Dabchicks Sailing Club

Preparing an Optimist for Sunset Series

A guide for new joiners and those preparing for pre-season boat inspections

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1 Introduction

1.1 Purpose

The purpose of this document is to provide a guide for sailors and parents who are new to Optimists and to help everyone prepare their boat for DSC Sunset Series.

Before you start Sunset Series and before the start of each new sailing season, it is important to check your boat and equipment to make sure that it is in good order and you are ready to sail.

To assist you in reading this document points are emphasised using the following key:

MUST - indicates a, must have, requirement.
SHOULD - indicates a recommended best practice.
HINT - provides a hint about how to do something.
WHY ? - provides and explanation as to why you need to do something.

1.2 Sunset Boat Inspections

To help you with boat preparation, the Sunset coaches conduct mandatory boat inspections for all Optimists sailing in Diamond Fleet (1st year), Emerald Fleet (2nd year) and Bronze Fleet (3rd year) sailors. Sailors in these fleets **MUST** have their boats inspected and any issues that have been identified **MUST** be sorted before they can sail in Sunset each year. You will be advised of the timing and location of the boat inspections for your fleet.

You **MUST** attend the inspection with the sailor and **SHOULD** bring your boat in the best possible order.

The coaches use a checklist that is provided in the Appendix 1 to this document and is also available in the Sunset section of the DSC website. Parents and sailors are encouraged to use these notes and the checklist to help them prepare for the boat inspections. The coaches will be happy to advise you on any issues that the inspection identifies.

1.3 Inspection Disclaimer

The Sunset Boat Inspection is undertaken in an attempt to ensure that the boat meets a minimum standard. It is a brief visual examination only designed to help us run the sailing/training sessions smoothly for each fleet. No parts are removed, dismantled or stress-tested. The check is not a marine survey and its purpose is to identify obvious defects that must be corrected before the Optimist can be used in the Sunset Series.

The instructors inspecting your boats are volunteer club members and not qualified professionals. Where items are not identified as deficient, there is no implication that the boat is seaworthy. It is the responsibility of the parent and sailor to satisfy

themselves as to the seaworthiness of the boat and professional advice should be sought if they are in any doubt.

1.4 Where to buy kit

Appendix 2 contains a diagram of the various ropes with suggestions of suitable types and sizes of rope. Appendix 3 contains details for our local marine store (Wyatts) and a number of online marine stores that stock Optimist parts and spares.

2 The Sailor

2.1 Person Buoyancy Aid

Each sailor **MUST** wear a personal buoyancy aid. This **MUST** be sound, correct for child's weight and fasten correctly.

You **MUST** bring your buoyancy aid and the sailor with you to the boat inspection.
HINT - Good quality buoyancy aids have the weight rating details printed on them.

2.2 Clothing

You **SHOULD** bring the sailor's wetsuit/dry-suit/ sailing suit and sailing shoes/boots/ wetsuit boots with you to the inspection. They do not need to be wearing them but we do like to see them.

WHY? Appropriate clothing and footwear makes a big difference to the sailor's comfort and, therefore, their enjoyment and their ability to concentrate and learn. It gets cold in the evening so adequate clothing is essential. It is often colder on the water than on the shore. The weather will vary greatly over the season and it is a key part of a sailor's learning to know what to wear under different conditions.

HINT

- here may be days where lighter UV clothing, sun hat, UV protection sunglasses and good quality waterproof, sun-cream and a bottle of drinking water may be necessary!
- Wind cools you so wind proof clothing over warm clothes is the basic requirement.
- Dry-suits do not keep you warm so wear adequate clothing under them.
- Wet suits keep you warm until they get wet so it can help to have windproof clothing over them.
- Appropriate Shoes **MUST** be worn. Shoes need to be soft and grip the floor in the boat – You **MUST** NOT sail in bare feet or in wellies! **WHY?** Bare feet means easy injury and wellies full of water makes it hard for a sailor to swim or to be helped out of the water.
- A woolly hat really keeps you warm.
- Hair - Girls and boys with long hair **SHOULD** ensure that it is restrained. **WHY ?** To prevent it getting caught in the mainsheet block on the boom and other bits of the boat.
- Jewellery **SHOULD** not be worn. **WHY ?** It risks being caught in ropes and can cause injury.

3 The Boat

3.1 Hull

The hull **MUST** be sound and safe, with no holes, sharp edges or structural faults.

Common faults in GRP hulls

- The top moulding can become detached from the bottom moulding at points around the gunwale, usually caused by collision damage. Repairs **SHOULD** be undertaken promptly.

- **HINT** - Minor collision damage, non-structural, resulting in sharp exposed edges can sometimes be covered with a good tape (duck-tape) until the damage can be repaired.

Common faults in wooden hulls

- Joints failing, particularly at mast thwart, dagger-board cases, and corner joints **HINT** - promptly re-glue the joints and seal them.
- Minor collision damage should be taped over with duct tape to keep water out of the wood, then sealed and repaired ASAP.
- Corner ply knees detaching from hull - **HINT**- get the knees re-fixed promptly as they are a structural part of the boat.

- Wooden hulls **SHOULD** be well-painted and varnished, with smooth bottoms and non-slip cockpit floors.

3.2 Buoyancy

The bags **MUST** be air-tight, and securely attached to the hull, with at least two 45mm straps (preferably three). Typically, boats will have three sound buoyancy bags of 30 litres capacity for wooden boats or 40 litres capacity for GRP boats or equivalent 'tank' capacity.

If your boat has built in 'tanks' they **SHOULD** really only be regarded as 'bag covers' and have buoyancy bags inserted into them. **HINT** - boats with built-in buoyancy - **SHOULD** be inspected regularly for damage and cracks. If you can hear water sloshing about inside them that will give you a clue! It is best to get the water out and try to locate and seal off any holes in the tanks. Ideally tanks **SHOULD** have inspection hatches. **WHY ?** Tanks that keep taking in water are not good news. An Optimist with full tanks will not sail easily and increases chances of 'nose-diving' and capsizing.

The bags **SHOULD** be inflated to a suitable pressure. **HINT** - do not over-inflate the bags, as any rise in air temperature may cause the bag to split. If a rise in temperature is forecast, the bags **SHOULD** be deflated a little when the boat is packed away.

You **MUST** always check the bags before each sailing session and top them up if necessary.

HINT - small leaks in buoyancy bags can usually be sealed with 'Stormsure' glue or similar.

3.3 Fittings

All fittings **SHOULD** be firmly attached to the hull - preferably with stainless steel screws or bolts, but not with plated steel screws and bolts – **WHY ?** - because plated steel rapidly rusts in salt-water.

3.4 Bow Bumpers

A bow bumper **MUST** be fitted to a beginner's boat, as this reduces damage to the boat and to other boats. (see above). **HINT** - after a good knock or two, the foam in the bumper fails and the foam should be replaced (pipe insulation foam can be used as a replacement). Bow bumpers can be purchased from good chandlers including the online ones.

HINT If the foam inside becomes broken, squashed or lost, then replace it. Also make sure that the chords that hold it in place are kept tight and are not broken. The bumper will greatly reduce the chances of significant damage in a frontal collision.

3.5 Painter

The Painter (tow rope) **MUST** be securely fixed to boat (fastened to the mast step, mast thwart. (See below). The painter **MUST** **NOT** be tied around the mast. **WHY ?** - if the mast is removed during recovery operations, the painter will become detached from the boat. The painter **MUST** **NOT** be passed through the drain hole in the gunwale of a GRP boat. **WHY ?** - the hole in the gunwale is not strong enough!

The painter should have a simple loop tied in it 1.5 boat lengths from the bow. It should be tied firmly to an anchor point at the front of the boat. Usually this is the mast step. It should **not** just be tied around the mast or the thwart.

A painter **MUST** be Minimum 8 metres long and at least 5mm diameter and of buoyant rope. (see rope suggestion in Appendix 2).

For Sunset Series, the painter **MUST** have a simple loop tied at about one and a half boat lengths measured from the bow. (See above). **WHY ?** This loop enables us to rapidly sort boats into daisy chains for towing at a safe distance. There should be no other extra loops or knots in the painter as these hinder us. This greatly helps us to pick up the boats quickly when we need to tow them to shore or when we are towing them from the shore to their sailing location.

3.6 Mast Step

The mast step **MUST** be firmly fixed to the hog (centre line of the boat) and **SHOULD** be adjustable. (see above)

3.7 Mast Lock

A Mast Lock (Mast Retainer/Mast Clip) **MUST** be fitted. (See below). **WHY?** The Mask Lock is to keep the mast in place during a capsize. If not fitted, or not fitted in the correct position (It **MUST** be fitted right up tightly under the thwart), (See below), during capsize, the mast may come out of the mast step, and when the boat is righted,

the leverage of the mast and sail will damage the mast thwart - this could be expensive and even ruin the boat completely!

The cord attached to the Mast Lock **MUST** be attached to the hull at a point level with the top of the thwart. (see picture) . **WHY?** - this is to show support boat crews that there is a mast lock, so that they can quickly undo the lock and remove the rig quickly if necessary.

There are other Mast retentions systems. However, rope-based systems (a rope passing through an eye on the mast or over the kicker cleat.) **SHOULD** be avoided. **WHY?** They are ineffective!

Some mast step systems have a built-in retention mechanism that connects securely to the bottom of the mast but they tend to be considerably more expensive.

Whatever type of Mast Lock you have, all parents and sailors **MUST** adopt the good habit of checking that the Mast Lock is fixed correctly in place before launching.

The Mast Lock is a vital bit of kit and no optimist should be sailed without one being correctly fitted!

Also, beware of the cord that attaches the clamp to the top of the thwart (see the right picture above). Once the clamp is in place do not turn the boat around and around in the dinghy park or on the water when towing. With the mainsheet unclipped the sail will go around and around and this will wind up the chord very tight. The chord is strong and as it is wound tighter and tighter it will cut into and damage the thwart. Lots of boats get damaged this way so avoid turning the boat around allowing the mast to turn round and around!

3.8 Rachet Block

You **SHOULD** have a ratchet block that works (automatic or on/off with the mainsheet threaded in the right direction - the block clicks as you pull the mainsheet). **WHY ?** - the block grips the mainsheet and makes it easier to control the sail in windy conditions.

3.9 Toe Straps

Toe-straps **MUST** be strong, and securely fixed to the hull and adjusted to suit the size and experience of the helm. **WHY ?** The toe straps are there to help the sailor hike out and keep the boat flat when the wind gets up. They **SHOULD** be set correctly for the length of the sailor's legs. As the sailor becomes more confident they will enjoy having them a bit looser to enable them to really 'hike-out' and get the boat going faster! (for the more experienced sailor toe straps can be set so that the back of the knees or just above are on the gunwales)- **HINT** - padded toe-straps are more comfortable to use. You can buy ready-made toe strap pads or improvise with plumber's thick pipe-lagging and some insulating tape.

The toe straps **SHOULD** also have elastic bungie to hold them up clear of the bottom of the boat. **WHY ?** This enables the sailor to slip their feet under them easily. The bungee also allows them to flex when they are trodden on. **HINT** - Over time the bungee cord will sag (see above) and may need to be tightened from time to time. Eventually the bungee cord will lose its elasticity to a point where it will need to be replaced.

3.10 Bailers

The boat **MUST** have at least one bailer **WHY ?** Sailing involves sailors getting wet and it really is all part of the fun.! An Optimist does fill up with plenty of water when they are recovered from a capsize and it can be a surprisingly effective at collecting water when sailed in choppy conditions even without a capsize.

Ideally you **SHOULD** have **TWO** bailers. **WHY ?** A boat full of water is slower and harder to control and sail effectively. A good Optimist sailor will soon learn to keep their boat clear of water when sailing in choppy conditions by occasionally grabbing a bailer and bailing as they sail along. A dry boat is a faster boat! **HINT** Having two bailers tucked securely either side of the dagger board case (see picture) makes it easier for the sailor to grab the nearest bailer from whatever side of the boat they are sitting.

WHY ? Also, following a capsize, it may occasionally be appropriate for a support boat crew to help a sailor bail- out. It is amazing how quickly the water can be cleared if both the sailor and a support boat crew can both bail. Some sailors can even go "Full "Rambo" with a bailer in each hand. **HINT** Bailing out quickly is the best way to warm up after a capsize!

The Bailers **MUST** be attached to the hull with lanyards or elastic cords. **HINT** - lanyard length should be long enough to reach all points of the hull, but no longer. Too much rope increases the risk of tangle of ropes in the cockpit. **WHY ?** – The lanyards need to be long enough to bail the boat effectively but not so long as tangled ropes and lanyards can jam the mainsheet in the blocks, resulting in loss of sail control!

HINT sail with the bailers and their lanyards in the front of the boat by the daggerboard case so that the lanyards cannot become tangled with the mainsheet in the cockpit.

HINT Bailers can be purchased from the local chandlers or online Opti-parts (link). However, very good bailers can also be made by cutting down plastic petrol cans. You could even buy one red one and one green one to reflect 'port' and 'starboard'. (See picture).

3.11 Paddle

You **MUST** have a suitable paddle. **WHY ?** Paddling is not permitted when racing. However, when the wind drops, and there is no racing, sometimes sailors will need to paddle home. For this they need a good light paddle.

The paddle **MUST** be attached to the hull with a lanyard (rope). The lanyard **SHOULD** be long enough for the paddle to be used on either side of the boat without untying it.

HINT – 'Praddles' are the best solution as they can be used with one hand whilst the other hand holds the tiller to steer the boat. They can also be easily stored behind the aft (rear) buoyancy bag tied to one of the bag's retaining straps. (see above). **HINT** When it is not in use keep the lanyard wound around the praddle or tucked away behind the bag so that it cannot become tangled with the mainsheet in the cockpit.

Traditional paddles **SHOULD** be avoided as they tend to be larger, harder to store, heavier and not easily used one handed.

3.12 Dagger board case & dagger board control and protection

The Dagger board case **MUST** be in good condition and allow the dagger board to be easily inserted and removed. **WHY ?** The sailor will need to be able to insert it easily when launching and remove it when coming ashore to avoid damaging it by running aground.

The case **MUST** have an elastic system to hold the dagger-board at any position within its case. (See picture) **WHY ?** The sailor will need to be able to lift the dagger board into different positions whilst they are sailing. The elastic **SHOULD** be correctly tensioned to hold the board firmly in the position chosen.


HINT- a piece of plastic tube on the elastic where it holds the aft edge of the board stops the elastic being pulled into the case and jamming the board. It can also help the elastic to grip the board and stop the elastic from wearing out. (See above)

HINT- Over time the dagger board elastic will stretch and become less effective. It can be tightened but eventually it may be best to replace it. Eventually the elastic will need replacing. Like nicker elastic, it will not last forever. Eventually saggy elastic will not hold things up and it will just fall down.

HINT- Rubber/foam blocks (20x30mm) **SHOULD** be glued at the top and bottom of the slot in the dagger-board case to protect the board. **WHY ?** - running aground can damage the leading and trailing edges of the board and the hull and rubbers can help stop this.

4 Foils

4.1 Dagger Board

Dagger-boards **SHOULD** be flat and smooth with minimum damage to the edges. The forward and aft edges should be suitably shaped and it must slide in and out of the daggerboard case smoothly.

When on the water, the board **MUST** be attached to the boat, using a lanyard (rope) which has a safety hook on the end of it. (See above). This hooks onto a fixing on the boat. **WHY?** This stops the dagger board from being lost in the event of a capsize. The lanyard **MUST** be long enough to enable the dagger board to be inserted and lifted out completely for launching and when coming ashore.

HINT - marking the board with positions for running, reaching, and beating, and putting a mark above which the boom will hit the dagger-board in a gybe is a good idea. (Your fleet coach can help you to place these marks on the dagger board) **WHY ?** This can help the new sailor to learn to set the correct positions for the dagger board whilst they are sailing. Marking the front and back of the dagger board clearly will also help new sailors to place the dagger board in the correct way around.

4.2 Rudder Blade

The rudder **SHOULD** be in good condition and be flat and smooth with minimal damage. Fittings must be securely fastened. The rudder edges **SHOULD** be suitably shaped. **WHY?** The Rudder is a key control and smooth is fast!

4.3 Pintles (the rudder attachments fittings)

The Pintles and Gudgeons (See above) **MUST** be firmly fixed to boat and rudder. **WHY ?** Poor condition fittings will result in rudder failure.

The top pintle **SHOULD** be shorter than the bottom one. **WHY ?** To make it easier to fit the rudder when launching in the water.

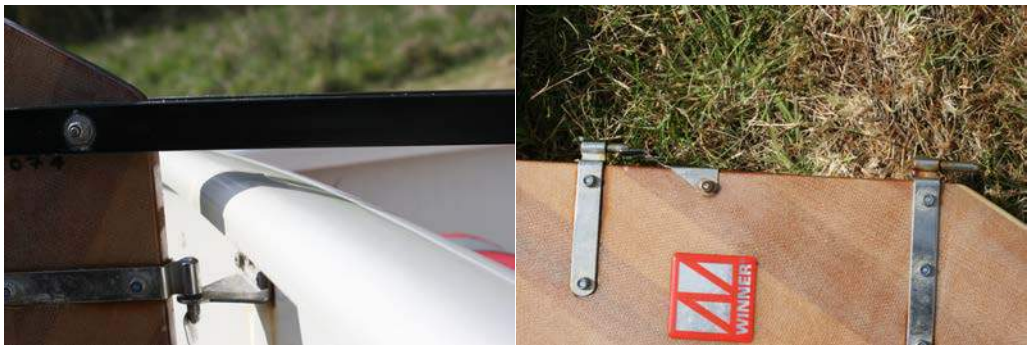
4.4 Rudder Retention Clip

An effective rudder clip **MUST** be fitted. **WHY ?** To prevent the rudder becoming detached from the boat. The best ones are fitted to the front of the rudder to engage with the gudgeon on the back of the boat. However, some boats have clips fixed to the hull. (See above).

The clip **SHOULD** be secure but easy enough to operate by the sailor and the rudder **SHOULD** have minimum up and down movement - **WHY ?** - to stop the rudder falling off , and to make it easier for the sailor to un-clip the rudder.

4.5 Tiller & Tiller Extension

The tiller **SHOULD** be in good condition and securely fixed to the rudder blade but it should not make contact with the boat when the rudder is attached to the boat. **WHY ?** It will rub and damage the boat gunwales.



The extension **SHOULD** be of appropriate length. Most people stick with the standard length tiller extension but some new sailors can find it easier to start with a shorter extension. Your fleet coach will advise you if they think that the sailor would benefit from a shorter tiller extension.

The tiller extension **SHOULD** have a suitable grip along the shaft, and a smooth/soft end to avoid damage. **HINT** - Tiller extensions with the golf club style grips are the most comfortable.

The tiller extension has a flexible 'universal joint' ('UJ') that attaches it to the tiller. If this is rubber, it **SHOULD** have **NO** cracks in it. If the joint is a stainless-steel joint, it **SHOULD** not be sloppy and worn out.


HINT - an extension with a rubber joint **SHOULD** not be stored for long periods attached to the tiller and bent against the tiller - this results in cracks in the rubber, and this will eventually lead to its failure.

HINT If the UJ looks damaged it is best to replace it. When a UJ fails it is 'Neptune's Law' that it will happen at the worse possible moment resulting in damage to your boat and/or another boat!

HINT When first starting some sailors struggle to get used to the standard tiller extension when tacking and gybing. For some beginners it can really help to attach a shorter extension until they get used to it all. However, once they've got the hang of it, you should revert back to the standard length as a short extension can make it difficult for a sailor to position themselves correctly in the boat and to hike out as they get better at their sailing in stronger winds.

4.6 Damage to Foils

HINT - foils are usually damaged when running aground. Any damage that exposes the wood of wooden foils or the core of GRP foils **SHOULD** be sealed or repaired promptly. **WHY ?** In order to prevent entry of salt water and further delamination and damage to the foil.

HINT - If you have good quality/condition foils (dagger board and rudder blades) it may be worth storing them in a good, padded bag. (See below). **WHY?** Edges are

most likely to get damaged by bumping and dropping them whilst they are being carried when ashore. A Bag makes them easy for the sailor to carry and less likely to suffer damage.

HINT The old dagger board on the right is a bit worn on the edges and could reaaly do with some varnish on its edges to stop the water getting into the plywood and delaminating it.

5 Mast & its fittings

5.1 Mast

The mast **MUST** be in good condition. Older masts can become worn and have multiple screw holes and rivets in that can weaken them. However, most masts, if well looked after, should be OK. Some older boats may have wooden masts but most boats these days have an alloy masts and they are preferable.

HINT Ideally the mast **MUST** be able to float without taking in water. If your mast gets water in it, remove it and seal the mast to prevent getting in. (However, note that many of the newer masts do have a deliberate reinforced sealed hole for locating the sprit halyard mechanism). If your mast has lots of old holes from previous fittings, try to seal them with waterproof sealant/filler or use good waterproof tape as a temporary measure.

HINT The cleat for the sprit halyard needs to hold securely when it is under load. If the rope becomes old and hard it will slip in the cleat, so replace it. The cleat can also become worn, especially the plastic ones. Metals ones cost more but will last longer. Sometimes a three-ply rope rather than 8/16 plat rope will hold better in some cleats. Try the rope in the cleat before you buy. Also make sure that the rope is not too stretchy as you need to be able to set the sprit halyard good and tight without there being any stretch or slippage once the sail comes under load.

5.2 Mast Lock

The mast **MUST** be securely fixed in the boat so that it does not come out of the mast foot during a capsize or other manoeuvres. The best way to do this is with a 'mast lock'. See section 3.7

5.3 Mast Sleave

The mast **MUST** Rotate easily when in position but without being too loose and sloppy in the mast sleeve.(Where it passes through the Thwart).

HINT If the mast is loose in the mast hole in the thwart it may need a new sleave to ensure that the fitting is sufficiently firm.

5.4 Mast fittings

The Cleats(clam-cleats) on the mast for sprit control and kicker **SHOULD** be alloy rather than plastic. **WHY ?** Plastic cleats wear easily and then fail to grip resulting in a poorly set sail.

5.5 Sprit Halyard/ Uphaul

The sprit holds the top (peak) of the sail up. The sprit halyard (uphaul) control **SHOULD** work easily and efficiently. (see picture)

The sprit **SHOULD** be set on the starboard side of the sail. The rig is designed to be set this way. This will give the sail best efficiency on a starboard tack when the boat has right of way on the water.

The rope used for the Sprit halyard **SHOULD** be low stretch rope, in good condition and hold firmly in your clam-cleat. **WHY ?** The sprit halyard requires a lot of tension to set correctly and when the sail fills it comes under significant load. Only a low stretch rope and a good compatible, (alloy) cleat will ensure that the sprit halyard will hold firm.
In time the sailor will learn when and how to adjust the sprit uphaul to suit the sailing conditions both when launching and when on the water. **HINT** It can be a real help to have a plastic handle (or a hand sized loop) on the loose end of the halyard. **Why ?** This makes it easier for a young sailor to grab and pull tension in the uphaul (especially when adjusting on the water) (see picture).

5.6 Burgee (Wind indicator)

A wind direction indicator (a **Burgee** or 'Hawk' indicator) **SHOULD** be fitted to the top of the mast. (See picture) **WHY ?** All sailors need to know where the wind is coming from and this is particularly vital when learning and racing. Some fit using a fitting fixed at the top of the mast , whilst others use plugs and/or the top Sail ties. (see pictures)

We often have sailors trying to sail without a burgee or wind indicator or with one that is damaged. If it gets damaged get it replaced. When sailors are learning they need a burgee or wind indicator to help them understand where the wind is coming from. Sailing without one results in greater confusion. Make sure that the burgee/indicator is not set too low, otherwise the sail can touch it and interfere with its function.

6 Boom & its fittings

6.1 Boom

Most booms will be alloy, although a few older boats may have wooden booms. The boom **MUST** have a secure jaw fitting and a kicker fixing at the mast end a 'clue'/eye fitting and clam cleat the rear end. (see pictures)

6.2 Kicking Strap

The Kicking Strap (Or Vang) **SHOULD** be firmly secured to boom with a low stretch strop/rope in good condition and a compatible alloy cleat on the mast. **WHY ?** The kicker needs to be set pretty tight, takes reasonable loads and must hold rope without slipping. The kicker holds the boom down and helps the sail to be controllable. Slippage will result in a poor sail set up and can make sail control much harder in stronger winds.

HINT The Kicker rope takes a bashing and is often the first rope to become worn and break. When it becomes frayed just replace it, otherwise you may find it will fail when the sailor least wants it to do so!.

6.3 Mainsheet attachment

The mainsheet (rope) attachment point **MUST** be fixed so that it does not slip along the boom and **SHOULD** be positioned correctly so that sail can be easily controlled. **WHY?** The sailor will need to be able to control the mainsheet at all times, sheeting-in (pulling it in) and Sheeting-out (letting it out) to control the position and power in the sail.

Most booms will have a Strop or 'Span', fitted to spread the load forces on the boom If a Span is fitted then it **MUST** have a maximum clearance measured from the boom of not more than 100mm. (See picture) **WHY ?** – **SAFETY!** It has been known for a child's head to get trapped between the span and the boom if the clearance is more than 100mm.

6.4 Boom Padding

If the sailor is a beginner you **SHOULD** fit foam padding to the boom between the mainsheet and the aft end of the boom. **WHY ?** This will help protect the sailors head from impacts from a swinging boom. A padded boom can help to maintain the confidence and mood of a new sailor. An occasional 'bash to the bonce' is inevitable whilst they are learning. **HINT** plumber's pipe lagging fixed with electrical tape can work very well.

7 Sprit & fittings

7.1 Sprit

The sprit (which holds the sail up) SHOULD be straight and not bent!

7.2 Sprit Fittings

The Sprit **SHOULD** be fitted with Optimist **'Sprit Hooks'** or Optimist **'Sprit Spike'** at either end. See pictures. **HINT** – for those that have or are familiar with them, a jib stick fitting (thinner spike) **SHOULD** NOT be used on the sprit.

7.3 Sprit protection

You **SHOULD** ensure that your sprit has protective covering where it touches the mast. (see picture) **WHY ?** The sprit and the mast can become worn over time where they rub together. Some sprits come with a protective covering already fitted to prevent

this. **HINT** If your sprit does not have protective covering you can place some rubber tubing (if you can find the correct diameter) or, alternatively wind a few layers of electrical tape around the sprit. The tape will need replacing occasionally but it will preserve the sprit and mast.

8 Sail & Mainsheet

8.1 Mainsheet

The mainsheet **MUST** be of a suitable length, flexible, soft-coated, quality rope of an appropriate diameter. It **MUST** pass easily through the blocks, whose sheaves should rotate easily. **HINT** - Recommended sizes are shown on the rope chart in Appendix 2.

A suitable length will allow the sail to be let right out with the helm holding it whilst hanging out on the toe straps. It **SHOULD** not be too long. **WHY ?** – If the mainsheet is too long it will leave more rope to get tangled in the boat.

HINT Do not thread the mainsheet such that it is twisted (see above). **WHY ?** This will create friction and make it harder for the sailor to pull in and let out the sail.

HINT You can leave the mainsheet threaded up in the boat when you pack it away. The sailor **SHOULD** learn to clip the mainsheet on such that it is not all twisted up.

For beginner helms, a figure of eight knot **MUST** be tied in the mainsheet to stop the boom being let out beyond 90 degrees to the boat. **WHY ?** - if the boom goes forward of the mast, the boat can become unstable, difficult to control and hard for a young sailor to pull back in.

In any event, you **SHOULD** tie a figure of eight knot at the very loose end of the mainsheet. **WHY?** To stop the mainsheet from coming unthreaded through the mainsheet blocks. **HINT** - Once unclipped from the boom and ashore, most sailors will leave the mainsheet in the boat all correctly threaded through the blocks for next time.

HINT Most boats will have a 3 to a1 purchase (as above) but when its windy some younger sailors will try a 4 to 1. This requires an extra block and a longer rope for the mainsheet. As sailors get bigger and stronger, they often revert to a 3 to 1 by removing the extra block without shortening the rope. You really don't want all the extra rope as it can just get tangled. Have a mainsheet that is long enough but too long!

8.2 Mainsheet Clip

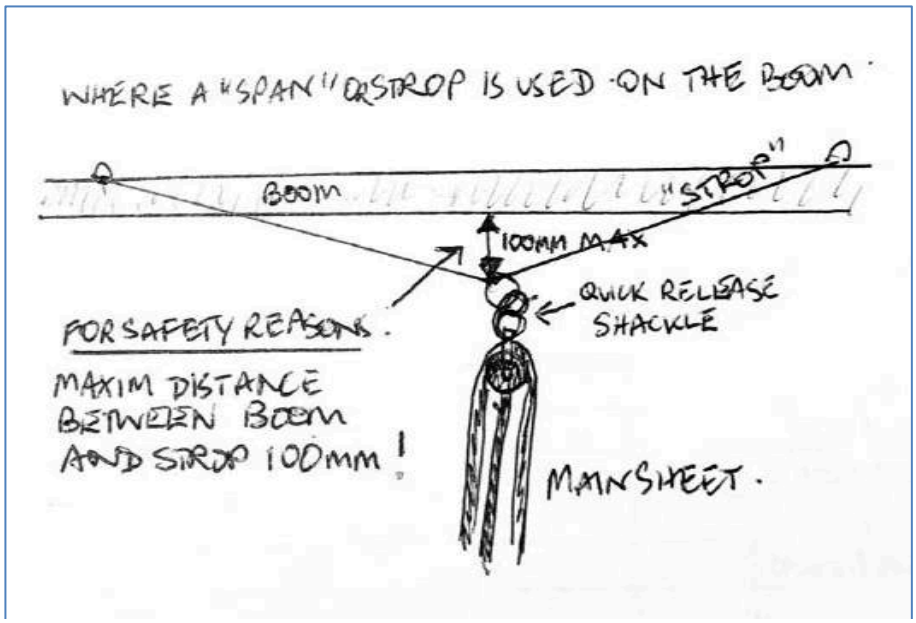
The attachment of the mainsheet to the boom/Span(Strop) **MUST** be done using an appropriate piston snap shackle type, or trigger snap shackle. It **MUST** not be tied to the boom or Span/Strop with any form of knot. (See picture) **WHY ?** - The sailor and support boat crews will need to attach and release the mainsheet quickly when launching and returning to the shore, and when recovering a boat to be towed or rescued.

HINT- a short-knotted piece of cord attached to the ring on the piston of the snap shackle can really help with an easier grab and operation of the snap shackle. Ensure that this grab cord is not long enough to become caught up in the mainsheet block!

You **MUST** not use a carabiner style snap shackle. **WHY ?** These can get caught on the sailors clothing and, as a result, this can be dangerous.

8.3 Spans (Strops) – AN IMPORTANT SAFETY POINT !!!!!

Some boats have a Span (or Strop) with a ring in the centre to which the mainsheet is attached. These are designed to spread the load on the boom and enable ready adjustment to the position of the ring along the boom. Where your boat has this, you **MUST** ensure that the distance between the boom and the ring under load is not more than 100mm! **WHY?** SAFETY! – If the distance is greater than 100mm there is a risk that the sailors head could become trapped between the boom and the Span (Strop)



8.4 The Sail

The sail **SHOULD** be reasonable condition with no holes or rips. **WHY ?** The sail is your engine!

The sail **SHOULD** have two unbroken battens held securely in the batten pockets so that they cannot fall out during sailing. **WHY?** The battens hold the leech (back edge) of the sail in position and stop it from flapping so that the sail is more effective.

HINT - if the eyelets on the sail are corroding, they should be changed before they break and the sail gets damaged.

The sail **MUST** be tied to the spars through all the eyelets. The corner ties **SHOULD** be of thin, strong cord; these ties should be tied tightly to hold the sail so that its edge just touches the spars.

The ties through the remaining eyelets **SHOULD** be of thin cord, holding the sail edge just less than 10mm from the spars, so that the sail can easily move round the spars.

HINT Corner ties are often missing or not tight enough. When the sail is filled, the sail needs to be held close to the mast and boom as shown. It can take a bit of trial and error. Use sail tie rope that does not stretch too much. If they are loose, then the sail will set poorly and power and control will be lost.

The diagonal tie at the top of the mast is to stop the sail going too far up the mast. The top of the sail **SHOULD** not go past 20mm from the top of the mast. With a more recent sail and mast, the measurement mark on the sail SHOULD be between the 2 measurement marks on the mast. (See picture)

HINT The golden rule is, 'if there is an eye there should be a sail tie!' The sail will set poorly if they are missing and, in the extreme when the sail is under load it can lead to a tear in the sail. If the metal eyelets in the sail go missing due to corrosion this can result in a damaged sail as the ties cut through the sail very quickly. Sailmakers can readily replace missing sail eyes at very little cost and our very own Ray Smith can also sort this for you.

HINT More modern sails have the sail ties set in loops at just the right size to slip the sail on the mast after the Sprit halyard has been removed and the kicker released

completely. This allows the sail to be rolled carefully around the boom for storage to keep the sail in good condition. If you have a new quality sail it is worth rolling the sale neatly around the boom and placing it in a boom length sail bag. Full length spar bags are also useful.

HINT Older sails may not be set up to slide the mast in and out of the loops easily. These sails may require the ties to tied and undone after each session. If you have an older sail it may be convenient to undo the kicker and raise the boom up to the mast and roll the sail around both the boom and mast together . This makes for a quick pack away and quick rig up next time but it is not so good for the sail. However, if the sail is already well used it may not make too much difference. Storing the sail in this way does result in the base of the mast sticking out of the back of the boat when the cover is put on. Removing the mast and rolling the sail around the boom means you can store the mast, boom and sprit securely under the boat cover.

HINT Common problems include not having the top sail ties tight enough or set incorrectly. The smaller top tie at the head of the sail should hold the eye of the sail tight on the back of the mast whilst the second longer sail tie should be set to hold the eye just slightly off the top of the mast (as shown). When the sprit is tensioned, you don't want the top eye pulling away from the back of the mast or pulling up above the top of the mast when the sail is filled.

HINT The ties are held in the mast with pins. Don't mix the pins up! The short tie at the top holds the sail to the mast whilst the longer one serves to sop the eye going above the top of the mast. Once the ties are set correctly you should be able to leave them tied correctly on the pins. Each time you rig/de-rig you can simply insert/remove the pins from the holes in the mast.

8.5 Sail Number

Each boat **MUST** have a unique sail number that is clearly stuck to both sides of the sail. **WHY?** – SAFETY! - We use the unique sail numbers to identify everyone and account for them whilst we are on the water.

Most boats will have their official unique Optimist registered number already included on the sail . However, some older boats may have a sail with a different number or unofficial number. The only important thing is that the number **MUST** be clear and unique for our fleet. If there is a duplication of numbers in our fleet we will advise and request one boat to make a change.

HINT - If you need to affix some sail numbers, they can be purchased from a chandlers/online. The correct size for an Optimist is 23.5cm. They can be purchased as specific numbers or as computer "8"s and cut to create the desired number. Make sure that the sail is clean and dry. You **SHOULD** stick the numbers on both sides of the sail but at different heights so that the numbers do not combine when in silhouette.

WHY? We need to be able to read the sail number clearly at a distance when on the water.

When submitting your application for Sunset each year you **MUST** include the correct sail number. Identification by sail number is key to our safe management of the fleets. You **MUST** NOT change sail number without advising your Sunset coach and the Sunset SAFETY and BEACH teams.

8.6 Sail Streamer

As an additional visual aid for coaches all sailors **MUST** sail with a coloured streamer tied to the top (peak) of their sail. (tie it to the webbing loop at the top of the sail) the streamers are coloured for each fleet (Diamond – Blue, Emerald - Green, Bronze – Orange & Silver/Gold – Yellow). With 80 plus Optimists on the water everyone must sail with the correct streamer in order that we can readily tell who is sailing with which fleet.

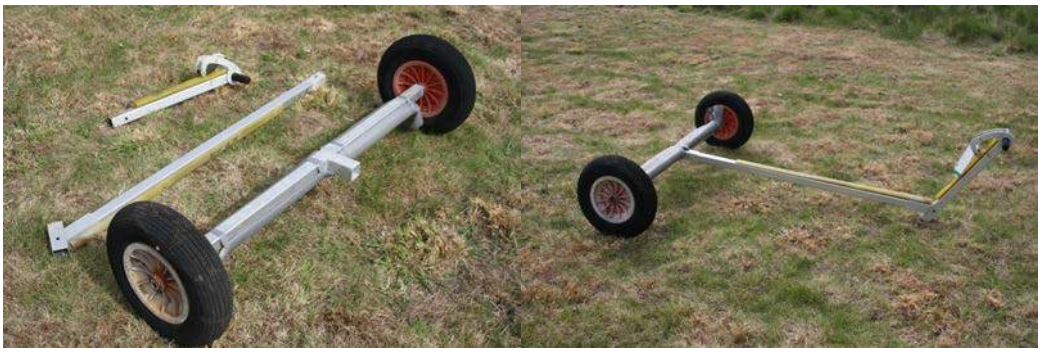
If your boat has an old streamer please remove it and pass it back to our coaches at boat inspection in order that it can be recycled. You will be provided with a correctly coloured streamer before the start of the first sailing session.

9 Trolley

9.1 Trolley

All boats **MUST** have a trolley that is strong and well balanced. **WHY ?** All sailors should be capable of pulling their own optimist up the hard on their own trolley.

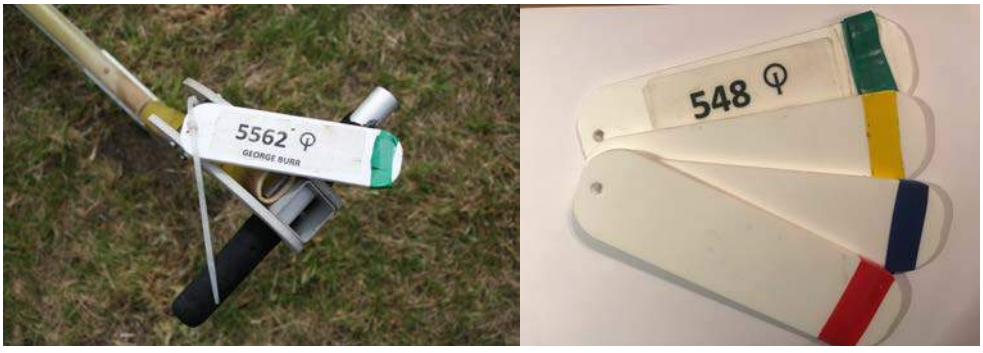
HINT The most popular variety is the aluminium collapsible type (see below). However, some older trolleys are made of plastic 'osma' pipe. These can be just as well balances and effective but are not quite as durable.. You **SHOULD** ensure that there are no punctures in the tyres and that they are well inflated.



9.2 Trolley Label

You **MUST** have a trolley label that includes the correct Sail number and sailors name on it .(See picture). This is vital as most of the trolleys look identical and we have over 80 of them on the hard for the beach teams to handle! The label **MUST** have coloured tape on it to match the fleet in which the sailor is sailing. The colours are as follows:

Diamond Fleet – Blue tape **Emerald Fleet – Green tape** .
Bronze Fleet – Orange tape Silver & Gold Fleet - **Yellow tape**



The trolley label **SHOULD** be fixed by means of a strong cable tie. If you are lucky enough to have purchased your boat locally the chances are it should already have a trolley label with the correct sail number on it.

However, subject to stock availability, Trolley labels with cable ties can be purchased from the Club at a cost of [£2]. These will be available from the Galley when it is open. We will also try to have a stock ready for Diamond Fleet at the Diamond Lake Weekend. At the beginning of each Sunset season, we will try to arrange the new water-poof stickers for your trolley label with the correct number and name already printed on them. However, in the mean-time, as long as you have a trolley label with

the correct sail number and tape colour, that will be good enough to get you started for the season.

Once purchased, each year. you **MUST** ensure that have the correct sail number and the correct colour of tape to match the sailor's fleet.

HINT Alternatively, you can produce your own trolley label. It **MUST** be clear, have the correct sail number, sailor's name, and correctly coloured tape and be firmly fixed to the front of the trolley.

9.3 Identification

Identification – All clothing **MUST** have the owner's name on it. **WHY?** There are lots of sailors with similar kit and the youngsters are very efficient at losing it all and mixing it up!

All parts of the boat, spars, foils, bailers, praddle, trolley, cover etc. **MUST** be indelibly marked with the boat number and, ideally owner's name, or both. **WHY?** With over 80 boats on the water there is plenty of identical kit about. There may be occasions where it could be necessary for spars, foils etc to become separated from their boats and be brought ashore in support boats.

10 Boat Insurance

You will have certified that in your Sunset application form that you have 3rd party liability insurance of at least £3m. You **MUST** ensure that you have insurance in place for your boat before the boat goes on the water. It is **YOUR** responsibility as parents and boat owners to ensure that you have the appropriate insurance in place.

Appendix 1: Boat Inspection Checklist

Dabchicks Sailing Club

Sunset Series - Optimist - Pre Season Checklist

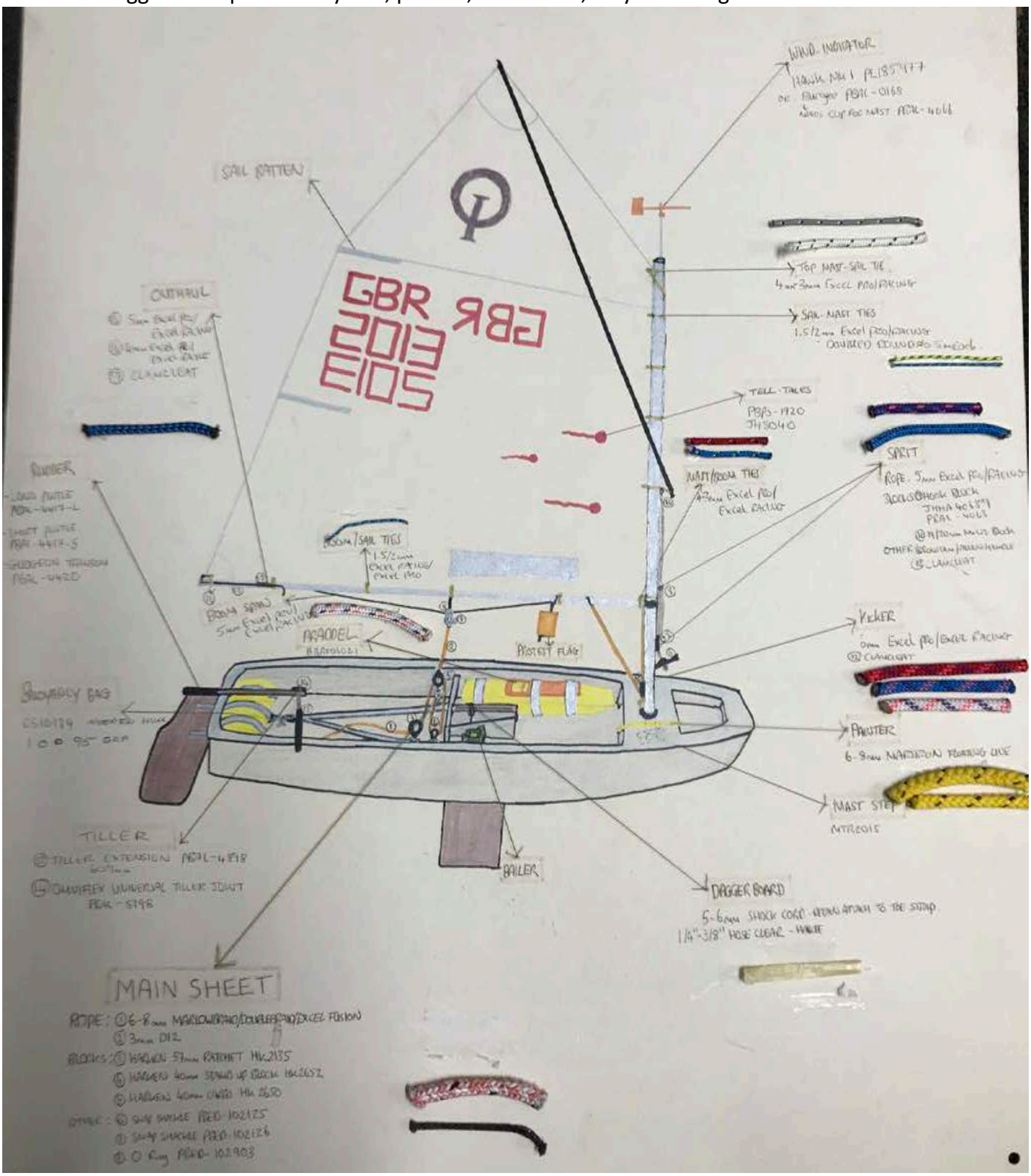
Sailor		Sail No.		Fleet	
		Tick	Points Needing Attention		Cleared - Init
Buoyancy Aid / Clothing	Secure/ Suitable				
Boat's Buoyancy	Secure / Stays Inflated				
Hull	Visual - OK / Bow Bumper?				
Toe Straps	Secure				
Painter (8m X 5mm minimum)	Secure Correct length + loop				
Bailer(s)	Secure with chord / x 2 Ideally				
Paddle / Praddle	Secure with Chord				
Dagger Board	Effective Bungie + Chord & Clip				
Rudder - Tiller + Extension	Secure Pintles+UJ+Rudder Clip				
Mast	Secure				
Mast Clip/Retainer	Secure				
Boom	Secure / Clew/ Boom Pad?				
Mainsheet + Clip	Length - Clip Type		Distance Boom to Span MUST not exceed 10cm!		
Kicking Strap	Secure +'Cleatable'+ Not frayed				
Sprit	Secure				
Sprit Halyard	Secure +'Cleatable'+ Not frayed				
Burgee	Secure				
Sail	Condition /2 x Battens secure				
Sail Number	Correct No. per Application list				
Sail Ties - Mast	Secure/Complete				
Sail Ties - Boom	Secure/Complete				
Streamer	Correct Colour ?		Collect old streamers for recycling		
Trolley & Label	Label: Sail No.?+Fleet Colour?		Trolley Label Y / N	Correct Sail No Y / N	
Boat Insurance	Parent to Confirm in place ?	Y / N	The boat must have third party liability insurance of at least £3m.		

Important Note to Parents:
This check is undertaken in an attempt to ensure that the boat meets a minimum standard. It is a brief visual examination only designed to help us run the sailing/training sessions smoothly. No parts are removed, dismantled or stress-tested. The check is not a marine survey and its purpose is to identify obvious defects that must be corrected before the Optimist can be used in the Sunset Series. Those checking the dinghies are volunteer club members and not qualified professionals. If items are not identified as deficient there is no implication that the boat is seaworthy. It is the responsibility of the owner/parent to satisfy themselves as to the seaworthiness of the boat and professional advice should be sought if there is any doubt.

CHECKED BY:	Approved YES / NO	Parent SIGNED:	Inspector DATE

Appendix 2: Suggested ropes and other parts

Suggested ropes for halyards, painter, mainsheet, lanyards bungee & sail ties etc.



Appendix 3: Where to get your kit and spares

Our local marine stores does stock a reasonable amount of kit but you may find that it does quickly run out of Optimist specific items:

- Marine store Wyatts 128 Coast Road, West Mersea CO5 8PA Tel 01206 384745. https://marinestore.co.uk

Some suggested stores that specialise in Optimists parts and spares that can be ordered online :

- TridentUK.com
- Coast Watersports.co.uk
- NorfolkMarine.co.uk
- Pinbax.com
- Xtremity.net