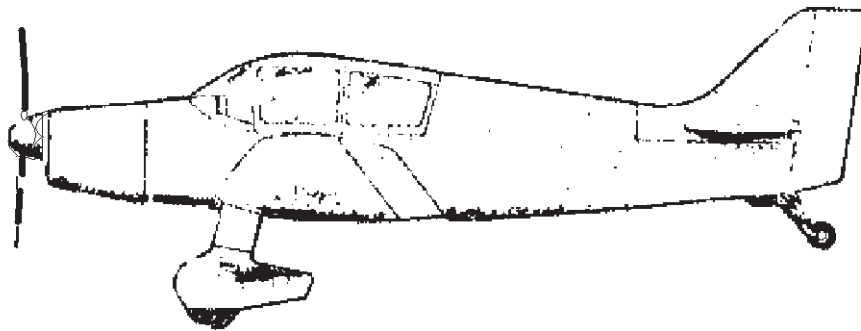


Identification : Aeroplane Type DR 1050M1 Sicile Record
Serial No 579
Engine : Type Continental 0200A
Serial No 20R-077
Propeller : Type Ratier FH 110-R
Serial No 26
Registration : **G-BAEE**

Flight Manual



Aeroplane types

DR 1050 , DR1051 AMBASSADEUR and SICILE

DR 1050 M1 , DR1051M1 SICILE RECORD

CENTRE EST AERONAUTIQUE

Boite Postale 40-Dijon

Edition 1- December 196511

Pages 3-1;3-2;4-1;5-1 to 5-15

Approved SGAC 13 April 1966

Translation 8 3 93 RL

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This aeroplane must be used within the Operating Limits specified in this manual

This document must be kept permanently in the aeroplane.

GENERAL

Aeroplane Types DR1050 ; DR1051 ; DR1050 M1 ; DR1051 M1

Normal Category

Type certificate no 6 dated 11 3 1960

Extensions 13 9 1961

No 6/2 19 6 1964

Constructor : CENTRE EST AERONAUTIQUE - BP 40 21 DIJON

Definition of variants

DR1050 Fitted with CONTINENTAL O 200A

DR1051 Fitted With POTEZ 4 E 20

DR1050 M1	SICILE RECORD	{ Identical to DR 1050 or 1051 with } the following exceptions
DR1051 M1	SICILE RECORD	

Horizontal stabiliser enlarged and made all flying

Vertical stabiliser swept back and with fixed fin

Carb air intake moved to make use of ram air, with hot air facility and fuel pressure warning

Weight and balance schedules

Classes of use

Private

Aerial work

Public carriage of passengers (3)

(Provided that corresponding suitable approved radio equipment is fitted)

STANDARD AEROPLANE (Figs1 and 2)

Dimensions

Wingspan	8.72m	28.6 Ft	
Length	6.48m	21.25 Ft	(Ambassadeur and Sicile)
	6.35m	20.83 Ft	(Sicile Record)
Height	1.77m	5.8 Ft	
Wing area/	13.6 m ²	146.38 Ft ²	

Weights

Empty with oil(approx)	415kg	914.9 lb	(Ambassadeur and Sicile)
	430kg	947.98 lb	(Sicile Record)
Maximum takeoff:	750kg	1653.46lb	(Ambassadeur and Sicile)
	780kg	1719.6lb	(Sicile Record)
Maximum landing :	740kg	1631.42 lb	

Power plant

Continental O 200A	100BHP (1050 and 1050M1)
Potez 4 E 20	105 CV (1051 and 1051M1)

Tankage

Oil

Capacity	4.5 Litres	
Continental	Summer	SAE 40 (no 80)
	Winter	SAE 20 (no 65)
Potez	Summer	SAE 40 (no 80)
	Winter	SAE 30 (no 65)

Fuel

Minimum octane	80/87 Continental	
	100 Potez	
Capacity	Front	52 Litres
	Rear	54 Litres
	Supplementary	40 Litres

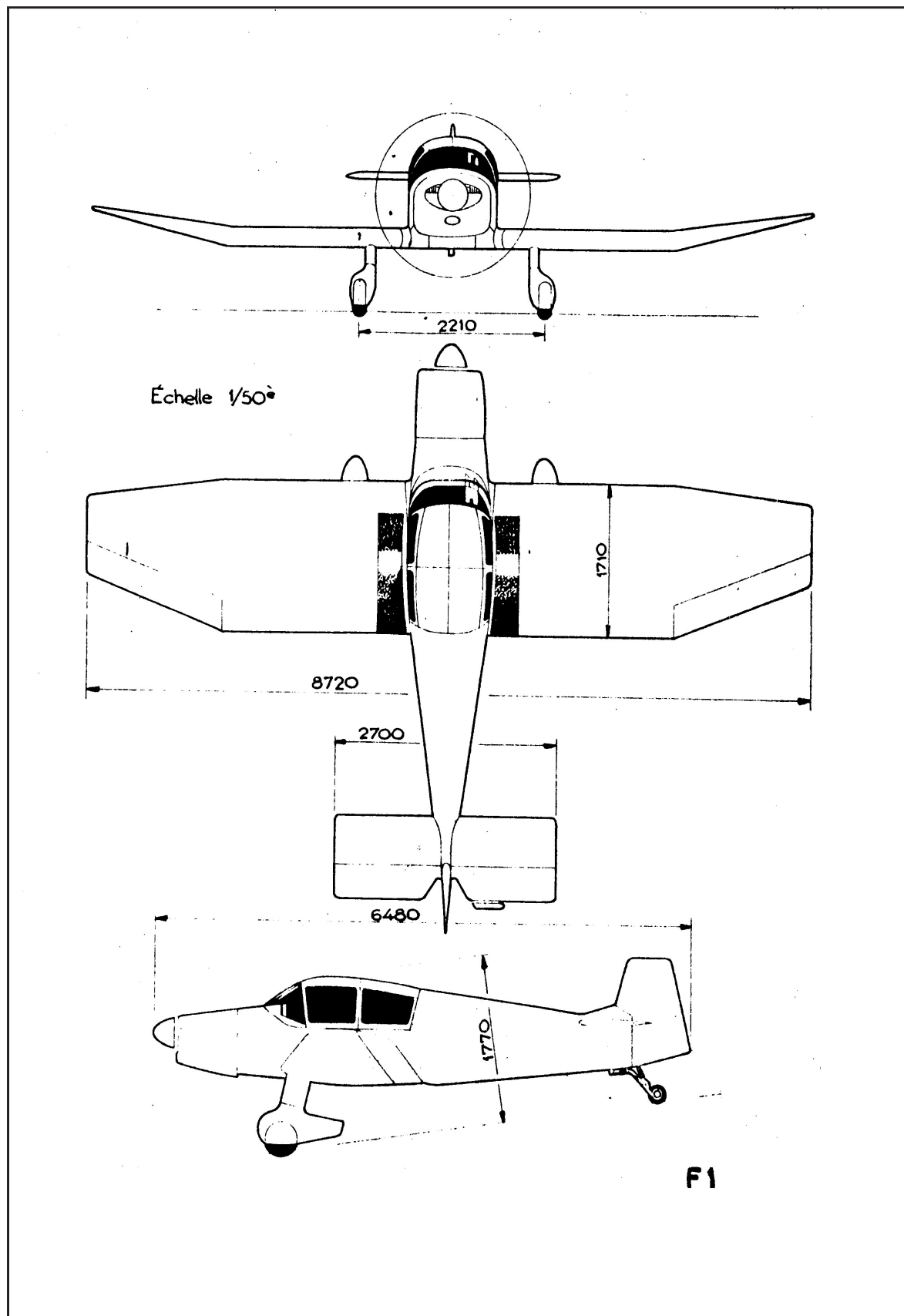
Undercarriage

Main	Rubber shock absorbers travel 170mm 6.69 inch
	Tyres 420 x 150 Pressure 1.6kg/cm ² 23 psi
Brakes	Hydraulic Fluid - Lockheed no 5
	Mechanical on Ambassadeur
Tailwheel	Steel leaf spring solid tyre 6 x 2

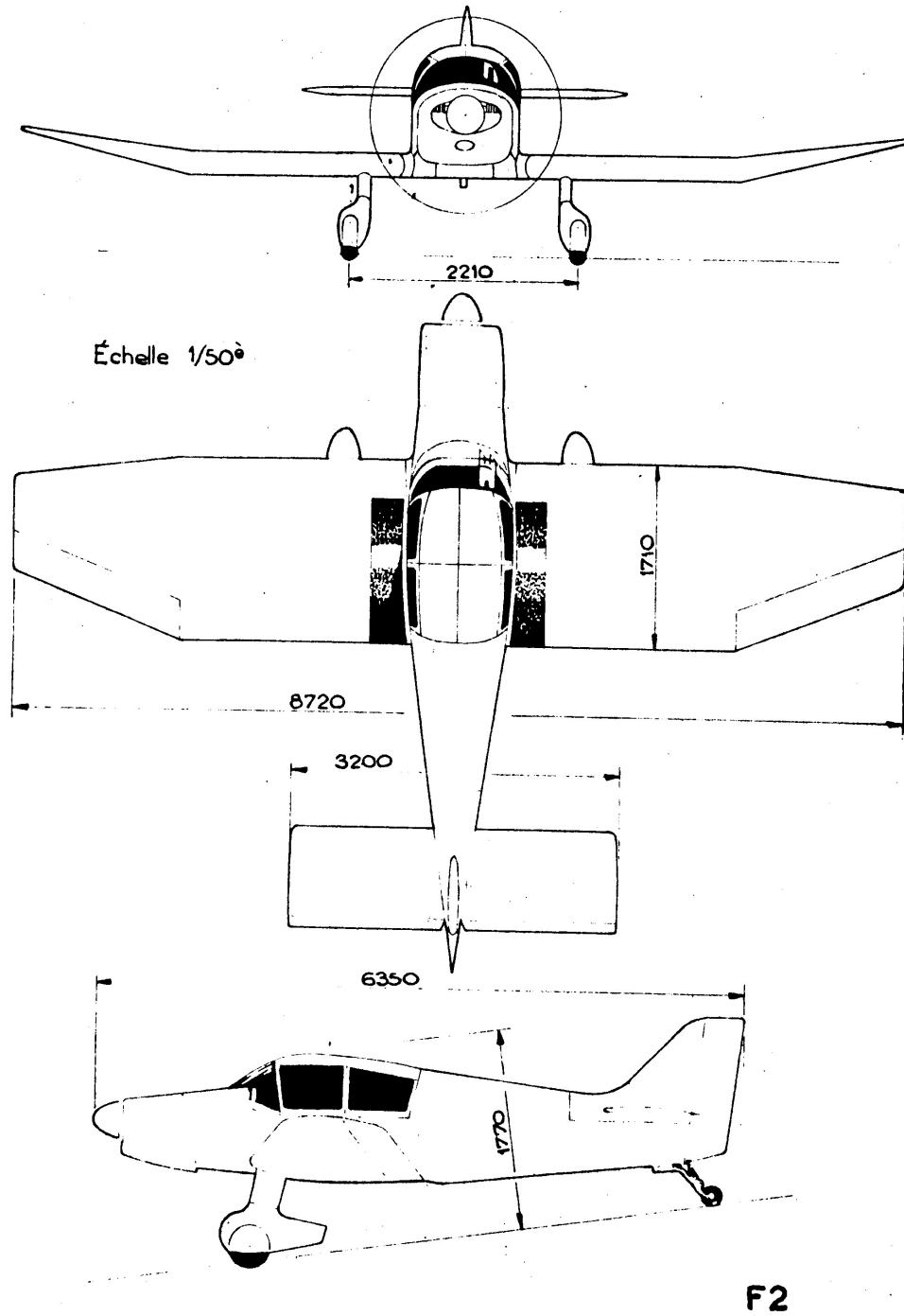
Battery

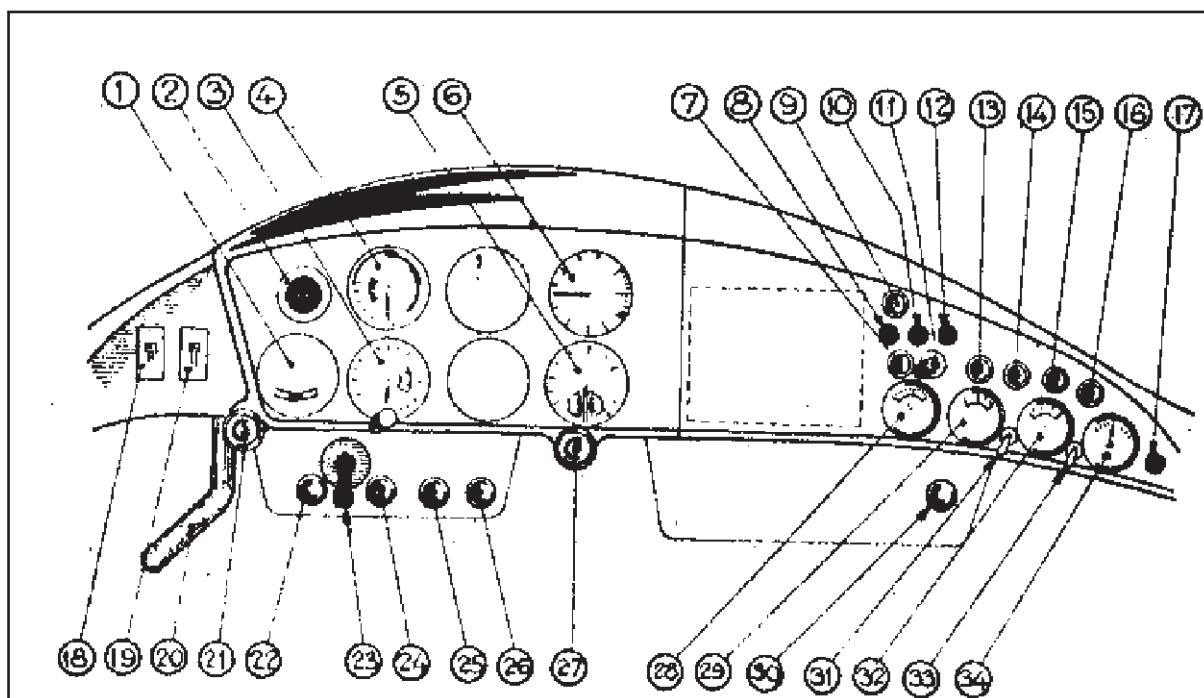
12V	30 Ampere- hour
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Ambassadeur and Sicile DR1050 and DR1051



Sicile Record DR1050M1 and DR1051M1





Instrument panel

Continental O200A DR1050 and DR1050M1

- | | | |
|------------|---|----------------|
| 1 | Rev counter | |
| 2 | Compass | |
| 3 | Turn and slip (Electric) | |
| 4 | Airspeed indicator (MPH) | |
| 5 | Variometer (Rate of climb indicator) | |
| 6 | Altimeter (Feet) | |
| 7 | Oil pressure Gauge | |
| 8,10,12,17 | Fuses (slow blow) | 10 Panel power |
| | See wiring diagrams (F9 and F10) | 12 T & S power |
| | The fuses unscrew anticlockwise | 17 Generator |
| 9 | Stall warning light and horn | |
| | Cannot operate unless the main power switch is on. | |
| | In level flight and in turns the horn and lamp/will operate 6-10 mph before the stall. On landing,/under normal circumstances only a short signal will occur at touchdown | |

13	Front tank low contents warning light
14	Low fuel pressure warning light
15	Rear tank low contents warning light
16	Charging indicator Lamp lights if engine speed is insufficient for generator to charge, or if the generator output voltage falls below 13.6 Volts indicating that the battery is supporting the total electrical load. In flight the light is off when the generator is functioning normally
18,19	Left & right Magneto switches
20	Handbrake lever
21	Left hand Throttle
22	Carburettor heat control knob
23	Fuel tank selector When closed warning lights are both on, selects either front tank, rear tank or both off
24	Mixture control knob
25	Starter knob
26	Main Battery isolator switch
27	Right hand Throttle
28	Oil temperature gauge
29	Front fuel tank contents gauge indicates in 1/4 s of tank capacity
30	Cabin heat control
31	Electric fuel pump switch
32	Rear fuel tank contents gauge
33	Generator switch
34	Voltmeter

Other controls

Brakes Operate individually at the end of the rudder travel
Parking brake to the left of the pilot seat, pull to operate,
Lock by pushing the button into the detent

Fuel tank selector Closed , both warning lights on
1 position for each tank

Airbrake 2 Position lever open or closed

Trim wheel To left of pilot seat on cockpit wall operates in correct sense

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OPERATING LIMITS

Approved by the SECRETARIAT GENERAL A L'AVIATION CIVILE

Limiting Speeds at max weight

Vne	Never exceed speed	161 mph
Vno	Normal max operating speed	130 mph
Vp	Rough air/manoeuvring speed	105mph
Vfe	Max speed with airbrakes open	93 mph
	Crosswind limit	15 Knots (20 Knots SICILE RECORD)

Centre of Gravity limits

Forward	19% = 0.32m	1.05 Ft	Behind the reference (leading/edge of the inboard part of the wing)
Rear	30% = 0.51m	1.67 Ft	AMBASSADEUR and SICILE
	33% = 0.565m	1.85 Ft	SICILE RECORD

Maximum weights

Takeoff	750kg	1653 lb	AMBASSADEUR and SICILE
	780kg	1719 lb	SICILE RECORD
Landing	740kg	1631 lb	
Load factors	Airbrakes retracted at max weight of 780kg 1719lb		
	+4.1g -1.7g		
	Ultimate load factors 1.5 times the above		

Engine limitations

Normal and maximum continuous	2750 rpm
Oil temp maximum	107°C Continental
	120°C Potez
Minimum oil pressure	0.7 kg/cm ² 10 psi
Minimum fuel pressure	0.08 kg/cm ² 1 psi

Instrument markings

ASI

Vi is 3% higher than Vc

White arc	Airbrake operating range	50-96 mph
Green arc	Normal operating	56-136 mph
Yellow arc	Calm air only	136-167 mph
Red line	Never exceed speed	167 mph

Tachometer

Red line	Max RPM	2750
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Oil temp gauge

Green arc	Normal operating range	40-107°C CONTINENTAL 40-120 °C POTEZ
Red line	Temp not to exceed	107 °C CONTINENTAL 120 °C POTEZ

Oil pressure light

Illuminates at minimum allowable oil pressure

0.7 kg/cm ²	10 psi CONTINENTAL
1.85kg/cm ²	26 psi POTEZ

Fuel pressure light

Illuminates at minimum allowable fuel pressure

0.08 kg/cm ²	1 psi
-------------------------	-------

Emergency procedures

(Approved by SECRETARIAT GENERAL A L'AVIATION CIVILE)

Engine fire in flight

- Cut off fuel
- Push Throttle to fully open
- Switch both Mags or ignition off
- Turn off battery master switch and generator switch before touchdown

Note switching off the battery master switch will also switch off the stall warning

Generator failure

If the red light illuminates, switch off the generator switch and reduce electrical demand to the minimum safe level to conserve the battery which is now supplying all the load.

Potez engine: In case of engine misfire only, switch the safety switch to emergency

Carburettor icing (SICILE and SICILE RECORD)

If engine speed or power reduces in normal flight pull carb heat knob to full on, only two positions are permitted full out or full in, power will return as the ice melts.

If the icing is severe pull the carb heat on and apply full throttle

Emergency landing

- Check straps are tight
- Turn fuel off
- Switch electrical master switch off before touchdown to minimise the risk of fire

Note Best approach speeds, airbrakes retracted

Vi = 83 mph at 1630 lb

Vi = 74 mph at 1322 lb

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USE

(Approved by the SECRETARIAT GENERAL A L'AVIATION CIVILE)

Weight and balance

Maximum takeoff weight

750 kg 1653 lb (AMBASSADEUR and SICILE)
780 kg 1719 lb (SICILE RECORD)

Maximum landing weight

740 kg 1630 lb

Maximum weight on the rear seats

110 kg 242 lb (AMBASSADEUR and SICILE)
140 kg 308 lb (SICILE RECORD)

Determination of the CG for a given loading

1st method

Using CG chart supplied by the manufacturer

IMPORTANT verify that the figure in the latest weight schedule is used

2nd method

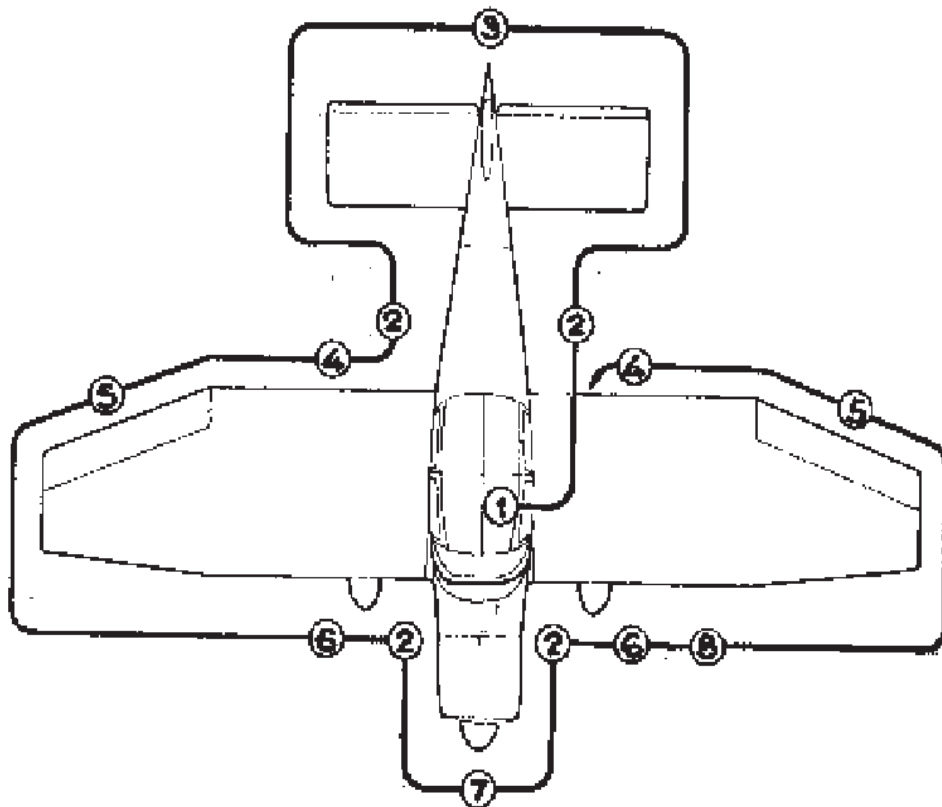
Calculation of moment arms using the following moments in METRES

Front passengers	0.48
Rear passengers	1.16
Front fuel (52 l)	- 0.26
Rear fuel (54 l)	1.17
Supplementary fuel (40 l)	1.64

Empty weight as per the latest weighing schedule corresponding to the actual state of the aircraft

IMPORTANT Do not forget that the centre of gravity of the aircraft will vary in flight with the consumption of fuel. One can take account of this as explained later by the varying use of the fuel tanks

Preflight Inspection



F5

Before boarding the aeroplane

PREFLIGHT INSPECTION. (fig 5)

- 1

Master switch	ON verify the operation of the gauges
Master switch	OFF
Both Mags	OFF
Fuel tank selector	On forward tank
Mixture	CUT OFF (Continental only)

- 2

Before the first flight of the day and after each refuelling press the Gascolator and each tank drain for 3 seconds to remove water condensation and other impurities

Check the fuel filler caps are secure

Check the static vents are clear (one each side of the fuselage)

- 3

Check the condition of the wings tailplane etc

Check the trim tab fixings

Check the rudder hinges and the tail wheel springs

- 4

Check the condition of the airbrake

- 5

Check the aileron hinges

Remove any tie down ropes

- 6

Check the condition of the wheel spats

Check the condition of the tyres and the tyre pressures (23 psi)

- 7

Check the windscreen is clean

Check the oil level (do not fly with less than 2 litres)

Fill the oil before a long flight, close and latch the filler hatch

Check the cowlings are secure (Dzus fasteners lined up fore and aft)

Check the condition of the propeller and spinner

Check the air filter is clean and not blocked with eg grass etc.

Check fuel drains and gascolator

Check the exhaust fixings are secure

- 8

Remove the cover from the pitot tube if fitted and check that it is clean and not obstructed

Carry out the preflight inspection before the first flight of the day, thereafter checks may be limited to control checks and to oil and fuel levels

If the aeroplane has not been used for some time or it has been used by other people carry out a very thorough preflight inspection

- Double check the flight controls and the trim tab

- Check the inspection covers are in place

- Check the air intake for sealing

- Check the complete aircraft for hangar rash if it has been in a public hangar

- Check the tips of the propellor blades, the wheel spats and the elevator assembly if the aeroplane has been operated off stony/ground

Before starting the engine

Adjust and lock seats and seat belts, check that baggage is tied down
Check the controls
Set the parking brake pulled out and locking pin engaged
Master switch on
Trim tab to neutral (marked on trim wheel)
Mixture full rich pushed (Continental only)
Carb heat off (pushed in) except in icing conditions
Fuel on forward tank

Starting

Electric fuel pump on
When the pump slows down pump the throttle 2 or 3 times over its full travel (Continental)
Prime 2 or 3 times (Potez)
Set throttle
Generator switch on
Contact on 2 or whichever mag has the impulse coupling
Start

Intermittent bangs followed by puffs of black smoke from the exhausts indicate a flooded engine, cut the mags push the throttle right in, turn the engine through 10 revolutions with the starter to expel the excess fuel.

Carry out a normal start without pumping the throttle.

If the engine is reluctant to start (cold weather) it is permissible to pump the throttle additional times, as soon as the engine catches slowly open the throttle to maintain revolutions

In very cold weather turn the propeller over by hand before trying to start as above if the engine does not respond the spark plugs are frozen and it will be necessary to warm the engine

NOTE

Allow the starter to cool for several minutes between attempts to start so as not to burn it out prematurely

Taxying

Release the parking brake

Taxy slowly to avoid the need for braking and the consequent wear on brakes and tyres

To make sharp turns the brakes operate at the end of the rudder travel

When taxying in windy conditions keep stick into wind

Taxy particularly gently on stony ground to avoid stones hitting the prop blades, wheel spats and elevator

NOTE 1

At forward CG use the brakes very gently especially if the wind is from the rear

NOTE 2

The engine cooling is calculated for flight conditions be carefull not to overheat the engine on the ground

TAXY WITH THE MINIMUM OF POWER, SPEED and BRAKING

Before takeoff

Warm the engine at 1200 rpm

Check each magneto

Continental at 1700 rpm 50 rpm drop between 1 and 2

Potez at 2000 rpm max drop 150 rpm

Check the instruments and the radio

Airbrakes locked in

Brakes off

Controls full and free movement

Contact on both mags

Carb heat cold

Mixture full rich (Continental)

Oil temperature in the green, pressure warning light off

Front fuel tank selected

Fuel pump, on

Fuel low pressure light out

Seat belts secure

Doors locked, central catch above head secured

No other aircraft approaching

Trim at neutral

Altimeter set

Takeoff. (fig6)

Carb heat and mixture pushed (cold air, full rich)
Slowly apply full throttle
Elevator, lift the tail at about 37 mph
Take off at between 56 and 62 mph
Hold down to gain speed in ground effect
Climb at 75 mph

For a takeoff on stony ground it is better to feed in the throttle slowly to gain speed before the rapid rotation of the propeller throws stones against the underside of the aeroplane

Takeoff in crosswind

(less than 15 Knots AMBASSADEUR and SICILE)
(less than 20 Knots SICILE RECORD)

Accelerate the aircraft to a slightly higher speed than normal and lift off rapidly, Once in the air turn into wind to maintain correct track.

Climb (fig6)

Best climb to avoid obstacles
Best climb speed 75 mph

Normal climb
Accelerate at full throttle to optimum climb speed 87 mph
Adjust trim to reduce stick load
Fuel pump off

NOTE

Steep climbs should be for short periods only to take account of reduced engine cooling

ATTENTION

The last 5 litres of fuel in the rear tank are not useable in the climb

Takeoff and clearance of obstacles

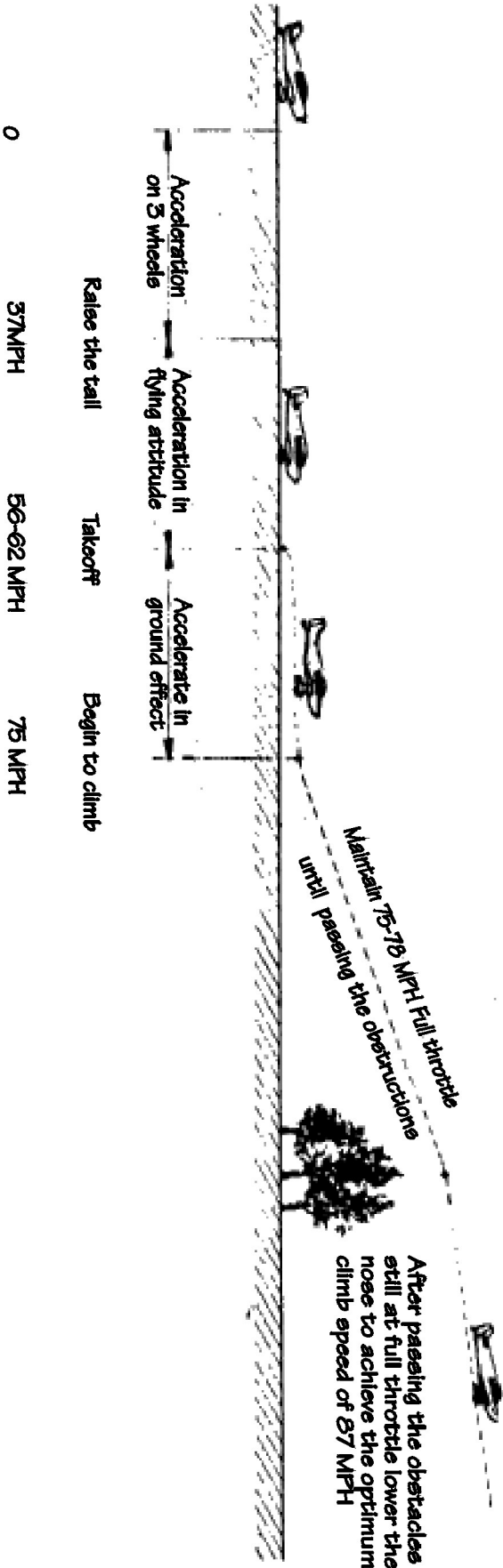


Figure 6

Cruise

Adjust the throttle to give the required power

Set the trim for cruise

Adjust the mixture (Continental only)

Lean the mixture slowly until the engine begins to run roughly
then richen it just enough until the engine runs smoothly

The mixture will need adjustment after each change in power setting or altitude

Use of Fuel tanks

As a general rule avoid too great a difference between the fuel gauges

Large changes in the CG can be caused by uneven useage of fuel

With forward CG use the forward fuel first

With Aft CG use the aft fuel first

In the intermediate case use the tanks alternately 1/4 capacity at a time

Cruising altitude

For constant power one must increase the throttle as altitude/increases (eg at 8000 ft full throttle = 75% power)

It is an advantage to cruise at altitude because air density decreases with altitude and drag reduces equally

As shown in the table following for an average weight of 750/kg(1650lb) the range without reserves for 106 litres of fuel, nil wind, standard atmosphere, 75% power, Continental engine, wood propeller

Altitude standard ft	0	3000	6000	7800
rpm	2550	2620	2700	2750 Full throttle
Speed indicated (MPH)	118	118	115	114
Ground speed (MPH)	121	121	124	126
Range (Miles)	577	596	615	627

Cruise settings

To obtain maximum range it is an advantage to use a moderate power setting. In other respects, since the aeroplane is a means of rapid travel, it is possible to make use of this advantage of speed.

It is up to the pilot to calculate the optimum for each flight, bearing in mind the MET conditions and the preferences of the pilot

NOTE It is mechanically acceptable to cruise as fast as possible

Stalling

Speeds indicated at the stall weight 1 650 lb

Level flight cruise configuration	55mph
Landing configuration	56mph
Banked turn 30° cruise configuration	59mph
45°	65mph
60°	78mph

The stall warning horn and light operate about 9 mph before the stall

The stall is classical in all configurations (very light buffet will be felt)

Recovery is simple and rapid.

Descent

Regularly apply carb hot air as the power is reduced
(SICILE and SICILE RECORD)

Reduce speed, adjust trim

Mixture to full rich (Continental)

Electric fuel pump on, front tank selected

Below 96 mph apply the airbrakes as required, reset trim

NOTE

During a long descent apply power from time to time to prevent overcooling of the engine

Landing (fig7)

Approach speed V_i 71 mph at 1630 lb

Carb heat to hot (SICILE and SICILE RECORD)

Mixture to full rich (Continental)

Keep close control of the speed especially in conditions of strong wind or turbulence

Round out progressively to allow the tail wheel to touch down first

Overshoot

Restoration of power is possible in all configurations

Push carb heat to cold (SICILE and SICILE RECORD)

Retract the airbrakes as soon as possible

Braking

With aft CG the brakes may be applied strongly

With forward CG apply the brakes in moderation

Retract the airbrake

Landing in crosswind

Approach with a wing low or crab or a combination of the two

Line up just before touchdown maintain direction with the rudder

After landing

Descent and Landing

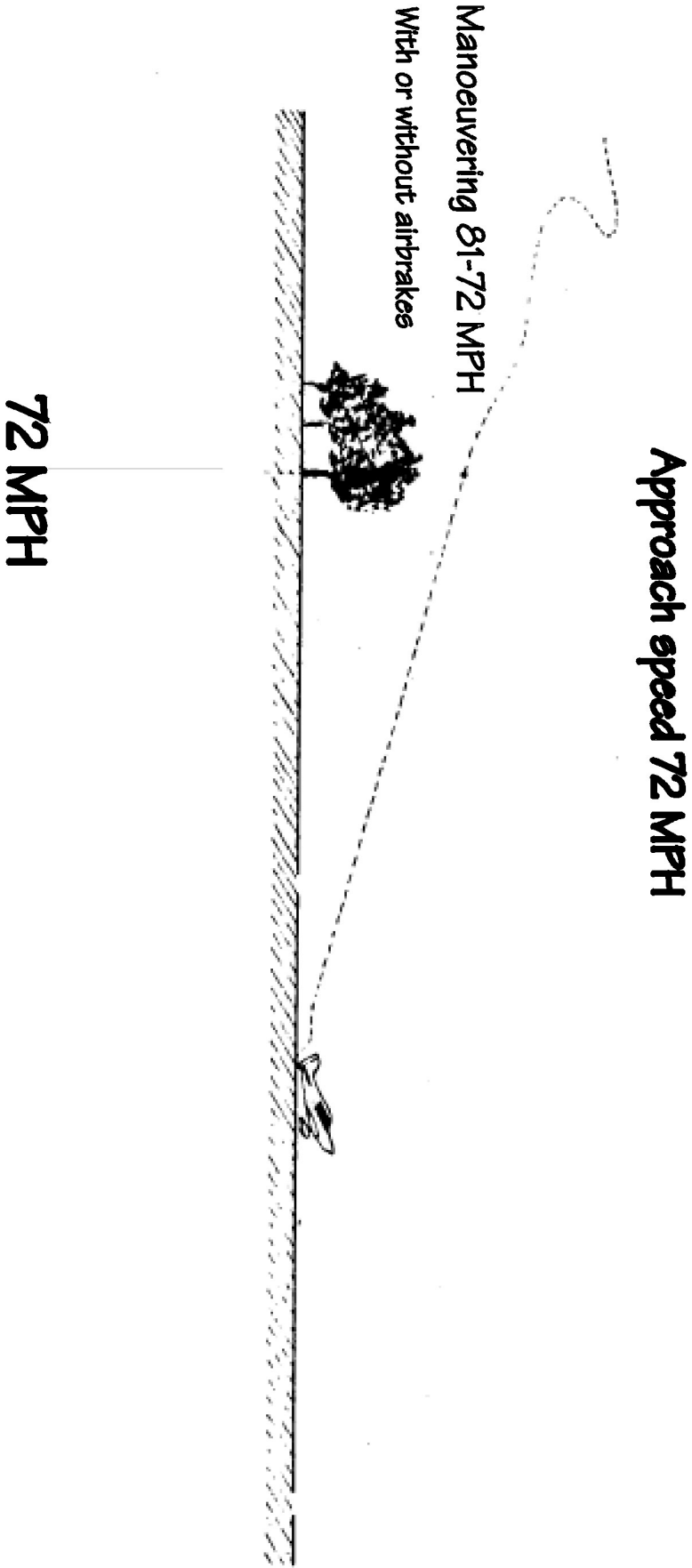


Figure 7

- Retract the airbrakes
- Apply the parking brake
- Reduce power
- Pull the mixture out to idle cut off (Continental only)
- Both mags to off and slowly apply full throttle before the propeller stops
(Potez only)
- Master switch off
- Generator off
- Fuel pump off
- Fuel selector to off

Ground handling

The aircraft may be pushed by the wing tips or by the leading edge of the tailplane close to the fuselage

Providing the engine is cold and both mags are OFF it may be pushed by the propeller blades close to the spinner

Never push on the ends of the tailplane nor lift the tail by the rudder.

Tie down

- Place the aeroplane tail into wind
- Secure the stick with a safety belt
- Tie the aircraft down by the two hoops on the wings and the tailwheel fork
- Chock the wheels
- Fit the canopy cover to protect the cockpit from the sun,the rain, and inquisitive persons

Storage

Strong sun will craze the perspex screens so cover the canopy with the cover provided.

Check that water has not accumulated in the fuselage and is not laying in the tail floor.

As with a car, long term storage in the open will shorten the life of the airframe

If the aircraft is to be unused for some time keep it clean, a little care washing it will keep it in good condition

Also turn the propeller over several times at least every 2 weeks to keep the engine internals lubricated

Keeping the fuel tanks full will prevent condensation in the tanks

Regular use will help to keep the aircraft in good condition, it will age quicker if it is not used regularly

It must always be checked over with care, see the chapter on maintenance for details or consult a licenced service organisation

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PERFORMANCE

Table of performance

nil wind standard atmosphere

ENGINE	PROPELLER	STATIC RPM
CONTINENTAL		
O 200 A	EVRA D-11-28-4	2300
DR 1050 and 1050 M1	RATIER FH 110 (-3.5)	2350
	LEGERE 2102 (0)	2350
 POTEZ 4E20	 EVRA D-11-28-8	 2300
	HOFFMANN 175-128-7	2300
DR 1051 and DR1051 M1	RATIER 2446 (-2.3)	2400
	RATIER FH 110 (-2. 9)	2380
	LEGERE 2102R (-0.5)	

TAKEOFF

Distance to clear 50 ft obstacle at 750 Kg 1650 lb TOW

Engine **POTEZ 4 E 20**

Hard runway

		Temperature°C			
		0	15	30	45
60%	ALT Ft				
Ground run	0	440	470	500	540
Metres	1640	490	540	580	630
	3280	580	640	700	750
	4921	680	740	800	880

Grass runway

70%	0	520	560	600	660
Ground run	1640	600	660	730	800
Metres	3280	720	800	870	960
	4921	880	950	1020	1160

Engine **CONTINENTAL O 200 A**

Hard runway

60%	0	484	517	550	594
Ground run	1640	539	594	638	693
Metres	3280	638	704	770	825
	4921	748	814	880	968

Grass runway

70%	0	572	616	660	726
Ground run	1640	660	726	803	880
Metres	3280	792	880	957	1056
	4921	968	1045	1122	1276

For a other takeoff weights multiply the above by the following factor

$$\left(\frac{\text{actual weight in kg}}{780} \right)^2 \quad \left(\frac{\text{actual weight in lb}}{1719} \right)^2$$

CLIMB

Full power sea level

METAL propeller

Weight Kg		780	740	600
		1719 lb	1631 lb	1323 lb
CONTINENTAL O 200 A	Rate of climb Ft/min	650	708	944
	Climb speed MPH	84	81	77
	Ceiling Ft	14107	15748	21325
POTEZ 4 E 20	Rate of climb Ft/min	748	807	1122
	Climb speed MPH	87	84	81
	Ceiling Ft	14763	16404	22309

With wooden propeller reduce the above performance by 10%

CRUISE

performance at 1653 lb

Engine CONTINENTAL O 200 A SICILE or SICILE RECORD
WOODEN PROPELLER

Power 75% 75 BHP

Consumption 21.3 l/hr

Endurance 5.1 Hrs

Altitude ft	RPM	Speed mph	Range miles
0	2550	118	590
3280	2620	121	602
6561	2700	124	615
7874	2750	126	621

Power 65% 65 BHP

Consumption¹ 8.5 l/hr

Endurance 6 Hrs

0	2420	110	633
3280	2480	113	652
6561	2560	116	671
9842	2660	120	689

METAL PROPELLER RATIER FH 110 (-3.5)

75%	0	2550	122	602
75 BHP	3280	2630	125	615
21.3 l/hr	6561	2710	129	640
5.1 Hrs	7545	2750	132	652

65%	0	2420	115	664
65 BHP	3280	2500	118	683
18.5 l/hr	6561	2570	122	702
5.1 Hrs	9842	2650	125	714

NOTE Range and duration are for nil wind no reserves

Engine POTEZ 4 E 20
WOODEN PROPELLER

Power 75% 79 CV
Consumption 25 l/hr
Endurance 4.4 Hrs

Altitude ft	RPM	Speed mph	Range miles
0	2500	124	528
3280	2620	129	553
6561	2750	135	577

Power 65% 68CV
Consumption 22 l/hr
Endurance 5 Hrs

0	2400	118	571
3280	2500	121	590
6561	2600	125	608
9842	2750	129	621

METAL PROPELLER LEGERE 2102R (-0.5)

75%	0	2500	131	559
79 CV	3280	2620	136	584
25 l/hr	6561	2750	142	602
4.4 Hrs				

65%	0	2400	123	590
68 CV	3280	2500	126	608
25 l/hr	6561	2600	131	633
5 Hrs	9842	2750	136	658

NOTE Range and duration are for nil wind no reserves

LANDING

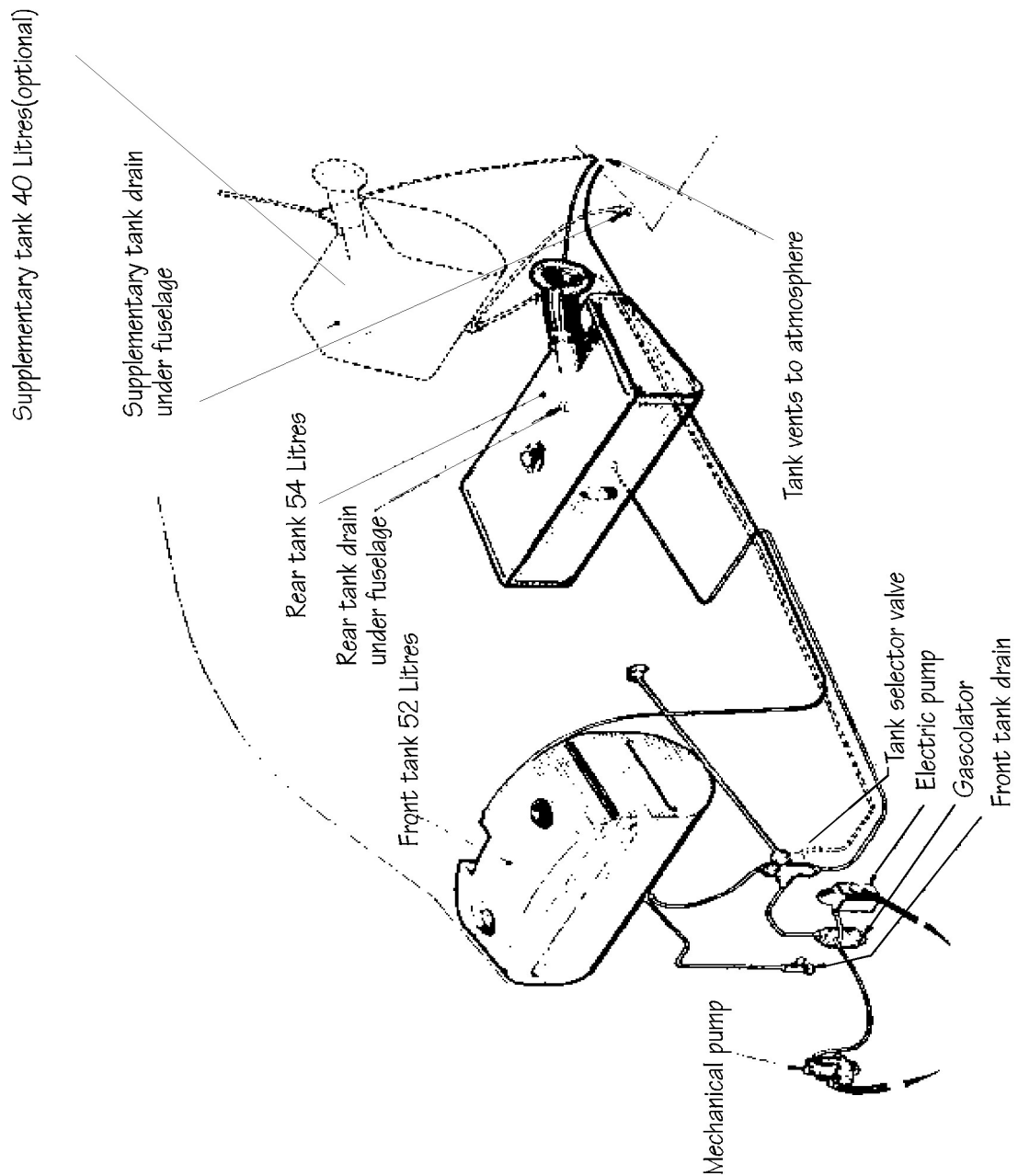
Rolling distance with medium braking

Landing weight Kg	740 (1630)lb	600 (1322) lb
Landing speed mph with or without airbrake	53	49
Rolling distance M with medium braking	160	140

NOTE Approach speed = 71 mph

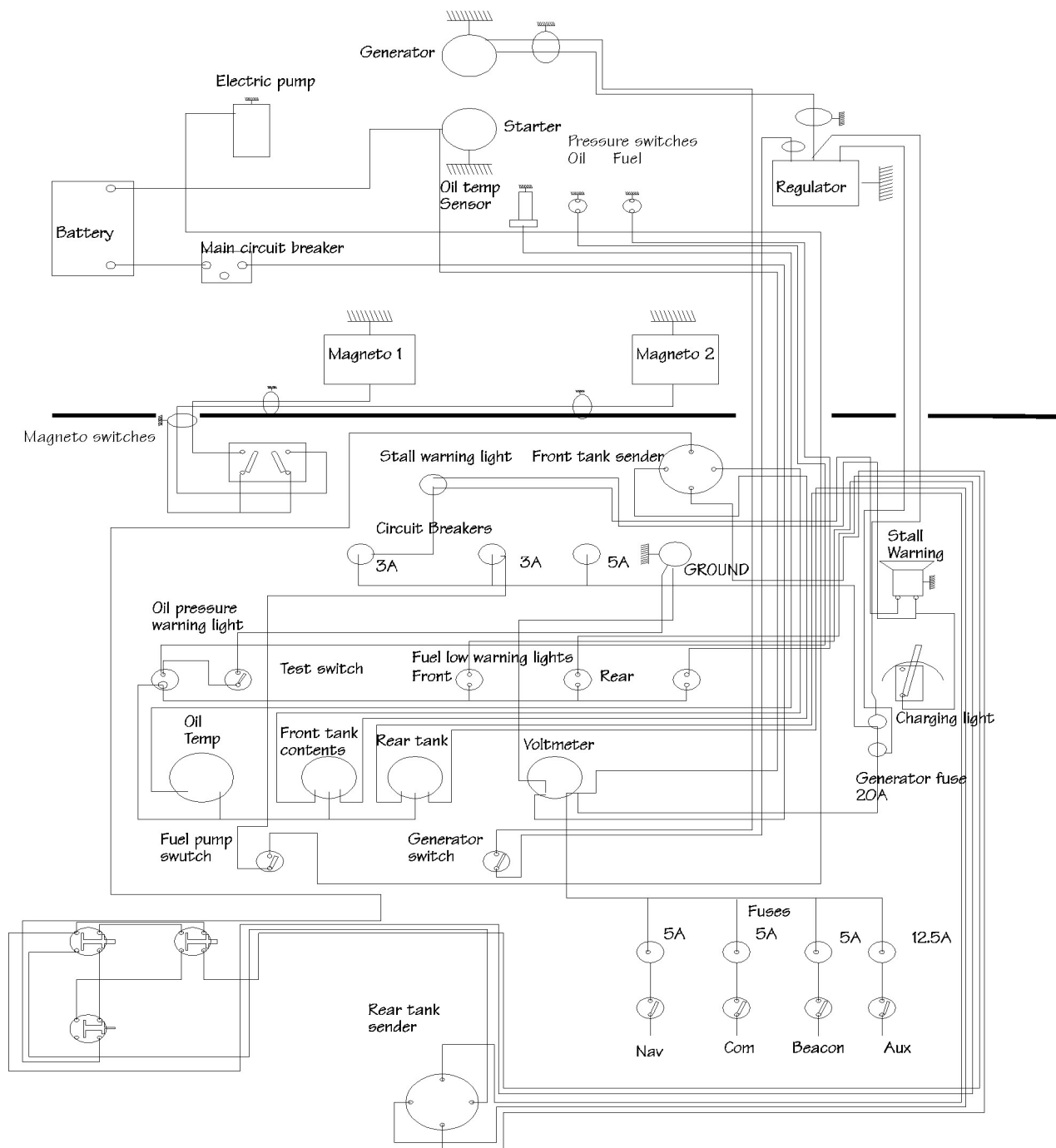
Fuel System

Ambassadeur Sicile DR-1050 and 1051, Sicile Record DR-1050M1, DR1051M1



F8

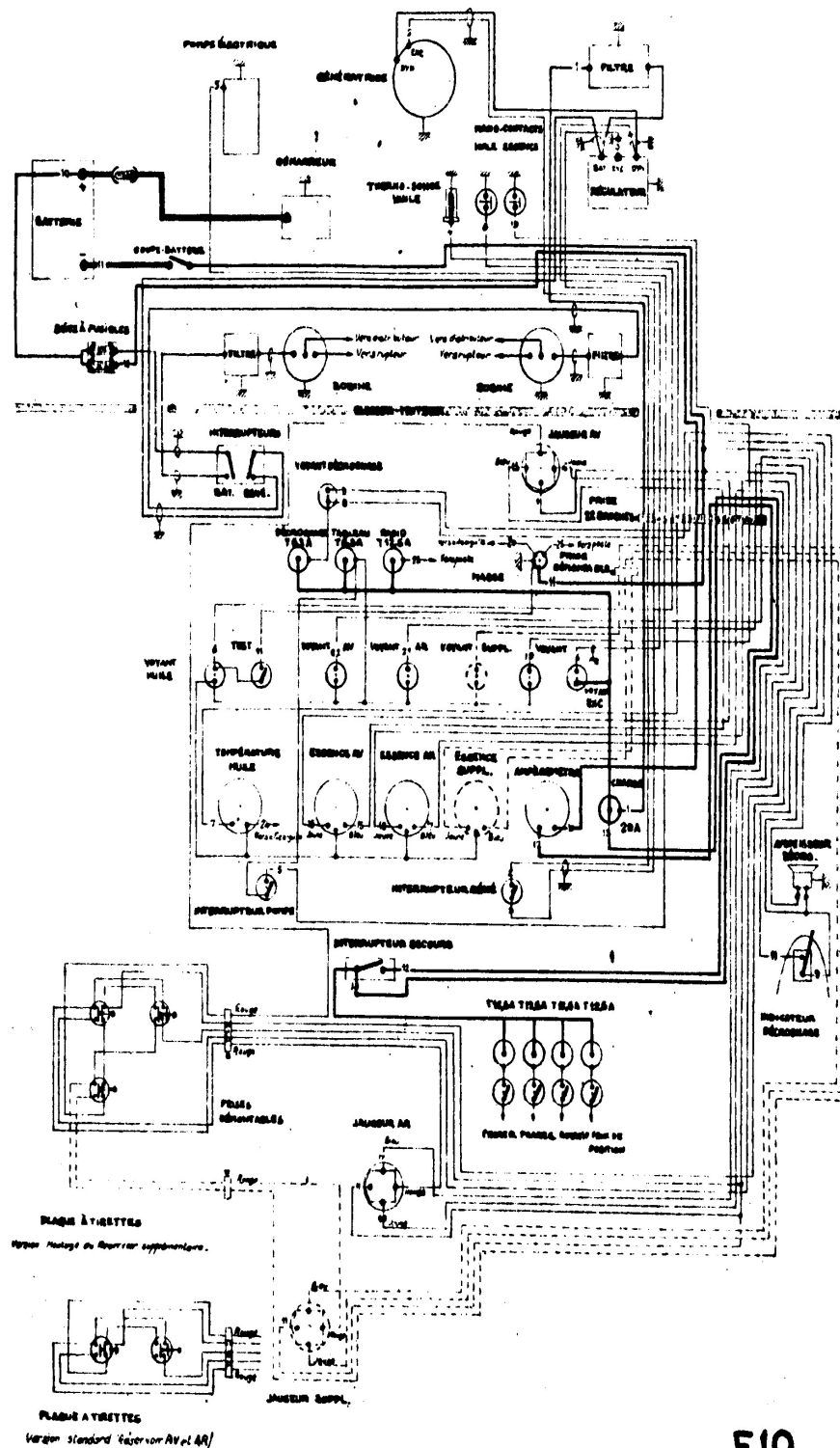
Wiring diagram DR1050 and 1050M1 with Continental O200A



F9

D.R. 1051 et 1051 M1

SCHEMA DU CIRCUIT ELECTRIQUE "POTEZ" 4E20



F10

Cleaning

Wash with water and soap, rinse thoroughly never use a pressure washer.

Polish the paint work with very gentle abrasive products do not use wax or silicone polishes

Use perspex polish for the wind screen

Oil change

Oil should be changed every 25 hours, to clean the engine see engine instructions

50 Hour or monthly check

Clean the oil filter

Clean the petrol filter

Clean the air filter

Drain the carburettor

Check the level in the battery, if necessary fill to the correct level with distilled water, do not allow it to overflow

Clean the battery and the terminals

Check the level of the brake fluid Lockheed No5 (SICILE and SICILE RECORD only)

Check that none of the tubing or wiring is damaged by vibration or rubbing

Oil with engine oil - the control hinges, the rudder bar bearings and the bearings at the base of the stick.

The torsion tube bearings in the wings should only be treated with graphite

Grease the tailwheel bearings etc

Check the neutral position of the ailerons, they should be within 0-5 mm above the trailing edge of the wing

Check that the aileron pulley axles are not worn (inspection holes are provided, use a lamp and mirror as appropriate)

100 Hour inspection or every 3 months

In addition to the 50 hour check

Check the condition of the interior of the fuselage, in particular the rear floor and the floor boards in the cabin

Check the tightness of the principal fastenings:

Propeller fastenings

EVRA 6 NUTS	18 ± 3 ft. lb.
RATIER 6 NUTS	21 ± 3 ft. lb.
LEGERE 6 NUTS	10mm 32.5 ft. lb.
4 NUTS	8mm 25.3 ft. lb.

Engine mountings	8 NUTS	
Wing attach bolts	4	AMBASSADEUR and SICILE
Tail plane attach bolts	4+8 +2 mass balance	SICILE RECORD
Tail wheel attach bolts	4	
Undercarriage attach bolts	8	
Control hinge nuts and bolts		

NOTE Some clamping fastenings are between hard (metal) surfaces,in other places be careful not to crush the wood by over tightening

Check the control cables and their guides for rubbing

Grease the pins at the ends of the cables

Check the pitot and static system for leaks

Check the condition and tightness of the following

Oil and petrol pipes

Air intake

Exhausts

Baffles

Electric cables

Clean the petrol inlet filter on the carburettor

Inspect the undercarriage legs at the level of the lower fixings

any local buckling due to excessive side loads on the undercarriage is not tolerable (trestles)

Check the height between the wheel spindle and the bottom of the lower guide of the fixed part of the undercarriage

- 1 Aeroplane on its wheels greater than 5.5 "
if not change the shock absorber blocks

- 2 Wheels clear of the ground less than 9.25 "
if not change the stops

Clean and grease the moving parts of the undercarriage legs (RetinaxH)

Grease the engine controls

Grease the air brake controls

Grease the trim tab controls

Inspect the bearings for the horizontal stabiliser, the sliding rail and the connecting rods of the trim tab (SICILE RECORD only)

Special inspection

If the humidity has changed eg if the aeroplane has been moved from a damp region to a hot dry region

Check cable tensions

Ailerons	17.6-30.8 lb.
Elevator	44 -55 lb.

Check tightness of principal fastenings see previous data

Positions of inspection panels

Underside of the wing by the aileron pulleys

Under the fuselage at the rear

Trapdoor behind the cockpit under the fuselage

Removal of the wheel spats

AMBASSADEUR

Unscrew the 3 screws at the bottom, lift the fairing remove the wheel and brake shoes, remove the fairing

SICILE and SICILE RECORD

Undo the Dzus fasteners unscrew the 3 fixing bolts, disconnect the inner fairing from the outer remove the fairings

Tyre pressures 23 psi

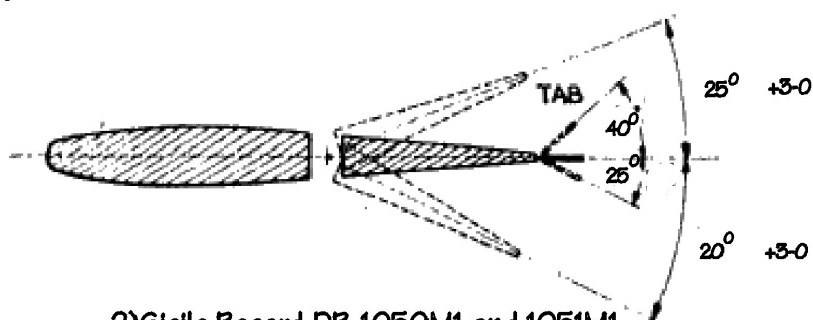
Movements of control surfaces

AILERONS

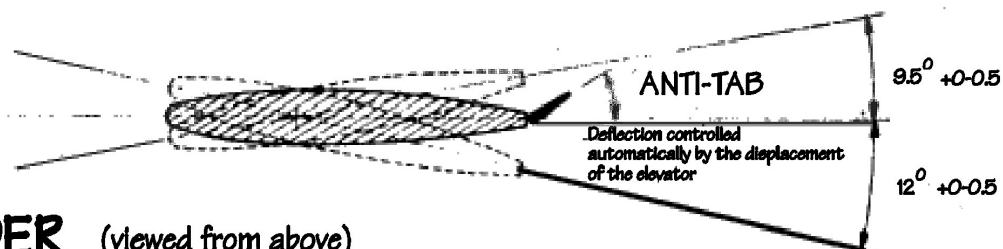


ELEVATOR

1) Ambassadeur and Sicile DR-1050 and 1051



2) Sicile Record DR-1050M1 and 1051M1



RUDDER (viewed from above)

1) Ambassadeur and Sicile DR-1050 and 1051

2) Sicile Record DR-1050M1 and 1051M1

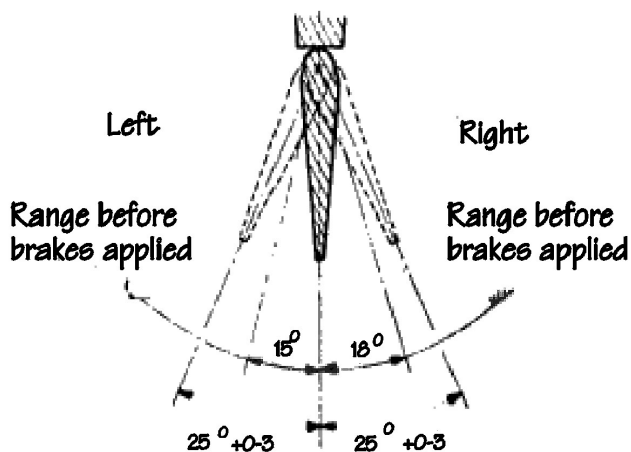
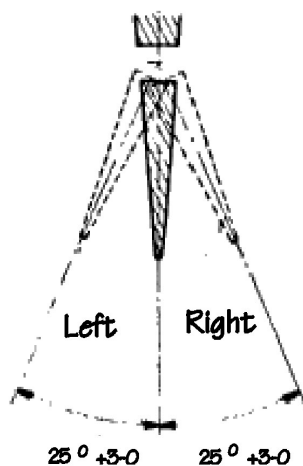


Figure 11

CONTROL SURFACES (Fig 11)

AILERONS

Neutral position stick vertical, trailing edges adjusted to be 0-5mm above the trailing edge of the wing

Movement	$\pm 12^\circ$	Tolerance	$+3 - 0^\circ$
Cable tension	17.6 - 30.8 lb.		

ELEVATOR

Neutral position is with the axis of symmetry parallel with the upper longeron of the fuselage

Movement		
AMBASSADEUR	20°down	Tolerance $+3 - 0^\circ$
and SICILE	25°up	$+3 - 0^\circ$
SICILE RECORD	12°down	$+0 - 0.5^\circ$
	9.5° up	$+0 - 0.5^\circ$

Trim tab (anti tab SICILE RECORD) should follow the movement of the elevator

Cable tension	44 -55 lb
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RUDDER

Neutral is in line with the axis of the fuselage

Movement	$\pm 25^\circ$
Tolerance	
AMBASSADEUR and SICILE	$+3 - 0^\circ$
SICILE RECORD	$+0 - 3^\circ$

ATTENTION

Rudder cables should have no initial tension, do not try to tension them

Do not use the turnbuckles to correct any out of trim on the SICILE RECORD

NOTE before the brakes begin to act the rudder must be able to travel to the deflection shown in figure 11

Adjustment of brakes

AMBASSADEUR (mechanical brakes)

Release the parking brake

After having removed the 3 screws remove the spats

Place the aeroplane on trestles

Adjust the brake shoes until they are almost rubbing the brake/drums

maximum play 0.5 mm

If necessary disconnect the cable from the connecting rod to the cam and remove the play between the cam and the brake shoes by fitting a thicker cam

Check the movement of the rudder bar, should be $\pm 15^\circ$ before applying the brakes

With brakes locked the rudder should have a play of 3-4mm before touching the stern post

Adjust the parking brake with the turnbuckle

SICILE RECORD (hydraulic brakes)

Do not adjust the locknuts on the master cylinders except when replacing a cylinder, a static play of 0.5mm is essential to allow the return of brake fluid to the reservoir due to thermal expansion

This adjustment is carried out at the factory. It is correct when at the point of operation of the master cylinders the two operating levers are in the same positions

The play in the brake shoes is adjusted by eccentrics with a screw driver and spanner, there should be the minimum possible clearance without the brakes binding.

NOTE this adjustment is best done by two people, the wheel must be prevented from rotating during the adjustment of the eccentrics

Check the operation by applying a force of 55 lb. to the operating lever, the displacement of the operating rods of the master cylinders at the level of the rod must be less than 0.78 "and the difference in displacement of the rods must be less than 0.2" If this is not so and the clearance of the brake shoes is correct and the system is full of fluid (Lockheed No5), Bleed the brakes and check the condition of the brake pipes and flexible hoses

In the event of there being no resistance until the distance between the levers approaches 3/4 " one circuit has a leak which may be inside the master cylinder in which case it must be replaced.

Blank