

004 INTRODUCTION TO DAILY INSPECTION (DI) (Preparation for Flight)

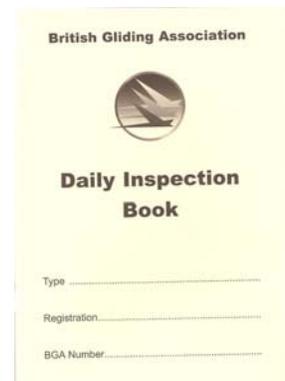
Aim: To learn how to inspect and certify a glider for flight.

It is important that we only ever fly a glider that is safe to be flown. The gliders are maintained to a very high standard by qualified engineers. However, the ongoing serviceability of a glider must be regularly checked to ensure they remain serviceable between the routine checks done by engineers. With training, glider pilots are authorised to carry out the necessary daily inspection of a glider to ensure it is safe for flight.

The DI:

The Daily Inspection (DI) is done each day before the glider is flown. It is best done in a methodical order to ensure the same order, technique and habit can be applied to any glider you have to DI. To adequately inspect the glider, you need to have good easy access to all parts of the glider and good ambient lighting. This is usually achieved by moving the glider out of its storage area to a place where either wing can be placed on the ground.

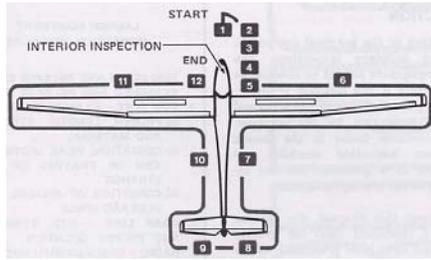
Inside the Daily inspection book is detailed advice on how to complete the entries in the book



The inspection starts with a check of the glider's documentation as we are looking to ensure the glider's certificate of airworthiness is still valid and the placards are all in place. An inspection of the yellow DI book (usually stowed in a side pocket in the cockpit) allows us to check where any minor faults are noted so we can see if conditions have changed since being recorded there. With the "paperwork" checked and in order, we can inspect the cockpit area, then the internals of the fuselage where controls and rigging pins and connections are. Once happy with the insides, we can unlock the brakes and set the flaps (if fitted) for access as we go around the exterior of the glider. Inspect and then close the canopy, checking the locking mechanism and side vents / sliding windows. Closing the canopy guards against it being damaged if left open as we inspect the exterior.

We can now move around the glider in a clockwise direction checking fittings like nose hooks, pitots, yaw string, skids, wheels, surface skin, static holes, markings, controls, brakes, etc. We are looking for any signs of wear and tear or damage, for normal functions, full and free movement of controls, no binding, rubbing, chips, scratches, puncture holes etc, etc. Your Instructor will point

out the specific points to check and when the opportunity exists, any examples of damage etc that would be cause for reporting and repairing before flight.



Work around the glider in a systematic manner, and do not allow yourself to become distracted.

Some remedial action can be completed by pilots, eg. inflating a low tyre, while other work can only be done by an approved engineer. If in any doubt about what is acceptable, check with an experienced pilot or Instructor. At this stage of training though, you will not be authorised to sign off the DI but as you gain experience under supervision, you will be given more and more responsibility for carrying out the DI of the glider you will be training in.

When happy with the serviceability of the glider, we reopen the cockpit and fill out and sign the DI Record page to record that the DI is complete. We restow the book in the side pocket.

DAY & DATE	WORK DONE	MINOR DEFECTS REMAINING	REASON FOR UN-SERVICEABILITY	FUEL + =	OIL + =	S OR U/S	NAME & INITIALS
WED 27 FEB 2008	RIG & DI	Abrasion on leading edge of Port Wing, Rest As above.	None.	-	-	S	F. Bloggs FB

A typical entry in a DI book

You don't need to be an expert on airframes to undertake a DI, but of course it would help. You do need to be observant and have a basic understanding of the aircraft structure.

The golden rule is "if in doubt ask".

The type of defect you may find include.

- Hangar Rash, or ground handling damage.
- Overstressing in flight
- Heavy landing damage.
- Mis-rigging
- Environmental damage, (sunlight, wind, rodents, water etc.)
- Wear and tear, components wearing or failing through age.
- C of A expiry

You may become suspicious either by observation or hearing remarks around the club house. Did the glider land out? Was their a notable landing?

The BGA Recommendations are as follows.

Section 2

Daily Inspection

Some tasks may not be applicable depending on the glider type, equipment installed and previous use. This DI is assuming that the aircraft has

been rigged before flight and items such as batteries have been installed.

Task Area Details of the inspection

1 General Remove frost, ice, snow or water if present.

Ensure that the interior of the aircraft is reasonably clean and free of clutter and rubbish.

Ensure that all loose equipment is correctly stowed and accounted for.

Review DI book or Technical Log to ensure previously reported defects are addressed.

Review Aircraft Flight Manual for any specific inspection tasks.

2 Wings Inspect skin/covering, flying controls, struts, fairing for obvious defects, damage and security.

Inspect fitment and locking of main de-rigging points.

Inspect fitment and locking of QR flying control and wing extension connections.

Flying control cables and controls rods as visible for tension or operation.

Inspect condition of wing joint sealing tape.

Check water ballast drains for correct operation.

Check drain holes clear.

Inspect tip wheel/skid for damage, security and operation.

3 Fuselage & Inspect skin/covering, flying controls, struts for obvious defects, damage and security.

Empennage Inspect fitment and locking of tail de-rigging points.

Check water ballast drains for correct operation.

Check drain holes and static vents clear.

Check Pitot/static or Total Energy probes for damage, security and ports clear.

Check release hook(s) for damage and security. Carry out function check, Including back release.

4 Landing gear Inspect main, nose/tail wheels and tyres for wear, security, damage, correct extension, inflation and tyre creep.

Inspect wheel brake for leakage and condition and fluid level.

Check operation of wheel brake.

Inspect Main/Tail Skid for damage and security.

5 Cabin Check flying controls for operation and sense. Perform positive control check.

Check flying control Bungee springs for damage, misalignment and security

Tip: Have a square of cardboard or carpet to kneel on so you keep your clothes clean when getting down low to inspect the underside of the glider and wheel area.

Need To Know:

How to position and prepare a glider for a DI.

How to check the relevant documentation.

Who you can seek advice from if you find something during the DI that you are uncertain about.

Further Reading: Inside Daily Inspection Record book.