

OWNER'S MANUAL



WIN: _____



OWNER'S MANUAL PREFACE

Dear ELAN owner,

We are proud you have chosen an ELAN sailing yacht and we would like to thank you for your trust!

We wish you fair winds on the seas wherever you go....!

Your sailing yacht represents an investment for you, and we therefore hope that you will follow our advice in order to protect its value over time.

To become fully acquainted with your ELAN sailing yacht, we suggest dedicating adequate time to carefully reading the owner's manual and its supplements.

In order to obtain optimum performance from your ELAN sailing yacht and to make the best use of its advanced performance features, as well as for your personal safety, you should carefully follow the instructions and standards set forth in this manual.

The manual describes the full equipment provided at the moment of printing. ELAN Marine reserves the right to modify said equipment without prior notification and without the obligation to upgrade products already built and/or sold.

Features indicated with (*) are available as optional equipment.

The ELAN boatyard works unceasingly to enhance all our sailboat models. So please bear with us, and understand if we must reserve the right to make modifications in manufacture, shape, equipment and technology without giving prior notification.

This manual and the data, illustrations and descriptions it contains do not constitute grounds for making claims against the manufacturer.

ELAN, d.o.o. reserves the right to modify specifications without prior notice or obligation.

CONTACT: ELAN, d.o.o.

Nautical division

Begunje 1

SI-4275 Begunje na Gorenjskem

Slovenia

tel: +386 4 53 51 370 fax: +386 4 53 51 360

email: sail@elan.si

http: www.elan-yachts.com



TABLE OF CONTENT

OWNE	R'S MANUAL PREFACE	2
TABLE	OF CONTENT	3
1.	FOREWORD	5
2.	WARRANTY CONDITIONS OF YOUR ELAN	8
3.	IMPORTANT INFORMATION	11
3.1.	DEGRESS OF DANGER	11
3.2.	LABELS ON BOARD	11
3.3.	LIABILITY OF THE OWNER/OPERATOR	12
3.4.	FIRE PROTECTION AND ESCAPE PLAN	
3.5.	PRE-DEPARTURE CHECK LIST	13
3.6.	WATER INTAKE DURING SAILING	
3.7.	CLOSING UP YOUR CRAFT AFTER SAILING CHECK LIST	14
3.8.	CRAFT IDENTICATION, BUILDER'S PLATE	14
4.	TECHNICAL SPECIFICATIONS	15
4.1.	TECHNICAL DATA	15
4.2.	DEFINITION OF DESIGN	16
4.3.	MAXIMUM TOTAL LOAD	16
5.	GENERAL ARRANGEMENT	16
5.1.	DECK LAYOUT	16
5.2.	VISIBILITY FROM STEERING POSITION	
5.3.	WORKING DECK AND MEANS OF REBOARDING	17
5.4.	INTERIOR LAYOUT	18
5.5.	PROFILE	19
6.	PROPULSION SYSTEMS	20
6.1.	SAILS AND MAST	20
6.2.	ENGINE SYSTEM	20
6.2	1.1. ENGINE OPERATION	
6.2	2.2. ENGINE AND PROPELLER INSTALLATION	22
6.2	2.3. FUEL SYSTEM	22
7.	SYSTEMS AND CIRCUITS	24
7.1.	POSITION OF SEACOCKS AND THROUGH-HULL FITTINGS	24
7.2.	WATER SYSTEMS	25
7.2	1.1. FRESH WATER SYSTEM	25
7.2	2.2. HOT WATER SYSTEM	26
7.3.	SEA AND WASTE WATER SYSTEM	27
7.4.	BILGE WATER SYSTEM	28
7.5.	GAS SYSTEM	29
7.6.	ELECTRICAL SYSTEMS	31
7.6	5.1. 12V SYSTEM	
7.6	5.2. 230V SYSTEM	
7.6	5.3. PHILIPPI INSTRUMENT SETUP AND SETTINGS	34
7.7.	RUDDER AND STEERING SYSTEM	39
8.	GARBAGE DISCHARGE	41
9.	MAINTENANCE	42

IMPRESSION PASSION FOR YACHTING

	AULAGE	
9.2. U	INDERWATER STRUCTURE	42
9.2.1.	HULL	
9.2.2.	PROTECTION OF TERMINALS	43
9.3. H	IULL AND DECK	43
9.3.1.	CLEANING	. 43
9.3.2.	STAINS, SCRATCHES AND ABRASION	. 44
9.4. N	//AST, SAILS AND RIGGING	44
9.5. D	ECK EQUIPMENT	. 45
9.5.1.	LIFELINES, PULPITS AND STANCHIONS	. 45
9.5.2.	WINCHES AND BLOCKS	. 45
9.5.3.	ANCHOR WINDLASS	. 45
9.5.4.	TEAK	. 45
9.5.5.	PLEXIGLASS, PORTLIGHTS AND HATCHES	46
9.6. IN	NTERIOR	
9.6.1.	INTERIOR WOOD SURFACES	46
9.6.2.	CUSHIONS AND CURTAINS	46
9.6.3.	REFRIGERATOR	47
9.6.4.	COOKER	47
9.6.5.	SINK	. 47
9.6.6.	BILGE STRAINERS AND PUMPS	47
9.6.7.	FUEL AND WATER TANKS	47
10. WIN	NTERISATION	47
10.1.	BLOCKING THE HULL	48
10.2.	COOKER	48
10.3.	ELECTRICAL SYSTEM	48
10.4.	WATER SYSTEM	. 48
10.5.	SEACOCKS	48
10.6.	FUEL TANK	48
10.7.	ENGINE	49
10.8.	SAILS	49
10.9.	COVERING	49
10.10.	CUSHIONS	49
10.11.	INTERIOR	49
11. PRC	DDUCT END-OF-LIFE DISPOSAL	. 50
12. INS	TRUCTIONS FOR USE OF INSTALLED EQUIPMENT	. 51
13. ANI	NEXES	. 53
13.1.	ELECTRICAL SYSTEM DRAWINGS	. 53



1. FOREWORD

Dear sailor,

Setting sail towards distant shores and pristine ocean sunsets has always been a little boys dream. Sailing is an act of nature: it is one of the last means to freely live your passion. We filled this ELAN sailing yacht with passion – passion of design, traditional craftsmanship and beauty.

We gave her passion – all you need is to give her love...

Your ELAN team

Even if everything has been planned and designed for the safety of the sailing yacht and its users, boating is highly dependant on the weather conditions, the sea conditions, the experience and physical shape of the crew, etc. and one can never ensure full safety.

This manual has been compiled to help you operate your sailing yacht with safety and pleasure. It contains details of the sailing yacht; the equipment supplied or fitted, its systems and information on its operation and maintenance. Please read it carefully, and familiarize yourself with the sailing yacht before using it.

If this is your first sailing yacht or you are changing to a type of sailing yacht you are not familiar with, for your own comfort and safety, please ensure that you obtain handling and operating experience before assuming command of the sailing yacht. Your dealer, national sailing federation or yacht club will be pleased to advise you about local sea schools or competent instructors.

PLEASE KEEP THIS MANUAL IN A DRY AND SECURE PLACE AND HAND IT OVER TO THE NEW OWNER WHEN YOU SELL THIS SAILING YACHT.



PASSION FOR YACHTING

EU Declaration of Conformity of Recreational Craft with the Design, Construction and Noise Emission requirements of Directive 2013/53/EU

(To be completed by manufacturer or if mandated, authorised representative)

Name of recreational craft m	anufactu	rer: <u>Elan d</u>	2.0.			
Address: <u>Begunie</u> 1						
Town: <u>Begunie na Gorenisken</u>	n		Po	st Code: SI - 42	275 Country: SLC	OVENIA
Name of authorised represen	tative (if	applicable):]	Non applica	ible		
Address:						
Town:			Po	st Code:	Country:	
Module used for design and o	onstructi	on assessme	nt: 🔲 A	□ A1 ⊠ B+	C B+D B+E B+F G	Пн
Name of Notified Body for de						
Address: P.O.B. 11 16 06						
Town: Hamburg			Po	st Code: <u>DE - 2</u>	20416 Country: GERMANY	ID Number; 0098
Notified Body certificate ¹ nur	mber (if a	pplicable): <u>l</u>	RCDB0000	00Y		Date: 12/01/2017
Module used for <u>noise emissi</u>	on assessi	ment (if app	licable):	□ A □ A1	G□H	
Name of Notified Body for no	oise emiss	ion assessme	ent (if appli	cable): <u>Non app</u>	olicable	
Address:						
Town:				st Code:	Country:	ID Number:
Notified Body certificate ¹ nur						Date://
Other Community Directives	applied:	/				
DESCRIPTION OF RECRE	ATIONA	L CRAFT:				
Watercraft Identification Numbe	r:			SII	- E L A 4 0	
Brand name of the Recreational (Craft: <u>IM</u>	PRESSION	YACHTS	5	Model or Type:	IMPRESSION 40
Type of construction: Rigid Infl	latable	Rigid-I	nflatable (RII	3)	Craft main propulsion: Sail, projected sail area 4s: 76.02	_m;
Type of hull:					 ■ Human propulsion ■ Engine/motor propulsion 	
Monobulk		Multibu	ıll		Other (specify):	
Hull construction material:					Installed engine type (if applicable): Internal combustion, Diesel (CI)	
Aluminium, aluminium a	lloys	_	d Fibre Rein	forced Plastic	Internal combustion, Petrol (SI)	
Steel, steel alloys		■ Weed			■ Internal combustion, LPG/CNG	
Other (specify):					Electric	
Recreational Craft		Category	Number	Max Load	Installed propulsion type (if applicable):	
Design category(-ies) related to a maximum recommended number			of Persons	(kg)	Outboard	
persons:		A	9	1611	Inboard with shaft line	
		В	9	1611	Z or Sterndrive Pod-drive	
		С	9	1611	Sail-drive	
•	11,48 m	D	9	1611	Other (specify):	
-	3 <u>.91</u> m 1 <u>.80</u> m				Integral exhaust propulsion (if applicable):	Yes No 🔲
					Maximum Recommended engine power: Installed engine power:	33,0 kW kW
Deck: Fully enclosed Partially protected Open					Number of propulsion engines: Maximum recommended engine mass ² :	1.# Non applicable
This declaration of conformity mentioned above fulfils the req					ufacturer. I declare on behalf of the manufact of Directive 2013/53/EU.	turer that the recreational craft
Name and function: Igor Zupun.					Signature and title:	
(identification of the person empo or his authorised representative)	wered to si	ign on behalf o	f the manufac	cturer	(or an equivalent marking)	
Date and place of issue (dd/mm/yy	(x): /	/2017 Begun	вје да Согез	ijskem		

¹ The document may have a different name according to each module (A1: Stability and buoyancy report, B: EC type examination certificate, G: Certificate of conformity, etc.)

 $^{^2}$ For outboard powered boats only

PASSION FOR YACHTING

Essential requirements (reference to relevant articles in Annex IA & IC of the Directive)	Harmonised standards Full Application	Hamonised standards Partal application, see tech. Se	Other wheren or documents 1 Full Application	Other witnesse documents Partial Application, see tech. Tile	Other proof of conformity See bightigal, the	Specify the harmonised * standards or other reference documents used (with year of publication like *EN ISO 8666:2002*)
	D	ck only	one b	ox per	line	All lines right of ticked boxes must be filled in
General requirements (2)					_	
Principal data – main dimensions	×					EN ISO 8666:2002
Watercraft identification Number – WIN (2.1)	⊠					EN ISO 10087:2006
Watercraft Builder's Plate (2.2)	×					EN ISO 14945:2004, EN ISO 14945:2004/AC:2005
Protection from falling overboard and means of reboarding (2.3)	×		×			EN ISO 15085:2003/A1:2009; RSG Guidelines; RCD 2.3.
Visibility from the main steering position (2.4)	\boxtimes					EN ISO 11591:2011
Owner's manual (2.5)	\boxtimes					EN ISO 10240:2004
Integrity and structural requirements (3)		(-			A.
Structure (3.1)	×					EN ISO 12215-1:2000
Stability and freeboard (3.2)	×					EN ISO 12217-2:2015
Buoyancy and flotation (3.3)						EN ISO 12217-2:2015
Openings in hull, deck and superstructure (3.4)	×					EN ISO 12216:2002; EN ISO 9093-1:1997; EN ISO 9093-2:2002
Flooding (3.5)	\boxtimes					EN ISO 15083:2003; EN ISO 11812:2001
Manufacturer's maximum recommended load (3.6)	⊠					EN ISO 14945:2001; EN ISO 14945:2001/AC:2005
Liferaft stowage (3.7)			⊠			RSG Guidelines
Escape (3.8)	⊠					EN ISO 9094-1;2003
Anchoring, mooring and towing (3.9)	⊠					EN ISO 15084:2003
Handling characteristics (4)	×					EN ISO 8665:2006
Engines and engine spaces (5.1)		-				Ç.
Inboard engine (5.1.1)	⊠					EN ISO 16147:2002; EN ISO 16147:2002/A1:2013
Ventilation (5.1.2)			×			Volvo Rules
Exposed parts (5.1.3)						t .
Outboard engine starting (5.1.4)						Non applicable
Fuel system (5.2)		1				At .
General – fuel system (5.2.1)	×					EN ISO 7840:2013; EN ISO 10088:2013; EN ISO 8469:2013
Fuel tanks (5.2.2)	×					EN ISO 10088:2013; EN ISO 21487:2012
Electrical systems (5.3)						EN ISO 10133:2012; EN ISO 13297:2014
Steering systems (5.4)						
General – steering system (5.4.1)	×					EN ISO 8847:2004; EN ISO 8847:2004/AC:2005
Emergency arrangements (5.4.2)						Non applicable
Gas systems (5.5)	×					EN ISO 10239:2014; EN ISO 14895:2003
Fire protection (5.6)						0.0
General – fire protection (5.6.1)	×					EN ISO 9094-1:2003
Fire-fighting equipment (5.6.2)	×					EN ISO 9094-1:2003
Navigation lights, shapes and sound signals (5.7)	×		×			1972 COLREG or CEVNI; EN ISO 16180:2013
Discharge prevention (5.8)	×					EN ISO 8099:2000
Annex I.B - Exhaust Emissions *	See	the De	claratio	n of Co	morm	Ity of the Engine Manufacturer
Annex I.C - Noise Emissions ^a	ex I.C - Noise Emissions * Non applicable "is not based on the DIRECTIVE / EUROPEAN 2013/53/EU*				the DIRECTIVE / EUROPEAN 2013/53/EU*	
Noise emissions level (i.C.1)					П	Non applicable "is not based on the DIRECTIVE / EUROPEAN 2013/53/EU*
Owner's manual (I.C.2)						Non applicable "Is not based on the DIRECTIVE / EUROPEAN 2013/53/EU*

<sup>Such as non-harmonised standards, rules, regulations, guidelines, etc.
Standards published in EU Official Journal
See Declaration of Conformity of engine manufacturer
Only to be completed for boats with inboard engines or sterndrive engines without integral exhaust</sup>



2. WARRANTY CONDITIONS OF YOUR ELAN

GENERAL WARRANTY CONDITION

The warranty is valid for two years, starting to run from the date of delivery and is strictly limited, at the sole builder's discretion, to the free replacement of repair of any parts which have been recognized as being defective by its technical departments.

No indemnity whatsoever shall be paid in connection thereto. However by derogation at what is said above:

- The warranty is limited to one year with respect to:
 - boats being used for professional purposes, including but not limited to charter, sailing schools, fishing or workboats,
 - boats built for competition specifically when equipped and/or conceived for racing,
 - one-design boats,
 - parts that rapidly deteriorate due to wear and tear, including but not limited to sails, running rigging batteries, external decorations, cushions, hull bottom protection...,
- ➤ Parts or accessories visibly bearing the trademark of another supplier only benefit from the warranty provided by that supplier.

The costs of transporting the boat or any defective part as well as any additional related costs due to the impossibility of using the boat and/or its equipment are to be borne exclusively by the purchaser.

This warranty is only valid after establishing and sending of all bellow documents to ELAN QA and AS Dept., according to the conditions specified on each of them

- hand over and commissioning certificate,
- control certificate after first year of use,

Cost related to handling, transportation, standing, sailing for delivery, etc... with regards to these hand over and control are to be borne exclusively by the purchaser.

The application of this warranty prolongs the warranty period for the sole part or accessory thus repaired or exchanged, during a period equal to the necessary time to perform the warranty work only, provided that said work necessitates at least 7 consecutive days of labour to be performed.

The following and potential consequences thereof are specifically excluded from the warranty:

- effects of normal wear,
- gel-coat fissures, cracks or discoloration,
- deterioration of parts that were replaced by maladapted parts, or from another origin or which were modified or repaired, even partly by a shop not authorized by the builder,
- damage resulting from:



- non-observance of maintenance recommendations as described in the book remitted with the boat, or non-compliance with the normal rules of boat maintenance,
- improper use, especially negligent, reckless, abusive or abnormal use,
- participation in competitions,
- negligence with regards to the use of protective measures when necessary,
- an accident or disaster such as explosion, fire, storm, lightning, transportation, riot, theft or shock.

In order to be covered by the contractual warranties set out above, the purchaser / user of the boat must present its certificate of origin and notify his distributor / seller of any defect(s) in writing. Notification must be detailed and precise and made within 15 days from the day the defect discovered. Upon receipt of notice from the purchaser / user, the distributor / seller shall then have 8 days to notify the builder. His failure to notify the builder within 8 days shall result in his liability for the consequences of his delay.

The dealers, agents or re-sellers of the builder are not qualified to modify the above described warranty but are authorized, for their own account and under their sole responsibility, to grant other warranties that would in no way be under the builder's responsibility.

HULL DECK WARRANTY

The warranty is valid for 5 years against any manufacturing defect which is recognized as such by the builder's technical departments, and starts to run from the day the boat is put into use or upon the last day of its model year at the latest, that is on August 31 of said year.

However, the warranty is limited to one year after date of first handover for boats:

- being used for professional purposes, including but not limited to charter, sailing schools, fishing or workboats,
- boats built for competition specifically when equipped and/or conceived for racing,
- of one-design nature.

The warranty is strictly limited to the free repair of above-mentioned manufacturing defects, either in the builder's yards or by a repair shop or shipyard chosen by the builder. No indemnity whatsoever shall be paid in this respect.

Any event which affects the structure of the boat and which is not the result of a manufacturing defect under warranty, which may or may not have qualified for a reparation of the hull and deck, will result in the immediate cancellation of the warranty, without prejudice.

The costs of transportation, as well as the possible costs resulting from the loss of use of the boat will be entirely borne by the buyer.



The application of the warranty prolongs the warranty period on the repair works during a period equal to the necessary time to perform the warranty-work only, provided that said work necessitates at least 7 consecutive days of labor to be performed.

The following and potential consequences thereof are specifically excluded from the warranty:

- effects of normal wear.
- gel-coat fissures, cracks or discoloration,
- damage resulting from:
 - non-observance of maintenance recommendations as described in the book remitted with the boat, or non-compliance with the normal rules of boat maintenance,
 - improper use, especially negligent, reckless, abusive or abnormal use,
 - participation in competitions,
 - negligence with regards to the use of protective measures when necessary,
 - an accident or disaster such as explosion, fire, storm, lightning, transportation, riot, theft or shock.

In order to be covered by the contractual warranties set out above, the purchaser / user of the boat must presents its certificate of origin and notify his distributor / seller of any defect(s) in writing. Notification must be detailed and precise and made within 15 days from the day the defect discovered. Upon receipt of notice from the purchaser / user, the distributor / seller shall then have 8 days to notify the builder. His failure to notify the builder within 8 days shall result in his liability for the consequences of his delay.

The dealers, agents or re-sellers of the builder are not qualified to modify the above described warranty but are authorized, for their own account and under their sole responsibility, to grant other warranties that would in no way be under the builder's responsibility.



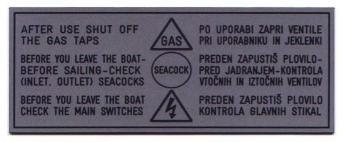
3. IMPORTANT INFORMATION

3.1. **DEGRESS OF DANGER**

This manual used the following degrees of danger:

DANGER:	Denotes that an extreme intrinsic hazard exists which would result in high probability of death or irreparable injury if proper precautions are not taken.
WARNING:	Denotes that a hazard exists which can result in injury or death if proper precautions are not taken.
CAUTION:	Denotes a reminder of safety practices or directs attention to unsafe practices which could result in personal injury or damage to the sailing yacht or components.

LABELS ON BOARD *3.2.*





General warning label

Fire extinguisher position





Cooker warning label





Outlet seacock

Emergency exit







Main switch label

Water tank connection

Inlet seacock



3.3. LIABILITY OF THE OWNER/OPERATOR

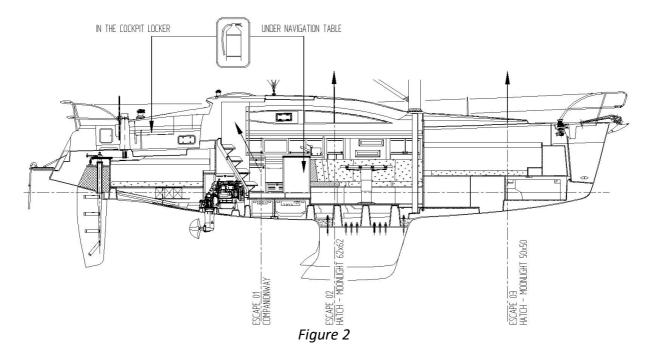
Before sailing, the sailing yacht owner/operator should read this manual and familiarize himself / herself with its contents, in particular with all the warnings relating to safe use and emergency procedures. It is the responsibility of the owner to ensure that, when sailing, the sailing yacht is equipped with all the (safety) equipment required under the law. The owner/operator shall also inform all the other crew members about the proper use of the craft and equipment and the emergency procedures.

3.4. FIRE PROTECTION AND ESCAPE PLAN

This sailing yacht is equipped with portable fire extinguishers of the following extinguishing capacities and at the following locations: (see Fig. 2)

No.	Location	Capacity
1	Under navigation seat	1 kg
2	Starboard stowage compartment in the cockpit	1 kg

In case of need for evacuation, use the following escape routes:



Keep the bilges clean and check for fuel and gas vapors at regular intervals.

It is the responsibility of the sailing yacht owner/operator to:

- Have the fire-fighting equipment checked at the intervals indicated on the equipment.
- Replace the fire-fighting equipment if expired or discharged by devices of identical or greater fire-fighting capacity.



- Inform members of the crew about the location and operation of the fire-fighting equipment and the location of the escape routes.
- In case the fire in engine room use fire port hole located on the companionway.
- Ensure that the fire-fighting equipment is readily accessible when the craft is occupied.

WARNING: NEVER obstruct passageways to exits and hatches.

NEVER obstruct safety controls, e.g. fuel valves, gas valves, switches of electrical system.

NEVER obstruct portable fire extinguishers stowed in lockers.

NEVER leave the craft unattended when cooking appliances are in use.

NEVER use gas light in the craft.

DO NOT modify any of the craft's systems (especially electrical, fuel and gas).

NEVER fill the fuel tank or replace gas bottles when the engine is running or when cooking appliances are in use.

NEVER smoke while handling fuel or gas.

DO NOT fit free hanging curtains or other fabrics in the vicinity of or above the cookers or other open flame devices.

DO NOT store combustible material in the engine room.

3.5. PRE-DEPARTURE CHECK LIST

- Close the portlights and hatches.
- Check the position of all the inlet/outlet seacocks in the hull.
- Open the engine cooling valve and close all the other valves; do not forget to close them if they are used during sailing.
- Switch on the main switches of the engine and other users.
- Check if cooling water runs through the engine exhaust; if not, check the water pump.
- Check if the bilges are clean and if the bilge pumps operate properly.
- Check the navigations lights.
- Check the required safety equipment.

3.6. WATER INTAKE DURING SAILING

If during sailing you notice water in the craft, stay calm and immediately check if all the seacocks are closed and turn on the bilge pumps. Use a manual bilge pump as well to pump the water out. Switch off the engine and close the engine cooling valve. Close the tank valves as well. Try to find out the cause of the leak as quickly as possible. If you fail to find out the cause and if the water level in the craft continues to rise, start evacuation procedures.

If you run aground while sailing, open the inspection covers in the saloon floor and immediately check for any leaks at the keel screws. Through the stowage compartment check the installation of the steering wheel as well. In case of a leak, follow the directions in the previous paragraph and have the sailing yacht lifted from water as soon as possible.

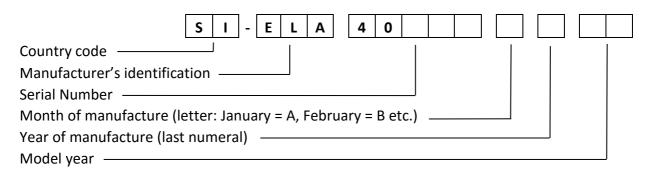


3.7. CLOSING UP YOUR CRAFT AFTER SAILING CHECK LIST

- 1. Close all inlet/outlet seacocks in the hull.
- 2. Turn off the electrical system.
- 3. Turn off the gas valve on the gas bottle.
- 4. Switch on bilge pump (if automatic) and pump the bilge.
- 5. Close all the portlights and hatches.

3.8. CRAFT IDENTICATION, BUILDER'S PLATE

The sailing yacht has molded Craft Identification Number (WIN) visible on the starboard side of the transom.



The duplicate WIN plate is fastened on the rudder shaft support in the starboard side.

The builder's plate is readily visible, located in the cockpit, with the following information:

- Manufacturer's name.
- The design category: \square A \square B \square C \square D
- The number of persons recommended by the manufacturer for which the craft is designed.
- Manufacturer's recommended load.
- The CE mark.





4. TECHNICAL SPECIFICATIONS

4.1. TECHNICAL DATA

Dood Time	Image and a second seco
Boat Type	Impression 40 by Elan
Boat Class	Sailboat
Boat Design Category	Α
CIN	SI-ELA40
Manufactured by	ELAN, d.o.o.
	Begunje 1, 4275 Begunje na Gorenjskem,
	Slovenia
Certification	EC Type Examination Module B+C
Certificate No.	RCDB000000Y
Notified body	DNV GL SE
·	P.O.B. 11 16 06
	Hamburg, DE - 20416
	Germany
Maximum length	11,83 m
Hull length	11,48 m
Length at waterline	10,00 m
Beam max.	3,91 m
Draft	1,80 m / 1,50 m
Air draft (incl. 1 m antenna)	17,60 m
Light craft mass (m _{LCC})	8368 kg
Persons + luggage	1611 kg
Manufacturer's recommended load (m _{MTL})	2376 kg
Loaded displacement max. (m _{LDC})	10744 kg
Ballast	2545 kg / 2479 kg
Engine power max.	33,0 kW / 45,0 hp
Fuel capacity	170 litres
Water capacity	240 litres / 512 litres
Holding tank (optional)	110 litres
Gas bottles (propane/butane)	2 kg
Maximum crew	9 persons
Cabins (version 1)	3
Berths (version 1)	6+3
Mainsail	37,91 m ²
Genoa	38,11 m ²
Spinnaker	98,00 m ²
l i	13,96 m
J	3,90 m
Р	13,00 m
E	4,86 m
Design	Humphreys Yacht Design & Elan design
	team
	team



4.2. DEFINITION OF DESIGN

IMPRESSION 40 by ELAN is designed and built in conformity with the requirements of the design category A. A recreational craft given design category A is considered to be designed for winds that may exceed wind force 8 (Beaufort scale) and significant wave height of 4 m and above but excluding abnormal conditions, such as storm, violent storm, hurricane, tornado and extreme sea conditions or rogue waves.

4.3. MAXIMUM TOTAL LOAD

Keep the total weight of boat provisions, miscellaneous equipment not supplied by manufacturer and persons on board, below maximum total load and suitably distributed.

5. GENERAL ARRANGEMENT

5.1. DECK LAYOUT

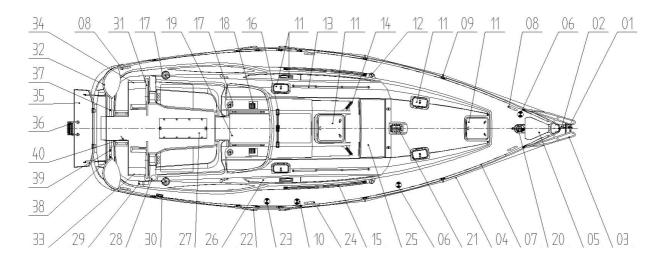


Figure 3

- 1. Bow navigation lights
- 2. Stem head
- 3. Bow pulpit
- 4. Life lines
- 5. Anchor chain locker
- 6. Fresh water filler
- 7. Teak toe rail
- 8. Mooring cleats
- 9. Stanchions
- 10. Fuel filler
- 11. Hatches
- 12. Chainplates
- 13. Grab rails
- 14. Deck organizers

- 15. Genoa tracks
- 16. Mainsheet track
- 17. Winches
- 18. Stoppers
- 19. Sliding hatch
- 20. Anchor windlass
- 21. Mast step
- 22. Side passage
- 23. Waste water deck suction
- 24. Spring cleats
- 25. Front fixed glass portlight
- 26. Side fixed glass portlights
- 27. Folding cockpit table
- 28. Compass

- 29. Engine lever
- 30. Furling jammer
- 31. Steering wheels
- 32. Pushpits
- 33. Engine control lever
- 34. Gas locker
- 35. Folding platform
- 36. Removable swimming ladder
- 37. Backstay chainplates
- 38. Stern navigation light
- 39. Shore power socket
- 40. Hand bilge pump



WARNING:	Keep portlights, windows, washboards, doors, hatches and ventilation openings closed when appropriate, e.g. in rough weather or at higher sailing speeds.
	Secure unfixed equipment safely when underway. Folding platform should be loaded only at 100% open position.
	Maximum load is 250 kg or 3 persons.
	In case of boat towing use Y-system of nylon or equivalent rope fixed on
	both bow or aft cleats of minimum diameter 22 mm and length of 50 metres.

5.2. VISIBILITY FROM STEERING POSITION

WARNING:	When navigate under the sails make sure that the additional person on
	board provides sufficient outlook of sailing route.

5.3. WORKING DECK AND MEANS OF REBOARDING

The working deck shell provides safe access to following areas such as boat steering, strong points, anchoring, sail handling and trimming etc. It is well secured with foot stopper and guard rails and occupies practically the whole area except parts marked red in the figure bellow.

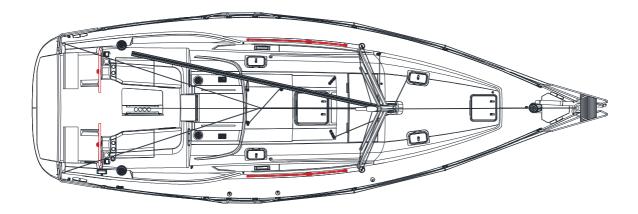


Figure 4

The provision for life raft storage is provided in the compartment bellow cockpit which is accessible from top cover. Watercraft shall be designed to minimise the risks of falling overboard and to facilitate reboarding. Means of reboarding shall be accessible to or deployable by a person in the water unaided. The sailboat is equipped with swimming ladder and with emergency swimming ladder on transom as well. The swimming ladder is stored in the transom compartment under swimming platform and can be placed on swimming platform when it is opened. The sailboat with a high platform is extra equiped with emergency rope. When a persons on board the emergency rope must be hang over and in function.



WARNING:	If a liferaft is fitted please strictly follow instructions of liferaft
	manufacturer.
	In case if somebody falls overboard, use swimming ladder fitted on the aft
	or emergency swimming ladder fitted on transom to climb back.
	Also assure that the emergency rope be in function when a persons are on
	board.

5.4. INTERIOR LAYOUT

Following picture shows standard layouts (two and three cabin versions). Other versions are combination of these two basic layouts.

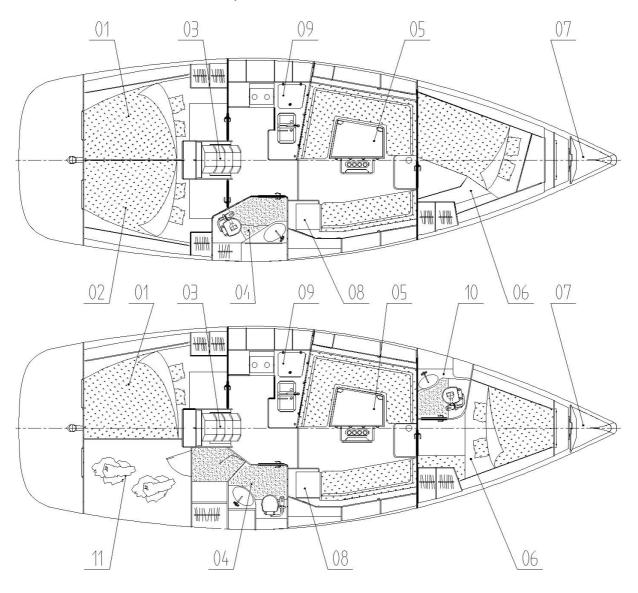


Figure 5

1. Aft cabin – port

2. Aft cabin – starboard

- PASSION FOR YACHTING
- 3. Companionway / engine
- 4. Aft head /shower
- 5. Saloon
- 6. Forward cabin
- 7. Anchor locker

- 8. Navigation area
- 9. Galley
- 10. Forward head / shower
- 11. Cockpit storage

5.5. PROFILE

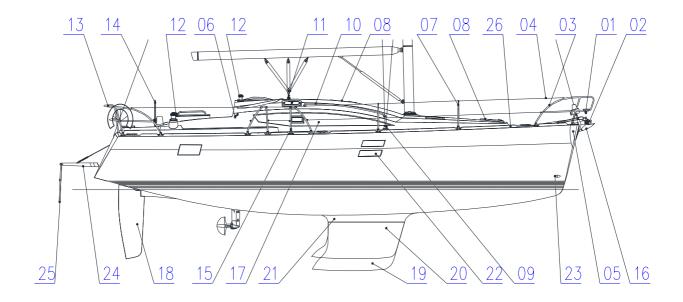


Figure 6

- 1. Bow navigation light
- 2. Stem head
- 3. Pulpit
- 4. Life lines
- 5. Bow protection
- 6. Cam cleats
- 7. Stanchions
- 8. Hatches
- 9. Chainplates
- 10. Grabrails
- 11. Mainsheet traveler
- 12. Winches
- 13. Pushpits

- 14. Steering wheels
- 15. Sidewalk passage
- 16. Anchor
- 17. Side fixed glass portlights
- 18. Rudder blade
- 19. Standard keel
- 20. Shallow keel
- 21. Keel sump
- 22. Hull fixed portlights
- 23. Anchor locker drainage
- 24. Folding platform
- 25. Removable swimming ladder
- 26. Teak toe rail



6. PROPULSION SYSTEMS

6.1. SAILS AND MAST

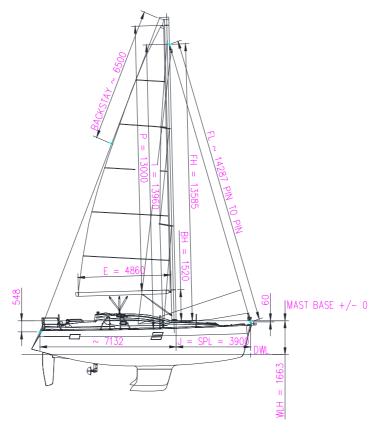


Figure 7

6.2. ENGINE SYSTEM

CAUTION:

Follow the instructions for the use supplied by the engine manufacturer, especially with regards to the RPM and load of a new engine.

When shifting from one gear to another via the idle position, keep the handle in the idle position long enough for the engine to rotate at the minimum RPM.

Check the engine oil level.

When putting in the reverse, hold the steering wheel firmly to avoid breaking the steering system.

Shut down the engine before opening the engine compartment. The engine has rotating and moving parts that can be dangerous.

Never turn off the main engine switch when the engine is running.

Do not operate the starter for more than 10 seconds at a time. If the engine does not start, wait for at least 30 seconds before next try.

Each engine has its critical RPM which is indicated by an increase in engine vibrations. You should always avoid this speed.



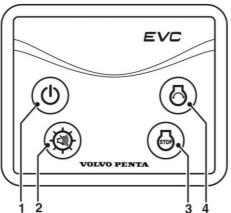
6.2.1. ENGINE OPERATION

The following instructions for engine operation are provided for information purposes only and do not include all the details of engine operation and maintenance. For detailed information see the operation instructions, supplied by the engine manufacturer, which are included in the Owner's Manual. Before operating the engine, you should familiarize yourself with those instructions.

Before starting the engine:

- Switch on the main engine switch.
- Check and open the engine coolant water intake valve.
- Check and open the fuel supply valve on the fuel tank.

Starting and stopping the engine:



On/Off button (1)

Depress the button to start or stop the system. The panel cannot be switched off when engine is running.

Start button (4)

When the button is depressed the pre-heat function is activated and the start motor engaged.

Multi-function button (2)

- Confirm the alarm. If an alarm occurs, a flashing warning symbol will be displayed in the tachometer window and an audible alarm will sound. The alarm is confirmed by depressing the multi-function button. The audible alarm is silenced and the warning symbol is lit continuously until the fault is remedied.
- Backlighting. To switch tachometer window backlighting on or off, depress the button for 1-5 seconds. The backlighting can be adjusted in five steps by depressing the button for less than 1 second.
- Adjust the tachometer window contrast by holding down the button for more than 5 seconds.

Stop button (3)

The engine stops running when the button is depressed.

filled



CAUTION:	When sailing with inclination over 20 degrees, stop the engine.
	All fuel capacity cannot be used. Make sure that the tank will be
	over 10% of its capacity.

6.2.2. ENGINE AND PROPELLER INSTALLATION

The standard versions of the IMPRESSION 40 are equipped with a VOLVO D1-30 engine – sail drive version (D2-40 and D2-55 as an options). The engine runs on normal diesel fuel. It is cooled with seawater in a closed cooling circuit. Access to the engine is possible from the front by lifting the companionway and via the engine compartment cover in the aft cabins or head compartment. For further information see operation instructions supplied by the engine manufacturer.

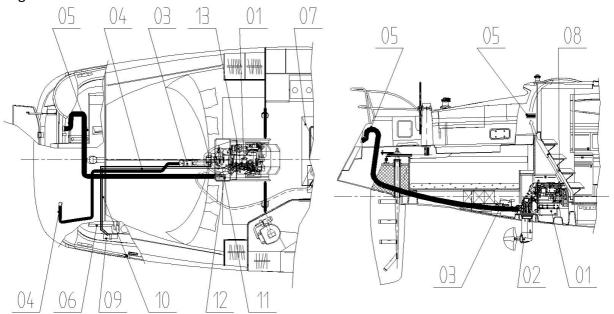


Figure 8

- 1. Engine
- 2. Sail drive gearbox
- 3. Exhaust waterlock
- 4. Exhaust hose
- 5. Engine ventilation
- 6. Engine panel with engine stop
- 7. Fuel tank
- 8. Fire extinguisher hole
- 9. Engine lever

- 10. Engine control cables
- 11. Sea water inlet seacock (on sail-drive)
- 12. Sea water air vent
- 13. Sea water filter

WARNING: Do not obstruct fuel lines (possible damage).

Do not put flammable material in contact with hot engine parts.

6.2.3. FUEL SYSTEM

The fuel required for engine operation is stored in a fuel tank. The fuel tank has a capacity of 165 liters. The fuel tank is stowed under the galley floor (see Fig. 9). Fuel tank is accessed from the saloon by lifting the floor panels.



DANGER: When filling the tank, turn off the engine and do not smoke.

Filling the fuel tank:

- Fill the fuel tank with diesel via the deck filler. The position of the deck filler is shown in Fig. 9
- The fuel filler is marked "DIESEL". Unscrew the plug using a winch handle.
- Before filling the tank, close the portlights in vicinity of the fuel filler.
- Fill the fuel tank slowly in order to avoid spilling fuel on the deck.
- In case of spilling fuel on the deck, clean it immediately using a detergent and a large amount of fresh water.
- Keep the fuel tank full because a low fuel level can cause air penetration and improper engine operation and stoppage.
- Close the fuel filler carefully and screw it tight.

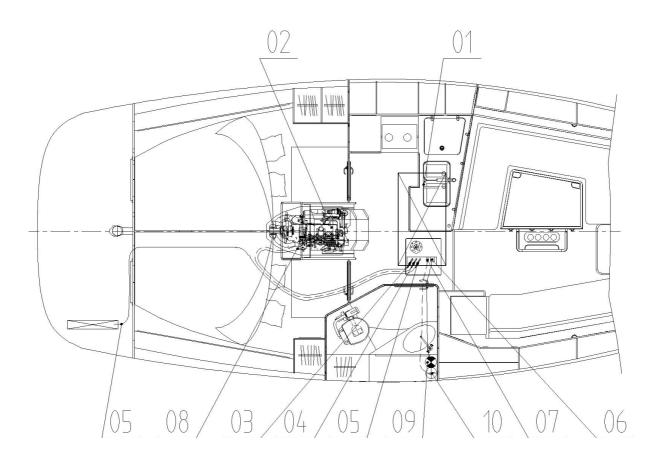


Figure 9

- 1. Fuel tank 165 l
- 2. Engine
- 3. Engine conduit
- 4. Engine overflow
- 5. Heater diesel conduit

- 6. Diesel tank inlet
- 7. Diesel tank ventilation
- 8. Fuel filter
- 9. Deck filler
- 10. Through-hull tank ventilation



7. SYSTEMS AND CIRCUITS

7.1. POSITION OF SEACOCKS AND THROUGH-HULL FITTINGS

CAUTION: Keep the seacocks closed when not in operation to avoid the possibility of

water penetration or leakage.

When sailing, the seacocks must be kept closed.

When sailing close the water tank connection valve.

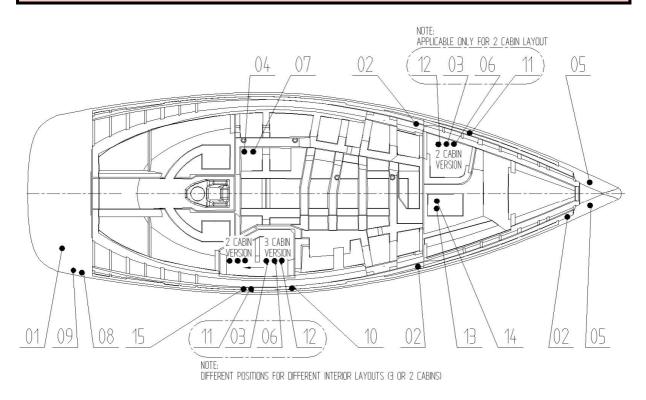


Figure 10

- 1. Engine exhaust outlet
- 2. Water tank ventilation
- 3. Toilet outlet / head
- 4. Holding tank outlet (option)
- 5. Anchor locker drainage
- 6. Head sink outlet
- 7. Galley sink outlet
- 8. Electric bilge pump outlet

- 9. Manual bilge pump outlet
- 10. Fuel tank ventilation
- 11. Shower drain outlet
- 12. Toilet seawater inlet
- 13. Depth sounder
- 14. Speedometer
- 15. Holding tank vent (option)

OPERATION:

The seacock is **OPEN** when the lever is in line with the pipe.

The seacock is **CLOSED** when the lever is at right angle (90 degrees).

CAUTION: Keep seacocks, cockpit drains, bungs and other opening/closing devices in the hull closed or open, as appropriate, to minimize the risk of flooding.



7.2. WATER SYSTEMS

7.2.1. FRESH WATER SYSTEM

TANKS

The sailing yacht is equipped with fresh water tanks (see Fig.11). They are filled via fresh water fillers (see Fig.11-1 and 11-2) marked "WATER". Unscrew the plug using a winch handle. A fresh water level indicator is located on the electrical control panel. The tanks are connected, so that the water level is equal in all tanks. At the top of the tanks, there is an opening for inspection and cleaning.

CAUTION:	After filling the tanks, close the fillers carefully and screw the tight to
	avoid the risk of seawater entering the fresh water tanks.
	To avoid the risk of contaminating one liquid with the other one, never fill
	fresh water and fuel at the same time.

CONSUMERS

An electrical fresh water pump (see Fig.11-1 and 11-2) located inside the galley is used to pump fresh water to the consumers. The fresh water pump is automatically shut off by a pressure valve when pressure reaches 1.5 bar.

CAUTION:	Take care not to operate the electric pump when the fresh water tanks
	are empty.
	Always open the sink and waste water seacocks when using fresh water
	from the tanks.
	When sailing close the water tank connection valve.

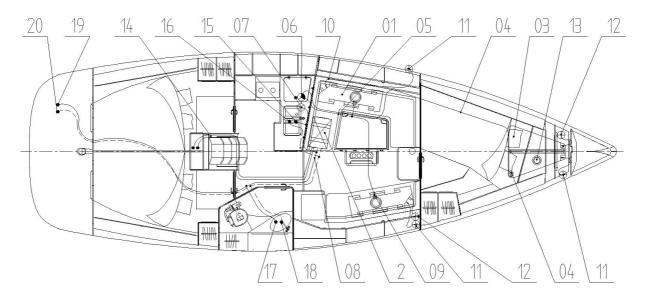


Figure 11-1

PASSION FOR YACHTING

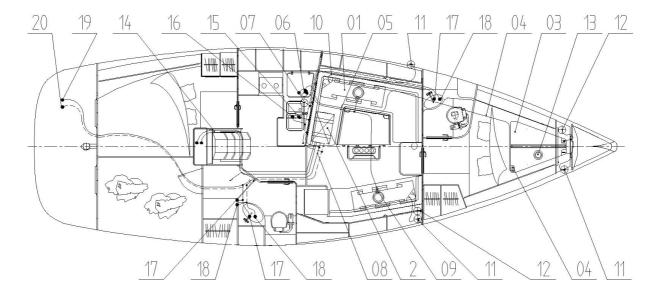


Figure 11-2

- 1. Water tanks port & stb 120 l
- 2. Water heater
- 3. Water tank bow 270 I (option)
- 4. Fresh water from front tank
- 5. Fresh water from saloon tanks
- 6. Y valve
- 7. Electric fresh water pump
- 8. Cold water system
- 9. Fresh water tank connection
- 10. Tank ventilation

- 11. Through-hull tank air vent
- 12. Fresh water deck filler
- 13. Fresh water tank inspection
- 14. Engine to water heater exchange
- 15. Galley tap (cold)
- 16. Galley tap (hot)
- 17. Toilet & shower tap (cold)
- 18. Toilet & shower tap (hot)
- 19. Cockpit shower tap (cold)
- 20. Cockpit shower tap (hot)

7.2.2. HOT WATER SYSTEM

A separate hot water system leads hot water from the water heater (see Fig. 11) to the users. The hot water system is filled with fresh water from the fresh water system. When the empty hot water system is being filled, open the hot water seacocks at the taps to let air out of the system.

For further details see the instructions supplied by the manufacturer and included in the Owner's Manual. Before using the hot water system, you should familiarize yourself with those instructions.

The warranty will be valid only provided the maintenance instructions are strictly observed. For details see the enclosed instructions supplied by the engine manufacturer.

Fresh water is heated in two ways:

- With the coolant water from the engine when the engine is in operation. The coolant water runs through the water heater where it is used to heat the fresh water filled from the fresh water system.
- With an electrical spiral that can be turned on when the boat is connected to a 230V supply.



CAUTION: Do not operate the water heater if the fresh water system is empty.

Do not turn the water heater on if the fresh water system is empty.

7.3. SEA AND WASTE WATER SYSTEM

Sea water is used for flushing the toilets and as extra water for the sink (optional). The toilets are flushed with a manual pump that is built into the toilet. The sea water for the sink is pumped via foot pump. The waste water from the toilets and the wash basins in the toilets and the sink is emptied via outlet seacocks.

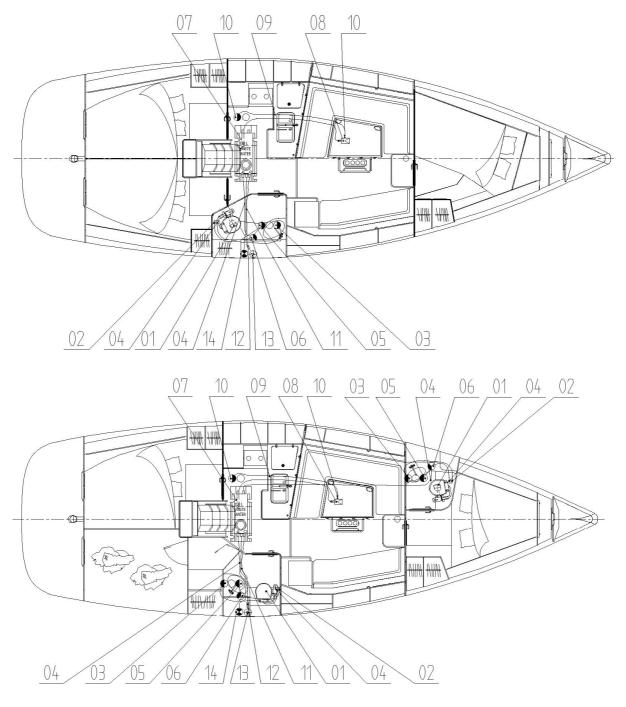


Figure 12-1 and 12-2

- 1. Toilet with manual pump
- 2. Toilet sea water inlet
- 3. Toilet sea water inlet seacock
- 4. Toilet waste water outlet hose
- 5. Toilet waste water outlet seacock
- 6. Waste water Y valve
- 7. Waste water tank 110 l

- 8. Macerator waste pump
- 9. Waste outlet from macerator
- 10. Waste outlet seacock
- 11. Waste tank ventilation hose
- 12. Waste tank ventilation odor filter
- 13. Through-hull waste tank vent
- 14. Waste tank dockside suction

CAUTION:

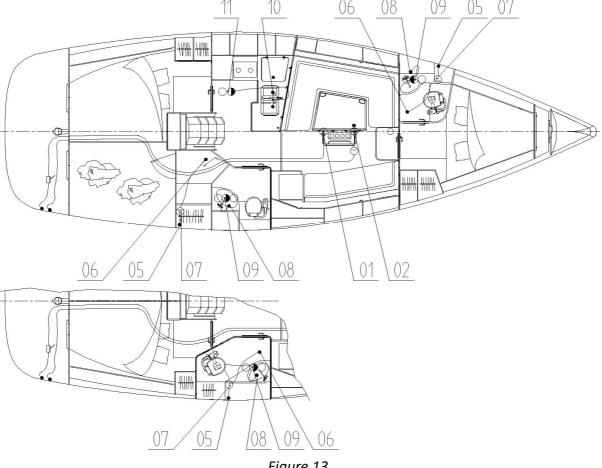
NEVER use the waste water pump with the outlet seacock closed.

NEVER use any other but thin absorbent toilet paper and never too much. Follow the instructions for use and precautions marked on the pump. If the pump breaks down, it will have to be taken apart and cleaned. The mechanism is maintained by rinsing the whole system with fresh water. This is done by operating the pump.

NOTE: Observe local regulations on discharge!!!

7.4. **BILGE WATER SYSTEM**

The bilge strainer is located under the saloon floor. Lifting the boards in front of the companionway will allow you access to the bilge pump via a bilge strainer.





- 1. Bilge strainer
- 2. Bilge strainer with float switch
- 3. Manual bilge pump
- 4. Electric bilge pump
- 5. Bilge water outlet
- 6. Shower bilge strainer

- 7. Shower drain pump
- 8. Toilet sink outlet
- 9. Toilet sink outlet seacock
- 10. Galley sink outlet
- 11. Galley sink outlet seacock

To check the bilge pump operation press the bilge switch on the electrical panel on "manual" position. For checking in automatic operation turn switch on "automatic" and lift the bilge float by hand. You will hear the pump performance in the case of the present of water in the bilge check the outflow.

CAUTION:	Check the bilge pump for bilge water before leaving the dock, during
	sailing and when leaving the boat for a longer period.
	Switch on the bilge water pump switches on the control panel and check
	the operation of the bilge pump.
	Follow carefully the instructions for use and precautions marked on the
	pump.

7.5. GAS SYSTEM

The boat is equipped with a gas cooker. A copper tube leads from the gas bottle to the cooker. A certified rubber hose is used to connect the cooker and the gas bottle to the copper tube. The screw valve on the gas bottle is connected to a safety non-return valve. There is an extra gas valve installed in the galley, marked with a label (see Fig. 1). The gas bottle is stowed in the stowage compartment under the port helmsman's seat in the cockpit (see Fig. 14).

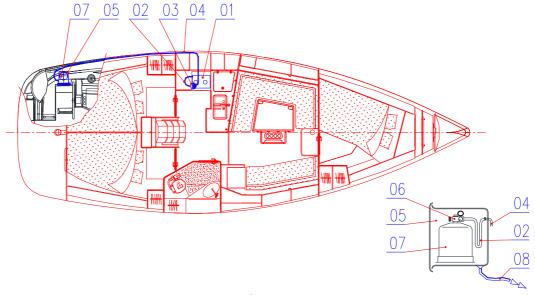


Figure 14

- 1. Gas cooker
- 2. Flexible hose

- 3. Gas valve
- 4. Copper tube



- 5. Gas bottle compartment
- 6. Safety screw valve with manometer
- 7. Gas bottle
- 8. Overboard drainage

Close gas supply valves and cylinder valve when appliances are not in use. Close valves immediately in an emergency.

Be sure appliance valves are closed before opening cylinder valve.

Test the LPG system before each use;

- With appliance valve closed, open the cylinder valve
- Close cylinder valve
- Allow indicated gauge pressure to stabilize
- Observe pressure on gauge for 3 min
- If pressure remains constant, no leak present.

CAUTION:	If pressure drops, a leak exists. Do not use LPG system until leak is
	repaired

If leak is present check all connections for leakage by manual look-testing or by testing with soapy water or detergent solution (with appliance burner valve closed and cylinder and system valves open). If leakage is present, close cylinder valve and have the system repaired before further use. System repairs should be made by a competent person.

CAUTION:	DO NOT use solutions containing ammonia.		
WARNING:	NEVER USE FLAME TO CHECK FOR LEAKS!		

Fuel burning appliances consume cabin oxygen and release products of combustion into the craft. Ventilation is required when appliances in use. Never obstruct ventilation openings.

DANGER:	Avoid asphyxiation. Provide ventilation when the stove is in use.
	Do not use for space heating.
	Do not smoke or use open flame when replacing LPG bottles.
	Remove the stove cover when rear burner is in use.

Gas cylinder must be stored only in specified locker. Do not use LPG cylinder housing or lockers for storage of any other equipment.

Never leave craft unattended when LPG consuming appliances are in use.

Hoses in the LPG system must be inspected regularly, at least annually and replaced if any deterioration is found.

Keep valves on empty cylinders closed and disconnected. Keep protective covers, caps or plugs in place. Store reserve or empty cylinders on open decks or in gas-tight lockers, which are vented overboard and intended for that purpose.



The ambient operating temperature range of the LPG system is -20 to +40°C for Propane - Butane LPG.

Avoid contact of materials with naked flame and other hot area.

DANGER:	In case you smell gas or the flame goes out, turn all the valves off and
	create a draught to allow the gas to escape. Find the origin of the
	problem.

WHEN LEAVING YOUR BOAT OR WHEN THE SYSTEM IS NOT IN USE, DO NOT FORGET TO CLOSE THE SCREW VALVE ON THE GAS BOTTLE AND THE SAFETY VALVE IN THE GALLEY.

Changing the gas bottle:

- 1. Close the gas valve under the cooker.
- 2. Close the screw valve and the safety valve on the gas bottle.
- 3. Put the gas bottle into the compartment under the helmsman's seat.
- 4. Open the screw valve on the gas bottle.
- 5. Open the gas valve to the left of the cooker and turn the cooker on.

7.6. ELECTRICAL SYSTEMS

7.6.1. 12V SYSTEM

The boat is equipped with 12 V AGM (gel) batteries. The number of batteries depends on the equipment installed (standard 2). The batteries are charged via an alternator driven by the boat's engine. They can also be charged via a battery charger when the boat is connected to an external 230 V supply.

CAUTION:	In case of disassembly, first interrupt the minus cable.
	If Webasto heating is installed, please follow the manufacturer's Owner's
	manual.

CAUTION:	It is recommended that any faulty original battery be replaces with a				
	similar GEL battery.				
	In case you fitted an ACID battery, is it obligatory to put it in an acid proof				
	box to prevent eventual acid spillage.				

All electrical consumers are connected via control panel. Each consumer is equipped with an automatic circuit breaker, a signal light and a switch to turn it ON/OFF. There are three main switches, one for the engine system, one for the anchor windlass and one for the other consumers. The main switches are located in the aft port cabin.



On the electrical control panel, there are three TEST buttons. When pressed, they indicate the operating voltage of the batteries, the fresh water level and the fuel level.

WARNING:	Never work on the electrical installations without disconnecting the			
	power supply.			
	The batteries must be kept carefully fastened.			
	Do not store conducting objects near the batteries (metal tools).			
	Never modify an electrical installation.			
	When leaving the boat, switch off all main switches.			

CONTROL PANEL 12V:

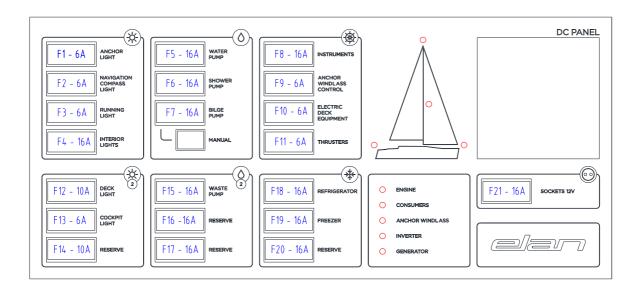


Figure 15 a

2.

3.

4.

5.

6.

7.

8.

9.

10.

11.

12.

13.

14.



Figure 15 b

7.6.2. 230V SYSTEM

The boat is optionally equipped with a 230 V electrical circuit. The socket is located in the cockpit. In addition to the battery charger, the circuit also comprises sockets for 230 V consumers.

Control panel for 230 V is located inside the locker at the chart table. When the boat is connected to an external 230 V supply then green light is on. When water heater is in function then also red light is on.

PASSION FOR YACHTING

WARNING:

Never work on electrical installation without disconnecting the power supply. An electrical shock can cause fire.

Before connecting the cable on the shore, connect it to the boat first.

Disconnect the cable after use.

First switch off the main switch in the boat, then disconnect the cable on the shore and last, disconnect it on the boat.

Do not soak the catches of the cable in water.

Do not modify any terminals of the electrical cable.

Never modify an electrical installation.

CONTROL PANEL 230V:

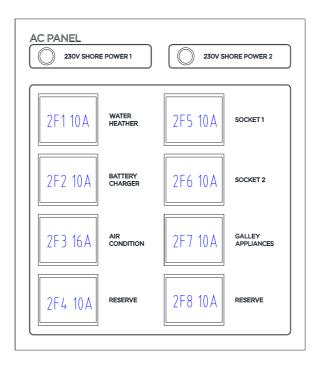


Figure 16

7.6.3. PHILIPPI INSTRUMENT SETUP AND SETTINGS



Display on control panel:

Technical data TCM

Connection voltage8-30 VInstrument dimensions105 x 105 x 40 mmCut-pout to install instrument90 x 90 mm

Type:	TCM 1	TCM 2	T	CM 4	TCM 4p
Number of tanks	3	3	1-4	1-4	
Pouring sensor DFS	0	1	0	1	
Tank sensors TGT/TGW/U	TV 3	2	1-4	1-3	
Measuring voltage	2 batteries	2 batteries	s no	no	
Consumption	2 mA	9 mA	2 mA	9 mA	



PHILIPPI TCM 1/2/3/3p

General settings:

Key functions

Choice of row for entry

Negative change in value

Positive change in value

Saving data and return to state of tank

Possible number of displayed tanks: 1-4

Show: 0 = show state in liters (I)

1 = show state in percentage (%)

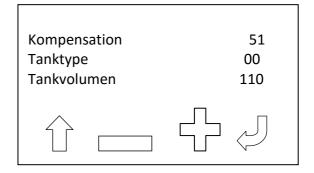
Language: Language setting is possible in menu Contrast: Possibility to set monitor brightness

Tank settings:

In the settings, it is possible to define size in liters, type of tank and compensational value for each individual tank (see table).

Key functions:

Arrow – choice of data for entry
Plus – positive change in value
Minus – negative change in value
Return – saves data and returns to show state of tank





Settings:

Tank size (1-4) tanks 1....4 4000l step is 5l

Tank type (1-4) for each tank there is a choice of five settings (see table)

	Tank type				Magazzina instrument	Massuring range	Comments
Water	Fuel	Fecal	Waste	Gas	Measuring instrument	Measuring range	Comments
0	1	2	3	4	Philippi TRG	6 stages	
5	6	7	8	9	Philippi TGT / TGW	5 – 180 ohm	Manual
10	11	12	13	14		4 – 20 mA	
15	16	17	18	19		0 – 10 V	
20	21	22	23	24		240 – 33 ohm	
25	26	27	28	29		300 – 10 ohm	
30	31	32	33	34		90 – 0 ohm	
35	36	37	38	39		0 – 90 ohm	Optional
40	41	42	43	44	Five inches mater	4 stages	

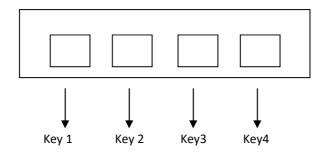
WARNING: Change settings of the tank type only for defined equipment (for example 0-4, 5-9,...).

Some equipment requires manual changes, which can be carried out only by the manufacturer of equipment.

If the equipment and settings do not correspond, than the measured data could be wrong.

Operating the program:

- When any key is touched, the illumination of the monitor is turned on for 30s.
- Via connection B on the back, permanent illumination of monitor can be turned on.



Key 1	Quick touch of the key Long touch of the key (cca. 5s)	Tank 1 settings		
Key 2	Quick touch of the key	Tank 2 settings (if there are more tanks)		
Key 3	Quick touch of the key	Tank 3 settings (if there are more tanks)		
Key 4	Quick touch of the key Long touch of the key (cca. 5s)	Tank 4 settings (if there are more tanks) General settings: tank settings		

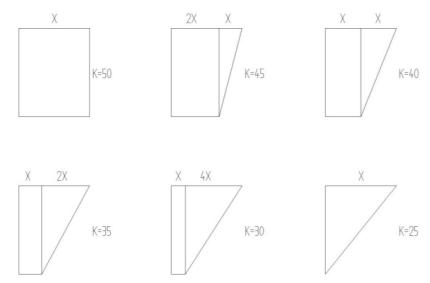


Too-low voltage alarm:

If the value of the battery is less than 10,8V for 12V voltage or 21,6V for 24V voltage or if it is greater than the value 15V for 12V voltage i.e. 30V for 24V voltage, that is shown by a blinking battery symbol (sign).

Tank compensation:

A special setting — correction is required for irregularly-shaped tanks. With the help of compensation values, the representation can be adapted so that it is as realistic as possible. For data entry, the tank when it is half full (that is half the tank), is required. Examples:



If the size i.e. perpendicularity is very much changed, it can be attained via the formula. The formula to calculate the compensation value is the contents of the tank (when it is half full) divided by the entire content and multiplied by 100.

correction
$$K = \frac{\text{Value when half full}}{\text{Entire value of tank}} \times 100$$

Example:

Entire volume of the tank is 150 liters, with total height of the tank of 50cm. When half full (height of the content in tank is 25cm) the volume of the tank is 65 liters.

If we insert these values into the formula, the following compensation value is calculated:

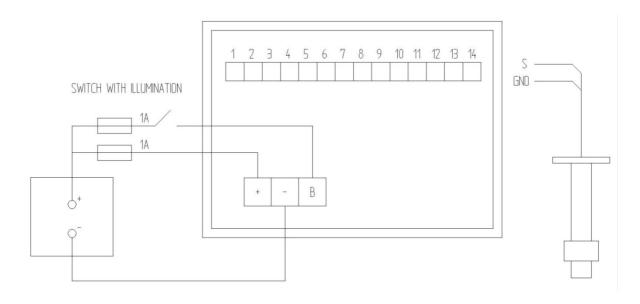
K = 65L/150L*100=43. This value is entered into the settings.

Instrument connection:

The monitor screen connection is shown in the scheme below, the thickness of the conductor is 1,5mm and it is connected directly to the battery.



PASSION FOR YACHTING



View from the back:

Connection of sensors, measuring instruments in the table below:

CLIP	TCM 1	TCM 2	TCM 3	TCM 4
01	+ starter battery	+ starter battery		
02	-	-		
03	+ service battery	+ service battery		
04	-	-		
05	Tank 3 (S)	Tank 3 (S)	Tank 4 (S)	Tank 4 (S)
06	Tank 3 (GND)	Tank 3 (GND)	Tank 4 (GND)	Tank 4 (GND)
07	Tank 2 (S)	Tank 2 (S)	Tank 3 (S)	Tank 3 (S)
08	Tank 2 (GND)	Tank 2 (GND)	Tank 3 (GND)	Tank 3 (GND)
09	Tank 1 (S)	DFS signal	Tank 2 (S)	Tank 2 (S)
10	-	DFS +	-	-
11	Tank 1 (GND)	DFS -	Tank 2 (GND)	Tank 2 (GND)
12			Tank 1 (S)	DFS signal
13			-	DFS +
14			Tank 1 (GND)	DFS -

COMPENSATION VALUES FOR ION 140:

IMPRESSION 40	Water tanks	Fuel tank	Waste water tank
Volume (liters)	240 & 272 litres	170 litres	110 litres
Туре	05	06	22
Compensation value	42	43	55



7.7. RUDDER AND STEERING SYSTEM

The boat is fitted with a rudder consisting of a long stainless steel shaft passing through the deck and hull and a GRP rudder blade. The shaft goes almost to the end of the rudder blade. The rudder can be operated by either a tiller or a wheel.

WARNING: In case of a defect of the steering mechanism, use a spare tiller, available on the boat (in the cockpit locker) to get the boat to the nearest marina or service station. Put the tiller on the shaft through the cover over the top bearing. The cover is located between helmsman's seats in the cockpit floor. In case of a defect of the mechanism, first remove the cables (see Fig.17). Any contact of the rudder with the ground can cause the blade to break or split or the shaft to bend. It requires immediate checking and consultation with an expert. Do not let go the steering wheel when you navigate backwards. Self-turning of the rudder can damage the steering mechanism. Recommended speed should not exceed 2 knots.

CAUTION:	It is recommended to disassemble the steering mechanism every two		
	years to lubricate it and thoroughly check the rudder blade.		
	Clean the bearings and when reassembling, lubricate them with a		
	lubricant resistant to sea water.		

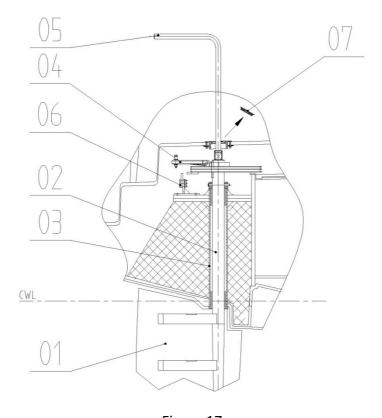


Figure 17

- 1. Rudder blade
- 2. Rudder stock
- 3. Guiding tube
- 4. Quadrant

- 5. Emergency tiller
- 6. Quadrant stopper
- 7. Cover

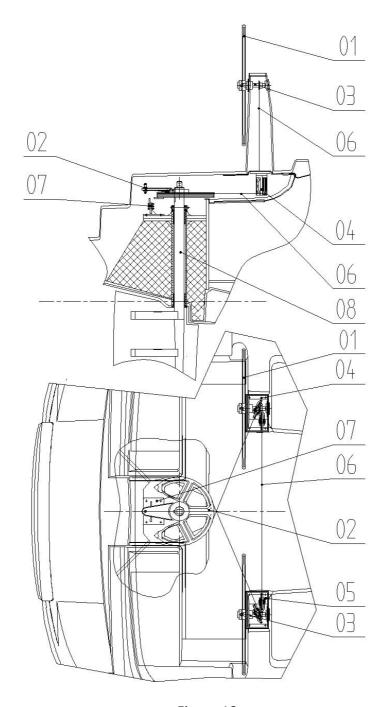


Figure 18

- 1. Steering wheel
- 2. Quadrant
- 3. Steering drum
- 4. Custom idler

- 5. Custom idler
- 6. Chain & wire set
- 7. Stopper
- 8. Rudder



8. GARBAGE DISCHARGE

Annex V of the MARPOL Treaty is an International Convention providing for a cleaner, safer marine environment.

IT IS THEREFORE ILLEGAL FOR ANY VESSEL TO DUMP PLASTIC GARBAGE INCLUDING SYNTHETIC ROPEC, FISHING NETS AND PLASTIC GARBAGE BAGS ANYWHERE IN THE OCEANS OR NAVIGABLE WATERS.

Violations of these requirements may result in civil penalties being imposed upon offenders in the form of fines and/or legislation.

Garbage must be disposed of as described in the ship's Garbage Management Plan and details of all garbage disposals must be kept in the garbage record book.

WARNING:

WITHIN 3 NAUTICAL MILES OF NEAREST LAND, ALL INLAND WATERS & FROM OR WITHIN 500m OF FIXED OR FLOATING PLATFORMS:

You cannot throw anything overboard.

WITHIN 3-12 NAUTICAL MILES OFFSHORE:

You cannot throw overboard paper, crockery, rags, metal, glass, food, plastic, dunnage and lining and packing materials that float.

You can through overboard paper, crockery, rags, metal, glass and food, provided it is ground to less than 25mm.

WITHIN 12-25 NAUTICAL MILES OFFSHORE:

You cannot throw overboard plastic, dunnage, lining and packing material that float.

You can throw overboard paper, crockery, rags, metal, glass and food etc.

OUSIDE 25 NAUTICAL MILES OFFSHORE:

You cannot throw overboard plastic.

NOTE:

In each case, plastic includes, but is not limited to synthetic rope, nites & plastic garbage bags.

All garbage discharges must be recorded in the garbage record book.



9. MAINTENANCE

9.1. HAULAGE

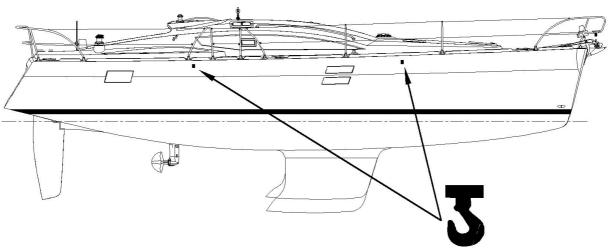


Figure 19

CAUTION:	Look for labels on the boat to place the lifting stripes (see Fig.19).	
	Make sure the straps do not damage the propeller or sail-drive.	

DANGER:	It is not allowed to stay on board or stand under the boat when the boat
	is being hauled out.
	Make sure that the lifting straps meet all the safety requirements and
	that they are not damaged.

9.2. UNDERWATER STRUCTURE

9.2.1. HULL

An antifouling protects the underwater structure against fouling by marine growths that run down the performance and sailing ability of the boat. It is applied on the hull section that is immersed in water and up to about 100 to 150 mm above the waterline or up to the top stripe. It needs to be serviced at least once a year.

For a new boat it is very important to observe the following steps:

Use a 95% proof alcohol to remove all traces of the mould release agents and then wipe with absorbent paper or cloth.

To prepare the hull for the antifouling, gently sand it with sandpaper (400 grade).

Rinse thoroughly with cold fresh water without applying pressure or detergent and allow it to dry.

Apply the antifouling with a spray gun or a roller in accordance with the antifouling manufacturer's instructions.



For maintenance of the hull follow the next steps:

- Remove all algae and shells using a brush and fresh water.
- When cleaning with a high pressure hose and cold water, do not bring the hose any closer than 0,5 m.
- Allow the hull to dry.
- Apply the antifouling with a spray gun or roller in accordance with the antifouling manufacturer's instructions.

CAUTION:	When applying the antifouling, do not apply it on the instrument probes and terminal ends.
	Some antifouling paints are compatible which is why particular care is
	required. When choosing another antifouling, consult a professional and
	keep records of the antifouling paints used.
	Follow the specifications and instructions laid down by the antifouling
	manufacturer.

WARNING: When cleaning the underwater structure:

- **NEVER** use any solvent other than alcohol.
- **NEVER** use hot water under pressure.
- **NEVER** use cleaning agents under pressure.
- **NEVER** use a scraper.

9.2.2. PROTECTION OF TERMINALS

The zinc terminals of the underwater metal components (cast iron keel, propeller shaft, and propeller) have to be replaced as soon as the terminals corrode up to half their length in order to ensure an adequate protection of the terminal ends.

WARNING:	Improper positioning or inadequate protection of terminal ends can cause	
	irreparable damage to the metal parts.	

9.3. HULL AND DECK

9.3.1. CLEANING

We recommend that you wash the exterior fiberglass surfaces of your boat several times each season using a mild detergent and large amounts of fresh water in order to remove the salt and dirt accumulated during use and as a result of air pollution.

After the boat has dried, use a good quality wax for protection against UV rays. We suggest that you should use a wax that does not contain silicone.

CAUTION:	DO NOT use aggressive (alkaline) cleaning agents for cleaning because
	they may cause changes in the gelcoat.



9.3.2. STAINS, SCRATCHES AND ABRASION

Use 95% proof alcohol to remove the stains, which cannot be removed with a detergent and fresh water. If the surfaces are not cleaned regularly, the top gelcoat layers can change color. Such stains can only be removed using a medium grade-rubbing compound. If this is ineffective, rub the area lightly with wet 800 to 1200-grade paper (used with water) until the mark disappears. A cleaning agent with fine abrasives can also be used to remove stains and minor scratches. After the stain has been removed, apply a wax polish.

WARNING:	Rubbing with abrasive compound and materials removes the gelcoat. As		
	this is only thin layer, great care should be taken.		
	DO NOT use organic solvents other than alcohol because they can cause		
	in permanent damage to the gelcoat and discoloration.		

Gelcoat that is used as the exterior layer on your boat is very hard and resistant to shocks and scratching. However, it is practically impossible to avoid scratches when the boat is used. Minor scratches can be removed by sanding and polishing like stains. You will probably not be able to remove them completely but they will be less visible. Any scratches reaching to the fiberglass layer need to be repaired by applying gelcoat or another putty. If a scratch goes deep into the laminate or if it is a major scratch, we recommend you to have it repaired by a professional.

Any customer must be aware, if ordering a blue hull, that there may be white pixels visible in the blue hull. When sanding or polishing the hull the micro porosity of the laminate may be exposed. After final production, ELAN Yachts are sanded and polished, therefore extreme care must be exercised should further polishing be required.

DANGER:	In case of a crack or possible delamination, immediately consult an
	expert on laminates or contact the boat builder or his official
	representative.

9.4. MAST, SAILS AND RIGGING

The standing rigging on your sailing yacht should be inspected regularly to ensure safe and trouble-free sailing. New rigging will often form a thin layer of rust, especially at the terminal ends. This is caused by impurities surfacing when the wire is cold-worked during manufacture. The oxidation should stop after a certain period of time, and when it does, remove the stain with a non-chlorinated cleaner or a stainless steel polish. Rinse the turnbuckles and grease them lightly each season. Inspect the mast parts as well. Make sure that the furling system rotates easily. Wash away the salt, and then lubricate the bearings. The sails need constant attention as the slightest wear in the stitching or at reinforced parts can quickly lead to their deterioration. Keep a small sail-maker's kit at hand. Bigger repairs should be made by a professional sail-maker.



Sails dislike salt water and sunshine, so whenever you have the possibility, rinse the sails with plenty of fresh water and dry them completely before folding them.

To protect the sails from UV rays, always cover the mainsail folded on the boom with the mainsail cover. Remember to relieve outhaul tension before you start folding the mainsail. Genoa leech and foot already have sewn-on protective stripes that give a complete UV protection to a furled sail. When leaving the boat for a longer period or after the season, always remove, fold and store the sails in the sail sacks.

WARNING: DO NOT ever let the sails flatter in the wind while drying as heavy damage to the stitching and sailcloth may result.

9.5. DECK EQUIPMENT

9.5.1. LIFELINES, PULPITS AND STANCHIONS

Lifelines and other rigging should be checked periodically. The terminal ends should be engaged properly in the barrels of the turnbuckles and the lock nuts tight. As the lines stretch, the slack should be taken up.

Stainless steel hardware can now and then show signs of rust that should be removed using a non-chlorinated rust remover or a stainless steel polish. Rinse the equipment with fresh water and grease turnbuckles every year.

9.5.2. WINCHES AND BLOCKS

The winches should be cleaned and inspected before you go sailing. Check that the holding bolts are tight. Blocks require little maintenance, except for periodic washing in fresh water and a light oiling with a silicone lubricant.

9.5.3. ANCHOR WINDLASS

Rinse the anchor locker and windlass with fresh water when you have the possibility. Clean and grease the rotating parts with the water resistant grease at least once a season. The internal parts of the windlass do not require maintenance for at least three seasons.

9.5.4. TEAK

A teak deck is exposed to sunlight and heat and salt water. If exposed to UV rays, it begins to put on a grey appearance and loose its original color. Scrub the teak deck, always across the grain of the wood with fresh water and a mild detergent several times a year and let it dry out. Then apply teak oil. Some teak treatments are not compatible with original. We recommend SIKA Marine Teak Deck Maintenance System according to recommendations.



WARNING: The following cleaning practices are likely to damage joint sealants and therefore not acceptable:

- Heavy mechanical scrubbing,
- High pressure water blasting,
- Hot liquid cleaning at temperature >50°C,
- Aggressive cleaners, brighteners, teak maintenance systems and other chemical cleaning agents such as ammonia, hypochlorite, alcohol, acetone or gasoline,
- Long term dwell of the cleaning agent on the sealant (typically > 3 to 5 hours).

9.5.5. PLEXIGLASS, PORTLIGHTS AND HATCHES

Wash your acrylic hatches and other acrylic components on your boat with a mild soap and plenty of warm water. Use a clean, soft cloth, applying only light pressure. Apply wax or non-acidic oil to such frames after cleaning.

WARNING:	To avoid cracking, never use any type of solvent when cleaning acrylic	
	glass.	
	DO NOT subject acrylic material to high temperature.	
	DO NOT use cleaning agents like acetone, gasoline etc.	

9.6. INTERIOR

9.6.1. INTERIOR WOOD SURFACES

Clean the varnished wood surfaces with fresh water and a clean cloth. Do not use organic solvents or expose surfaces to high temperatures to prevent permanent damage to the varnish. Please keep in mind that wood is a natural product, therefore minor differences in color can occur.

WARNING:	Worn wood parts can be painted with good quality polyurethane varnish.		
	The varnish used must be compatible with the original one. Before		
	applying the varnish, prepare the surface in accordance with the manufacturer's recommendations.		

9.6.2. CUSHIONS AND CURTAINS

Use an upholstery shampoo of the foam type. When you leave the boat for a longer period of time, lift the cushions, allowing them to dry completely in order to prevent the growth of mildew underneath.



9.6.3. REFRIGERATOR

Clean your refrigerator before each sail and when leaving the boat for a longer period. Remove all the food and clean the fiberglass interior surfaces with a sponge and an appropriate cleaning agent. Leave the refrigerator cover open when you leave the boat to let the interior dry completely.

9.6.4. COOKER

Because only a clean cooker is safe, after any use clean the cooker thoroughly including the burners.

9.6.5. SINK

Stainless steel sinks may be cleaned with a non-abrasive cleaner and sponge.

9.6.6. BILGE STRAINERS AND PUMPS

After cleaning the boat's interior, proceed to inspect the bilge pump strainer and bilge, removing the dirt and drying it to prevent odor and mildew.

WARNING:	Dirt, hair etc. should not be directly washed into the bilge during any
	cleaning process because they may plug the bilge pump and prevent it
	from regular functioning.

9.6.7. FUEL AND WATER TANKS

Inspect your tanks for any dirt regularly. Pay particular attention to any dirt accumulating at the bottom. The best way to clean the tanks is with a vacuum cleaner.

WARNING:	Inspect the fuel and water tanks only when you are sure that they are
	empty. Never unscrew the inspection hole when the tank is not empty.

10. WINTERISATION

It is recommended that all yachts should be lifted from water annually to allow the hull to dry out. The GRP that the hull is made of absorbs moisture when immersed in water, which can result in osmosis.



10.1. BLOCKING THE HULL

A sailing yacht is properly supported when the weight of the hull is resting on the keel. The purpose of cradle bulkhead is just to keep the boat balanced in an upright position. Before hauling the boat out, check that the crane straps are positioned on the signed marks on the hull (see Fig.19).

10.2. **COOKER**

Clean the cooker thoroughly, including the burners. Burn off excess gas in the feed line by closing the valve on the gas bottle with the gas burner lit. When the flame is extinguished, the gas in the feed line is burned. Be sure to turn all the valves on the appliance to the OFF position. Make sure that the gas locker is clear.

10.3. ELECTRICAL SYSTEM

Remove all the batteries from the boat and clean the poles. Store the batteries in a warm and dry location. The batteries should be completely charged before storing. The rest of the electrical system requires little maintenance. Extremely adverse weather conditions may cause corrosion. In that case we recommend you to clean off any corrosion and apply an anti-corrosive agent.

10.4. WATER SYSTEM

Pump tanks as dry as possible, than add a non-toxic water system winterized. Pump this solution through the entire fresh-and waste-water systems.

WARNING: Leave all the seacocks open.

DO NOT use antifreeze or other poisonous substances.

10.5. SEACOCKS

Clean them carefully from inside and outside of the boat and put some water resistant grease on all the moving parts.

10.6. FUEL TANK

Fill the fuel tank completely to prevent water condensation and corrosion.



10.7. ENGINE

Thoroughly clean oil and fuel from the engine compartment. Winterization should be done in accordance with the engine manufacturer's recommendations. Remember to disconnect the cooling water intake to make sure no water remains in the system. Inspect all the electrical connections and spray them with an anti-corrosion spray.

10.8. SAILS

Thoroughly wash all the sails, inspecting them at the same time. Fold the completely dried sails and store them in a dry and dark place. If necessary, use a mild soap to remove the stains. If you find any damage, bring the sail to a sail-maker for a detailed inspection and repair.

10.9. COVERING

It is much better to store a sailing yacht under cover than to leave it exposed to the weather conditions. The teak and gelcoat will fare far better during the winter and the boat will not be exposed to the pressure of the freezing water, a common cause of gelcoat stress cracks.

10.10. CUSHIONS

Remove the cushions from the boat for winterization, let them dry out and store them in a dry place.

10.11. INTERIOR

Make sure that the interior is well ventilated. Open all the lockers, covers and doors to allow for adequate air circulation.



11. PRODUCT END-OF-LIFE DISPOSAL

Prior the boat disposal (after end-of-life cycle) the owner needs to identify all legal requirements that are applicable to this environment aspect. Since our boats are generally sold worldwide, this may include:

- National and international legal requirements;
- State / provincial / department legal requirements;
- Local government legal requirements.

Your sailing boat is a highly complex product, with many different sub-systems and installed sub-products, therefore we suggest contacting applicable authorities for further information.

Additional special care needs to be taken for more aggressive items, such as batteries, fuels and cooling agents, engine fluids etc., which should be disposed according to the suppliers instructions.

In some areas boat disposal companies are also available, which will help you to dispose a product in a right and environment friendly way.



12. INSTRUCTIONS FOR USE OF INSTALLED EQUIPMENT

- 1. Refrigerator
- 2. Water heater
- 3. Instruments
- 4. Engine
- 5. Etc.

	ELEMENT	MANUFACTURER	TYPE
1			
2			
3			
4			
5			
6			
7			
8			
9			
10			
11			
12			

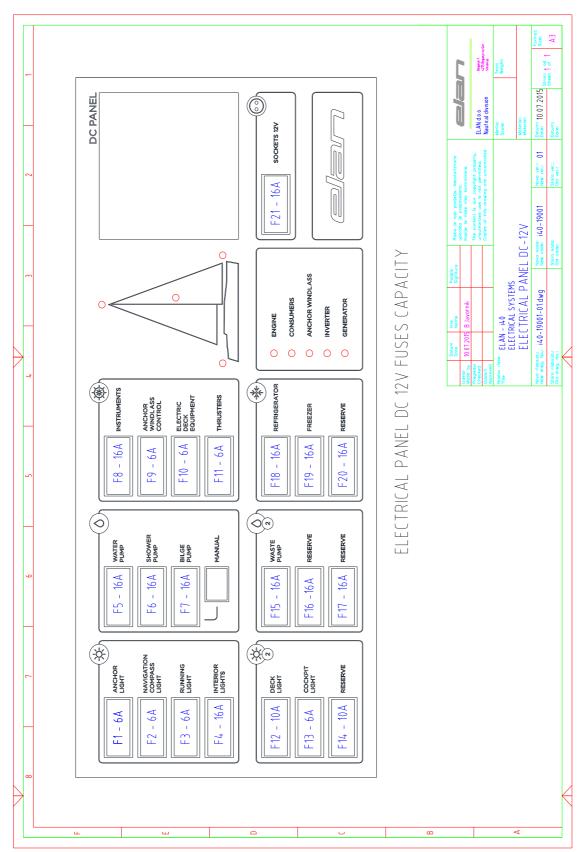


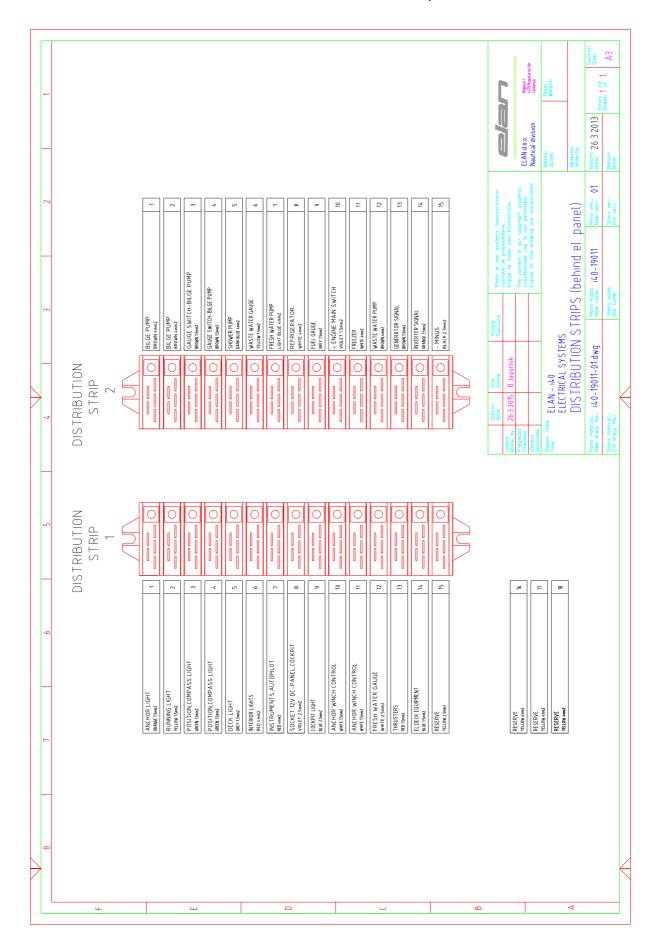
NOTES:
Make notes of any modification on your sailing yacht.
,
,
······································
,

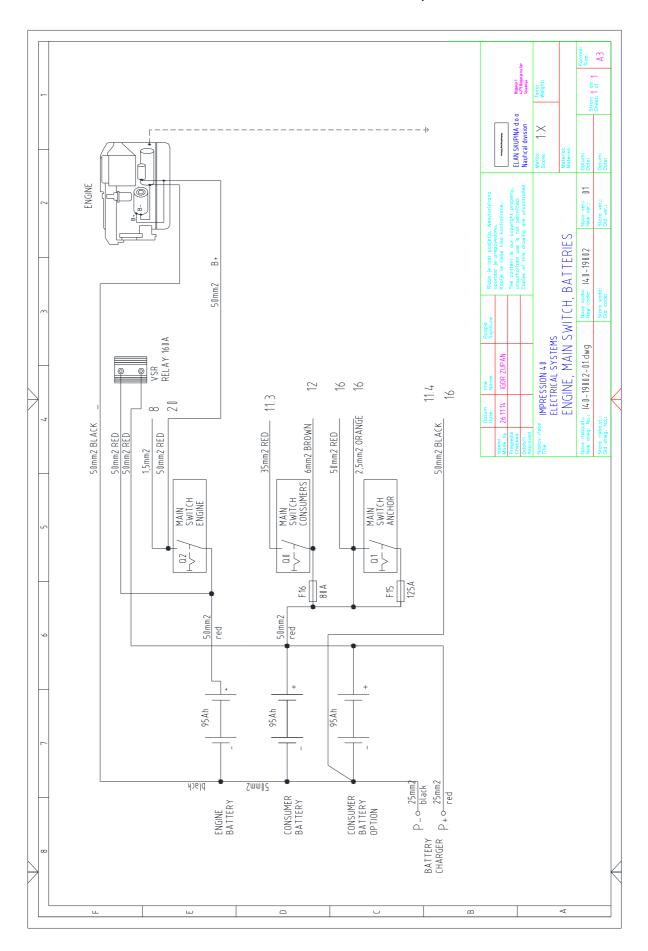


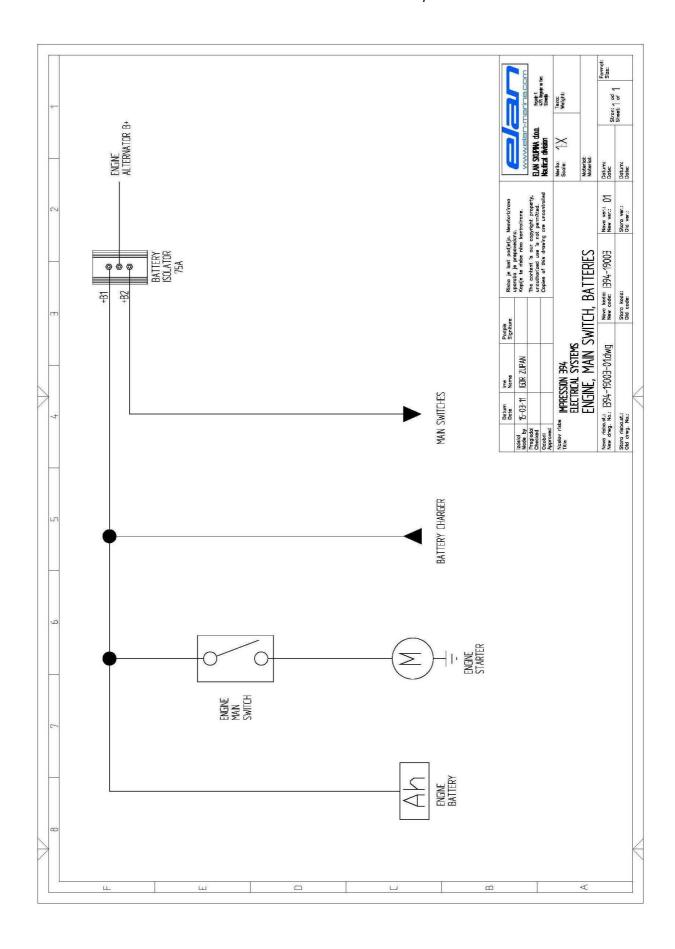
13. ANNEXES

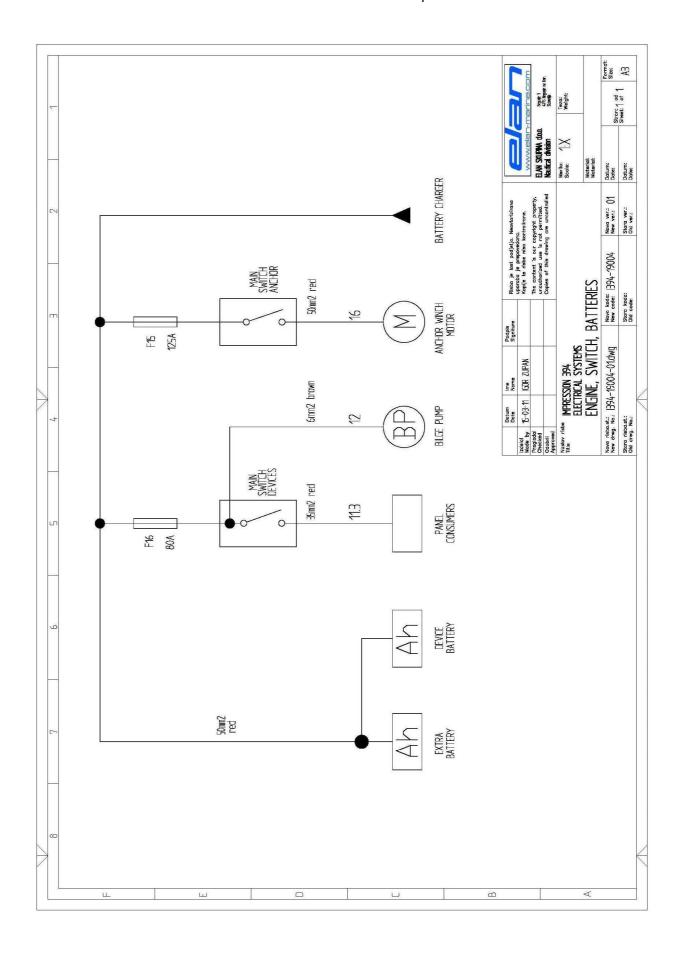
13.1. ELECTRICAL SYSTEM DRAWINGS

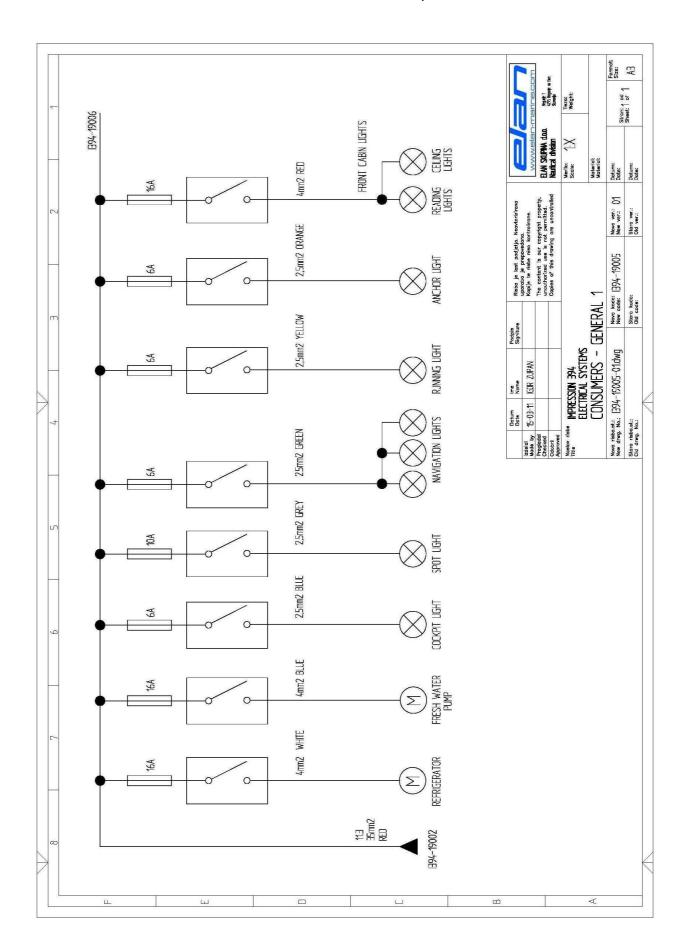


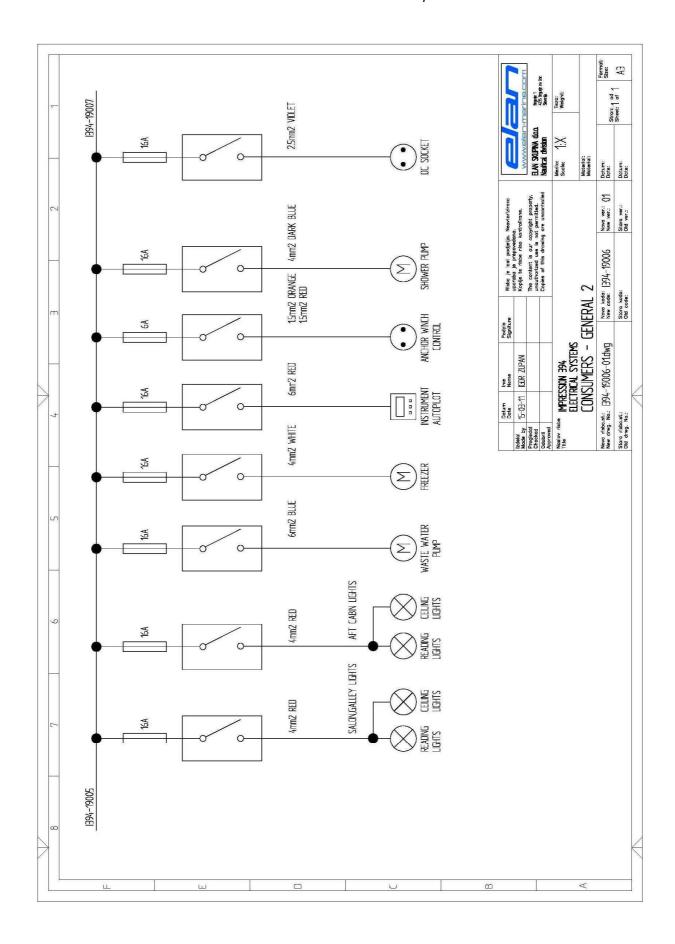


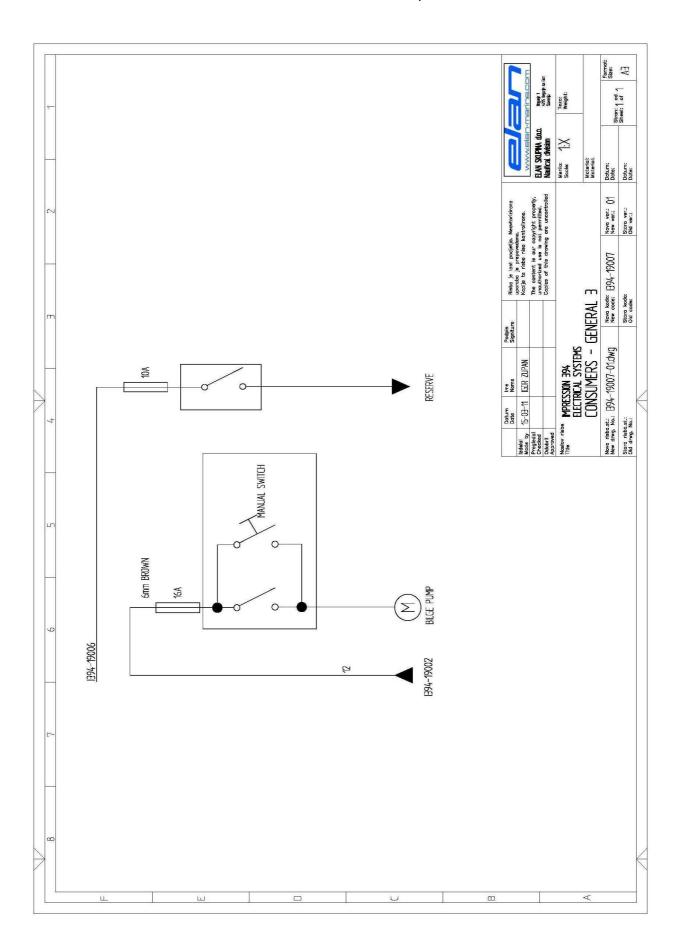


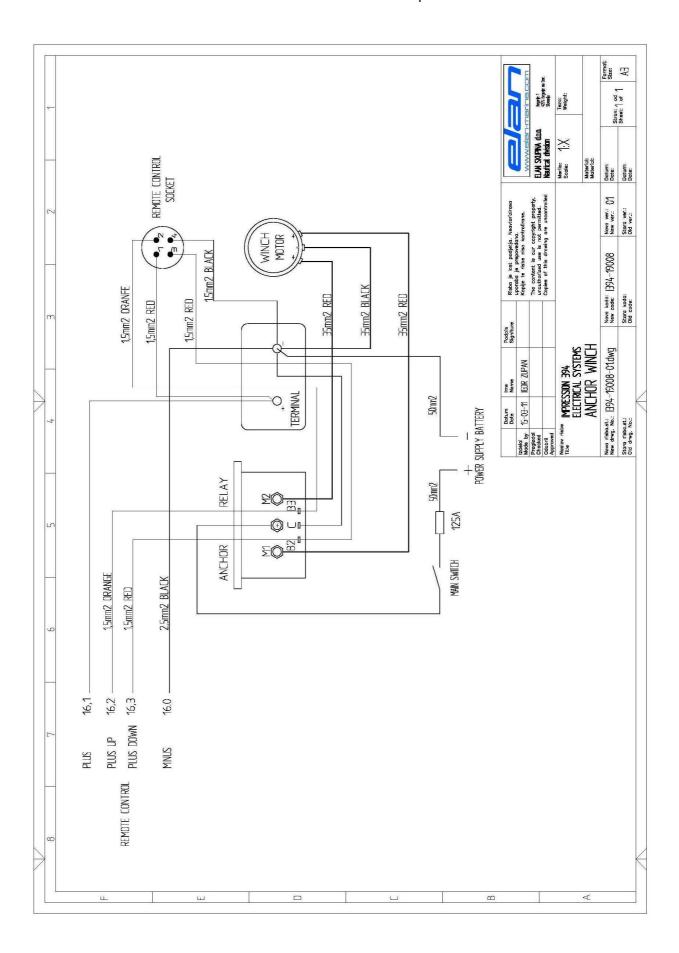


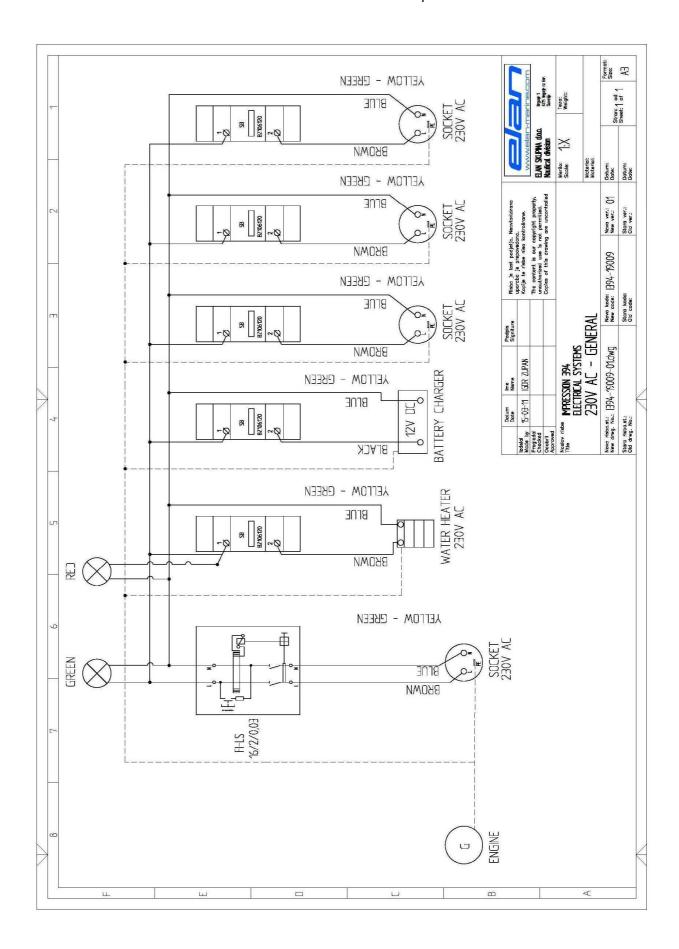




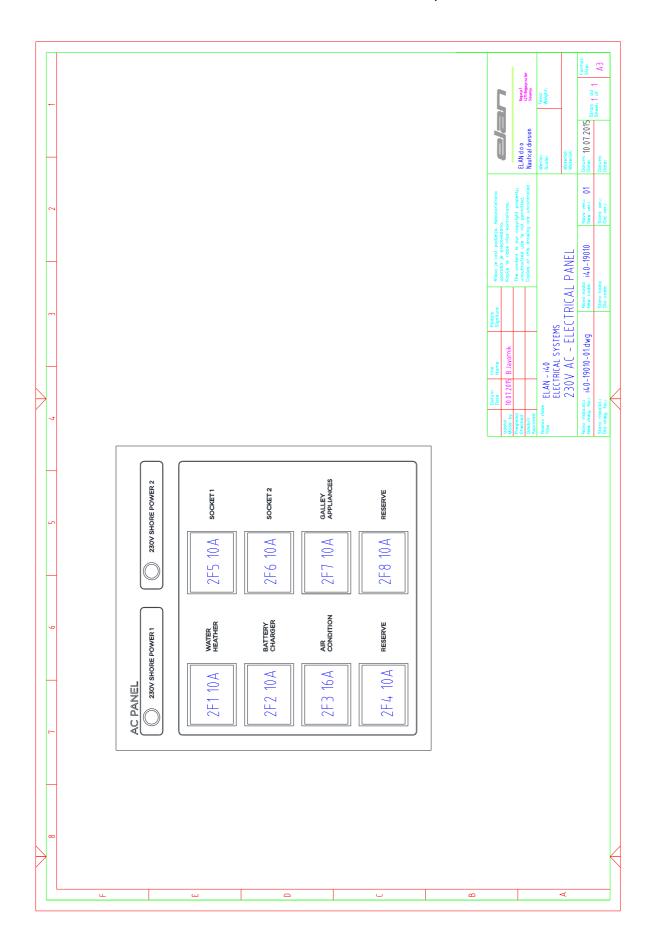








PASSION FOR YACHTING



Shint ANCHOR LIGHT 1 BROWN 6mm BLIGE PUMP DIRECT+ Shint RUMNIG LIGHT 2 BROWN 25mm BLIGE PUMP FLOAT SWITCH DID PDSTIDIO LIGHT STERN 3 BROWN 25mm BLIGE PUMP FLOAT SWITCH BILD SPOT LIGHT 5 DARK BLUE 4mm SHOWR PUMP BILD CABN LIGHTS AFT 6 YELLOW 15mm WASTE WATER TANK CABN LIGHTS AFT 8 BLUE 4mm WASTE WATER TANK MINT CABN LIGHTS AFT 8 BLUE 4mm REFRIGERATOR FRESH ANT-OR 7 YELLOW 15mm REFRIGERATOR FIRST BLUE 4mm REFRIGERATOR FUEL SENSOR Sim ANT-OR WINCH CONTROL 12 VIOLET 25mm PHILE 4mm ANCHOR WINCH CONTROL 13 WHITE 4mm BLACK WATER PUMP FIRST BLACK 25mm PANEL PANEL
ORANGE 2.5mm YELLOW 2.5mm GREEN 2.5mm GREEN 2.5mm RED 4mm RED 4mm RED 4mm RED 6mm VIOLET 2.5mm BLUE 2.5mm ORANGE 1.5mm WHITE 1.5mm

