

16 March 2018 (WEF 78-010)
Version #53

Fleming 78 - Pilothouse Motor Yacht **SPECIFICATIONS**

GENERAL DESCRIPTION

LOA (hull): 77' 8" (23.66m)

LOA (including swim step
and anchor platform): 81' 6" (24.84m)

LWL: 72' 4" (22.05m)

Beam: 21' 5 (6.5270m)

Draft: 5' (1.52m)

Air draft (to top of radar arch): 21' 8" (6.60m) (without mast)

Height from bottom of keel to top of radar arch 26'8" ((without mast)

Displacements

Minimum Operating Condition: 165,048 Lbs. (74,865kg)

Loaded Condition: 197,800 Lbs. (89,721kg)

Main Engines: Twin MAN V12-1550 HP

Transmissions: ZF 2050A or Twin Disc MGX6599A with
electric shift and troll valves

Reduction Ratio: 2.467:1 (ZF) or 2.48:1 (TD)

PTO's Clutched C-Pad on both transmissions

Engine Controls: Glendinning EEC3 (with back-up system)

Driveline: Aquadrive CV60 & HDL 780HT

Generators: Two Onan eQD 29 Kw 220v, 60Hz
(European model 27Kw 230v 50Hz)

Stabilizers: ABT TRAC 12 Sq. Ft fins with winglets
300 model actuators

Bow Thruster: ABT 60HP Hydraulic

Stern Thruster: ABT 25HP Hydraulic

Fuel Tanks: 3,000 USG (11,356 Liters)
in four Fiberglass tanks

Water Tanks: 440 USG (1,665 Liters)

Black Water Tank: 230 USG (870 Liters)

Grey Water Tank: 230 USG (870 Liters)

Lube Oil Tanks (2) 95 USG (359 Liters)

SPECIFICATIONS BY AREA OR GROUP

HULL

Solid laminate construction, commensurate for hull size, made in female mold.
Black Gel coated boot stripe
Vinylester resin used for outer laminations
Full-length stringers and athwartships frames laminated over foam
Simulated planking grooves
Gel coated finish
Five coats of epoxy barrier coat below waterline
Two coats of Black Pettit 1088 GA antifouling paint
Pettit Metal Etch Primer 6455/044 and Pettit Epoxy Primer 4700 and Pettit 1088GL Trinidad Antifoul used on underwater metals
Integrally molded guard with stainless steel rub strip
Keel extends below running gear
Keel space filled and sealed across top
Solid stainless steel rudders with Aqualoy 22 Hi-strength stocks
CE-approved stainless steel portlights
Stainless steel keel shoe
ZF Faster "I" struts
Shaft Tunnels – draft 5ft (1.52m)
Hull extends underneath swim step

DECK AND SUPERSTRUCTURE CONSTRUCTION

All parts made from molds.
Corecell Cored construction
Cook gel coat "Fleming White"
Vinylester resin used for outer laminations

EXTERIOR

Stainless steel trim around roofs, on forward teak cap rail, and guard
Italian made exterior locks
Hella LED navigation lights in accordance with relevant regulations
Exterior seating with EZ-Dri foam, Sunbrella upholstery, and mesh backs for drainage
Stainless steel Fleming & "F" Logo on port & starboard forward roof supports
Docking cameras on port & starboard forward roof supports

AFT DECK AREA

Powered large central lazarette hatch, Flush with teak deck. Gaskets, lock & gutters with drains. Toggle switch operation.
Watertight, locking engine room/crew access door with portlight
Walk-in access to engine-room and crew's quarters
Covered California deck with seating, table and serving counter
Cockpit with teak decks
FRP Swim step, with molded white non-skid surface and Stainless steel rub rail
Powered hatch into bustle, with toggle switch operation
Stainless steel telescopic swim ladder, can be deployed by swimmer
Wide teak coaming around cockpit and transom gate
FRP skirt inboard of teak cap
Electric warping winches port & stbd
Engine-room air intakes behind skirt and inside bulwarks
Curved oval-section Stainless steel ladder to flybridge boat deck with teak treads
Sliding doors to salon. Aluminum with FRP skin, glass windows & Stainless steel weather strips
Seadog style latches for doors
Hot & cold shower fittings on inside of transom adjacent to door, with quick release shower head and flexi hose
Salt water 316 Stainless steel faucet
Fresh Water 316 Stainless steel faucet
100 Amp Glendinning Cablemaster (Worldwide shorepower system accepts range 170-520v and 40-70Hz.)
50 Amp Glendinning Cablemaster (Worldwide shorepower system accepts range 170-520v and 40-70Hz.)
Overhead lighting with dimmer control
LED rope lighting under coaming skirt
Chocks at hull sides and transom (4)
Six 15" heavy duty Stainless steel cleats secured to plates inside bulwarks
Deck scuppers piped out through transom at bootstripe
Integrally molded seats
316 grade Stainless steel handrails across transom
Courtesy LED "F" logo lights
CCTV Camera with full pan, tilt & zoom, connected to central monitoring system

SIDE-DECKS

Wide side decks along both sides of boat with teak decks
316 grade stainless steel handrails along house-side
Teak rail cap on bulwarks
Bulwark doors opening inboard with Seadog style latches and bolts
Stainless steel overhead lights
Courtesy LED "F" logo lights at steps up to Portuguese deck

Stainless steel handrails at side deck steps.
Steps to Portuguese Bridge deck with teak treads
House side windows with tinted, tempered glass and FRP frames
Two sets of spring-line roller chocks per side
Five 15" heavy duty Stainless steel cleats per side, recessed into bulwarks
Non-spill fuel fills in steps port and stbd, with custom stainless steel "F" logo lids.
Can fill all fuel tanks from port or stbd fuel fills

PILOT-HOUSE DECK LEVEL

Teak decks
Portuguese Bridge
Teak rail cap
Locker doors in aft face of Portuguese bridge, access to large vented storage with Dri-Deck flooring
316 grade stainless steel handrail around forward side of pilot house.
316 grade stainless steel handrails at side of pilothouse Port & Stbd
Sliding Aluminum pilothouse doors with Stainless steel weather seals
Hinged doors Port & Stbd through Portuguese bridge to foredeck with stainless steel gas spring retainers
Individual Screen wash and heavy duty self-parking wipers on windshield
Clear, tempered 10mm glass, in forward facing windshields
Pilothouse windows are fixed and have FRP frames
Inward opening doors on Portuguese Bridge side decks Port & Starboard
Galley cooktop and microwave vent

FOREPEAK

Accessed through hatch on forward deck
Twin chain bins each with capacity of 400 ft. (120 meters) of ½" chain
Chain and rope lockers with removable stainless steel access plate, chain pipes & rollers
Watertight collision bulkhead
Forepeak drains directly overboard.
Bitter end fittings
Hatch scuppers
High gloss poly paint finish
Overhead LED waterproof light
Access to hydraulic windlass motors
Chain wash solenoid
Dri-Deck flooring

FWD DECK

Beige color non-skid deck
Cabin trunk with white non-skid finish and one large CE approved stainless steel skylight to forward cabin
Vented deck lockers in cabin trunk
Stainless steel handrail on cabin trunk
Teak rail cap on bulwarks increasing in width going forward
Stainless steel stanchions to support teak handrail
Teak hand rail
Deck lockers forward either side of anchor platform with white non-skid finish
FRP anchor platform with integrally molded white non-skid and two sets of rollers
Two Maxwell RC12 hydraulic windlasses with pendant control, and control panels at both stations (P/H & F/B)
176 Lbs. (80Kg) S/S Ultra Anchor with Stainless steel Ultra Swivel, Ultra Chain hook & bridle
400ft ½" ACCO Hi-Test Chain
Anchor platform with twin anchor rollers and chain stopper
Chain stoppers and devils claw
Eight 15" heavy duty Stainless steel cleats
Stainless steel roller chocks
316 grade stainless steel pulpit. Welds ground and polished.
Foredeck LED "F" logo lights at steps through gates thru Portuguese bridge.
Hatch to forepeak
Smartplug shorepower inlet for 220v, 60Hz, 50A (European model 230v, 50 Hz, 32A)
Salt water 316 Stainless steel faucet inside foredeck lockers
Fresh water 316 Stainless steel faucet inside foredeck lockers
Plug in for windlass control
Deck drains plumbed to boot-stripe to prevent black streaks
Stainless steel, CE-approved portlights
Foot switch for chain wash system
Teak burgee pole

FLYBRIDGE

Two-level arrangement
Upper level includes L-settee, small FRP table, two forward facing Stidd bench seats either side of helm and a single Stidd helmseat on the centerline
Lower level has straight & L-settees and large FRP table with Corian or granite counter top
Beige color non-skid deck
Entertainment center with electric BBQ, sink, refer, and icemaker
Control station with electronic engine controls
Powered Electro-hydraulic steering with destroyer-type wheel

Rudder angle indicator on Boning screen
Retractable electronics console
LED rope lighting inside console
Lexan venturi with Stainless steel rail
FRP Radar arch with spreader lights
Flybridge cushions on settees with EZ-Dri foam, Sunbrella upholstery and mesh backs for drainage
Perfix snaps for attaching cushions
Kahlenberg D-330 Air horn with twin trumpets, P449-25 Compressor/reservoir, V-149K 24v Solenoid valve
Stainless steel railings with mid safety rail
Stainless steel safety rail by sliding hatch
Fire system repeater alarm
CCTV Camera with full pan, tilt & zoom, connected to central monitoring system
15" color touch-screen monitoring system including MAN engine instrumentation
Dri-Deck flooring in storage areas and under seating
Watertight, locking access door to pilothouse with portlight
Two Mastervolt 24v to 12v DC-DC converters with 12v battery back-up system.
ABT TRAC-LINK color touchscreen control panel for stabilizers

BOAT DECK

Integrally molded beige non-skid on deck
Integrated deck drains with gutter system
316 grade Stainless steel handrails
1,500 lb capacity Steelhead ES1500 davit with powered luffing, hoisting, telescopic boom, and rotation
Hinged hatch to cockpit ladder
GFCI 110v AC outlet (European model 230v RCD protected)
Boat deck with access from flybridge and from California deck
Fresh Water 316 stainless steel faucet
Stainless steel saddles for tender rails (supplied loose)
Aluminum plate located inside deck for tender tie down
Teak flag pole with internal stainless steel reinforcement

TECHNICAL SPACES

LAZARETTE

Accessed through single large powered hatch in cockpit
Steering gear, K9 cylinder with 14.5" stroke
Hypro Marine hydraulic power pack on anti-vibration mounts with FRP drip tray
Deck and hatch scuppers
Hull finished with gloss white polyurethane paint
LED overhead lights
440 USG (1,665 liters) total capacity in polyethylene fresh water tanks with sight gages
Fresh water tanks isolation valves
Aft shorepower inlet circuit breakers
Starboard platforms and sole boards with stainless steel lifters
100 amp Cablemaster
50 amp Cablemaster
Soundown noise reducing tiles installed on top of prop tunnels
Submersible bilge pump
High bilge alarm

MACHINERY SPACE (ACCESSED FROM FORWARD LOBBY)

Two 20 USG Torrid water heaters
Black water tank 230 USG (870 Liters)
Two Gianneschi heavy duty, 24v, black water discharge pumps
Gianneschi heavy duty, 24v, Sea water pump
Grey water tank 230 USG (870 Liters)
Grey water discharge pump
Two stacked Outback 3,500 watt Inverters with by-pass system (European model is 3,000 watts each)
Bowthruster and associated hydraulics
Windlass hydraulic manifold
AC and DC (LED) lighting
Submersible bilge pump
High bilge alarm
House battery bank Lifeline AGM type. 12 pcs GPL-L16T-2V (1200 A/H's @ 24v)
Battery bank auto controlled ventilation fan
AC system & shorepower control equipment
Air conditioning compressors for cabins including VFD for pilothouse aircon
Fire detection and suppression systems
Machinery space is ventilated and sound proofed
Sump pump
Air-Conditioning for Machinery Space

CCTV Camera with full pan, tilt & zoom feature connected to central monitoring system
ASEA frequency converter (36Kw)

ENGINE ROOM

Accessed from aft lobby via stairs down from port side-deck
Full standing headroom
MAN V12-1550 Engines with 220v block heaters
Electric fuel priming pumps for main engines
Aquadrive CV Joints and thrust bearings
Shaft brushes
Fiberglass drip pans with LED lighting
Two 29Kw 60Hz Onan generators (27Kw, 50Hz European model)
Work bench with Stainless steel top and storage drawers
Spare parts storage bins
Bilge pump
Sump pump
Dual Gianneschi Fresh water pumps, pressure regulator, and flow sensor
Fresh water system (debris) filter
Crew 10 USG (37 Liters) water heater
Fuel transfer system with pump, filter and fuel flow totalizer
Lube oil tanks (2) and lube oil transfer system
Fire detection and suppression system with auto engines/genset/blowers/air intakes shutdown
Automatic engine room ventilation & air circulation system (Manship)
Freshwater fill hose
Stabilizer actuators & associated hydraulic controls
Engine/generator start batteries – Lifeline AGM type GPL-8DL (4)
Fire retardant FRP fuel tanks (4) 3,000 USG (11,356 liters) total capacity, with sight gages
Heavy duty sound insulation covered with perforated aluminum
Groco raw water strainers for engines, gensets, aircon, and all seawater intakes
Bilges painted with glossy white poly paint
Hinged shaft covers
Sole board covered with Lonseal vinyl.
AC (LED) and DC (LED) lighting
110v GFI electrical outlets (European model 230v RCD protected)
Double platform Anti-vibration soft mounts for genset
Stainless steel mirror finished plates on inboard face of aft fuel tanks
Stainless steel mirror finished engine stringer caps
Airtight FRP door with dog down latch with viewing port
Starboard platforms and sole boards
Lead foam sound insulation
Air-conditioning compressor and VFD for salon air-conditioning

16,000 BTU Air-conditioning for engine room
Two CCTV cameras with full pan, tilt & zoom connected to monitoring system
Two Delstar 200 amp, 24v heavy duty, brushless, auxiliary alternators with
Balmar external regulator and battery temperature sensor
Two 24v Mastervolt MASS 25/15-2 battery chargers, one for each engine/genset
battery bank

INTERIOR

GENERAL

Accommodation with three staterooms & crew cabin
Teak and holly soles throughout – hand-laid solid timber (not plywood)
LED Recessed lighting throughout
LED mood rope lighting
Wood blinds with teak retainers
Ultra-leather “Doe” headliner
All interior lights, locker pulls and hinges to be Stainless steel finish
Raised teak panels on all cabinet doors throughout (including crew cabin)
Raised teak panels on cabin doors in accommodation
Headroom 6’ 6” (1.97m) minimum throughout
Interior seating, upholstered with standard beige fabric
Vimar light switches and AC outlets with Graphite Grey Silk Faceplates
All drawers constructed with dovetail joints
Interior bulkheads feature sandwich construction with lead foam sound insulation

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 central monitoring system with Boning 15” color display screen on lower
console – See systems for detailed description
Glendinning electronic controls with back-up system
Stidd 500XL low back Helm Seat with Chrome Package, footrest, drink holder,
and black Ultraleather upholstery
Remote control unit mounted in stbd arm of Stidd seat
L-settee on raised platform with large teak table
Day head with toilet, washbasin and opening portlight
Stairs down to galley
File drawer with heavy duty Stainless steel sliders
Pilothouse air-conditioning which can run on inverters
Windshield glass, clear, tempered, 10 mm thick

Self-parking, heavy-duty windscreen wipers with multi-speed/intermittent controls & individual fresh water wash on forward-facing windows
ABT TRAC-LINK color touchscreen control panel for stabilizers and hyd pumps selection
Dismountable control console with space for owner supplied electronics
Engine instruments displayed on 15" color touchscreen screen on lower console with dedicated space for Autopilot control
Electronic engine controls. Glendinning EEC 3 with synchronizer and troll
Back-up electronic engine controls (gear and throttle)
Hypro Marine electronic, powered hydraulic steering with Destroyer type steering wheel
Back-up Steering control panel with back-up rudder angle indicator
Ritchie Compass with light & dimmer (specify required hemisphere)
Overhead electronics console
Ultraleather "Doe" headliner
Demister blower on forward facing windows
Control for bow thruster
Wiring routes to facilitate equipment installation
Overhead LED lighting with dimmer
LED red and white dimmable bridge lights in upper console
Generator digital control & display panels with start/stop
Windlass up/down switch & control circuit breaker
Fire system remote panel
Bilge and sump pump control on advisory panel
Pre-wired for intercom/phone system
Dimmer for instrument lighting
Main engine sea water flow alarms
Charcoal" Ultrasuede fabric on upper surface of consoles

Pilothouse Day-Head

Porcelain wash basin in granite counter top
Locker and medicine cabinet with mirror
Planus toilet
Intake and discharge head vent fans
Ultraleather "Doe" headliner
Air-conditioning outlet

GALLEY

Granite (or Corian) countertops
Under-mount black composite double sink
Insinkerator waste disposal unit
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

Trash compactor

Three burner Miele Induction cooktop

Custom removable Stainless steel pot holders

Ample drawers and lockers

Overhead storage lockers with hinged doors

Storage cabinet under sink with automatic LED lighting

Swivel faucet with removable spray head

110v AC GFCI outlets (European model 230v RCD protected)

SALON

Fixed windows in house sides with medium grey tinted, tempered, glass.

Entertainment centre with cabinets and bookshelves along stbd side

TV cabinet at starboard aft corner with TV Lift, Bennett hydraulic type (TV not included)

L-settee to port

Bar cabinet with granite counter, sink, combo fridge/icemaker, and bottle storage

Teak coffee table with storage locker

Ultraleather "Doe" headliner

Aft sliding doors open to covered California deck at same level as salon

Overhead LED lighting on dimmers

Pre-wired for intercom/phone system

Teak joinery with satin varnish hand-rubbed finish

Granite (or Corian) countertops

Teak valance over windows with LED rope lighting

Overhead LED lighting on dimmers

Access hatch to allow for engine removal

Cruisair reverse cycle air-conditioning

FRP sandwich with honeycomb composite sole

Imtra Sconce lights with shade – Atlas model

ACCOMMODATION

GENERAL

Teak and holly soles

Teak paneling and Ultraleather "Doe" wall coverings

Ultra-leather "Doe" headliners

Beveled edge mirrors

All staterooms en-suite

Hanging lockers with LED auto-light and louvered doors
CO detectors installed in all cabins (including crew) and salon
Lead foam sound insulation in all accommodation bulkheads
Arched interior doors
Custom Stainless Steel fold down bookshelf fiddles
Cabin & Head doors with gaskets

HEADS

Ventilation blowers – Manrose type with light
Fiber-glassed shower enclosures with glass and stainless steel partitions
Marble or granite shower pans
Temperature and pressure-compensated shower mixer valves
Marble or granite countertops with under-mount ceramic basins and designer faucets
Medicine cabinets
Stainless steel towel rails
Planus heads
Trident Premium Sanitation hose
Holding tank full indicator
110v AC GFCI outlet (European model 230v RCD protected)

FORWARD LOBBY

Reached from pilothouse by stairs which shelve and increase in width as they descend
Security Stainless steel vertical post
Hatch to machinery space
Access doors into master, VIP and guest staterooms
Stacked Bosch Washing machine and Dryer

MASTER STATEROOM

Walk-in closet
Sliding door to ensuite head and shower
Four Stainless Steel CE-approved Port lights with removable insect screens
Tapered King-sized bed with hydraulic lift and storage under
Foam mattress
Upholstered Headboard
Teak lockers either side of bed
LED Rope lighting under bed

Two hanging lockers. Teak faced with double louvered doors and automatic interior lights
TV space on bulkhead
Drawers with center guides and stops
Beveled-edge European sourced mirrors
Door stops and holders.
Doors with raised teak panels, and teak frame with arched top
Bulkheads with teak to waist height with Ultraleather above with teak chair-rail trim at join
LED overhead lighting on dimmers
Berth LED reading lights.
CO detector
Vanity on stbd side
Custom Stainless Steel fold down bookshelf fiddles
Drapes
Ultraleather "Doe" headliner
Cruisair reverse cycle air-conditioning

GUEST STATEROOM - (PORT)

Available with twin beds or one double
Stainless Steel CE-approved port lights with removable insect screens
Sliding door to ensuite head
Hanging locker with louvered door & auto-light.
110v AC outlets (European model 230v RCD protected)
Foam mattresses
Upholstered Headboards
LED overhead lighting.
Berth LED reading lights
LED Rope lighting and drape tracks at portlight openings.
Full height beveled-edge European sourced mirror
CO detector
Custom Stainless Steel fold down bookshelf fiddles
Drapes
Ultraleather "Doe" headliner
Cruisair reverse cycle air-conditioning

VIP STATEROOM (FORWARD)

Four Stainless Steel CE-approved Port lights with removable insect screens
CE approved skylight providing light, ventilation and emergency exit
Oceanaire powered insect and black-out screen for skylight
Tapered queen-sized bed with hydraulic lift and manual slide with storage under
Retainer device for sliding bed securing knob

Foam mattress
Upholstered Headboard
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
Drawers with center guides and stops
Beveled-edge European sourced mirrors
Door stops and holders.
Doors with raised teak panels, and teak frame with arched top
Bulkheads with teak to waist height with Ultraleather above with teak chair-rail trim at join
LED overhead lighting on dimmers.
Berth LED reading lights.
CO detector
Drapes
Ultraleather "Doe" headliner

CREW'S QUARTERS

Accessed from aft lobby via stairs from port side-deck
Two berths
Twin hanging lockers
Drawers
Desk with mirror
Toilet room with Planus head, shower and washbasin
Escape hatch
Air Conditioning
Boning/Fleming Central monitoring system with 15" color touch-screen

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
Shielded power supply cables
Back-up steering control panel with dedicated rudder angle indicator in pilothouse.

Rudder angle indicators at pilothouse and flybridge station
Boning Screens
Solid Stainless steel rudders of axe-blade type with Aqualloy 22 high-strength stocks
Rudder tubes extend above waterline
Destroyer type steering wheels at flybridge and pilothouse
Pilothouse steering wheel has teak grips

ENGINE CONTROLS

Glendinning EEC 3 electronic engine controls with troll, and synchronizer at pilothouse and flybridge.
Back up engine controls system in pilothouse (gear and throttle)

PROPULSION AND TRANSMISSION SYSTEM

Twin Common Rail MAN V12-1550 HP marine diesel engines
Transmissions ZF 2050A or Twin Disc MGX 6599A with electric shift and troll valves. 2.467:1 reduction ratio
4-blade Nickel Aluminum bronze propellers (NSP type)
Shafts Aqualloy 22 Hi-strength
Aquadrive anti-vibration system
Shaft seals cast bronze of traditional type using Buck Algonquin dripless packing system
Groco sea strainers on engines and gensets
Recessed I-struts in tunnels with cutlass-type bearings
Underwater exhaust at transom

FUEL SYSTEM

3,000 USG total fuel capacity. (11,356 Liters)
2,500 USG in one internally-divided FRP tank
500 USG in two FRP side tanks
All fuel tanks have fire retardant coating
All fuel tanks have sumps and drains with shut-off valves
Fuel management panel for engine/genset fuel supply/return selection
High capacity 24v DC Fuel Transfer pump with suction & delivery manifolds
Digital fuel flow totalizer
Monitoring system displays contents of all tanks in pilothouse, flybridge and crew cabin in gals/liters and percentage
Pressure type fuel tank level sensors connected to central monitoring system
Twin Racor 1000 model filters with change-over valve and vacuum gage for main engines, drip pans under filters
Water in fuel (WIF) sensors on main engine filters

Racor 500 model filters for gensets
Fuel tank float switches and Hi-level alarm with transfer pump auto shut-off feature
Sight glasses on all fuel tanks with solenoid operated safety valves
Electric fuel priming pumps for both main engines

LUBE OIL TRANSFER SYSTEM

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

PLUMBING

SANITARY

Planus Arctic Plus (white) heads in each of three staterooms, dayhead and crew head
All toilets flush to 230 USG (870 Liters) holding tank
Toilets can be flushed with Seawater or Freshwater
Anti-odor charcoal filters on black tank vents port and stbd to promote cross flow ventilation
Two Gianneschi, heavy duty, high capacity, black water discharge pumps
Tank level indicator and pump control on Boning central monitoring system
Plastic lined pressure accumulator tank
Black water tank suction deck fittings port and stbd side
Black water tank seawater flushing system, with self-closing safety valve

GREY WATER SYSTEM

230 USG (870 Liters) grey water tank with Headhunter discharge pump
Tank level indicator on Boning central monitoring system
Basins and showers drain to individual sumps each with own pump
Each pump has 3-way valve to drain overboard or into grey water tank
Anti-odor filters port and stbd on tank vents

FRESH WATER SYSTEM

440 USG (1,665 Liters) in three tanks in lazarette
Sight glasses on water tanks
Dual heavy duty Gianneschi 24v DC freshwater pumps, inlet filter & flow sensor

Two 20 USG (75 Liters) Torrid water heaters with drain valve, pressure relief valves and mixer safety valve
Hot water heating of both main water heaters with 220v 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 engine is running
Forward and aft fresh water wash-down outlets
10 USG (37 Liters) Crew water heater in engine room
Whale plumbing system
Fresh water coil hose in engine room
Pressure type water tank level sensor connected to central monitoring system

SEA WATER SYSTEM

Gianneschi 24V, heavy duty, seawater pump and strainer
Plumbing to chain wash solenoid
Salt water 316 Stainless Steel faucet on foredeck
Salt water 316 Stainless Steel faucet in cockpit
Sea water flush line connected to black water tank, with self-closing safety valve
Whale brand plumbing
Groco intake strainers for main engines, generator and sea water system

BILGE SYSTEM

3 pcs 3,700 GPH Rule electric bilge pumps with auto/man control
1 pc 2,000 GPH Rule electric bilge pumps with auto/man control (bustle)
2 Whale gulper sump pumps
USS type bilge pump/high level alarm float switches in bustle, lazarette, engine room, and forward bilge - connected to central monitoring system
Bilge counter on Boning System

ELECTRICAL

ELECTRICAL – AC

Two 29 Kw, 220v, 60Hz Onan eQD (27Kw, 230v, 50Hz) generators, single phase, in sound shield, double mounted on anti-vibration soft mounts, with NIM module
50 amp Smartplug forward
50 amp aft shorepower inlet with Glendinning Cablemaster
50 amp shore supply connected to ASEA frequency converter accepting 170-520v, 40-70Hz, allowing worldwide use

100 amp aft shorepower inlet with Glendinning Cablemaster
100 amp aft shore supply connected to ASEA frequency converter accepting
170-520v, 40-70Hz, allowing worldwide use
Digital AC meters at source select panels, volts, amps, frequency and watts
Panels back lit
Approved Marine Grade Tinned copper wire
Dedicated inverter compliant buss
Hinged panels for serviceability.
Vimar AC outlets with Graphite Grey Silk Faceplates

ELECTRICAL – DC

Main ships system is 24V DC
Three isolated 24v battery banks– all batteries are Lifeline AGM type
1,200 Ah House battery bank - 12pcs Lifeline 2-volt AGM batteries connected in series
255 Ah port engine/genset starting battery bank – Two Lifeline GPL-8DL
255 Ah stbd engine/genset starting battery bank– Two Lifeline GPL-8DL
105 Ah 12v Backup battery – Lifeline GPL-31T
12v DC provided via two 24v-12v DC-DC, 20 amp, converters & back-up battery system located on flybridge
Remote controlled battery master switches operable from Pilothouse, also allows paralleling of battery banks
Two stacked 3500 watts Outback pure sine-wave inverters with 170 amp (@ 24 volts) battery charging capacity (European model is 3,000 watts each)
Inverter remote control panel in pilothouse.
Two Delstar 200 amp 24v heavy duty, brushless, auxiliary alternators with Balmar external regulator, and battery temperature sensor
Two 24v Mastervolt MASS 25/15-2 battery chargers, one for each engine/genset battery bank.
Engine/genset battery banks also charged by MAN engines original alternators
Remote Switching
Outback Flexnet DC House Battery Bank Monitor shows voltage, state of charge and current flow in & out of house battery bank – info displayed on Mate remote panel in pilothouse, and on central monitoring system
DC load distribution panel with breakers and meters back-lit with dimmer
Hinged panel for serviceability
Approved Marine Grade Tinned copper wire
Vimar light switches with Graphite Grey Faceplates
Imtra LED lighting and dimmers

ELECTRICAL BONDING

Copper strap or cable connecting all thru-hulls, underwater fittings, pulpit and flybridge rails – (equipotential bonding system)
Shaft brushes
Zincs on transom (2)
Zincs on shafts (2)
Copper strapping system in engine room, flybridge and pilothouse for SSB radio counterpoise

BONING/FLEMING CENTRAL 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 SIM card)
Remote control panel located in Stidd seat arm rest
iPad remote access
CCTV System with (5) Pan/Tilt/Zoom cameras at engine room (2), Machinery Space, Flybridge, Cockpit.
Docking cameras on port & starboard forward roof supports

System monitors/displays the following parameters:

All MAN engine data and alarms - analog, digital and graphic view
Navigation lights (monitoring and control) with back-up control panel
Bilge pumps, including counter recording number of time pump has run
Sump pumps
High bilge level alarms
Fire system – Cylinder pressure
Heat detectors
Smoke detectors
Black water tank level and control of discharge pump
Fuel Tank levels using pressure type sensors
Water tanks level using pressure type sensor
Port and Stbd engine room air intake shutters
Engine room, machinery space, sea water & exterior ambient air temperature
Fresh water system pressure
Fresh water system flow
Seawater system pressure
Seawater system flow
Engine room blowers

Engine room door
Cockpit hatch
Cablemaster (in/out)
Passarelle (in/out)
Engine room lights
Steering pump
Back-up steering pump
Engine controls
Watermaker (if installed)
Main engines seawater flow sensing
Hydraulic cooling seawater flow sensing
Genset engine data
Wind speed & direction
GPS (SOG, COG & Position)
Range
DC voltage (24v and 12v battery banks)
Battery Master Switch position
Fwd & aft Shorepower voltage, frequency and current draw
Inverter voltage, frequency and current draw
Genset/s voltage, frequency and current draw
Bilge counter

HYDRAULIC SYSTEM

American Bowthruster central hydraulic system using variable displacement pumps on both engines, and TracLink color touchscreen panels at Pilothouse & Flybridge.

This dual pump system powers:

12 sq. ft. stabilizer fins with winglets and model 300 actuators

60 HP, 16" diameter bow thruster

25 HP, 12" diameter stern thruster

Twin Maxwell RC12 anchor windlasses

Hydraulically operated stabilizer locking pins, hydraulically driven sea water cooling pump, with pre-plumbed back-up pump

Friction type jog lever controls for bow & stern thrusters at both stations

MISCELLANEOUS OUTFIT

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

Cruisair reverse cycle air-conditioning throughout using REU model quiet blowers and SMX HT controls

Sump and condensate pump for air-conditioning in forward cabin

Ball-type seacocks on all through hulls at or below waterline

Sika-Flex deck Caulking

5/8" thick teak deck

Pre wiring with coax, CAT 5 and speaker cables throughout as follows:-

- CAT 5 - 2 x from salon stereo cabinet to behind FB inboard panel, PH console & each cabin
- Speaker wire - 2 x from salon stereo cabinet to FB radar arch port and stbd, PH console, each cabin, laz or aft deck overhead
- COAX - 1 x from salon stereo cabinet to behind FB inboard panel, PH console, and each cabin
- COAX - 4 x from salon stereo cabinet to FB stbd settee near davit base

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.

European - 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 Construction (HK) Ltd 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.