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# X-37

**SPECIFICATION** 

# October 2003

**DESIGN: X-Yachts Design Group** 

# **DIMENSIONS & DATA**

Hull length	11.35	m	37.2	ft		
LWL	9.79	m	32.1	ft		
B. MAX	3.48	m	11.4	ft		
Standard draft	1.98	m	6.5	ft		
Shallow draft	1.70	m	5.6	ft		
Sport draft	2.30	m	7.5	ft		
Ballast – std. keel	2,715	kg	5,985	lbs		
Displacement - std. keel	6,400	kg	14,109	lbs		
Engine diesel	21,5	kW	29	HP		
SAIL AREAS standard - preliminary						

Mainsail	43.7	$m^2$	470.3	ft <sup>2</sup>
Genoa 1 135 %	42.9	$m^2$	461.8	ft <sup>2</sup>
Genoa 3 108 %	34.3	$m^2$	369.4	ft <sup>2</sup>
Self-tacking Jib	27.2	$m^2$	293.2	ft <sup>2</sup>
Spinnaker AP	106.8	$m^2$	1149.4	ft <sup>2</sup>

# **CE-CERTIFICATION**

All X-Yachts are built in accordance with the European CE-Certification and meet the requirements of the CE-directive 94/25/CE (category A –"ocean") for recreational crafts. One of the requirements the category defines is that a yacht must be designed to operate in waves of up to 7 m and winds of Beaufort force 10 or less.

The directive sets a minimum standard for: Hull and deck strength; structural bulkheads and stringer; keel and rudder and their attachment to the hull; safety and stability; engine and gas installation; sea-cocks, technical manuals and documentation for all

Furthermore, the yachts fulfil the standard of the ABS (American Bureau of shipping) Hull Certification that includes the hull, deck, keel, keel attachment to the hull, rudder, rudderstock and bearings as well as bulkheads and frames.

# HULL

major installations.

Hull and deck are built in a sandwich construction made up of isolatic polyester resin and biaxial E-glass fabric. Further reinforcements include particular positioned biaxial E-glass fabric in high stress areas. Core material is 15-20 mm compressed Divinycell® with a density of 80-100 kg/m³.

The sea cocks for the through hull fittings are made of bronze.

The white hull incorporates 3 identical coloured waterlines and a single recessed sheer stripe. The anti slip on the side decks is white.

Teak is laid on the cockpit floor, seats and on the bathing platform.

The hull and deck are bonded together using a special polyester resin and mechanically fastened in high stress areas e.g. pad eyes for sheeting of headsails etc.

#### **GRP Units**

The X-37 is developed to a very high and modern standard, incorporating features such as complete deck inner liner, integrated halogen light fittings and complete GRP head compartments including bilge in the floors.

# Structural bulkheads

Marine plywood is used, varying in thickness from 9-22 mm, securely bonded to both hull and deck.

### Keel

The keel consists of an antimony hardened lead bulb with a cast iron fin for high strength and low centre of gravity. The keel is protected with a layer of GRP and faired with polyester filler for improved effectiveness.

# Rudder & steering system

The rudder blade is a sandwich construction made from laminated biaxial fibreglass and 100 kg/m³ Divinycell®. The rudderstock is solid aluminium, tapered at both ends to keep weight to a minimum, and incorporating three welded wings for improved strength.

Roller bearings for the rudderstock achieve minimum friction and highest control, whereas the lower bearing is of the self-aligning type.

The wheel steering is a type Jefa consisting of a rack and pinion system connected to a quadrant that is securely fitted to the rudderstock.

The Jefa-wheel is 150 cm in diameter in stainless steel.

Optional a crash bar can be fitted with either a small or large instrument box. (See pricelist) The pedestal incorporates a SUUNTO D115K D=115 mm

black compass with a protective steel bar. The spare safety tiller fits on top of the rudderstock.

# **DECK**

### Chain plates

Two deck tip cups are fitted to a stainless steel tie rods under deck that are connected to the side stringers. For details on the head stay arrangement refer to mast & rig.

Stem head fitting/anchor roller incorporates: a base for bow pulpit, anchor roller for standard anchor (See "anchor equipment) and attachment eye for asymmetric spinnaker.

Navtec A10 hydraulic backstay pump incl. pump handle is mounted onto a chain plate.

Mounted on the deck are: 7 pad eyes for safety harnesses, sheets and pole downhaul.

#### Toe rail

A high quality teak toe rail is fitted with 2 stainless steel mooring cleats per side in addition to 8 stainless steel stanchion bases. The toe rail is 30 mm high from bow to mast and is reduced 20 mm from mast to stern. To protect the rounded sheer line, s/s chamfer rails can be mounted. (see extras).

At each mooring cleat, a s/s chamfer rail is fitted to protect the GRP hull and rounded sheerline.

#### Rail

The rail consists of a 4-legged s/s pulpit with conbined starboard and port navigation lights, two 3-legged s/s pushpits with stern light and flag holder and double s/s lifelines with turnbuckles. The height of the rail fulfils EC and ORC safety requirements.

#### Cockpit

Two shallow storage lockers in the mid cockpit; one starboard and one port side – one capable of housing a life raft (680x410x280).

Rope pockets at companionway.

Two further lockers are located at the back of the cockpit. Coamings angled for comfort.

# **Bathing ladder**

The s/s ladder is mounted on the transom.

# Mainsheet block system

The double purchase system is divided into a rough and a fine tune system:

Rough adjustment is a 1:4 purchase, the fine tune is 1:8 operated via a two cam cleat block located on the alloy mainsheet traveller track.

## Winch stoppers

Winch stoppers for halyards, reef, cunningham, vang and furling head stay line are placed on the cabin roof, 9 in total.

# Winches/Winch handles

The standard winch type is stainless steel made by Andersen.

Winches Standard

Primaries/genoa: 2 x Andersen 46 ST Halyards: 2 x Andersen 40 ST Electrical powered winches on request.

# Handles

1 x 10" Harken bi-handle with lock 2 x 10" Harken single with lock

### Sheets & ropes

Mainsheet rough adj.: 10 mm Spectra Mainsheet traveller control: 8 mm Polyester Genoa: 10 mm Spectra
Genoa cars control: 6 mm Spectra
Cunningham: 8 mm Polyester
Vang: 8 mm Polyester
Reefing lines (2): 10 mm Spectra
Outhaul: 8 mm Spectra

### Track system

The track system is from Frederiksen or similar quality. Tracks:

2 x 3,5 m track for genoa – specially extended for self-tacking jib track (see options)

1 x 1,60 m for mainsail

# Cars:

1 x ball bearing car for mainsheet

2 x genoa sliderod car, adjustable under load from the cockpit

2 x fixed guard blocks to winches

# **Anchor equipment**

A 13 kg galvanised Bruce type anchor with 30 m warp suitable for storage in the anchor locker.

The anchor can be upgraded to 15 kg stainless steel Bruce type. (See extras.)

The anchor winch Lofrans Project 1000 W can be added (see extras).

### Portlights & Hatches

Moonlight, Lewmar or similar chrome-polished, aluminium-framed portlights and hatches are fitted to the yacht. They provide pleasant natural lighting making the yacht light under the deck.

Fixed hull portlights have been integrated in the saloon.

# Portlights:

# Saloon

2 size 4 428x171 mm window per side 1 special 786x171 mm window per side

# Aft toilet (2 cabin version)

special 347x104 mm windows on port
 size 3 347x171 mm windows per side facing the

cockp

or

# Aft cabins

1 special 347x104 mm windows per side 1 size 3 347x171 mm windows per side facing the

cockpit

# Hatches:

The hatche in the saloon is fitted with Oceanair unit containing both flyscreen & blind. Owners and aft cabins are fitted white push button blinds or upgraded with flyscreen & blind. (See pricelist)

# Saloon

1 size 7 500x500 – R36 mm

# Owners cabin

1 size 5 435x435 – R36 mm 1 size 2 340x200 – R36 mm

# Forward head

1 size 2 340x200 – R36 mm

Hull portlights:

### Saloon

special size window per side with high impact resistant glass and white GRP frame on the inside

# Sliding hatch:

12 mm curved plexi glass protected by a GRP garage.

Washboard System:

 $2 \times 12$  mm plexi glass including lock in upper half that slides into U-shape alloy section.

# **MAST & RIGGING**

#### Mast

The double spreader, tapered anodised aluminium mast section is specifically designed for X-37. The mast is fitted with a furling head stay profile, Windex including light, steaming light, tube for additional electrical masthead equipment and track for spinnaker pole.

### Mast-collar

The mast-collar is integrated in the GRP deck structure. The stand-up mast blocks are mounted and secured to the deck structure.

#### **Boom**

The anodised aluminium boom incorporates an outhaul including a purchase system inside the boom and two reef lines for single line reef system.

The vang is a telescopic type with an outer purchase block system.

# Standing and running rigging

The standing rigging is a discontinued rod rig with SL rod turnbuckles.

The standard mast has:

Main halyard 10 mm Spectra 1 x genoa halyard 10 mm Spectra 1 x spinnaker halyard 10 mm Spectra

One additional halyard (spinnaker or genoa) can be fitted (see extras).

For storage of all ropes and lines two rope pockets are fitted in the cockpit.

# Furling head stay

The Furling head stay and drum are placed below deck with the furling line led back to the cockpit for easy handling.

All halyards, reef lines and control lines are led via deck organisers to the two halyard winches for simple and safe operation from the cockpit.

### **Blocks**

All blocks are Frederiksen or similar quality blocks.

- 8 blocks positioned at the mast for 3 halyards, 2 reef and 3 control lines.
- 2 deck organiser block systems for above halyards and lines.
- 2 fixed genoa sheet deflector blocks lead sheets to winches.

# **ENGINE**

A Yanmar 3YM30-S – 29 HP diesel engine mounted on rubber suspension with S-drive installation. The engine is run with freshwater cooling system.

The engine control panel is placed in a recess with a plexiglass for protection. It incorporates an rpm-meter, acoustic alarm for oil pressure and cooling water temperature as standard. The gear/gas lever arm is placed in the cockpit coaming.

# Fuel tank

Approx. 80-litre aluminium fuel tank with tank level

gauge, deck fill, separator including filter and shut off valve.

# **PLUMBING**

# Bilge/Bilge pumps

A central bilge is incorporated in the keel structure, which allows all water to be collected here and disposed of by using the electrical pump (manual switch on the switch board) or the hand operated pump positioned in the cockpit.

Two further bilge pumps service the heads/showers. An automatic pump is optional.

### Fresh water system

Hot and cold pressurised water system with stainless steel fresh water tank of approx. 172 litre capacity including a tank level gauge. Mixing water taps are fitted in the head and in the galley.

An additional water tank can be installed (see extras)

Shower with hot/cold freshwater at the bathing platform can be fitted (see extras).

A 20 litre hot water tank (80° C) is heated by a heat exchanger connected to the engine or it can be heated by an immersion heater connected to 220 V shore power.

# Sea water system - optional

A Shurflo pump can be fitted to supply seawater in the galley. (See pricelist)

# **ELECTRICAL INSTALLATIONS**

# 12V DC system

X-Yachts main switchboard includes 21 fuses, 3 analogue meters, one for monitoring actual voltage of service and engine battery bank, and two for monitoring actual level in fuel and water tanks.

The 12 V DC system also include a 12V DC plug that is located behind the electrical panel.

A 12 V DC system runs throughout the yacht. All cables are terminated in a "dry" GRP box fitted behind the electrical panel.

# Batteries:

1 x 12 V 120 amps Gel service and 1 x 12 V 55 amps engine spiral-cell battery.

# 230V AC shore power system

The shore power installation consists of a 10A shore power inlet plug in the cockpit. A 10A fuse box located in the aft locker.

A 230V AC distribution box with ground fault circuit breaker and 230V AC plug located at the navigation area. Battery charger, type Sterling 1230CE, and heating element in hot water tank are connected to 230V AC distribution box.

Further 230V AC plugs are optional (see extras).

#### Lighting

Below deck:

Throughout the cabins halogen lighting is provided for general purpose, reading, etc. An additional light is placed at the chart table.

8 general lights and 2 dome spotlights are integrated in the deck liner.

8 reading lights are placed throughout the aft cabins, saloon and forward cabin.

A light on a flexible cord is fitted at the navigation area.

#### Above deck:

Conbined bow lights (port/starboard), stern navigation light, steaming light in casing, a Windex and compass light are fitted.

# INTERIOR

The yacht's wooden interior is made of mahogany in a hand polished satin finish. All carpentry is carried out in accordance with best yacht practice, and the numbers of visible screws have been reduced to a minimum. The deck head liner has integrated dome halogen spotlights and Oceanair unit in the saloon hatch.

All windows are fitted with curtains except for the aft portlights in the coach roof where white push button blinds are supplied.

The floorboards are made from mahogany with contour lines, and allow access to the bilge, whereas the companionway steps are shaped teak with antislip lining.

The freeboard lining is made of white sky.

# Standard classic 3 cabin version

# Owner's cabin

The cabin has a large double berth (205x170/65 wide) and a seat (50 cm wide). For storage, the modern design incorporates a double wardrobe with shelves and hangers (50x60 cm deep) and space underneath the berth for sleeping gear. Natural light from the hatch and the skylight is employed to compliment the polished mahogoney woodwork, achieving a warm and cosy atmosphere, also during daylight. The freeboard lining is made of white sky.

### Aft cabins

Each aft cabin has one large double berth (200/190x 150/80 cm) and a wardrobe (65x60 cm deep) in stb. cabin and (80x60 cm) in port cabin with shelves and hangers. The open top shelve can be replaced in the starboard aft cabin with a sea berth with foam insulated canvas cloth hung on the freeboard with a 50 mm alloy tube. The freeboard lining is made of white sky.

### Head

The head has a water-flushed pump toilet and white gelcoat units with integrated sink with hot/cold water mixing tap/shower units. The head is equipped with s/s towel hooks and toilet paper holder. Mirrors are mounted on front opening lockers.

Holding tanks with tank level watch can be fitted with either a manual pump or electrical pump and deck outlet (see extras).

# **Engine compartment**

Situated between the two aft cabins, excellent access is provided by removing the side and opening the companionway stairs. The engine compartment is insulated with special foam material.

#### Saloon

On each side of the trapezoid shaped, foldable table (120x110/90 cm) are two large sofas (200 cm long). The table has also a built-in locker.

The upper cabinet sections on both starboard and port allows for storage of glasses etc.

#### Navigation area

To port of the companionway is the navigator's area that has ample space for navigation and communication equipment as well as the yacht's switchboard. Under the navigation table (95x70 cm deep) and in the alongside locker, charts and navigation equipment can be stored.

# Galley

The L-shaped galley on starboard has a 105 litres top opening GRP icebox with 100 mm insulation, cooled efficiently by a Coolmatic 85-refrigerator unit. Shelves, lockers with plexi glass sliding doors and 3 x drawers (18 cm wide) give ample storage space for food, plates, cutlery, pans, cups and glasses etc. Further storage is available under the navigation table and sofa. The freeboard lining is made of white sky.

For hotter climates we recommend the seawater-cooled Isotherm SP (see extras).

Twin stainless steel rectangular sinks (52x27 cm) with hot/cold water-mixing tabs are integrated in moulded vinylester gelcoat with granulated granite with base sand colour tabletops. (No other colour options available) The s/s gimballed gas stove has 2 jets and an oven. A 3 kg gas bottle is stored in the aft cockpit locker.

Gas detector alarm and electrical gas switch are optional (see extras).

#### Cushions

Cushions are made of high quality 40 kg/cm³ foam with a selection of different upholstery.

For standard upholstery, X-Yachts sample swatches are available on request.

Leather or Alcantara are available extras.

# Alternative interior layouts:

### Alternative A: Classic 2 cabin 2 head

The owner's cabin corresponds to the standard 3 cabin version yet it consists of one large aft cabin with a large double birth and wardrobe. Additionally, the open top shelf can be replaced with a sea birth. Furthermore, there is an aft head, similar to that of the forward head, but which stores a wet locker for drying of wet sailing gear.

## Alternative B: Classic 2 cabin 1 head

The aft accommodation corresponds to Alternative A. However, the owners' cabin has been enlarged to allow for a larger double birth, and two large double wardrobes to port and starboard, by the removal of the forward head.

Both Alternative layouts permit a large, forward cockpit locker on the port hand side.

# **ACCESSORIES**

# Fire extinguisher

2 dry powder fire extinguishers of 2 kg each are fitted throughout the yacht.

### **Fenders**

4 white air filled fenders with lanyards 2 polyester mooring rope 20 m x 14 mm

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