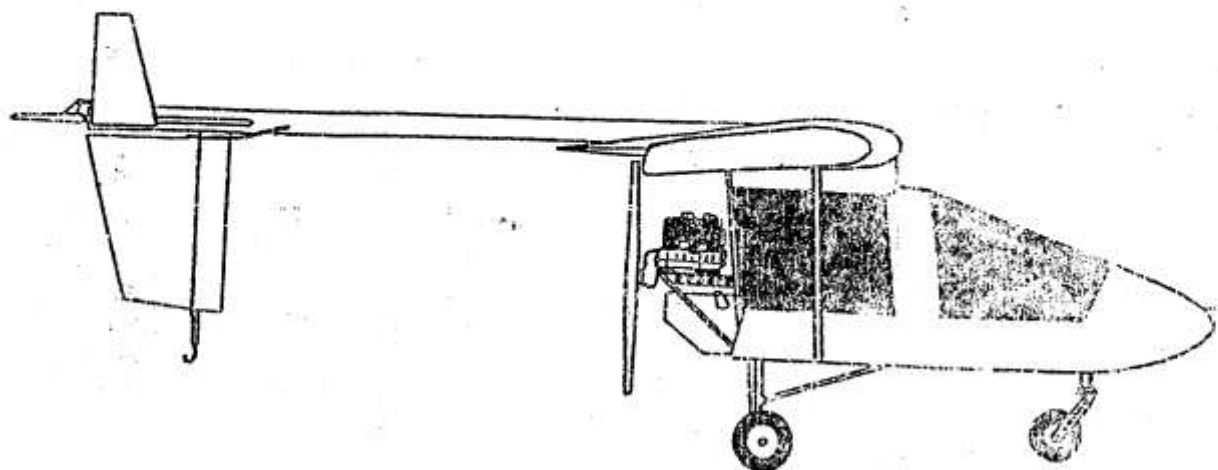


The CFM

STREAK SHADOW

DESIGNED by DAVID G. COOK



PILOTS NOTES



S T R E A K --- S H A D O W

PILOT ' S N O T E S

D O C U M E N T R E F E R E N C E

LIST OF EFFECTIVE PAGES

1. Date of Issue for Original Pages was 22nd June, 1988.
2. Total number of pages in this publication is 23 consisting of the following:

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B	Table of Contents	27.10.89
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AMENDMENT REGISTER

AMDT. NO.	ACTUAL PAGES AFFECTED	DATE	REMARKS
1	A, B, 7-1	27.10.89	Inclusion of Electric Trim Tab
2	A, 3-1, 4-1, 4-2	07.06.94	Care of Boom Tube

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SECTION 1

DESCRIPTION

NOTE: Unless otherwise stated, all AIRSPEEDS quoted are "INDICATED".

1.1 INTRODUCTION

The "STREAK SHADOW" Ultralight Aircraft is a high wing monoplane with conventional three-axis control, three position flaps and differential brakes on the main wheels.

1.2 DIMENSIONS

Length - Overall	21'
Height	8' 2" (Top of Fins)
Wing Span	28' 0"
Dihedral	0°
Wing Area	140' Ft.Sq.
Tailplane Area	14.5' Ft.Sq.
Elevator Area	9.2' Ft.Sq.
Rudder Area	5.5' Ft.Sq.
Fin Area	1.5' x 2 Ft.Sq.
Aileron Area	6.1' x 2 Ft.Sq.
Flap Area	5.6' x 2 Ft.Sq.
Aspect Ratio	5.6 : 1
Wheel Track	5' 6"
Wheel Base	6'
Wing Incidence	4.0°

1.3 ENGINE

The Shadow is fitted with the ROTAX 532 (531.2cc) 2-stroke twin cylinder engine with twin BING carburettors and a modified exhaust system.

Engine Controls:

Throttle lever is mounted in the front cockpit on the port console.. Push forward to increase RPM. The lever is in the same place in the rear cockpit.

Ignition Switch on starboard console ahead of control stick. Switch functions forward for ON.

Choke lever situated on port side of cockpit wall just in front of the throttle lever - on for RICH.

Starting of the engine is by rope recoil system. The handle is positioned next to the Pilot's shoulder - starboard side.

Fuel Valve - for emergency use only. It is recommended that this is left in the down (ON) position - situated behind the throttle lever. Pull up for (OFF).

SECTION 1 (Continued)

1.4 COCKPIT/CG and LOAD LIMITS

Both cockpits are totally enclosed. The front cockpit provides semi-supine seating and is for optimum comfort. The rear cockpit may be used for passenger carrying - it is not suitable for long range conveyance. As an alternative, it provides a cargo area of 8.5 cubic feet - loads up to 200 lbs may be carried.

WARNING: REAR COCKPIT/BAGGAGE COMPARTMENT - When used as a baggage compartment, it is the Pilot's responsibility to ensure that all loose articles in this area are securely restrained. The rear seat belt brackets and the diagonal hanger tubes may be used for this purpose in conjunction with adequate web straps or other suitable fastenings. These must be capable of withstanding an ultimate forward acceleration of 9.0g - take heed.

Full flight controls are provided as standard in the front cockpit only. The control stick is positioned on the right hand side. Throttle, choke and fuel controls are on the left hand side. Dual Controls for throttle, rudder, ailerons and elevator are fitted in the rear cockpit.

The panel can provide for comprehensive instrumentation.

Weight and Balance:

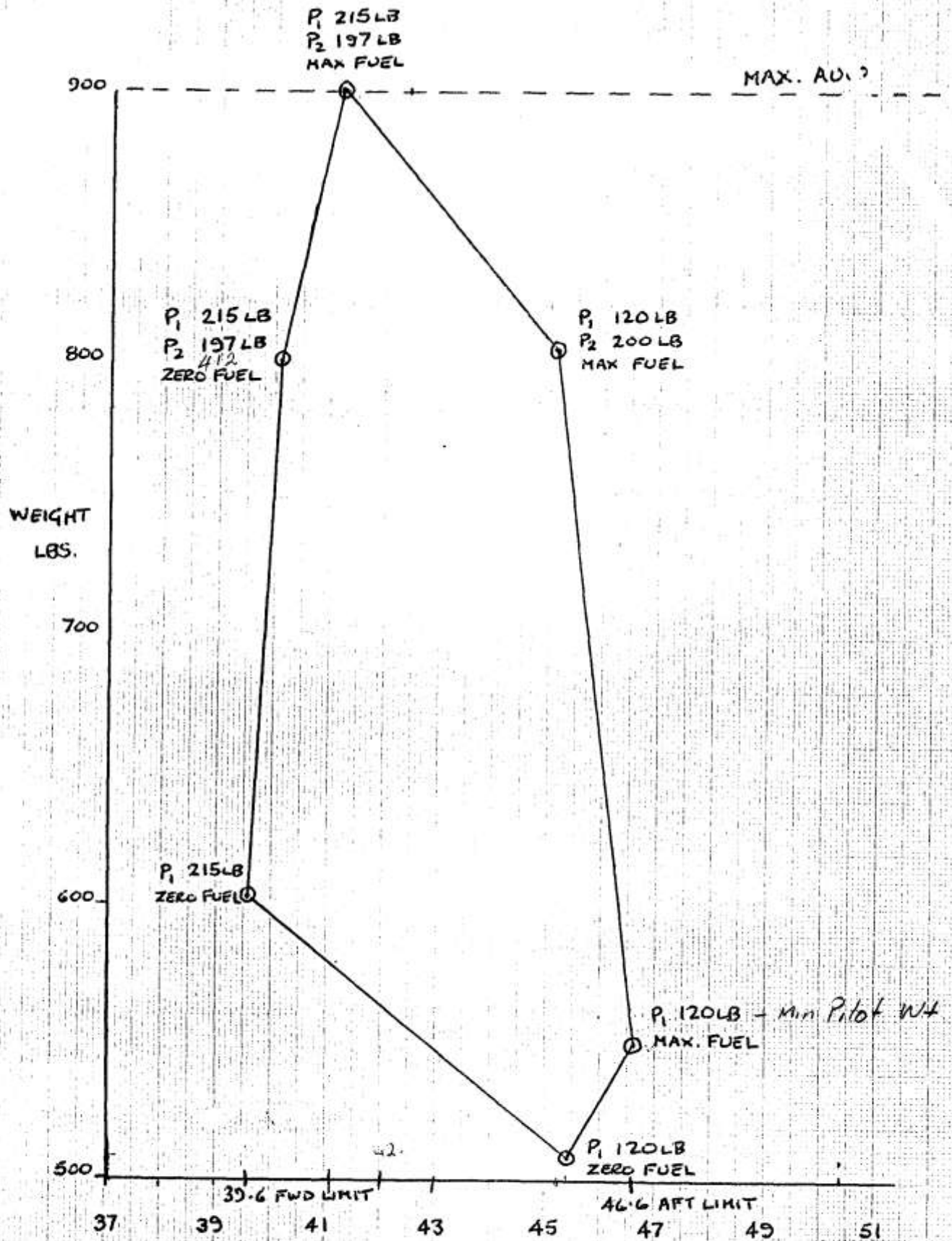
The fuselage station (F.S.) is the Datum taken from a point 24" in front of the wing leading edge at the centre line of the aircraft - when level.

The Streak Shadow aircraft must only be flown if the C.G. position is within the limits of 39.6 ins and 46.6 ins Aft of this Datum. If loaded within the placarded weights for each cockpit, the CG Position will be within the authorised CG range - see page 1-3 for detail of CG envelope.

Load Limitations:

DO NOT EXCEED THE AUW OF 408 Kgs/900 lbs.

<u>Pilot check before take-off</u>	<u>kgs.</u>	<u>lbs.</u>
Minimum 'Empty Weight' of aircraft	176.0	388.0
<u>Add on:</u> Full fuel (12 galls/54.5 litres)	= 45.3 kgs/100 lbs.	
See Cockpit Placards for Limits	- PILOT WEIGHT - REAR COCKPIT LOADING ?	? ?
MAXIMUM PERMISSIBLE TAKE-OFF WEIGHT	=	<u>408.0</u> <u>900.0</u>



DATUM FS

CG - INS. AFT OF DATUM

STREAK SHADOW

WEIGHT AND C.G. ENVELOPE

22ND JUNE 1988

PN - SH/S

1-3

SECTION 1 (Continued)

COCKPIT (Continued)

C.G. Determination

$$\text{C.G. Position} = \frac{\text{Pilot Moment} + \text{Crew Moment} + \text{Fuel Moment} + \text{Empty Moment}}{\text{Total weight}}$$

Where:-

Pilot Moment = Pilot Weight x 9.75"

Crew Moment = Crew Weight x 42"

Fuel Moment = Fuel Gallons (8 lb/Gal) x 63.5" (7 Gal about CG at 42") ▼

Empty Moment = Aircraft Weight x 56.25"

Front Cockpit Placard:- Max	Min
Load = 215 lb	Load = 118 lb

Rear Cockpit Placard:- Max	Min
Load = 200 lb	Load = 0lb

1.5 LANDING GEAR/TYRE PRESSURES - Nosewheel & Mainwheels 15 PSI

The Shadow features a tricycle landing gear. Both main and nose gear have exceptional energy absorption for bounce-free landings.

WARNING: The nosewheel of this aircraft is NOT to be modified or adapted to include a steering linkage or braking system.

1.6 BRAKE SYSTEM - CABLE OPERATED/DRUMS

Differential brakes are provided on the main wheels. Used together for deceleration on the ground or individually for directional control at low speed. There is no parking brake. Brake levers are situated on the rudder pedals and are heel operated.

1.7 FUEL SYSTEM

Situated beneath the engine is a 5 gallon fuel tank. A 7 gallon slipper fuel tank is fitted below the fuselage. The engine-driven fuel pump draws fuel from the slipper tank through a filter into the on /off fuel valve and then to the carburettors. The fuel valve is operated from the front cockpit. Vents and filters are provided. A 'Curtis' drain valve is fitted to the underneath of the tanks - use when aircraft is level. The fuel contents gauge is on the front cockpit dash panel. Fill tanks with the nose wheel in contact with the ground. The 5 gallon tank feeds the slipper tank. Give the slipper tank time to fill by topping up the 5 gallon tank gradually.

Do not read the slipper tank vent tube as a fuel level indicator. Use

Premium Petrol - Grade 4 star.

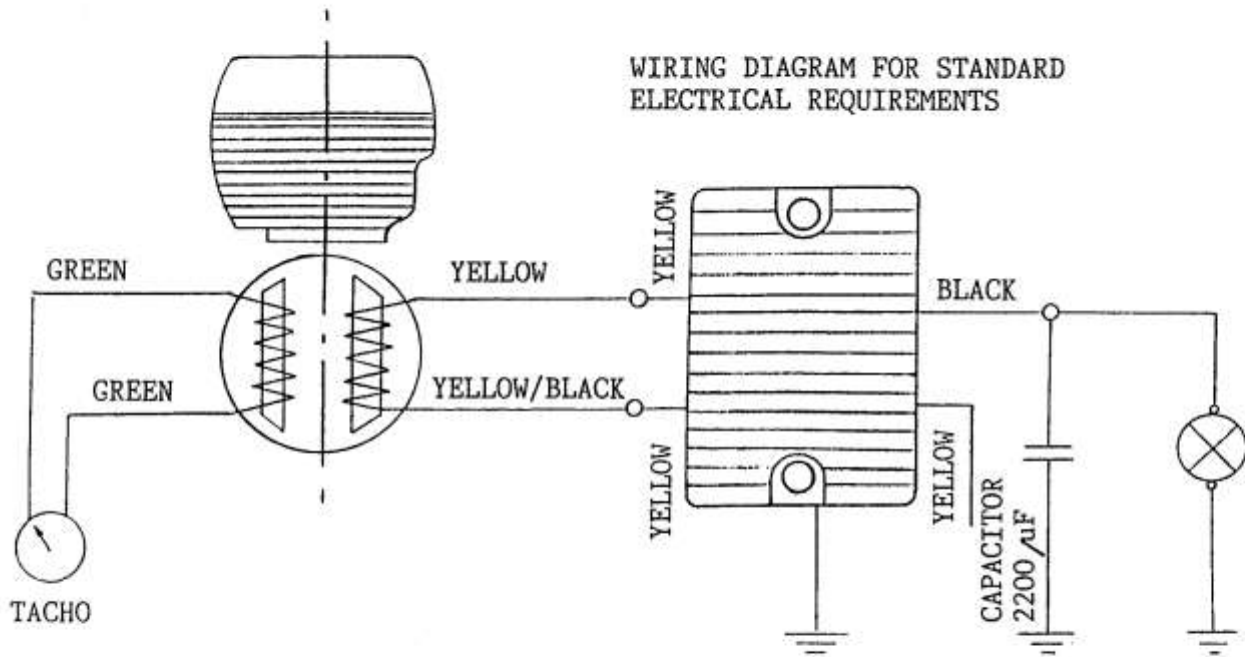
Mixture ratio with 2-stroke oil is 50 : 1

SECTION 1 (Continued)

1.8 ELECTRICAL SYSTEM

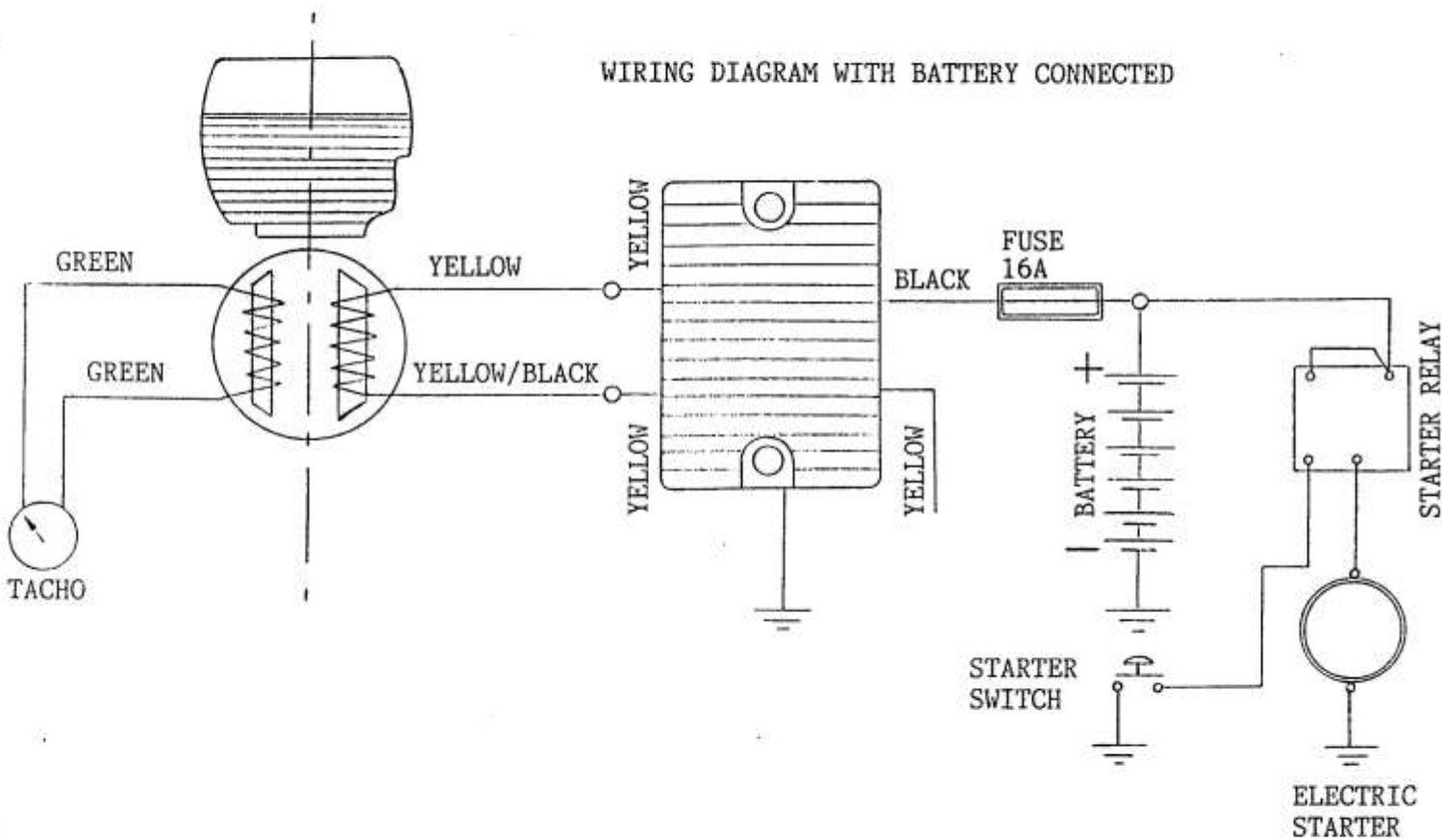
The Bosch magneto generator produces 12V-140W alternating current. This is generated by two separate coils, one producing 12V-30W, the other 12V-110W.

The 12V-30W coil is used to feed the tachometer. This leaves the 12V-110W supply, which is rectified and regulated to 12V-110W dc. This supply feeds the fuel gauge, but can be used to feed other components as well. If found to provide insufficient power for the set requirements, then a battery (of minimum capacity 9 amph) can be connected into the circuit.



WIRING DIAGRAM FOR STANDARD ELECTRICAL REQUIREMENTS

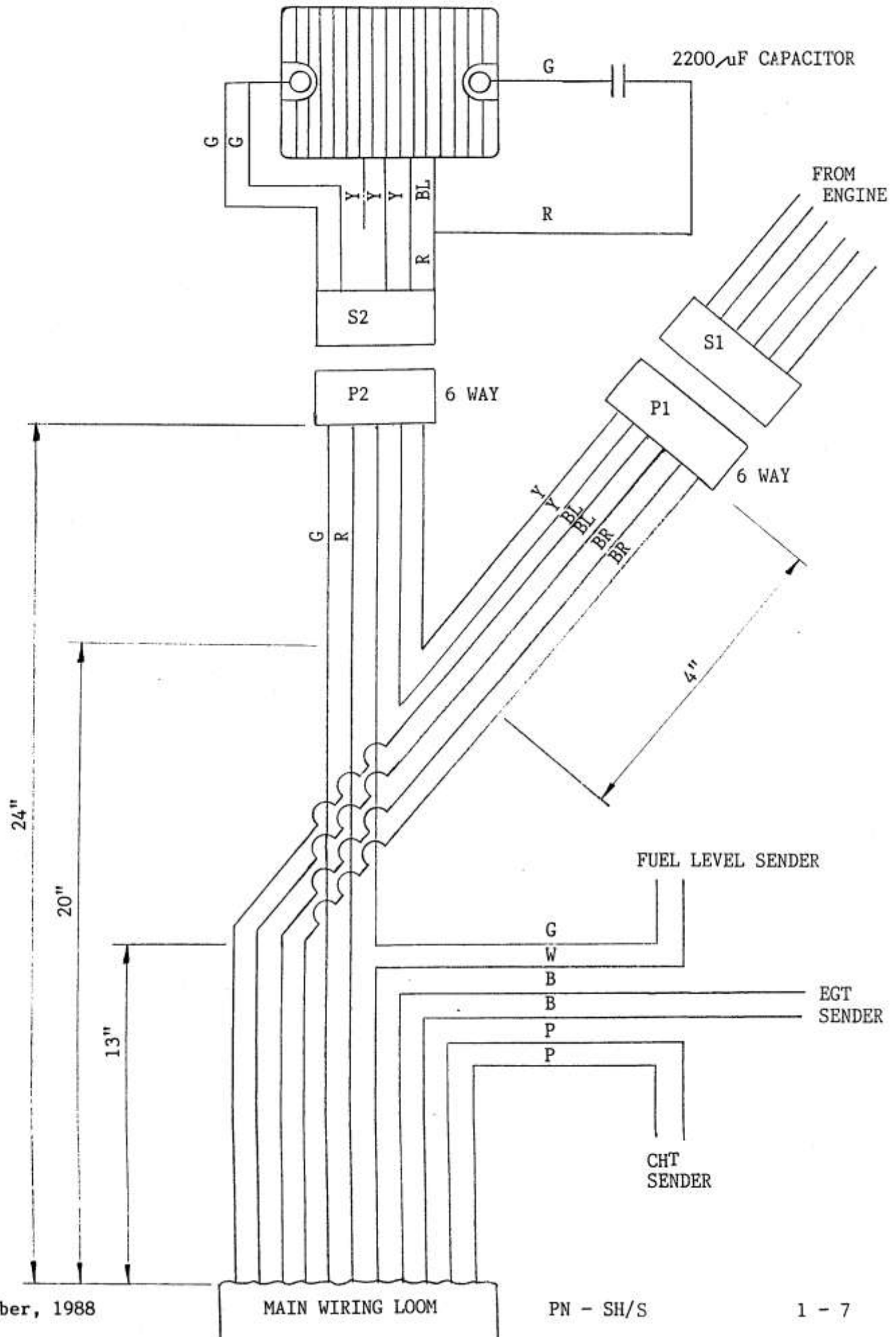
TYPICAL USE:-
INSTRUMENTS, LIGHTS

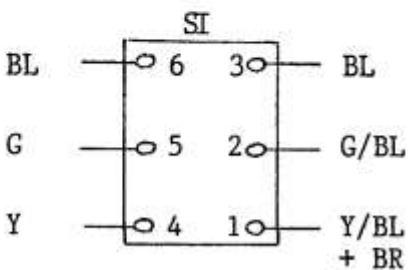
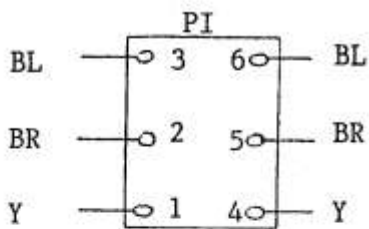
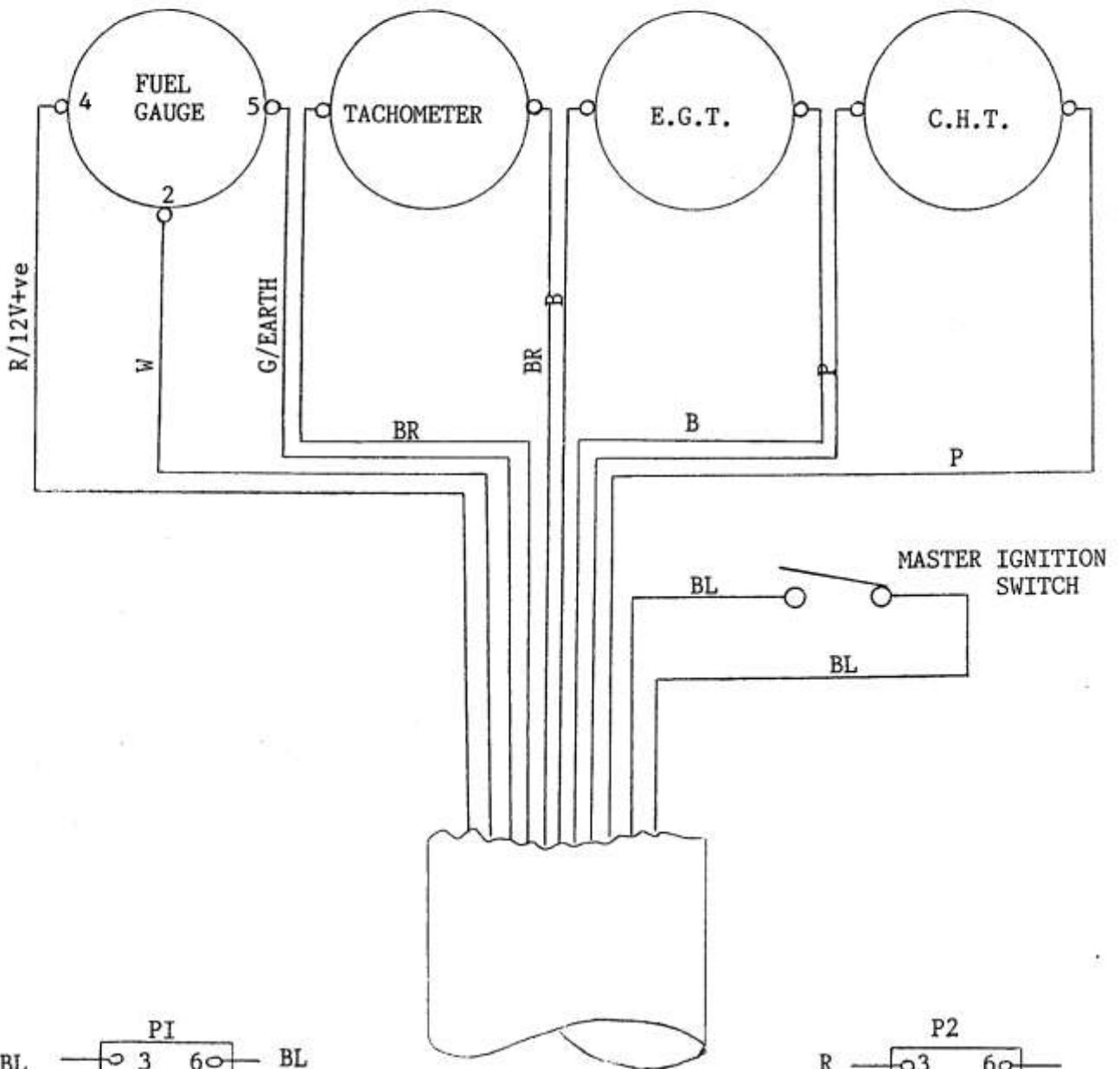


WIRING DIAGRAM WITH BATTERY CONNECTED

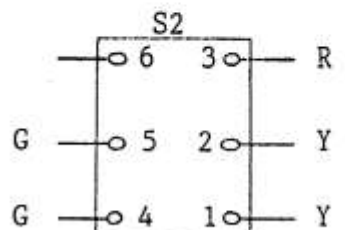
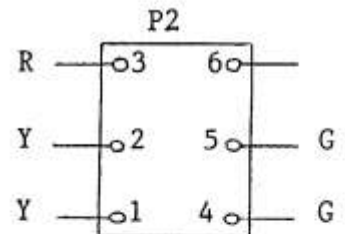
TYPICAL USE:-
ELECTRIC STARTER ETC.

NOTE:- MINIMUM BATTERY CAPACITY
9 AMPH.





KEY	
RED	R
WHITE	W
GREEN	G
YELLOW	Y
PURPLE	P
BLUE	B
BLACK	BL
BROWN	BR



1.10 AIRCRAFT CONTROLS

Pitch Control - by conventional full width elevator. Stick forward ELEVATOR - DOWN - PITCH DOWN. Stick back ELEVATOR - UP - PITCH UP. Range + 20° - 16°

Roll Control - by differential ailerons. Stick left, ROLL LEFT (port aileron UP starboard aileron DOWN), stick right, ROLL RIGHT (port aileron DOWN starboard aileron UP). Range + 20° - 10°.

Yaw Control - by dorsal rudder. Left rudder pedal - rudder left YAW left. Right rudder pedal - rudder right YAW right. Range + 25° + 25°.

Flap Control - to 3 positions. Range 0°, 15°, 30°.

Ground steering is effected through a fully castoring nosewheel and the use of differential, cable operated drum brakes on the main wheels.

Dual Controls - Controls for the throttle, rudder, elevator and ailerons are provided in the rear cockpit. There are no brakes or flap select lever in the rear cockpit.

1.11 GENERAL EQUIPMENT

Four point attachment full harnesses are fitted in both cockpits.

1.12 INSTRUMENTS

Any instruments that malfunction should be replaced. The only maintenance required is to ensure that the pitot system to the air speed indicator(s) and altimeter is free from obstruction and that all electrical connections are secure. If it is necessary to clear the pitot tube and line disconnect and blow it through - DO NOT blow down the pitot head with it connected. The air speed indicator(s) and altimeter are statically vented inside the cockpit.

The front cockpit air speed indicator is certified to be within a 5% error and where a second instrument is fitted in the rear cockpit, there is further certification that these two must be within a 2% error of each other. If outside these limits, correction cards will be supplied and fitted where clearly visible to both occupants.

SECTION 2

LIMITATIONS

2.1 ENGINE LIMITS

Min. R.P.M. = 2,000
Max. R.P.M. = 6,500
Max. Cont. R.P.M. = 6,000
Max. cooling liquid temperature = 95°C
Operating temperature = 60° - 80°C

2.2 FLYING LIMITATIONS - Control movements are to be restricted to 1/3 deflection at speeds in excess of VA.

Never exceed = 140mph (VNE) - 121 kts

Flap extend: Max. speed (VFE) = 15° = 70mph - 62 kts
30° = 65mph - 57 kts

Design manoeuvre speed = 76mph (VA) - 66 kts

ceiling = 10,000 ft (without oxygen)

AEROBATICS PROHIBITED - Max. positive loading = +4G
Max. negative loading = -2G

SPINNING PROHIBITED

Operation - VFR daylight only.

2.3 DUAL CONTROLS

* DO NOT ATTEMPT TO FLY THE AIRCRAFT SOLO FROM THE REAR COCKPIT

HANDLING

3.1 PILOT'S EXTERNAL CHECK LIST

Cockpit	Switches off Canopy hinges and latches secure
Fuel	Check quantity Tank cap secure Vent line unobstructed Check CURTIS drain valve for any water - aircraft level
Engine/Propeller	All bolts secure Propeller bolts secure Propeller condition for erosion Exhaust system secure - springs present and wire locked
Main Gear	Tyre wear and inflation Brake cable attachments secure Check 'witness marks'
Nose Gear	Free swivelling
Wings	Structure undamaged Aileron and flap hinges secure Aileron and flap linkages secure Attachment pins and safety pins installed correctly Wing structure secure
Fuselage/Tail	All bolts secure Assembly bolts/pins - check safety pins Elevator hinges secure Rudder and elevator brackets secure Check for movement on control surfaces Check for movement where horizontal tailplane attaches to the Boom. Wear and tear of the Boom Backing Plates can be caused by the use of force when rigging or by the regular use of extreme flying manoeuvres.
Control System	Control stick free and secure Check pushrods and pins Rudder pedals secure

3.2 PILOT'S INTERNAL CHECK LIST

BEFORE TAKE-OFF - CHECK AUW WITHIN LIMITS

Pilot position correct	Controls - full and free movement
Flap position UP	Instrument check
Fuel valve on/check quantity	Altimeter set
Canopies locked - front and rear	
Seat belts secure - both cockpits.	
For Dual Controls - check all free and footwell for loose articles.	

3.3 ENGINE HANDLING

Starting the engine may be accomplished by recoil-starter or by hand-propping. Always have another person to help you with starting. The helper should hold down the aircraft on its nose gear and chock the wheel. Do not 'blip' the throttle when engine is running as this subjects the reduction drive to excessive strain.

3.4 ENGINE STARTING

COLD START

Check Fuel on
Prime the engine with the primer bulb
Ignition switch OFF
Throttle closed
Full choke applied
Ignition switch ON
Pull engine to compression stroke
Pull starter cable smoothly
After start close to 50% choke
Set throttle 3,000 RPM - 2 minutes
Choke can be off after 1 minute

HOT START

Leave throttle at closed or 10%
Check Fuel on
Ignition ON
Apply choke if three pulls do not start
Pull engine to compression stroke
Pull starter cable smoothly
After start close choke immediately

RE-START IN FLIGHT

The engine can be started in flight provided it is warm but you are advised not to switch it off in flight. The engine cools rapidly (1-2 mins) and once cold it may not be possible to re-start it. Depending on Pilot strength, the starter cable can be managed with either hand, but it may be necessary to use both hands!

Set throttle to closed or 10%
Check Fuel on
Apply choke only if cold
Pull engine to compression stroke
Ignition 'ON'
Pull starter cable smoothly

3.5 TAXI-ING

If you have a passenger, strap him/her in before starting. Apply the brakes as soon as boarded. R.P.M. may be increased to 3,000 to clear engine whilst seat belts and canopy are secured. Taxi-ing on runways. This may be increased to 20 M.P.H. On grass or rough surfaces do not taxi above 10 M.P.H. - steering below 10 M.P.H. is accomplished through differential braking but the rudder should be applied as well. The propeller blast will assist the rudder to turn at all taxi-ing speeds, thus saving brake wear. The nose gear will free swivel enabling very tight turns but always be sure that the gear is straight ahead before full power is applied. Point aircraft into wind whenever stationary. When taxi-ing with the canopy open ensure that hands are clear in case the canopy slams shut. Do not taxi through any puddles or surface water - it can damage the propeller.

SECTION 3 (Continued)

3.6 TAKE-OFF - only use prepared grass strips or runways.

Complete the pre-take off checks. Double check canopies are shut and seat belts tight. Be sure the nose wheel is straight - taxi forward a few feet. Be advised that the Shadow accelerates fast.

NORMAL - Brakes off - do not hold brakes on with full power - you will drag the locked wheels down the runway. Apply power smoothly; the rudder will be effective as soon as engine accelerates. Rotate nose wheel at 40 M.P.H. and hold clear until you accelerate to 55 M.P.H. As you pass through 55 M.P.H. rotate and you will be flying.

Full throttle recommended 100% for two minutes only.

ROUGH FIELDS - Very rough fields are not recommended due to heavy undercarriage loads. Fields that are semi-prepared are acceptable. Get the nose wheel off as soon as possible, use 15° flap and rotate at 40-45 mph

CROSSWIND - Normal take-off procedure with bias aileron towards wind direction. Aircraft will respond very much as usual and is minimally affected (LIMITATION 25 M.P.H. at 90°).

3.7 CLIMBING

For the best rate of climb maintain 70mph . - the best angle of climb is attained at 60mph on full power. For good visibility a climb speed of 65-70mph is used. Maximum rate of climb at AUW is initially 1,300 ft per minute.

3.8 GENERAL FLYING

Cruise - Maximum continuous recommended cruise power setting is 6,000 RPM giving a high cruise speed of 102mph. Cruising at 5,000 RPM is a good compromise for fuel economy and should show an airspeed of 85mph. In rough air reduce to 75mph.

Pilot Position - The excellent visibility featured on the Shadow allows both tall and short pilots an uninterrupted view ahead, above and to the sides. Short pilots should use a cushion behind them so that their feet are firmly situated upon the rudder pedals which are not adjustable.

Wind Limitations - It is recommended that you do not fly in winds gusting to or over 25mph. - beware ground handling in these conditions. Do not attempt to take-off or land with a crosswind of more than 25 M.P.H. at 90°.

Canopies - Do not attempt to open any canopy during flight.

3.9 RANGE AND ENDURANCE

Normal still air endurance with full fuel (12 GALLS) will not be less than 4 ½ hours with 15 minutes reserve, but is entirely dependant upon AUW and cruise power setting. At economical cruise setting of 5,000 RPM fuel consumption is around 2.5 GALLS per hour. 4,500 R.P.M. = 70-75mph

SECTION 3 (Continued)

3.10 STALLING

There is no defined stall as generally accepted - with engine off or on idle a gentle 'mushing' descent starts around 31mph. Even with full power and a pitching angle of 60° there is no evident stall - above this angle a gentle 'nod' develops after which the aircraft regains its original attitude. There is no difference to this effect with flaps in - either at 15° or 30° power on or off - however, the aircraft becomes more positive to roll control. At no time is buffetting of the controls felt nor will a wing drop.

3.11 TURNING

There is no tendency to side slip and sink rates are comparable to those experienced in level flight. No buffetting of the controls occurs. With power on it is possible to turn steeply without any trace of 'mushing' descent.

3.12 SPINNING

The Shadow cannot be made to SPIN.

3.13 SIDE SLIPPING

This manoeuvre is to be avoided as it places unnecessary stress on the forward wing attachment points.

3.14 AEROBATICS

These manoeuvres are outside the categorisation of this aircraft. This aircraft is stressed at + 4G and - 2G at maximum AUW and is therefore non-aerobatic, i.e. normal category.

3.15 CHECKS BEFORE LANDING

- Reduce speed to not more than 60mph
- Check that resistance is felt at brake pedals
- Flaps as required
- Harness tight and locked - Canopy secure

3.16 APPROACH AND LANDING

Into Wind - Descent may be made with the engine on idle. Rates of up to 2,000 ft/min can be reached without exceeding 100mph. The best circuit speed is 60mph when the flaps may be extended to 30° down. Maintain this speed for approach. You will seldom need to use 30° of flap in normal conditions. Be sure that extra speed is not built up because the Shadow has a very long extended glide. Make a flare at 2 - 4 ft above the runway and hold off the mainwheels until below 40mph. The nose wheel may be held off until below 20mph with full visibility to the pilot. Under heavy braking apply up elevator to ease the nose wheel loads.

Crosswind - a recommended landing attitude is the low wing towards the wind method, grounding the upwind mainwheel first. The rudder remains very responsive to directional control.

SECTION 3 (Continued)

3.17 GOING ROUND AGAIN

Open throttle smoothly to full power.
Return flaps to up as quickly as possible.
At lighter weights only 90% RPM need be used.

3.18 CHECKS AFTER LANDING

UNBOARDING CAUTION:- The Shadow unladen will adopt a parked posture on its main wheels and tail skid. When leaving the front cockpit be sure that the aircraft posture is gently attained. Neither pilot nor passenger should get out while the engine is still running.

3.19 STOPPING THE ENGINE

Only switch off when engine has reached low readings.

3.20 ENGINE FAILURE IN FLIGHT

In the event of an engine-out be quick to determine your landing area. Shut off the fuel valve (UP). Make sure the actual approach faster than usual 75mph to be sure you reach your selected landing area. Use full flap (30°) to kill off any ground effect float-on whenever your threshold. Hold off as long as possible with a high angle of attack and touch down slow and gently. Try always to land into the wind and on fields in the direction of cropping - not across.
Emergency glide speed is 50mph - there is a placard to this effect on the cockpit panel.

3.21 ACTION IN THE EVENT OF FIRE

Fire is normally caused through two sources in aircraft - electrical or fuel.

Fire on the ground - switch off electrical power and shut off fuel.

Fire in the air - switch off electrical power, shut off fuel and make emergency landing as soon as possible.

3.22 FLYING FROM REAR COCKPIT - DUAL CONTROLS

Controls for the throttle, rudder, elevator and ailerons are duplicated in the rear cockpit. There are no brakes, flap select lever, ignition switch or fuel cut off facility from this position.

The only instrument that can be repeated is the Air Speed Indicator - this is certified to within a 2% error of the one in the front cockpit. Forward vision is somewhat restricted, but is excellent to the side. Practise will be required to get used to the slightly different attitude from the rear cockpit, but in all other respects the handling of the aircraft remains unaltered.

Instructing from the back - it is essential to ensure that the front pilot has the ability to ground handle the aircraft with the use of the differential brakes, can use the flap select lever correctly and is capable of operating both the ignition switch and the emergency fuel cut off valve.

DO NOT ATTEMPT TO FLY THE AIRCRAFT SOLO FROM THE REAR COCKPIT

SECTION 4 RIGGING AND DE-RIGGING

4.1 DESCRIPTIVE

The aircraft can be rigged with two persons. Detachable items are as follows:-

- a) Rudder and fin post
- b) Elevator
- c) Tailplane - Port/Starboard sides
- d) Port/Starboard outer wing panels

NOTE:- The main cockpit/boom structure will assume tail-down posture before and after rigging when the front cockpit is unloaded.

The tail boom must be supported whenever the rudder/fin post is not rigged. When fitted, the tail boom must be gently lowered onto the rudder tail-skid.

WARNING:- Failure to observe this basic requirement will result in damage.

4.2 RIGGING

- a) Assemble the aircraft on level ground.
- b) Insert rudder/fin post up into the rear of the boom. Align securing pin hole through boom with hole in rudder/fin post. Insert securing pin and safety clip, then add clevis pin to rudder horn with safety clip.
- c) Ensuring that the port tailplane is horizontal, gently push into the cutout holes in the rear of the Boom, until flush with the Boom. Check that the end of the port tailplane tubes have extended through to the holes in the starboard side. Hold in position and, ensuring that the starboard tailplane half is horizontal, gently ease the starboard tailplane half into the port half until flush against the Boom. A very light lubrication of the tubes may be used if considered necessary. A visual check for the alignment of the holes should be made by looking through the two holes at the top of the Boom.
Important:- DO NOT USE FORCE WHEN RIGGING THE TAILPLANE.
The use of force could result in damage to the Boom, the Backing Plates or to the Tailplane.
When satisfied that the holes are aligned, insert both forward and rear securing pins from the upper surface and secure with safety clips.
- d) Attach elevator with four clevis pins and add safety clips. Connect teleflex operating jaw to elevator horn with clevis pin and safety clip.
- e) With the wings supported by a person at each end, engage flap torque tube into wing rib. Push wing into position and add the two main wing pins. Connect wing strut with bolt, nut and safety clip.

NOTE:- Keep this wing supported whilst fitting other wing.

When both wings have been fitted add the safety clips to wing pins. Connect aileron push/pull tubes with clevis pins and safety clips. Secure zip fasteners on underside of wing panel. Connect flap push/pull rods with clevis pins and safety clips. Connect jury struts on each wing strut and secure.

SECTION 4 (Continued)

CHECK:- SECURING DEVICES IN ALL PLACES WITH SAFETY CLIPS ON THE FOLLOWING ITEMS:-

- 4 Main Wing Pins plus safety clips
- 2 Wing Strut bolts and nuts plus safety clips
- 2 Aileron Connect Pins plus safety clips
- 2 Flap Connect Pins plus safety clips
- 2 Tailplane Connect Pins plus safety clips
- 4 Elevator Pins plus safety clips
- 1 Rudder/Fin Post Pin plus safety clip
- 1 Elevator Horn clevis pin plus safety clip
- 1 Rudder Horn clevis pin plus safety clip
- 2 Jury Struts clevis pins plus safety clips

4.3 DE-RIGGING

A special slide hammer, supplied with the aircraft tools, is required to de-rig.

- a) Wings:- Remove clevis pins and safety clips from aileron push/pull tubes and flap connect rods. Remove wing strut safety clips, nuts and bolts.

NOTE:- The wing is cantilever type and can support its own weight without one of the struts being connected when being de-rigged. Keep the other wing strut in place until its tip is supported then disconnect strut.

Insert slide hammer from top of wing and engage by rotating its shaft for two turns.

Support both wing tips and apply gentle pressure upwards.

Use slide hammer to remove wing pins.

Remove wing and repeat procedure for the other wing.

- b) Tailplane:- Remove safety clips and securing pins from boom, elevator and teleflex elevator horn. Separate tailplane halves.
- c) Rudder/Fin Post:- Remove safety pin and securing pin. Separate from boom.

NOTE:- It is recommended that all securing and clevis pins are placed back into their assembled position to prevent loss.

SECTION 5

5.1 PLACARDS

(VNE) "NEVER EXCEED SPEED = 140mph or 121 Kts
(VFE) "FLAPS". MAXIMUM OPERATING SPEEDS 15° = 70mph or 62 Kts
30° = 65mph or 57 Kts
UP
DOWN

"MAX. CHT = 95°C

"MAX. R.P.M. = 6,500

"THROTTLE" - "INCREASE"
"DECREASE"

"IGNITION" - "ON"
"OFF"

"FUEL" - "USABLE FUEL CAPACITY 11.9 IMP GALLS/54 LTRS"

"FUEL" - FUEL TANK

CAPACITY 12 IMP GALLS/54.5 LTRS
OIL 2 STROKE MIX 50:1
FUEL GRADE PREMIUM

"SPINNING PROHIBITED"

"AEROBATICS PROHIBITED"

"EMPTY WEIGHT - 176 Kgs/388 lbs"

"MAXIMUM AUW 408 Kgs/900 lbs" *k*

"MAX. LOAD 97.5 Kgs/215 lbs") FRONT COCKPIT
"MIN. LOAD 53.5 Kgs/118 lbs")

"MAX. LOAD 91 Kgs/200 lbs") REAR COCKPIT
"MIN. LOAD 0 Kgs/ 0 lbs")

MANUFACTURER'S IDENTITY PLATE (STEEL)

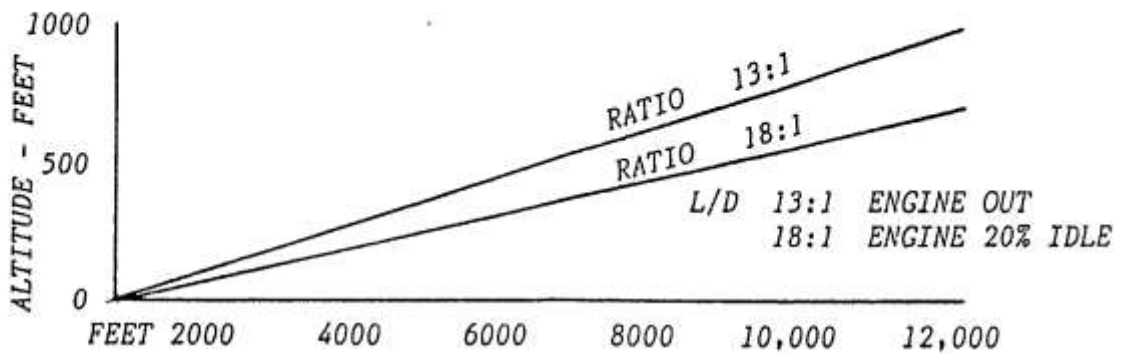
"EMERGENCY GLIDE PROCEDURE
SPEED - 50mph/44 KTS
GLIDE RATIO - 2.5 MLS/1,000FT. AGL"
"DO NOT GET OUT" WHEN ENGINE IS RUNNING

DO NOT ATTEMPT TO FLY THE AIRCRAFT SOLO FROM THE REAR COCKPIT"

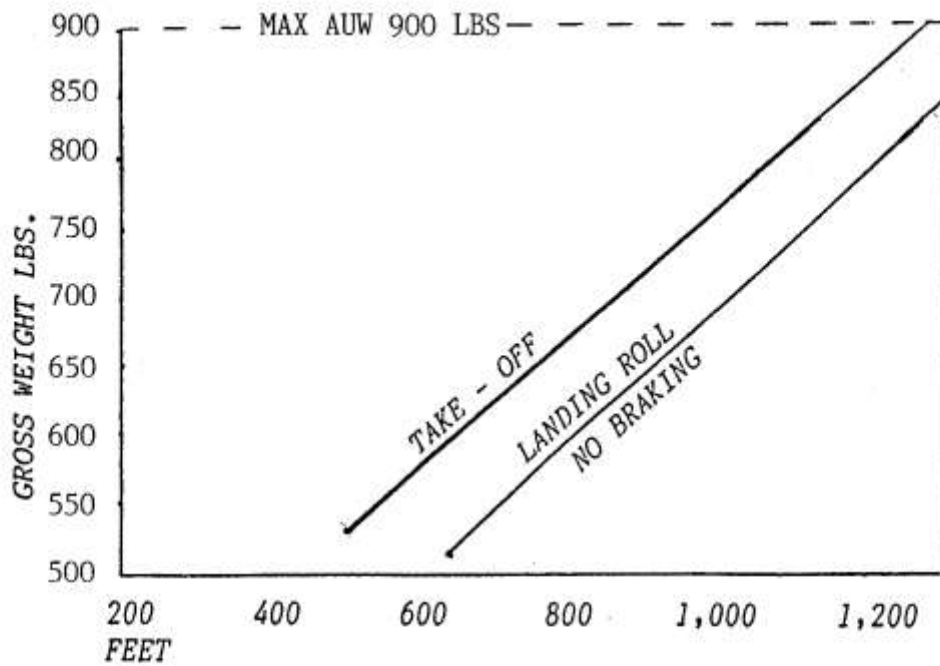
SECTION 6

GRAPHS

6. 1 HEIGHT LOST AGAINST DISTANCE COVERED



6. 2 GROUND DISTANCE TO CLEAR 50 FEET - ZERO WIND



SECTION 7

ELECTRIC TRIM TAB

7.1 INTRODUCTION

An adjustable elevator trim tab, operated electrically, is provided for the aircraft. The system provides a servo motor situated in the elevator with a console mounted rocker switch and tell-tale lights for trim position indication.

The trim system is operated by the P1 pilot only. Trim rocker switch is positioned in front of the throttle. Forward pressure will raise the trim tab and lower the nose. Aft pressure will lower the trim tab and raise the nose.

A position indicator displays three lights. Positioned vertically on the dash panel, a green light shows when the trim tab is neutral, red lights show when the trim tab is at either 'full down' or 'full up'.

Placards 'NOSE DOWN' or 'NOSE UP' are located next to the rocker switch and indicator lights.

7.2 OPERATION

Pre-Take-off Checks:

Set the trim rocker switch to neutral with the green light indicated.

Cruise

Adjust the trim rocker switch to suit 'hands off' stick loads to suit.

Landing

Set the trim rocker switch to indicate red light 'NOSE UP' whilst reducing airspeed to 50 - 55 KTS.

NOTES

The actual position of the trim tab is 5° down as located on the elevator when in neutral and green light showing.

It should be noted that trim speeds are limited to 75 KTS MAX and 50 KTS MIN. Pilot inputs are required for airspeeds less than or greater than this.