

The MORGAN 30

Built With Pride by the Men of Morgan™

*Style - Performance - Quality . . .
The Morgan 30 meets all these criteria!*

Besides, she's about the biggest 30-footer available . . . a shoal draft keel-centerboarder, long on the waterline and beamy for maximum performance and below decks livability.

The Morgan-30 was designed and built by Morgan as a versatile cruiser-racer, and many happy owners agree she's the all time champ for family fun and cruisability . . . not only that . . . she's a proven racer, too.

Carefully planned interior accommodations feature a roomy dinette for entertaining aboard . . . converts to double berth when cruising . . . also an efficient galley with top-loading ice chest, a sink, water pump, and bins and lockers for storage. The head is enclosed and forward, a private cabin is separated from the main cabin by a pocketed sliding door . . .

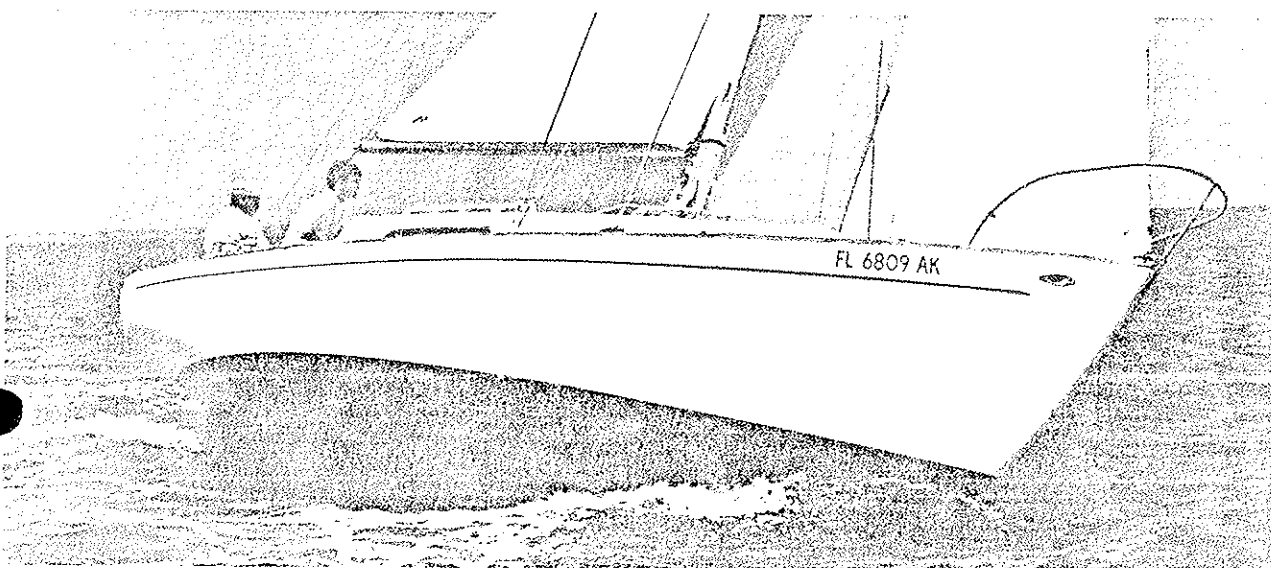
The M-30 . . . altogether a tasteful combination of style and space with emphasis on livability . . .

Why not give her the family test?

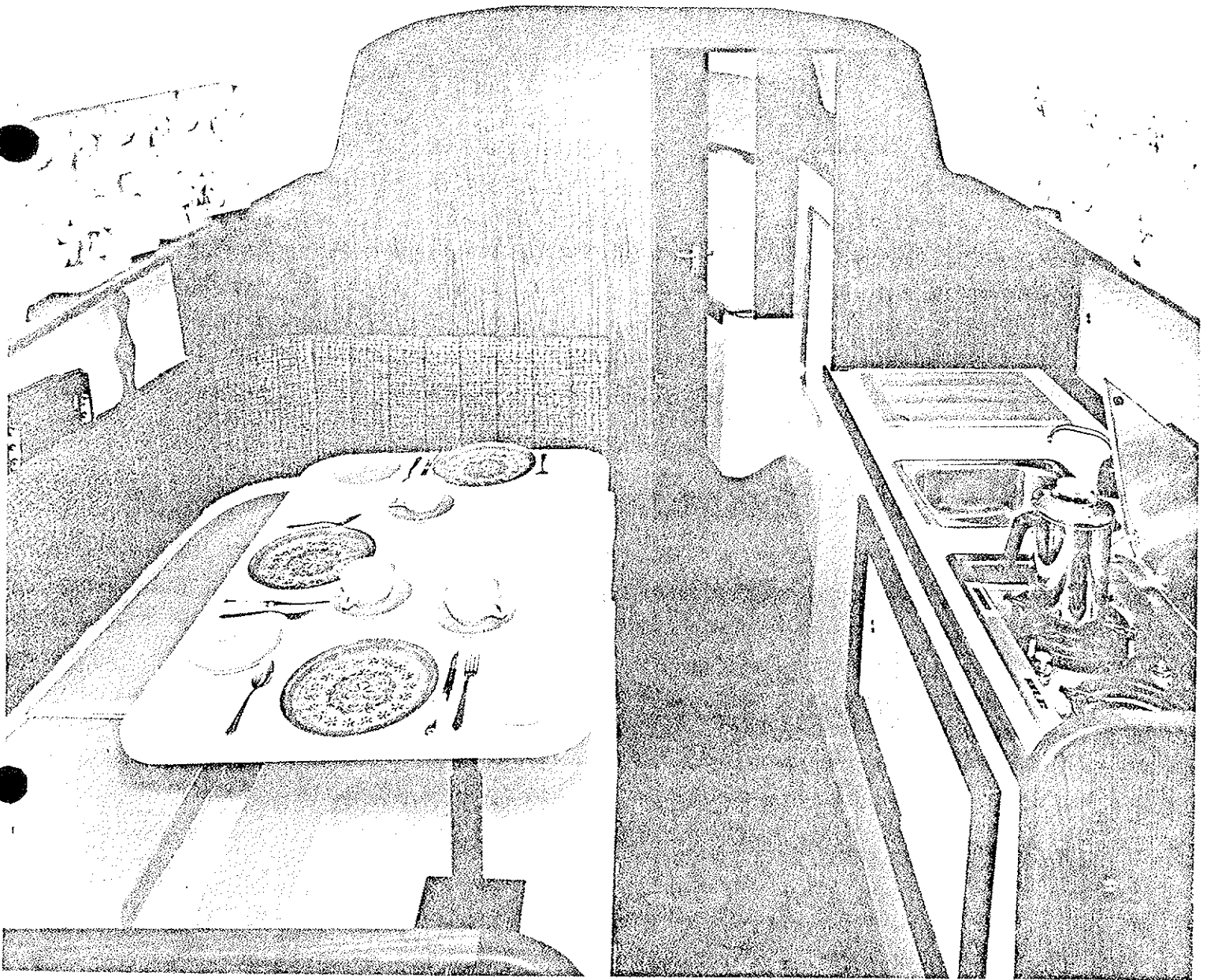
Go ahead . . . sail into the exciting world of yachting in your own Morgan-30.

Principle Dimensions

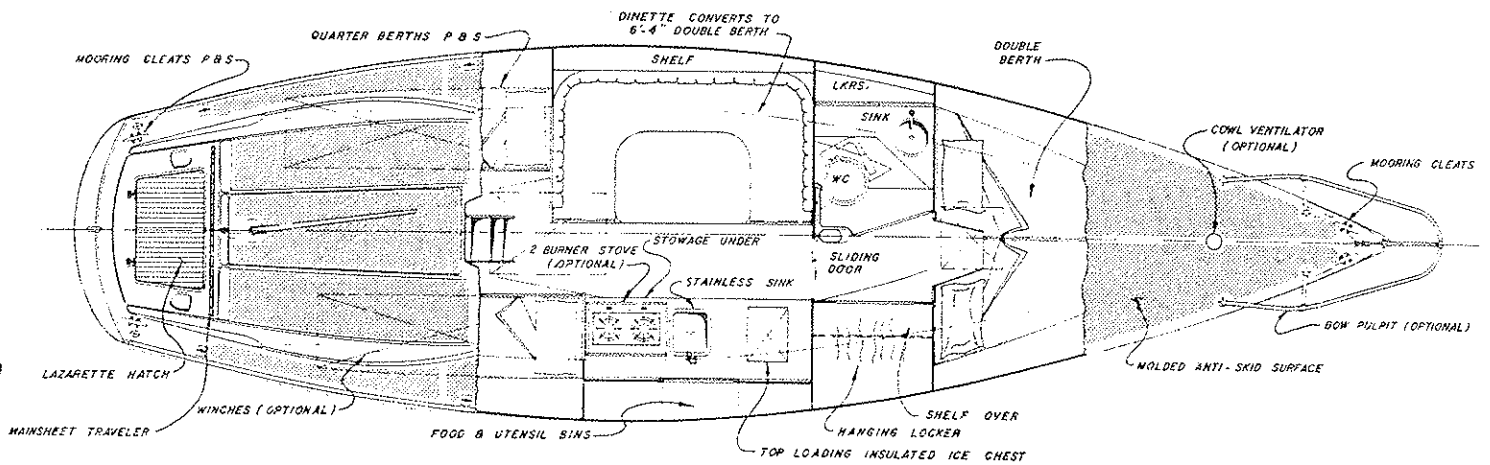
Length Overall, Standard		29' 11"
With Teak Transom Strake		30' 1-1/2"
Nominal Waterline Length		24' 2"
Beam		9' 3"
Nominal Draft		42"
Centerboard Extension Below Keel		3' 8-1/2"
Nominal Displacement	(Approx.)	10,500 lbs.
Ballast, Cast Lead	(Approx.)	4,500 lbs.
Sail Area (Mainsail & 100% of Fore Triangle)	(Approx.)	466 sq. ft.
Mast Height Above DWL	(Approx.)	42' 9"
Headroom, Main Cabin	(Approx.)	6' 2"



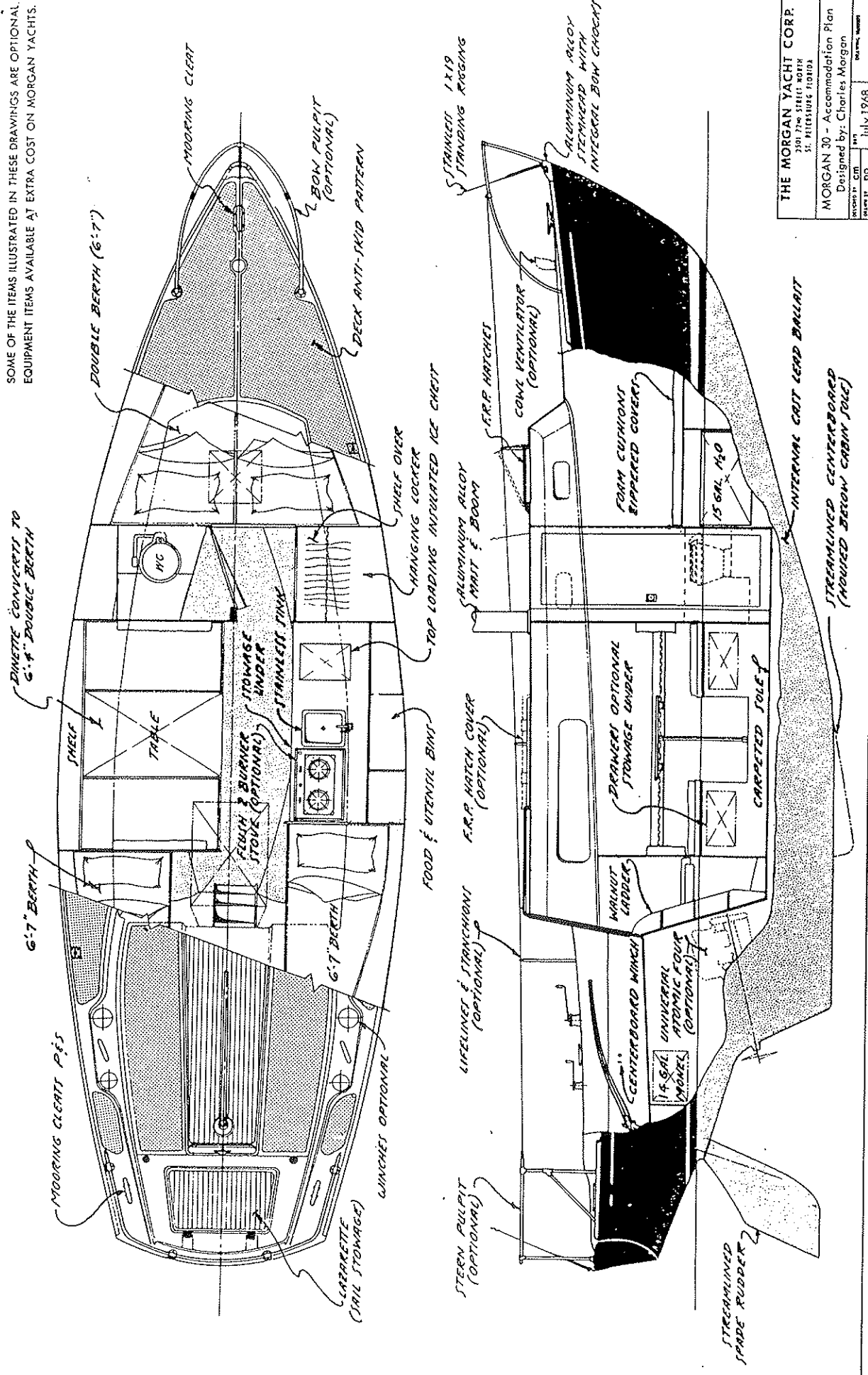
Sail into the exciting world of yachting in your own Morgan 30.



Spacious and livable, the M-30 interior features a large family-sized dinette, comfortable berths, and easy-clean surfaces and trim.



SOME OF THE ITEMS ILLUSTRATED IN THESE DRAWINGS ARE OPTIONAL. EQUIPMENT ITEMS AVAILABLE AT EXTRA COST ON MORGAN YACHTS.



THE MORGAN YACHT CORP.
 2301 77th STREET NORTH
 ST. PETERSBURG, FLORIDA

MORGAN 30 - Accommodation Plan
 Designed by: Charles Morgan

REVISED BY: CM
 DRAWING NO. 101
 DATE: July 1968

STREAMLINED CENTERBOARD
 (HOUSED BELOW CROWN SOLE)

INTERNAL CAST LEAD BALLAST

STREAMLINED SPADE RUDDER

STERN PULPIT (OPTIONAL)

LIFELINES & STANCHIONS (OPTIONAL)

F.R.P. HATCH COVER (OPTIONAL)

ALUMINUM ALLOY MAIN & BOOM

STAINLESS 1 X 19 STANDING RIGGING

TOP LOADING INSULATED ICE CHEST

FOOD & UTENSIL BIN

WALNUT LADDER

CENTERBOARD WINCH

CLARINETTE (MAIL STORAGE)

WINCHES OPTIONAL

6:7 BERTH

6:7 BERTH

6:7 BERTH

6:7 BERTH

6:7 BERTH

6:7 BERTH

FRESH & BURNER STOVE (OPTIONAL)

STAINLESS TANK

STAINLESS TANK

STAINLESS TANK

TABLE

TABLE

TABLE

TABLE

TABLE

TABLE

SHELF

SHELF

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SHELF

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SHELF

DINETTE CONVERTS TO 6:8 DOUBLE BERTH

DOUBLE BERTH (6:7)

DOUBLE BERTH (6:7)

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DECK ANTI-KID PATTERN

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DECK ANTI-KID PATTERN

ALUMINUM ALLOY STEERING WITH INTEGRAL BOW CHOCK

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CONVEYOR VENTILATOR (OPTIONAL)

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FOAM CUSHIONS SUPPLIED COVER

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DRINKER'S OPTIONAL STORAGE UNDER

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14 GAL. UNIVERSAL ATOMIC FUEL PUMPS (OPTIONAL)

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INTERNAL CAST LEAD BALLAST

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STREAMLINED SPADE RUDDER

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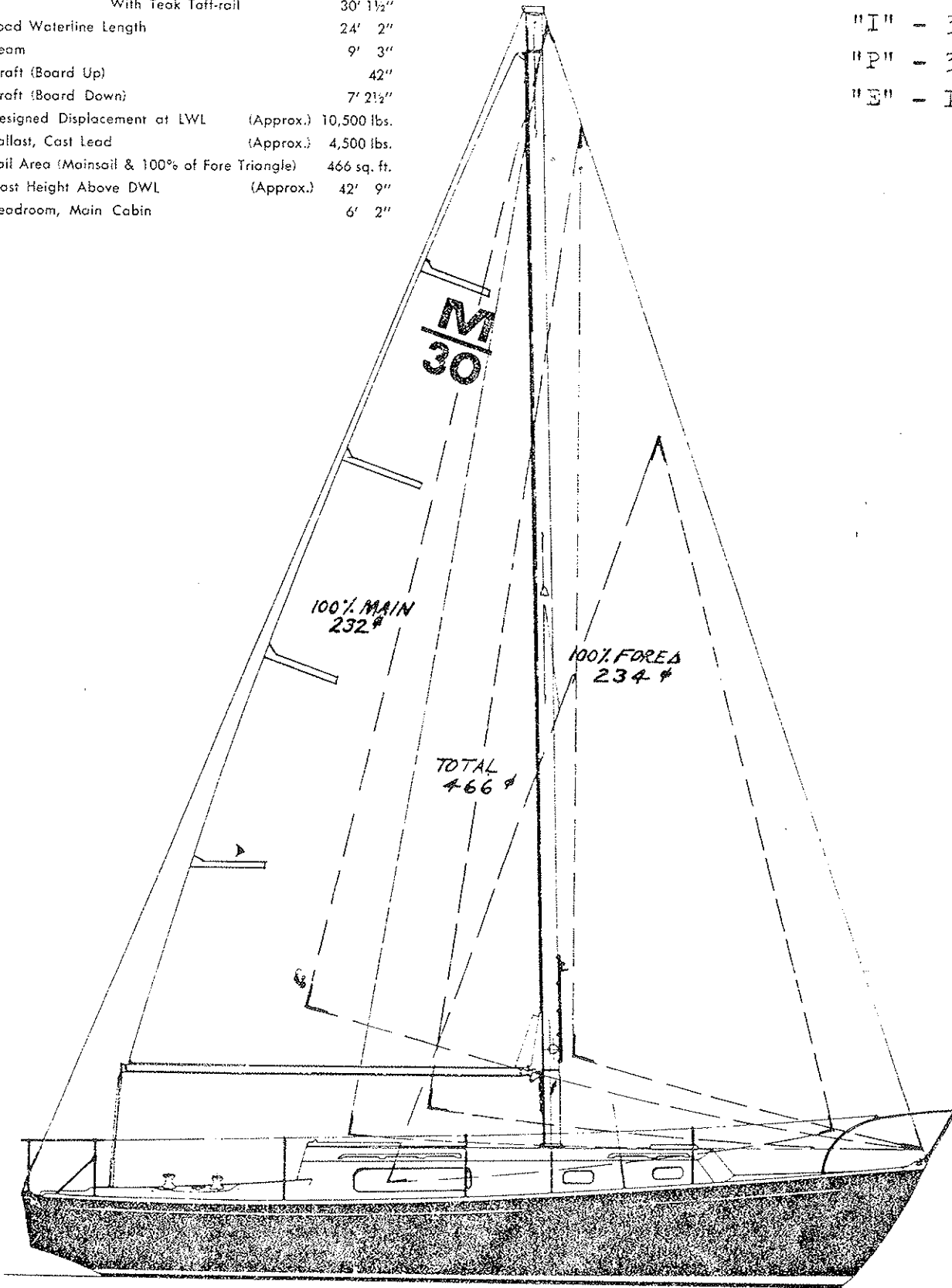
STREAMLINED SPADE RUDDER

STREAMLINED SPADE RUDDER

PRINCIPAL DIMENSIONS

Length Overall, Standard	29' 11"
With Teak Taff-rail	30' 1½"
Load Waterline Length	24' 2"
Beam	9' 3"
Draft (Board Up)	42"
Draft (Board Down)	7' 2½"
Designed Displacement at LWL	(Approx.) 10,500 lbs.
Ballast, Cast Lead	(Approx.) 4,500 lbs.
Sail Area (Mainsail & 100% of Fore Triangle)	466 sq. ft.
Mast Height Above DWL	(Approx.) 42' 9"
Headroom, Main Cabin	6' 2"

"J" - 12.0
 "I" - 39.0
 "P" - 33.75
 "S" - 13.75



Aug 69	THE MORGAN YACHT CORP. 2501 72ND STREET NORTH ST. PETERSBURG FLORIDA		
	MORGAN 30 OUTBOARD PROFILE & SAIL PLAN		
DESIGNED BY	com	DATE	DRAWING NUMBER
DRAWN BY	iqc	Jan 68	
CHECKED BY		SCALE	SHEET
REVISION	DATE	APPROVED BY	OF

MORGAN 30

SPECIFICATIONS - STANDARD EQUIPMENT

PRINCIPAL DIMENSIONS

Length Overall, Standard	29' 11"
With Teak Transom Strake	30' 1½"
Nominal Waterline Length	24' 2"
Beam	9' 3"
Nominal Draft	42"
Centerboard Extension Below Keel	3' 8½"
Nominal Displacement	(Approx.) 10,500 lbs.
Ballast, Cast Lead	(Approx.) 4,500 lbs.
Sail Area (Mainsail & 100% of Fore Triangle)	(Approx.) 466 sq. ft.
Mast Height Above DWL	(Approx.) 42' 9"
Headroom, Main Cabin	(Approx.) 6' 2"

GENERAL

Modern Masthead Sloop Rig . . . Keel-centerboard design with streamlined centerboard housed entirely below cabin sole . . . Cockpit actuated centerboard winch . . . Efficient spade rudder with stainless steel shaft . . . Approximately 4,500 lbs. cast lead ballast.

HULL & DECK

Molded fiberglass hull with recessed cove stripe and molded in boot top . . . Molded fiberglass deck with sandwich construction for rigidity and insulation . . . Molded anti-skid surfaces on deck . . . Natural finish teak toe rails, companionway boards, slides and exterior handrails.

PROPULSION-STEERING & TANKAGE

Palmer M-60 gasoline engine (or Universal Atomic 4)* with 14-gallon monel fuel tank . . . Alternator . . . Bronze shaft with rubber stern bearing . . . Narrow, two-blade bronze propeller . . . Marine exhaust system with muffler . . . Laminated tiller with cast bronze tillerhead fittings (wheel steering available)* . . . 40-gallon capacity fresh water tank.

CABIN INTERIOR

Popular dual-purpose dinette arrangement, attractively upholstered, with curved seat back . . . Table lowers to form double berth . . . Warm, easy-to-clean finishes . . . Interior trim of oiled American walnut and bulkheads paneled with practical wood-grained laminate . . . Sleeps six in berths with fitted foam mattresses with zippered covers (your selection from several decorator colors) . . . Fiberglass hull liner, main and forward cabins . . . 6'2" headroom in main cabin . . . Molded fiberglass headliner throughout . . . Anti-skid fiberglass cabin sole (carpet available if desired)* . . . Full height hanging locker with shelf over . . . Shelves over quarter berths and forward "V" berths . . . Pocketed sliding door between main and forward cabins . . . Handrails, port and starboard, in main cabin.

HEAD

Marine toilet with bronze valves on thru-hull fittings (Chlorinator or holding tank available if required)* . . . Vanity counter and lavatory with hand-operated water pump.

GALLEY

Conveniently located galley directly opposite dinette. Stainless steel sink with hand operated pump . . . Insulated top-loading ice chest with maple cutting board top . . . Food and utensil lockers and silverware drawer.

ELECTRICAL

Heavy gauge, 12 volt, 2-wire system with U.S. Government required navigation lights, 7 cabin lights, thermally protected switch panel and heavy duty battery.

MECHANICAL & PIPING

Cockpit located centerboard winch . . . Recessed thru-hull fittings . . . Bronze valves on all thru-hull fittings below waterline.

COCKPIT

Large, self-draining cockpit with comfortable backrest and convenient winch locations . . . Anti-skid surface molded in cockpit sole . . . Conveniently located centerboard winch, engine controls and instruments.

HATCHES

Main companionway and lazarette hatches of molded fiberglass . . . Tinted or clear forward hatch . . . Ample storage space in lazarette.

SPARS & RIGGING

Streamlined aluminum alloy mast . . . Stainless steel standing rigging with swaged termina fittings and bronze turnbuckles . . . Stainless steel tangs and chainplates . . . Aluminum alloy boom with sliding gooseneck . . . Stainless steel halyards with dacron tails . . . Jib fairleads . . . Dacron main and jib sheets.

*OPTIONAL EQUIPMENT

Owners may outfit their MORGAN 30 to their individual requirements from a wide array of factory-installed optional equipment and accessories which are well worth the extra cost in terms of livability and performance. Some of these "optional extra" items are shown in our advertisements, drawings and photographs.

FOR YOUR GUIDANCE

All orders are subject to prices and specifications in effect at time of acceptance. Please check with your Morgan dealer for verification, as the company reserves the right to make changes without notice.

REVISION	DATE	MORGAN YACHT CORPORATION 7200 BRYAN DAIRY ROAD ST. PETERSBURG FLORIDA
	May 69	
	Feb. 70	MORGAN 30 Designed by: CHARLES MORGAN
		DESIGNED BY
		DATE
		Nov 68
		DRAWING NUMBER

OPTIONAL EQUIPMENT — FACTORY INSTALLED

Prices apply when specified on original yacht order

HULL & DECK

30-111	TRANSOM STRAKE, TEAK, Extends overall length to 30' 1-1/2"	\$ 54.
30-120	HULL COLOR, Other than white	105.
30-125	BOTTOM PAINT, Anti-fouling (red, green or blue)	105.
30-126	THRU-HULL INSTALLATION, Customer furnished, for electronic devices	15.
30-127	WATER BOX, For future installation of depth sounder transducer	36.
30-151	DECK COLOR, OTHER THAN WHITE	95.
30-153	DECK COLOR, CONTRASTING Anti-skid areas	158.
30-163	PORT, OPENING, Hinged, dog down aluminum, with screen, in lieu of std. (ea.)	50.
30-174	HATCH, FORWARD, DOUBLE OPENING, In lieu of standard	25.
30-179	HATCH COVER, For companionway, laminated fiberglass	88.
30-193	OIL TREATMENT, Preservative for exterior teak trim	49.

PROPULSION - STEERING & TANKAGE

30-202	ENGINE, GASOLINE, UNIVERSAL ATOMIC 4, In lieu of standard engine	150.
30-210	FRESH WATER COOLING, For Atomic 4 engine	225.
30-211	INSTRUMENT PANEL, DELUXE, With tachometer for gasoline engine, in lieu of standard	60.
30-217	ENGINE ROOM INSULATION	40.
30-221	PROPELLER, THREE-BLADED, In lieu of standard two-bladed, for cruising	10.
30-235	STEERER, PEDESTAL, Complete with 4" lighted compass and aluminum wheel	1,145.
30-237	GUARD FOR STEERING PEDESTAL	110.
30-238	THROTTLE CONTROL ON PEDESTAL	125.
30-239	BINNACLE COVER, Chrome plated	75.

CABIN INTERIOR - GALLEY & HEAD

30-301	MICA BULKHEADS AND VERTICAL SURFACES, In lieu of standard woodgrain laminate	50.
30-302	TABLE TOP, COLOR OR PATTERN OTHER THAN STANDARD	10.
30-311	SOLE, STRIP TEAK, Throughout cabin, in lieu of molded fiberglass	200.
30-315	CARPET, CABIN SOLE, Over molded fiberglass sole	50.
30-322	BERTH CUSHIONS, UPHOLSTERED OF WOVEN FABRIC, In lieu of standard vinyl	65.
30-325	CURTAINS, Installed on all cabin ports, with sliding snap fasteners	150.
30-331	STOVE, FLUSH MOUNTED, GIMBALLED, Two-burner, alcohol	236.
30-332	STOVE, FLUSH MOUNTED, NON-GIMBALLED, Two-burner, alcohol, with stainless steel cover and wire mesh basket	124.

30-333	STOVE, COUNTER TOP, GIMBALLED, Two-burner, alcohol	96.
30-334	STOVE, COUNTER TOP, NON-GIMBALLED, Two-burner, alcohol	76.
30-337	GALLEY LOCKER, Over counter, for food and utensils, including silverware drawer	95.
30-340	RACKS, BOOK AND MAGAZINE, Walnut (price each)	26.
30-345	BUNK BOARDS, (Price each)	25.
30-380	DRAWERS, STORAGE, UNDER DINETTE, (Price each)	28.

ELECTRICAL - MECHANICAL - PLUMBING

30-402	BATTERY, EXTRA, Complete with wiring harness and master switch	76.
30-405	SHORE POWER, 110V, with four duplex receptacles and shore power connector in cockpit	100.
30-406	MARINE POWER CONVERTER, 110V AC to 12V DC	368.
30-410	ELECTRIC FAN, 12V DC, Bracket mount	30.
	Custom recessed mount	35.
30-411	CABIN LIGHTS, ADDITIONAL, (Price each)	22.
30-413	ENGINE ROOM LIGHT	19.
30-416	MASTHEAD LIGHT	32.
30-417	SPREADER LIGHTS	67.
30-441	BILGE PUMP, MANUAL	35.
30-443	BILGE PUMP, ELECTRIC, Automatic for bilge and sump	84.
30-462	PRESSURE WATER SYSTEM	175.
30-472	WATER HEATER, 110V ELECTRIC, Faucets in galley and head	430.
30-492	WASTE TREATMENT SYSTEM, ELECTRO-CHEMICAL, For use with standard marine toilet	158.
30-493	MONOMATIC HEAD, In lieu of standard marine toilet	320.
30-498	SEA COCKS, Bronze, in lieu of standard valves	
	Size 1/2"	6.
	Size 3/4"	9.
	Size 1-1/4"	15.
	Size 1-1/2"	18.

DECK & COCKPIT - FITTINGS & HARDWARE

30-501	CHROME PLATED HARDWARE, All standard hardware chromed excluding stainless steel and aluminum pieces	90.
30-515	COMPASS, 4", BULKHEAD MOUNTED, Internally gimballed and lighted with built-in compensators	92.
30-516	COMPASS, BULKHEAD MOUNTED, 3-1/2" RECESSED, With built-in correctors and internal lighting	120.
30-524	DECK COWL VENT, Foredeck	38.
30-541	BOW PULPIT, Stainless steel	80.
30-542	STERN PULPIT, Stainless steel	190.

DECK & COCKPIT - FITTINGS & HARDWARE (Continued)

30-551	LIFELINES, SINGLE, Plastic coated stainless steel, complete with stanchions and bases with bails	\$ 305.
30-553	LIFELINES, DOUBLE	395.
30-556	LIFELINE GATE, Per side	100.
30-582	STERN CHOCKS, Bronze	20.
30-590	COCKPIT GRATING, Teak	120.

SPARS & RIGGING

30-612	ROLLER REEFING, GEARED	80.
30-613	ROLLER REEFING, GEARED, WITH INTERNAL OUTHAUL CONTROL	225.
30-621	SPINNAKER TRACK On mast, stainless steel	30.
30-631	INSULATED BACKSTAY, For use as radio antenna	32.
30-641	RIGGING ROLLERS, Plastic, set of four	26.
30-662	INTERNAL HALYARDS, MAIN AND JIB	210.
30-663	INTERNAL HALYARDS, MAIN, JIB AND SPINNAKER	310.
30-671	MAINSHEET TRAVELER, Complete, with lateral adjusting gear	148.

SAIL HANDLING AND RACING GEAR

30-712	BOOM VANG, Tackle and strap	91.
30-719	SHEETS, GENOA, 3/8" yacht braid (pair)	30.
30-721	GENOA GEAR PACKAGE, Including stainless steel track for up to 180% genoa, #719 Genoa Sheets (pair), Two #723 Genoa Slides, Two #730 Genoa Sheet Blocks	133.
30-723	GENOA SLIDES, Or cars (price each)	13.
30-729	GENOA TURNING BLOCKS, Bronze (pair)	158.
30-730	BLOCKS, Genoa sheet, (price per pair)	12.
30-732	SNATCH BLOCKS, Bronze, rubber coated, #3 (price each)	30.
30-741	RACING GEAR PACKAGE, Including #712 Boom Vang, #721 Genoa Gear Package, Two extra #723 Genoa Slides, Two extra #732 Snatch Blocks, #750 Spinnaker Gear Package	694.
30-750	SPINNAKER GEAR PACKAGE, Including #621 Spinnaker Track on Mast, Three #732 Snatch Blocks, #751 Spinnaker Pole, #755 Halyard, #756 Foreguy, #757 Topping Lift, #761 Spinnaker Sheets (pair)	392.
30-751	SPINNAKER POLE, Aluminum, complete with bridle, end fittings, mast track eye slide and deck chocks	150.
30-754	SPINNAKER POLE EYE SLIDE For mast track, extra	14.
30-755	SPINNAKER HALYARD, Complete with block, swivel, snap shackle and mast cleat	51.
30-756	SPINNAKER FOREGUY, Dacron yacht braid with snap shackle	16.
30-757	SPINNAKER POLE TOPPING LIFT, Complete with block, snap shackle and mast cleat	29.
30-761	SPINNAKER SHEETS, 3/8" yacht braid with snap shackles,(pair)	47.

MISCELLANEOUS

30-803	ANCHOR, 13 lbs., with 175' of 5/8" power braid line	93.
30-811	BOARDING LADDER, Folding aluminum	58.
30-816	CLOCK, 8-day ship's bell striking, 4" dial, bulkhead mounted, (Matches #817 Barometer)	105.
	Brass	105.
	Chrome	110.

30-817	BAROMETER, Aneroid, temperature compensated, 4" dial, bulkhead mounted (Matches #816 Clock)	Brass \$ 90. Chrome 95.
30-820	COMMISSIONING CHARGE, St. Petersburg, including trucking, launching, rigging and use of cradle	400.
30-827	CRADLE, Shipping and storage	170.
30-836	FENDERBOARD, With two pneumatic bumpers	63.
30-845	FIRE EXTINGUISHER, 2-1/2 lbs. dry chemical, complete with mounting fixture (ea.)	14.
30-853	FLAG HALYARD, MASTHEAD	16.
30-854	FLAG HALYARD, SPREADER, Starboard	16.
30-860	HALF MODEL, White hull, mounted on green textured background, with teak frame	34.
30-862	HORN	4.
30-871	LIFE JACKETS, U. S. Coast Guard approved, set of four	20.
30-872	LIFE RING, Horseshoe, with stainless steel holder	65.
30-879	MAN OVERBOARD FLOAT AND FLAG	19.
30-888	MOORING LINES, 25' of 1/2" power braid, set of four	32.

YACHT CANVAS

30-981	BIMINI TOP, Dacron, for use under sail	116.
30-983	COCKPIT CUSHIONS, Zippered naugahyde covers	126.
30-988	DECK AWNING, Dacron	142.
30-992	MAINSAIL COVER, Dacron	81.
30-995	WINDSAIL VENTILATOR, Nylon	21.

SAILS

Sails by "Morgan Racing Sails". . . built to high specifications and designed specifically for your MORGAN 30 . . . Prices on request

Your Morgan dealer will be happy to furnish quotations from other competent sailmakers at your request.

WINCHES

A wide selection of quality winches is available for factory installation. . . . Prices on request

FOR YOUR GUIDANCE

These prices include charges for installation. All orders accepted are subject to prices in effect at time of acceptance. Please check with your Morgan dealer for verification of prices and specifications, as these are subject to change without notice. Many other items of gear and equipment are available for your MORGAN 30 . . . Prices available on request
All prices are f. o. b. our plant, St. Petersburg, Florida, U. S. A.



OPTIONAL EQUIPMENT - FACTORY INSTALLED

- 30-080 CRADLE, Shipping and storage (wood)
30-090 COMMISSIONING, St. Petersburg, including trucking, launching, rigging & use of cradle

HULL & DECK

- 30-111 TRANSOM STRAKE, TEAK, Extends overall length to 30' 1-1/2"
30-120 HULL COLOR, LIGHT PIGMENTS (B), In lieu of white
30-121 HULL COLOR, DARK PIGMENTS (C), In lieu of white
30-125 BOTTOM PAINT, Anti-fouling (red, green or blue)
30-126 THRU-HULL INSTALLATION, Customer furnished, for electronic devices
30-127 WATER BOX, For future installation of depth sounder transducer
30-128 GROUND PLATE, 12", Copper for future radio installation
30-151 DECK COLOR, LIGHT PIGMENTS (B), In lieu of white
30-152 DECK COLOR, DARK PIGMENTS (C), In lieu of white
30-153 DECK COLOR, CONTRASTING ANTI-SKID, Light pigments (A/B)
30-164 PORT, OPENING, Hinged, dog down
30-174 HATCH, FORWARD, DOUBLE OPENING, In lieu of standard
30-179 HATCH COVER, For companionway, laminated fiberglass
30-193 OIL TREATMENT, Preservative for exterior teak trim

PROPULSION - STEERING & TANKAGE

- 30-208 SEA WATER STRAINER, For engine intake
30-210 FRESH WATER COOLING, For Atomic Four engine
30-211 INSTRUMENT PANEL, DELUXE, With tachometer for gasoline engine, in lieu of std.
30-212 FUEL FILTER, All purpose, Underwriter approved
30-213 RUBBER ENGINE MOUNTS, Adjustable, for Atomic Four engine
30-217 ENGINE ROOM INSULATION
30-219 SPARE PARTS KIT, For Atomic Four engine
30-221 PROPELLER, THREE-BLADED, For cruising, in lieu of standard two bladed
30-222 MARTEC FOLDING PROP & SHAFT, In lieu of standard
30-241 STEERER, PEDESTAL, Complete with 5" lighted compass, stainless steel wheel, and emergency tiller
30-242 BRAKE, For #241 Pedestal Steerer
30-243 BINNACLE COVER, For #241 Pedestal Steerer Compass

CABIN INTERIOR - GALLEY & HEAD

- 30-302 TABLE TOP, COLOR OR PATTERN OTHER THAN STANDARD
30-303 COUNTER TOP, COLOR OR PATTERN OTHER THAN STANDARD

- 30-311 SOLE, STRIP TEAK, Throughout cabin, in lieu of standard sole
30-315 CARPET, CABIN SOLE, Over standard sole
30-321 BERTH CUSHIONS, 4" Foam, in lieu of std.
30-322 BERTH CUSHIONS, UPHOLSTERED OF WOVEN FABRIC OR NAUGAHYDE, In lieu of standard vinyl
30-325 CURTAINS, Installed on all cabin ports, with sliding snap fasteners
30-331 STOVE, FLUSH MOUNTED, GIMBALLED, Two-burner, alcohol
30-332 STOVE, FLUSH MOUNTED, NON-GIMBALLED, Two-burner, alcohol, with stainless steel cover & wire mesh basket
30-333 STOVE, COUNTER TOP, GIMBALLED, Two-burner, alcohol
30-334 STOVE, COUNTER TOP, NON-GIMBALLED, Two-burner, alcohol
30-340 RACKS, BOOK & MAGAZINE, (Each)
30-341 BINOCULAR RACK
30-342 HAND RAIL, Single, extra
30-345 BUNK BOARDS, (Each)
30-371 MIRROR IN HEAD
30-372 MEDICINE CABINET, Complete with mirror and adjustable shelves
30-380 DRAWERS, UNDER DINETTE, (Each)

ELECTRICAL - MECHANICAL - PLUMBING

- 30-402 BATTERY, EXTRA, Complete with wiring harness and master switch
30-405 SHORE POWER, 110V, With 4 duplex receptacles & shore power connector in cockpit
30-406 MARINE POWER CONVERTER, 110V AC to 12V DC
30-410 ELECTRIC FAN, 12V DC, Bracket mount or recessed
30-411 CABIN LIGHTS, ADDITIONAL, (Each)
30-413 ENGINE ROOM LIGHT
30-416 MASTHEAD LIGHT
30-417 SPREADER LIGHTS
30-443 BILGE PUMP, ELECTRIC, Automatic
30-445 BILGE PUMP, MANUAL, 13 GPM, Piston type
30-446 BILGE PUMP, MANUAL, 22 GPM, Piston type, flush mount
30-447 BILGE PUMP, MANUAL, 10 GPM, Diaphragm type
30-457 SHOWER CURTAIN, Installed
30-462 PRESSURE WATER SYSTEM
30-472 WATER HEATER, 110V ELECTRIC, Faucets in galley and head (Engine heat supplements electric heater on fresh water cooled engines)
30-482 SHOWER, With #443 Pump & #462 System
30-492 WASTE TREATMENT SYSTEM, ELECTRO-CHEMICAL, For use with std. marine toilet
30-493 MONOMATIC HEAD, In lieu of std. toilet
30-498 SEA COCKS, Bronze, in lieu of standard valves
Size 1/2"
Size 3/4"
Size 1-1/4"
Size 1-1/2"



November 24, 1969

MORGAN RACING SAILS

Sails by "Morgan Racing Sails" . . . built to high specifications and designed specifically for your MORGAN 30

P₂ - 39' 0" J - 12' 0" P - 33' 9" B - 13' 9"

Dimensions shown are approximate and do not qualify as rating certificate measurements.

Mainsail	232 sq. ft.	6.5 oz.	Dacron	\$ 396.
Shelf Foot				8.
With Zipper				26.
Lapper	268 sq. ft.	5. oz.	Dacron	352.
Wire Pennant				6.
Working Jib	186 sq. ft.	6.5 oz.	Dacron	262.
Wire Pennant				8.
Storm Jib	96 sq. ft.	7.25 oz.	Dacron	165.
Wire Pennant				10.
Storm Trysail	101 sq. ft.	7.25 oz.	Dacron	160.
Spinnaker	CCA Max.	.5 oz.	Nylon	420.
Spinnaker	"	.75 oz.	Nylon	398.
Spinnaker	"	1.5 oz.	Nylon	389.
Spinnaker Staysail	171 sq. ft.	.75 oz.	Nylon	148.
Tall Boy Staysail	166 sq. ft.	.75 oz.	Nylon	140.
Zip-R-Turtle				48.
150% Inventory	350 sq. ft.			
#1 Genoa		4. oz.	Dacron	446.
#1 Genoa		6. oz.	Dacron	464.
Drifter/Reacher		2.2 oz.	Dacron	370.
Drifter		.75 oz.	Nylon	322.
Heavy Air Reacher		4. oz.	Dacron	446.
170% Inventory	397 sq. ft.			
#1 Genoa		4. oz.	Dacron	490.
#1 Genoa		6. oz.	Dacron	540.
Drifter/Reacher		2.2 oz.	Dacron	400.
Drifter		.75 oz.	Nylon	360.
Heavy Air Reacher		4. oz.	Dacron	490.
Your Choice Colors - Nylon Sails				N/C
Stretch Rope Luff (Wire Luff is Standard)				N/C
Leech Line				6.
Window (15" x 29")				12.
Numbers on Headsails (15") - Price Each				2.

RACING SAILS - The following sail inventory is considered by the designer to provide maximum racing capability with a minimum investment: Main, Lapper, 150% 6. oz. #1 Genoa, .75 oz. Spinnaker and a 150% 2.2 oz. Drifter/Reacher. Contact your Morgan dealer or Morgan Racing Sails for custom and specialty sails or other services.

FOR YOUR GUIDANCE - Prices and specifications are subject to change without notice, and all orders are subject to prices in effect at time of acceptance. Many other items of gear and equipment are available for your MORGAN 30 . . . prices available on request.

MORGAN RACING SAILS

Division of

MORGAN YACHT CORPORATION

P. O. Box 13247, St. Petersburg, Florida 33733



MORGAN 30 SAILS

Built to the highest standards of quality
and designed specifically to compliment the
sailing characteristics of the Morgan 30.

May 1, 1971 *5/1/71*

I (P₂) - 39' 0" J - 12' 0" P - 33' 9" E (B) - 13' 9"

Dimensions shown are approximate and do not qualify as rating certificate measurements.

1000	Mainsail - Standard	232 sq. ft.	6.0 oz.	Dacron
1010	w/Shelf Foot			
1020	w/Shelf & Zipper Foot			
1030	w/Leech Line			
1040	w/Shelf Foot & Leech Line			
1050	w/Shelf Foot, Zipper, & Leech Line			
1200	Lapper (No. 2 Genoa)	268 sq. ft.	6.0 oz.	Dacron
1210	w/Wire Pennant			
1100	Working Jib	186 sq. ft.	6.0 oz.	Dacron
1110	w/Wire Pennant			
1120	Storm Jib	96 sq. ft.	7.0 oz.	Dacron
1130	w/Wire Pennant			
1140	Storm Trysail	101 sq. ft.	7.0 oz.	Dacron
1300	*Spinnaker	CCA Max.	.5 oz.	Nylon
1310	*Spinnaker	CCA Max.	.75 oz.	Nylon
1330	*Spinnaker	CCA Max.	1.5 oz.	Nylon
1600	*Spinnaker Staysail	171 sq. ft.	.75 oz.	Nylon
1610	*Tall Boy Staysail	166 sq. ft.	.75 oz.	Nylon
1620	Bikini Staysail (High Aspect - Multi Purpose)	210 sq. ft.	2.2 oz.	Dacron
	150% Inventory	350 sq. ft.		
1400	No. 1 Genoa, Heavy		6.0 oz.	Dacron
1410	No. 1 Genoa, Light		4.0 oz.	Dacron
1420	Drifter/Reacher		2.2 oz.	Dacron
1430	Drifter		.75 oz.	Nylon
1440	Heavy Air Reacher		4.0 oz.	Dacron
	170% Inventory	397 sq. ft.		
1500	No. 1 Genoa, Heavy		6.0 oz.	Dacron
1510	No. 1 Genoa, Light		4.0 oz.	Dacron
1520	Drifter/Reacher		2.2 oz.	Dacron
1530	*Drifter		.75 oz.	Dacron
1540	Heavy Air Reacher		4.0 oz.	Dacron
001	Stretchy Rope Luff (Wire Luff is Standard)			
002	Cunningham (Main or Headsails)			
004	Numbers on Sails (15") - Price Each			
1810	Window (18" x 24")			

*Nylon sails are available in your choice of colors. However, .5 oz. spinnakers are available only in combinations of red, white, and blue.

FOR YOUR GUIDANCE:

Please contact your Morgan dealer for current prices and specifications as these are subject to change without notice. All orders are subject to prices in effect at time of acceptance. Your Morgan dealer or Morgan Racing Sails will be happy to provide sail inventory recommendations, custom sail advice, and other services.

MORGAN RACING SAILS
Division of
MORGAN YACHT CORPORATION
Bryan Dairy Road, St. Petersburg, Florida 33733



All Morgan Racing Sails are designed to complement the sailing characteristics of the particular design. Further, they are built of the finest materials and where we have determined it advisable for a particular sail, leech lines, foot lines, Cunninghams, stretchy luffs, and floating tacks are fitted as standard.

7200 Bryan Dairy Rd.
St. Petersburg, Fla. 33733

Dimensions shown are approximate and do not qualify as rating certificate measurements.

I (P₂) - 39.0 J - 12.0 P - 33.75 E (B) - 13.75

1000	Mainsail	232 sq. ft.	5.5 oz. Dacron	\$ 427.00
1500	170% Heavy Genoa	397 sq. ft.	5.5 oz. Dacron	552.00
1550	170% Medium Genoa	397 sq. ft.	4.5 oz. Dacron	540.00
1510	170% Light Genoa	397 sq. ft.	3.5 oz. Dacron	528.00
1520	170% Drifter-Reacher	397 sq. ft.	2.2 oz. Dacron	516.00
1540	170% Topsail-Reacher	397 sq. ft.	3.5 oz. Dacron	528.00
1400	150% Heavy Genoa	350 sq. ft.	5.5 oz. Dacron	487.00
1450	150% Medium Genoa	350 sq. ft.	4.5 oz. Dacron	476.00
1410	150% Light Genoa	350 sq. ft.	3.5 oz. Dacron	466.00
1420	150% Drifter-Reacher	350 sq. ft.	2.2 oz. Dacron	455.00
1440	150% Topsail-Reacher	350 sq. ft.	3.5 oz. Dacron	466.00
1210	Lapper	268 sq. ft.	6.5 oz. Dacron	405.00
1250	125% Mule with Pennant-Mule	175 sq. ft.	6.5 oz. Dacron	287.00
1110	Working Jib with Pennant	186 sq. ft.	6.5 oz. Dacron	305.00
1130	Storm Jib with Pennant	75 sq. ft.	6.5 oz. Dacron	153.00
1140	Storm Trysail	101 sq. ft.	5.5 oz. Dacron	201.00
1670	"Slat" Staysail (High Aspect-Multipurpose)	158 sq. ft.	3.5 oz. Dacron	182.00
1600	Spinnaker Staysail		.75 oz. Nylon	182.00
1300	.5 Spinnaker - (Radial)		.5 oz. Nylon	480.00
1310	.75 Spinnaker - (Radial)		.75 oz. Nylon	454.00
1330	1.5 Spinnaker - (Radial)		1.5 oz. Nylon	428.00
1370	Close Reaching Chute - (Full Radial)		.75 oz. Nylon	428.00
1810	Window 13" x 22"			10.00
004	Numbers			2.00
	Quick Reef on Main - Per Set			21.00
	Zipper Foot on Main			21.00

*Nylon sails are available in your choice of colors. However, .5 oz. spinnakers are available only in combination of red, white and blue.

FOR YOUR GUIDANCE:

Please contact your Morgan dealer for current prices and specifications as these are subject to change without notice. All orders are subject to prices in effect at time of acceptance. Your Morgan dealer or Morgan Racing Sails will be happy to provide sail inventory recommendations, custom sail advice, and other services.

Terms: 50% with order, remainder plus shipping C.O.D. or full amount with order and shipment sent prepaid.

MORGAN 30 (KEEL - CENTERBOARD) PRICE LIST

FEBRUARY 1, 1974

All Morgan Racing Sails are designed to compliment the sailing characteristics of the particular design. Further, they are built of the finest materials and where we have determined it advisable for a particular sail, leech lines, foot lines, Cunninghams, stretchy luffs, and floating tacks are fitted as standard.

Dimensions shown are approximate and do not qualify as rating certificate measurements.

I (P₂) - 39.0 J - 12.0 P - 33.75 E (B) - 13.75

100	Mainsail	232 sq.ft.	6.25 oz. Dacron	535.00	_____
150	170% Heavy Genoa	397 sq.ft.	5.5 oz. Dacron	619.00	_____
155	170% Medium Genoa	397 sq.ft.	4.5 oz. Dacron	603.00	_____
151	170% Light Genoa	397 sq.ft.	3.8 oz. Dacron	591.00	_____
152	170% Drifter-Reacher	397 sq.ft.	2.2 oz. Dacron	575.00	_____
154	170% Topsail-Reacher	397 sq.ft.	3.5 oz. Dacron	591.00	_____
140	150% Heavy Genoa	350 sq.ft.	5.5 oz. Dacron	546.00	_____
145	150% Medium Genoa	350 sq.ft.	4.5 oz. Dacron	532.00	_____
141	150% Light Genoa	350 sq.ft.	3.5 oz. Dacron	521.00	_____
142	150% Drifter-Reacher	350 sq.ft.	2.2 oz. Dacron	507.00	_____
144	150% Topsail-Reacher	350 sq.ft.	3.5 oz. Dacron	521.00	_____
121	Lapper	268 sq.ft.	6.5 oz. Dacron	461.00	_____
125	125% Mule with Pennant	175 sq.ft.	6.5 oz. Dacron	322.00	_____
111	Working Jib with Pennant	186 sq.ft.	6.5 oz. Dacron	342.00	_____
113	Storm Jib with Pennant	75 sq.ft.	6.5 oz. Dacron	180.00	_____
114	Storm Trysail	101 sq.ft.	5.5 oz. Dacron	237.00	_____
167	"Slot" Staysail	158 sq.ft.	5.0 oz. Dacron	240.00	_____
162	Bikini Staysail	234 sq.ft.	2.2 oz. Dacron	339.00	_____
130	.5 Spinnaker - (Radial)		.5 oz. Nylon	538.00	_____
131	.75 Spinnaker - (Radial)		.75 oz. Nylon	506.00	_____
133	1.5 Spinnaker - (Radial)		1.5 oz. Nylon	479.00	_____
137	Close Reaching Chute - (Full Radial)		.75 oz. Nylon	479.00	_____
138	Star Cut		1.5 oz. Nylon	554.00	_____
181	Window 13" x 22"			10.00	_____
004	Numbers - per digit			2.50	_____
	Quick Reef on Main - Per Set			28.00	_____

TOTAL _____

* Nylon sails are available in your choice of colors. However, .5 oz. spinnakers are available only in combination of red, white, and blue.

FOR YOUR GUIDANCE:

Please contact your Morgan dealer for current prices and specifications as these are subject to change without notice. All orders are subject to prices in effect at time of acceptance. Your Morgan dealer or Morgan Racing Sails will be happy to provide sail inventory recommendations, custom sail advice, and other services.

Terms: 50% with order, remainder plus shipping C.O.D.
or full amount with order and shipment sent prepaid.

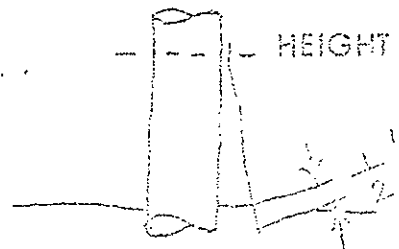
ADDITIONAL ZEPHYRUS INFORMATION
NEW FLYING SQUADRON-OUT AND DELIVER REPORT

SECTION IX - HASKY BOOT INSTALLATION

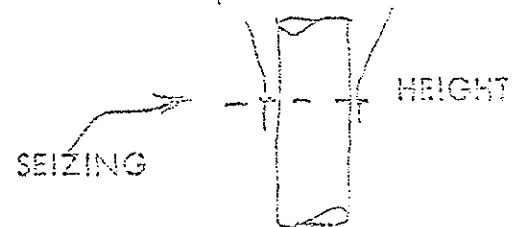
1. Dec on boot look like this:



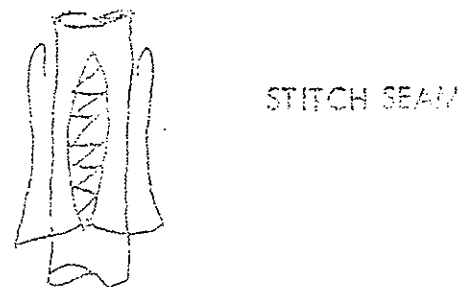
2. Locate boot on mast at proper height to allow $\frac{1}{2}$ " excess at cabin top.



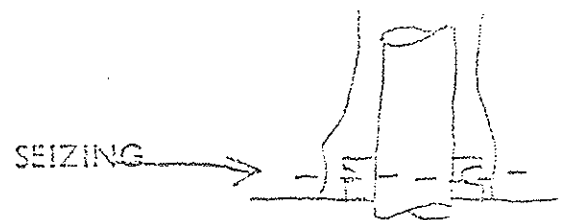
3. Invert boot on mast, maintaining proper height (step 2) and wrap with fine marlin or a similar seizing twine.



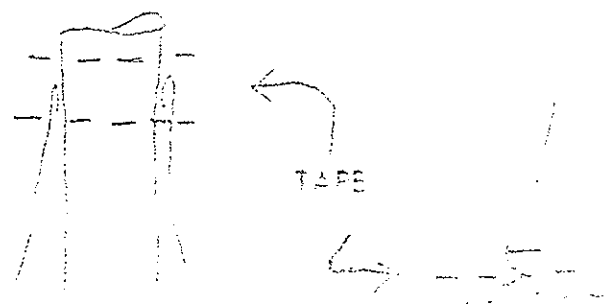
4. Bring boot downward over seizing (step 3) to mast collar casting on top of cabin and be sure there is enough excess to seize around casting as in step #5 below. Sew lowest corner together, stretch the unsewn seam and sew up vertically.

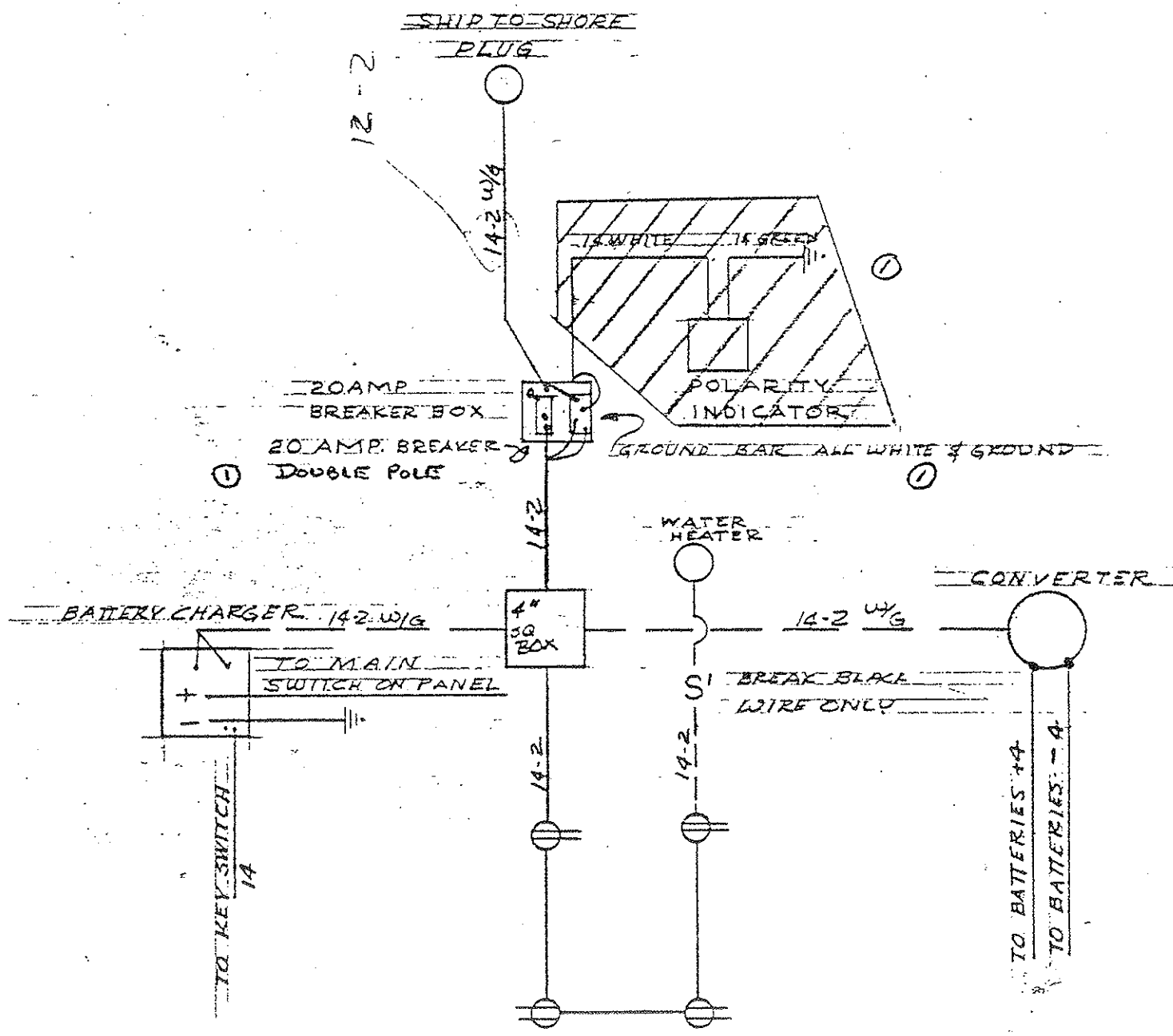


5. Seize lower portion into groove in mast collar casting on top of cabin and pull downward on excess beneath seizing. Seize tightly and trim off excess boot.



6. Cover seizing on top of boot with white tape or cloth 1" above boot on mast for water-tight seal. Cover seizing on lower portion with white tape to finish.

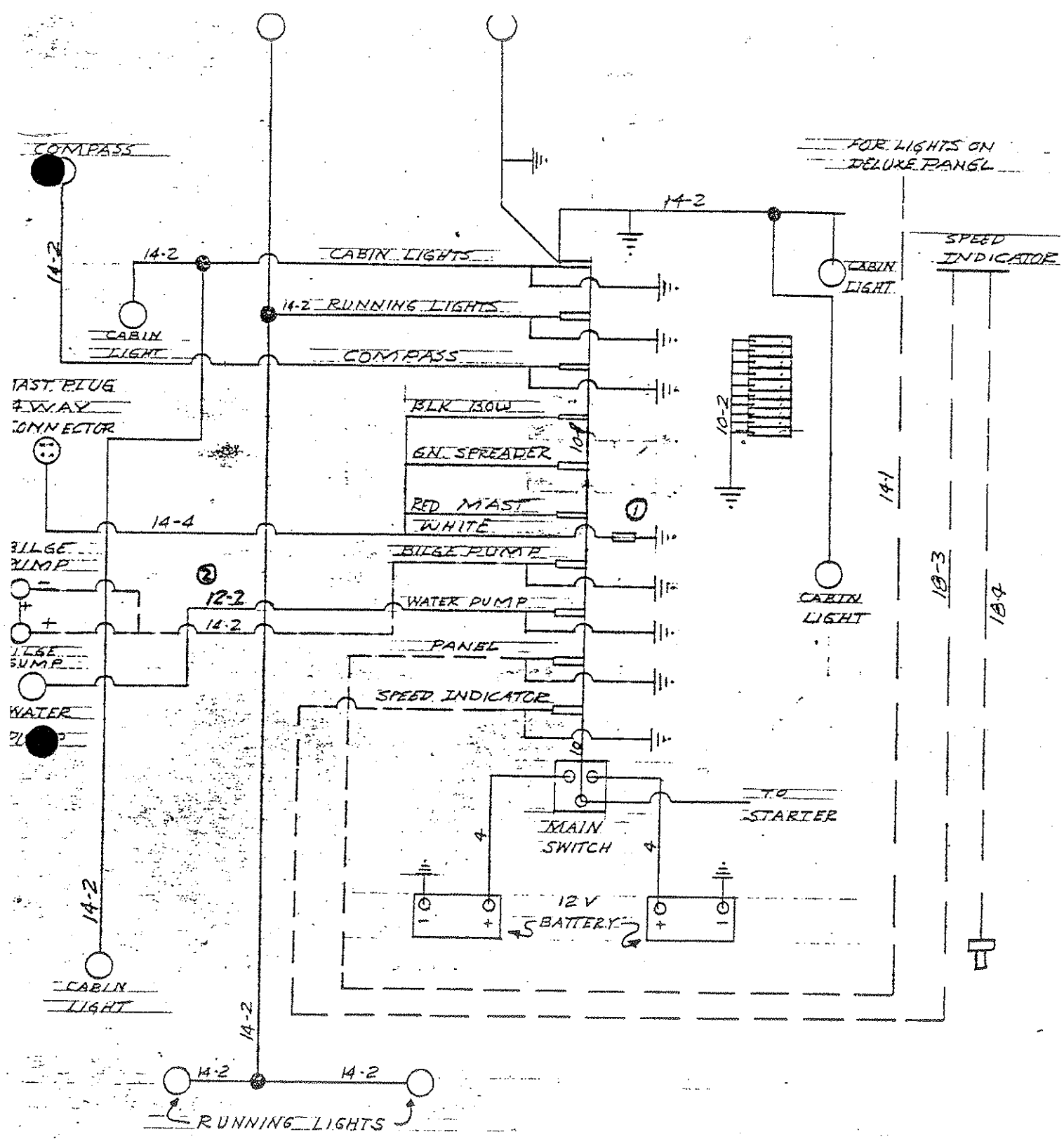




_____ STANDARD
 - - - - - OPTIONAL

MORGAN YACHT CORP.
 TIO SYSTEM

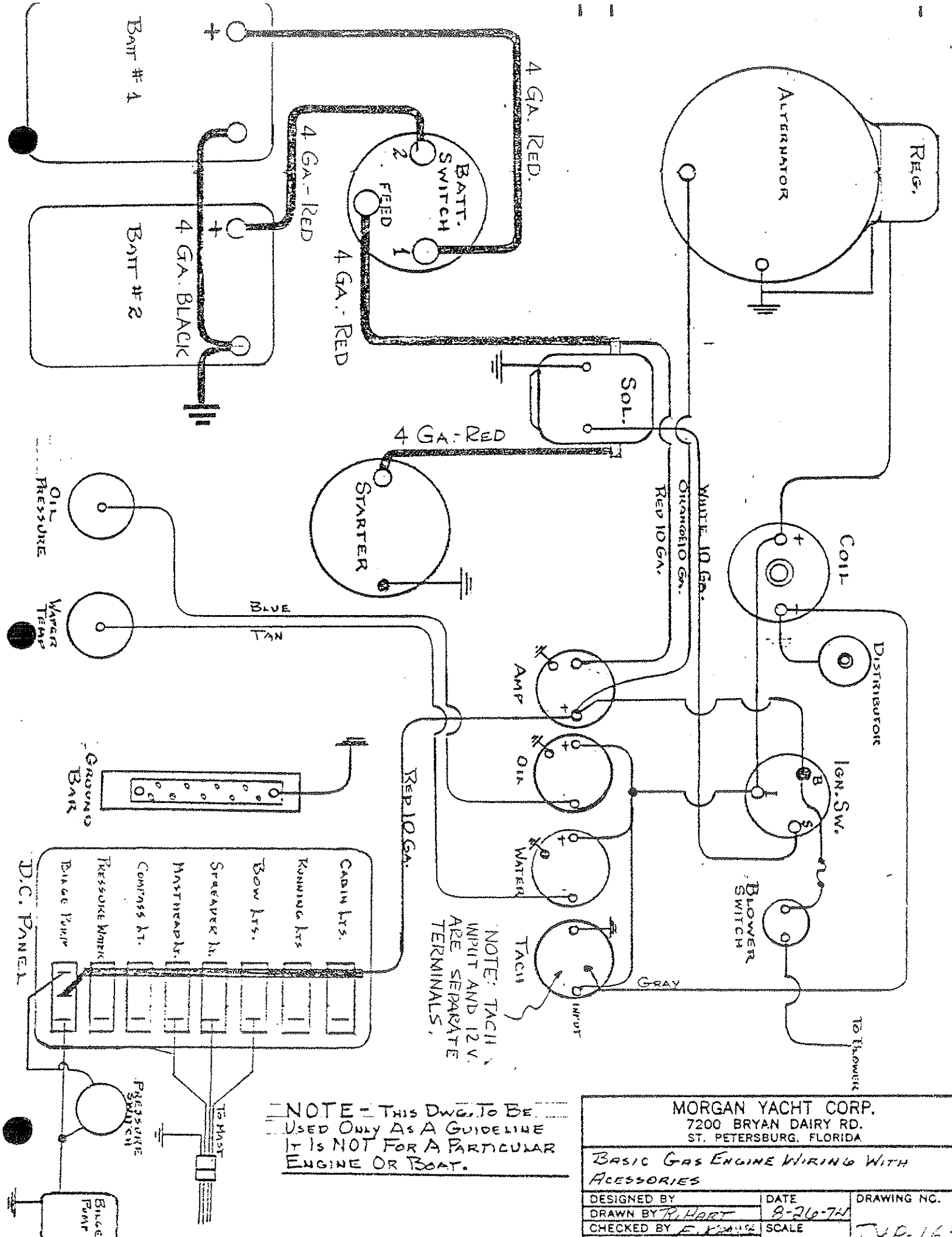
CE MORGAN JR., DESIGNER
 2501 72ND STREET NORTH
 ST. PETERSBURG, FLORIDA
 1964 116 NO SCALE PO



STANDARD
OPTIONAL

MORGAN YACHT CORP
12 VOLT SYSTEM
GE MORGAN JR DESIGNER
2501 72ND STREET NORTH
ST. PETERSBURG, FLORIDA
12-6-66 NOSCALE P.O.

EV. 2 12-2 WAS 14-2 TRK ECN 18 7-27-67
EV. 1 ADDED 15AMP FUSE 7-18-67



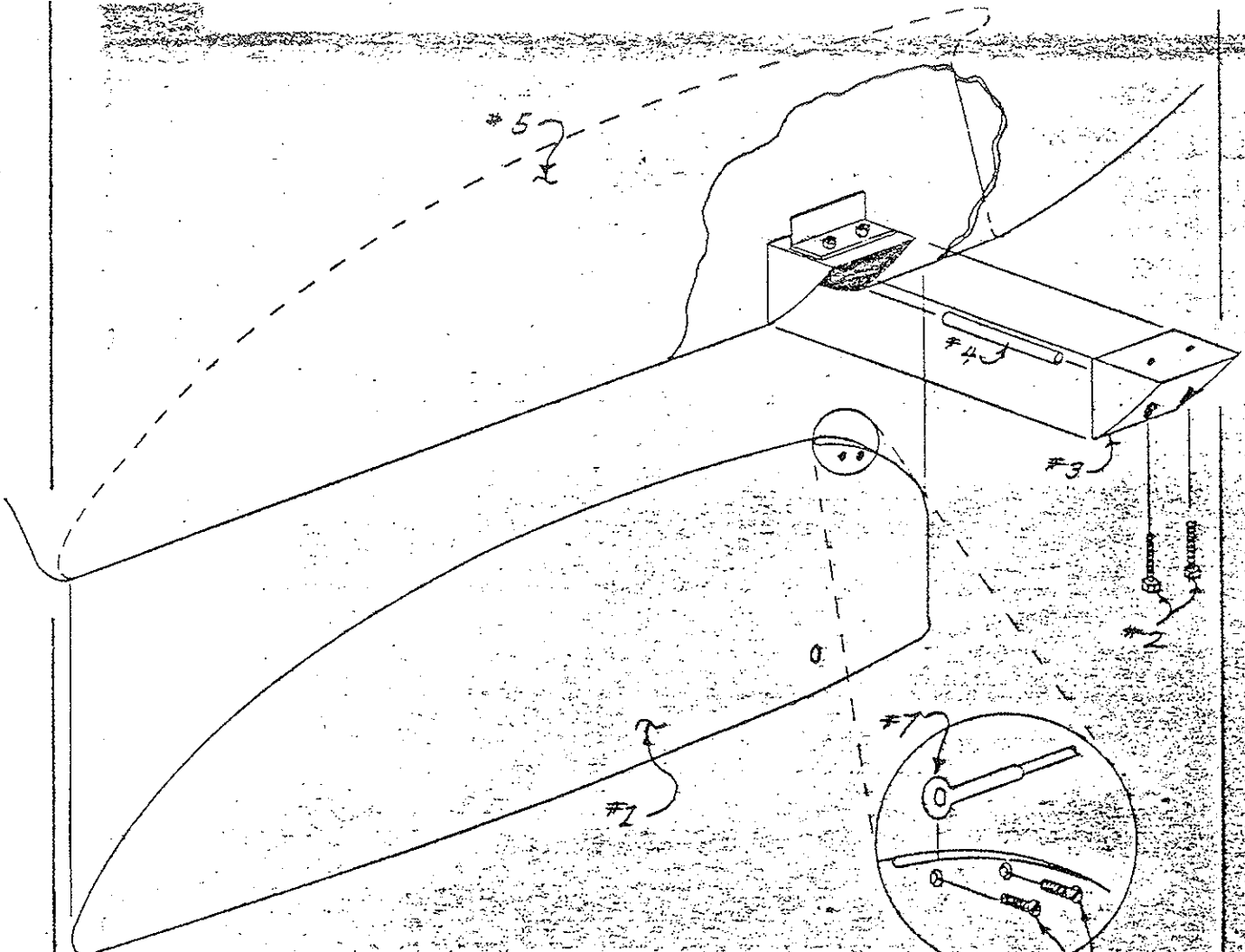
NOTE: TACH. INPUT AND 12V. ARE SEPARATE TERMINALS.

NOTE - THIS DWG. TO BE USED ONLY AS A GUIDELINE IT IS NOT FOR A PARTICULAR ENGINE OR BOAT.

MORGAN YACHT CORP.
7200 BRYAN DAIRY RD.
ST. PETERSBURG, FLORIDA

BASIC GAS ENGINE WIRING WITH ACCESSORIES

DESIGNED BY	DATE	DRAWING NO.
DRAWN BY R. HART	8-26-74	
CHECKED BY E. KENGE	SCALE	
APPROVED BY		TYP-162



**CENTERBOARD REMOVAL
INSTRUCTIONS**

M-24/30

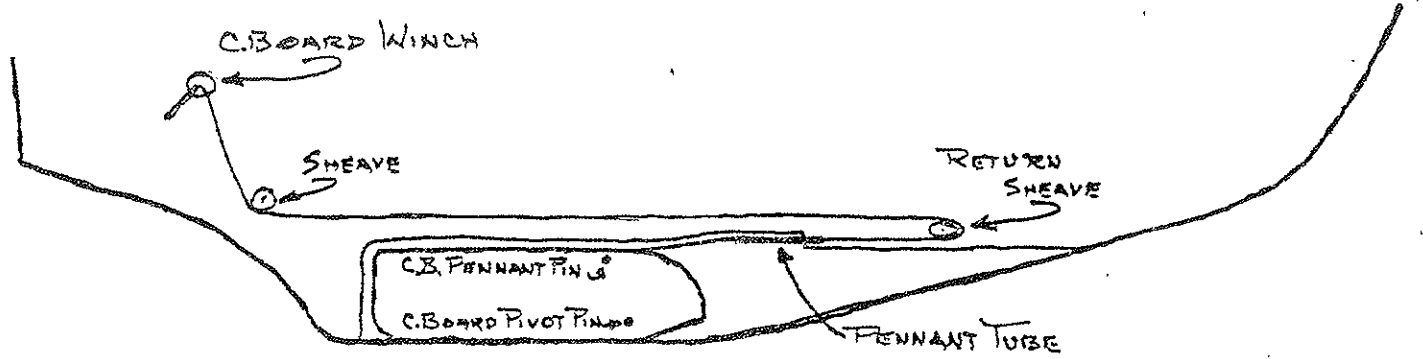
1. With the boat in a cradle, block the cradle up so that the Keel is no less than 28° off the ground.
2. Lower the Centerboard (#1) so that the Aft end of the Centerboard (#1) rests on the ground.
3. Remove bolts (#2) from one casting (#3).
4. Remove pin (#4).
5. With the help of one other person, lift up on the Centerboard (#1) and slide it Aft, so that the Centerboard (#1) clears the forward lip of the Centerboard trunk (#5). Then lower the Centerboard (#1) just enough to expose the two machine screws (#6) that secure the pennant (#7) to the Centerboard (#1). Be sure the weight of the Centerboard (#1) is not imposed on the pennant (#7).

WARNING :

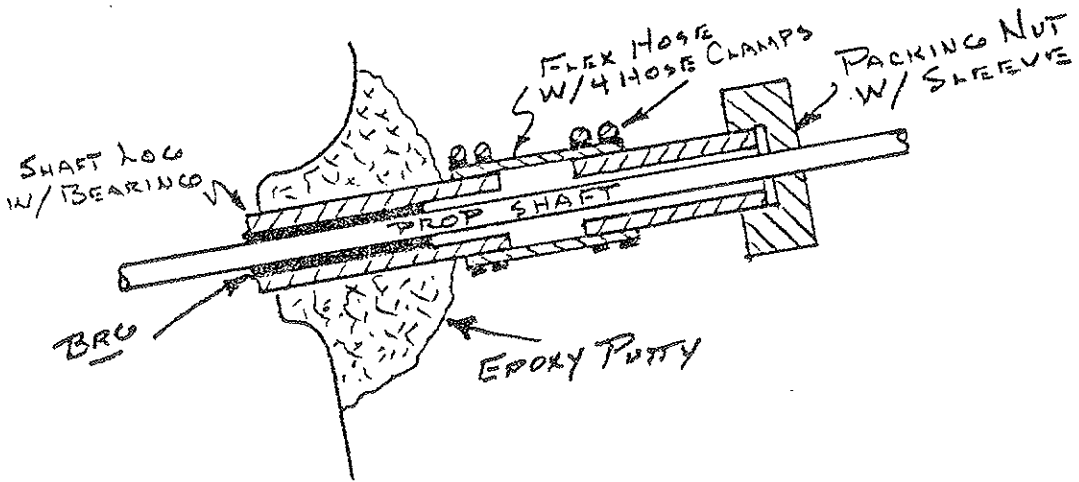
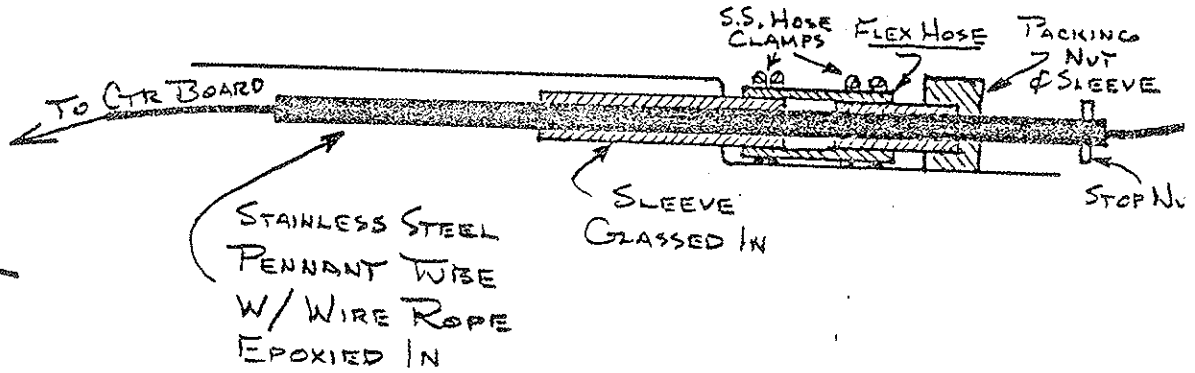
When removing Centerboard (#1) from boat (Step 5 above) exercise extreme care to prevent bending or damaging the pennant tube in the stuffing box. While the Centerboard (#1) is being lowered from its normal operating position, manually push the pennant tube Aft (from inside the boat) until it is completely clear of stuffing box. This may require disconnecting pennant at the Centerboard winch.

6. To disconnect pennant from Centerboard, remove the two machine screws (#6).
7. To re-install the Centerboard in the trunk, reverse the above procedure.

THE MORGAN YACHT CORP. 2501 72ND STREET NORTH ST. PETERSBURG FLORIDA			
M-24 M-30 CENTERBOARD REMOVAL DIAGRAM			
DESIGNED BY	DATE	DRAWING NUMBER	
DRAWN BY <i>C.M.F.</i>		TVP-205	
CHECKED BY	SCALE NONE	SHEET OF	
REVISION	DATE	APPROVED BY	



TYPICAL CENTER BOARD DETAIL

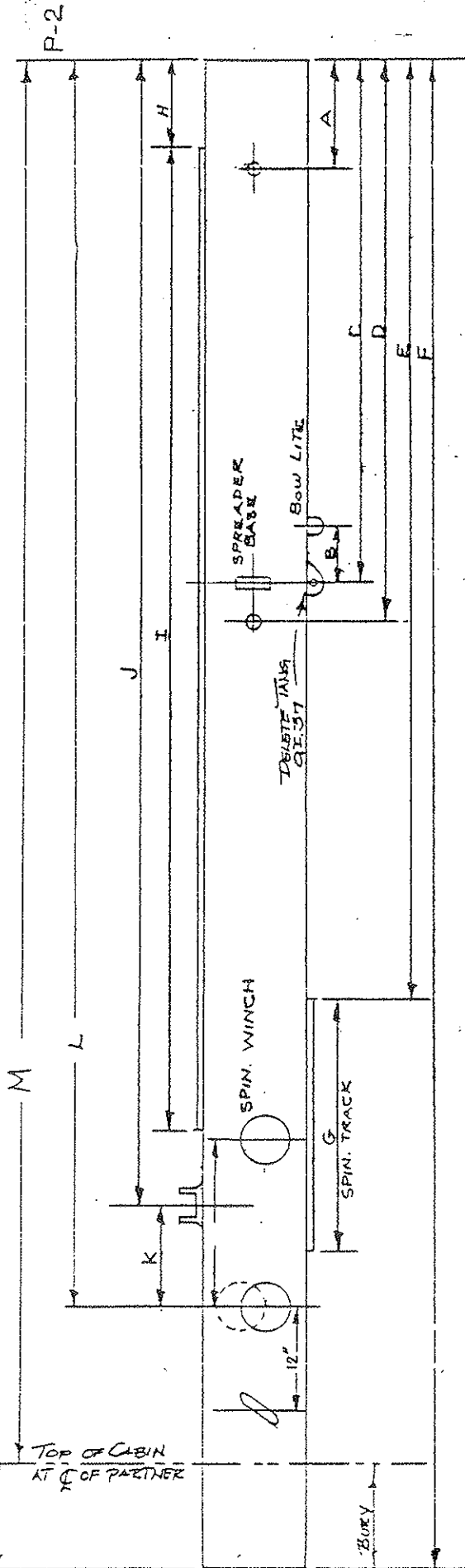


TYPICAL PROP SHAFT ASSY

STANDARD MORGAN CENTERBOARD PINS

M22	STAINLESS STEEL	13/16"x6"
M25	"	" 13/16"x6"
M26	"	" 13/16"x6"
M28	"	" 13/16"x7 1/2 "
M30	BRASS	1"x 3"
M33		
M34	BRASS	1 1/8"x 4 1/2"
M38	STAINLESS STEEL	1 1/8"x 9 1/2"
M40		
M41	BRASS	1 1/8"x4 1/2"
M55	STAINLESS STEEL	1 1/2"x 8"

NO.	REVISION	DATE



MODEL	A	B	C	D	E	F	G	H	I	J	K	L	M
M-22													
CLASSIC 250	0'3 1/2"	6"	13'-11 1/2"	14'-2"	23'-1 1/2"	29'-3 1/2"	3'-0"	1'-6"	29'-9 1/4"	31'-10 1/4"	6"		
OI 28	2'-1"	6"	16'-9 1/4"	17'-3 1/2"	26'-7"	34'-10 3/4"	6'-0"	1'-4"	33'-6"	35'-5 1/2"	6"		
CLASSIC 300	1'-0"	6"	19'-4 1/2"	19'-8"	30'-1 1/2"	44'-1 1/8"	6'-0"	1'-7"	35'-7"	37'-5 3/8"	1'-2 5/8"		
OI 33	2'-5 1/2"	6"	19'-5 1/2"	19'-11 1/2"	32'-4 1/2"	47'-6 3/8"	6'-0"	2'-7"	35'-4"	38'-6"	1'-8 1/2"		
OI 36	2'-6"	6"	20'-7 1/2"	21'-1 1/2"	32'-6 1/2"	50'-1 1/4"	8'-0"	1'-0"	40'-0"	41'-8"	8"	42'-6 1/2"	41'-10"
M-382	2'-10"	6"	22'-10"	23'-4"	31'-8"	52'-4"	12'-0"	1'-3"	42'-3"	44'-0"	1'-6"		
OI 41	2'-0"	6"	22'-5 1/2"	22'-11 1/2"	35'-4 1/2"	55'-4 1/2"	12'-0"	0'-5 1/4"	26'-10"	27'-9 1/2"	1'-3 1/2"		
OI 41 M3	0'-4 1/2"	6"	14'-1 1/2"	14'-6 3/8"	37'-11 1/2"	51'-0"	6'-0"	1'-6"	36'-6"	38'-9"	8'-10"	35'-5"	42'-0"
OI 37	2'-6"	6"	20'-2"	20'-8"	30'-8"	45'-0"	6'-0"	1'-6"	36'-6"	38'-9"	8'-10"	35'-5"	42'-0"
OI 51-49	2'-0"	6"	16'-9 1/4"	17'-3 1/2"	26'-7"	41'-9"	6'-0"	1'-6"	29'-9 1/4"	31'-10 1/4"	6"		
OI 30	2'-1"	6"	16'-9 1/4"	17'-3 1/2"	26'-7"	41'-9"	6'-0"	1'-6"	29'-9 1/4"	31'-10 1/4"	6"		

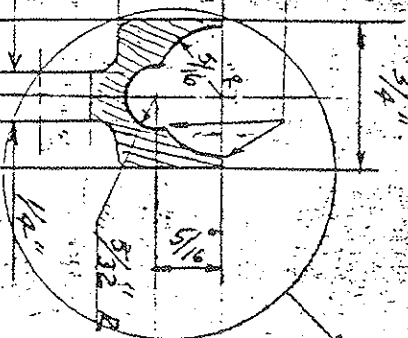
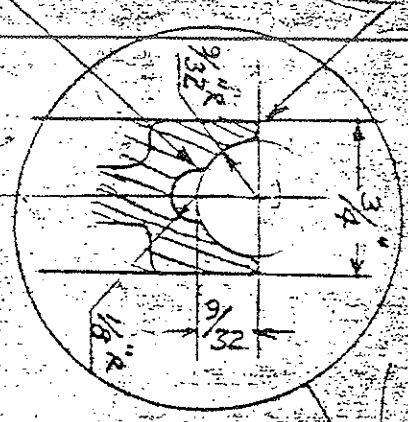
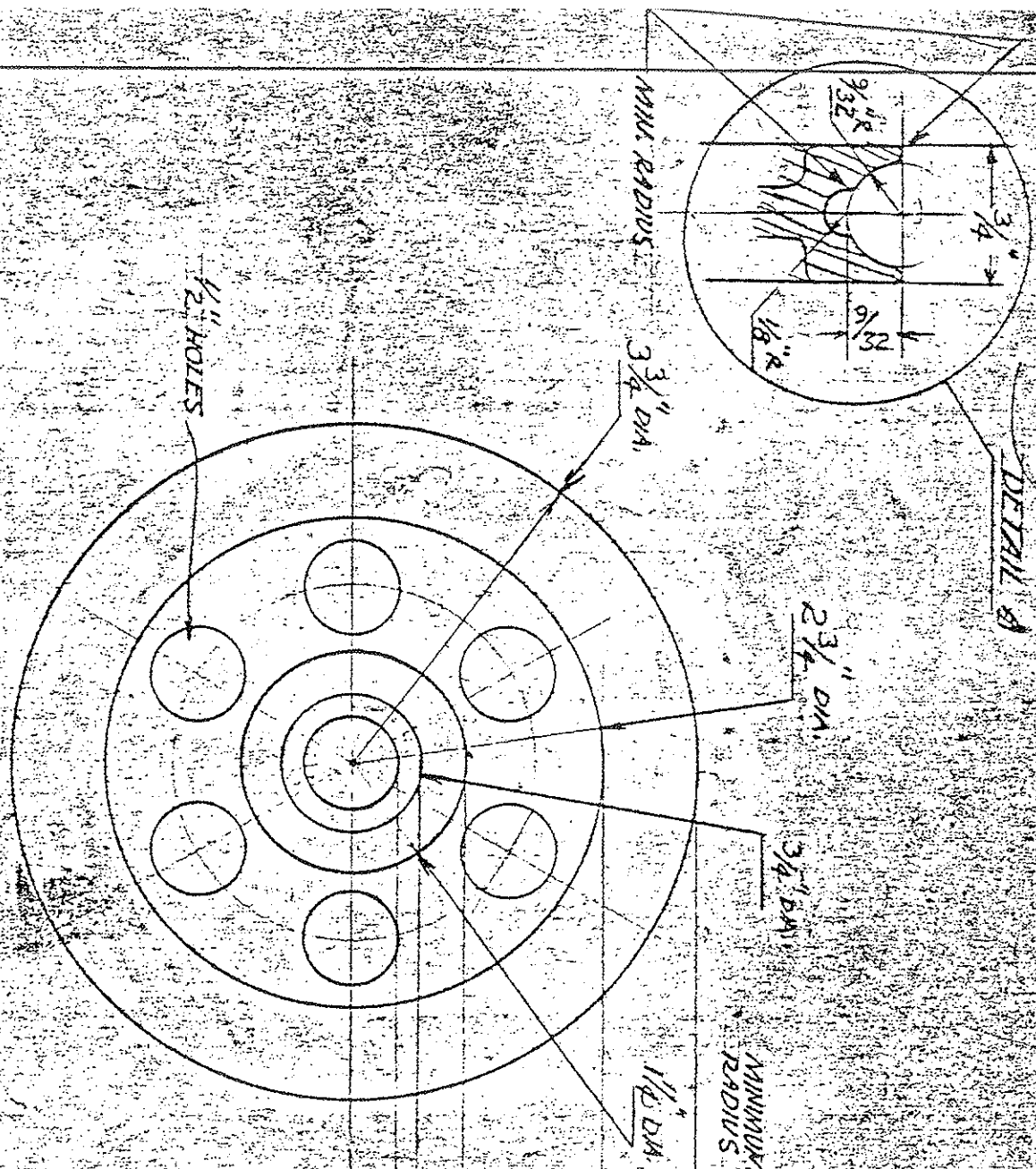
* DIMENSIONS ARE FROM END OF EXTRUSION
 NOT P-2, 1 2-6" ALUM. CLEATS 12" UP FROM BOTTOM OF MAST.
 NOTE: ① LENGTH WITH G" EXCESS FOR ERROR, BURY TO BE MEASURED BEFORE CUTTING MAST
 ② STD 4" CAST BASES. STBD. PORT AFT

MORGAN YACHT CORR
 7200 BRYAN DAIRY RD.
 ST. PETERSBURG, FLORIDA

TYP. MAST DRAWING

DESIGNED BY SLR
 DRAWN BY SLR
 CHECKED BY SCULF
 APPROVED BY

DATE 5-1-75
 DRAWING NO. TYP. 205



3 3/4" ALMAG CAST SHEAVE

1/2" HOLES

3 3/4" DIA

2 3/4" DIA

3/4" DIA

1 1/2" DIA

MINIMUM RADIUS

3/4"

DETAIL B

1/8" OILITE BEARING

5/16" BORE

FACE BOTH SIDES

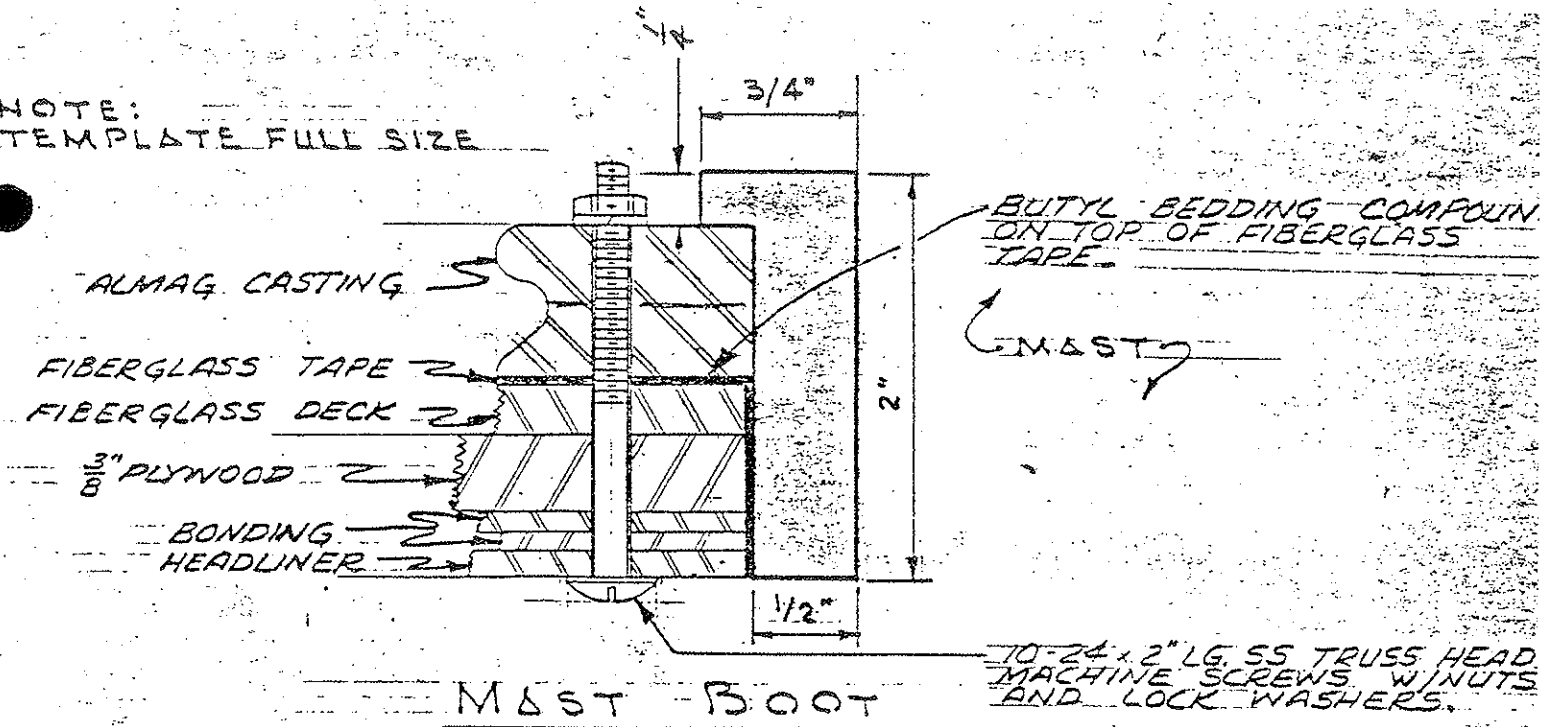
THE MORGAN YACHT CORP
 2501 1200 STREET NORTH
 ST. PETERSBURG, FLORIDA

MASTHEAD SHEAVES
 NO. 375X
 AA-375B

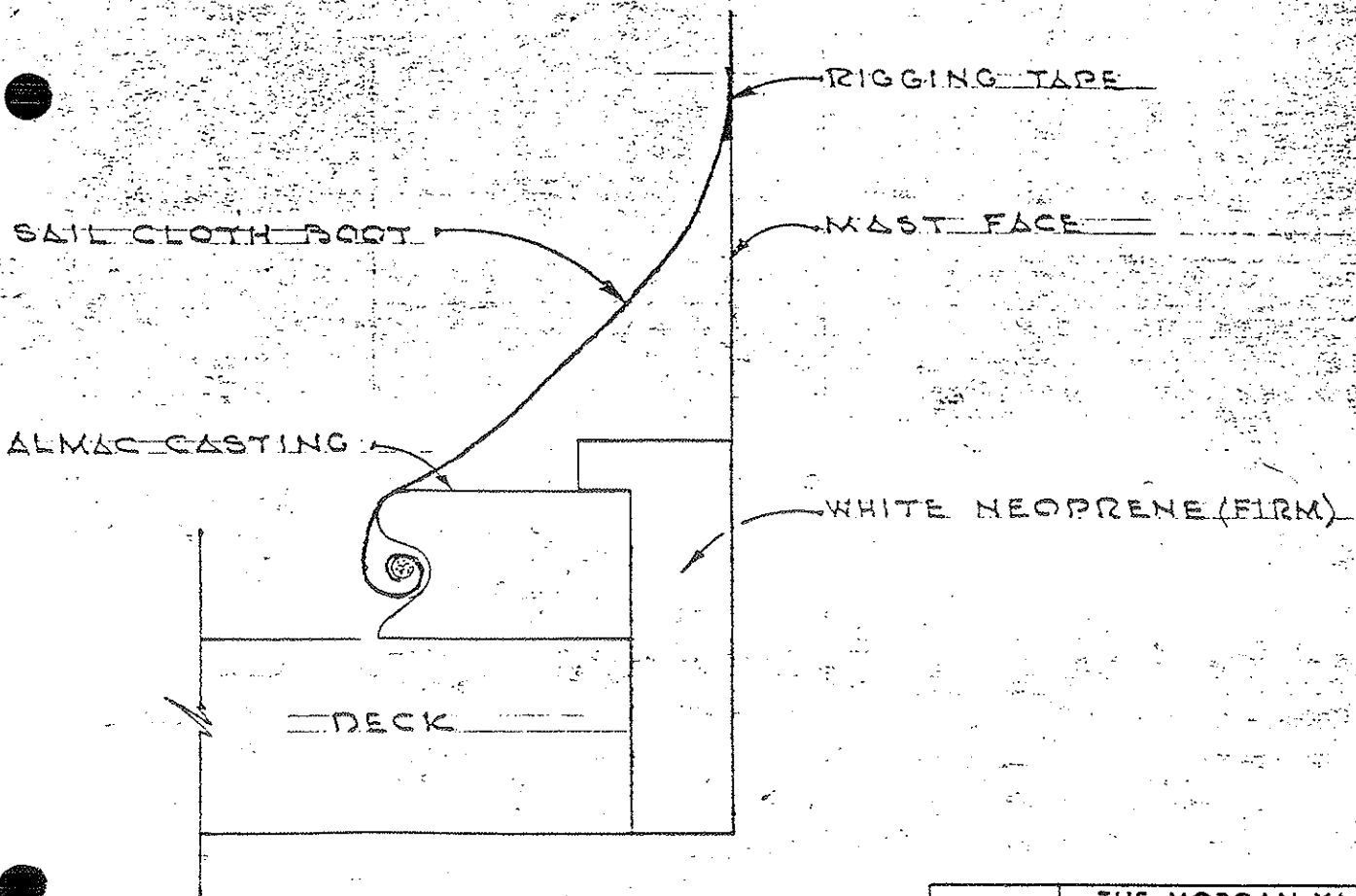
DESIGNED BY	J.C.C.	DATE	3/22/68
DRAWN BY	J.E.C.		
CHECKED BY			
SCALE	1/1"		

DRAWING NUMBER
 105

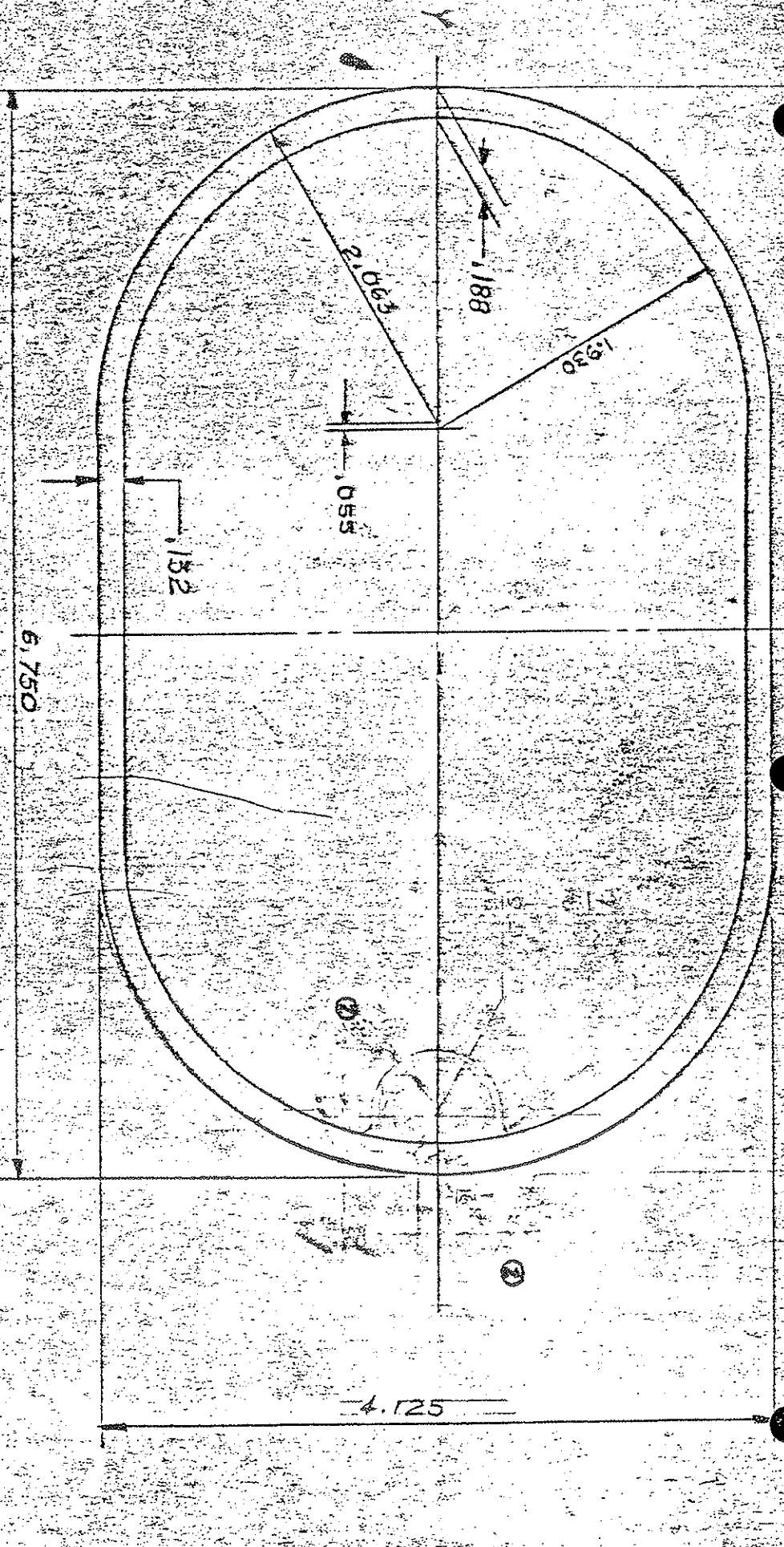
NOTE:
 TEMPLATE FULL SIZE



SPECIFICATIONS:
 WHITE EPT MATERIAL
 60 DUROMETER
 SOURCE: ATLANTIC INDIA RUBBER.



THE MORGAN YACHT CORP. 2501 72ND STREET NORTH ST. PETERSBURG FLORIDA		
<u>M&ST BOOT</u>		
DESIGNED BY	DATE	DRAWING NUMBER
DRAWN BY	6/3/69	TYP-109
SCALE	1/2" = 1"	



IY # 25.06
 IY # 6.64
 WT # 3.5 MARTEL
 LGTH # 38.0"
 MATL # 6061 T6

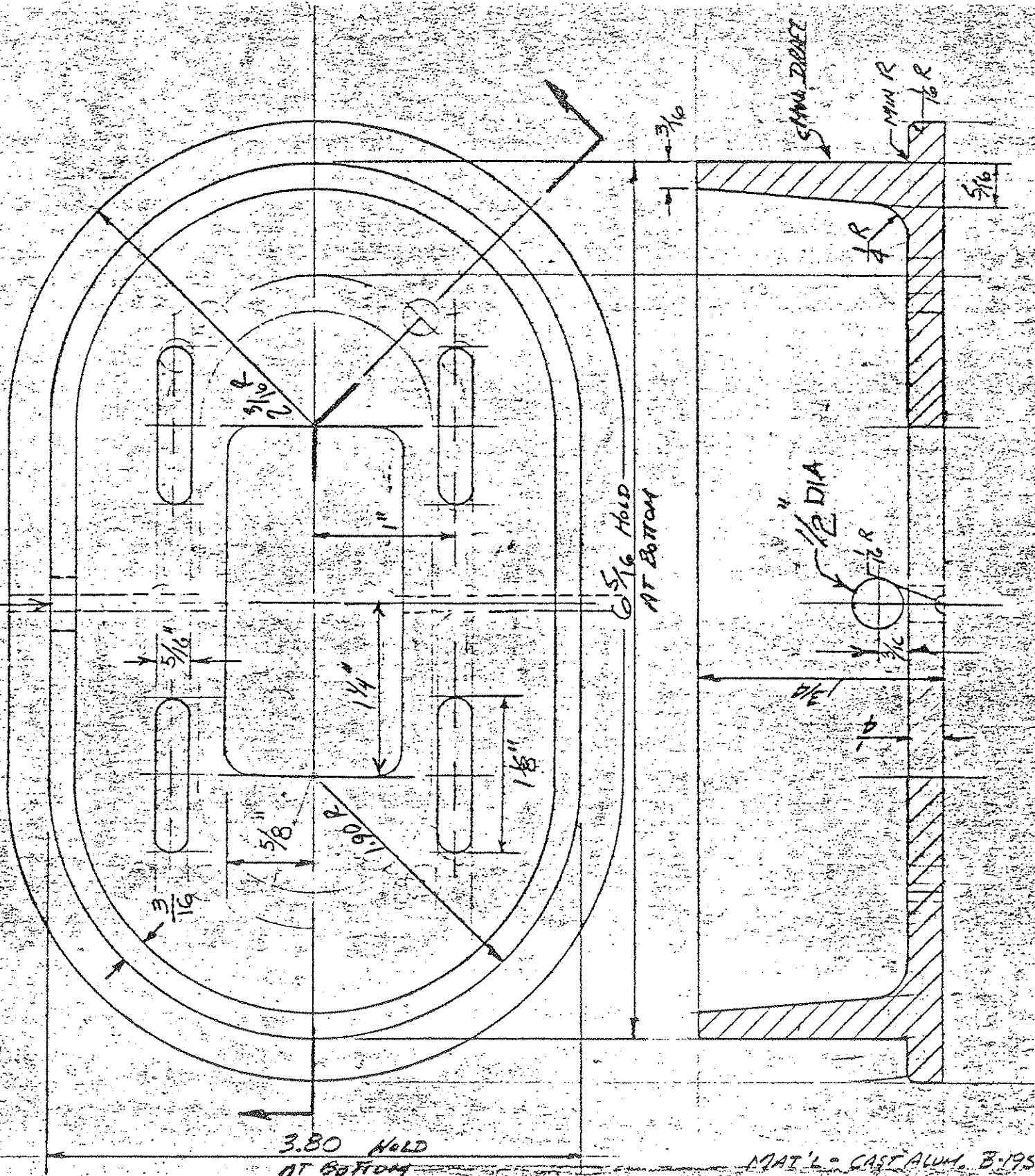
LEWIS

DRONE SAIL PAPER

REDESIGNED

THE MORGAN YACHT CORP. 2501 72ND STREET NORTH ST. PETERSBURG, FLORIDA	
M-28, 30, 33, 34, 35 M27: MAST SECTION-0128	DATE: 12-4-67 TYP: 136
DESIGNED BY: [Signature] DRAWN BY: [Signature]	CHECKED BY: [Signature]
5/16 203573 2 12-8-67 1 12-4-67	SCALE: [Signature]
SHEET 1 OF 1	

DRILL FOR MAST WIRE



3.80 HOLD
AT BOTTOM

MAT'L - CAST ALUM. B-195

LES WR: G DRILLED FOR 1/4"
LTS. CTR. OPEN'G WAS 43/16" X

JRS

A 11-28-72

THE MORGAN YACHT CORP.

2501 72ND STREET NORTH
ST. PETERSBURG FLORIDA

M-30, QI-28, M-27
MASTSTEP

DESIGNED BY

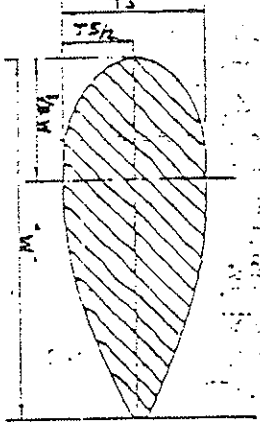
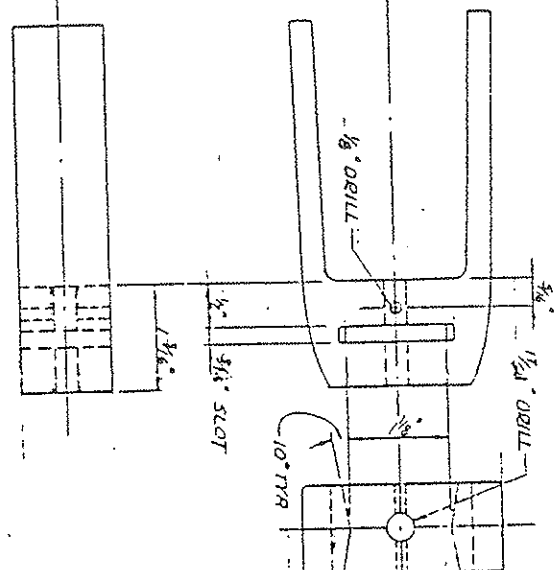
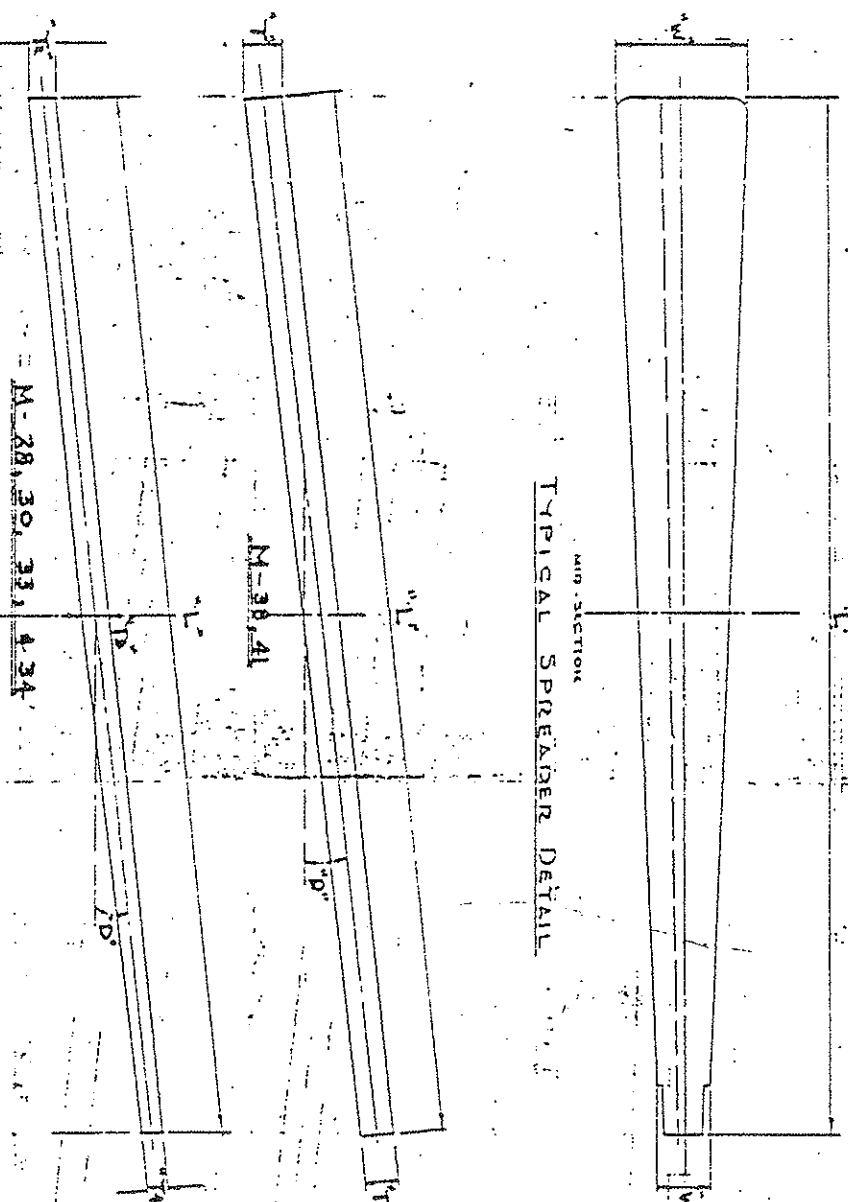
DATE

DRAWING NUMBER

DRAWN BY

12-18-67 TWP-138

TYPICAL SPREADER DETAIL



TYPICAL SECTION

SEE DRAWING MATERIAL

MODEL	L	T	T ₁	T ₂	T ₃	T ₄	T ₅	T ₆	W	W ₁	D	CAST
M-28	5'-2 1/2"			1 5/8"	1 5/8"	1 5/8"	1 5/8"	1 5/8"	4 1/2"	2"	8"	84
M-30	5'-0"			1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	4 1/2"	2"	8"	84
M-33	5'-0"			1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	4 1/2"	2"	8"	84
M-34	5'-0"			1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	4 1/2"	2"	8"	84
M-41	4'-0"	1 5/8"	1 1/2"	1 5/8"	1 5/8"	1 5/8"	1 5/8"	1 5/8"	4 1/2"	2 1/4"	8"	84
M-44	3'-11"	1 3/4"	1 1/2"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	4 1/2"	2 1/2"	8"	84
M-54L	3'-11"	1 3/4"	1 1/2"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	4 1/2"	2 1/2"	8"	84
M-42	3'-10 1/2"	1 5/8"	1 1/2"	1 5/8"	1 5/8"	1 5/8"	1 5/8"	1 5/8"	4 1/2"	2 1/2"	8"	84
M-41	3'-11"	1 3/4"	1 1/2"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	1 3/4"	4 1/2"	2 1/2"	8"	84

SEE DRAWING NR 303-214

F	DELETE M-35	MAY 30, 1972 (JVM)
E	CHANGED L, W, M-42	8-2-70 (C)
D	ADDED M-42	1-30-70 (M)
C	ADDED M-42	5-12-70 (M)
B	ADDED M-35 (OFFERED)	11-12-67 (M)
A	ADDED MAZDA DIMENSIONS	
N	REVISED DIMS	

THE MORGAN YACHT CORP.
1000 BAYVIEW BLVD.
SUNNYVALE, CALIF. 94086

SPREADER DETAILS
7/1/69
1972 DJ

CENTERBOARD SYSTEMS & MAINTENANCE

CUSTOMER SERVICE BULLETIN 978-A

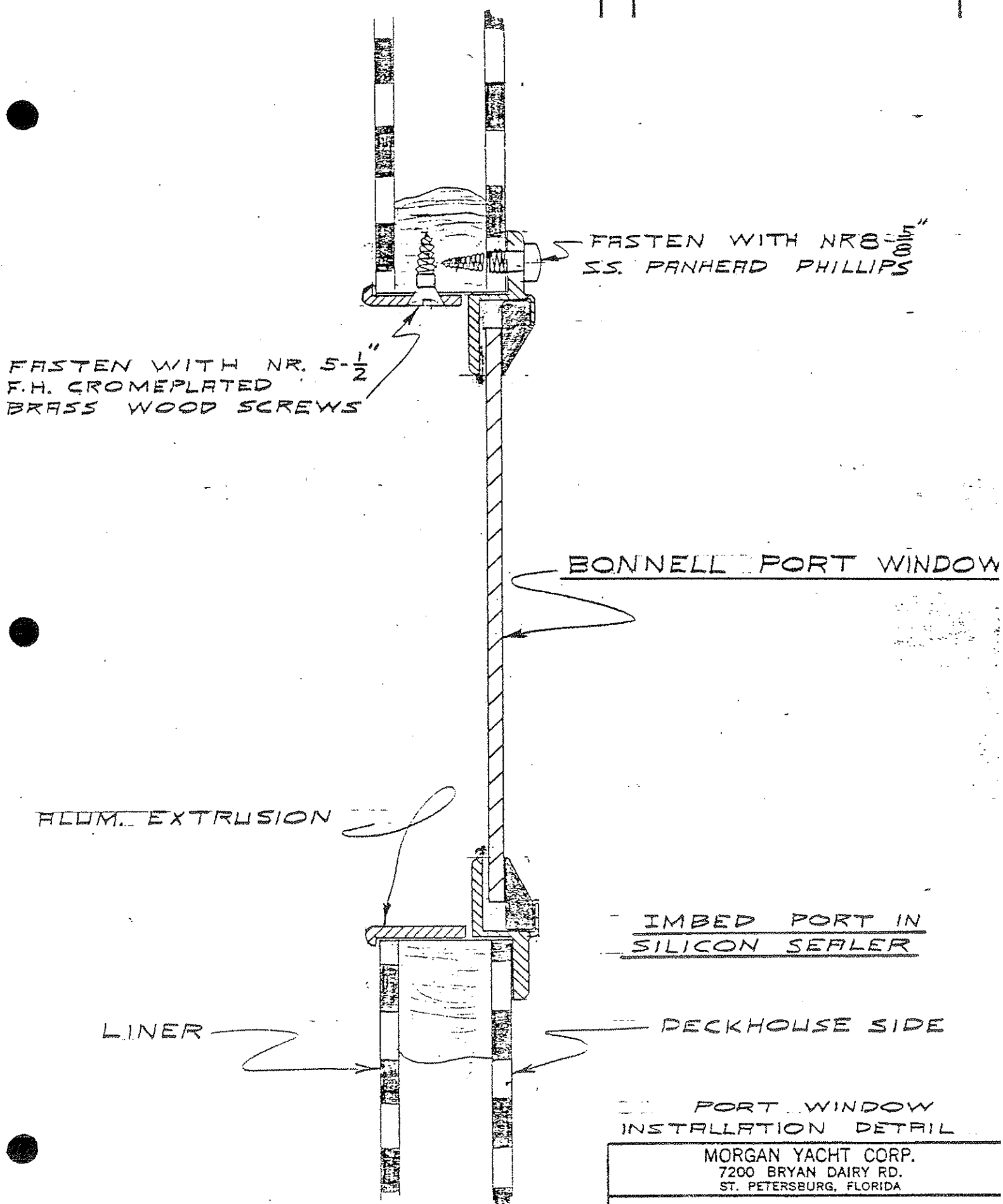
The weakest part of the centerboard system is the lower portion of wire rope, from the tube to the centerboard proper. It is exposed to corrosives as well as electrolytic action, if any. It may last up to five years, but the average is approximately two. Life expectancy may be increased by application of "pine tar" to the wire from the end of the tube down to the centerboard connection. This should be renewed at each haul out.

The centerboard pivot pin is not highly susceptible to failure, but it should be inspected at each haul out.

The next area to protect is the galvanized return sheave located forward of the centerboard trunk and below the cabin sole. This should be inspected and greased at each haul out. If one does not exist, you may want to cut a "drop in" inspection hole above the sheave.

The centerboard winch and aft sheave must receive regular inspection and grease. The spring and release lever on the winch should be checked closely for corrosion. If these fail, the entire winch must be replaced.

The last and least troublesome part is the packing nut assembly. This should be hand tightened just enough to keep water from coming in but still let the tube slide freely. Packing should be inspected at each haul out and replaced if necessary. Also inspect, and if necessary, replace the hose.



FASTEN WITH NR8-¹⁴/₁₀₀"
SS. PANHEAD PHILLIPS

FASTEN WITH NR. 5-¹/₂"
F.H. CROMEPLATED
BRASS WOOD SCREWS

BONNELL PORT WINDOW

FLUM. EXTRUSION

IMBED PORT IN
SILICON SEALER

LINER

DECKHOUSE SIDE

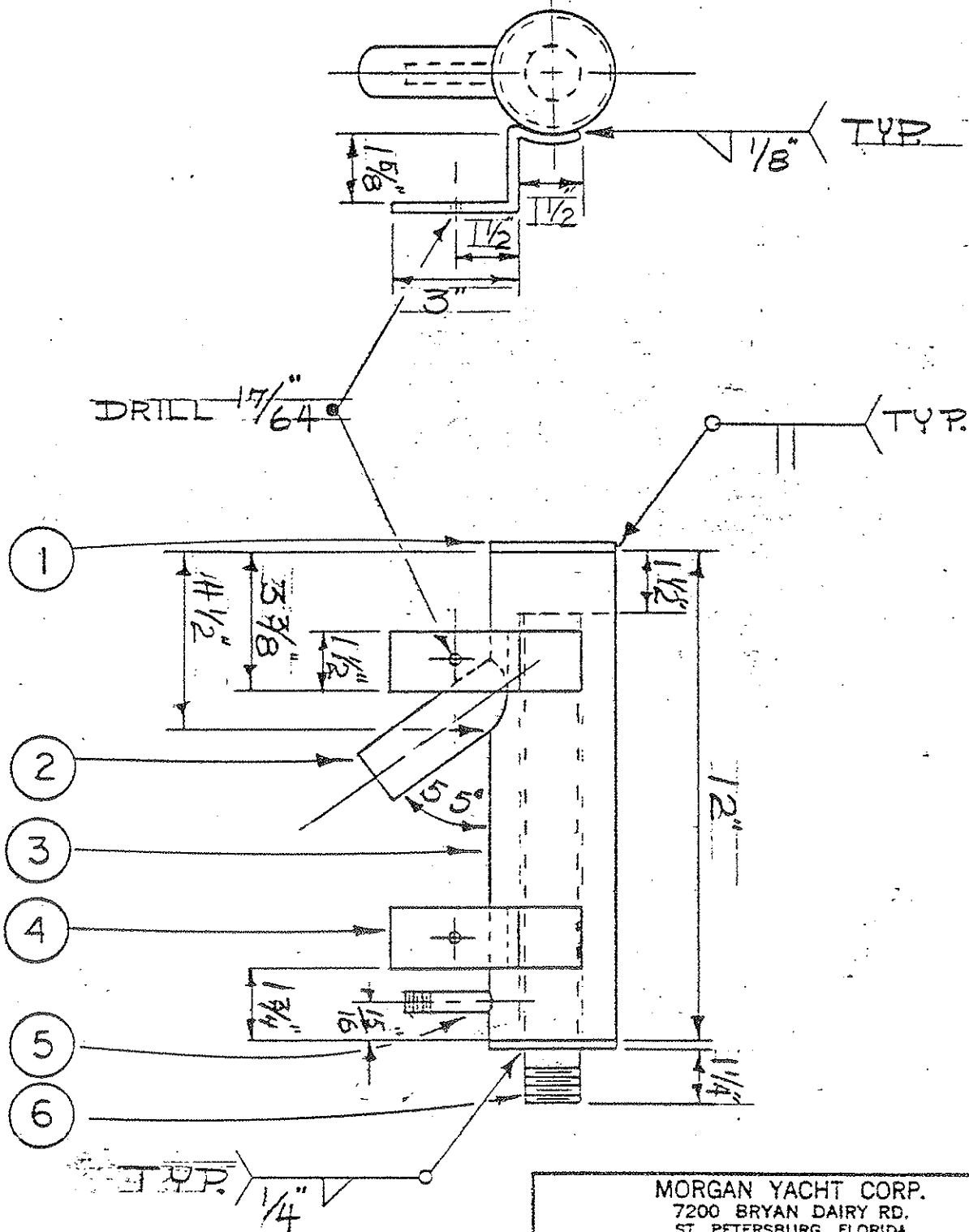
PORT WINDOW
INSTALLATION DETAIL

MORGAN YACHT CORP.
7200 BRYAN DAIRY RD.
ST. PETERSBURG, FLORIDA

WINDOW INSTALLATION

DESIGNED BY <u>J.G.C.</u>	DATE <u>11-4-70</u>	DRAWING NO. <u>TYP-</u>
DRAWN BY <u>J.S.</u>	CHECKED BY <u>J.S.</u>	SCALE

ITEM	REQ'D	PART NO.	SOURCE	NO.	REVISION	DESCRIPTION	DATE
1	2	3010141	M.Y.C.			1/4" STEEL R x 2 7/8"	
2	1	3010008	" "			1/4" SCH 40 PIPE X 4"	
3	1	3010017	" "			2 1/2" " " " X 12"	
4	2	3000133	" "			1/8" STEEL STRAP 1 1/2 x 6 1/2"	
5	1	3010011	" "			3/8" SCH 40 PIPE X 2"	
6	1	3010008	" "			1/4" " " " X 12"	



M.Y.C. NO. 0602775

MORGAN YACHT CORP. 7200 BRYAN DAIRY RD. ST. PETERSBURG, FLORIDA		
STD. GAS MUFFLER		
DESIGNED BY DRM	DATE 1.5.73	DRAWING NO. TUP. 147
DRAWN BY RSD	SCALE	
CHECKED BY DDM		

DEALER MEMORANDUM

August 25, 1961

TO: All MYC Dealers

SUBJECT: From Water Tank Capacities - All Models

Standard and optional extra water tank capacities for all current production models are shown below:

MODEL	CAPACITY IN GALLONS		
	STANDARD EQUIPMENT	OPTIONAL IN LIEU OF STANDARD	OPTIONAL IN ADDITION TO STANDARD
M 27	12		
M 28	15		
M 29	30		
M 30	40		
M 32	35		
M 34	30	60	
M 35	30		15 or 30
M 40 K	90 (2)		15 or 30
M 41	60		15 or 30
M 42	80	100 (2)	
MARAUDER (A 50)	200 (2)		

Notes: (1) Space Permitting
 (2) Two tanks with combined capacity indicated.

Please note that these revised specifications supersede all previously published material on this subject.

MORGAN 30 STANDING RIGGING

<u>Quantity</u>	<u>Description</u>	<u>Pin Center Length</u>	<u>Wire Size</u>	<u>Terminals</u>	<u>Turnbuckle Size</u>	<u>Toggle Size</u>
1	Headstay	39' 9-1/2"	3/16" 1 x 19	Eye & Eye	None	3/8"
1	Backstay	41' 6"	3/16" 1 x 19	Eye & Eye	3/8"	None
	<u>OR</u>					
1	Backstay with L.B. turnbuckle	40' 9-1/2"	3/16" 1 x 19	Eye & Eye	3/8" L.B.	3/8"
2	Main Shrouds	36' 11-1/2"	1/4" 1 x 19	Eye & Jaw	1/2"	1/2"
2	Forward Lowers	18' 7"	3/16" 1 x 19	Eye & Jaw	3/8"	3/8"
2	Aft Lowers	18' 7-1/2"	3/16" 1 x 19	Eye & Jaw	3/8"	3/8"

Note: All jaw terminals to be supplied with clevis pins and cotters.

*Length Tolerances $\pm 1/4"$

JGC/ml

Revised

1/23/70
4/18/69
6/2/69
7/2/69
7/16/70

M 30 STANDING RIGGING

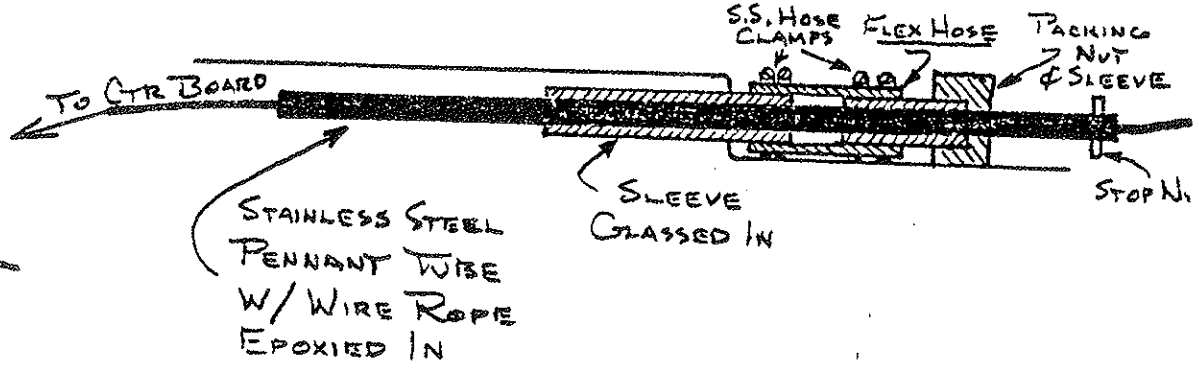
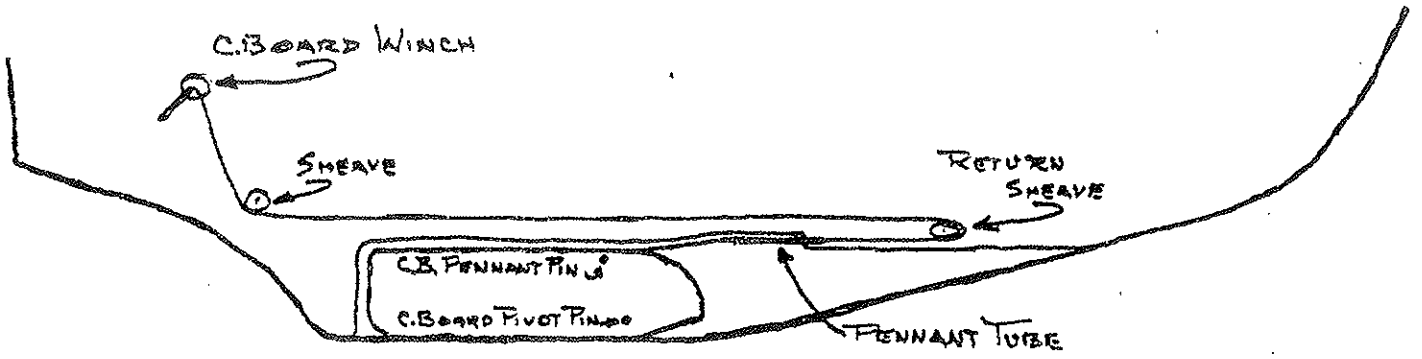
QUAN.	DESCRIPTION	PIN CENTER LENGTH*	WIRE SIZE	TERMINALS	TURNBUCKLE SIZE	TOGGLE SIZE
1	Headsay	39' 10 - 1/2"	3/16" 1 x 19	Eye & Eye	None	3/8"
1	Backstay	41' 6"	3/16" 1 x 19	Eye & Eye	3/8"	None
OR						
1	Backstay with L.B. Turnbuckle	40' 9 - 1/2"	3/16" 1 x 19	Eye & Eye	3/8" L.B.	3/8"
2	Main Shrouds	35' 11 - 1/2"	1/4" 1 x 19	Eye & Jaw	1/2"	1/2"
2	Forward Lowers	18' 7"	3/16" 1 x 19	Eye & Jaw	3/8"	3/8"
2	All Lowers	18' 9"	3/16" 1 x 19	Eye & Jaw	3/8"	3/8"

Note: All jaw terminals to be supplied with clevis pins and collars.

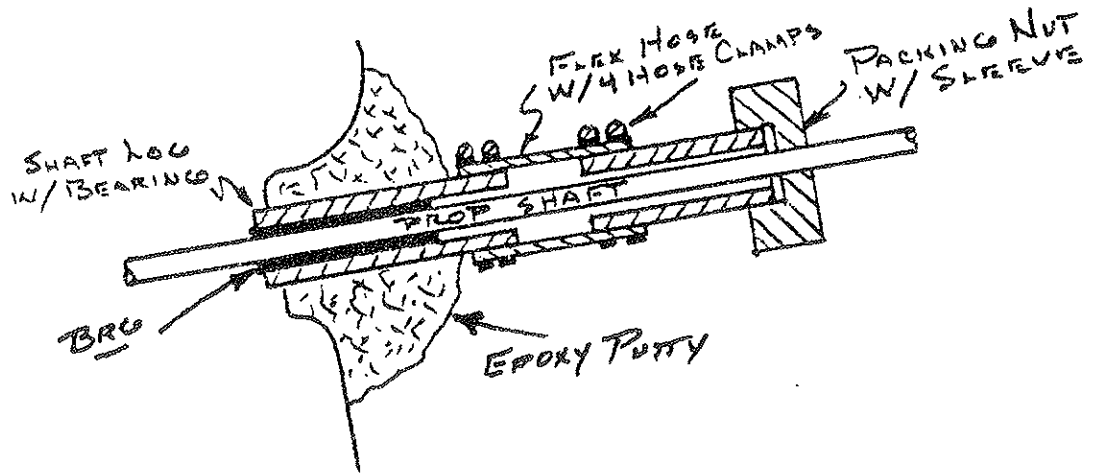
* Length Tolerances $\pm 1/4"$

JGC/ml

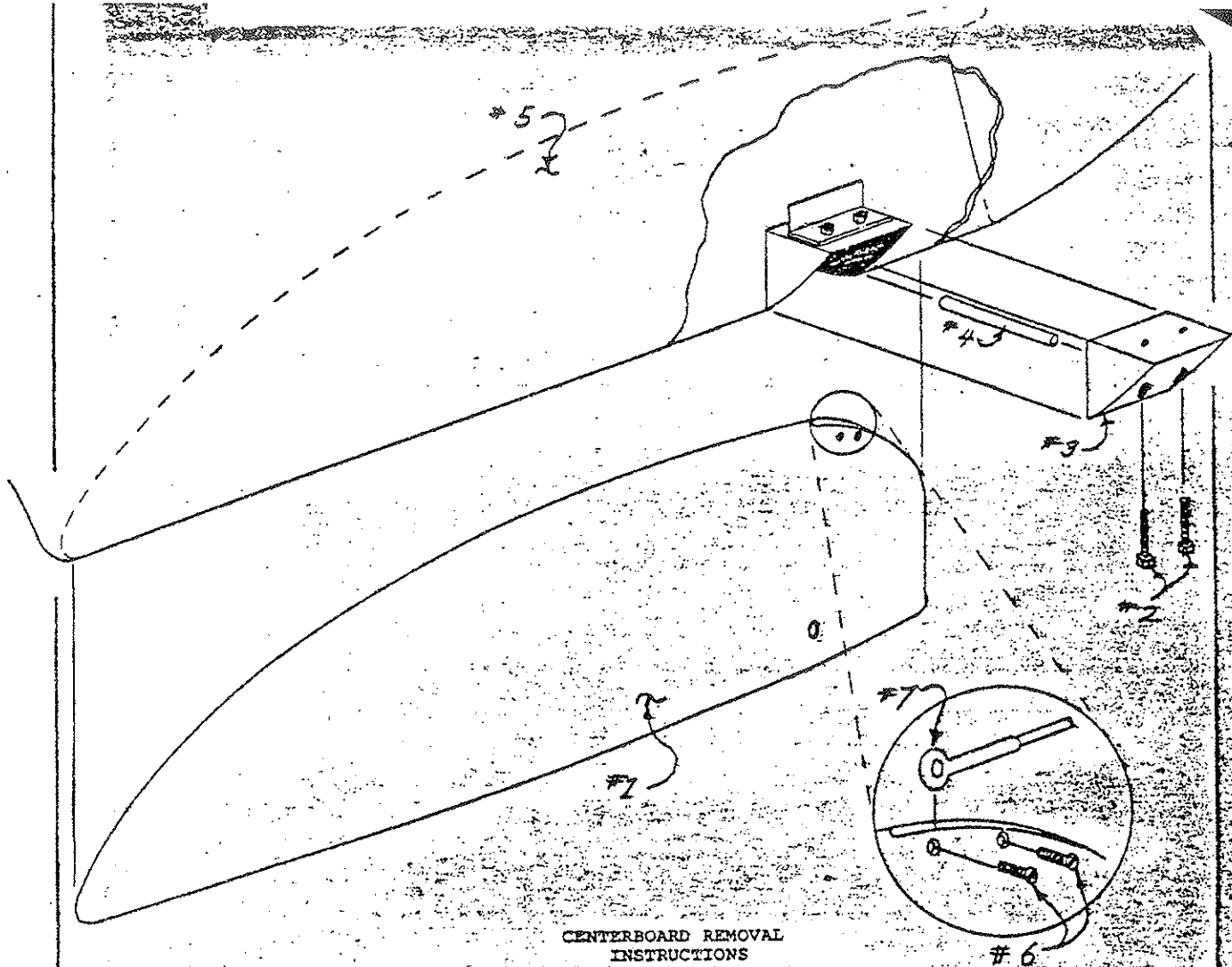
Revised: 1/23/69
 4/18/69
 6/2/69
 7/2/69



TYPICAL CENTERBOARD DETAIL



TYPICAL PROP SHAFT ASSY



CENTERBOARD REMOVAL INSTRUCTIONS

- M-24/30
1. With the boat in a cradle, block the cradle up so that the Keel is no less than 28° off the ground.
 2. Lower the Centerboard (#1) so that the Aft end of the Centerboard (#1) rests on the ground.
 3. Remove bolts (#2) from one casting (#3).
 4. Remove pin (#4).
 5. With the help of one other person, lift up on the Centerboard (#1) and slide it Aft, so that the Centerboard (#1) clears the forward lip of the Centerboard trunk (#5). Then lower the Centerboard (#1) just enough to expose the two machine screws (#6) that secure the pennant (#7) to the Centerboard (#1). Be sure the weight of the Centerboard (#1) is not imposed on the pennant (#7).

WARNING :
 When removing Centerboard (#1) from boat (Step 5 above) exercise extreme care to prevent bending or damaging the pennant tube in the stuffing box. While the Centerboard (#1) is being lowered from its normal operating position, manually push the pennant tube Aft (from inside the boat) until it is completely clear of stuffing box. This may require disconnecting pennant at the Centerboard winch.

6. To disconnect pennant from Centerboard, remove the two machine screws (#6).
7. To re-install the Centerboard in the trunk, reverse the above procedure.

THE MORGAN YACHT CORP.			
2501 72ND STREET NORTH ST. PETERSBURG FLORIDA			
M-24 M-30 CENTERBOARD REMOVAL DIAGRAM			
DESIGNED BY	DATE	DRAWING NUMBER	
DRAWN BY <i>C.M.E.</i>		TYP-205	
CHECKED BY	SCALE	SHEET	
	NONE	OF	
REVISION	DATE	APPROVED BY	

CENTERBOARD SYSTEMS & MAINTENANCE

CUSTOMER SERVICE BULLETIN 978-A

The weakest part of the centerboard system is the lower portion of wire rope, from the tube to the centerboard proper. It is exposed to corrosives as well as electrolytic action, if any. It may last up to five years, but the average is approximately two. Life expectancy may be increased by application of "pine tar" to the wire from the end of the tube down to the centerboard connection. This should be renewed at each haul out.

The centerboard pivot pin is not highly susceptible to failure, but it should be inspected at each haul out.

The next area to protect is the galvanized return sheave located forward of the centerboard trunk and below the cabin sole. This should be inspected and greased at each haul out. If one does not exist, you may want to cut a "drop in" inspection hole above the sheave.

The centerboard winch and aft sheave must receive regular inspection and grease. The spring and release lever on the winch should be checked closely for corrosion. If these fail, the entire winch must be replaced.

The last and least troublesome part is the packing nut assembly. This should be hand tightened just enough to keep water from coming in but still let the tube slide freely. Packing should be inspected at each haul out and replaced if necessary. Also inspect, and if necessary, replace the hose.

SEAL LEAKS - OLD STYLE PORTS

CUSTOMER SERVICE BULLETIN #179-A

The aluminum framed windows found in the older models were a type that used a seal that was compressed around the lucite at the time of construction and it cannot be replaced without replacing the entire window. This is not to say that the leak cannot be stopped without replacement. These were obtained from two different manufacturers -- one being the "Bonnell Co. in Newman, Georgia (phone: 404/253-2020)" and the other was "Levan Specialty Co., Inc., of Industry, Calif. (phone: 213/968-6555)". There's no way to determine what was used on which model for exact records were not kept at that time.

An easy way to stop leaks around the seal is to use a razor and cut away the exposed portion of the existing seal. The next step is to clean this area with acetone. Care must be taken when doing this for the lucite can be damaged by acetone. Wet a Q-Tip in acetone and shake out the excess. Press it lightly with your finger tips and start wiping the lower portion of the seal area. The reason to start at the bottom is that if there is too much acetone in the Q-Tip you will find out without damaging the lucite. This will give you a good idea of "how much" before you go to the top part and it's too late. The acetone is to prep the cut portion of the seal as well as the lucite for proper bonding of the sealer. The best sealer to use is clear silicon. Cut the tube tip so that you will get a bead of about 3/16"; anything more will spill over and look bad. A proper bead will contact the aluminum frame and the lucite so as to completely cover the old seal.

PROP SHAFT BEARING REPLACEMENT
CUSTOMER SERVICE BULLETIN #778-A

Replacing a worn out shaft bearing can be a difficult job under the best conditions. The following procedure should help make it a little less trying.

On some models, you will have to remove the rudder before the shaft can be taken out.

After the shaft is removed, the packing gland assembly should be disconnected.

If you don't have access to a bearing puller, a piece of pipe of the proper diameter will suffice. The pipe diameter must not exceed that of the bearing or you will break the seal between the sleeve and the hull.

A few good licks with a maul should force the bearing out of the sleeve. You will have less trouble if the sleeve is fibreglass for there won't be corrosion present. If the sleeve is bronze, it may be more difficult.

Inserting the new bearing should not present any problem.

I would recommend checking the packing material in the packing gland and possibly replacing it.

The shaft should also be inspected for excessive wear at the point where it rotates in the bearing. If excess wear is present there will be a ridge or shoulder at either side that can be seen. If this is present then a new shaft should be considered for the bearing will not last too long.

PROP SHAFT PACKING GLAND MAINTENANCE

CUSTOMER SERVICE BULLETIN NO. 978

The following maintenance procedure is best accomplished with the boat out of the water. However, with proper precautionary measures it can be done without hauling the boat.

1. Make sure the bilge pump is in working order.
2. Have a good supply of soft cotton rags and a roll of duct tape on hand. The rags should be cut approximately 2" wide and 2 or 3 feet long. These will be used to slow the water flow after the packing nut is removed. The tape is used to secure the rags. The rag stuffing will work better if a grease is applied to the first one to be used with the dry ones used over it.

Using two wrenches, hold the packing nut and back off the jam nut. The jam nut is the one nearest the engine. The packing nut is now backed away and the rags and tape applied to stop the water flow (if the boat is in the water).

The old packing material can now be removed and the new material inserted. It will take three pieces cut to fit snugly around the shaft with the cut ends firmly together. Stagger the joints 45° on each piece as it is inserted into the packing nut. DON'T EVER USE ONE PIECE AND WRAP THREE TIMES. This will not do for it will present an uneven surface to the bronze sleeve and will leak profusely.

The packing nut is now ready to tighten onto the sleeve. Remove the tape and rags and turn the nut into position by hand until the water flow subsides to a steady drip. Wait about five minutes and then further tighten the nut until the drip decreases to one every 20 to 30 seconds. Hold the packing nut in this position with a wrench and tighten the jam nut with another.

The engine is now started and let idle for a few minutes to break in the packing. You may have to re-adjust the packing nut once more after this and later after a long engine run. Once the 20 to 30 second drip interval is attained (while the engine is not running), the packing nut is properly adjusted and the packing will last indefinitely.

Packing size will vary depending on shaft diameter and the type of packing gland used on a particular installation. The later model Morgans that have an owner's manual with them have the packing size listed in them. All others will need to confirm packing size by visual inspection.

Engine Alignment

The propeller shaft is $1\frac{1}{4}$ " diameter, corrosion resistant, stainless "sealoy".

The shaft is checked for accuracy initially at the factory during installation and is carefully aligned to the engine with the hull being properly supported and level. At this time, the shaft log and bearing is bonded to the hull penetration. The coupling to the engine is checked again for alignment by the commissioning dealer or agent prior to delivery of the boat. This alignment check should be made periodically, since the action of a rough sea could possibly change the shape of a boat enough to disturb engine alignment. If after the first rough water experience the alignment has not changed, it is usually only necessary to make the check once per season. The coupling should always be disconnected before the boat is lifted out of the water and alignment will then be necessary.

The alignment is considered acceptable if there is a gap less than .0005" per inch of face diameter of the coupling (.002 for a 4" coupling, .0025 for a 5" coupling). The feeler gauge is inserted between the flanges at four points 90 degrees apart. Then check again keeping the engine coupling stationary and rotating the shaft coupling 90 degrees at a time. This checks the squareness of the coupling face to the shaft center line. The engine alignment is adjusted by raising and lowering the adjusting nuts at each mount. To make lateral adjustment, loosen the mounting pad screws which anchor the engine to the bed. You will note there are slots in the mount pad which allow a reasonable amount of adjustment side-to-side.

In the absence of a feeler gauge the alignment can be checked fairly accurately with a strip of paper. Insert the paper between the two halves of the outer flange and rotate both together 360 degrees. The paper should remain in place through the complete turn.

Sometimes engine vibration is such that maintenance checks on the shaft coupling alignment and all fastenings must be done every 2 of 5 hours of operation. The first few checks will let you know how often these should be inspected by their looseness or lack thereof. If at any time you should discover looseness between the couplings and shaft, pull the coupling off and check for wear. The fit of the coupling to the shaft must be a snug fit with all fasteners removed. If the fit is proper, it will be tight enough to resist being pulled off or pushed on by hand but not impossible. Too much play will cause failure and the coupling will disengage itself. The coupling tolerance should as close as .002 as possible. Make sure that the engine is secure on its mounts before starting to align the coupling. Alignment must be done while the boat is in the water. The prop shaft bearing should be checked for wear at each haul-out for if it needs replacing you will not be able to keep the shaft aligned. The coupling must be disengaged at each haul-out and re-aligned upon return to the water. If you are making a long sailing passage and coming into a tight situation where loss of power at a critical point could be disastrous, then check everything before nearing your destination.

TUNING STANDING RIGGING

CUSTOMER SERVICE BULLETIN 978-D

The objective in tuning is to get the proper tension on each stay while keeping the mast straight.

The easy way is to have expert help but you can do it yourself using this guideline, "what happens when I take up or back off on this wire"? If you adjust each turnbuckle the same amount, and in turn, you should have very little difficulty.

Following the above, take up all slack in the stays. Slack is when the wire flops around and if touched lightly, gives with no resistance.

If there is a lot of slack, start with two turns on each turnbuckle, if not, use just one. When you reach a point where all the slack is gone and each wire is stiff, check the mast. This done by sighting up the sail track. Chances are it will be straight, however, if you find a bend tune it out with the proper wire. You may easily determine which wire to adjust by pushing on them to find which one corrects it and then adjusting it accordingly.

Now that the mast is straight, take one or two more turns on each turnbuckle. You are now ready for the final stage of tuning your yacht, and is done under way.

In winds of 12 to 15 knots, on a close reach, and under normal sail, you shouldn't have more than 1" give in the lee shrouds. If there is more than this, adjust them and change tacks and do the same to the others.

Once the rigging is tuned to your satisfaction you might want to use a tensiometer to check and record each wire for future reference. After your first bit of hard sailing you will more than likely have to adjust for stretch and this will make it much easier to do.

If you should happen to run into a problem you cannot solve, please feel free to contact us for personal consultation.

PROPER HELM

CUSTOMER SERVICE BULLETIN 978-E

When a sailing craft is properly balanced, it will usually react with a small amount of lee helm in light air. As air speed increases, from light to moderate, the helm should change to neutral. As the wind gets heavier, you will start to experience weather helm. When weather helm gets to a point where it is a bother, you will have to reduce sail to correct it.

If, when you reef the main, you find a tendency to lee helm, then you will also have to reduce the area of the headsail. If you are carrying a Genoa, then reduce to a lapper; to a working jib; to a storm jib. You must try to keep the center of effort at the same point to keep the helm in balance.

It is very important to keep a small amount of weather helm in heavy air and NEVER A LEE HELM. The following definitions should tell you why:

Lee Helm

If you let go the tiller, the bow of the boat heads away from the wind. When steering, you must push the tiller away from you to keep on course, while sitting to windward.

Neutral Helm

If you let go the tiller, the boat neither falls off or heads up into the wind.

Weather Helm

If you let go the tiller, the bow of the boat heads up into the wind. While steering, you must pull the tiller toward you to keep on course, while sitting to windward.

To correct a helm problem, you must relocate the center of effort (C.E.) Weather helm occurs when the C.E. is too far aft and lee helm, when it is too far forward. On boats with fixed keels, you can only use two ways to relocate the C.E., changing the mast rake and reducing the sail area.

With extreme weather helm you must rake the mast farther fwd. and/or reduce the main.

With extreme lee helm, you must rake the mast aft and/or reduce the size of the headsail. (Jib, Genoa, etc.)

TOPSIDE LEAKS

CUSTOMER SERVICE BULLETIN 778-C

Correcting a deck leak is most times not near as difficult as locating it. Sometimes a leak will travel a long distance from the point of entry to where it drips in your face or seeps onto your bunk. Patience and determination are required to locate them, then it's fairly simple to solve.

Probably the most frequent leak is from ports, whether fixed or opening, and the fasteners are usually the culprits. If you can locate the exact area of the leak you can sometimes solve it by rebedding one or two fasteners. Chances are, you will have to remove the entire port, clean and then rebed it completely.

The important part to remember in rebedding, whether it be a port or any other item, is to clean away all the old material completely from all the surfaces that will receive the new bedding material.

The new bedding is now applied to both contact surfaces and the part set in place. Apply a small amount of bedding to the tip of each fastener and screw it in place. There should be enough bedding on it so that it will ooze out around the head.

If a port is lucite and inletted into or fastened directly onto the cabin trunk, it will probably break upon removal. You should have a replacement on hand before starting the job.

Toe rail leaks are probably the second most problem area and are also difficult to locate. The tendency is to feel that the entire rail must be lifted and rebedded; this is usually not so. Again, two or three fasteners are usually to blame so the fix is relatively easy. A temporary fix is to run a bead of silicon along the base of the rail in the suspect area. This should be four to five feet long and will usually stop the leak for a while. The permanent fix is to remove the bungs (if a teak rail), lift, clean, and rebed the suspect fasteners.

Probably the worst leak to locate is one over the headliner for it may run a long distance before it appears. The only easy way to find this one is to pick out one fitting at a time, apply silicon to the exterior and see if it stops. If it does, the silicon can be removed and the part properly bedded.

Recommended bedding material is 3-M 5200 Sealant.

"MORGAN YACHT SHIP'S STORE"

Address: 7200 Bryan Dairy Rd.
Largo, FL 33543

Phone: (813) 544-6681

Hours: 10:00A to 5:00P, Monday through Friday

Manager: Barry Strong

Items Available: Morgan T-Shirts, windbreakers, belt buckles;
half models, Peter Storm foul weather gear,
sails, and windsail ventilators. Repair
parts for all models are either stocked or
made to order, i.e., rigging, rudders,
centerboards and pendants, prop shafts, etc.

You may use Master Charge, Bank Americard (VISA), prepay,
or, if necessary, items can be sent C.O.D.

Contact Barry Strong for further information.

II. SPECIFICATIONS

E. Manufacturer's Documents

For every yacht manufactured by Morgan, a Master Carpenter's Certificate (MCC) and Manufacturer's Statement of Origin (MSO) are prepared upon request. Both the MCC and MSO must be prepared with the name of the dealer to which the yacht was originally sold. The dealer, then, upon payment in full, endorses these documents over to the person to whom the yacht was sold. The MCC is used for U.S. Coast Guard documentation, and the MSO is the title to the yacht and used for state registration.

Morgan Yacht can issue only one original MCC and MSO. If they become lost, no duplicate will be issued by Morgan Yacht. However, if you wish to document your yacht, and the MCC has been lost, Morgan Yacht can provide a letter which will enable you to proceed with documentation of your yacht with the U.S. Coast Guard.

II. SPECIFICATIONS

F. Procedures and Data for Documentation

Documentation must be accomplished with the United States Coast Guard in the United States or with the governing agency in the country where your vessel is to be registered. We suggest you contact the Documentation Office nearest you for full details, forms, and instructions.

The following notes and references are made for your information and convenience. They should in no way be misconstrued as complete and detailed instructions:

Procedure:

- Pleasure Class - Under 20 tons requires a Yacht License. Twenty tons and over requires a Certificate of Enrollment and a Yacht License.
- Application for Admeasurement - Requires a Master Carpenter's Certificate issued by the builder on the prescribed Coast Guard form. This certificate will be retained by the Coast Guard with certified copies available to the owner.
- Admeasurement - The Admeasurer uses data on the Master Carpenter's Certificate (MCC) to compute net tonnage. The following formulas are used for sailboats:

$$\begin{aligned}\text{Gross Tonnage} &= 1/2 (LBD/100) \\ \text{Net Tonnage} &= 0.9 (\text{Gross Tonnage})\end{aligned}$$

where

L = Length
B = Breadth
D = Depth

- Official Number - After admeasurement files your certificate of tonnage, application is made for an official number. Title and mortgage papers are required.
- Additional Forms -
 - Application for Number
 - Declaration of Ownership and/or Extent of Interest
 - Identification of Owner's or Existing Mortgages

II. SPECIFICATIONS

F. Procedures and Data for Documentation (continued)

Declaration of No Foreign Interest Involved
Designation of Master of Vessel
Declare No Freight or Commercial Passengers to be
Carried on Board
Designated Home Port - Licensing Office
Designated Hailing Port - Berth Marking Certificate

Commercial Class- Contact your U.S. Coast Guard Documentation Office
for information, due to the complexity of application.

For your information and reference, the next two pages contain sample copies
of actual MCC's and MSO's containing the vital information on your boat.

These forms are signed by Morgan Yacht with the authorized signature and
title of the person or responsibility, and are notarized.

Several magazine articles have been written on the subject, which may be
of assistance to you in your application. Reprints of these articles should be
available from the various yachting and boating magazine publishers.



Morgan Yacht Corporation

7200 BRYAN DAIRY ROAD • LARGO, FLORIDA 33540 • 813-544-6681

MANUFACTURERS STATEMENT OF ORIGIN TO A BOAT SOLD IN THE

The undersigned manufacturer hereby certifies that the new boat described below, the property of said manufacturer, has been sold this SAMPLE day of _____, 19____ on,

Invoice No. _____

Dealer's Name _____

Address _____

City, State and Zip Code _____

Model Year _____ Serial No. of Boat _____

Hull Length 29 ft. 10 in. Beam 9 ft. 0 in.

Hull Material: _____ Wood _____ Aluminum _____ Steel Fiberglass

Type Boat: _____ Outboard _____ Inboard Sail _____ Other

This form shall be presented with application for Florida title.

The manufacturer certifies that all information given herein is true and accurate to the best of his knowledge.

FIRM NAME Morgan Yacht

BY _____ Authorized Signature

TITLE OR POSITION Vice Pres. of Manufacturing

Before me personally appeared _____
who by me being duly sworn upon oath says that the statements set
above are true and correct. Subscribed and sworn to before me this _____
day of _____, 19____

Notary Public

(SEAL)

Date Commission Expires _____



Morgan Yacht Corporation

7200 BRYAN DAIRY ROAD • LARGO, FLORIDA 33540 • 813-544-6681

MASTER CARPENTER'S CERTIFICATE (BUILDER'S CERTIFICATE)

PLACE Largo, Florida 33543	DATE Current Date	NAME OF MASTER OR PRINCIPAL CARPENTER Douglas G. Franzese
ADDRESS 7200 Bryan Dairy Road, Largo, Florida 33543		
RMS	HULL NO. 305-	
VESSEL WAS BUILT (Insert "By me," "Under my direction," or "By _____" giving firm or corporate name, if applicable) By Morgan Yacht		
YEAR OF COMPLETION	PLACE WHERE BUILT Largo, Florida 33543 U.S.A.	MATERIAL OF BUILD Fiberglass
NAME OF PERSON OR PERSONS FOR WHOM BUILT AND INDIVIDUAL INTEREST OWNED		

Dealer Name and Address (Individual interest owned 100%)

SAMPLE COPY - NOT TO BE TRANSFERRED

NUMBER OF DECKS 1	NUMBER OF MASTS 1	CONTOUR OF STEM Spoon	SHAPE OF STERN Short Overhang - Counter
LENGTH OF VESSEL 29 $\frac{8}{10}$ FEET	BREADTH OF VESSEL 9 $\frac{0}{10}$ FEET	DEPTH OF VESSEL 7 $\frac{0}{10}$ FEET	
GROSS TONNAGE 9.39	NET TONNAGE 8.45		

THE FOLLOWING ADDITIONAL PARTICULARS SHALL BE GIVEN FOR THE ENGINE OF MACHINERY-PROPELLED VESSELS

TYPE OF ENGINE (Reciprocating, beam, turbine, etc., if diesel, oil, gas, etc., if internal combustion)

PLACE WHERE BUILT	YEAR BUILT
BUILT BY	
POWER (Steam, heavy oil, light oil, gasoline, naphtha, etc.)	

I certify that the information given above is true and correct to the best of my knowledge and belief.

Before me personally appeared _____
who by me being duly sworn upon oath says that the statements set forth
above are true and correct. Subscribed and sworn to before me this _____
day of _____, 19____

Notary Public.

SEAL: _____
Date Commission Expires _____

SIGNATURE OF MASTER CARPENTER OR BUILDER

II. COMMISSIONING AND DECOMMISSIONING

A. Initial Commissioning

The commissioning of your yacht is an owner's responsibility. Your dealer may be able to provide you with this service at his yard or recommend a yard which is competent in commissioning Morgan yachts. We strongly recommend that you have the initial commissioning performed by a yard that is experienced in sailboats and, preferably, Morgan sailboats.

The initial commissioning is extremely important. In addition to putting the yacht into service, the following functions are also served:

- Shipping damage is revealed. The trucking company is liable for shipping damage. They require prompt notification of any claims against them.
- Parts shortages are revealed. Morgan boxes the loose gear and provides an indexed packing list. We do occasionally make errors. It is much more convincing to us that the error is ours, if we are notified before the yacht is sailed. One owner claimed that he was short shipped a stanchion and that this was first discovered six months after launch!
- Quality defects are revealed. Your yacht is thoroughly checked at the plant. Our quality program for each yacht includes a pool test, water drench test, functional testing of all systems, and visual checks of the entire yacht. However, overland travel often causes leaks and other problems which are difficult to detect by visual inspection alone. Also, we occasionally miss something. As with claims of short shipments, early notification to the factory adds credibility to the claim of a quality defect.

The following functions should be performed during the initial commissioning. Detailed procedures are described in their respective sections of this manual.

1. Inspect hull, deck, rudder, propeller and shaft, and spar for shipping damage.
2. Inventory all loose gear and report shortages or damaged parts.
3. Install thru-hull fitting for owner and/or dealer supplied equipment.
4. Touch up bottom paint. For maximum anti-foulant life, a full second coat of bottom paint is recommended.
5. Launch and inspect all underwater fittings for leaks.

III. COMMISSIONING AND DECOMMISSIONING

A. Initial Commissioning (continued)

6. Fill fuel, water, and alcohol tanks and search for leaks. Caution: Be sure to bleed hot water heater before turning on the 110 v. element. The element will burn out immediately if energized in a dry or partially filled tank.
7. Install pulpits, stanchions, and lifeline wires. Safety wire lifeline ends and gates.
8. Install standing and running rigging on mast. Check mast wiring and lights. Record rigging lengths from tags supplied. (See following check list.)
9. Step mast, set up and adjust rig, pin and tape all tumbuckles, check halyards, and install mast boot.
10. Reeve sheets, bend on and hoist sails. Furl sails and install sail covers.
11. Connect prop shaft coupling. Align engine to .002" max. clearance. Note: The coupling was disconnected at the plant after alignment check in the pool. This is necessary to prevent damage to the drive train during overland shipment, hauling and/or launching.
12. Check oil and water level in engine.
13. Complete installation of owner or dealer supplied equipment.
14. Check battery condition and recharge, if necessary.
15. Check operation of all systems and equipment.
16. Check all doors and drawers for proper movement and secure latching.
17. Water test deck, fittings, and ports and search for leaks.
18. Sea trial under power and sail.
19. Recheck for leaks in interior plumbing systems (fuel, water, and waste) and exterior hardware.
20. Complete Commissioning Certificate and Inspection Report and return to Morgan Yacht.
21. Clean interior and exterior of yacht thoroughly.

Note: Your yacht may have been partially winterized at the plant. Drain plugs will be placed in the galley sink. Replace all drain plugs prior to launching the yacht.

III. COMMISSIONING AND DECOMMISSIONING

A. Initial Commissioning (continued)

The next few pages provide you with a check list used by some of our dealers to inspect and commission Out Island 30's. Your completing this check list will provide you with a "condition report" of the boat before and after initial commissioning.

III. COMMISSIONING AND DECOMMISSIONING

A. Initial Commissioning (continued)

Receiving and Commissioning Check List (for Owner's Records)

Delivery Inspection

- Boat properly cradled
- Spar properly cradled
- Free of sideswipe damage
- Free of bridge damage
- Companionway seals unbroken
- Absence of external hardware theft
- Loose gear inventory complete

Pre-Launch Inspection

- Road dirt removal
- Bottom paint touched up
- Propeller secured properly
- Rudder moves freely
- Prop shaft turns freely
- All below waterline fastenings are tight
- All plumbing to thru-hulls connected and securely fastened
- All thru-hull valves closed
- All drain plugs and petcocks closed

Launching Inspection

- Boat properly slung during launch
- No damage during launch
- Thru-hull fittings leak-free
- Rudder bearing leak-free
- Shaft packing nut adjusted to 1 drop/
30 seconds, with engine off
- Thru-hull valves, connecting and plumbing
leak-free with valves open

YES	NO	CORRECTED

III. COMMISSIONING AND DECOMMISSIONING

A. Initial Commissioning

Receiving and Commissioning Check List (continued) (for Owner's Records)

Engine Installation

- All mounting bolts tight.
- Engine aligned to .002" max. clearance
- Coupling bolts tight
- Shaft set screw tight and secured with safety wire
- Crankcase oil level full
- Transmission gear box oil level full
- Throttle/shift linkage secure
- Engine stop connection secure (if diesel)
- Drain plugs installed and petcocks closed
- Cooling water level full

Tankage and Plumbing Connections

- Fuel tank and lines leak-free
- Water tanks and lines leak-free
- Alcohol tank and lines leak-free
- Alcohol pump functions properly
- Alcohol tank retains pressure

Pulpits and Lifelines

- Pulpits and stanchions secure
- Lifelines properly tensioned
- Lifeline end fitting safety-wired
- Gates function properly
- Lifeline wires free of physical damage

YES	NO	CORRECTED

III. COMMISSIONING AND DECOMMISSIONING

A. Initial Commissioning

Receiving and Commissioning Check List (continued) (for Owner's Record)

Spar & Standing Rigging (Pre-Stepping)

- Mast free of physical damage
- Boom free of physical damage
- Rigging free of physical damage
- Mast wiring and lights functional
- Masthead pins secured and sheaves free-wheeling
- Standing rigging and topping lift properly fastened to spar and pinned
- Halyards installed
- Spreaders fit and properly secured
- Sail track free of burrs
- All fasteners tight
- Standing rigging lengths recorded below:

YES	NO	CORRECTED

- Headstay
- Backstay
- Port Main Shroud
- Starboard Main Shroud
- Port Forward Lower
- Starboard Forward Lower
- Port Aft Lower
- Starboard Aft Lower

Length on Morgan Tag	Actual Length

III. COMMISSIONING AND DECOMMISSIONING

A. Initial Commissioning

Receiving and Commissioning Check List (continued)
(for Owner's Record)

Marine Toilet and Waste Lines

- Marine toilet operates properly
- Marine toilet free of leaks
- Sinks drain properly and no leaks
- Shower drains properly and no leaks
- Ice box drains function properly
- Cockpit drains function properly

Bilge Pumps

- Electric bilge pump operates in manual setting
- Electric bilge pump operates in automatic setting
- Manual bilge pump operates properly

Other Systems and Equipment

- Stove operates properly
- Engine room blower operates properly
- All dealer or owner installed electronics operate properly
- Emergency tiller operates properly
- All deck-mounted winches operate properly
- Steering brake operates properly
- All deck blocks rotate smoothly
- All portlights and hatches operate correctly.
- Port screens present

Check Joinerwork

- All drawers pull smoothly and latch in closed position
- All doors open smoothly and latch in closed position
- Sole drop-ins fit properly
- Berth access panels fit properly

YES	NO	CORRECTED

III. COMMISSIONING AND DECOMMISSIONING

A. Initial Commissioning

Receiving and Commissioning Check List (continued) (for Owner's Record)

Water Test Deck

- All fasteners tight
- Portlights free of leaks
- Portlight drains function properly
- Hatches free of leaks
- Toe rail free of leaks
- Other deck hardware free of leaks
- Cockpit drains operate properly

All Coast Guard Required Safety Gear Aboard

Registration Numbers Mounted (If Applicable)

Sea Trial

- Engine, engine controls, engine instruments,
and drive train operate properly
- Steering system operates properly
- All sail handling gear operates properly
- All sails OK
- No excessive weather or lee helm
- Mast tuned under sail
- Compass swung
- All electronics operate properly
- Notes on weather and sea conditions

YES	NO	CORRECTED

Comments: _____

III. COMMISSIONING AND DECOMMISSIONING

A. Initial Commissioning

Receiving and Commissioning Check List (continued)
(for Owner's Record)

Names of Company and Individuals Involved:

Owner Present
 Yes No

Commissioned by: _____

Sea Trials by: _____

Compass swung by: _____

Electronics checked by: _____

III. COMMISSIONING AND DECOMMISSIONING

B. Decommissioning for Storage (Winterizing) (continued)

(2) Anti-freeze - Drain system per instructions above. Close petcocks and replace drain plugs. Disconnect intake side of raw water pump hose and feed it into a bucket of pre-mixed anti-freeze solution. Run engine until anti-freeze is discharged from the exhaust, and then shut the engine off. Finally, fill the fresh water cooling system with anti-freeze mixture.

- b. Drain and clean engine seawater strainer and leave top loose.
- c. Check water separators in fuel system for water accumulation. Drain as needed.
- d. Check engine handbook for further "lay-up" details.

Failure to adhere to the manual can affect your engine warranty.

5. Clean yacht interior

- a. Clean and drain bilges.
- b. Remove all perishables.
- c. Wash out and dry refrigerators and/or ice boxes. Leave lids off and/or doors open.
- d. Empty all compartments, drawers, and hanging lockers. Clean and leave compartments open.
- e. Clean all interior surfaces.
- f. Clean and apply spray lubricant to steering units, engine coupling, hose clamps, rudder packing gland, shaft log packing gland, gate valves, and throttle/shift controls.

6. Remove the following gear

- a. Electronics. Store at home or send out for any professional attention that may be required.
- b. Compass.
- c. Cushions, seat backs, carpet, curtains, towels, etc. Store in dry area to prevent mildew.
- d. Interior light bulbs. Spray sockets and bases with WD-40 or CRC 6-66 to prevent corrosion.
- e. Batteries. Store in a warm, dry location. Check condition periodically and slow charge as required.
- f. Sails. Wash and let dry thoroughly. Store in a dry area.

7. Drain shower pan pump and strainer.

8. Wash exterior. Polish, wash, and lubricate metal deck hardware.

COMMISSIONING AND DECOMMISSIONING

Decommissioning for Storage (Winterizing) (continued)

9. Wash and wax spars. Lubricate winches and sheaves. Inspect for any damage.
10. Clean standing rigging and inspect for damage.
11. Review manuals for all optional equipment. Follow any winterization procedures given.
12. If boat is hauled, clean and inspect bottom thoroughly. Pay particular attention to signs of structural damage to glass, rudder operation, gudgeon weldment and fasteners, electronic senders, thru-hulls, propeller, and zincs.

Caution: Be certain that the prop shaft coupling is disconnected prior to hauling the yacht, and follow hauling instructions in this manual.

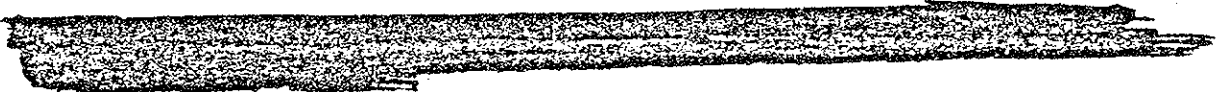
13. It is a good practice to record items that were given attention and any defects found during decommissioning. This list will be valuable to you when recommissioning in the spring.
14. You may wish to use deck covers and/or various devices available to prevent ice formation around a yacht stored in the water. These will provide additional protection to the yacht during the winter months. Consult your local marina for further information and sources of this equipment.

III. COMMISSIONING AND DECOMMISSIONING

D. Hauling and Cradling

Improper hauling or cradling procedures can result in serious damage to the yacht. The following guidelines should be followed:

1. Prior to hauling, disconnect prop shaft coupling.



3. To prevent abrasion damage, the hull topside may be protected by placing carpet between the sling and the gelcoat. Be sure the carpet backing surface is against the sling.
4. If spar is removed, be certain it is properly supported for prolonged storage.
5. The hull should be cradled so that most of the weight is borne by the bottom of the keel. Side supports should contact the hull at or near a major bulkhead location.

IV. OPERATING PROCEDURES

B. Spars and Rigging

1. Stepping the Mast and Dockside Tuning (continued)

- f. Attach the headstay first and then the backstay. Next connect the main shrouds and tighten turnbuckles by hand. Fully release crane support to the spar.
- g. Tighten backstay until about a 2" deflection is visible when side pressure is applied approximately four feet above deck. Tighten main shrouds so that they are equally engaged and tension will allow approximately one inch deflection with a side load applied about four feet above deck level.
- h. Connect lower shrouds and tension equally for approximately two inch deflection. Sight up the mast to determine the straightness of the mast. If any bends are visible, adjust lower shrouds accordingly until mast is reasonably straight. Intermediate uppers, if any, should be tightened to 1-1/2 inch deflection.
- i. Install cotterpins, bend over, and tape with rigging tape. Be sure spreader angle bisects shroud angle, then seize the spreaders and install spreader boots or tape ends. Install mast boot. Install boom and connect topping lift. Bend on sails and furl.

2. Tuning Under Sail

With a 10 to 12 knot breeze, sail your yacht to weather. Sight the mainsail tracks for visual straightness. If the mast appears to take on an "S" curve laterally, luff up and adjust the weather shrouds accordingly. It will usually take only three or four turns on any single turnbuckle. Go back to the same tack and sight the track. If straight, change tacks and repeat the same procedure.

Adjust the fore and aft lowers to remove any bends in the longitudinal direction. The mast should be straight fore and aft, or have a very slight hook forward near the masthead. You may also notice the masthead falling off to leeward slightly which is acceptable.

Check the final tuning by tacking several times until satisfied.

In moderate to heavy weather, a noticeably visible slack should appear in the leeward main shrouds. The lower shrouds to leeward should not be loose enough to flop around, but should have a feel of reduced applied load.

IV. OPERATING PROCEDURES

B. Spars and Rigging

2. Tuning Under Sail (continued)

You may find it necessary to re-tune during the first fifty hours of sail. During this period, the shrouds may stretch slightly and the chainplates will take their final position.

Your Out Island has a fixed headstay length which has been determined by experience to provide the correct balance. If you experience lee helm or excessive weather helm, this can usually be corrected by changing the rake of the mast. Before changing the rake, be sure the actual setting matches the rake shown on the sail plan. Rake is changed by moving the mast step fore and aft. For excessive weather helm, the mast step is moved aft to decrease the aft rake of the mast. To correct lee helm, the step is moved forward to increase the aft rake of the mast. It is necessary to re-tune the rigging after changing the mast rake.

3. Halyards and Outhauls

The halyards are located on the mast and are used to raise and tension the sail in the vertical direction. When the sail is fully up, there should be three to five wraps of wire around the halyard winch, and the rope tail should be used on the cleat.

The outhaul is located on the boom and is used for sail foot tensioning. It can be thought of as the horizontal halyard of the sail.

The clew of the sail is attached to the outhaul car which travels on a track. The car is controlled via a multi-purchase rope assembly (internal) that leads out to a cam cleat on the port side of the boom.

If a greater air pocket is desired for prevailing air conditions, the tension on the clew of the sail can be reduced by releasing the outhaul rope. This will allow the sail and outhaul car to travel forward on the track.

If prevailing air conditions require a flatter sail, tension is added to the clew outhaul rope, pulling car and sail toward the aft end of the boom.

Amount of adjustment required for each condition of sail is at the skipper's discretion.

It is recommended that when the yacht is at anchor, the clew outhaul tension be released to avoid stretching the sail.

IV. OPERATING PROCEDURES

B. Spars and Rigging (continued)

4. Quick Reefing

The following operating procedure is simply a suggested method of quick reefing with actual practice left to each individual skipper's discretion.

Reefing points are provided on the mainsail with reefing lines, blocks, etc. If your mainsail does not have lace lines, they should be added.

It is suggested that the aft end of boom (sail clew) be reefed first, then the tack. The reef line on the boom should be uncleated, and tension added to line via the winch to raise boom to reef point. The reefing line should then be re-cleated.

The halyard should now be eased, and the reef line on the mast uncleated, and pulled down, bringing the sail down to the boom gooseneck, leveling the boom. The halyard should be re-secured, the reef line re-cleated. The sail should now be laid on the boom, and the lace lines tied around the boom. The sail should now be neatly reefed to the boom.

If your sail has double reefing, the procedure should be the same as that above.

IV. OPERATING SYSTEMS

H. Alcohol Stove

Although a copy of the manufacturer's operating instructions is included in the owner's packet, we would like to bring some of the basic and important instructions to your attention:

1. Fueling

Always purchase a good grade of denatured ethyl alcohol for your stove. Ethyl glycol or methyl alcohol are not recommended, as they cause operational failure and possible damage to the unit.

Unless a remote fill station is installed in your vessel, filling should be at the tank fill. Loosen fill cap slowly to relieve any pressure. Remove fill cap and fill tank with alcohol, using a funnel. Replace cap and screw in place.

2. Operating

- a. Pump tank to 20 pounds air pressure.
- b. Preheat burners one at a time. Carefully open the burner control to allow alcohol to flow into the primary cup beneath the burner until the center section of the cup is about half full. Do not overfill. Shut off burner control and light burner. A momentary flare-up during initial ignition is normal. The purpose of pre-heating is to assure that the alcohol entering the flame is vaporized. Vaporized alcohol will ignite and control like a gas burner.
- c. Turn on the burner control. A flare-up at this time indicates insufficient pre-heating. If this occurs, shut the burner control off, allow the burner to cool, and repeat Steps (b) and (c).
- d. Operate the burner as you would a gas stove. Flame intensity is controlled with the burner knob. Periodically, check the tank pressure. Proper burner performance requires a pressure of between 10 and 20 psi.

3. Shut Off

To shut off stove, turn control knob to the right, cutting off the flow of alcohol to the burner.

IV. OPERATING SYSTEMS

H. Alcohol Stove

3. Shut Off (continued)

Release air pressure at the storage tank by loosening filler cap to avoid "flooding" of burner, should controls be accidentally opened when stove is not in use. If a ball type shut-off valve is installed in the alcohol line near the stove and is used for fuel shut-off, the tank pressure need not be released except for filling operation.

4. Miscellaneous

General information and maintenance tips are outlined in your manufacturer's instructions. Please read them carefully before using your stove. Though alcohol is a relatively safe cooking fuel and easily extinguished with water, a thorough understanding and familiarity of the equipment is the best safety device and precaution.

Good cooking to you in your practice of the seafaring culinary arts!

IV. OPERATING SYSTEMS

J. Navigation Lights

Navigation, or "running," lights must be in accordance with the rules and regulations of the navigable water the yacht owner intends to use.

International rules and regulations are required to be observed on seagoing vessels. The Inland rules and regulations are for intercoastal waterways, with certain areas such as the Great Lakes and Western Rivers having special requirements and rules pertinent to their local areas.

Morgan Yacht has listed the following notes, for your reference, from the International rules. We suggest the owner of any vessel acquire a copy of the United States Coast Guard publications on the "Rules of the Road" for their intended areas of navigation.

In general, the navigation lights are required from sunset to sunrise, weather conditions good or bad. It is suggested that, in times of reduced visibility, from sunrise to sunset, navigation lights be operational.

If vessel is underway by use of power, and is under 150 feet in length, it is required to operate a forward light, white in color, 20 point angle (225°), 5 miles visibility range; a stern light, white in color, 12 point angle (135°), 2 mile visibility range; side lights, green to starboard, red to port, in color, 10 point angle ($112\frac{1}{2}^{\circ}$), 2 mile visibility range.

If vessel is underway by use of sail, it is required to operate its side lights (same specification as underway power) and stern light.

If vessel is anchored, it is required to operate its anchor lights, white in color, 32 point angle (360°), 2 mile visibility range.

The yachtsman is encouraged to become familiar with the complete rules and regulations of the above mentioned situations, as well as other possible conditions of operation. Proper operation and use of navigational lights is important for the safety of the yachtsman and the future of boating. A diagram illustrating navigation lights installed on your Out Island 30 at the factory is given in the last section of this manual.

V. MAINTENANCE PROCEDURES

G. Deck Hardware

All deck hardware should be rinsed off with fresh water after each outing and periodically washed with a soap or detergent solution. See section on finishes for additional information on care of deck hardware finishes. This section is concerned with lubrication and inspection of the deck hardware.

1. Winches

- a. Monthly: All winches should be lightly oiled and greased.
- b. Two or three times during season: All winches should be stripped, cleaned, inspected and re-lubricated.
- c. Start and end of season: Completely strip, clean, inspect and lubricate. Inspect mounting bolts for proper seal and tightness.

Follow detailed procedures given in the Lewmar manual.

2. Blocks

- a. Inspect periodically for cracks, burrs, or other physical damage. Burrs can be removed with a file and emery paper. If the block is structurally damaged, replace it immediately.
- b. If the block is equipped with a removable sheave, remove and lubricate with Lubriplate Marine Lube "A". If not removable, oil shaft with SAE 30 oil.

3. Lifelines

Inspect lifelines, stanchions, and pulpits at least once a month. The following should be checked, with any needed corrections made immediately:

- a. Lifelines properly tensioned
- b. Turnbuckles lubricated, pinned, and taped. All locking devices present.
- c. Plastic coating intact.
- d. Look for bulges or deformity in the plastic coating. This usually indicates rust or corrosion damage. Remove vinyl in this area and inspect wire. If wire is OK, wrap the wire with rigging tape.

V. MAINTENANCE PROCEDURES

G. Deck Hardware

3. Lifelines (continued)

- e. Inspect swage fittings. Look for cracks and/or corrosion damage on the fitting and the wire.
- f. Check eyelets on pulpits for structural integrity.
- g. Check all set screws on pulpit and/or stanchion bases.
- h. Examine stanchions and pulpits for structural damage and secure attachment to the deck.

4. Deck Hardware Mounting

Periodically check the tightness of all bolts used to attach the tracks and all deck hardware. In the process, inspect for proper hardware seating and look for signs of loose or missing bedding. If small sections of bedding are missing, silicone can often be applied locally. If the sealant problem is more extensive, remove, re-bed, and reinstall the piece of hardware.

While sailing, observe the individual pieces of hardware as stress is applied. Look for any signs of movement.

5. Roller Furling Gear

The standard Schaefer system requires only periodic oil at the swivel points. Use SAE 30 oil. Check the entire system for signs of wear or physical damage at least once a month.

6. Running Lights

Check that all lights operate before each outing.

At least once a month, carefully inspect the fixtures for cracks or obstructions in the lenses, any signs of failure of the sealing gasket, and any signs of corrosion on the bulb, bulb socket, electrical wires, or connectors. If the bulb is removed, spray the bulb base and the socket with WD-40 or CRC 6-66 before reinstalling.

V. MAINTENANCE PROCEDURES

H. Spars and Rigging

Care and protection of finishes on the spars and rigging are discussed in the next sub-section. Listed below are inspections which should be made at least once a month during the active season.

1. Check fasteners for damage and tightness.
2. Insure blocks, tracks, sheaves, swivels, and pins are lubricated and operate freely.
3. Check sheaves and travelers for burrs. Emery paper and file will rid burrs.
4. Make sure sail tracks are straight.
5. Check fairleads and blocks for burrs and oxidation. File and emery paper will fix both conditions.
6. Check cleats for cracks and burrs. If cracked, replace immediately.
7. Examine and carefully check boom gooseneck, pin, cotters, and welds. If welds are cracked, professional attention is required immediately.
8. Examine chainplates for damaged eyelet (egg shaped) or cracks and to be sure they fair in line with shrouds. If cracks or eyelet damage occurs, replace chainplate (professional attention).
9. Be sure that turnbuckles turn freely, cotters are OK, and threads are lubricated and undamaged.
10. Check shrouds and stays for broken wires, chafing, and fairleading to chainplates. Check end fittings for cracks, corrosion, and any signs of wire slippage. Defects found in any of these areas require professional attention and/or replacement of the defective part.
11. Check all sheets and halyards for fraying and/or burrs. For isolated burrs, cut the burr off and tape over section. If numerous burrs occur, replace halyard and determine why burrs occurred. Raveled or frayed sheet ends, etc., need only to be whipped and burned. Burning melts ends and prevents unraveling.
12. Examine all wire-to-rope splices to insure splice is intact. Professional attention is usually required to replace a wire-to-rope splice.

V. MAINTENANCE PROCEDURES

1. Finishes

1. Fiberglass

The exterior surface of all of the fiberglass components on your yacht is polyester gelcoat. Morgan Yacht uses only the best grade marine gelcoats available. The base resin is isophthalic and/or NPG type which offers the best combination of initial gloss, resistance to weathering effects, and resistance to cracking and blistering. The pigments are carefully selected for color stability, color purity, and resistance to color float. All of the formulations include ultra-violet inhibitors and acrylic monomer which further reduce the effects of weathering.

Even the best gelcoats are not totally immune to the elements. As a general rule, you should treat the gelcoat surfaces of your yacht as you would your car's finish. The following procedures will maximize the useful life of the gelcoat:

- After every outing rinse off the deck and topsides with fresh water.
- At frequent intervals, wash all fiberglass surfaces with a mild detergent or car wash solution. Use a sponge or towel on the high gloss areas. A brush may be used on non-skid areas. Always rinse thoroughly with fresh water.
- Apply wax to the glossy areas at least once a year and more frequently if the yacht is in southern waters. Do not apply wax to non-skid surface areas or the textured portions of the headliner. A good grade automotive wax specially formulated for fiberglass surfaces may be used. Follow the instructions on the can.

If the wax contains cleaners, extreme care must be taken if a power buffer is used. The cleaners are often abrasive which may remove some of the gel surface. Holding a power buffer too long in one spot, particularly on sharp radii, can result in "going through" the gel.

The preferred procedure is to use a wax with cleaners and to buff by hand with turkish towels. This method is a bit more work, but it results in removal of surface oxidation without risking excessive gelcoat removal.

COMMISSIONING AND DECOMMISSIONING

A. Initial Commissioning

Receiving and Commissioning Check List (continued)
(for Owner's Record)

Spars and Rigging (After Stepping)

- Standing rigging adjusted
- Turnbuckles pinned and taped
- Boom fits
- Spreader angle correct
- Mast rake correct
- Winches run free
- Sails fit and slide freely
- Outhaul installed and functional
- Jiffy reefing rigged and functional
- Halyards function properly
- Furling gear operates properly
- Sail covers fit
- Mast boot installed
- Mast lights operational

Batteries Fully Charged

Cable Steering Inspection

- Wheel rotates freely and uniformly
- All connections in steering gear tight
- Cables properly adjusted

Electrical System Check

- All 110 volt systems work w/shorepower
- All 12 volt systems operate properly
- All light bulbs OK

Fresh Water System Check

- Cold water runs freely from all faucets
- Hot water runs freely from all faucets
- Shower operates properly
- Electric pump shuts off w/faucets closed
- Plumbing system free of leaks

YES	NO	CORRECTED

III. COMMISSIONING AND DECOMMISSIONING

B. Decommissioning for Storage (Winterizing)

Winterizing consists of removing gear and equipment that may be damaged, removing liquids which may freeze, thorough cleaning of the yacht, and protecting the yacht from the elements. Procedures for winterizing are described below:

1. Drainage of fresh water system

- a. Open faucets and run pump until water flow stops.
- b. Disconnect hoses at pump and use air pressure to blow out water in low spots.
- c. Remove drain plug on bottom fitting of water heater.
- d. Pump hand pump until water flow stops.
- e. Leave all faucet valves in open position.

Note: Non-toxic anti-freeze for fresh water systems is available from many marine supply stores. This is recommended, since it will protect the system from any accumulations of water that were missed in the draining operations. Follow the instructions on the can. We understand that some owners have used vodka for the same purpose - with favorable results.

2. Head and holding tank

- a. Winterize head by following the procedure given in the Raritan manual.
- b. Empty holding tank and rinse with fresh water and pump out again.

3. Thru-hulls

- a. For in-water storage, all thru-hull valves, except cockpit scupper valves, should be closed.
- b. For out-of-water storage, leave valves open.

4. Engine

- a. Engine coolant. Two acceptable methods of winterizing the engine cooling system are:
 - (1) Complete drainage - involves closing thru-hulls, removing all drain plugs on the engine and muffler, and opening drain petcocks per manufacturer's instructions. Store with expansion tank cap off and salt water pump cover loose.

II. COMMISSIONING AND DECOMMISSIONING

C. Recommissioning After Lay-Up

Recommissioning after lay-up is somewhat less involved than the initial commissioning. The following steps are suggested:

1. Check operation of all thru-hulls before launching boat.
2. Apply anti-foulant bottom paint. Add zincs, if required.
3. Clean exterior of boat thoroughly.
4. Reinstall charged batteries, checking terminals for correct polarity.
5. Check notes on decommissioning. Make any necessary repairs.
6. Launch, step spar, connect rigging, and tune mast. Bend on sails. Check all components prior to reinstalling them.
7. Reconnect coupling and check engine alignment.
8. If engine was drained, replace all drain plugs, tighten caps, and shut drain cocks. Fill and bleed engine cooling system.
9. Fill fuel tank. Bleed engine fuel system (if diesel) per instructions in engine manual.
10. Replace hot water heater plug and reconnect water line at pump. Flush the fresh water system, then fill the water tanks.
11. Clean and inspect engine and engine room equipment. Check oil levels throughout.
12. Clean interior thoroughly.
13. Check operation of all systems.
14. Install cushions, carpet, electronics, and other loose gear removed during winterization.
15. Sea trial.

The check list provided in Section III-A will be a useful reference for the yacht's condition after recommissioning.

IV. OPERATING PROCEDURES

B. Spars and Rigging

1. Stepping the Mast and Dockside Tuning

Assembling the rigging and stepping the mast are normally part of the commissioning procedures. The following steps should be followed:

- a. Check all rigging diagrams in this manual for proper attachment of the rigging to the mast. Rigging changes are much easier to effect on the ground than on a bosun's chair at the masthead.
- b. Record lengths of each piece of standing rigging in the appropriate section of the commissioning check list (in the preceding section). In the first column, record the length shown on the Morgan tag attached to the piece of rigging. This is the correct design length. In the second column, record the actual measured length. Both numbers should agree to within 1/2". If a greater discrepancy is found, notify the factory.

Actual measurements should include the end fittings and the turnbuckle. The turnbuckles should be 2/3 extended during the measurement. (They are pinned in this position at the factory.) The measurement is taken from the centerlines of the pin holes (used to attach the piece of rigging to the mast) and the chainplates (extreme end pin holes).

- c. Install spreaders, standing rigging, and halyards to the spar. Install any required electronics wiring in the PVC mast conduit provided. Check all attachments and test lights and electronics wiring for proper functioning. Check that the mast step is ready to accept the mast.
- d. Schedule the crane and suitable manpower to manually guide the mast during stepping.
- e. Remove cotterpins from turnbuckles and extend to their full open position. Raise the mast to the vertical position and lower slowly into the deck partner. Guide electrical mast wiring through the hole carefully to prevent damage. Place the neoprene mast partner around the spar and work into place inside the aluminum collar as the mast is lowered in place. Spray lubricant and a rubber mallet will help. Be sure wiring is held away from the step when lowering the mast onto the step.

IV. OPERATING SYSTEMS

F. Plumbing System [REDACTED]

5. Marine Head

The marine head is a manually operated model using sea water for flushing. The inlet and discharge gate valves should be checked to be open before using.

A decal is supplied with operating instructions which should be mounted on the bulkhead adjacent to the toilet. Further detailed instructions for winterizing, etc. will be found in the manual supplied by the head manufacturer.

The basic instructions for operating the head as suggested by the manufacturer are:

"To Operate Toilet: Inlet valve should be in open position. Before using, pump to wet inside of bowl. After using, pump until thoroughly cleaned. Pump a few more times to clean lines. If excess waste should cause water to rise in bowl, stop pumping til water recedes."

"To Winterize Toilet: Shut off intake valve. Pump until dry. Remove drain plug in base. Pump again to remove all water. Do not use anti-freeze."

"Do not put rags, matches, paper towels or anything in bowl that will plug up valve."

6. Holding Tank

A holding tank, for use in restricted waters, allows the head to be used as needed. But, one must remember to minimize the amount of water pumped for flushing to extend the capacity of the tank. The holding tank is a flexible rubber/nylon tank, installed in a compartment as near to the head as possible. This location may vary depending on the model of the boat and related options.

It is connected to a "tee" fitting in the normal overboard head discharge system. To use the holding tank, rather than the overboard discharge, the gate valve at the thru-hull must be closed first and then open the holding tank shut-off valve.

V. MAINTENANCE PROCEDURES

I. Finishes

1. Fiberglass (continued)

If the surface becomes dull due to lack of routine care or aging, it can often be restored by hand buffing with an automotive rubbing compound such as Dupont Number 7, followed by a coat of wax. The compound will remove some of the gelcoat. Extreme care must be taken so as to not penetrate the gel layer. The factory applies gel at a thickness of 18 to 25 mils (paint films are generally 1 to 4 mils), and gelcoats normally provide full hiding power at thicknesses as low as 8 to 10 mils. Thus, there is some margin for gelcoat removal without adversely affecting the appearance of the surface.

If rubbing compound does not restore its gloss, the surface may be sanded with 320 grit paper, then sanded with 400 grit paper, polished with rubbing compound or polishing compound, and finally waxed. This procedure can result in substantial gel removal and requires extreme care. Generally, this remedy should be undertaken by a yard experienced in fiberglass repairs. Even then, you should be prepared for the possible need to paint if the operator goes too deep in some areas.

Fiberglass surfaces may be painted, and there are several types of paint specifically formulated for resurfacing gelcoated substrates. For the ultimate in gloss and weather resistance, we recommend a top quality two-part urethane (e.g. Dupont Imron available at paint stores). Two-part epoxies also provide glossy and durable finishes, but they may chalk with aging.

Scratches, nicks, or other surface damage which cuts deeply into the gel or penetrates to the laminate should generally be repaired by a competent yard. If you choose to do this work yourself, contact the factory for recommended procedures.

Caution: Gelcoats resist most chemicals, but they are not resistant to strong caustics, strong oxidizing compounds, or some halogenated compounds. Materials which should be kept away from gel surfaces include:

- Paint remover containing sodium hydroxide or methylene chloride
- Bleaches containing chlorine
- Cleaners containing chlorine or hydroxides
- Methylene chloride or carbon tetrachloride solvents
- Chloro-bromomethane fire extinguishers

V. MAINTENANCE PROCEDURES

1. Finishes

1. Fiberglass (continued)

Caution: Abrasive cleaners should not be used for routine cleaning operations, since they result in gelcoat removal and may leave scratches.

2. Vinyl Hull Liner and Bulkhead Covering

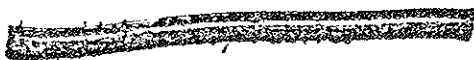
Vinyl liners used in your yacht are fire retardant, mildew resistant, and are selected for durability in marine environments. Other than occasional cleaning with a mild detergent, they are maintenance-free.

The vinyl is applied at the factory with contact cement. Should a corner or edge come loose, it can be re-attached with contact cement.

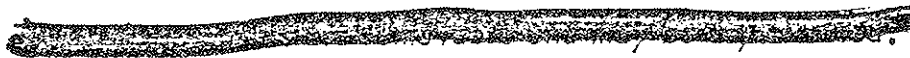
The vinyl will not withstand rubbing with strong abrasives or solvents such as acetone or methylene chloride. Mineral spirits may be used as a solvent if care is taken not to let it set on the surface.

3. High Pressure Laminate Surfaces

The mica surfaces require only occasional cleaning with a mild detergent. Household cleaner/waxes such as Pledge may be used and will mask small scratches that may occur. Do not use strong abrasive cleaners on mica, as they may dull the surface.



The ~~_____~~ your yacht is Herculon, and is self-extinguishing and ~~_____~~ resistant. This fabric may be cleaned with household opifistery shampoo. Follow the instructions on the can. ~~_____~~ Care should be taken not to allow ~~_____~~ excess ~~_____~~ penetration into the foam since it takes a long time to dry.



5. Spars

The spar on your yacht is finished by a glass bead peening process. This method is ~~_____~~ the aircraft industry but is unique to ~~_____~~ in our industry. The peening process provides a tempered surface on the aluminum and a ~~_____~~ increase in corrosion ~~_____~~. As a final step, the spar is waxed before it leaves the plant.

V. MAINTENANCE PROCEDURES

I. Finishes

5. Spars (continued)

To protect the finish on your spar, the following steps are recommended:

- Rinse off spar with fresh water after each outing.
- Tie the halyards away from the spar when not in use; not only does this prevent abrasion on the spar and halyards, but it eliminates the annoying slapping noise caused by the boat's movement.
- At least once a year, and more frequently in southern waters, wax the spar with a good grade automotive wax.

~~Allegan Yacht does not paint the spar because of the inherent problems of nicks, scratches, and the resultant increased maintenance effort required to assure even uniformity. The peening process does not affect the paintability of the spar, as the factory-applied wax does. If you decide to paint the spar, be sure that the factory-applied wax is completely removed first. We suggest two-part urethane (e.g. Dupont Imron or Awlgrip) for maximum durability. Be sure to follow the manufacturer's recommendation in prepping, priming, and painting aluminum surfaces. Shortcuts can result in poor paint adhesion.~~

6. Aluminum Hardware

Periodic cleaning and waxing with automotive type wax is the only surface maintenance required. If the surface becomes pitted, emery paper and polishing compound may be used to remove or reduce the prominence of pits. This will remove the anodized surface and it will be more important than ever to keep the polished surfaces well waxed.

Caution: Do not use emery paper or polishing compound on black anodized aluminum surfaces. Black paint will mask scratches in the anodized surface.

7. Stainless Steel Rigging and Hardware

All of the stainless steel components and rigging are 304 or 316 grade which offers maximum corrosion and rust resistance in a salt water environment. To maintain the stainless steel surfaces, the following steps are recommended.

V. MAINTENANCE PROCEDURES

I. Finishes

7. Stainless Steel Rigging and Hardware (continued)

- After each outing hose down the rigging and hardware with fresh water.
- Occasionally polish stainless steel surfaces with metal polish.
- At lay-up or before prolonged periods of disuse, apply automotive wax to stainless steel hardware. Wax should not be used on the wire rope rigging.

8. Chrome Plated Bronze Hardware

Rinse with fresh water after each outing and clean as needed with automotive chrome polish. Wax with automotive wax at least once a year, preferably before lay-up.

9. Boot and Sheer Stripe

The boot and sheer stripe are painted on with Amerflint two-part epoxy or Dupont two-part polyurethane. Routine maintenance is identical to that of the gel-coat. Minor scratches or nicks can be touched up with automotive enamel or lacquer. A complete re-spray, if needed, should be done with a two-part epoxy or two-part polyurethane for maximum adhesion and long life.

10. Bottom Paint

~~Bottom paint is applied in two coats. The first coat is applied to the bottom of the hull and the second coat is applied to the bottom of the hull.~~
Prior to painting, the bottom is chemically cleaned to remove old release wax and is chemically etched with a special primer.

The paint manufacturer (International Paint Co.) recommends that two coats of International Bottomkote be applied and that the yacht be launched within 72 hours after application of the second coat for a maximum effectiveness. Although many owners launch their yachts delivered from the factory and obtain satisfactory effective life, we believe that the second coat applied a day before launch is good insurance.

V. MAINTENANCE PROCEDURES

1. Finishes

10. Bottom Paint (continued)

The expected life of anti-foulant will vary significantly with water temperature, water salinity, local harbor conditions, the relative amount of use the yacht gets, and the particular owner's definition of the amount of growth that constitutes a need for removal. Under average conditions, you can expect to run six to twelve months between renewals.

Before repainting the bottom, it is necessary that all marine growth is removed, that the bottom is thoroughly sanded, and that the bottom is absolutely dry. At least twenty-four hours should be allowed after hauling to assure dryness. If, in scraping off the marine growth the paint is removed down to the gel, be sure the gel is thoroughly sanded so that all the gloss is removed. If the gel itself is penetrated, seal with polyester resin or gelcoat before painting. In applying the paint, follow the instructions on the can.

Caution: The sanding dust from anti-foulant paint is toxic. A face mask, goggles, rubber gloves, and suitable protective clothing should be worn during sanding operations. After sanding, wash up thoroughly and clean dust from your tools.

It is also advisable to wear an organic vapor cartridge mask and goggles while applying the paint. Wash up thoroughly after painting.

11. Lexan and Plexiglass

All of the exterior glazing (portlights and hatches) are Lexan polycarbonate or Plexiglass (acrylic). Some of the sliding doors and mirrors below may be Plexiglass. Both materials are extremely tough and have the advantage over glass of resistance to shattering if broken. However, both materials exhibit lower chemical resistance and abrasion resistance than glass. As a result, care is needed in cleaning these materials.

For general cleaning, a turkish towel dampened with a mild detergent solution is recommended. If the surface dirt is gritty, flush first with water. Never use acetone or other keytone solvents on either material. Never use abrasive cleaners on either material.

Minor scratches can be removed by hand buffing with jewelers rouge or cleaners specifically formulated for plastics. (Aircraft or motorcycle service centers are good sources for these cleaners.) Some scratches can be removed by hand buffing with toothpaste and water.

V. MAINTENANCE PROCEDURES

I. Finishes

12. Teak Joinerwork

Teak is used for all exterior and interior trim. Teak veneer plywood is used for all woodgrain interior joinerwork panels and on the main cabin sole. All of the teak is hand rubbed and oiled before the yacht leaves the plant.

There are several options open to you on maintaining teak. Your choice will depend on your preference in the aesthetic appearance of the bright work and the amount of time and/or money you are willing to devote to bright work maintenance. Some of the alternatives are described below:

a. Leaving teak untreated

Teak contains a natural oil which is one of the reasons it is so durable in a marine environment. As it ages, however, the oil exudes to the surface and disappears. (Direct sunlight speeds up the process.) When teak weathers, it takes on a silver gray color which many find attractive. The disadvantage of weathered teak is that the grain raises, and there is a tendency for the teak to check and split. Periodic cleaning with commercially available teak cleaners, such as Teak-Brite, will restore the original color and improve the aging characteristics of the teak.

b. Oiling teak

Periodic oiling of the teak will help maintain the golden brown teak color and greatly increase the resistance to checking and splitting by replenishing the natural oil in the teak. Special oils (e.g. Teak-Brite Sealer and Watco Teak Oil) have been formulated for finishing teak. These are generally preferred over boiled linseed oil, because they contain toxicants for mildew resistance and other additives. Boiled linseed oil may be used on teak, but more frequent cleaning and re-oiling may be required.

The general procedure is to clean the teak (see above) and sand, if necessary, then apply oil liberally with a rag. Re-apply oil until it is no longer absorbed into the surface. Allow oil to penetrate for 15 to 30 minutes and then wipe off with turkish towel. Rub in the direction of the grain. Be sure to observe any special instructions on the can label.

V. MAINTENANCE PROCEDURES

I. Finishes (continued)

c. Varnishing teak

A varnish finish provides the best protection for the teak, and most people agree that a varnish greatly enhances the appearance of the teak. The drawbacks to varnishing teak are the high initial cost (labor content) in obtaining a first rate job and the comparatively high maintenance effort needed. Exterior varnished teak will normally require a new coat of varnish every four months, and interior joinerwork will require re-coating at least every two years. If the varnish fails (peels, yellows, crazes, etc.) before re-coating, extensive sanding is required; and often the entire finish must be removed and re-done.

The main forces which work against a good varnish job on teak are dust, moisture, grain in the wood, and the natural oil in the teak. Their effects and avoidance techniques are discussed briefly below:

- (1) Dust -- Varnish must be sanded between coats, and the sanding dust must be removed before re-coating. Wipe all sanded surfaces with tack cloths, and then thoroughly vacuum the surrounding areas before varnishing. Brushes must be thoroughly cleaned, and the varnish should be strained before using. Varnish remaining in the can after completing a coat should be discarded. This eliminates dust accumulation in the can and eliminates the problems of surface skinning in the can. Varnishing must be done on a still day.
- (2) Moisture -- Moisture will cause varnish to blush and/or lift. Be sure all surfaces are absolutely dry before varnishing. Do not apply varnish when the humidity is high or rain is forecast within 16 hours after application.
- (3) Grain -- Teak has a sharply defined grain which will telegraph through several coats of varnish if the preparation is incomplete. The teak should be block sanded to a 150 grit finish. Take care on the panel surfaces not to penetrate the veneer, but strive to obtain a smooth surface everywhere. For best results, a "paste wood filler" or "filler stain" (Petit and Interlux both offer easy-to-use materials) should be used to fill the grain. Follow the instructions on the can to the letter.
- (4) Natural Oil in the Teak -- The natural oil in the teak exudes to the surface with aging. This helps protect unvarnished surfaces. It can destroy varnished surfaces by causing lifting. To minimize the risk of lifting, wash all teak surfaces to be varnished with acetone prior to the initial sanding.

V. MAINTENANCE PROCEDURES

I. Finishes

c. Varnishing Teak

(4) Natural Oil in the Teak (continued)

Use plenty of acetone and change wiping rags frequently.

Caution: Acetone is extremely flammable. Be sure area is well ventilated and that all potential sources of spark or open flame are eliminated before using acetone. Do small areas at a time. Then allow the area to clear itself of vapors before continuing.

A thorough discussion of varnishing techniques is beyond the scope of this manual. Prior to tackling the job of varnishing your yacht, you should talk to experienced varnishers. Read the various publications issued by varnish manufacturers, and by all means follow the instructions on the can to the letter. Listed below are the steps that will be required to get a top quality finish. The listing is useful as a checklist of the major steps to be undertaken:

- Wash teak with acetone
- Sand to 150 grit finish
- Fill grain with filler stain
- Apply sealer coat -- sand lightly
- Apply three to seven coats of varnish, sanding between coats with 150 grit paper
- Apply last coat. If a satin finish is desired, use satin varnish for last coat or apply high gloss varnish and rub with pumice and boiled linseed oil.

V. MAINTENANCE PROCEDURES

J. Sail Care

To help you obtain the best continued service and longest useful life from your sails, we would like to offer this advice for sail care. Good sail care is not difficult or particularly time-consuming. Over a period of years, a little conscientious care can save hundreds of dollars.

Sail care for synthetic sails consists of three basic elements: cleanliness, protection from unnecessary ultraviolet radiation, and proper usage.

1. First, your sails should be kept clean. Simple flushing with fresh water will normally do this job. Once a year, or more often if necessary, a thorough washing using a mild detergent will keep your sails white and free of salt that can cause abrasive damage to sail fibers over a period of time.

Sails may be spread on a smooth clean surface and scrubbed to remove imbedded dirt; but, simply soaking the sails in a detergent solution with occasional stirring is preferable since it avoids any chafing of the sail against a surface. In any case, do not put your sails in a washing machine. You will get your sails clean at the expense of a great deal of cloth damage from slides and snaps working against the cloth.

Occasionally your sails may be stained, in which case, there are several commercial stain removers that can be safely used; but, be certain that the instructions verify that the product is safe for dacron or nylon.

2. Secondly, the most destructive force to synthetic sails is ultraviolet radiation. The important thing to remember here is to keep your sails out of the sun except when in use. Use a mainsail cover if you leave the sail on the boom. Never leave your sails lying on a flat surface in direct exposure to the sun. One hour on the clubhouse lawn can have the same destructive effect as a weekend's racing.

After you have washed your sails, hang them up by the luff in the shade when possible. Put them under cover as soon as they are dry.

3. Finally, proper usage consists of protection from chafing, proper storage, and prevention of over-stretch.
 - a. Prevention of chafe is a common sense thing. Check spreader tips, turnbuckles, stanchions, pulpits, and other parts of the boat and rigging which may come in contact with the sails. Some fittings, such as spreader tips, can be taped or covered with leather. Others,

V. MAINTENANCE PROCEDURES

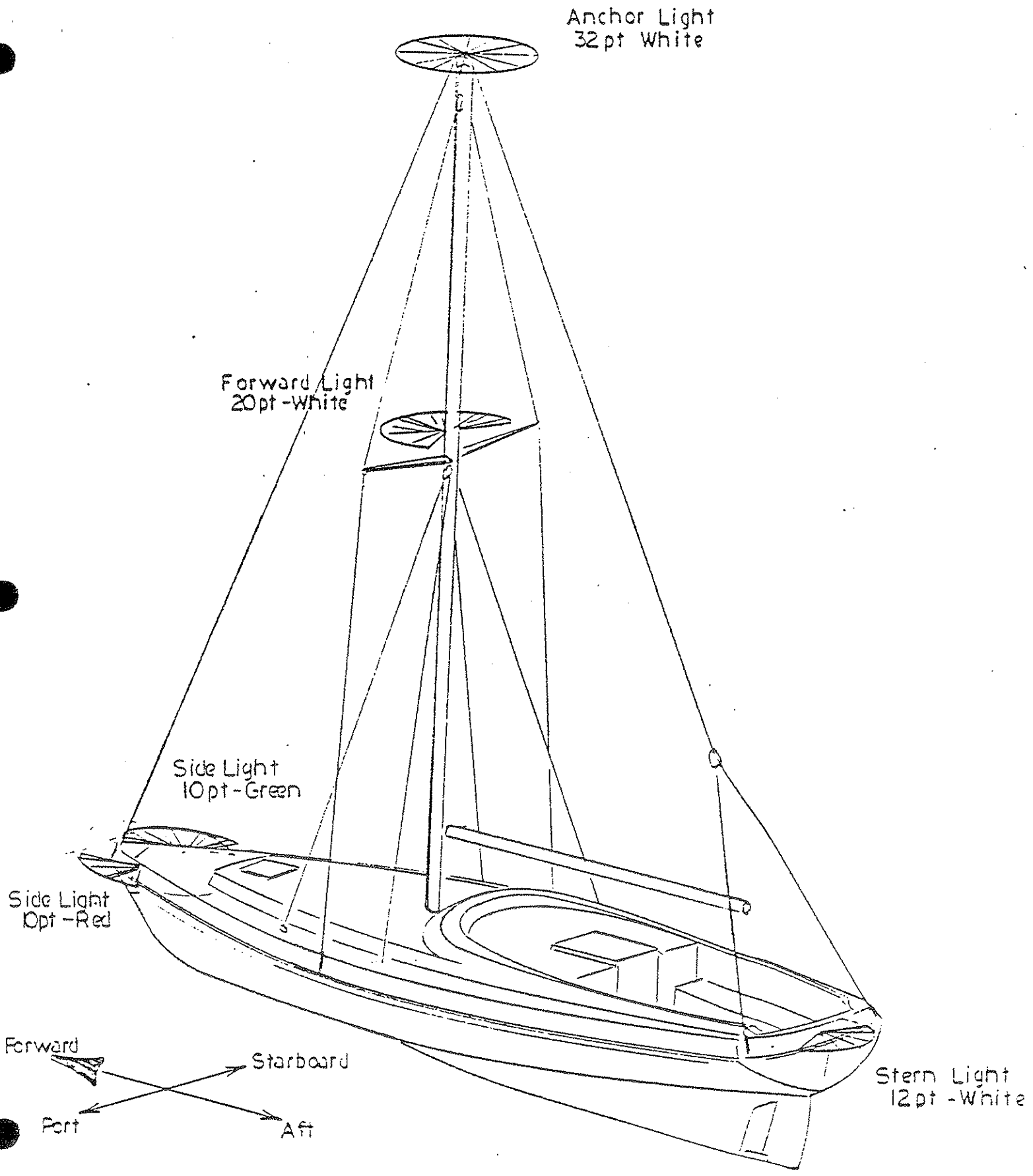
J. Sail Care

3. a. (continued)

- such as screwheads, should be filed smooth. A periodic inspection of the sails will help pinpoint sources of chafe or sharp edges that may eventually tear a sail or cut the stitching.
- b. All sails should be stored dry. Dacron sails should be folded, but they don't have to be. Soft unfilled sail cloth suffers little from "stuffing," since there is no filler breakdown from the repeated creasing. However, even soft cloth enjoys a longer life with folding, since folding and rolling of sails will minimize creases and strains on the fibers. Folded sails also require less space for storage and set more smoothly in light airs. Long term storage should especially be in a folded condition and in a cool, dry place. Never leave the battens in the main when it is not being used. The cloth, elastic, and battens will all suffer.
- c. Finally, proper use involves using the sail in its proper conditions. Using a 4 oz., 170% genoa on the 40 footer in 18 knots is obviously going to strain the sail and distort the shape. Unfortunately, there are no standard tables indicating the exact wind velocity at which the headsails should be changed. Sea conditions, stability of the particular boat, cloth weight, and sail shape are determining factors that all affect the decision to change sail.

While we can give you guide lines for any individual sail, ultimately, your judgment is going to be called upon. Watch the sail for signs of strain or distortion of its airfoil shape. Remember that sails are made of cloth; and, while modern synthetics are extraordinarily strong, they do have limits. Sails can be ruined by carrying them in winds beyond that for which they were designed, stretching a leech over a spreader, stretching the foot over the shrouds or a lifeline, allowing leech flutter uncontrolled, and excessive luffing.

This is by no means a complete treatment of sail care. But, with common sense and the general care we have outlined, your sails will give you years of trouble-free service.



REQUIRED SAFETY EQUIPMENT

The yacht owner should reference the U.S. Coast Guard and/or the controlling body and codes for his area of operation. The following information is listed for your convenience, but should not be misconstrued as complete.

Navigation Lights

Per U.S.C.G. International rules, Inland rules, or governing codes for operational area.

Life Preservers

Shall be of approved type. Class 2 vessels (Out Island 30), if not carrying passengers for hire, shall carry an approved life preserver (Type I, II or III) for each person on board plus one Type IV (buoyant cushion, life ring buoy, or throwable special purpose water safety buoyant device) available to be thrown. Storage of the above equipment shall be so placed as to be readily accessible. Note: Work vests (Type V) are not acceptable as part of the above requirements.

Fire Extinguishing Equipment

Shall be of an approved type. The Class 2 vessel requires two Type B-I extinguishers (1½ gals.-foam; 4 lbs. carbon dioxide; or 2 lbs. dry chemical), or at least one Type B-II extinguisher (2½ gal.-foam; 15 lbs. carbon dioxide; or 10 lbs dry chemical); if the vessel has no fixed fire extinguishing system in the machinery space. It requires one Type B-I extinguisher if a fixed fire extinguishing system is installed in the machinery space.

Ventilation

Ventilation of machinery spaces containing the engine and/or tanks shall be accomplished with a minimum of one air intake duct, and one exhaust duct. The exhaust duct shall extend from the atmosphere to the lower portion of the bilge. The intake duct shall be installed so as to extend at least to the midpoint to bilge, below the carburetor intake, and to the atmosphere. The cowls shall be such that displaced fumes cannot be recirculated. The vents should not be closed at any time.

Whistles

One hand or power operated whistle, capable of producing a blast audible at a distance of at least one mile, and with blasts of at least two seconds duration.

Bell

If operating in water subject to the rules of the road, you must carry an efficient fog bell.

The above information is taken from the Coast Guard Publication of "Rules and Regulations for Uninspected Vessels," Subchapter C, May 1, 1970, Ref. CG-258, reflecting the minimums.

Recommendations by ABYC and boating manuals may be more strenuous, and should be followed at the owner's option.

Distress signals (Flares, smoke signals, dye markers, signalling mirror and/or orange flag, while not required, are strongly recommended.

The yachtsman should become totally familiar with the "Rules of the Road" for his particular area. We suggest a publication like, "Piloting Seamanship and Small Boat Handling" by Chapman, for additional recommended equipment, their proper use, and conditions of operation.

INSTRUCTIONS FOR DISINFECTION OF POTABLE WATER SYSTEMS ON RECREATIONAL VEHICLES

To assure complete disinfecting of your potable water system, it is recommended that the following procedures be followed on a new system, one that has not been used for an extended period, or one that may have become contaminated.

1. Completely drain the fresh water system, including the water tank(s) and water heater. Ensure that all drain plugs and / or valves are closed.
2. Prepare a chlorine solution using 1 gallon of water and 1/4 cup of household bleach (sodium hypochlorite solution). With tank empty, pour chlorine solution into the tank. Use 1 gallon of solution for each 15 gallons of tank capacity. This procedure will result in a residual chlorine concentration of 50-PPM in the water system. If a 100-PPM concentration is required as discussed in item 3, use 1/2 cup of household bleach with 1 gallon of water to prepare the chlorine solution. Use one gallon of the solution for each 15 gallons of tank capacity.
3. Complete the filling of the water tank with potable water.
4. Turn on the water pump and open each faucet. Run the water until you smell a distinct odor of chlorine in the water at each faucet. Do not forget the hot water faucets.
5. Re-fill the water tank to over flowing.
6. Allow the system to stand for at least 4 hours when disinfecting with 50-PPM residual chlorine. If you desire a shorter time, then use the 100-PPM chlorine concentration and allow it to stand in the system for at least 1 hour.
7. After the desired standing time is done, completely drain the water system and flush thoroughly with potable water until no there is no trace of the chlorine.