

## Elf - 1st draft schedule

### Notes on Hardware Lists

Please note that these lists are offered as a generic guide only. They cannot be definitive, nor absolutely correct for your boat, because in drawing them up, many assumptions on layout and/or materials have been made. These assumptions are merely one of a multitude of other possible solutions, any of which could be considered "correct". In any event, much of the point - and the pleasure - of building your own boat is to engage in the process of making the choices you want to make, so creating the outcome you want. So it is recommended that you use these lists as a sort of checklist to help you make your own selection, and to get a rough feel for the costs of outfit. Any feedback or comments you may have would be much appreciated.

Known omissions include shackles, fasteners and reefing gear . Not to mention anything else that I have missed.

Hull	Rudder Gear	Rudder Gear set	WO-1893	1	See notes and drawing below for an explanation	
		Optional Upper pintle	WO-1894	1		
	Keelband	1/2" wide	HL-0701	22	2 lengths 1' 9 2 on bilge runners, two 2' on each side of plate case if fitted. 1 lengths 9' forward, one 5' 6" aft to skeg. If no plate case, then length needs to be increased	
	Rowlocks				Who needs them?	
	Mooring equipment				rope tied around knees or thwarts?	
	Buoyancy (difficult in a boat of this style)	Bow Bag 29" x 25" x 9"	Bow Bag 29" x 25" x 9"	HL-0570	2	45 kg buoyancy each, fitted bow and stern. Or use pillow bags as listed below.
			Pillow bags - 24 x 7	HL-0573	2	18 kg buoyancy each, fitted below centre thwart and in bow. Easier if no daggerboard, could then use 39 x 9, HL-0576 with 45 kg buoyancy under thwart
			Pillow bag - 30 x 9	HL-0574	1	27 kg buoyancy, fitted under aft thwart
			Pillow bags - 39 x 9	HL-0576	1	under forward thwart
	Drain Bung	Captive type		HL-0560	1	or a sponge?
Rig - Lug	Mainsail	Mast Traveller	RG-1110	1	bronze.leathered	
		Head lacing -4mm	RP-0200	3		
		Halyard sheave - 40 mm dia	RG-1496	1	if fitted at all - a dumb sheave might serve just as well	
		Halyard - 6mm braided	RP-0201	7		
		Halyard cleat - 5" ash	HL-1034	1	or belay pin in thwart - which is also handy for keeping mast in place. 8" x 5/8" (HL-1050) should do.	
		Downhaul - 6 mm braided	RP-0201	2	You can't get this too tight! Leads from thwart to block on sail tack back down to belay pin.	
		Downhaul Block	RG-0510	1	on sail tack	
		Belay pin 8 x 5/8"	HL-1050	1	in thwart	
		Mainsheet - 8 mm braided	RP-0202	4.5		

Mainsheet block	RG-0510	1	on boom, then to hand
Mainsheet block attachment	HL-0515	1	screwed to floor between centre and aft thwart?

Rig - Sprit

Mainsail

Fittings? Maybe a block RG-0510, a couple of belay pins - HL-1050 - and rope!

#### Notes on Elf Rudder Gear

This was dreamt up by Iain Oughtred and myself on the basis of as many old pictures of Norse and Shetland boats as we could find. The trick was to allow the gudgeons to adjust to the varying angles of the pintles. This has been done - in our solution - by using a gudgeon more like a doughnut than a tube, so that it can swivel in a vertical plane as well as the horizontal one. If anyone can think of a better idea, please let us know.

There are 2 snags:

- firstly the gudgeon makes a point contact on the pintle. This tends to mean that a galvanised or steel option is unlikely to last very long in a marine environment.

So the gear is best done in bronze or stainless

- secondly there is a trade-off between the tightness of the gudgeons and the amount of rudder movement available - current mock-ups indicate that a rudder angle of +/- 35 degrees gives a reasonable compromise.

Anyway the scheme works as in the sketch.

The left hand one shows the normal position, with the upper rudder gudgeon on the extension of the pintle. The lower rudder gudgeon is split at its front end, and is mounted onto the pintle via a reduction in width near the top of the pintle, and then slid down to its normal position. An "R" clip keeps at the top of the pintle stops the rudder jumping off.

And when you want to come ashore, you reach back and bring the rudder up to the upper pintle on the hull. This should give you a bit of steerage, whilst avoiding damage to the rudder when you hit the beach/putty.

With this scheme, the cheeks of the rudder head will need to be extended downwards by about 3" because the upper strap is mounted lower on the rudder than shown on the drawing. Alternatively you could shorten the cheeks a bit, so the strap goes below them.

