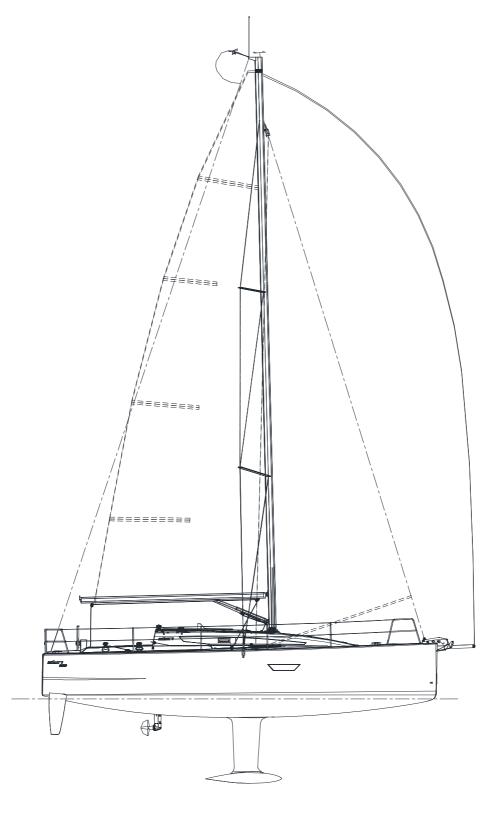




OWNER'S MANUAL



CIN: _____



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 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 51 107

email: sail@elan.si

http: www.elan-yachts.com



TABLE OF CONTENT

| OWNER'S MA | ANUAL PREFACE | 2 |
|-------------|--|----|
| TABLE OF CO | NTENT | 3 |
| 1. FOREV | NORD | 5 |
| 2. WARR | ANTY CONDITIONS OF YOUR ELAN | 8 |
| 3. IMPO | RTANT INFORMATION | 11 |
| 3.1. DEG | GRESS OF DANGER | 11 |
| 3.2. LAB | ELS ON BOARD | 11 |
| 3.3. LIAE | BILITY OF THE OWNER/OPERATOR | 12 |
| 3.4. FIRE | PROTECTION AND ESCAPE PLAN | 12 |
| 3.5. PRE | -DEPARTURE CHECK LIST | 13 |
| 3.6. WATE | R INTAKE DURING SAILING | 13 |
| 3.7. CLO | SING UP YOUR CRAFT AFTER SAILING CHECK LIST | 14 |
| 3.8. CRA | FT IDENTICATION, BUILDER'S PLATE | 14 |
| 4. TECHN | NICAL SPECIFICATIONS | 15 |
| 4.1. TEC | HNICAL DATA | 15 |
| 4.2. DEF | INITION OF DESIGN | 16 |
| 4.3. MA | XIMUM TOTAL LOAD | 16 |
| 5. GENER | RAL ARRANGEMENT | 16 |
| 5.1. DEC | K LAYOUT | 16 |
| 5.2. WO | RKING DECK AND MEANS OF REBOARDING | 17 |
| 5.3. INT | ERIOR LAYOUT | 18 |
| 5.4. PRO | PFILE | 19 |
| 6. PROPL | JLSION SYSTEMS | 20 |
| 6.1. SAIL | S AND MAST | 20 |
| 6.2. ENG | GINE SYSTEM | 20 |
| 6.2.1. | ENGINE OPERATION | 21 |
| 6.2.2. | ENGINE AND PROPELLER INSTALLATION | |
| 6.2.3. | FUEL SYSTEM | 23 |
| 7. SYSTE | MS AND CIRCUITS | 24 |
| 7.1. POS | SITION OF SEACOCKS AND THROUGH-HULL FITTINGS | 24 |
| 7.2. WA | TER SYSTEMS | 25 |
| 7.2.1. | FRESH WATER SYSTEM | 25 |
| 7.2.2. | HOT WATER SYSTEM | 27 |
| 7.3. SEA | AND WASTE WATER SYSTEM | 27 |
| 7.4. BILG | GE WATER SYSTEM | 28 |
| 7.5. GAS | SYSTEM | 30 |
| 7.6. ELEC | CTRICAL SYSTEMS | 33 |
| 7.6.1. | 12V SYSTEM | 33 |
| 7.6.2. | 230V SYSTEM | 34 |
| 7.6.3. | PHILIPPI INSTRUMENT SETUP AND SETTINGS | 35 |
| 7.7. RUD | DDER AND STEERING SYSTEM | 39 |
| 8. GARBA | AGE DISCHARGE | 41 |
| 9. MAIN | TENANCE | 42 |
| 9.1. HAL | JLAGE | 42 |
| 9.2. UNI | DERWATER STRUCTURE | 42 |



| 9.2.1. | HULL | 42 |
|--------|--|----|
| 9.2.2. | PROTECTION OF TERMINALS | 43 |
| 9.3. H | ULL AND DECK | 43 |
| 9.3.1. | | |
| 9.3.2. | STAINS, SCRATCHES AND ABRASION | 44 |
| 9.4. N | 1AST, SAILS AND RIGGING | 44 |
| 9.5. D | ECK EQUIPMENT | |
| 9.5.1. | LIFELINES, PULPITS AND STANCHIONS | 45 |
| 9.5.2. | WINCHES AND BLOCKS | |
| 9.5.3. | ANCHOR WINDLASS | |
| 9.5.4. | TEAK | |
| 9.5.5. | PLEXIGLASS, PORTLIGHTS AND HATCHES | |
| | NTERIOR | |
| 9.6.1. | INTERIOR WOOD SURFACES | |
| 9.6.2. | CUSHIONS AND CURTAINS | |
| 9.6.3. | REFRIGERATOR | |
| 9.6.4. | COOKER | |
| 9.6.5. | SINK | |
| 9.6.6. | BILGE STRAINERS AND PUMPS | |
| 9.6.7. | FUEL AND WATER TANKS | |
| | NTERISATION | |
| 10.1. | BLOCKING THE HULL | |
| 10.2. | COOKER | |
| 10.3. | ELECTRICAL SYSTEM | |
| 10.4. | WATER SYSTEM | |
| 10.5. | SEACOCKS | |
| 10.6. | FUEL TANK | |
| 10.7. | ENGINE | |
| 10.8. | SAILS | |
| 10.9. | COVERING | |
| 10.10. | CUSHIONS | |
| 10.11. | INTERIOR | _ |
| | DDUCT END-OF-LIFE DISPOSAL | |
| | TRUCTIONS FOR USE OF INSTALLED EQUIPMENT | |
| 12.1. | WEBASTO HEATING SYSTEM V1 &V3 | |
| 12.2. | ELECTRICAL SYSTEM DRAWINGS | 54 |



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 dependent 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.



DECLARATION OF CONFORMITY

Of Recreational Craft with the Design, Construction and Noise Emission Requirements of Directive 94/25/EC as amended by Directive 2003/44/EC

| Address: Town: | | ELAN, d.o.o. |
|--|-----------|--|
| Towns | | Begunje 1 |
| TOWN. | TB | Begunje na Gorenjskem |
| Post Code: | 78 | Si - 4275 |
| Country: | | SLOVENIA |
| Name of Notified Body for Design and Construction Assessme | ante I | DNV GL SE |
| Name of Notinea Body for Design and Construction Assessme | | P.O.B. 11 15 06 |
| Town: | - | Hamburg |
| Post Code: | - | DE - 20416 |
| Country: | _ | GERMANY |
| ID Number: | _ | 0098 |
| EC Type-examination Certificate Number: | | 92093-3 /1 |
| Date (year/month/day): | | 2015/06/15 |
| Name of Notified Body for Noise Emission Assessment: | Ť | Non applicable |
| Module used for construction assessment: | - | □A □Aa ⊠ B+C □B+D □B+E □B+F □G □H |
| Module used for noise emission assessment: | | ⊠A □A₃ □G □H |
| Other Community Directives applied: | | |
| | | |
| DESCRIPTION OF CRAFT Craft Identification Number: | 5 1 | - E L A E 4 |
| Brand name of the craft: ELAN YACHTS | Type | or number: ELAN E4 |
| Build Year: 20 | | Model Year: 20 |
| 경기 | | # F F F F |
| Type of craft: | Type of r | main propulsion: |
| Sailboat | (3) | |
| ☐ Motorboat | | |
| □ Inflatable | _ | Petrol engine |
| ☐ Other (specify): | | |
| | | The Control of the Co |
| Type of hull: | | Oars |
| | 00 | Oars Other (specify): |
| Type of hull: Mono-hull | | Oars Other (specify): |
| Type of hull: Mono-hull Multi-hull | Type of a | Oars Other (specify): engine: Outboard Inboard |
| Type of hull: Mono-hull Multi-hull Other (specify): Construction material: Aluminium, aluminium alloys | Type of a | Oars Other (specify): engine: Outboard Inboard Z or stem-drive without integral exhaust |
| Type of hull: Mono-hull Multi-hull Other (specify): Construction material: Aluminium, aluminium alloys Plastic, fibre reinforced plastic | Type of a | Oars Other (specify): engine: Outboard Inboard Z or stem-drive without integral exhaust Z or stem-drive with integral exhaust |
| Type of hull: Mono-hull Multi-hull Other (specify): Construction material: Aluminium, aluminium alloys Plastic, fibre reinforced plastic Steel, steel alloys | Type of a | Oars Other (specify): engine: Outboard Inboard Z or stem-drive without integral exhaust Z or stem-drive with integral exhaust |
| Type of hull: Mono-hull Multi-hull Other (specify): Construction material: Aluminium, aluminium alloys Plastic, fibre reinforced plastic Steel, steel alloys Wood | Type of a | Other (specify): englee: Outboard Inboard Z or stem-drive without integral exhaust Z or stem-drive with integral exhaust Other (specify): |
| Type of hull: Mono-hull Multi-hull Other (specify): Construction material: Aluminium, aluminium alloys Plastic, fibre reinforced plastic Steel, steel alloys Wood | Type of a | Oars Other (specify): engine: Outboard Inboard Z or stem-drive without integral exhaust Z or stem-drive with integral exhaust Other (specify): Fully decked |
| Type of hull: Mono-hull | Type of a | Oars Other (specify): englee: Outboard Inboard Z or stern-drive without integral exhaust Z or stern-drive with integral exhaust Other (specify): Fully decked Partly decked Open |
| Type of hull: Mono-hull Multi-hull Other (specify): Construction material: Aluminium, aluminium alloys Plastic, fibre reinforced plastic Steel, steel alloys Wood Other (specify): | Type of a | Oars Other (specify): englee: Outboard Inboard Z or stern-drive without integral exhaust Z or stern-drive with integral exhaust Other (specify): Fully decked Partly decked Open |
| Type of hull: Mono-hull | Type of a | Other (specify): engine: Outhoard Inboard Z or stem-drive without integral exhaust Cother (specify): Fully decked Partly decked Open Other (specify): Engine power: |
| Type of hull: Mono-hull | Type of a | Oars Other (specify): engine: Outhoard Inboard I z or stern-drive without integral exhaust I z or stern-drive with integral exhaust Other (specify): Fully decked Partly decked Open Other (specify): Engine power: 9 Max. Recommended: 20,9 kg |
| Type of hull: Mono-hull | Type of a | Oars Other (specify): engine: Outhoard Inboard I z or stern-drive without integral exhaust I z or stern-drive with integral exhaust Other (specify): Fully decked Partly decked Open Other (specify): Engine power: 9 Max. Recommended: 20,9 ki |
| Type of hull: Mono-hull | Type of a | Oars Other (specify): engine: Outboard Inboard I z or stern-drive without integral exhaust I z or stern-drive with integral exhaust Other (specify): Fully decked Partly decked Open Other (specify): Engine power: 9 Max. Recommended: 20,9 kinstalled power: 20,9 kinstalled po |
| Type of hull: Mono-hull | Type of a | Other (specify): engine: Outhoard Inboard Z or stern-drive without integral exhaust Z or stern-drive with integral exhaust Other (specify): Fully decked Partly decked Open Other (specify): Engine power: 9 Max. Recommended: 20,9 kinstalled power: 20,9 kinstalled power |



| C | 141 | | | 40 |
|---|--|--------------------------------------|----------|---|
| Essential requirements | | _ sp | | |
| (Reference to relevant articles in | - 22 | etho | ž | |
| Annex IA & IC of the Directive) | Sandards | moon N/m | echnical | Please specify in more detail |
| | 8 | Other normative document/ methods | Tech | (*: Mandatory Standards) |
| | | 9 9 | | |
| General requirements (2) | × | | | EN ISO 8666-2002 |
| Craft Identification Number - CIN (2.1) | × | | | EN ISO 10087:2006 |
| Builder's Plate (2.2) | X | | | EN ISO 14945:2004, EN ISO 14945:2004/AC-2005 |
| Protection from falling overboard and means of reboarding (2.3) | × | | | EN ISO 15085:2003, EN ISO 15085:2003/A1:2009 |
| Visibility from the main steering position (2.4) | (X) | | | EN ISO 11591:2011 |
| Owner's manual (2.5) | × | | | EN ISO 10240:2004 |
| Integrity and structural requirements (3) | | | | |
| Structure (3.1) | × | | | EN ISO 12215-1:2000 |
| Stability and freeboard (3.2) | × | | | EN ISO 12217-2:2013 |
| Buoyancy and floatation (3.3) | (X) | | | EN ISO 12217-2:2013 |
| Openings in hull, deck and superstructure (3.4) | (X) | | | EN ISO 12216:2002; EN ISO 9093-1:1997; EN ISO 9093-2:2002 |
| Flooding (3.5) | X | | | EN ISO 15083:2003; EN ISO 11812-2001 |
| Manufacturer's maximum recommended load (3.6) | × | | | EN ISO 14946:2001,EN ISO 14946:2001/AC:2005 |
| Liferaft stowage (3.7) | | × | | RSG Guidelines |
| Escape (3.Hi | × | | | EN ISO 9094-1:2003 |
| Anchoring, mooring and towing (3.9) | [X] | | | EN ISO 15084:2003 |
| Handling characteristics (4) | X | | | EN ISO 8665:2006 |
| Engines and engine spaces (5.1) | | | | |
| inboard engine (5.3.2) | (X) | | | EN ISO 16147:2002 |
| Ventilation (5.1.2) | | × | | GL Rules; Volvo Rules |
| Exposed parts (5.1.3) | | | | / |
| Outboard engine starting (5.1.4) | | | | Non applicable |
| Fuel system (5.2) | | | | |
| General – fuel system (5.2.1) | X | | | 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 13297:2012 |
| Steering systems (5.4) | | | | |
| General - steering system (3.4.1) | (X) | | | EN ISO 8847:2004, EN ISO 8847:2004/AC:2005 |
| Emergency arrangements (5.4.2) | | | | Non applicable |
| Gas systems (5.5) | X | | | EN ISO 10239:2008; EN ISO 14895:2003 |
| Fire protection (5.6) | | | | |
| General – fire protection (5.6.1) | × | | | EN ISO 9094-1:2003 |
| Fire-fighting equipment (5.5.2) | × | | | EN ISO 9094-1:2003 |
| Navigation lights (5.7) | × | | | 1972 COLREG or CEVNI; ISO 16180:2013 |
| Discharge prevention (5.8) | (X) | | | EN ISO 8099:2000 |
| Annex I.8 – Exhaust Emissions | See the Declaration of Conformity of the Engine Manufacturer | | | |
| Annex I.C – Noise Emissions ¹ | | _ | <u></u> | Non applicable "is not based on the DIRECTIVE / EUROPEAN 2003/44CE |
| Annex I.C - Noise Emissions | | | - | ANNEX 1 PART C (TEM 1.2 |
| Noise emission levels (I.C.1) | | | | Non applicable "is not based on the DIRECTIVE / EUROPEAN 2003/44CE ANNEX 1 PART C ITEM 1.2 |
| Owner's manual (I.C.2) | | | | Non applicable "is not based on the DIRECTIVE / EUROPEAN 2003/44CE ANNEX 1 PART C ITEM 1.2 |

Only to be completed for boats with inboard engines or stern drive engines without integral exhaust.



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.



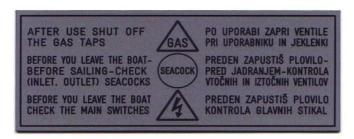
3. IMPORTANT INFORMATION

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. |

3.2. LABELS ON BOARD

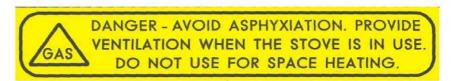




General warning label

Fire extinguisher position





Cooker warning label





Outlet seacock

Emergency exit





Main switch label

Water tank connection

Inlet seacock

Figure 1



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 | In the cockpit locker | 1 kg |
| 2 | At the navigation table | 1 kg |

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

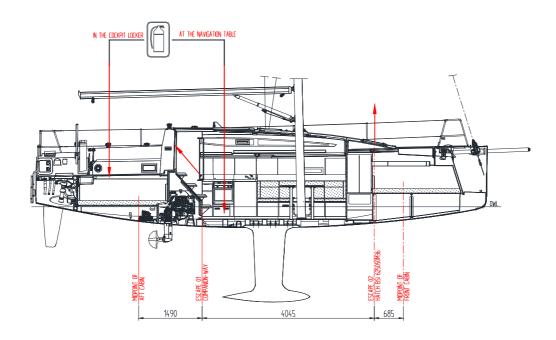


Figure 2

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 (CIN) visible on the starboard side of the transom.

The duplicate CIN plate is fastened on inner hull structure in the starboard cabine under cushion.

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.
- The CE mark.





4. TECHNICAL SPECIFICATIONS

4.1. TECHNICAL DATA

| Boat Type | Deal Total | El E4 |
|---|---|--|
| Boat Design Category A "Ocean" SI-ELAE40 SI-ELAE40 SI-ELAE40 ELAN, d.o.o. Begunje 1, 4275 Begunje na Gorenjskem, Slovenia EC Type Examination Module B+C Si-Elae40 EC Type Examination Module B+C EC Type Examination M | | |
| CIN Manufactured by ELAN, d.o.o. Begunje 1, 4275 Begunje na Gorenjskem, Slovenia EC Type Examination Module B+C | Boat Class | |
| ELAN, d.o.o. Begunje 1, 4275 Begunje na Gorenjskem, Slovenia EC Type Examination Module B+C | Boat Design Category | A "Ocean" |
| Begunje 1, 4275 Begunje na Gorenjskem, Slovenia | CIN | SI-ELAE40 |
| Certification Certificate No. Notified body PNV GL SE P.O.B. 11 16 06 DE-20416 Hamburg, Germany Hull length Length at waterline Beam max. Draft Air draft (incl. 1 m antenna) Light craft mass (m _{LCC}) Persons + luggage Manufacturer's recommended load (m _{MTL}) Loaded displacement max. (m _{MDC}) Ballast Engine power max. Fuel capacity Water capacity Holding tank (optional) Gas bottles (propane/butane) Maximum crew Cabins Berths 4 or 6 + 2 Mainsail Genoa Genaker I 10,00 m² I 13,77 m J 4,03 m P 13,49 m E Design | Manufactured by | ELAN, d.o.o. |
| Certification Certificate No. Notified body Notified body Notified body P-0.B. 11 16 06 DE-20416 Hamburg, Germany Hull length Length at waterline Beam max. Draft 2,15 m / 2,35 m optional / 1,70 m optional Air draft (incl. 1 m antenna) Light craft mass (m _{LCC}) Persons + luggage Manufacturer's recommended load (m _{MTL}) Loaded displacement max. (m _{MDC}) Ballast 1300 kg / 1385 kg / 1560 kg Engine power max. Puel capacity To litres Gas bottles (propane/butane) Maximum crew Cabins Gas bottles (propane/butane) Mainsail Genoa Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E Certificate No. Double B-C Type Examination Module B+C 92093-3/1 Double Scale PC-0.B. 11 16 06 DE-20416 Hamburg, Germany In 10,00 m² I 13,49 m E I 10,00 m² I 13,49 m E I 10,00 m² I 14,63 m I 10,00 m² | | Begunje 1, 4275 Begunje na Gorenjskem, |
| Certificate No. 92093-3 /1 | | Slovenia |
| Notified body DNV GL SE P.O.B. 11 16 06 DE-20416 Hamburg, Germany Hull length Length at waterline Beam max. 3,50 m Draft 2,15 m/2,35 m optional / 1,70 m optional Light craft (incl. 1 m antenna) Light craft mass (m _{LCC}) Persons + luggage Manufacturer's recommended load (m _{MTL}) Loaded displacement max. (m _{MDC}) Ballast 1300 kg / 1385 kg / 1560 kg Engine power max. Fuel capacity Water capacity Water capacity Holding tank (optional) Gas bottles (propane/butane) Awimum crew Cabins Beaths 4 or 6 + 2 Mainsail Genoa Genaker 11,000 m² 11,77 m J 4,03 m P 13,49 m E Design | Certification | EC Type Examination Module B+C |
| P.O.B. 11 16 06 DE-20416 Hamburg, Germany | Certificate No. | 92093-3 /1 |
| Hull length Length at waterline Beam max. Draft Air draft (incl. 1 m antenna) Light craft mass (m _{LCC}) Persons + luggage Manufacturer's recommended load (m _{MTL}) Loaded displacement max. (m _{MDC}) Ballast Engine power max. Fuel capacity Water capacity Holding tank (optional) Gas bottles (propane/butane) Air water as a series Air of 6 + 2 Mainsail Genoa Genaker In 13,77 m J J 4,03 m P E Length at waterline In 10,60 m 10,60 m 10,60 m 10,10 m 3,50 m 2,15 m / 2,35 m optional / 1,70 m optional 1,70 k optional 1,75 kg 800 kg 80 kg 800 kg 80 | Notified body | DNV GL SE |
| Hull length Length at waterline Beam max. Draft Air draft (incl. 1 m antenna) Light craft mass (m _{LCC}) Persons + luggage Manufacturer's recommended load (m _{MTL}) Loaded displacement max. (m _{MDC}) Ballast Engine power max. Ty5 litres Water capacity Holding tank (optional) Gas bottles (propane/butane) Air or 6 + 2 Mainsail Genoa Genaker In (0,00 m 10,10 m 3,50 m 2,15 m / 2,35 m optional / 1,70 m optional 17,76 m 21,10 m optional / 1,70 m optional 17,56 m 2105 kg 2106 kg 2107 kg 218 litres 20,9 kW / 28,4 HP 20,0 kg 218 litres 20,9 kW / 28,4 HP 20,0 kg 21,0 | | P.O.B. 11 16 06 |
| Length at waterline Beam max. Draft 2,15 m / 2,35 m optional / 1,70 m optional Air draft (incl. 1 m antenna) Light craft mass (m _{Lcc}) Persons + luggage Manufacturer's recommended load (m _{MTL}) Loaded displacement max. (m _{MDC}) Ballast 1300 kg / 1385 kg / 1560 kg Engine power max. 20,9 kW / 28,4 HP Fuel capacity 75 litres Water capacity To litres Gas bottles (propane/butane) Qas bottles | | DE-20416 Hamburg, Germany |
| Length at waterline Beam max. Draft 2,15 m / 2,35 m optional / 1,70 m optional Air draft (incl. 1 m antenna) Light craft mass (m _{Lcc}) Persons + luggage Manufacturer's recommended load (m _{MTL}) Loaded displacement max. (m _{MDC}) Ballast 1300 kg / 1385 kg / 1560 kg Engine power max. 20,9 kW / 28,4 HP Fuel capacity 75 litres Water capacity 185 litres Holding tank (optional) Gas bottles (propane/butane) Air draft (incl. 1 m antenna) 17,56 m 1300 kg 1385 kg 1560 kg | Hull length | |
| Draft 2,15 m / 2,35 m optional / 1,70 m optional Air draft (incl. 1 m antenna) 17,56 m 5132 kg Persons + luggage 800 kg Manufacturer's recommended load (m _{MTL}) Loaded displacement max. (m _{MDC}) 7237 kg Ballast 1300 kg / 1385 kg / 1560 kg Engine power max. 20,9 kW / 28,4 HP Fuel capacity 75 litres Water capacity 185 litres Holding tank (optional) 70 litres Gas bottles (propane/butane) 2 kg Maximum crew 9 persons Cabins 2 or 3 Berths 4 or 6 + 2 Mainsail 30,00 m² Genoa 28,60 m² Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E Design Humphreys Yacht Design & ELAN Design | Length at waterline | 10,10 m |
| Air draft (incl. 1 m antenna) Light craft mass (m _{LCC}) Persons + luggage Manufacturer's recommended load (m _{MTL}) Loaded displacement max. (m _{MDC}) Ballast Engine power max. 7237 kg Ballast 1300 kg / 1385 kg / 1560 kg Engine power max. 20,9 kW / 28,4 HP Fuel capacity 75 litres Water capacity Holding tank (optional) 70 litres Gas bottles (propane/butane) 2 kg Maximum crew 2 or 3 Berths 4 or 6 + 2 Mainsail Genoa 28,60 m² Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E Design | Beam max. | 3,50 m |
| Air draft (incl. 1 m antenna) Light craft mass (m _{LCC}) Persons + luggage Manufacturer's recommended load (m _{MTL}) Loaded displacement max. (m _{MDC}) Ballast Engine power max. 7237 kg Ballast 1300 kg / 1385 kg / 1560 kg Engine power max. 20,9 kW / 28,4 HP Fuel capacity 75 litres Water capacity Holding tank (optional) 70 litres Gas bottles (propane/butane) 2 kg Maximum crew 2 or 3 Berths 4 or 6 + 2 Mainsail Genoa 28,60 m² Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E Design | Draft | 2,15 m / 2,35 m optional / 1,70 m optional |
| Light craft mass (m _{LCC}) Persons + luggage Manufacturer's recommended load (m _{MTL}) Loaded displacement max. (m _{MDC}) Ballast Engine power max. Fuel capacity Water capacity Holding tank (optional) Gas bottles (propane/butane) Avaimum crew Cabins Berths Avainasil Genoa Genoa Genoa Genoa Genoa Genaker I J 4,03 m P E Design Sins kg 800 kg 800 kg 2105 kg 7237 kg 1300 kg / 1385 kg / 1560 kg 1300 kg / 1385 kg / 1560 kg 1400 kg / 1385 kg / 1560 kg 1500 kg | Air draft (incl. 1 m antenna) | |
| Persons + luggage Manufacturer's recommended load (m _{MTL}) Loaded displacement max. (m _{MDC}) Ballast Engine power max. Fuel capacity Water capacity Holding tank (optional) Gas bottles (propane/butane) Persons Cabins Berths A or 6 + 2 Mainsail Genoa Genoa Genaker I 10,00 m² I 13,77 m J 4,03 m P 13,49 m E Design Manufacturer's recommended load (m _{MTL}) 2105 kg 2 | | |
| Loaded displacement max. (m _{MDC}) Ballast Engine power max. 20,9 kW / 28,4 HP Fuel capacity Water capacity Holding tank (optional) Gas bottles (propane/butane) 2 kg Maximum crew Cabins Berths 4 or 6 + 2 Mainsail Genoa Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E 4,63 m Design | Persons + luggage | 800 kg |
| Ballast 1300 kg / 1385 kg / 1560 kg Engine power max. 20,9 kW / 28,4 HP Fuel capacity 75 litres Water capacity 185 litres Holding tank (optional) 70 litres Gas bottles (propane/butane) 2 kg Maximum crew 9 persons Cabins 2 or 3 Berths 4 or 6 + 2 Mainsail 30,00 m² Genoa 28,60 m² Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E 4,63 m Design Humphreys Yacht Design & ELAN Design | Manufacturer's recommended load (m _{MTL}) | 2105 kg |
| Engine power max. Fuel capacity Water capacity Holding tank (optional) Gas bottles (propane/butane) Maximum crew Cabins Berths 4 or 6 + 2 Mainsail Genoa Genaker I 10,00 m² I 13,77 m J 4,03 m P 13,49 m E 4,63 m Design | Loaded displacement max. (m _{MDC}) | 7237 kg |
| Fuel capacity Water capacity Holding tank (optional) Gas bottles (propane/butane) Maximum crew Cabins Berths 4 or 6 + 2 Mainsail Genoa Genaker I I I I I I I I I I I I I I I I I I I | Ballast | 1300 kg / 1385 kg / 1560 kg |
| Water capacity Holding tank (optional) Gas bottles (propane/butane) Awximum crew Cabins Berths A or 6 + 2 Mainsail Genoa Genaker I 13,77 m J 4,03 m P 13,49 m E Design Humphreys Yacht Design & ELAN Design | Engine power max. | 20,9 kW / 28,4 HP |
| Water capacity Holding tank (optional) Gas bottles (propane/butane) Awximum crew Cabins Berths A or 6 + 2 Mainsail Genoa Genaker I 13,77 m J 4,03 m P 13,49 m E Design Humphreys Yacht Design & ELAN Design | Fuel capacity | 75 litres |
| Gas bottles (propane/butane) 2 kg Maximum crew 9 persons Cabins 2 or 3 Berths 4 or 6 + 2 Mainsail 30,00 m² Genoa 28,60 m² Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E 4,63 m Design Humphreys Yacht Design & ELAN Design | Water capacity | 185 litres |
| Maximum crew 9 persons Cabins 2 or 3 Berths 4 or 6 + 2 Mainsail 30,00 m² Genoa 28,60 m² Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E 4,63 m Design Humphreys Yacht Design & ELAN Design | Holding tank (optional) | 70 litres |
| Cabins 2 or 3 Berths 4 or 6 + 2 Mainsail 30,00 m² Genoa 28,60 m² Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E 4,63 m Design Humphreys Yacht Design & ELAN Design | Gas bottles (propane/butane) | 2 kg |
| Berths 4 or 6 + 2 Mainsail 30,00 m² Genoa 28,60 m² Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E 4,63 m Design Humphreys Yacht Design & ELAN Design | Maximum crew | 9 persons |
| Mainsail 30,00 m² Genoa 28,60 m² Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E 4,63 m Design Humphreys Yacht Design & ELAN Design | Cabins | 2 or 3 |
| Genoa 28,60 m² Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E 4,63 m Design Humphreys Yacht Design & ELAN Design | Berths | 4 or 6 + 2 |
| Genoa 28,60 m² Genaker 110,00 m² I 13,77 m J 4,03 m P 13,49 m E 4,63 m Design Humphreys Yacht Design & ELAN Design | Mainsail | 30,00 m ² |
| I 13,77 m J 4,03 m P 13,49 m E 4,63 m Design Humphreys Yacht Design & ELAN Design | Genoa | |
| J 4,03 m P 13,49 m E 4,63 m Design Humphreys Yacht Design & ELAN Design | Genaker | 110,00 m ² |
| P 13,49 m E 4,63 m Design Humphreys Yacht Design & ELAN Design | 1 | 13,77 m |
| E 4,63 m Design Humphreys Yacht Design & ELAN Design | J | 4,03 m |
| Design Humphreys Yacht Design & ELAN Design | Р | 13,49 m |
| | E | 4,63 m |
| team | Design | Humphreys Yacht Design & ELAN Design |
| | | team |



4.2. DEFINITION OF DESIGN

ELAN E4 is designed and built in conformity with the requirements of the "A" ocean sailing" design category. The "A" category sailing yacht is designed and built for sailing in waves up to 7 m and winds up to 10 Beaufort, i.e. 55 knots, 28 m/s or 100 km/h. It has to be suitable for longer cruises, for instance ocean sailing as well as for coast sailing in the regions that are not protected against winds and waves for several hundred miles.

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

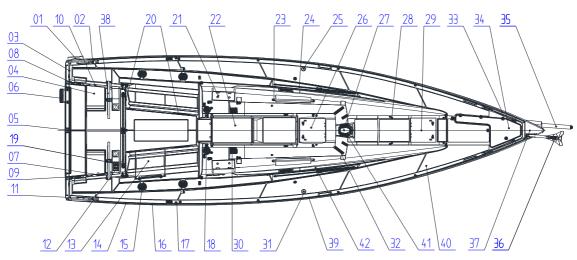


Figure 3

- 1. Horseshoe lifebuoy
- 2. Pad eye
- 3. Pushpit
- 4. Rudder bearing covers
- 5. Backstay system
- 6. Folding swimming ladder
- 7. Engine lever
- 8. Gas bottle compartment
- 9. Storage box
- 10. Hand operated bilge pump
- 11. Mooring cleats
- 12. Mainsheet track & system
- 13. Cockpit locker
- 14. Integrated toe rail

- 15. Winch 40.2
- 16. Life lines
- 17. Stanchions
- 18. Winch 35.2
- 19. Autopilot display
- 20. Cockpit portlights
- 21. Hatch
- 22. Sliding hatch
- 23. Grabrail
- 24. Genoa track & system
- 25. Fuel filler
- 26. Hatch
- 27. Mast deck ring
- 28. Bullseye

- 29. Escape hatch
- 30. Stoppers
- 31. Water filler
- 32. Organizers
- 33. Bow pulpit
- 34. Anchor storage cover
- 35. Sliding bow sprit
- 36. Anchor bow roller
- 37. Forestay fitting
- 38. Steering wheels
- 39. Chainplates
- 40. Anti-slip surfaces
- 41. Mastbase blocks
- 42. Custom glass portlights



| 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. |

5.2. 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.

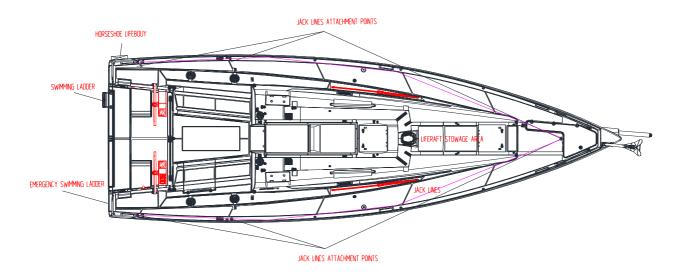


Figure 4

The provision for life raft storage is provided on the deck in front of the mast. The sailboat is equipped with swimming ladder and with emergency swimming ladder on transom as well. The swimming ladder is stored in the cockpit compartment and can be placed on the aft to allow reboarding..

WARNING:

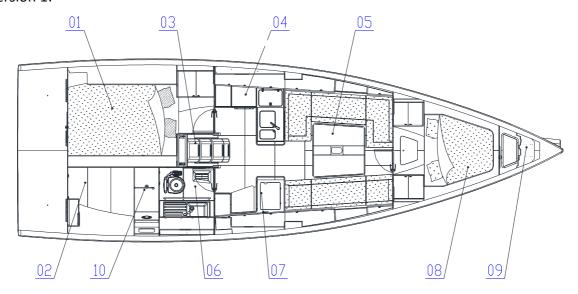
- If a life raft is fitted please strictly follow the instruction of liferaft manufacturer.
- It is recommended that the swimming ladder is placed on the aft when crew onboard during mooring and anchoring as well.
- Swimming ladder is a life saver and if in case somebody falls overboard, use the swimming ladder fitted on the aft or the emergency swimming ladder fitted on transom to climb back.



5.3. INTERIOR LAYOUT

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

Version 1:



Version 3:

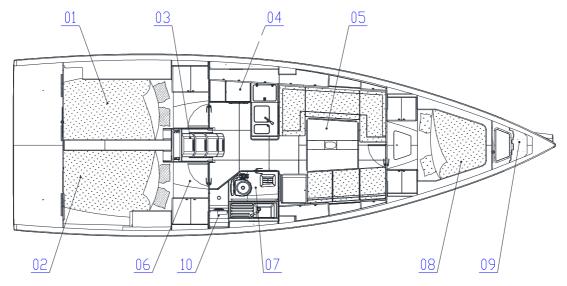


Figure 5

- 1. Aft cabin
- 2. Storage
- 3. Companionway / engine compartment
- 4. Galley
- 5. Saloon

- 6. Toilet
- 7. Navigation table
- 8. Forward cabin
- 9. Anchor locker
- 10. Wet locker



5.4. PROFILE

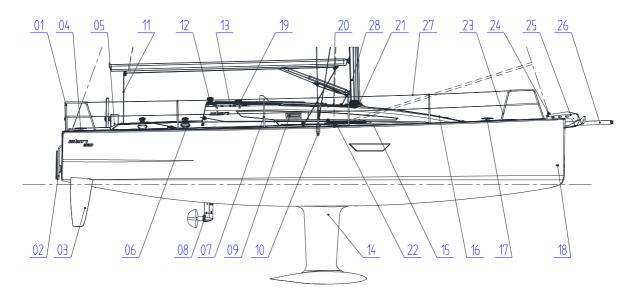


Figure 6

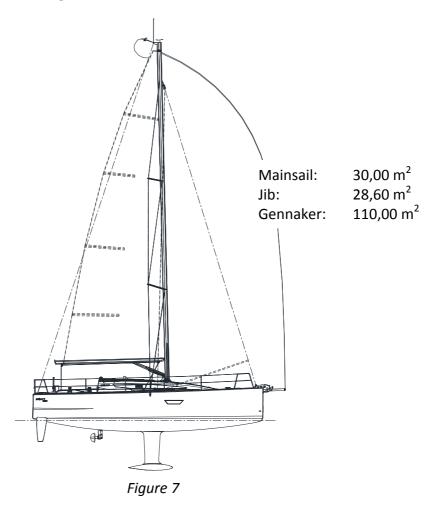
- 1. Pushpit
- 2. Folding swimming ladder
- 3. Twin rudders
- 4. Mooring cleats
- 5. Steering pedestal
- 6. Winch 40.2
- 7. Stanchions
- 8. Propeller Volvo
- 9. Custom glass portlight
- 10. Chainplates
- 11. Mainsheet system
- 12. Winh 35.2
- 13. Hatch
- 14. Keel

- 15. Integrated toe rail
- 16. Escape hatch
- 17. Mooring cleat
- 18. Anchor chain storage drainage
- 19. Stoppers
- 20. Hatch
- 21. Mast deck ring
- 22. Genoa track & system
- 23. Bow pulpit
- 24. Forestay
- 25. Anchor bow roller
- 26. Sliding bow sprit
- 27. Life lines
- 28. Keel stepped mast Selden



6. PROPULSION SYSTEMS

6.1. SAILS AND MAST



6.2. ENGINE SYSTEM

o.z. Erronitz oronzini

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 switch the main engine switch or turn-key when 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.



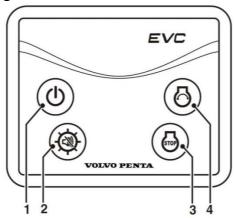
6.2.1. ENGINE OPERATION

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.



CAUTION: When sailing with inclination over 20 degrees, stop the engine.

All fuel capacity cannot be used. Make sure that the tank will be filled

over 10% of its capacity.

6.2.2. ENGINE AND PROPELLER INSTALLATION

The standard versions of the ELAN E4 are equipped with a VOLVO D1-30 engine – sail drive version. The engine runs on normal diesel fuel (D2). 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.

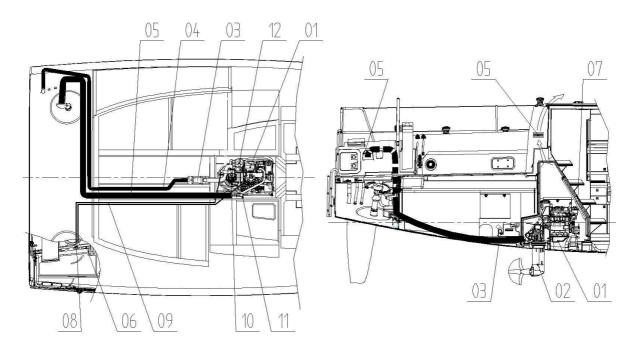


Figure 8

- 1. Engine Volvo D1-30
- 2. Sail drive gearbox
- 3. Exhaust waterlock
- 4. Exhaust hose
- 5. Engine room ventilation
- 6. Engine panel with engine stop
- 7. Fire extinguisher hole
- 8. Engine lever
- 9. Engine control cables
- 10. Sea water inlet seacock (on sail-drive)
- 11. Sea water air vent
- 12. 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 75 litres. The fuel tank is stowed under the port side saloon seat (see Fig. 9). Fuel tank is accessed from the saloon by lifting the settee 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.

CAUTION: The fuel tank is equipped with valves for conduits. When opening or closing the valves, lift the locking device.

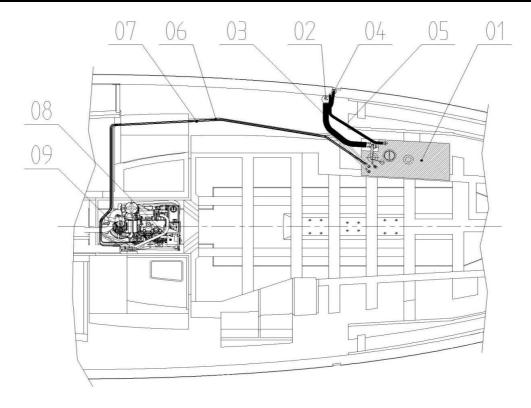


Figure 9



- 1. Fuel tank 90 l
- 2. Fuel inlet deck filler
- 3. Diesel tank inlet hose
- 4. Diesel air vent
- 5. Diesel tank air vent
- 6. Fuel line to engine
- 7. Fuel line engine overflow
- 8. Diesel engine D1-30
- 9. Diesel fuel filter

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.

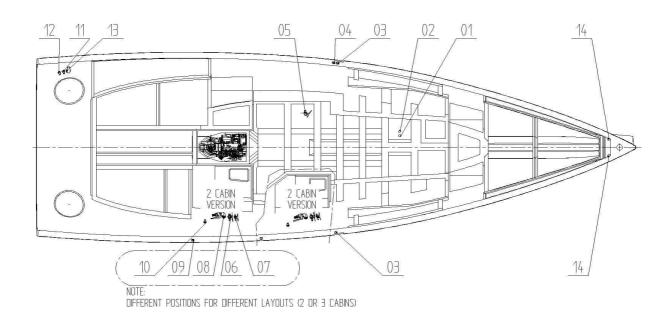


Figure 10

- 1. Depth sounder
- 2. Speedo meter
- 3. Through hull water tank air vent
- 4. Through hull diesel tank air vent
- Seacock galley sink waste water outlet
- Seacock toilet sink waste water outlet
- 7. Seacock toilet sea water inlet
- 8. Seacock toilet waste water outlet

- 9. Through hull waste tank air vent
- 10. Through hull shower bilge water outlet
- 11. Through hull electric bilge pump outlet
- 12. Through hull manual bilge pump outlet
- 13. Through hull engine exhaust
- 14. Through-hull Chain storage outlet

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.11-1 and 11-2). 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. |



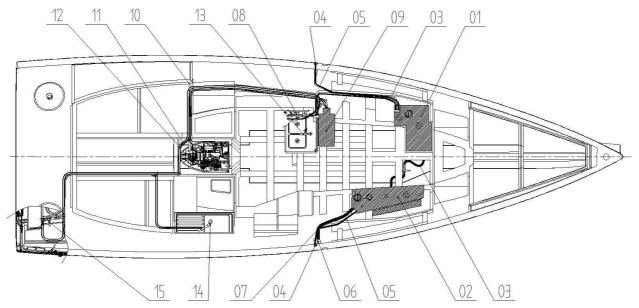


Figure 11-1

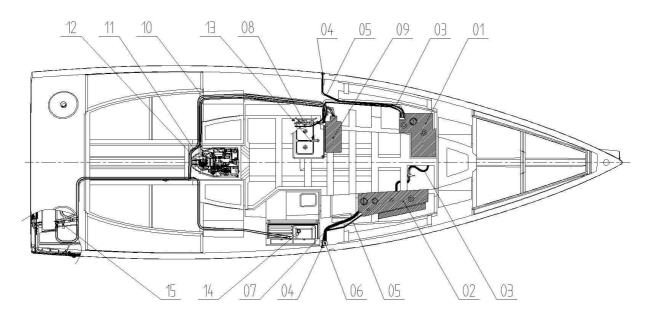


Figure 11-2

- 1. Fresh water tank port ~ 105 l
- 2. Fresh water tank stb ~ 95 l
- 3. Water tank connection
- 4. Air vent
- 5. Tank ventilation hose
- 6. Fresh water deck filler
- 7. Fresh water filler hose
- 8. Electric fresh water pump

- 9. Water heater
- 10. Engine to heater exchange
- 11. Cold water tube
- 12. Hot water tube
- 13. Galley mixer tap
- 14. Toilet mixer tap
- 15. Cockpit shower tap



7.2.2. HOT WATER SYSTEM

A separate hot water system leads hot water from the water heater (see Fig. 11-1 and 11-2) 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.

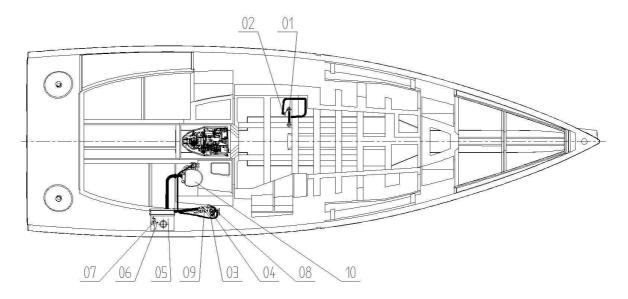


Figure 12-1



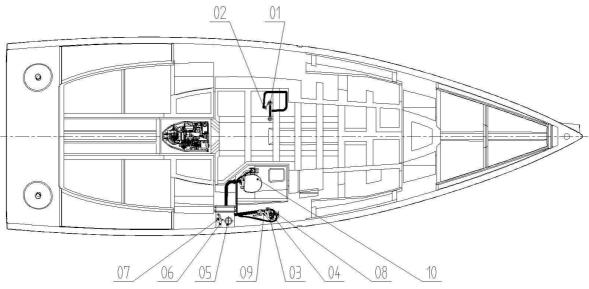


Figure 12-2

- 1. Galley sink outflow
- 2. Galley sink water seacock
- 3. Toilet sink outflow
- 4. Toilet sink water seacock
- 5. Waste water holding tank 70 l
- 6. Holding tank air vent
- 7. Waste tank dockside suction
- 8. Toilet sea water inlet seacock
- 9. Toilet waste water seacock
- 10. Manual toilet

| 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.

The boat in version 1 is also equipped with separate bilge pump with floating switch in the stovage compartment. The manual pump switch is located in stowage compartment near the fire extinguisher.



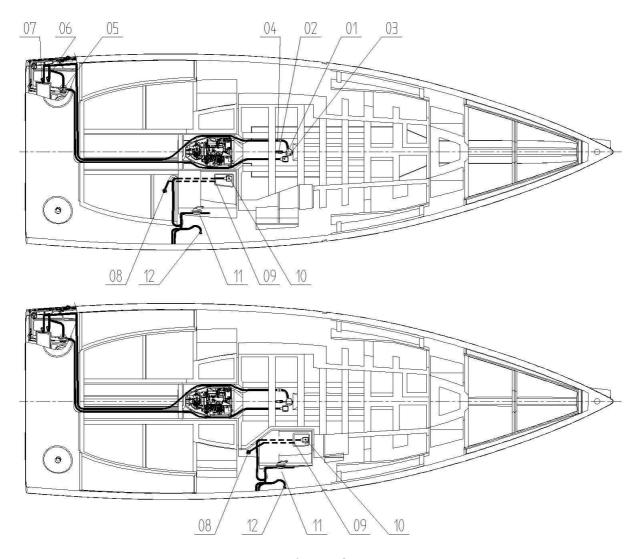


Figure 13

- 1. Retention bilge strainer
- 2. Retention bilge strainer with float switch
- 3. Electrical bilge water drain pump
- 4. Non-returning valve
- 5. Manual bilge water pump
- 6. Manual bilge pump outlet

- 7. Electrical bilge pump outlet
- 8. Wetlocker strainer
- 9. Wetlocker outlet
- 10. Shower bilge strainer
- 11. Manual shower drain pump
- 12. Shower bilge water outlet

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.

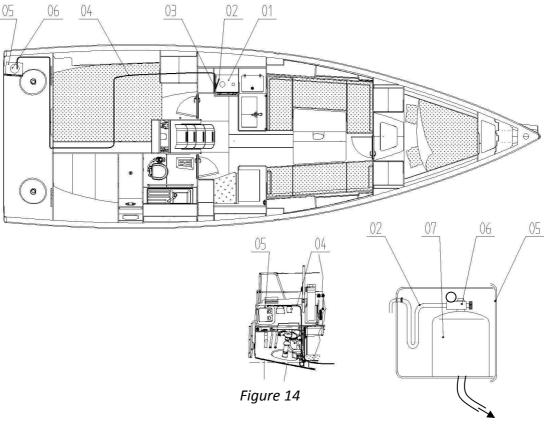
Switch on the bilge water pump switches on the control panel and check the operation of the bilge pump.

Follow 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 box under the port cockpit helmsman's seat (see Fig. 14).



- 1. Gas cooker
- 2. Flexible hose (in accordance with EN1763-1)
- 3. Gas valve
- 4. Copper tube (outside diameter 8 mm, wall thickness 1 mm)
- 5. Gas bottle compartment
- 6. Safety screw valve
- 7. Gas bottle
- 8. Gas compartment drenage

Close fuel 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

Test the LPG system regularly; 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 -40 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 replaced 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



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.

| 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:



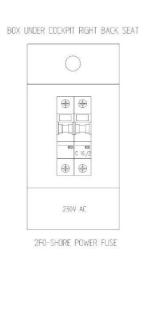


Figure 16



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

Sprache Anzeige I/%

Anzahl tanks

| Туре: | TCM 1 | TCM 2 | TCM 4 | TCM 4p |
|--------------------------|-------------|-------------|-------|--------|
| Number of tanks | 3 | 3 | 1-4 | 1-4 |
| Pouring sensor DFS | 0 | 1 | 0 | 1 |
| Tank sensors TGT/TGW/UTV | 3 | 2 | 1-4 | 1-3 |
| Measuring voltage | 2 batteries | 2 batteries | no | no |
| Consumption | 2 mA | 9 mA | 2 mA | 9 mA |

00

04

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

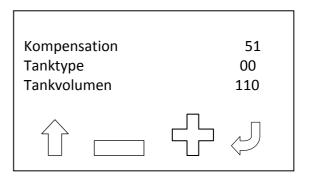
Tank settings:

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

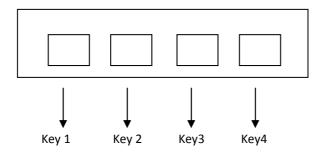
Tank type (1-4) for each tank there is a choice of five settings (see table)

| Tank type | | | | Magazzina instrument | Manauring range | Camananta | |
|-----------|------|-------|-------|----------------------|----------------------|-----------------|----------|
| 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.





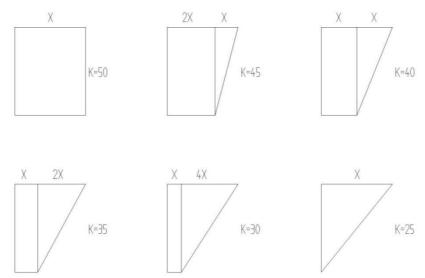
| Key 1 | Quick touch of the key Long touch of the key (cca. 5s) | Tank 1 settings |
|-------|---|---|
| Key 2 | Quick touch of the key | Tank 2 settings (if there are more tanks) |
| Key 3 | Quick touch of the key | Tank 3 settings (if there are more tanks) |
| Key 4 | Quick touch of the key Long touch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

Example:

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

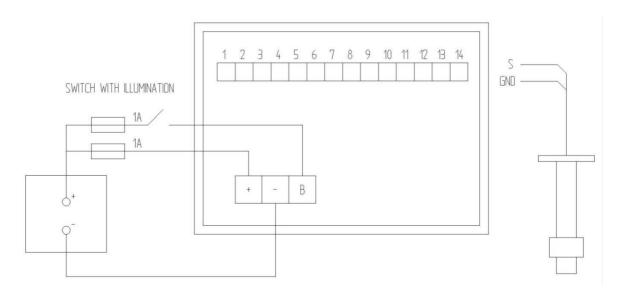
If we insert these values into the formula, the following compensation value is calculated:

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 1,5 mm and it is connected directly to the battery.



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 ELAN E4:

| ELAN E4 | Water tanks | Fuel tank | Waste water tank |
|--------------------|------------------|-----------|------------------|
| Volume (liters) | Port 90 litres & | 90 litres | 70 liters |
| | STB 95 litres | | |
| Туре | 05 | 21 | 22 |
| Compensation value | 47 | 50 | 43 |



7.7. RUDDER AND STEERING SYSTEM

The boat is fitted with two connected rudders consisting of a long aluminum shafts 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 twin wheel system.

WARNING:

In case of a defect of the mechanism, first remove the draglink, connecting two steering quadrant (see Fig.17 & 18).

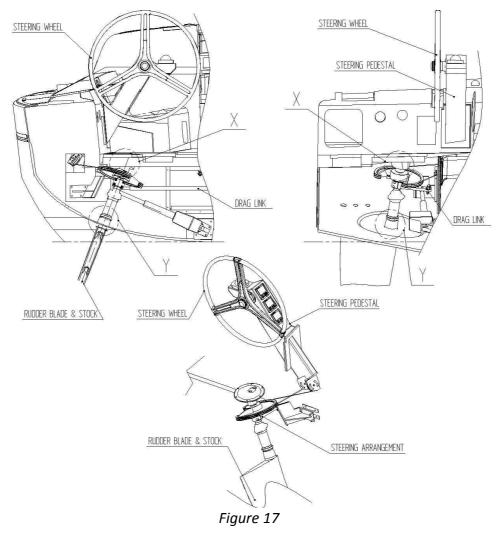
Any contact of the rudder with the ground can cause the blade to break or split or the shaft to bend. It requires immediate checking and consultation with an expert.

Do not let go the steering wheel when you navigate backwards. Self-turning of the rudder can damage the steering mechanism.

Recommended speed in reverse navigation 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.





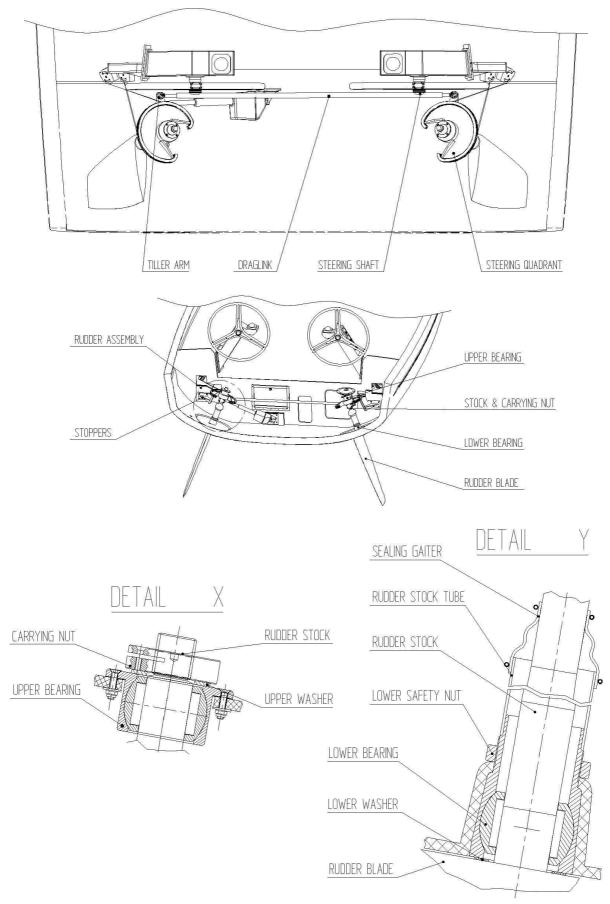


Figure 18



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

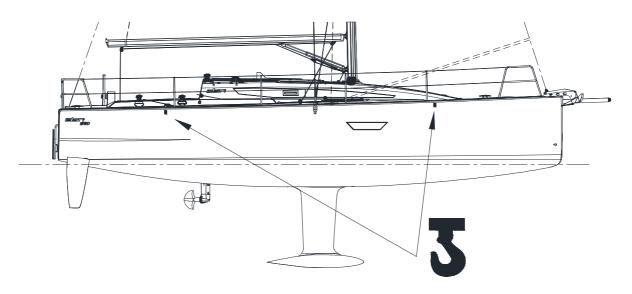


Figure 19

| 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 and | | |
| | transducers. | | |

| 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: | DO NOT clean teak deck with alcohol, acetone or gasoline or use teak |
|----------|---|
| | maintenance systems based on the afore-mentioned substances. |
| | DO NOT use for teak strong or aggressive cleaners and brighteners. |

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. | |
|----------|---|--|
| | 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

GRP 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.18).



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 fittings 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. | | | | |
|---|--|--|--|--|
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| • | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |
| | | | | |



12.1. WEBASTO HEATING SYSTEM V1 &V3

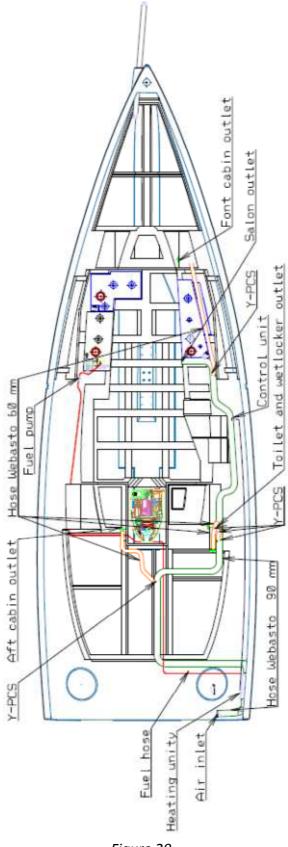
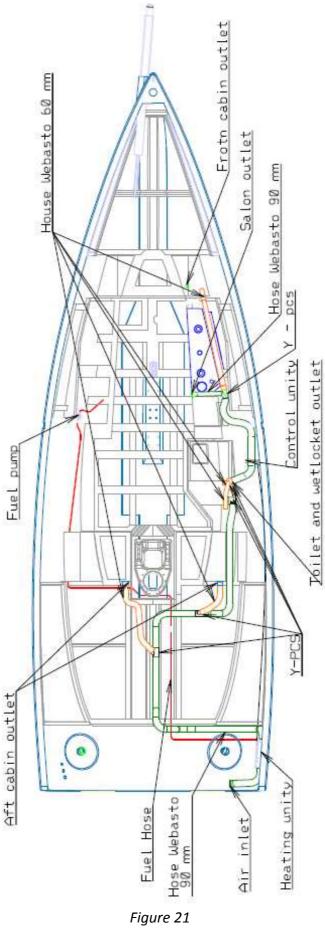


Figure 20







12.2. ELECTRICAL SYSTEM DRAWINGS

