

ELITE OWNERS MANUAL

EVERYTHING YOU WANT IN A PERFORMANCE GLIDER

Designed and manufactured by

Enterprise Wings.

HANG GLIDERS AUSTRALIA

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INTRODUCTION

Congratulations! You are now the owner of what we believe is the finest high performance hang glider available.

The *ELITE* is a new and innovative concept in hang glider design and is distinguished by its quality construction, handling, performance and appearance.

ENTERPRISE WINGS is confident that you will enjoy many hours of pleasant recreational flying whilst owning a glider with unsurpassed performance.

Your *ELITE* is fully certified to international standards so that you know that it is strong and aerodynamically safe enough to handle expected loads and turbulence.

Please do not hesitate to call and let us know how your *ELITE* is performing. We welcome your feedback.

Safe and happy flying,

The Enterprise Wings Team.

DESIGN CONCEPTS AND TECHNICAL INFORMATION

The *ELITE* has been designed to have lighter handling, a wider speed range and increased L/D performance over the previous Desire series gliders.

A new sail cut with a 270° leading edge wrap coupled with large diameter leading edges and the internal deflexor system has resulted in a glider with better performance both in a straight line, at low and high speed and while turning.

The adjustable kingpost hang keeps both roll and pitch pressures light and positive. You will discover that the *ELITE* is a joy to fly on cross-country flights.

A single stage set up with internal luff line compensation and keel slider greatly simplifies the set up procedure, obviating the need to open the double surface and connect the compensator.

Your *ELITE* can be rigged and de-rigged both flat and on the control frame making it easy to avoid marking the sail and for added safety in strong winds.

SPECIFICATIONS

	<i>ELITE 150</i>	
Sail Area	150 sqft	13.9 sqm
Wing Span	33' 3"	10.13 m
Aspect Ratio	7.4	
Nose Angle	130°	
Double Surface	80%	
Weight	73 lb	33 kgs
Pack-up Length	17' 5"	5.3 m
Breakdown Length	14' 11"	4.55 m
Short Breakdown Length	12' 6"	3.8 m
Recommended hook-in weight	154 - 243 lbs	70 - 110 kgs

OPERATING LIMITS

The *ELITE* is load and pitch tested and certified as a utility class hang glider so therefore has the following limitations.

This glider must not:

1. Be towed, except by factory approved method.
2. Be flown by more than one person at a time.
3. Exceed 30 degrees nose up or down to the horizon.
4. Exceed 60 degrees bank angle.
5. Be flown inverted or backwards.
6. Be flown with auxiliary power.
7. Be flown at speeds in excess of Vne (Velocity Never Exceed).

Pilot rating: This glider requires at minimum a USHGA 'Advanced' rating or equivalent.

Maximum bank angle: 60 degrees

Maximum pitch angle: 30 degrees nose up or nose down.

Maximum pilot weight: The recommended maximum pilot hook-in weight (including harness etc.) for the *ELITE* 150 is 243 lb (110 kgs).

Minimum pilot weight: The recommended minimum pilot hook-in weight (Including harness etc.) for the *ELITE* 150 is 154 lb (70 kgs).

Stall speed: at Maximum pilot weight is 27 mph (43 kph).

Manoeuvring Speed: at Maximum pilot weight is 47 mph (76 kph).

Maximum Speed: at Minimum pilot weight is 54 mph (87 kph).

Vne: The velocity never to exceed is 54 mph (87 kph).

Aerobatics: None allowed.

Spins: Prohibited.

Important: We advise when flying your *ELITE* for the first time that you use a calibrated airspeed indicator. This will enable you to become familiar with the control bar positions relative to your body at the maximum manoeuvring speed of 47 mph (76 kph) and the velocity never to exceed of 54 mph (87 kph).

Towing advice: The *ELITE* has been designed for foot launched soaring flight. It has not been designed to be motorised, tethered or towed. However it has been towed by the Enterprise Wings successfully using the HEWITT SKYTING system and is approved for towing in this manner provided that all of the HEWITT SKYTING criteria are strictly followed. Please contact the factory beforehand for advice on towing.

DISCLAIMER: WARNING: The owner and operator must understand that due to the inherent risk involved in flying such a vehicle, no warranty is made or implied of any kind against accidents, bodily injury or death. Operations such as aerobatics or erratic pilot technique may ultimately produce equipment failure and are specifically excluded from any warranty.

ASSEMBLY PROCEDURE

It is possible to rig the *ELITE* in two positions, either 'lying flat' on the ground or standing on the control frame. The lying flat method is useful in higher winds as the chances of the glider being blown away are reduced.

The 'on the A frame' method is preferred in lower wind conditions because it helps keep the sail from getting dirty or suffering tears and scrapes from the terrain in the rigging area.

Rigging lying flat:

1. Lay the glider on the ground with nose into the wind.
2. Spread the uprights, slide the base bar sleeve over the knuckle joint and locate the spring button in the hole.
3. Holding the control frame with one hand, flip the glider over so that the control frame is flat on the ground.
4. Remove the glider bag and unclip the remaining sail ties.
5. Pivot the kingpost up and backwards to attach the luff lines with the spring clip to the thimble on the short wire at the top rear of the king post.
6. Open out a wing until you feel resistance. Open the opposite wing till you feel resistance. Return to the first wing and open it further, then to the other until they are fully open. This sequence avoids catching the crossbar on the keel. When opening the leading edges do not lift them too high as this may distort the nose plates.
7. Lay out the battens behind the sail from smallest at the tip to largest at the root. Black is for left, white for right.
8. Insert the dive stick onto the socket. Pull the base of the stick fully outboard, put the other (black) end through the hole in the sail, then allow the base to spring back onto the socket in the leading edge. Ensure the stick is fully seated on the socket.
9. Insert the tip strut into the double surface ABOVE THE DIVE STICK and place on the hook mounted on the leading edge. Secure the strut with double bungee on the top and single bungee on bottom surface.
10. Insert the remaining top surface battens from tip to root using gentle pressure until the batten meets resistance. Lift the sail at the trailing edge and shake in order to float the batten over the crossbar or leading edge. DO NOT FORCE:- care taken during insertion and removal of the battens will minimise wear of the batten pockets. Secure all the top battens with double looped bungees. Finally insert the nose batten from the front using the cord to lift the batten onto the nose bolt.
11. Tension the crossbar by pulling back on the bungee attached to the keel. When the webbing pullback loop appears, take hold and continue pulling back until the D-shackle can be inserted into the quickclip. If difficulty is encountered, lift the keel a little. If this does not help, ensure that rigging wires top and bottom are not snagged or kinked. DO NOT FORCE, CHECK ALL WIRES.
12. Attach the rear king post wire underneath the luff lines to the rear pullback quickclip. This must be attached before the nose wires are hooked up.
13. Insert the lower surface battens carefully as there is a chance of missing the batten pocket as the battens enter the sail. Secure the lower battens with a single bungee.
14. Lift the glider at the nose and pull the basebar forward with the front wires. While holding the webbing loop at the nose slide the control frame top backwards until it locates on the rear slider bolt.
15. Press the bottom front nose wire ring into the nose plate quickclip by pushing down and backward on the nose while drawing the front wires upward. The front wires are a close fit, if you have difficulty, check that the A frame top is fully backward. Velcro up the nose cone, pulling it tight.
16. Clip in and lock your harness to the hang loops.
17. Pre-flight the glider thoroughly by following the checklist in the next section.

Rigging up on the control frame;

1. Lay glider tail into wind and assemble the control frame.
2. Leaving a tie around the leading edge tips, turn the glider over and stand it on the control frame, being careful not to scape sidewires on rocks.
3. Remove the sailbag and remaining sail ties.
4. Spread the wings out as far as they go until you feel resistance. **IT IS IMPORTANT THAT THE KEEL AND THE LEADING EDGES ARE KEPT IN THE SAME PLANE.** Damage to the crossbar, leading edges and nose plates may otherwise result.
5. Attach the luff lines to the kingpost top.
6. Insert top battens except for the last three at the tip. Leave tip bags on.
7. Pull on crossbar tension and fasten D-shackle to pullback quickclip on rear keel. Attach the rear kingpost wire ring to the pullback quickclip also. This must be attached before the nose wires are hooked up.
8. Push the control frame top back until it locates on the rear slider bolt.
9. Attach the bottom nose wire ring to the nose plate quickclip and velcro up the nose cone, pulling it tight.
10. On each wingtip, Remove tip bag and insert the dive stick onto the socket; Pull the base of the stick fully outboard, then put the black end through the hole in the sail and allow the base to spring back onto the socket on the leading edge. Ensure the stick is fully seated on the socket.
11. Insert the tip strut into the double surface **ABOVE THE DIVE STICK** and place on the hook mounted on the leading edge. Secure the strut with double bungee on the top and single bungee on bottom surface.
12. Insert remaining top battens and lower battens.
13. Clip in and lock your harness to the hang loops.
14. Pre-flight the glider thoroughly by following the checklist in the next section.

WARNING: When rigging on the A-frame always be aware of wind and thermal conditions and position the glider accordingly to avoid ground loops. Connect your harness to the front wires or tie the glider to something solid and **NEVER LEAVE YOUR GLIDER UNATTENDED.**

PRE-FLIGHT INSPECTION

A thorough pre-flight inspection should be followed before each flight. **DO NOT** neglect this procedure or allow others to distract your attention while running through the checklist. Where airframe junctions are obscured by the sail, access zips have been provided to help inspection.

Start at one point, the nose plates for example, and work around the glider checking components carefully.

1. Sight along both leading edges checking for similar curves. Check the nose plates and that the nose batten is properly located.
2. Walk towards the wingtip feeling for dents in the leading edge.
3. Unzip the inspection panel at the crossbar/leading edge junction and check the wire mounting points and bolts.
4. Check the sail tension connection at the tip.
5. Check the tip struts and dive sticks for proper location.
6. Walk to the keel checking all batten cords, including the bottom surface battens.
7. Check the luff-line attachment points at both the trailing edge and king post top. Ensure that the luff-lines are not caught around the batten ends or twisted around the top wires or kingpost.
8. Check that the pullback D-shackle and top rear wire ring are secured in the

quickclip fitting.

9. Repeat steps 2-7 in reverse order for the other wing.
10. Check the nose ring is secured in the quickclip fitting correctly.
11. Check that lower rigging is not kinked or caught.
12. Check that the uprights are straight and that the base-bar is correctly assembled.
13. Check the bolts and housing at the top of the A-frame.
14. Pull the VG on full, then release, checking that the compensator pulls the luff lines up as the VG is released and that the pulleys move freely.
15. Check that the hang loop and safety loop are in the correct trim position and are not caught or worn.
16. Check the nose ring, base bar, pullback D-shackle, lufflines and rear top wire again. These items are critical to the safe operation of the glider.
17. Check your harness is correctly attached to the hang loop, checking carabiners carefully. Check the height of the harness above the base bar.
18. Set up instrumentation etc.
19. DO A HANG CHECK before launching.

DERIGGING PROCEDURE

This is basically achieved by reversing the assembly steps.

When de-rigging flat in strong winds, fold the wings into the keel at the same time, otherwise the crossbar may jam between the keel and the leading edge and prevent the glider from being folded properly. To do this, stand astride the keel facing forward and hold the trailing edge of each wing. Swing the wings inwards, lifting the leading edges slightly off the ground to avoid scraping the sail.

Keep the leading edges and keel in the same plane at all times to avoid damaging the crossbar and nose plates, especially when packing the glider on the control frame.

Roll the sail carefully to avoid unnecessary creases and it is important to **ALWAYS USE THE PADDING PROVIDED TO PREVENT SAIL WEAR AND FRAME DAMAGE.**

Try to make the packed glider as compact as possible as this will reduce wear and tear during travel.

SHORT BREAKDOWN PROCEDURE

The *ELITE* breaks down easily for long distance or overseas travel. The procedure is as follows:-

1. If the glider is packed, undo all the sail ties.
2. Spread the leading edges until they are about three feet apart at the ends.
3. Unhook the webbing tips by pulling outward on the outer webbing handles.
4. Slide the outboard leading edge tube away from the inboard section then pad the ends of the sleeves with rags etc. Removal of the outboard sleeve allows even shorter packing for freight or airline travel. Unbolt the cross spar plate from the leading edge and slide the outer sleeve inside the inboard leading edge.
5. Fold the outer sail sections back towards the front and secure with a tie.
6. Lie the outer leading edge sections alongside the glider and secure with sail ties.
7. Fold the excess bag length over the glider, then zip up the bag.

Simply reverse these steps for re-assembly, ensuring that the outboard leading edge sections are located correctly on the correct sides and that the sail tips are fixed securely with the inner webbing straps located in the plastic grooves.

FLYING TECHNIQUES

Take off

The *ELITE* has a neutral static balance and is easy to launch in both calm and windy conditions. Have the nose slightly lower than you would normally and the wings level. Run hard till the glider lifts you off the ground.

Turns

The *ELITE* has a light roll rate even at low flying speeds. Turns are most easily accomplished by pulling on a little extra speed, weight shifting and pushing out slightly. Adjust the bank angle with a combination of pitch input and lateral weight shift.

The *ELITE* is very well coordinated and will remain at the input bank until the turn is removed. Give yourself a margin of safety and DO NOT fly at minimum sink close to terrain. In our experience it is best not to use the VG when thermalling. In theory climb should be faster with the VG on but in practise the quicker roll rate with VG off permits the pilot to core thermals more effectively and so compensate for any slight increase in sink rate.

Stalls

The stall characteristics of the *ELITE* vary, depending on your wing loading and whether the VG is applied.

With the VG off, stall characteristics are mild. If you push out slowly the nose will rise and the glider will begin to 'mush'. The sink rate is more than doubled in this mode. Further increase in the angle of attack will result in a minor stall. In unstable air a wing may drop. Allowing the control bar to come back will lower the angle of attack and the glider will regain airspeed.

If the VG is applied, the glider will not mush since washout in the sail is reduced. The stall is more severe as a larger area of sail reaches the stall at once. However, by allowing the control bar to come back and reducing the angle of attack the glider will quickly regain flying speed.

Pushing out faster will increase the severity of the stall. **NEVER** stall the glider completely with the nose pitched up very high. This is one of the most dangerous and uncontrollable manoeuvres for a hang glider and can result in a tailslide and severe tumble.

Tip stalling in a turn is a possibility when flying too slowly in marginal conditions. DO NOT push out too much when flying close to terrain. In the event of a tip stall allow the bar to return to trim and the glider will regain airspeed.

Spins

The *ELITE* will strongly resist spinning unless the VG is fully applied, the glider is stalled and weight is held to the high side of a turn. However, if a wing is stalled and a spin is entered, move your weight forward and in the direction of the turn. The wing will regain airspeed and begin flying again.

Landing

...is easy with the *ELITE*. Your final approach should be straight into wind at just faster than best L/D speed. Bleed your speed off slowly, wings level, as you enter ground effect. In light or no-wind conditions a full, hard flare is required with the control frame held out. In stronger winds, a gentler flare will suffice. If the flare is initiated too early and the glider climbs hold the flare right out and the glider will parachute down. If you are in a slight turn, it may be better to run the glider to a stop to avoid making the turn worse during a flare.

The VARIABLE GEOMETRY (VG) System

This adjusts the amount of tension in the sail. To use simply pull the rope through the cleat at the right hand end of the base bar. To release flick the rope out of the 'V' in the cleat and let it slide through.

The lightest handling is experienced when the VG is OFF and this setting should be used for take-off and landing where roll authority is critical.

Maximum glide performance and sink rate are obtained by pulling the VG full ON. In this position the amount of billow in the sail is reduced and so roll authority is diminished.

Intermediate settings will provide a trade off between glide and handling. Experience in varying conditions will determine how much VG to use for the differing situations encountered.

TUNING INSTRUCTIONS

Your *ELITE* has been test flown by factory authorised pilots to check that the trim and handling characteristics are normal.

Trim speed

The trim speed is the speed at which the glider flies 'hands off', i.e. when the centre of pressure is directly over the centre of gravity. In most cases the best trim speed is a few mph above stall speed or at minimum sink speed. The trim speed is determined by the position of the hang point which is mounted on the kingpost which is mounted on a track on the keel. The kingpost is on a slider that has a spring loaded locating pin.

To move the kingpost, simply lift the locating pin and move the kingpost to the requisite hole. Moving the kingpost forward will result in a faster trim speed while moving the kingpost to the rear results in a slower trim speed.

Make adjustments one hole at a time. Ensure the slider pin is properly located in one of the holes in the track after moving the kingpost.

Luff lines

The luff lines play an important role in maintaining positive pitch stability on the *ELITE*. At very low angles of attack the sail drops relative to the frame, but the luff lines hold the trailing edge of the sail up. This introduces reflex into the airfoil and thereby gives the airfoil a positive (i.e. nose up) pitching moment. The important point to note is that until the sail drops on the frame the luff lines do not come into action. Hence lowering the luff lines will not improve glide performance. It will merely lower the pitch stability of the glider when you most need it, in rough air or when ejected from a rowdy thermal.

Do not alter the luff lines from the original specifications under any circumstances. The loss of stability can be dramatic and life threatening. The glider will be more likely to tumble.

Tightening the luff lines may increase the nose up pitching moment but it will also increase pitch pressures. Handling characteristics will deteriorate because overly tight luff lines will not allow the sail to billow shift. See section on Luff line maintenance for factory settings.

An internal compensator is used on the *ELITE* to allow the luff lines to be at the optimum length throughout the entire VG range. In the full-off VG position, the compensator raises the luff line height and in the full-on VG position, lowers the luff line height. If the compensator is moved from the factory setting, the pitch stability of the glider will be severely compromised. Do not adjust the compensator.

Luff line maintenance

It is critical to the stability of your *ELITE* that the luff lines are adjusted to the correct

factory settings. In flight, they should be just a little bit slack. But this may be difficult to view yourself. So the best method to check for correct adjustment is on the ground. Assemble the glider in the normal fashion on level ground and in no wind.

Make sure the crossbar is in the correct position as if flying with VG fully off (as far towards the nose as possible and in the centre line of the keel). Have the rear of the keel resting on the ground. Fix a thin string to the luff line eyelet on one wing and to the equivalent eyelet on the other wing. The string should be attached to the luff line eyelet in the sail. Pull the string tight until it is straight. Now measure from the string to the top of the keel tube, perpendicular to the keel. Your measurements should be approximately as follows, starting from the inner luff line and working outboard.

Luff Line Specifications

Luff line number	1	2	3	4
Distance above keel	55mm	65mm	80mm	80mm

All measurements should be within + or - 5mm of these figures, as measured to the top of the keel tube. If the luff lines are not at the above factory settings, contact your dealer or the factory for advice.

Turns

If your glider develops a turn, check the following:-

1. Ensure all the battens are correctly profiled and symmetrical on each side.
2. Check the batten bungees have identical tension on each side.
2. Check the webbing tips are mounted correctly.
3. Check the leading edge tension is the same on both sides - pull on the sail at the tip when the glider is de-rigged to test the 'give' in the sail.
4. Check the leading edge spars for straightness. To do this properly, the leading edges should be removed and rolled on trestles or with one end on the ground while looking along their length. If you cannot find a bent leading edge it is still possible that one of the leading edges has been stressed in a hard landing - this results in slightly different bending characteristics in each leading edge. This is not always critical and the turn can be tuned out by bungee tensioning or batten bending.

If none of the above checks has cured the turn, it can be tuned out by changing the batten cambers slightly. The only two battens that should be changed in either wing are the last two curved battens near the tip (nos. 8 and 9; not the straight tip strut).

For example, if your glider has a right hand turn, the two battens on the right hand tip need their camber increased by about 1/2". If the right turn still persists, reduce the camber in the two left tip battens by about 1/2". Batten recambering is a delicate adjustment and should be carried out by an experienced pilot.

Tightening the batten bungees has the same effect as increasing the camber. In general, slackening the cords improves handling at the expense of glide angle.

Leading edge tension

This should be left at the factory setting. Increasing the tension with shims will flatten the tips and marginally improve the performance but the glider will be harder to roll.

The Variable Geometry System

The VG system works by pulling the crossbar back (via the pulley blocks giving a mechanical advantage of 12:1). If the VG sticks in any position it is usually because of friction between the rope and the pulleys. Avoid getting grit into the pulley blocks at sandy sites and test for free movement during your pre flight checks.

If the VG does stick in flight, pull about two feet of loose rope through the cleat and gently jiggle the control bar back and forth (conditions permitting). This will free the VG.

The Internal Deflexor

The deflexor limits the flex of the outboard leading edges that occurs when the glider is flown at high speeds. When the tips bend back sail tension is lost, billow is increased and so drag increases. The leading edge is effectively allowed to pivot at the cross-bar junction and the nose, so when the tips bend back the leading edge between the nose and cross-bar flexes forward.

The deflexor simply prevents the leading edge from flexing forward when the VG is applied and thereby stops the outboard sections from bending as much under aerodynamic loads.

Tightening the deflexor beyond the factory setting is not recommended and will take the glider beyond the certified limits.

Stress is increased in the leading edge by using the deflexor and therefore less load is required to take the leading edge past the yield (i.e. breaking) point. At the factory setting this is no problem but tightening the deflexor to improve glide performance may render the leading edges more liable to breakage.

TRANSPORTATION AND STORAGE

Much of the wear and damage that affects hang gliders occurs during the transportation of the wing to the launch site, especially if rough access roads are involved. With this in mind use thick padding on the racks, avoid hard spots pressing on the glider and keep the overhang at each end as short as possible.

Use flat webbing straps rather than elastic cords or rope to secure the glider to the racks as this distributes the tie-down loads over a larger area. Support the glider in at least three places to prevent too much flexing of the leading edges.

Ensure the glider is dry prior to storage and air the glider every few months, otherwise the sail may become mildewed or mouldy.

MAINTENANCE SCHEDULE

Your new *ELITE* will require very little in the way of maintenance if you care for it properly in your day to day use. The schedule that follows and the general information below it provide a guide to the proper care of your glider.

After any hard landing:-

Check batten profiles and all major tubes, wires, bolt connections etc for damage. Sometimes unusual forces are generated in unexpected areas, e.g. sail whiplash can bend the opposite leading edge to the one that hits the ground.

Every 10 hours:-

Check the battens against the batten profile sheet and adjust if required.

Every 50 hours:-

1. Inspect all crossbar tensioning strap components for wear/distortion. This includes the rope, brackets, bolts, nuts, crossbar plates and limiting webbing.
2. Inspect luff lines, attachment points, compensator line, pulleys and carabiner.
3. Inspect all batten bungees for wear and check the tension is the same on each side.
4. Check all tubing for wear and/or damage.
5. Inspect all sail mounting points.

Every 100 hours:-

A complete inspection and strip-down of your glider is recommended (see next section for strip down guidelines). Contact your local Enterprise Wings dealer or the factory for the glider's annual inspection if you are not confident of completing the work without mistakes.

Spars

Examine all frame spars (tubes) for dents, wear spots, bolt-hole elongation, corrosion and straightness. The full strength of these tubes are essential to the safety, trim and handling of the glider, replace if at all suspect.

Hardware and Bolts

Normal in flight forces place very little load on the hardware. Heavy landings and crashes however can easily load the structure far more severely. Aircraft bolts can bend and should be checked periodically or after any unusual incident that may cause damage by causing loads the glider is not designed to take - e.g. the glider blowing over while resting on the control frame.

Check especially where there are strong forces, such as at the top of the A frame or where pivoting movement occurs, e.g. at the crossbar plates and at the crossbar/leading edge junctions. Replace any suspect bolts and replace lock nuts.

Cables

Any frays or kinks in the cable should be examined with great care and any frayed cables replaced immediately.

Inspect all thimbles for elongation. Elongation is a sign that excessive stress has been put on the cable. replace it immediately.

Sidewires should be replaced every 100 hours regardless of wear.

Each cable has a breaking stress in excess of 800 lbs. Non-aerobatic flight loads seldom exceed 300 lbs, even in rough thermal conditions.

If you regularly set up and pack up your glider in rough rocky areas you will need to replace your cables more frequently than someone who flies at grassy sites. Use your best judgement - those cables hold the frame together.

Sail

If you must wash the sail, use a light detergent only. Soaps made for washing wool generally produce the best results and are the least likely to damage the resin in the sailcloth. Always rinse thoroughly.

Acetone or methylated spirits can be used to remove stubborn stains without harming the sail. Avoid using solvents on the mylar sail sections (e.g. tips). Rinse well.

Check the sail for tears and abrasion. Apply sail repair cloth ("stickyback") to minor tears and holes in the sail. Have any major sail damage repaired by a professional sailmaker especially if it is in a critical area such as the root, trailing edge or tip sections.

Inspect all the eyelets in the sail.

The best protection for the sail is to always use the bag. Do not carry the glider on top of a car even for short distances without the bag. UV radiation in sunlight causes most of the damage to the sail. Avoid leaving the glider in the sun any longer than is necessary.

Mylar

If the mylar inserts have become creased it is possible to iron them flat. Provided the damage is not extreme this procedure works well. Mylar is a polyester so use a cool or 'polyester' setting on the iron or the inserts will melt.

With proper care and maintenance your *ELITE* should last for several years of flying. There is, however, much that is still not known regarding the effective lifetime of a hang glider before material fatigue and degradation compromise the airworthiness of the aircraft. That why it is important to carry out maintenance as outlined above.

STRIPDOWN GUIDELINES

1. With the glider upside down but folded remove the control frame from the keel. Remove VG cord from the cleat and pull through the upright.
2. Turn the glider over and pull the leading edge tip webbing from the sockets. Undo the nose plate bolts and remove the sail tabs, (re-tighten the nose bolts to hold the leading edges in place). Unfasten the velcro holding the sail to the rear keel.
3. Undo the top and bottom wires from the crossbar/leading edge junction, gaining access via the zipper in the undersurface.
4. Undo the kingpost base bolt. Remove the compensator by undoing the shackle from the pullback rope.
5. Undo the bolt holding the top front rigging to the nose plates and undo the bolt holding the hang straps to the king post (use a new split pin when reassembling). Remove the king post and top rigging together.
6. Remove the bungee at the nose end of the undersurface zip and undo zipper.
7. Pull the glider frame forwards out of the sail through the double surface opening, making sure that nothing catches and that the wires pull through their holes in the sail.
8. Take the mylar inserts out of the leading edge pocket.

Your *ELITE* is a sophisticated high performance hang glider that will provide you years of safe and enjoyable soaring provided that you look after it properly and always maintain a healthy respect for the demands and potential dangers of flying.

The *ELITE* has been tested to internationally accepted airworthiness standards. There are, however, forces in nature which can severely compromise your safety regardless of the quality of design or condition of the aircraft you are flying.

You are reminded that you are flying a hang glider at your own risk and that your safety is ultimately your responsibility.

We strongly recommend that you fly conservatively, allowing safety margins in both the conditions in which you choose to fly and in the manoeuvres you attempt.

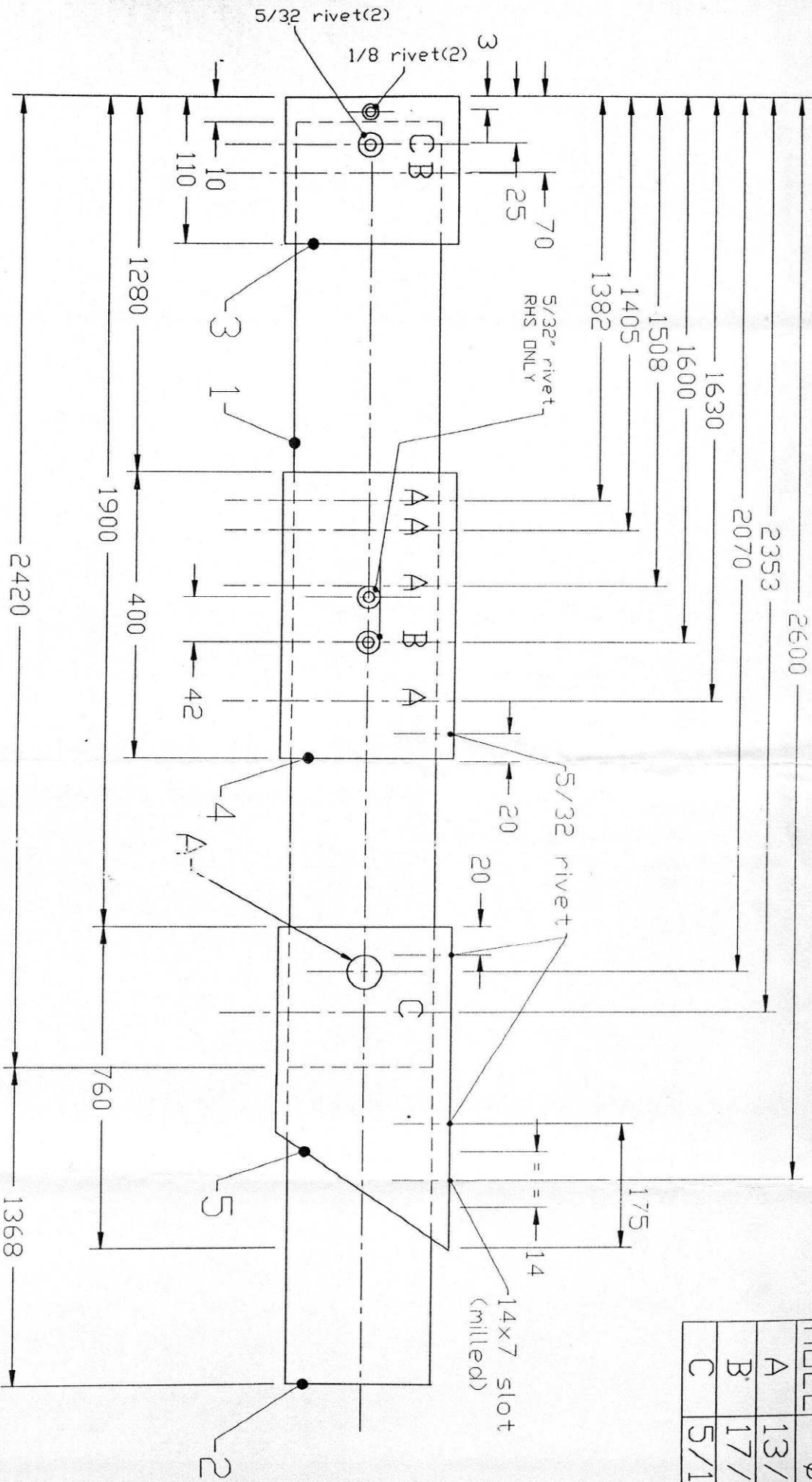
MAINTENANCE RECORD

Please note down any repairs or changes you make to your glider here. You will find it very useful as a reference, showing what was done and when.

Glider serial No..... Test flown by

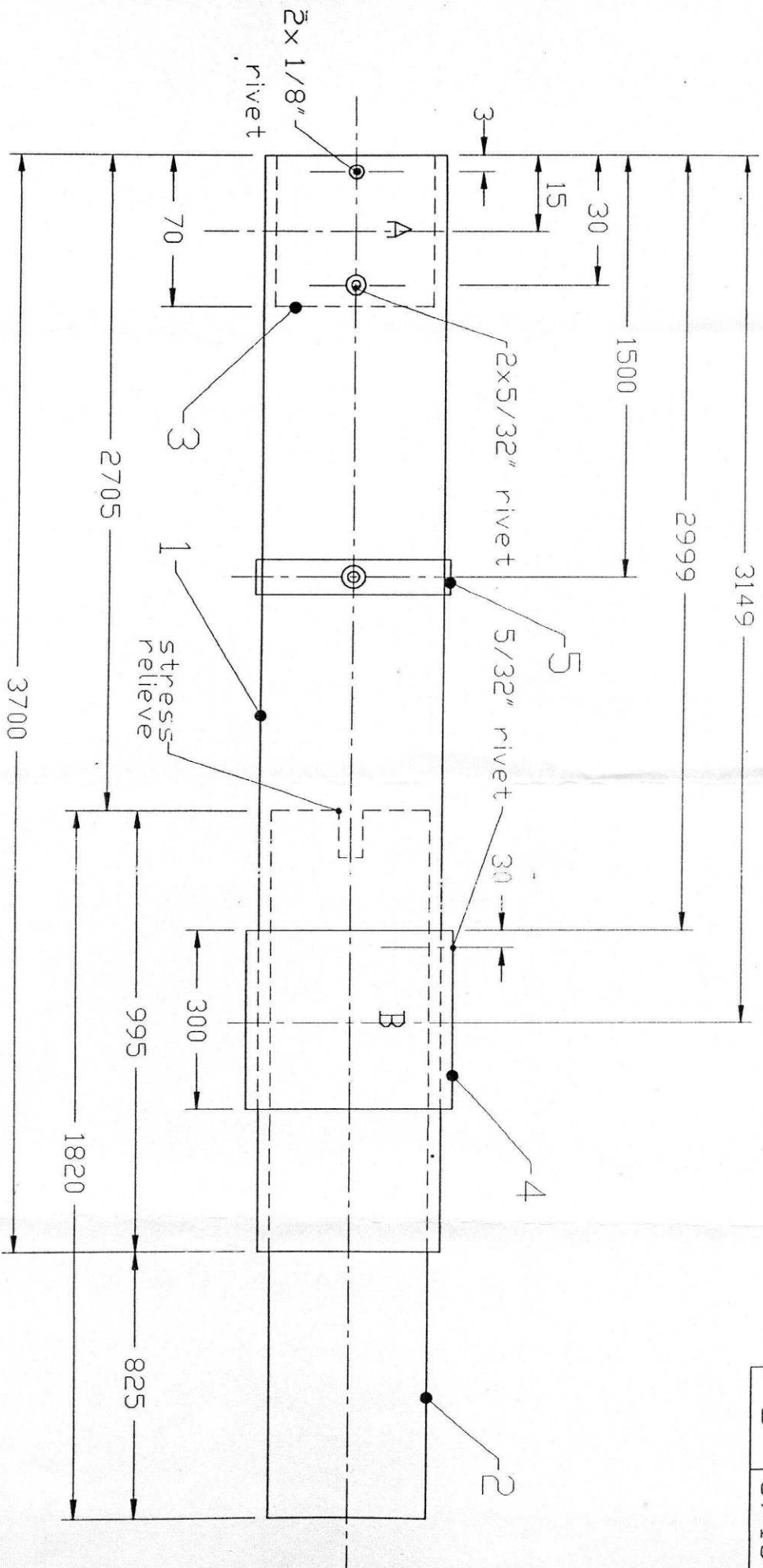
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HOLE	Ø"
A	13/64
B	17/64
C	5/16



		TOLERANCES:		TITLE:	
		X±0.5mm		ENTERPRISE WINGS	
		X±1°		150 KEEL	
		DIMENSIONS:		PART No:	
		mm unless otherwise stated		DRAWN:	
		SCALE:		12-10-95 R.S.	
		N.T.S.		DWG ID:	
				Fkeel	
5	OUTER SLEEVE 45° END CUT	6106T83 Ø45.1x1.2mm	760/45°		
4	OUTER SLEEVE	6106T83 Ø45.1x1.2mm	400		
3	OUTER SLEEVE	6106T83 Ø45.1x1.2mm	110		
2	KEEL TUBE 2	6106T83 Ø42.25x1.2mm	1368		
1	KEEL TUBE 1	6106T83 Ø42.25x1.2mm	2420		
NO	DESCRIPTION	MATERIAL	DAL mm		

HOLE	Ø"
A	17/64
B	5/16"



No	DESCRIPTION	MATERIAL	DAL mm	TOLERANCES: X ±0.5mm X ±1°	TITLE: <i>ENTERPRISE WINGS</i>	PART No:	DRAWN:	DWG ID:
5	DEFLEXOR WEBBING	NYLON WEBBING 27mm				SP LEF	11-10-95 R.S	Flefront
4	OUTER SLEEVE	6106T83 Ø63x1.2mm	300					
3	INNER SLEEVE	6106T893 Ø57.7x1mm	70					
2	SLEEVE - STRESS RELIEVE	6106T893 Ø57.7x1mm	1820					
1	FRONT LEADING EDGE	6106T893 Ø60x1mm	3700					