

James Betts Enterprises
P.O. Box 991
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JADE
Thomas Wylie Design Group
68' Cutter

Specifications

LOA	68' 0"	I	77.25'
LWL	58' 4"	J	24.0'
Beam	16' 6 2"	P	69.5'
Draft	7' 4"	E	27.25'
DSPL	39,000 lbs		
BAL	16,000 lbs		

Hull

- To be reconstructed of 5086 marine aluminum alloy skin
- Frames 3 x 2 "T" - 5086
- Stringers 1 2 x 1 2 angle - 5086
- Forward frames on 20" centers
- Aft frames on 24" centers
- 3/16 Plate above DWL topsides
- 3/16 Plate below DWL aft of keel
- 1/4" Plate below DWL forward of keel
- 3/8" and 2" Plate webs in keel and mast area
- 3/16 and 1/4" Plate webs typical
- Welded aluminum foundations for chainplates, backstays and headstay
- Stainless steel rigging attachments bolted in place
- Welded engine beds, shaft log, propeller strut and accessory drive beds
- 2 Integral bilge fuel tanks - 100 gallon each
- 2 Integral hull water tanks - 100 gallon each
- Tanks include: dip tubes, inspection ports and vent fittings
- 2 Machined thru-hull plates for B&G

Deck

Constructed over temporary tooling attached to alloy hull

Marine epoxy resins throughout

1 2" radii on sheerline

36 oz "E" glass bottom skins

1 2" H100 PVC foam core horizontal surfaces

H250 core under hardware

1" H100 PVC foam core vertical surfaces

GAO900 carbon uni reinforcements

36 oz "E" glass outside skins

Core vacuum bagged in place

Skins squeegee laminate with peel ply

Cabin sides finished with teak edge trim

16 3/8" Lexan windows recessed 1/4"

26 Glass studs for lifelines

Teak toe rail

Foam and Glass Details

6 Winch Pads

7 Hatch Flats

2 Foot block pads

1 Anchor locker door

2 Seat locker hatches

2 Aft lazarette hatches

1 Engine room access hatch

Discontinuous toe rail full length

Custom Athwartship Main Companionway System

1 Carbon/Lexan hatch

2 Tracks male/female

2 Locking systems, one operational from both sides

Teak handles and trim

Aft Deck

Transom swim ladder

Teak deck surface

Transom roller with guides

Raft chocks

Margas propane storage

Cannister raft storage

Canvas side covers

Anchor Locker

Recessed furling drum

12" PVC pipe chain storage tube with drain

Anchor stowage chocks and rollers

Mounting bed for windlass

Upper locker drains
Hose bib for washdown

Pilot House

Constructed over male plug on shop floor
Marine grade epoxy resins
20 oz Plain weave carbon cloth innerskins
1" H80 and H200 cores
GAO 900 carbon uni reinforcements
20 oz Plain weave carbon cloth outerskins
Foam composite eyebrow
Teak edge Trim
Dining table
Navigation station with provision for electronics
Teak deck surface

- 6 1/4" Lexan windows recessed 1/4"
- 1 Finished forward window hole
- 7 Teak trim rings
- 2 Teak handrails

Rag Top Details

- 2 Harken tracks #142
- 12 Harken cars #156
- 6 1 1/4" x 1/4 carbon beams
- 12 Custom brackets
- 4 End stops
- 1 Custom canvas rag top

Interior Construction

Primary Bulkheads

Marine epoxy resins throughout
20 oz Tri-Ax glass skins
1" H80 PVC foam core
Reinforced as needed

Secondary Wall Panels and Doors

20 oz Tri-Ax glass skins
1" H80 PVC foam core

Forward and Aft Heads

20 oz Tri Ax glass skins
1/2" H80 PVC foam core
All joints fillet radii and bonded

Doors

- 2 Passageway
- 2 Head
- 1 Engine room

Interior Accommodations

Main Salon

"U" shaped settee with storage below and behind seat backs
Outboard storage shelf with doors
Fixed dining table with Jade green marble top

Entertainment Center

Facilities for equipment
Shelving for equipment
Cabinet for audio & video

Navigation/Office Area

Formica counter tops
Outboard electronics compartments
Removable face plates
Office chair
Wet locker with teak trimmed opening
Teak and holly sole with non-skid finish and hidden fasteners typical
3mm Okoume ply panels covered with ultrasuede for hull sides and overhead
Sprayed satin urethane finish throughout

Owners Stateroom

Custom laminated bed frame with inner spring mattress
Hanging locker to starboard with three doors and aromatic cedar liner
Sofa aft starboard with bin stowage beneath
Cabinet starboard aft corner with two drawers

Port Side Vanity Area

Counter top laminated with 1/4" Corion
Two drawers
Fixed stool
Surround acrylic mirrors
Cabinet above

Owner Entertainment Center

Wire way for electronics
Tambour or foldaway doors
Media storage cabinet

Wrap around Dresser Cabinet

Acrylic mirror above
Six drawers
Outboard double door
Teak and holly sole with non-skid finish
Hull sides 3mm ply with ultrasuede
All remaining surfaces satin urethane
Varnished teak fiddles and trim

Owners Head Shower

Counter top laminated with 1/4" Corion
Under counter cabinet with two drawers
Over counter cabinets along hull side to have double doors
Forward bulkhead mirrored acrylic
Teak and holly sole with non-skid
Satin urethane finish
Curved shower enclosure with outboard seat
False floor with sump pump
Varnished teak fiddles and trim

Guest Stateroom

Double berth to starboard with stowage below
Built in chair centerline forward
Hanging locker to port with:
 Shelf above for storage
 Removable high fiddle
 Cedar opening doors
 Cedar liner
 Full length bar

Curved face dresser top aft to port
Three drawers under
All drawers to have positive finger latch
Hull sides to have 3mm ply with ultrasuede
All remaining surfaces satin urethane
Teak fiddles and trim
Teak and holly sole with bilge access and non-skid

Forward Head/Shower

Counter top laminate with 1/4" Corion
Under counter cabinet with two drawers and two doors

Over cabinet along hull side to have double doors
Aft bulkhead mirrored acrylic
Hardwood medicine cabinet
Teak and holly sole with non-skid
Satin urethane finish
Shower enclosure with outboard seat
False floor with sump pump

Galley

Counter tops with Jade green marble
Varnished teak fiddles and trim
Sprayed satin urethane finish
Double doors beneath galley sink
Matching doors giving access to storage shelves
Centerline island with six drawers opening into galley
Metal stove enclosure with sliding cover
Front opening refrigeration with fiberglass split level liner
Top opening freezer with double doors and fiberglass liner

Engine Room

Buffed alloy finish
Easy to clean epoxy finish on composite surfaces
Sound foam panels on all surfaces
Work bench with stowage beneath
Offset panels for equipment mounting

Forepeak

Buffed alloy finish
Aluminum ladder
Composite floorboards with non-skid
Sail bin to starboard with Textra liner
Port pipe berth with lifting tackle and cushion
Line hooks on starboard side

Interior Systems

Hardware

5 Sets door hardware
30 Sets push button latches
3 Sets freezer/reefer latches
6 Sets stainless hinges
4 Sets lazarette hardware

Heat/Hot Water

- 1 Proheat XL 900 hot water heater
- 4 MSR 905 dual outlet fan heaters
- 4 Thermostat controls
- 1 Allcraft stainless water heater #VR12SS

Galley

- 1 Broadwater "Brigantine" stove
- 1 Marine grade microwave
- 1 Icemaker
- 1 Glacier Bay 3/4 hp whisper jet compressor
- 2 Glacier Bay reefer holding plates
- 2 Glacier Bay freezer holding plates
- 2 Thermometers
- All related Glacier controls, components to complete system
- Vacuum seal double gasket doors with latches

Fresh Water

- 1 Spectra 12 V watermaker #180
- 1 Ametec cartridge filter #158001

Propane

- 1 Mar Gas 20 lb dual solenoid #MG22V
- 1 Mar Gas spare tank #SCK
- 1 Mar Gas control panel
- 1 BBQ hose with quick release

Fire Control

- 1 Engine room/Fyrewatch #200/FW200
- 4 Portable extinguishers #PRO5TCM

Electrical**Equipment**

- 1 Paneltronics DC panel with:
 - Volt & amp meters
 - 30 DC breakers
 - Battery bank switches
- 1 Paneltronics AC main panel with:
 - Shore and generator switch
 - Isolated inverter buss
 - 12 AC breakers
- 1 Northern Lights 5kw Genset
- 1 Sound foam enclosure
- 1 Acme 5KVA isolation transformer #T-353044-S
- 1 Marinco shore power inlet #301EL-B
- 1 Marinco shore power cord 50' #PCMPKG

1	Heart pathmaker battery combiner	#84-2052-02
1	Heart link 20 monitor	#84-2020-00
1	Trace 2500 watt inverter	#U2500RUM
1	Trace on/off remote	#RC-1
1	Statpower 1000 watt inverter	#806-1000
1	Revolution Technologies 200 amp alternator	#J200SE
1	Heart alternator regulator	#84-2006-00
1	Blue Line transfer switch	#C32-A11
1	Blue Seas 150 amp breaker	#7104

Batteries

5	Lifeline 8D gel-house	#GPL-8D
1	Lifeline 4D gel-engine	#GPL-4D

Components

8	Hella turbo fans	#87176
16	Alpenglo lights	
4	Perco HD lights	#1253DP2WHT
2	Hella navstation lights	#87142
1	Aquasignal bow light/port	#41300-7
1	Aquasignal bow light/stbd	#41200-7
1	Aquasignal stern lights	#40-500-7

All marine grade wire and necessary components installed to USCG standards

Engine Systems

1	Cummings 4BT-M 155hp marine diesel	
1	ZF 1RM220A 2.45-1 10 degree angle gear	
2	Cummings control panels	
1	1 1/2" Aquamet 22 prop shaft	
1	Drive saver shaft coupling	
1	1 1/2" PSS shaft log	
1	1 1/2" Morse cutlass bearing	
1	24" Gori 3 blade folding propeller	
2	Raycor fuel filter/water separators	#220R
1	20 Gallon day tank with dip tubes Inspection port, fill port and shutoff valves	
1	Detmar exhaust fan	#751
1	Kobalt 2071 shifter	
2	33C cables	
1	Heat exchanger	
1	105 amp Alternator upgrade	

- 1 Front pulley for power takeoff
- 1 Engine drip pan
- 1 Oil changer pump

Plumbing

Fixtures

- | | | |
|---|----------------------------------|------------|
| 1 | Scandvic galley sink | #101037-13 |
| 2 | Scandvic head sinks | #101001-10 |
| 1 | Scandvic galley faucet | #103200-MG |
| 2 | Scandvic head faucets | #103000-MF |
| 2 | Scandvic showers | #101542-MD |
| 1 | Scandvic hot/cold outside shower | #101516-MR |
| 2 | Perco hose bibs | #BPCHR-504 |

Headhunter Heads

- | | | |
|---|--------------------------------|----------|
| 2 | Royal flush superbowl stations | #SBS3 |
| 2 | Adder kits | #AK-12 |
| 2 | Three way valves | #TW-1515 |

Pump/Systems

- | | | |
|----|--|-------------|
| 1 | Groco Paragon SR pressure pump | #PSR-12V |
| 1 | Fiberglass pressure accumulator tank | #AVF-4LP |
| 3 | Rule 3700 bilge pumps | #14A |
| 3 | Ultra switches | #WPS-02-12V |
| 1 | Whale Gusher 30 manual pump | #MSBP3000 |
| 1 | Whale Gusher 10 manual pump mounted per ORC regs | #MSBP3740 |
| 12 | Forspar marlon valves | |
| 2 | Sherwood 1 1/2" strainers | #18016 |
| 4 | Sherwood 3/4" strainers | #18001 |
| 2 | Flowjet sump pumps | #4125-114 |
| 1 | Flowjet deck wash | #4324-143L |
| 1 | Flowjet deck wash | #4324-1436 |
| 1 | Jabsco reversible vane pump | #45710-1000 |
| 2 | Forespar vented loops | #903000 |
| 2 | Forespar "Y" valves | #9020001 |
| 2 | Seland holding tanks | #12800 |
| 2 | Scandvic deck fill plates water | #106120-01 |
| 2 | Scandvic deck fill plates sewer | #106120-06 |
| 3 | Scandvic deck fill plates diesel | #106120-03 |
| 1 | Custom Sea Chest with six ports and one zinc anode | |
| 1 | Jabsco 1 1/4" clutch pump | #11870-0045 |

Fuel Transfer

- 1 Jabsco vane pump #45710-0000
- 1 Three port manifold 2" np
- 1 Four port manifold 2" np

All marine grade hose, clamps and necessary components installed to USCG standards

Keel

- Fin constructed from A36 steel
- 3/4" Plate internal structure
- 5/16" Plate outer skins
- Upper fin section to form fuel tank
- Pressure tested to (2) PSI
- Dip tube pickup
- Fuel filler and vent fittings
- 10,000 lb Lead bulb cast on bottom of weldment
- G10 fiberglass isolation plate and bolt sheaves
- 16 High strength 1 1/4" keel bolts, nuts and washers

Finish/Keel

- Keel foil sandblasted to bare metal
- Proline epoxy metal primers
- All epoxy fairing materials
- Proline epoxy barrier final primer

Rudder

- Pre Preg carbon post with machined bearing surfaces
- H80 PVC foam core
- Unidirectional carbon and "E" glass skins vacuum laminated
- Self aligning bearings
- Emergency tiller handle

Steering System

- 1 Custom composite console with teak top and teak face
- 1 PYI shelf steering unit

- 1 40" Leather covered stainless wheel
- 4 Harken 6" sheaves
- 1 #60 Stainless chain
- 2 5/16 7 x 19 Steering cables
- 1 12" R alloy quadrant
- 1 B&G pilot driver
- Mounting to connect driver and quadrant

Exterior Hardware

- 1 Lighthouse stainless windlass #1501
- 4 Lewmar #60 hatches #39650050
- 2 Lewmar #10 hatches #39610050
- 1 Lewmar #70 hatches #39670050
- 7 Lewmar screen kits
- 6 Mooring cleats
- 1 Helmsman compass - Ritchie Constellation
- 1 Custom radar pole with provisions for VHF, GPS, stern light

Railmakers Lifelines

- 14 1 1/4" x 30 socket type stainless stansions
- 4 Reinforced gate stansions
- 1 Bow pulpit - socket type
- 2 Stern ends - socket type
- Double wire system with Johnson hardware
- All stainless fastenings necessary for hardware installation

Sailing Hardware

Harken Winches

- 1 Jib Sheet 2 speed self tailing aluminum drum #74.2 STA
- 2 Runner 2 speed self tailing aluminum drum #56.2 STA
- 1 Mainsheet 2 speed self tailing aluminum drum #53.2 STA

Halyards

- 1 2 speed self tailing aluminum drum #53.2 STA
- 1 2 speed self tailing 12 volt electric #53.2 STEA-12h
- 1 Control Box #BEB 1000.12.1
- 2 Switch with guard #BRS 104/P
- Handles

4	10" speed grip handle	#B10ASG
2	8" speed grip handle	#B8ASG

Staysail and Jib Sheet System

1	Big boat track	#516.10
1	Bend19ft horizontal	#790
1pr	End Stops	#548
2	Cars 3.00lb swl each	#1928
1	Coupler	#1770
2	100 mm single block	#3007
1	100 mm fixed block behind mast	#3053
2	75 mm single footblock	#1972

Jib Tracks and Cars on Deck

2	32 mm T Track outboard track	#1891 1M
2	32 mm T Track inboard track	#1891 9M
4	End stops	#B807
2	AM	#B1875
2	32 mm T Track Slider	#B157M

Mainsheet/Traveler System

1	Mini maxi track	#1701.3M
2	End stop with pad eye	#1707
2	57 mm footblock with lockoff	#1967
1	Mini maxi car with toggle	#3068
1	Non stock 125 mm single with becket on car	
2	100mm single on boom	#3007
1	75 mm stand up on deck	#1974
	Misc.	
1	Stern pad eye medium round	#648
2	Forward rail pad eye for jib sheet fairlead medium round	#648
2	Aft rail pad eye for runner & gennaker medium round	#648

Rail Blocks

4	100 mm single rail pad eye applications	#3007
4	3500 lb swl snatch block for reefing. Fwd pad eye for wing, wing jib sheet and fwd outboard lead	#1601

Mast Base Blocks

3	Fixed blocks for 2 x spin halyard. 1 x main halyard	#3053
2	Stand up swivel blocks for jib and staysail halyard	#3012
2	Pad eye for reefing	#648
1	Opening footblock to deflect jib and staysail halyard to starboard side electric winch	#B2113

Jib Furling System

- 1 Custom Profurl Electric
82' Luff length
Short link plates
7/8" Headstay pin
Turnbuckle cylinder

Mainsail System

- Antal #60 luff system
- 1 Full length track on integral car loader
- 1 Headboard car
- 8 Batten cars with universal joints
- 8 Intermediate slider cars
Installed with stainless fasteners

Navtec Hydraulics

- 1 Four function panel #A320-SF4-01
 - 1 -22 vang cyl #A850-VC-22
 - 2 -17L backstay cyl #A250-LE-022
 - 1 -17L inner forestay #250-LE-017
 - 1 -12 outhaul #A250-SE-012
- Kevlar hose with stainless fittings

Spars

Ballenger spar systems, 3 spreader
Custom aluminum mast
Navtec rod rigging
Custom Park Avenue boom with lazy jacks
Staysail stay
Split backstay

Sails

- 1 Quantam mainsail - Spectra tri-radial with two reefs
- 1 Quantam selftacking jib - Spectra tri-radial, roller furling with Acrilan cover
- 1 Quantam staysail - Spectra
- 1 Quantam cruising spinnaker

Exterior Finish

Alloy

Garnet sandblast and passive wash
Proline 3000 series epoxy prime system
West epoxy/microballon fairing
Proline 3000 series hybrid epoxy system
Below waterline Proline barrier epoxy
Topsides Proline urethane tie coat prime
Proline high gloss urethane
Top coat one color
Stripes tapped and over sprayed

Composite

West epoxy/microballon fairing
Proline 3000 series high build epoxy
Proline 300 series final prime
Proline urethane tie coat prime
Proline high gloss urethane topcoats
Urethane/poly bead sprayed contrasting non-skid