

5 July 2023 v28  
WEF 85-006

## **Fleming 85 - Pilothouse Motor Yacht**

### **SPECIFICATIONS**

Items shown in *blue italics* are specific to the “*enclosed flybridge*” version.

#### **GENERAL DESCRIPTION**

LOA (hull): 78' 5" (23.95m)  
LOA (including swim step  
and anchor platform): 85' 2" (25.98m)  
LWL: 72' 3" (22.05m)

Beam (moulded): 20' 6" (6.28m)  
Beam Max (Inc. guard) 21' 2" (6.48m)

Draft (half load): 5' 5" (1.69m)

Air draft - Open Flybridge:  
W/L to top of radar arch: 20' (6.10m)  
W/L to top of mast: 26' 6" (8.10m)

*Air draft - Enclosed Flybridge:*  
*W/L to top of radar arch: 20' (6.10m)*  
*W/L to top of mast: 26' 6" (8.10m)*

#### **Displacements:**

Open Flybridge:  
Minimum Operating Condition: 146,280 Lbs. (66,350 kg)  
Loaded Condition: 183,050 Lbs. (83,030 kg)

*Enclosed Flybridge:*  
*Minimum Operating Condition: 150,690 Lbs. (68,350 kg)*  
*Loaded Condition: 187,460 Lbs. (85,030 kg)*

Main Engines: Twin MAN V12-1550 HP @ 2,300 RPM

Transmissions: Twin Disc MGX 6599A with Quickshift  
electric shift, express, sync, and troll modes

Reduction Ratio: 2.48:1

PTO's Clutched C-Pad PTO on both transmissions

Engine Controls:	Twin Disc EC300 with Express Joystick System & Express Position System
Driveline:	Aqua Drive CV60 & HDL 780HT
Propellers:	Hung Shen S-Class, NiBrAl (42" D x P 32.5") 4 Blade. DAR 1.05
Generators:	Two Onan eQD 29 Kw 240v, 60Hz (European model 27Kw 230v 50Hz)
Stabilizers:	Humphree 16 sq. ft (1.5 sq. m) fins zero-speed, 24 vdc
Interceptors:	Humphree (Active Ride Control System)
Bow Thruster: Stern Thruster	Twin Disc BP600 82HP Hydraulic Twin Disc BP400 47HP Hydraulic
Fuel Tanks:	3,170 USG (12,000 Liters) in two FRP tanks
Water Tanks:	500 USG (1,900 Liters) in two Polyethylene tanks
Watermaker:	FCI Max-Q 1,850 GPD (290 LPH)
Black Water Tank: Grey Water Tank:	224 USG (850 Liters) in single FRP tank 224 USG (850 Liters) in single FRP tank
Monitoring System:	Fleming First Mate (FFM)

## **SPECIFICATIONS BY AREA OR GROUP**

### ***HULL***

Solid laminate construction below the waterline, commensurate for hull size, made in a female mold.  
Vacuum bagged cored laminate on topsides.  
Corecell foam used for construction on hull topsides  
High gloss gel coated finish in Polynt gel coat "Fleming White"  
Black gel-coated flared boot stripe  
Vinyl ester resin used for outer laminations up to the core.  
Simulated planking grooves on hull side  
Five coats of Pettit epoxy barrier coat below waterline  
Two coats of Black Pettit 1088 GA antifouling paint  
Underwater metals coated with 2 coats Pettit Epoxy Primer 4700, (and Pettit # 97 Epoxy Thinner) and 2 coats Pettit 1088GL Trinidad Antifoul  
Propellers, Shafts and Humphree stabilizer fins coated with Prop Speed  
Integrally molded guard with stainless-steel rub strip.  
Keel extends below running gear  
Keel space Corecell foam-filled and structurally laminated across top  
FRP Rudders in a NACA foil section with solid stainless-steel Aqualoy 22 Hi-strength stocks and stainless-steel webs  
Full-length stringers and athwartships frames FRP laminated over Corecell foam.  
Limber and drainage holes, of ample size, arranged to drain to lowest part of bilge  
Composite main structural watertight bulkheads for engine room, collision bulkhead and lazarette.  
Stainless-steel portlights with removable insect screens  
Stainless-steel keel shoe  
Cast NiBrAl alloy "I" struts made by propeller manufacturer.  
Shaft Tunnels – draft 5' 5" (1.69m) designed to suit each engine and propeller specification.  
Hull tunnel design is specific to standard or optional engine choice  
Moulded recessed opening for bow thruster tube for improved water flow  
Transom is flat below the swim step  
Hull construction plans certified by DNV.

### ***DECK, SUPERSTRUCTURE, FLYBRIDGE & ENCLOSED FLYBRIDGE CONSTRUCTION***

Cored vacuum bagged lamination for all parts made from female molds.  
Corecell construction used for all major parts.  
Longitudinal beams and athwartships frames FRP laminated over Corecell foam with wire pass throughs and pre-installed conduiting.  
High gloss gel coated finish in Polynt gel coat "Fleming White"  
Vinyl ester resin used for outer laminations up to the core for major parts.  
Small parts, such as hatches, standard polyester resins used for all laminations

Corecell and Coremat construction used for small parts.  
Window openings styled and designed for direct glazing of glass to superstructure and windshield, without exterior frames. Sika direct glazing method  
Soft patch access in the salon deck to allow removal of engines and equipment from the engine room.  
Non-skid gel coated pre-molded panels standard on forward cabin trunk, foredeck hatches, anchor platform and boat deck; panels glued in place.  
Mono-chrome cabin top color and anchor hatches; and beige color on boat deck and flybridge

## **EXTERIOR**

### ***STANDARD FEATURES COMMON ON THE EXTERIOR***

High gloss gel coated finish in Polynt gel coat "Fleming White"  
Teak decking on swim platform, aft cockpit, California deck, side decks, Portuguese bridge, and forward deck.  
Teak decking with Sika-Flex 290DC PRO deck caulking, vacuum bagged installation  
Teak decking approximately 5/8" (15mm) thick  
All stainless steel is AISI-316-L  
All handrails 316 polished stainless steel with all welds ground and polished  
Flooring panels for all exterior lockers with Dri-Deck Interlocking Flooring  
Stainless-steel trim around roofs, on forward teak cap rail, and guard rails  
Exterior door locks  
Hella LED navigation lights in accordance with relevant regulations, side lights to be mounted on black back recesses or boards  
Exterior seating (flybridge and California deck) with Quickdry foam, Sunbrella "Canvas Taupe" SJA 3729 137L upholstery and mesh backs for drainage.  
Perfix snaps to hold exterior cushions in place  
Lightweight overhead panels above California and side decks. Removable where required for access  
Courtesy LED "F" logo lights at all steps on the exterior  
Six Stainless Steel roller spring chocks per side (side and transom)  
Groco serviceable exterior sea strainers

### ***COCKPIT, AFT DECK, AND CALIFORNIA DECK***

Covered California deck with teak decking, seating, fixed composite cored teak table with stainless-steel pedestal legs.  
Counter tops in polished FRP  
Seats integrated into California deck  
Two docking control stations in cockpit (port & starboard corners) with EJS Joystick & EPS Display located in aft corners of combings  
Large composite lazarette access hatch, flush with teak deck, gaskets, lock, & gutters with drains.

Walk-in access to crew's quarters and engine room from California deck  
Cockpit with teak decking  
FRP fixed swim platform, with teak decking, stainless-steel rub rail and two fold-up cleats  
Three stainless steel removable rails on swim platform  
Stainless-steel telescopic/folding swim ladder under swim platform, can be deployed by swimmer.  
Wide teak coaming around cockpit and transom gate  
Transom FRP door opening inboard with Fleming stainless steel hinge-pole design and Seadog style latch  
FRP skirt inboard of teak cap  
Electric warping winches port & starboard with foot switch control buttons, with stainless protective guard  
Curved oval-section stainless-steel ladder to flybridge boat deck with teak treads  
Sliding doors to salon. Painted stainless steel and glass. 24v DC powered  
Hot & cold shower fittings on outside of transom adjacent to door, with quick release shower head and flexi hose  
Sea water 316 stainless-steel faucet valve and threaded for garden hose  
Fresh Water 316 stainless-steel faucet valve and threaded for garden hose.  
100 Amp Glendinning Cable Master  
50 Amp Glendinning Cable Master  
Overhead LED lighting with dimmer control over California deck.  
LED mood lighting under cockpit coaming skirt.  
Four 15" heavy duty stainless-steel cleats secured to backing plates inside bulwarks on hull side and transom  
Deck scuppers piped out through transom at boot stripe  
316 grade stainless-steel handrails across transom and cockpit  
CCTV Camera with full pan, tilt & zoom  
Stainless steel compression post to support flybridge boat deck  
Storage locker port side of California deck with hinged door.

## ***SIDE-DECKS***

Engine-room twin air intakes and single air discharge with moisture eliminators and fire dampers on house sides  
Wide side decks along both sides of boat with teak decking  
Stainless-steel CE-approved port lights with removable insect screens and deadlights Dedicated storage for both items  
316 grade stainless-steel handrails along house-side  
Teak rail cap on bulwarks  
Bulwark gates opening inboard with heavy-duty stainless-steel hinges and Seadog style latches and barrel bolts  
Built-in drop-down step to reach dock at side gates.  
Stainless-steel overhead lights  
Stainless-steel handrails at side deck steps.  
Steps to Portuguese Bridge deck with teak treads  
House side windows with tinted 8mm, double glazed, tempered glass. Direct glazed windows with moulded openings, without framing.

Two sets of spring-line roller chocks per side  
Three 15" heavy duty stainless-steel cleats per side, recessed into bulwarks  
Non-spill fuel fills in steps port and starboard, with custom stainless-steel "F" logo lids. Can fill both fuel tanks from either side  
Water tank fills and vents in recessed boxes on port & starboard sides of superstructure  
Waste tank pump outs in recessed boxes on port & starboard side of superstructure.  
Stainless-steel Fleming "F" Logo on port & starboard forward roof supports.  
Docking cameras (2.5mm lens) on port & starboard forward roof supports.  
Connected to Fleming First Mate System (FFM)

### ***PILOT-HOUSE DECK LEVEL – PORTUGUESE BRIDGE***

Portuguese Bridge  
Steps from side deck to Portuguese Bridge deck with teak treads  
Teak decking  
Teak rail cap  
Deck Prism – allowing natural light in lower deck accommodation  
Locker doors in aft face of Portuguese bridge, access to large vented storage with Dri-Deck flooring with storage for fenders and lines  
316 grade stainless-steel handrail around forward side  
316 grade stainless-steel handrails at side of pilothouse port & starboard of pilot house.  
Low profile pantograph pilothouse doors with waterproof seals  
Inward opening gates on Portuguese Bridge bulwark deck port & starboard  
Heavy duty pantograph self-parking wipers with screen wash on each windshield  
Forward facing windshields clear, 10mm, double glazed, tempered glass direct glazed windows with moulded openings, without framing.  
All windows are fixed.  
FRP hinged doors opening outboard port & starboard through Portuguese bridge to foredeck, with stainless-steel gas spring retainers and door holders.  
Galley cooktop and microwave vent on house side

### ***FOREPEAK***

Accessed through hatch with moulded monochrome non-skid on forward deck with gas strut support  
Starboard chain locker holds 500ft (152m) of ½" (13mm) chain  
Port chain locker holds 300ft (91m) of ½" (13mm) chain  
Anchor chains attached to bitter-end fitting via 3-strand nylon rope ¾" (18mm) diameter, with splice onto chain.  
Bitter end fittings  
Watertight collision bulkhead with sealed pass throughs for cabling  
Forepeak drains directly overboard with FRP clamshell cover.  
Hatch scuppers  
High gloss poly paint finish

Overhead LED DC waterproof light  
Access to hydraulic windlass motors  
Port & Starboard Chain wash solenoids  
Forward shorepower inlet circuit breaker (remote controlled)

### **FORWARD DECK**

Teak decking on walkways  
Non-skid panels with Polynt monochrome colored for hatches  
One CE approved flush composite skylight to forward cabin, can be opened from the outside (safety and escape hatch). With concealed hinges.  
Four vented deck lockers in cabin trunk. Locker lids  
Stainless-steel handrail on cabin trunk doubles as lifting handles for deck locker lids  
Teak rail cap on bulwarks increasing in width going forward.  
Stainless-steel stanchions to support stainless-steel oval handrail  
Deck lockers forward either side of anchor platform with white non-skid finish, with gas strut supports.  
FRP anchor platform with integrally molded white non-skid and two sets of stainless steel rollers  
Stbd hydraulically operated primary Maxwell RC12-12 windlass with pendant control, and control panel/chain counter at both stations (P/H & F/B)  
Port 24 vdc electric operated secondary Maxwell RC12-12 windlass with pendant control, and control panel/chain counter at both stations (P/H & F/B)  
Auto Anchor chain counters model AA 150 for both windlasses  
Two stainless-steel Ultra Anchors, with stainless-steel Ultra Swivel, Ultra Chain hook & strops  
Stbd anchor 220 lbs. (100 kg)  
Port anchor 176 lbs. (80 kg)  
500ft (152m) ½" (13mm) Grade-60 German made, stainless-steel chain  
300ft (91m) ½" (13mm) Grade-60 German made, stainless-steel chain  
Eight 15" heavy duty stainless-steel cleats  
316 grade stainless-steel pulpit.  
Smartplug shore power inlet for 240v, 60Hz, 50A (European model 230v, 50 Hz, 32A)  
Seawater 316 Stainless-steel faucet inside foredeck locker  
Fresh water 316 stainless-steel faucet inside foredeck locker  
Deck drains plumbed to boot-stripe to prevent black streaks  
Foot switches for chain wash system with stainless steel protective cover.  
Teak burgee pole  
Foldaway forward facing settee

### **OPEN FLYBRIDGE**

High gloss gel coated finish in Polynt gel coat "Fleming White"  
Non-skid panels with Polynt beige colored for standard flybridge deck nonskid.  
U-settee to starboard with hi-low /folding tables

Storage lockers in settee base with Bomar plastic hatches.  
Forward facing Stidd 1200 bench seat with surface mount pedestals at flybridge helm position. Mounted on FRP base, with storage cabinet underneath.  
Bulkhead mounted Stidd folding footrest  
Helm station to port with full engines & thruster controls, and large electronics console, with Ritchie compass (specify hemisphere)  
Docking stations port & starboard with EJS joystick and EPS display  
Forward facing bench seat starboard side, mounted on FRP base, with storage cabinet underneath.  
Hypro electro-hydraulic steering with destroyer-type wheel  
Rudder angle indicator  
Humphree control panel for stabilizers and interceptors  
Tinted Lexan polycarbonate venturi with stainless-steel frame  
FRP Radar arch and hardtop with LED lighting, and pre-wired for speakers.  
Two aft facing flood lights located at aft end of boat deck  
Removable composite panels for overhead with lighting.  
Solar Panels mounted on hardtop  
Flybridge cushions on settees with Quickdry i foam, Sunbrella "Canvas Taupe" SJA 3729 137L upholstery and mesh backs for drainage  
Cushion forward of starboard settee on flybridge  
Perfix snaps for attaching cushions  
Kahlenberg D-330 air horn with twin trumpets mounted on hardtop  
Kahlenberg P449-25 Compressor/reservoir, V-149K 24v Solenoid valve.  
Stainless-steel oval shaped railings with mid safety rail  
Stainless-steel safety rail by sliding hatch to pilothouse.  
Forward access to pilothouse through FRP sliding hatch and hinged varnished teak doors.  
Aft access from California Deck via stainless-steel watertight hinged hatch with stainless-steel custom safety handrails at top of curved ladder  
Fire system repeater alarm  
CCTV Camera with full pan, tilt & zoom, connected to monitoring system  
15" color touch-screen monitoring system including MAN engine instrumentation  
Dri-Deck flooring in storage areas and under seating  
Two 24v to 12v DC-DC converters with 12v battery back-up system.  
Low level courtesy LED lights with "F" logo.  
Texas Pit Crafters gas BBQ aft of port seating, with low profile lid  
Entertainment center port side with granite countertop, undermount stainless steel sink, Isotherm drinks fridge, Isotherm freezer and Isotherm icemaker.  
Storage cabinets and slide out shelves  
Dedicated slide-out gas locker  
Dumb waiter upper access

### **ENCLOSED FLYBRIDGE:**

*High gloss gel coated finish in Polynt gel coat "Fleming White"  
L-settee to starboard with hi-lo sliding table*



*Two Stidd 500XL low back luxury helm seats with chrome package, footrest, drink holder, and black Ultraleather upholstery*  
*Helm station on centerline with full engines & thruster controls, and large electronics console, with Ritchie compass (specify hemisphere)*  
*Docking stations port & starboard with EJS joystick and EPS display mounted on FRP docking station*  
*Navigation table with seat and storage to port.*  
*Hypro electro-hydraulic steering with destroyer-type wheel*  
*Rudder angle indicator*  
*Humphree control panel for stabilizers & interceptors*  
*House and aft side windows with tinted 8mm, double glazed, tempered glass.*  
*Direct glazed windows with moulded openings, without framing.*  
*Forward facing windshields clear, 10mm, double glazed, tempered glass*  
*direct glazed windows with moulded openings, without framing.*  
*All windows are fixed.*  
*Heavy duty self-parking wipers and screen wash on each windshield*  
*Demister blower on forward facing windows with fan speed control*  
*Solar panels mounted on roof of Enclosed Flybridge*  
*Flybridge Cushions on settees with Quickdry foam, Sunbrella "Canvas Taupe" SJA 3729 137L upholstery and mesh backs for drainage*  
*Perfix snaps for attaching cushions*  
*Kahlenberg D-330 air horn with twin trumpets mounted on roof of Enclosed Flybridge*  
*Kahlenberg P449-25 Compressor/reservoir, V-149K 24v Solenoid valve.*  
*Stainless-steel oval shaped railings with mid safety rail around boat deck*  
*Stainless-steel safety rail by sliding hatch to pilothouse.*  
*Fire system repeater alarm*  
*CCTV Camera with full pan, tilt & zoom, connected to monitoring system*  
*15" color touch-screen monitoring system including MAN engine instrumentation*  
*Dri-Deck flooring in storage areas and under seating*  
*Two 24v to 12v DC-DC converters with 12v battery back-up system.*  
*Low level courtesy LED lights with "F" logo.*  
*Kenyon "Texan" electric BBQ aft of Enclosed Flybridge bulkhead*  
*Aft hinged door to boat deck, stainless steel painted with glass window*  
*Low profile pantograph pilothouse doors with waterproof seals*  
*Stairs down to raised galley*  
*Staircase with full height vertical handrail*  
*Entertainment center port side with granite countertop, undermount stainless steel sink, Isotherm drinks fridge*  
*TV cabinet with universal mount at starboard settee outboard up to 55" TV with powered TV Lift (TV not included)*  
*Storage cabinets and slide out shelves*  
*Dedicated slide-out gas locker*  
*Teak and holly soles*

## **BOAT DECK FOR OPEN FLYBRIDGE AND ENCLOSED FLYBRIDGE**

Non-skid panels with Polynt beige colored for standard flybridge deck nonskid.  
Integrated deck drains with gutter system  
316 grade stainless-steel handrails  
2,200 lbs. (1,000 kg) capacity davit with powered luffing, hoisting, telescopic boom, and rotation, with wireless remote control for davit  
GFCI 110v AC outlet (European model 230v RCD protected)  
Aft access from California Deck via stainless-steel watertight hinged hatch with stainless-steel custom safety handrails at top of curved ladder  
Fresh Water 316 stainless-steel faucet  
Removable stainless-steel saddles for tender rails (supplied loose).  
Backing plate located inside deck for tender tie down  
Teak flag pole with internal stainless-steel reinforcement  
Docking station aft port end of boat deck with EJS Joystick and EPS display

## **TECHNICAL SPACES**

### **LAZARETTE (ACCESSED FROM COCKPIT)**

Accessed through single large light weight composite hatch in cockpit  
Hypro Marine Steering gear  
Hypro Marine hydraulic power pack on anti-vibration mounts with FRP drip tray  
Rudder and steering components; rudder bearings, tiller shelf, rudder indicator sensor  
Access to underwater lights  
Stainless-steel deck and hatch scuppers with removable strainers.  
Hull finished with gloss white polyurethane paint, faired and brush/roller painted.  
LED DC overhead lights  
King Star Board, grey, diamond patterned platforms and sole boards with stainless-steel lifters.  
100 amp Cable Master  
50 amp Cable Master  
Aft shore power inlet circuit breakers (Port & Starboard) remote controlled  
Sound dampening tiles installed on top of prop tunnels  
Submersible bilge pump Rule 3700 gph flow rate  
High bilge water level alarm  
Watertight bulkhead with sealed pass throughs for electronics and communication cabling  
Escape hatch from crew's quarters  
Spare parts storage bins stored on shelves.  
Twin Disc 47HP Stern Thruster and associated hydraulic components  
Humphree Interceptors

### **MACHINERY SPACE (ACCESSED FROM FORWARD LOBBY)**

Accessed via floor hatch in forward lobby with gas strut hatch supports.  
Air-conditioning – part of chiller system 18,000 BTU

540 USG (2,000 liters) total capacity in 2 high density polyethylene (HDPE) freshwater tanks with sight gages, port and starboard  
Fresh water tanks isolation valves  
Twin 24v DC freshwater pumps,  
Freshwater fill hose – Vetus FDA approved  
Freshwater vent and supply hose – FDA approved  
Fresh water system (debris) filter  
Two Hot water heaters  
Safety mixer valve on hot water outlet  
FRP moulded Black water tank 224 USG (850 liters)  
Two heavy duty, 24v DC, black water discharge pumps (2).  
FRP moulded Grey water tank 224 USG (850 liters)  
Heavy duty, 24v DC, grey water discharge pump (1)  
Johnson grey water sump boxes for sinks, showers and aircon condensate (5)  
Heavy duty, 24v, Sea water pump, with accumulator tank (1)  
Twin Disc 82HP Bow Thruster and associated hydraulics  
Windlass hydraulic manifold  
AC (LED) and DC (LED) lighting  
Submersible bilge pump Rule 3700 GPM flow rate.  
High bilge water level alarm  
16Kw pure sine wave Inverter system 240v/120v (Four stacked 4,000 watt Inverters with auto-transformer) and by-pass system  
Li-Ion House battery bank (1,400 A/H's @ 24v)  
Four 100 amp 24v battery chargers  
12kw and 24kw Iso-Boost transformers and shorepower combiner system, 150 amp output  
Fireboy detection and suppression systems dedicated for Machinery Space  
Heavy duty sound insulation covered with perforated aluminum silver protective covering for overhead soles and hatch.  
Equipment mounted on anti-vibration mounts  
Sump pump to clear keel sump recess  
Air conditioning – Cruisair Titanium variable capacity chilled water system for all cabins, salon, pilothouse, crew quarters, engine room and machinery space- 216,000 BTU  
CCTV Camera with full pan, tilt & zoom feature connected to FFM monitoring system  
King StarBoard, grey, diamond patterned platforms and FRP sole boards with stainless-steel lifters.  
Tru-Design composite thru hulls and fittings  
Tru-Design composite monitored ball valves for both black water tank pump discharges; and for grey water tank discharge.  
Tru-Design composite monitored ball valves for seawater pump inlet

## **ENGINE ROOM (ACCESSED FROM CREW QUARTERS)**

Full standing headroom  
Accessed from California Deck via stairs  
Watertight, airtight, engine room access door with dog down latches and viewing port  
MAN V12-1550 Engines  
MAN primary fuel filters with water in fuel sensor  
Racor 75/1000 MAX duplex primary fuel filters, with changeover valve and vacuum gage  
Electric fuel priming pumps for main engines  
Reverso CFS-1000 Fuel polishing system with transfer capabilities  
Fuel management panel with choice of fuel supply and returns  
Stainless steel, carbon coated exhaust riser with water injection spray ring  
Aquadrive CV Joints and thrust bearings  
Fiberglass engine drip pans with LED lighting  
Twin 29Kw 60Hz Onan eQD generators (27Kw, 50Hz European model)  
Double platform anti-vibration soft mounts for genset  
Generator exhaust system with muffler and water/gas separator.  
Submersible bilge pump Rule 3700 GPH flow rate.  
High bilge water level alarm  
Sump pump for mini pump to clear keel sump recess:  
Crew quarters water heater  
Fireboy fire detection and suppression system with auto engines/genset/blowers/dampers shutdown system  
Automatic engine room ventilation system with moisture eliminators, fire dampers and air circulation fans  
Humphree 24v DC stabilizer actuators & associated controls  
Engine/generator start batteries – Lifeline AGM type GPL-8DL (4)  
Fire retardant FRP fuel tanks (2) 3,170 USG (12,000 liters) total capacity, with sight gages, and fireproof coating  
Heavy duty sound insulation covered with perforated aluminum silver protective covering.  
Equipment mounted on anti-vibration mounts  
Arctic Steel sea water intake strainers for engines, gensets, aircon, and all seawater intakes including external scoop strainers where required  
Bilges painted with glossy white poly paint  
Hinged shaft covers  
FRP platforms and diamond pattered sole boards with stainless-steel lifters.  
AC (LED) and DC (LED) lighting  
110v GFCI electrical outlets (European model 230v RCD protected)  
Stainless-steel mirror finished engine stringer caps  
Air-conditioning – part of chiller system 18,000 BTU  
Two CCTV cameras with full pan, tilt & zoom connected to monitoring system  
Two Delstar 200 amp 24v heavy duty, brushless, auxiliary alternators  
Two 24v 15-amp battery chargers, one for each engine/genset battery bank  
Watertight bulkhead with sealed pass throughs for electronics and communication cabling  
Work bench with stainless steel top and storage drawers and lockers port side  
Twin Disc Hydraulic oil tank with plumbing and fittings.

FCI Max-Q 1826 watermaker with auto freshwater flushing system and touchscreen remote panel in pilothouse. 1850 gals/day (7,000 LPD)  
Stainless steel handrails port and starboard attached to deck head along length of engine room and around front, and aft, of both main engines

## **INTERIOR**

### **GENERAL**

Accommodation with three ensuite staterooms & a crew cabin  
Teak and holly soles throughout – hand-laid solid timber  
LED recessed lighting throughout  
LED mood rope lighting  
Powered Ocean Air pleated blinds for salon and master cabin and master head windows  
Ocean Air pleated blinds in pilothouse, guest staterooms and heads  
Synthetic leather headliner – “Fleming White” throughout interior  
All interior lights, locker pulls and hinges to have polished stainless-steel finish  
Arcadia style teak panels on all cabinet doors and drawers throughout (including crew cabin)  
Arcadia style teak panels on all cabin doors  
Headroom 6’ 6” (1.97m) minimum throughout  
Interior seating, sculptured foam and upholstered with standard beige fabric.  
FFM touchscreen control panels in each cabin and area. To control lighting, air conditioning and blinds.  
Vimar AC outlets with black chrome faceplates.  
Recessed AC & USB outlets  
All drawers constructed with dovetail joints  
Interior bulkheads and partitions feature sandwich construction of plywood, dampening sheet, and lead foam sound insulation.  
All interior doors with arched design and gaskets on door frames.  
Teak joinery with vertical grain and satin varnish hand-rubbed finish for all furniture and soles.

### **PILOTHOUSE**

Chart table with double-guide drawers and stops  
Chart light on flexible arm  
Overhead and lower consoles with ample space for full range of electronics  
Backlit electrical panels  
Fleming First Mate (FMM)- monitoring system with 15” color display screen on lower console – See systems section for detailed description  
Twin Disc EC300 electronic engine controls  
Twin Disc EJS Joystick and EPS control panel  
Twin Disc bow & stern thruster jog lever control panel  
Humphree control panel for stabilizers & interceptors  
Two Stidd 500XL low back luxury helm seats with chrome package, footrest, drink holder, and black Ultraleather upholstery

Remote control unit for FMM monitoring system  
L-settee on raised platform with large teak table with storage locker underneath  
Cushion for In-fill pilothouse berth  
Recessed door to close off pilothouse (from salon)  
Stairs down to galley, and up to flybridge  
Staircase with full height vertical handrail to forward accommodation  
File drawer with heavy duty stainless-steel sliders  
Windshield glass, clear, double glazed, tempered, 10 mm thick with direct glazing  
Speich self-parking, heavy-duty windscreen wipers with multi-speed/intermittent controls & freshwater wash on forward-facing windows  
Engine instruments displayed on 15" color touchscreen screen on lower console with dedicated space for autopilot control  
Destroyer type steering wheel  
Back-up steering control panel with back-up rudder angle indicator  
Ritchie Compass with light & dimmer (specify required hemisphere)  
Demister blower on forward facing windows with fan speed control  
Wiring routes to facilitate equipment installation to flybridge, radar arch and engine room  
LED red and white dimmable bridge lights in upper console  
Generator digital control & display panels with start/stop  
Windlass control panel with up/down switches & chain wash on/off push buttons  
Fire system remote panel with override switch  
Bilge and sump pump Auto/On/Off control rocker switches on advisory panel  
Pre-wired for data and entertainment systems.  
Dimmer for instrument lighting  
Main engine sea water flow alarms  
Synthetic suede fabric on upper surface of consoles – charcoal grey  
Smoke detectors inside pilothouse and flybridge consoles.  
Sconce lights with shades  
Exterior pantograph pilothouse doors port and starboard  
Recessed AC outlets and USB sockets

## **DAY HEAD**

Located in adjacent to the Pilothouse.  
Porcelain undermount wash basin in Engineered stone countertop  
Locker and medicine cabinet with mirror  
Tecma toilet  
Intake and discharge head vent fans  
Air-conditioning outlet  
110v AC GFCI outlet (European model 230v RCD protected) mounted in protected location  
Teak and holly wood soles  
Fixed frosted glass window with Fleming "F" logo (for Open Flybridge)

## **GALLEY OPEN FLYBRIDGE**

Engineered stone countertops with teak lee rails  
Under-mount stainless-steel sink  
Insinkerator waste disposal unit with air switch control  
Instahot dispenser for instant hot and cold filtered water  
Miele oven  
Miele 18" wide dishwasher  
Convection over-the-range microwave oven with cooktop overboard vent  
Refrigerator/freezer  
Slide-out trash bins  
Miele three-burner Induction cooktop  
Custom removable stainless-steel pot holders  
Ample drawers and lockers with slide out pantry unit.  
Overhead storage lockers with hinged doors  
Storage cabinet under sink with automatic LED lighting  
Designer swivel faucet with removable spray head  
110v AC GFCI outlets (European model 230v RCD protected)  
Powered dumb waiter lower access

### ***RAISED GALLEY (ENCLOSED FLYBRIDGE VERSION)***

*Engineered stone countertops with teak lee rails  
Under-mount stainless-steel sink  
Insinkerator waste disposal unit with air switch control  
Instahot dispenser for instant hot and cold filtered water  
Miele oven  
Miele 18" wide dishwasher  
Convection over-the-range microwave oven with cooktop overboard vent  
Refrigerator/freezer  
Slide-out trash bins  
Miele three-burner Induction cooktop  
Custom removable stainless-steel potholders  
Ample drawers and lockers with slide out pantry unit.  
Overhead storage lockers with hinged doors  
Storage cabinet under sink with automatic LED lighting  
Designer swivel faucet with removable spray head  
110v AC GFCI outlets (European model 230v RCD protected)  
Raised dinette with teak dinette table  
Island with storage and appliances  
Stainless Steel swivel foot stools*

### **SALON**

Fixed double glazed windows in house sides with medium grey tinted, tempered, glass 8mm thick, direct glazing.  
TV cabinet with universal mount at starboard settee outboard up to 55" TV with powered TV Lift (TV not included)  
Staircase to master cabin.  
Straight settee to port

Teak coffee table, fixed height with storage locker under  
Straight settee to starboard with dining table with teak pedestal legs.  
Bar cabinet with Engineered stone counter, fridge, icemaker, and bottle storage in port aft corner  
Wine cooler in starboard cabinet opposite galley  
Synthetic leather headliner – “Fleming White” with teak decorative trim  
Aft sliding doors open to covered California deck at same level as salon  
Overhead LED lighting on dimmers incorporated in control panels  
Pre-wired for table lamps at end of settees.  
Recessed AC outlets and USB sockets  
Teak valance over windows with LED rope lighting  
Large removable hatch to allow for engine & equipment removal from engine room.  
Diffusers in soffits port & starboard for air conditioning  
FRP sandwich with honeycomb composite sole base  
Sconce lights with shade  
Air intake shafts from exterior louvers (with fire dampers) to engine room, constructed to blend into interior construction.

### ***SALON / DINING ROOM (ENCLOSED FLYBRIDGE VERSION)***

*Straight settee to starboard with side tables and storage  
L settee to port with side tables and storage.  
Teak coffee table to port, fixed height with storage locker under  
Teak Dining Table with 6 Fleming Dining chairs*

## **ACCOMMODATION DECK**

### **GENERAL**

Bulkheads with teak paneling to waist height with synthetic leather – “Fleming White” above, with teak chair-rail trim at join  
Beveled-edge European sourced mirrors  
LED overhead lighting on dimmers  
Pre-wired for power and entertainment system  
All staterooms ensuite  
Hanging lockers with LED auto-light and louvered doors  
CO detectors installed in all cabins and salon  
Smoke detectors installed in all cabins, pilothouse, machinery space, engine room and consoles.  
Interior bulkheads and partitions feature sandwich construction of plywood, dampening sheet, and lead foam sound insulation.  
Arched interior doors  
Door stops and magnetic holders.  
Custom stainless-steel fold down bookshelf fiddles  
Cabin and head doors with gaskets  
Recessed AC outlets and USB sockets



Chilled water air conditioning throughout interior. Each ensuite head with ducted air conditioning

## **HEADS AND SHOWERS**

Intake and discharge head vent fans  
FRP/PU shower enclosures with glass and stainless-steel partitions and door  
Engineered stone shower pans with drains below.  
Temperature and pressure-compensated shower mixer valves  
Engineered stone countertops with under-mount ceramic basins and designer faucets  
Medicine cabinets with beveled-edge European sourced mirrors  
Stainless-steel heated towel rails with thermostat control  
Tecma heads  
Holding tank full indicator  
110v AC GFCI outlet (European model 230v RCD protected) mounted in protected location

## **FORWARD LOBBY FOR STANDARD LAYOUT**

Reached from pilothouse via generous curved staircase.  
Full height vertical stainless-steel handrail.  
Access doors into master, VIP and guest staterooms  
Hatch to forward machinery space in lobby sole.  
Storage lockers, shelves and linen locker  
Miele Washing machine and Miele Dryer located side by side on raised shelf, with storage cabinet

## **MASTER STATEROOM**

Full beam layout  
Stainless-steel CE-approved port lights (4) with removable insect screens and deadlights. Dedicated storage for both items  
Direct access to owner's stateroom from Salon, and through the Forward Lobby  
Tapered King-sized bed with powered lift and storage under  
Foam mattress with beige fabric covering  
Upholstered headboard  
Teak night stand lockers either side of bed  
Walk-in closet with twin hanging lockers and storage drawers; Teak faced with double louvered doors and automatic interior lights  
Settee on port side with storage under  
LED rope lighting under bed  
TV space on bulkhead (for 55" TV).  
Drawers with center guides and stops  
Beveled-edge European sourced mirrors  
Doors with Arcadia style teak panels with arched top

Bulkheads with teak to waist height and synthetic leather – “Fleming White” above, with teak chair-rail trim at join  
Berth LED reading lights.  
CO detector  
Smoke detector  
Vanity/desk on starboard side with upholstered chair  
Custom stainless-steel fold down bookshelf fiddles  
Powered Ocean Air pleated blinds for portlights  
Synthetic leather headliner – Fleming White

## **GUEST STATEROOM - PORT**

Available with twin beds or one double  
Stainless-steel CE-approved port lights with removable insect screens and deadlights. Dedicated storage for both items  
Hinged door to en-suite head  
Hanging locker with louvered door & auto-light.  
110v AC outlets (European model 230v RCD protected)  
Foam mattresses with beige fabric covering  
Upholstered Headboards  
Berth LED reading lights  
LED Rope lighting and drape tracks at portlight openings.  
Full height beveled-edge European sourced mirror  
CO detector  
Smoke detector  
Custom stainless-steel fold down bookshelf fiddles  
TV space on bulkhead (for 32” TV)  
Doors with Arcadia style teak panels, with arched top  
Bulkheads with teak to waist height with synthetic leather – “Fleming White” above, with teak chair-rail trim at join  
Ocean Air pleated blinds for portlights

## **VIP STATEROOM - FORWARD**

Available with V-Berths or one double berth  
Tapered queen-sized bed with powered lift and manual slide, with storage under. Steps either side of bed for easy access.  
Retainer device for sliding bed securing knob  
Foam mattress with beige fabric covering  
Upholstered Headboard  
Stainless-steel CE-approved port lights with removable insect screens and deadlights. Dedicated storage for both items  
CE approved skylight providing light, ventilation, and emergency exit; telescopic escape ladder provided with dedicated storage in hanging locker.  
Oceanaire powered insect and black-out screen for skylight  
Teak lockers either side of bed  
LED Rope lighting under bed and steps

Two hanging lockers. Teak faced with double louvered doors and automatic interior lights  
TV space on bulkhead (for 32" TV)  
Drawers with center guides and stops  
Beveled-edge European sourced mirrors  
Doors with Arcadia style teak panels, with arched top  
Bulkheads with teak to waist height with synthetic leather – "Fleming White" above, with teak chair-rail trim at join  
Berth LED reading lights.  
CO detector  
Smoke detector  
Escape ladder stored in hanging locker  
Ocean Air pleated blinds for porthlights

## **CREW'S QUARTERS**

Accessed from aft lobby via starboard side stairs from CA deck  
Twin cabin with queen to port and single berth to starboard with night shelf adjacent to each berth. Stainless-steel CE-approved port lights with removable insect screens and deadlights Dedicated storage for both items  
Teak joinery with vertical grain and satin varnish hand-rubbed finish  
Twin hanging lockers and drawers with center guides and stops  
Refrigerator  
Microwave.  
Head and enclosed shower  
Tecma head  
Extractor fan  
Washbasin with faucet and mirror; locker below  
Fleming First Mate (FFM) monitoring system with 15" color touch-screen located in main crew lobby.  
CO detector  
Smoke detector  
Teak & Holly Lonseal sole in crew cabins  
Grey Lonseal sole in aft lobby area  
Synthetic leather headliner – "Fleming White"  
LED overhead lighting  
Berth LED reading lights.  
Doors with Arcadia style teak panels, with arched top  
Electrical distribution panels in main crew lobby  
Interior bulkheads and partitions feature structural plywood bulkheads and partitions with sandwich construction plywood, sound dampening sheet and lead foam sound insulation.  
Sound dampening tiles installed on tunnels  
Escape hatch located in aft crew bulkhead exiting to lazarette.

## **SYSTEMS**

### **STEERING**

Hypro Marine electronic steering (ECS), with electronic helm units at Pilothouse and Flybridge.

Hydraulic Power-pack with on-demand variable speed primary hydraulic pump, back-up pump, and pre-plumbed autopilot pump in lazarette  
Hypro Marine steering gear, K9 cylinder with 14.5" stroke, stainless steel connector arm and, tiller with stainless steel fixed tiller arm stops  
NACA air foil section FRP rudders with solid stainless-steel Aqualoy 22 high-strength stocks and structure.

Composite tiller shelve

Shielded power supply cables

Back-up steering control panel with dedicated rudder angle indicator in pilothouse.

Rudder angle indicators at pilothouse and flybridge stations on displays

Rudder tubes extend above waterline

Tides rudder seal and rudder tube log.

Destroyer type steering wheels at flybridge and pilothouse with 1" straight shaft and keyway

Pilothouse steering wheel has teak grips

## **ENGINE AND THRUSTER CONTROLS**

Twin Disc EC300 engine controls with express, sync, and troll modes, at pilothouse and flybridge.

Twin Disc bow & stern thruster jog lever controls at pilothouse and flybridge.

Twin Disc EJS System (Express Joystick System) with joysticks located at pilothouse, flybridge port, starboard, and aft docking stations, and at port and starboard cockpit docking stations.

Twin Disc EPS (Express Positioning System) with control panel display at each docking station

## **PROPULSION AND TRANSMISSION SYSTEM**

Twin Common Rail MAN V12-1550 HP marine diesel engines

Transmissions Twin Disc MGX 6599A with electric shift and troll valves.

2.48:1 reduction ratio

Rubber Design TT3 engine mounts

4-blade Nickel Aluminum bronze propellers (NSP type) S-Class

Shafts Aqualoy 22 Hi-strength

Aquadrive anti-vibration system with CV coupling and thrust bearing

Shaft seals cast bronze of traditional type with hose connected to FRP shaft log with Buck Algonquin "Sealtight" dripless packing system

Recessed NiBrAl I-struts in tunnels with cutlass-type bearings

Quickutter Line and rope cutters

Underwater exhaust at transom with by-pass system and surge tube

Purpose built exhaust chambers with built in by-pass in transom corner.

Stainless steel, carbon coated exhaust riser with water injection spray ring

Propsmith Prop Puller with storage bracket

## **HYDRAULIC SYSTEM**

Twin Disc central hydraulic system using variable displacement pumps on both engines, clutched C-Pad PTO's on both gears, and control panels at Pilothouse & Flybridge.

This dual pump system powers:

82 HP (61 Kw), 17.7" (450 mm) diameter bow thruster, 1,333 lbs. (604 kgf) thrust

47 HP (35 Kw), 14" (355 mm) diameter stern thruster, 881 lbs. (399 kgf) thrust

One Maxwell RC12-12 anchor windlasses

Hydraulically driven sea water cooling pump, with pre-plumbed back-up pump

Twin Disc jog lever controls for bow & stern thrusters at pilothouse & flybridge control stations

## **FUEL SYSTEM**

3,170 USG total fuel capacity (12,000 Liters) in two FRP baffled tanks.

All fuel tanks made with fire retardant resin and fire proof outer coatings

All fuel tanks have sumps and drains with shut-off valves

Sight glasses on both fuel tanks with solenoid operated safety valves

Fuel management panel for engine/genset fuel supply/return selection

Externally mounted pressure type fuel tank level sensors connected to FFM monitoring system

FFM Monitoring system displays contents of all tanks in pilothouse, flybridge and crew cabin in gals/liters and percentage

Racor 75/1000 MAX duplex primary fuel filters, with changeover valve and vacuum gage for main engines, drip pans under filters

MAN Primary fuel filters with water in fuel (WIF) sensor

Racor 500 model fuel filters for gensets

Reverso high capacity Fuel polishing System with transfer capabilities

Fuel tank float switches and Hi-level alarm with transfer pump auto shut-off feature

Electric fuel priming pumps for both main engines

Fuel hose Trident ABYC approved hose with oversized fills and vents to prevent blow back and spillage.

Non-spill fuel fills in steps port and starboard, with custom stainless-steel "F" logo lids

Fuel fills have fuel traps to catch drips and spillage.

Both fuel tanks can be filled from either port or starboard side

## **LUBE OIL TRANSFER SYSTEM**

Reverso oil change pumps on port and starboard sides of engine room  
connected to transmissions, main engines and gensets  
Quick-release fittings for flexible operation

## **PLUMBING**

### **BLACK WATER SYSTEM**

Tecma heads in each of three staterooms, day-head and crew head  
All toilets flush to 224 USG (850 Liters) black water holding tank located in  
Machinery Space.  
Accommodation toilets flushed with Freshwater. Day Head toilets can be  
flushed with Seawater or Freshwater  
Tru-Design Anti-odor charcoal filters on black water tank vents port and  
starboard for cross flow ventilation  
Twin Gianneschi heavy duty, 24v DC, black water discharge pumps (2).  
Tru-Design monitored black water discharge seacocks, prevents black water  
discharge pumps operation if valves are not open  
Tank level indicator and pump control on FFM monitoring system  
Black water tank suction deck fittings port and starboard side  
Black water tank seawater flushing system, with self-closing safety valve  
Trident Premium Sanitation Hose for black water systems.  
Tru-Design fittings and valves for black water and sanitation systems.  
Sump and condensate pump for air-conditioning  
Tru-Design composite seacocks on all through hulls at or below waterline

### **GREY WATER SYSTEM**

224 USG (850 Liter) grey water tank with one overboard discharge pump.  
Tank located in Machinery Space  
Tank level indicator and pump control on FFM monitoring system  
Johnson sump pump boxes (5) for each accommodation basin and shower  
with discharge into main grey water tank  
Johnson grey water sump box and pump for crew quarters basin and shower  
Tru-Design Anti-odor filters port and starboard on tank vents  
Dishwasher and washing machine discharge directly to grey water tank  
Air conditioning condensation drains into Johnson sump boxes  
Trident Premium Sanitation Hose for grey water systems.  
Tru-Design composite seacocks on all through hulls at or below waterline  
Tru-Design fittings and valves for grey water and shower sump system  
Tru-Design monitored grey water discharge seacock, prevents grey water  
discharge pump operation if valve is not open

### **FRESH WATER SYSTEM**

500 USG (1,900 Liters) in two polyethylene tanks located in Machinery Space  
Sight glasses on water tanks

Twin Duplex Gianneschi 24v DC fresh water pumps, inlet filter, pressure regulator and flow sensor, mounted on vibration absorbing brackets with accumulator tank (2).

Two 20 USG (75 Liters) Torrid water heaters with drain valve, temperature/pressure relief valves, safety mixer valve, and thermal expansion tank

Hot water heating of both main water heaters with 240v AC heating elements and heat exchanger coils

Heat exchanger system and circulation pump for heating domestic water from port main engine via heat exchanger, circulation pump runs automatically when port engine is running

Forward and aft fresh water stainless-steel wash-down faucets with threaded outlets for garden hose attachment

10 USG (37 Liters) crew water heater in engine room

Whale plumbing system for freshwater pipes and fittings

Shut off valves for each fresh water fixture to allow for servicing

Amtrol ST-25V accumulator tank – 10 USG (39 Liters)

Amtrol ST-5 thermal expansion tank –2 USG (7.5 liters)

Fresh water coil hose in engine room

Externally mounted pressure type water tank level sensor connected to FFM monitoring system.

Drain and “T” fittings for winterizing exterior fresh water outlets

### ***SEA WATER SYSTEM***

Gianneschi 24V, heavy duty, seawater pump and strainer, with flow and pressure sensor, and accumulator tank

Plumbing to chain wash solenoids

Salt water 316 stainless-steel faucet on foredeck and cockpit

Sea water flush line connected to black water tank, with self-closing safety valve

Whale brand plumbing

Arctic Steel sea water intake strainers for main engines, generator and sea water systems

Trident Premium water hose for sea water systems

Tru-Design fittings and valves for sea water intakes and systems.

Air-conditioning controlled via FFM control panels for each cabin and living area.

Sump and condensate pump for air-conditioning

### **BILGE SYSTEM**

Rule 3700 Submersible electric bilge pumps (4) with 3700 gpm flow rate and with auto/manual control for each water tight compartment. Located in lazarette, crew quarters, engine room, machinery space.

USS type bilge pump/high water level alarm float switches (4) for each bilge pump - connected to FFM monitoring system with bilge pump counter.

Hi-bilge alarm sensors connected to SMS messaging system

Bilge sump in keel in engine room and machinery sump.

Shut off valve between engine room and machinery space bilge compartments

Trident Premium quality bilge pump system hoses

Tru-Design composite fittings and valves for bilge pump system.

Hydraulic Bilge Pump—Pacer. Located in engine room. Independent system run from the boat's hydraulic system. Overboard discharge

## **ELECTRICAL**

### ***ELECTRICAL – AC***

Main ship's AC Electrical system is 240/120v 60hz (USA/Canada), or 230v 50hz (EU).

Twin 29 Kw, 240v, 60Hz Onan eQD (27Kw, 230v, 50Hz) generators, single phase, in sound shield, double mounted on anti-vibration soft mounts, with NIM module

Generator exhaust system with muffler and water/gas separator

16Kw pure sine wave inverter system 240v/120v (Four 4,000 watt Inverters with auto-transformer) and by-pass system

12kw and 24kw Iso-Boost transformers and shorepower combiner system, 150 amp output

50 amp forward shore power with Smart Plug inlet

50 amp aft shore power inlet, with Glendinning Cablemaster and 85ft cable

100 amp aft shore power inlet with Glendinning Cablemaster and 85ft cable  
Pilothouse electrical panels - back lit

Approved marine grade tinned copper wire, double insulated boat cable, for AC wiring with Fleming color code and numbering system

Dedicated inverter compliant bus

Hinged panels for serviceability.

Vimar AC outlets with Black chrome Faceplates

### ***ELECTRICAL – DC***

Main ships system is 24V DC

Three isolated 24v battery banks, one 12v battery bank

House battery bank Li-Ion (LiFePO4) 24v 1,400 Ah capacity -- Mastervolt

255 Ah port engine/genset starting battery bank – Two Lifeline AGM GPL-8DL

255 Ah starboard engine/genset starting battery bank – Two Lifeline AGM GPL-8DL

105 Ah 12v Backup battery – Lifeline AGM GPL-31T



12v DC provided via two 24v-12v DC-DC, 50 amp, converters & back-up battery system located on flybridge  
1,800 watt solar panel charging system with four networked charge controllers  
Remote controlled battery master switches operable from Pilothouse, also allows paralleling of engine battery banks  
16Kw pure sine wave inverter system 240v/120v (Four 4,000 watt Inverters with auto-transformer) and by-pass system  
Electrical System control & display panel in pilothouse and Machinery space  
Two Delstar 200 amp 24v heavy duty, brushless, auxiliary alternators with external regulators and battery temperature sensor, connected to house battery bank  
Two 24v 15-amp battery chargers, one for each engine/genset battery bank. Engine/genset battery banks also charged by MAN engine original alternators  
Remote Switching of DC circuit breakers  
Battery bank monitor shows voltage, state of charge and current flow in & out of house battery bank – info displayed on remote panel in pilothouse & machinery space, and on FFM monitoring system  
Hot DC Bus distribution panel with ETA type breakers and DC voltmeter  
Hinged panel for serviceability  
Approved marine grade tinned copper wire, 105 C insulation rating  
FMM touchscreen control panels for each cabin and area. To control lighting, air conditioning and blinds.  
Vimar AC outlets black chrome faceplates.  
Overhead BCM LED lighting with dimmers  
BCM LED lighting and dimmers  
Sea Vision SV19 LED (red, white, blue, green) Underwater lights on transom (2)  
Stabilizers - Humphree 16 sq. ft (1.5 sq. m) fins, with zero-speed 24v DC powered, with control panels at pilothouse and flybridge  
Interceptors – Humphree with Active Ride Control System (auto-trim)  
Install customer/dealer supplied transducers for electronics  
Approved marine grade tinned copper wire, for DC wiring. Fleming color code and numbering system

## **PRE-WIRING**

Coax RG6U, CAT 6, and speaker cables pre-wired throughout as follows: -

- CAT 6 - 2 x from salon TV cabinet to behind flybridge console, PH console & each cabin, including crew cabin
- Speaker wire - 2 x from salon TV cabinet to flybridge radar arch port and starboard, PH console, each cabin, crew cabin, and CA deck overhead
- COAX - 2 x from salon stereo cabinet to behind FB console, PH console, and each cabin, including crew cabin
- COAX - 4 x from salon TV cabinet to under flybridge starboard settee

## **ELECTRICAL BONDING**

Copper strap or cable connecting underwater metal fittings, pulpit and flybridge rails – (equipotential bonding system)  
Zincs on transom (2)  
Zincs on shafts (2)

## **FFM FLEMING FIRST MATE MONITORING SYSTEM**

15" color touchscreen located in Pilothouse  
15" color touchscreen located on Flybridge  
15" color touchscreen located in Crew Cabin  
Home page with "Ready for Sea checklist"  
Digital switching of AC & DC loads, with feedback and status monitoring  
SMS remote alarm system sends text messages. (requires local SIM card)  
iPad remote access  
Data logging via dedicated WNL PC  
CCTV System with:  
4 Pan/Tilt/Zoom cameras located at engine room (2), F/B, and CA Deck.  
4 Fixed 1.8mm lens cameras in Machinery Space (2), Bow Thruster Room and Lazarette  
4 Docking cameras with 2.5mm lens on port & starboard forward roof supports

### **System monitors/displays the following parameters:**

Primary MAN engine data - analog, digital and graphic view  
Navigation lights (monitoring and control) with back-up control panel  
Bilge pumps, including pump counter recording number of time pump has run  
Sump pumps  
High bilge level alarms  
Fire system – Cylinder pressures (engine room and machinery space)  
Heat detectors  
Smoke detectors  
Black water tank level and control of discharge pump  
Grey water tank level and control of discharge pump  
Fuel Tank levels using externally mounted pressure type sensors  
Water tanks level using externally mounted pressure type sensor  
Port and Starboard engine room air intake shutter position  
Engine room, machinery space, sea water, & exterior air temperature  
Fresh water system pressure  
Fresh water system flow  
Seawater system pressure  
Seawater system flow  
Engine room blowers  
Engine room door  
Cockpit hatch (open/closed)  
Cablemasters (in/out)  
Passarelle (in/out) (optional)  
Engine room lights  
Steering pump

Back-up steering pump  
Engine controls  
Watermaker  
Main engines seawater flow sensing  
Hydraulic cooling seawater flow sensing  
Genset engine data  
Wind speed & direction  
GPS (SOG, COG & Position)  
Computed Range  
DC voltage (24v and 12v battery banks)  
Battery Master Switch position  
Forward & aft Shorepower voltage, frequency and current draw  
Inverter voltage, frequency and current draw  
Gensets voltage, frequency and current draw  
CCTV system  
Aft side door (open/closed)  
Swim Platform (up /down)

## **DOCUMENTATION**

All equipment installation and instruction manuals supplied with components installed on the yacht will be supplied in organized binders at time of delivery.

## **EQUIPMENT LIST**

An accurate and detailed equipment list including all equipment/components make/model, part number, and serial numbers will be supplied with each yacht.

## **WIRE LIST**

An accurate and detailed wire list will be supplied with each yacht. This list includes all electrical cables with numbering, type, and location.

## **SHIPPING / CONSTRUCTION CRADLE**

Shipping/construction cradle – purpose designed welded steel cradle suitable for supporting the yacht during construction and transporting the completed yacht, including loading and discharge from the ship.

**eFIT** – (Electronic Fleming Information Tablet) all technical documentation is supplied on an Apple iPad Pro including, a comprehensive Owner's Manual with system descriptions, schematics, wiring diagrams, product manuals and equipment list.

## **CONSTRUCTION STANDARDS**

All Fleming Yachts are built to comply with the appropriate marine and environmental regulations for the area in which the yacht is delivered

**USA** - NMMA Certified Manufacturer fully complying with: ABYC, USCG, and EPA regulations.

**Europe** - Built to CE-RCD Category "A" Ocean Standard using the relevant ISO standards.

**Australia** - Australian Standard 1799.1-2009

**Canada** - Transport Canada TP1332E 04/2010

## **MANAGEMENT & ENVIRONMENT**

Fleming Yachts management and environmental systems have met and been approved by ISO 9001:2008 Quality Management Systems and ISO 14001:2004 Environmental Management Standards.

## **AFTERWORD**

The question most manufacturers ask themselves when considering a new feature is whether it is necessary to include it in order to sell the boat. In the case of the Fleming, we ask only whether its inclusion will make the boat safer, better or more convenient. That is why we have introduced literally hundreds of refinements since we started construction in 1985 and why we continue the process today.

For that reason, Fleming Yachts reserves the right to make changes to specifications and equipment without notice.