

# PASSAGE 42 OWNER'S MANUAL

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# THE B & R RIG (U.S. Patent # 3862613)

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To understand a bit about tuning the B & R rig, you need to comprehend the various parts of a conventional rig, something that most sailors know a bit about.

The basic, one spreader rig is comprised of, actually, six basic parts which are all interconnected. The parts are: mast, spreaders, upper shrouds, lower shrouds, backstay and forestay.

When the rig is correctly tuned, the mast will be straight athwartships when under sail. While it may be raked or bent longitudinally to suit the individual skipper's preference as to boat handling, the mast won't bend sideways.

The upper shrouds, also called uppers, keep the top part of the mast, that which is above the spreaders, from moving from side to side. When an upper is tightened it does two things. It will pull the top of the mast in the same direction as the shroud; and it will put a bend in the mast at the spreader in the opposite direction from the shroud. Example: when the starboard upper is tightened it will pull the top of the mast to starboard and push the middle of the mast at the spreader to port.

The lower shrouds keep the middle of the mast from bending sideways. If the boat is fitted with fore and aft lowers the mast will also be kept from moving fore and aft.

The forestay and backstay, position the tip of the mast, in a fore and aft direction. It is possible to rake the mast forward or aft to the desired amount by the correct adjustment of the forestay and backstay.

An attractive way to reduce the mast diameter, and thereby improve the aerodynamics of the rig, is to increase the number of spreaders on the mast. The double spreader rig is only slightly more complicated in that it has an intermediate shroud between the upper and lower shroud. The intermediate shroud's function is to keep the mast from bending fore and aft, with a two spreader rig of appropriate size, one needs to add an inner forestay and running backstays. This complicates sail handling.

The inner forestay is generally in the way when tacking. Sails often get hung up on it, slowing the tack down and sometimes requiring crew to go forward to clear the fouled sail. When gybing, at one point, both inner forestay and running backstays will be loose. Then the mast will have very poor longitudinal support, and if anything extraordinarily happens, it can result in a mast failure. In heavy weather, if a running backstay, or inner forestay, comes loose for some reason or is not set properly after a gybe or a tack, there is a distinct possibility of a mast failure.

The B & R rig is designed to eliminate inner forestay and running backstays, yet allowing the use of a small mast section which will give good aerodynamics. On the B & R rig no rigging has to be loosened at any point of sail, thereby achieving a safe rig at all times.

The performance-minded skipper will benefit from the inherent aerodynamic efficiency and quick tacking ability of the B & R rig due to the smaller mast section and the swept back spreader arrangement. The cruising sailor, who often sails with minimum crew, will enjoy the feeling of safety and comfort of not having to worry about constantly moving about the boat doing and undoing various parts of the rigging.

B & R rigging systems are on boats the world over. World cruisers and racers, OSTAR boats, 2 ton, 1 ton, 3/4 ton, 1/2 ton, 1/4 ton boats and multihulls. Wherever one finds sailors who want performance reliability.

The basic difference between a B & R rig and a conventional rig lies in the B & R's use of swept back spreaders and diamonds. Diamonds perform the same function as inner forestays.

## A GOOD WAY TO TUNE THE B & R RIG IS AS FOLLOWS:

The easiest is to perform step one before the mast is stepped, lying with the aft side down, supported in both ends, and with all rigging slack. If the mast is already stepped, loosen all the rigging until it is slack and go to step one.

1. Start with all rigging slack. Then induce the desired mastbend by tightening the diamonds. Measure the bend by tensioning a thin string, or the main halyard, along the back edge of the mast. The amount of bend desired depends on the way the sails are cut. As a general rule, a calculation based on .7% of the height of the mast over the boom, can be used to determine normal mast bend. Therefore, a boat with a mast 50' high from the boom to the tip, would have the string approximately .35' or 4" (.7% x 50') away from the mast when measured half way up. Upper and lower diamonds should be about equally tight, so that you have a nice and even bend in the mast.

It is very important that you get the mast straight athwartships at this stage, so that all the bend is in the longitudinal plane.

When these goals are achieved all 4 diamonds should be about equally tight.

2. Step the mast, with all shrouds attached loosely (if the mast was not already stepped).

3. Adjust the backstay and forestay to the desired mastrake. Hang a weight in the main halyard and use this as a plumbob. Hunter recommends to rake the mast aft approximately 1 degree. With mast height of 60' over deck, this corresponds to approximately 1' rake.

Tighten the forestay up to approximately 25% of the final tension you will want on it. This means that the turnbuckle on the forestay will be adjusted approximately another 0.1% of the forestay length to reach it's final tension.

4. Up until now all shrouds shall have been slack, and the mast shall be straight athwartships. Start by adjusting the uppers, equal amount of turns on the turnbuckles on both sides, until they are tight. Now the mastbend has increased some, which will be corrected later.

5. The next step is to check if the mast is standing straight up; athwartships on the boat. Use the jib halyard for this. Pull it out so that it reaches below the sheerline by the mast. Thereafter, pull it down past the sheerline on one side, and mark the halyard at the sheerline. Bring the halyard over to the other side, and do the same thing. If you find a difference, adjust the turnbuckles equal amount of turns on both sides in opposite directions until the mast is standing straight on the boat.

6. Tighten the intermediate shrouds, equal amounts on both sides, until they are almost as tight as the uppers. Sight along the mast, and see that it is straight athwartships. If it is not, adjust the intermediates, equal amount of turns on both sides in opposite directions, until it is.

7. Tighten the lower shrouds, until they are equally tight with the upper shrouds. Again, sight along the mast, and see that it is straight athwartships. If it is not, again, adjust, but this time the lowers, until it is. Your mast will now have about the same amount of longitudinal bend, as you originally set up, and no bend athwartships.

8. Tighten the forestay to its estimated final tension.

9. The final test on how well your rig is adjusted comes when you are sailing. Sail upwind with the boat in 10-15 knots of winds. First, adjust the tightness of the shrouds. If the leeward shrouds are very loose, take about 1/2 the amount of slack out by tightening the turnbuckles, carefully marking down the number of turns for each one. Tack over, and adjust the shrouds on the other side (again the leeward side), by the same amount of turns. Keep on sailing upwind. Sight along the back of the mast. The mast should now look almost straight athwartships. If, for example, the mast looks straight up to the top spreaders and thereafter falls off to leeward tighten the uppers on both sides, until it is straight.

In this final tuning, always adjust both sides in the same way, or else it is very hard to get the mast straight on both tacks. Try to make all the adjustments on the leeward side, and then tack over and make the adjustments on the new leeward side. By doing this you decrease the wear on the threads in the turnbuckles.

10. While sailing, also check the amount of sag in the forestay. The desired headstay tension depends on the shape of the jib and the sea & wind conditions. Generally, a tighter forestay will give more pointing ability and a looser forestay more power.

**10. CONTINUED.**

As a general guide, the sag should be 1-2% of the headstay length. For a 60' headstay this would translate into 7-14" of sag.

Once your B & R rig is adjusted, you will not have to redo it. If the mast has to be taken down for winter storage, only loosen the forestay until the pins in the shrouds can be taken out. Leave the spreaders on the mast, and do not adjust neither the backstays, the shrouds, or the diagonals.

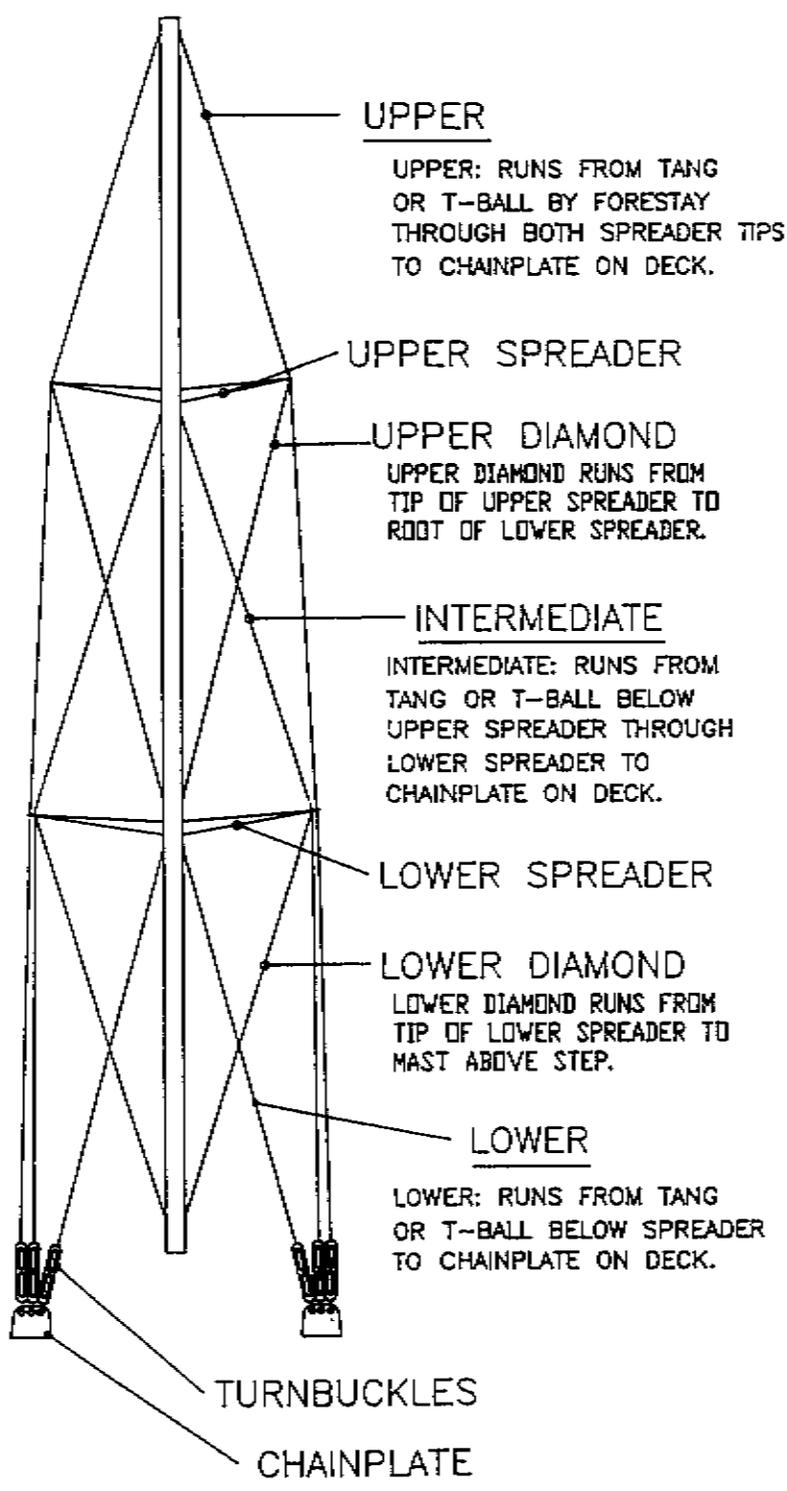
If the forestay is not adjustable; measure the turnbuckle adjustment carefully before loosening them so that the rigging adjustment can be reset after the rig is put back up.

A good way to store the mast, is on top of the boat, with the spreaders pointing down. It can then be used to support the winter cover, and will efficiently keep snow and water off the boat.

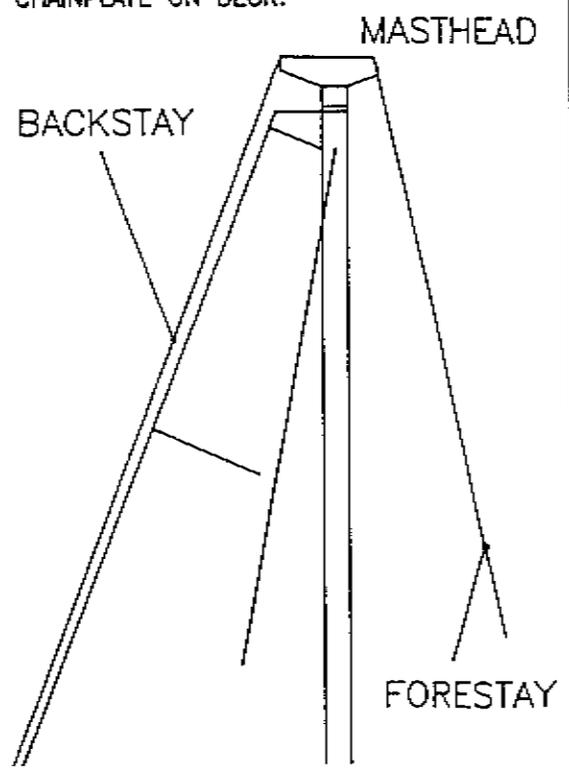
Good luck with your B & R mast.

# HUNTER

DOUBLE SPREADER B&R RIG GENA2623



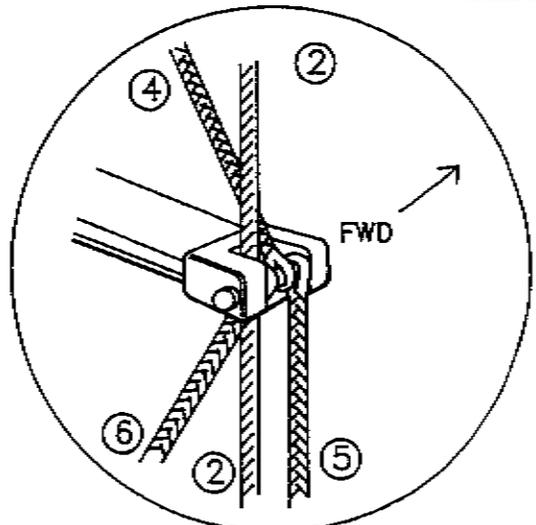
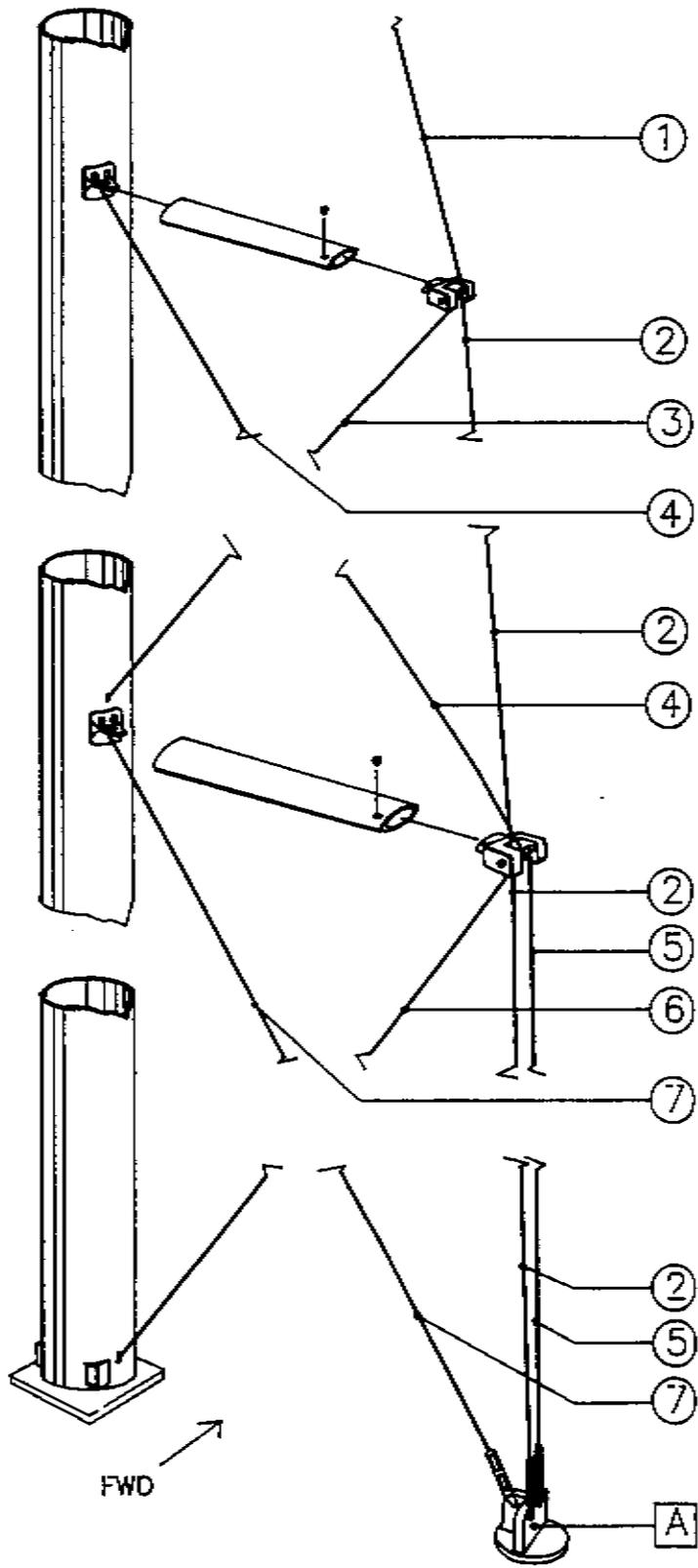
BACKSTAY: RUNS FROM MASTHEAD TO BACKSTAY-CHAINPLATE ON DECK.



FORESTAY RUNS FROM MASTHEAD TO FORESTAY CHAINPLATE.

# HUNTER

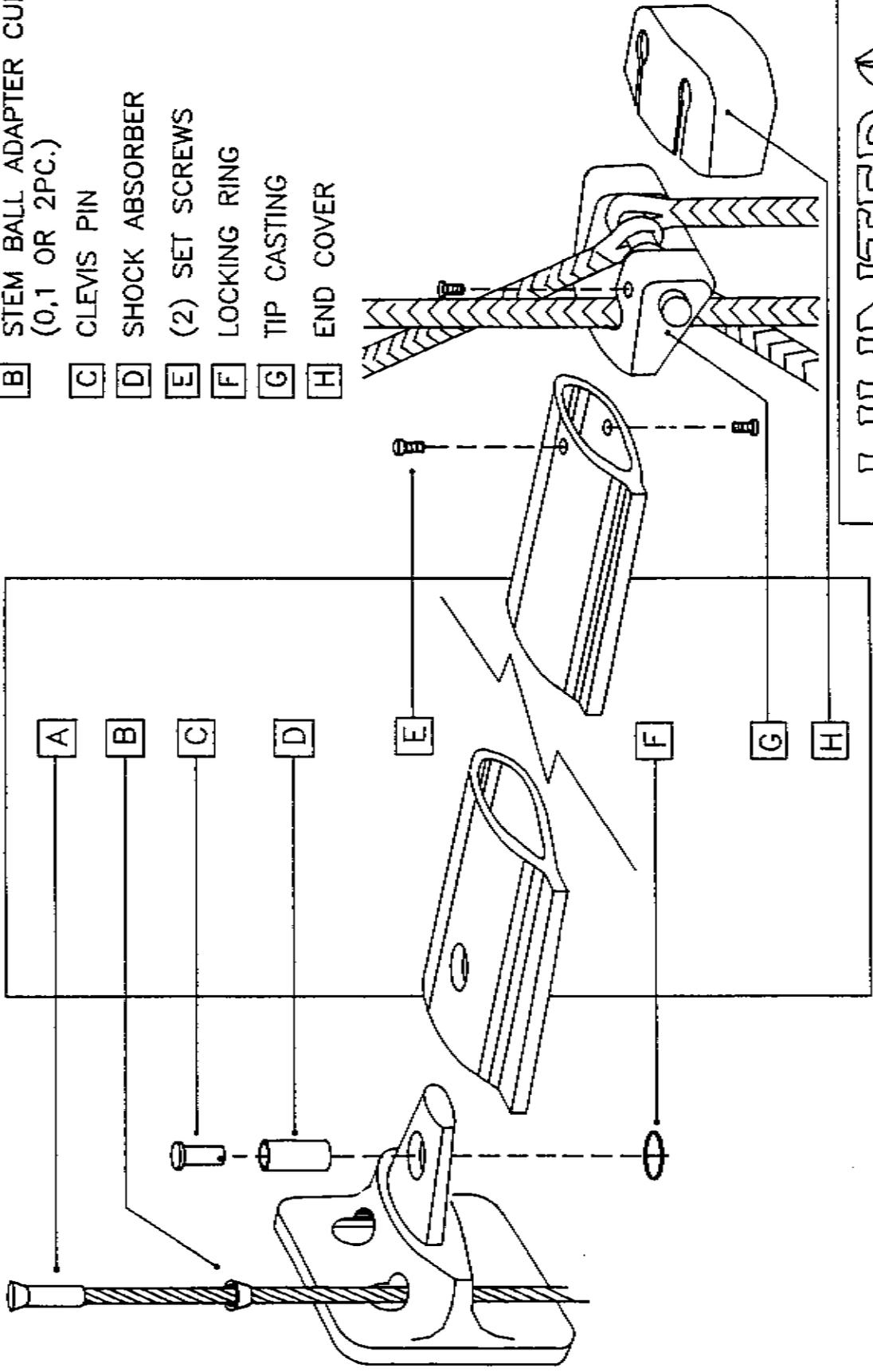
B&R RIGGING ASSEMBLY GENA2621



LOWER SPREADER TIP  
DETAIL

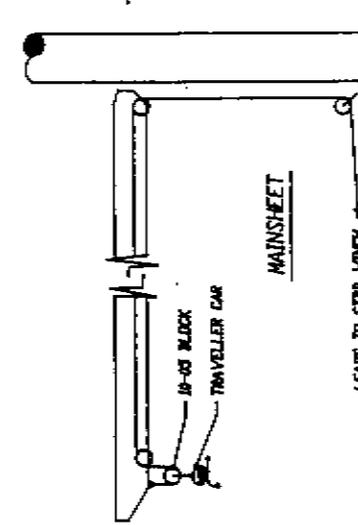
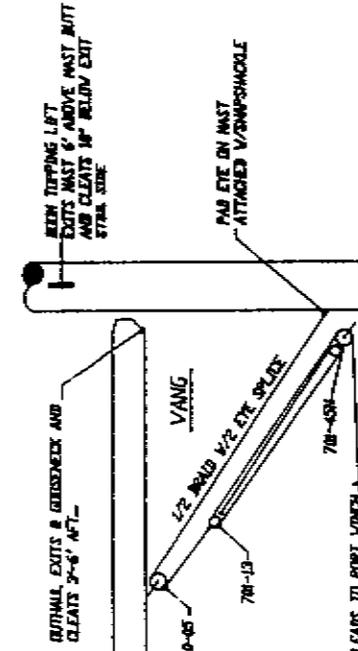
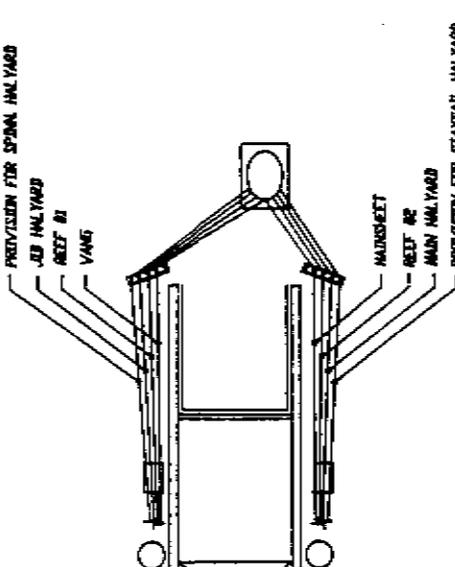
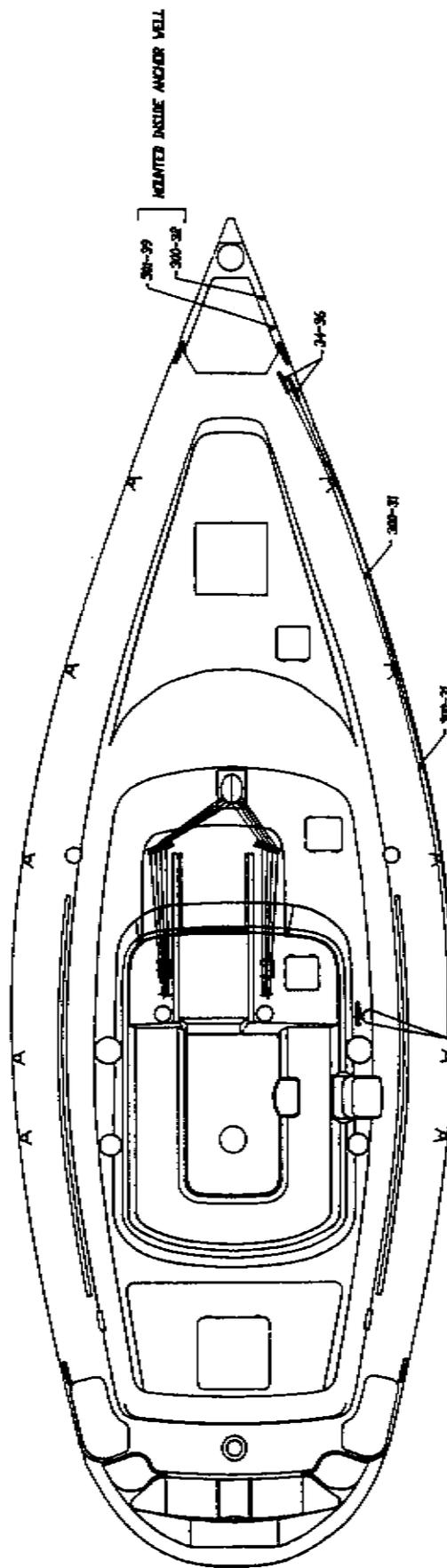
- ① UPPER SHOUD, UPPER PART
- ② UPPER SHOUD, LOWER PART
- ③ UPPER DIAMOND
- ④ INTERMEADATE SHROUD, UPPER PART
- ⑤ INTERMEADATE SHROUD, LOWER PART
- ⑥ LOWER DIAMOND
- ⑦ LOWER SHROUD
- [A] CHAIN PLATE

- A** STEM BALL
- B** STEM BALL ADAPTER CUP  
(0,1 OR 2PC.)
- C** CLEVIS PIN
- D** SHOCK ABSORBER
- E** (2) SET SCREWS
- F** LOCKING RING
- G** TIP CASTING
- H** END COVER



# HUNTER

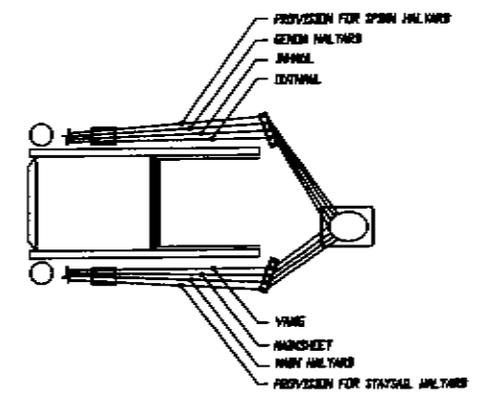
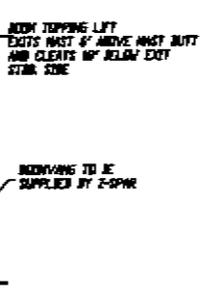
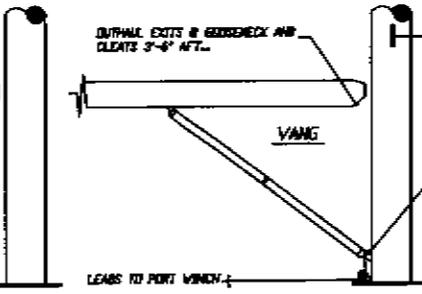
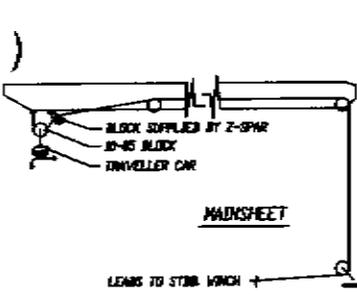
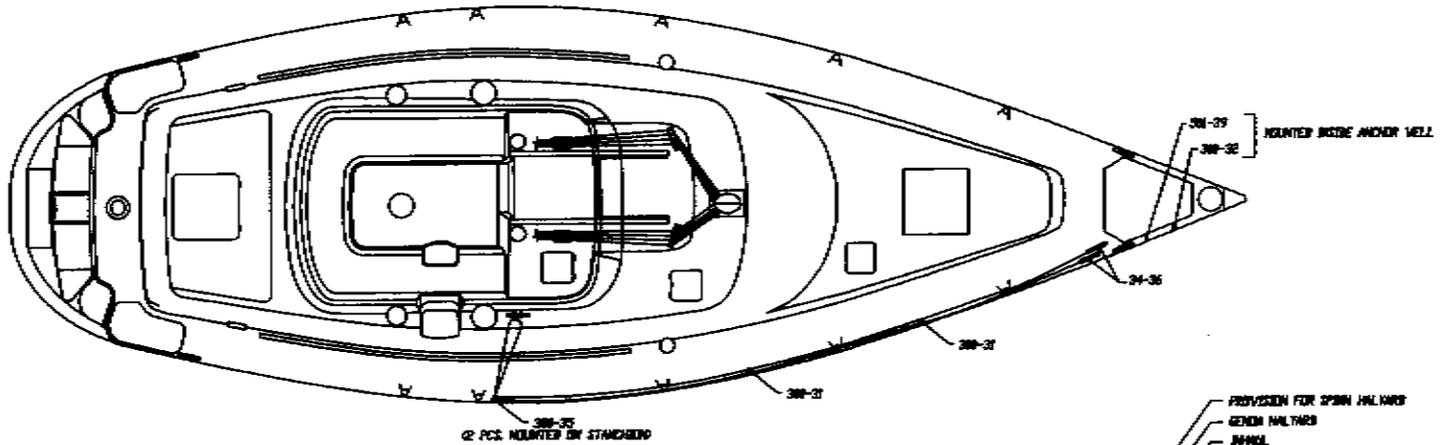
B & R SPREADER DETAIL GENA2627



SCHAEFER	10-05	HW0231
SCHAEFER	34-36	HW0234
SCHAEFER	300-31	HW0269
SCHAEFER	300-32	HW0268
SCHAEFER	300-35	HW0267
SCHAEFER	501-39	HW0312
SCHAEFER	701-05	HW0241
SCHAEFER	701-13	HW0296
SCHAEFER	701-45N	HW0232

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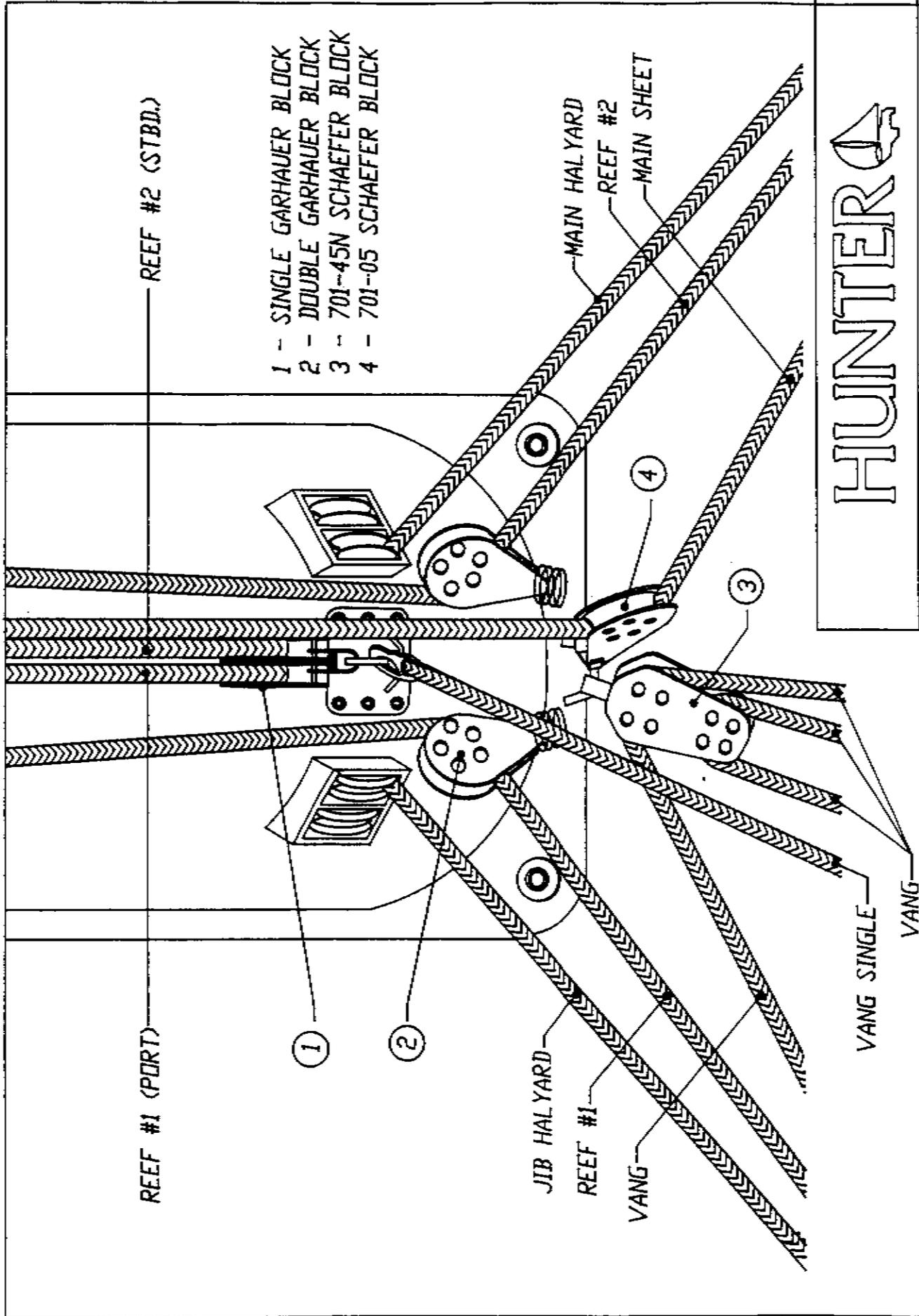
PASSAGE 42 RUNNING RIGGING H42A2621



SCHAEFER	10-05	HW0231
SCHAEFER	34-36	HW0234
SCHAEFER	300-31	HW0269
SCHAEFER	300-32	HW0268
SCHAEFER	300-35	HW0267
SCHAEFER	501-39	HW0312
SCHAEFER	701-05	HW0241
SCHAEFER	701-13	HW0296
SCHAEFER	701-45W	HW0232

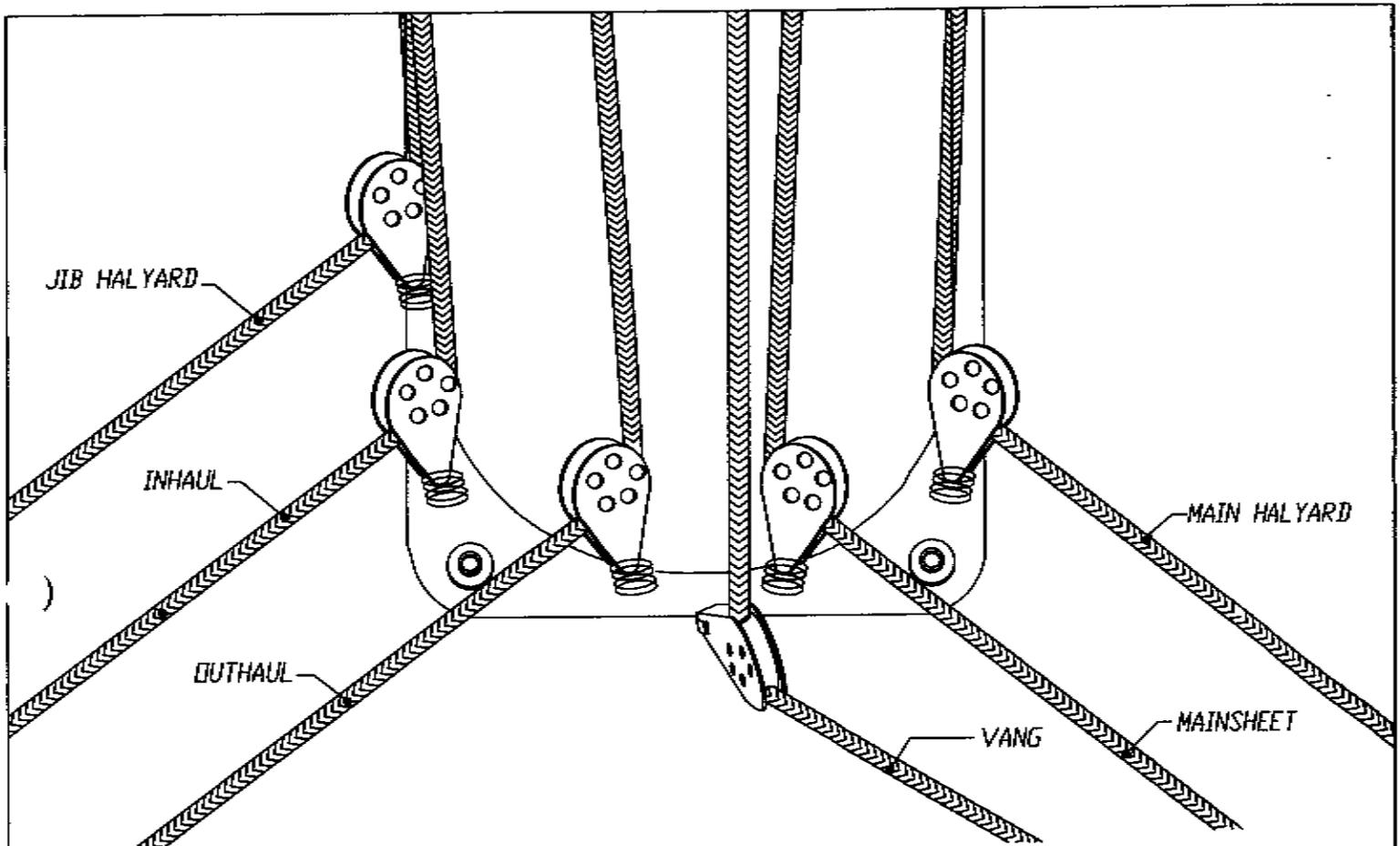
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PASSAGE 42 RUNNING RIGGING  
 OPTIONAL FURLING MAST H42A2631



# HUNTER

PASSAGE 42 MAST STEP DETAIL H42A2628



JIB HALYARD

INHAUL

OUTHAUL

MAIN HALYARD

VANG

MAINSHEET

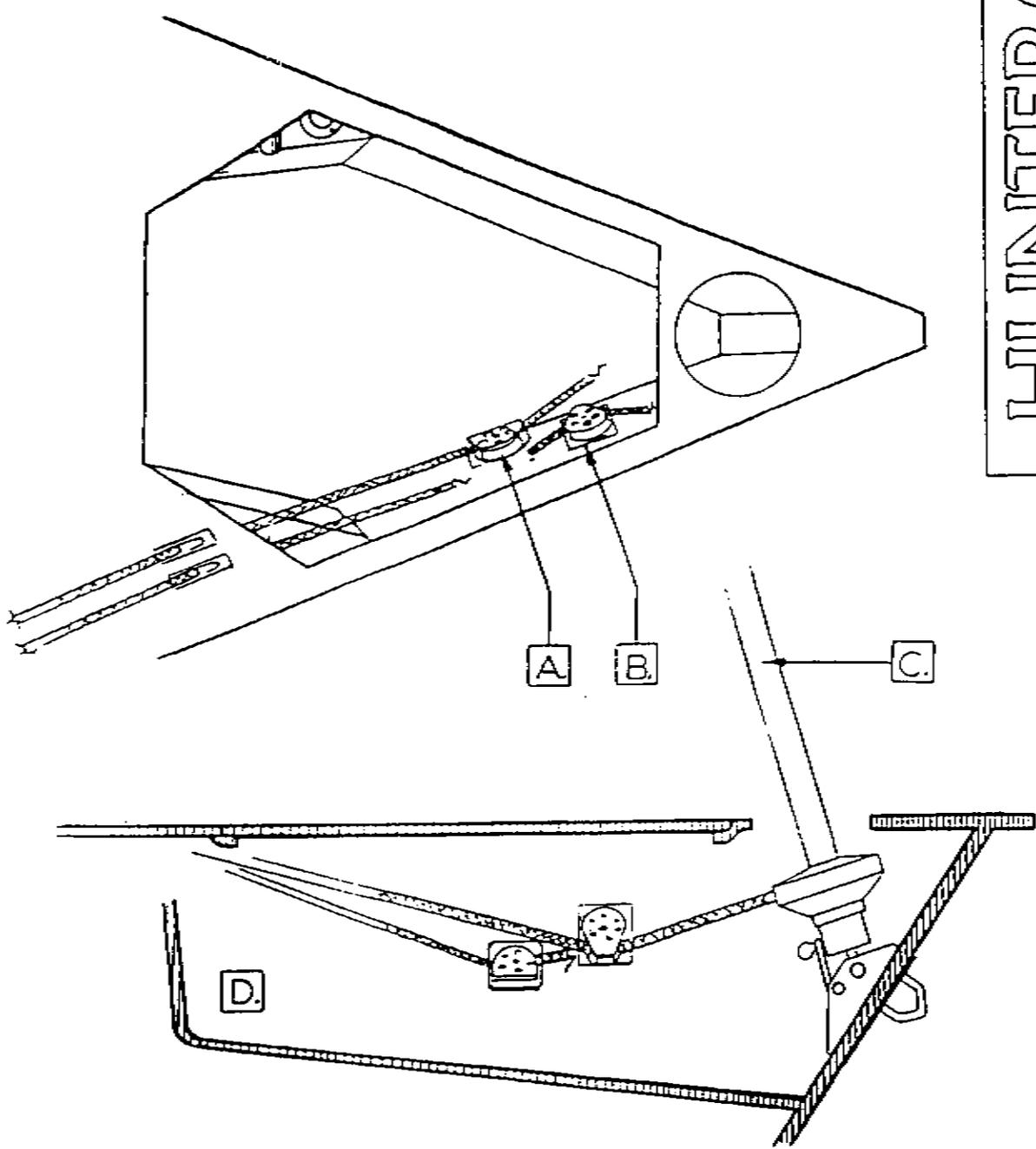
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**NOTE:**  
THIS DRAWING SHOWS ONLY GENERAL LOCATIONS

PASS. 42 MAST STEP DETAIL (FURL) H42A2632

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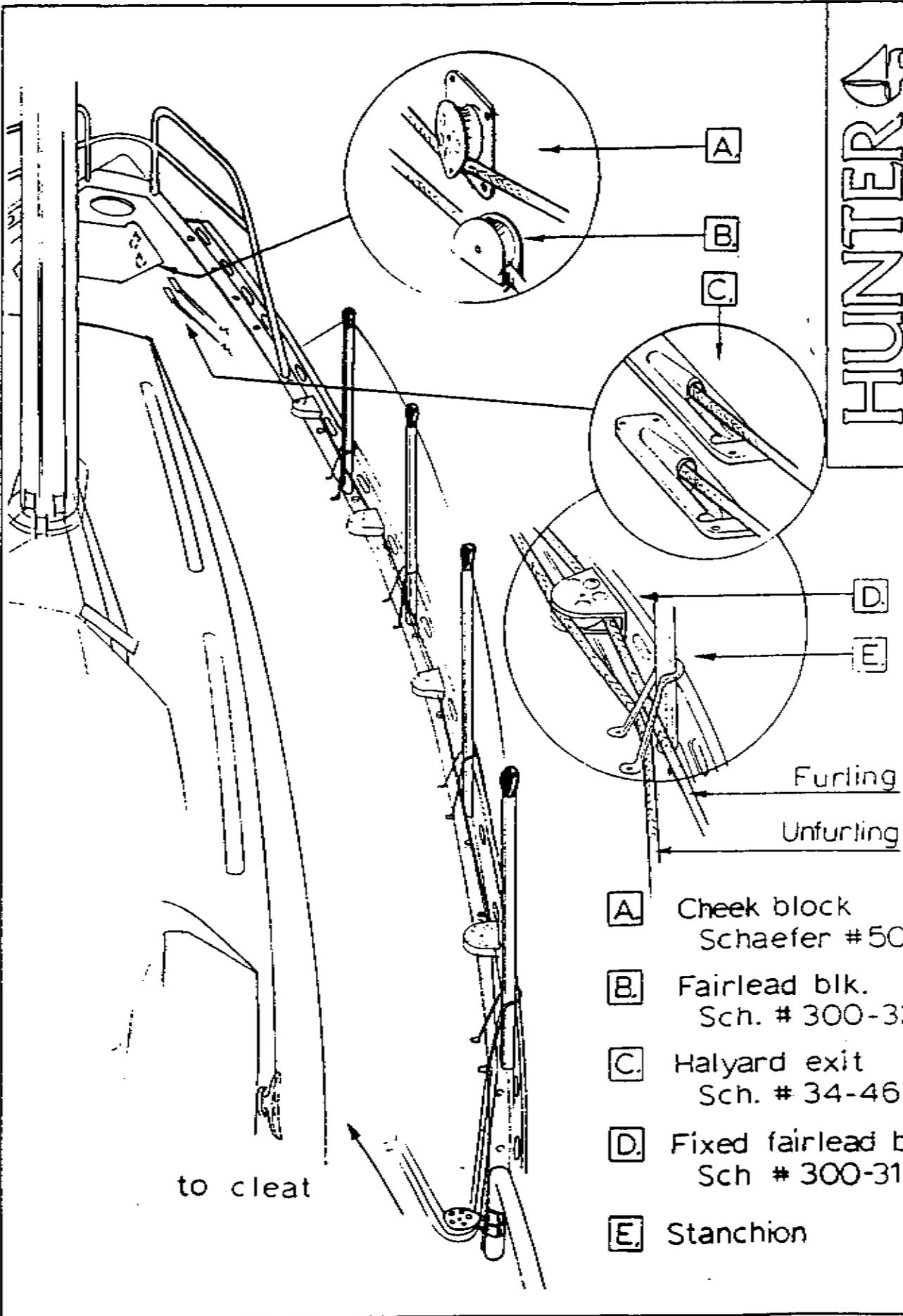
FURLING GENA2624



- A** Fairlead block Schaefer #300-32
- B** Cheek blk. Sch. #501-39
- C** Furling
- D** Anchor well

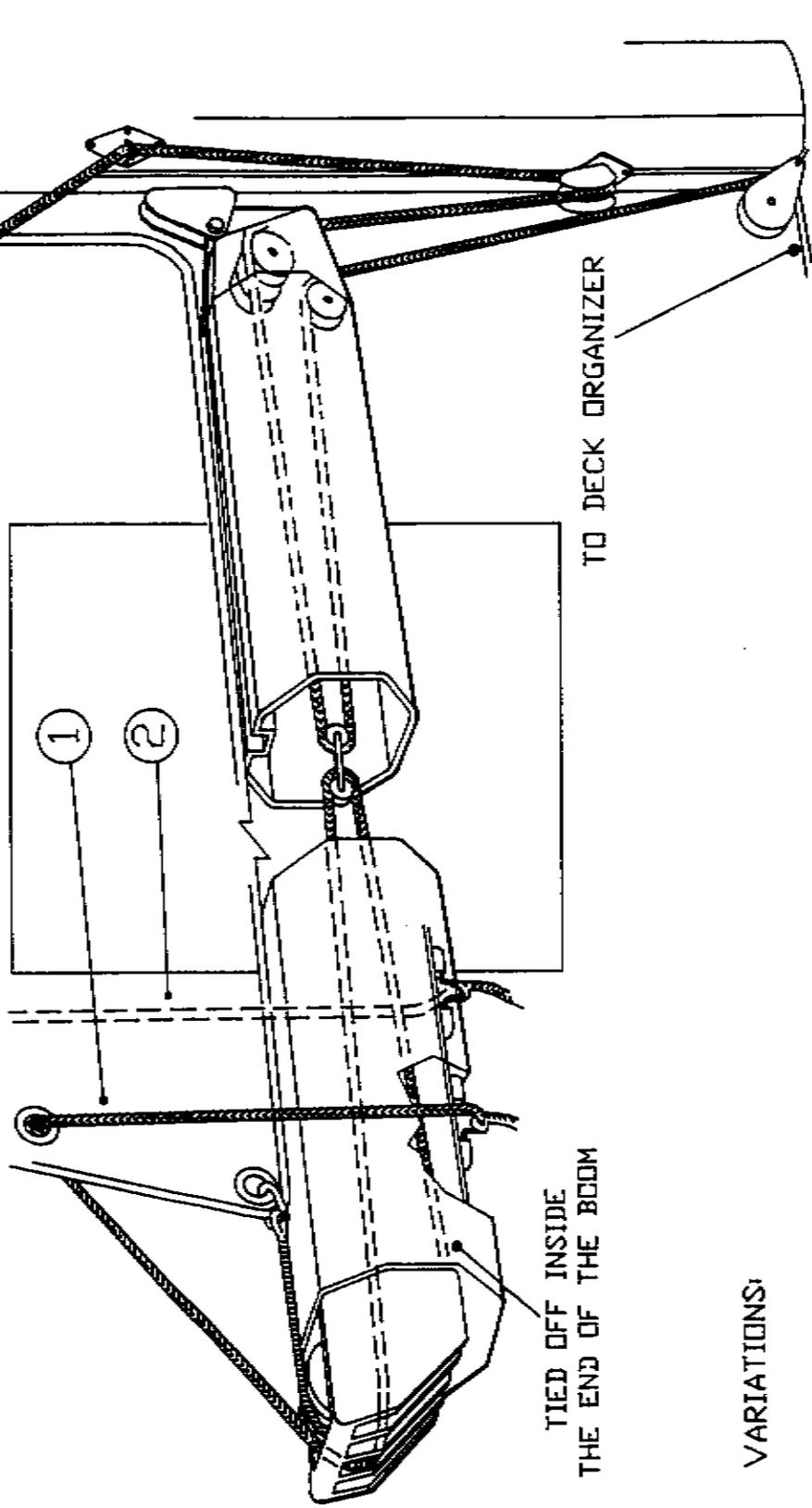
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FURLING SYSTEM GENA2625



- A** Cheek block  
Schaefer #501-39
- B** Fairlead blk.  
Sch. # 300-32
- C** Halyard exit  
Sch. # 34-46 (2)
- D** Fixed fairlead blk.  
Sch # 300-31 (4)
- E** Stanchion

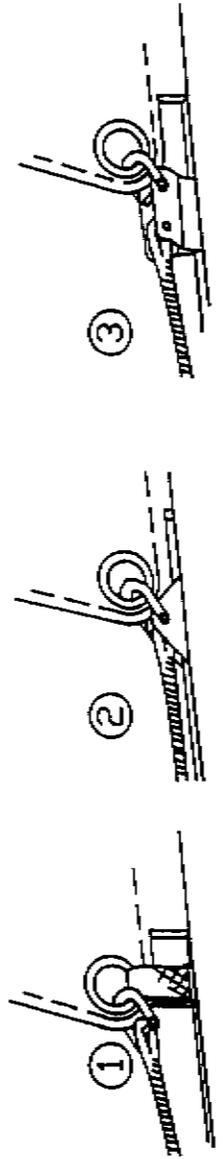
- ① REEF #1
- ② REEF #2 (RUNS THE SAME AS REEF #1)



TIED OFF INSIDE  
THE END OF THE BOOM

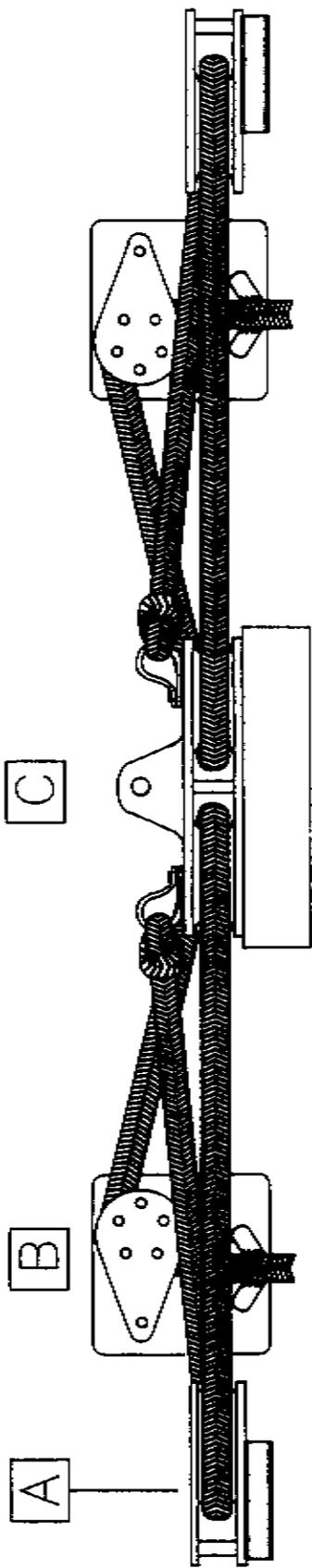
TO DECK ORGANIZER

VARIATIONS:

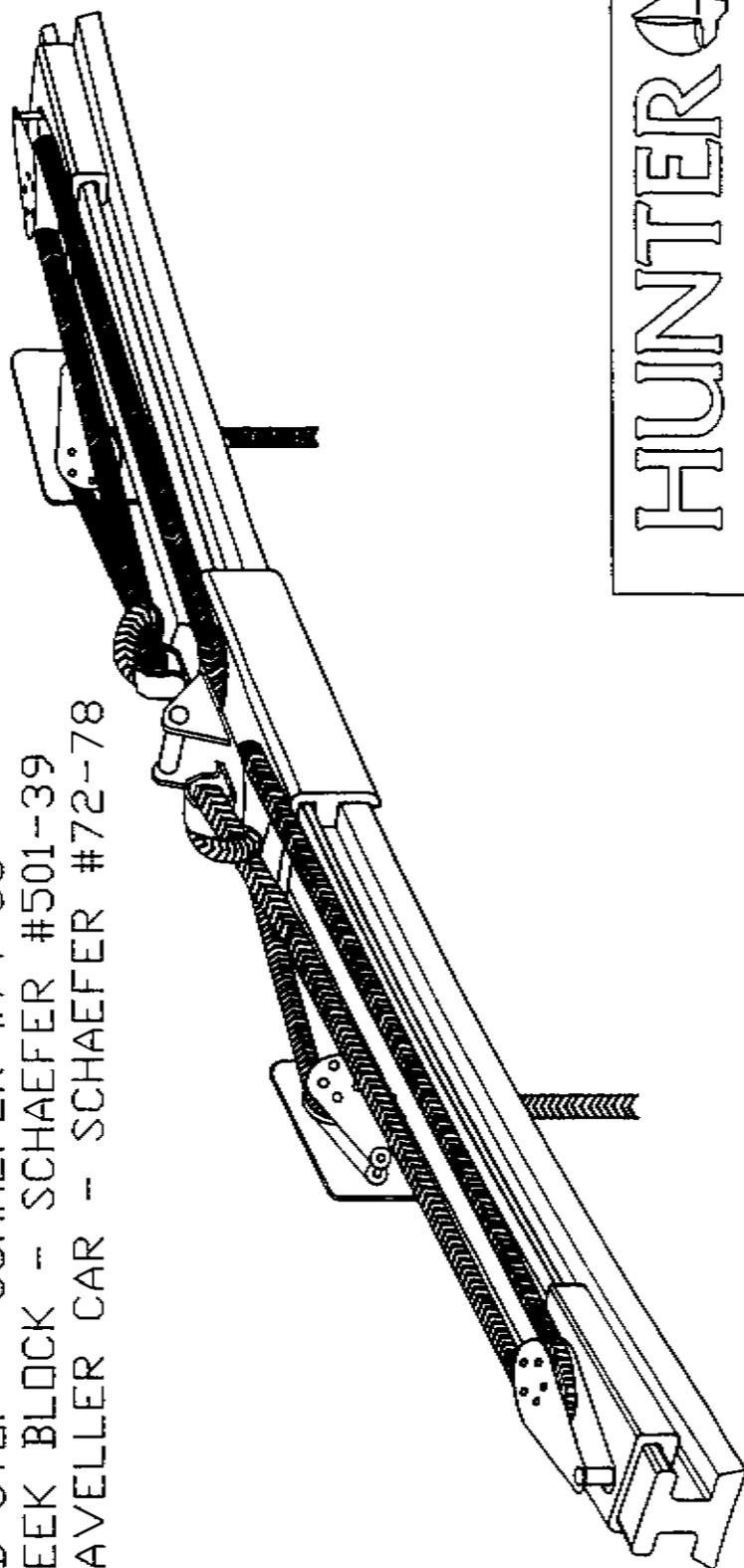


# HUNTER

BOOM AND REEF LAYOUT  
ISOREEF GEN2609A



- ▣ END STOP - SCHAEFER #74-55
- ▣ CHEEK BLOCK - SCHAEFER #501-39
- ▣ TRAVELLER CAR - SCHAEFER #72-78



# HUNTERD

RADAR ARCH TRAVELLER DETAIL GENA2626

# PASSAGE 42 RIGGING SPECIFICATIONS FOR ISOMAT MASTS

## STANDING RIGGING FITTINGS

<u>DESCRIPTION</u>	<u>WIRE SIZE</u>	<u>UPPER END</u>	<u>LOWER END*</u>	<u>OVERALL LENGTH</u>
Forestay	3/8	Marine eye	12-20-20	58'5 3/4"
Backstay	9/32	Rigging toggle	9-16-16	57'8 1/4"
Upper, upper	3/8	Stemball w. cup	Marine eye 1/2" pin	17'7 7/16"
Upper, lower	3/8	Marine eye 1/2" pin	12-20-20	38'1 1/2"
Upper diamond	1/4	Marine eye	8-16-16**	18'3 1/4"
Upper interm.	1/4	Stemball, 2 cups	Marine eye	18' 1/4"
Lower interm.	1/4	Marine eye	8-16-16	20'3"
<u>Lower diamond</u>	1/4	Marine eye	8-16-16**	18'6"
Lowers	3/8	Stemball w. cup	12-20-20	20'1 3/4"
Optional:				
Inner forestay	9/32	Marine eye	9-16-16***	41'2 1/4"

All wire is 1 x 19 stainless steel.

\* "X-X-X" represents the turnbuckle size as follows:  
Wire size-body size-pin diameter in 32nd's of an inch.  
Example: 7-12-12 is a turnbuckle that accepts a 7/32" wire, has a 3/8", (12/32"), thread diameter in the body, and uses a 3/8", (12/32") pin.

\*\* Turnbuckles denoted "\*\*\*" are equipped with stemball, 1 cup & shell.

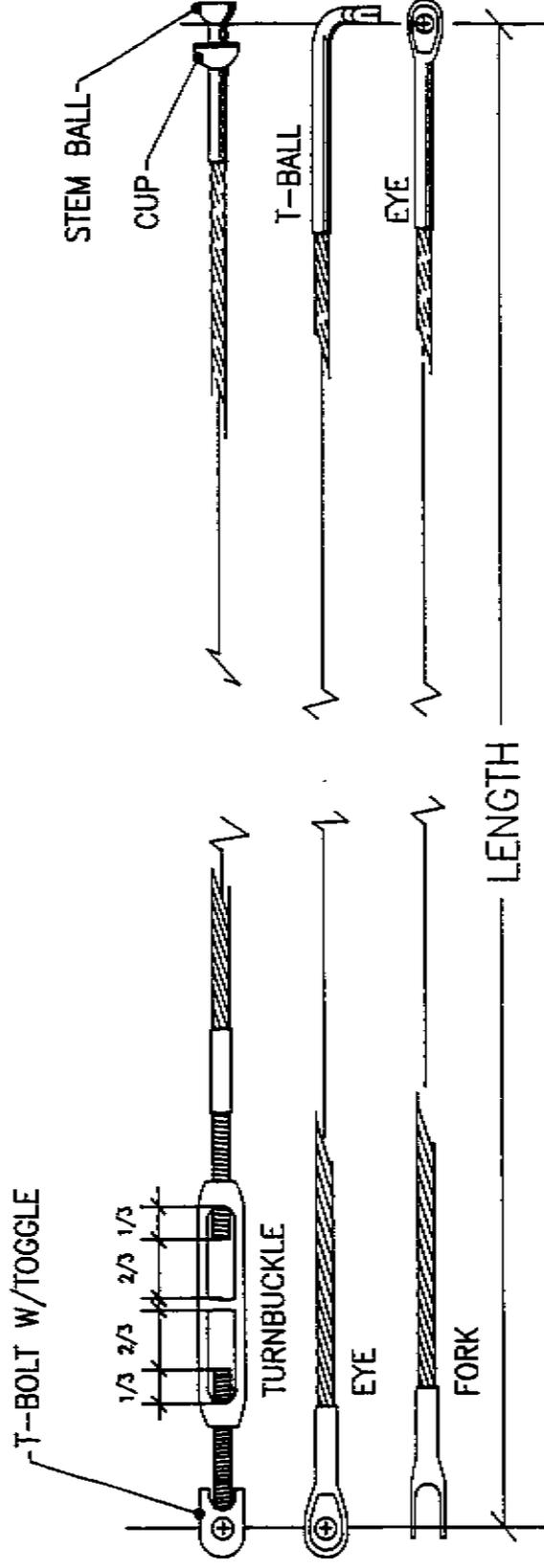
\*\*\* Turnbuckle on optional inner forestay should preferably be of easily removable type, and needs to have a lower toggle modified as per encl. dwg no. H42A2112. In addition an inner forestay chainplate needs to be installed as per encl. dwg. no. H42A2109.

## RUNNING RIGGING

<u>LINE</u>	<u>SIZE</u>	<u>ATTACHMENTS</u>	<u>OVERALL LENGTH</u>
Main halyard	7/16"	Headboard shackle	121'
Genoa halyard	7/16"	Snapshackle	123'
Main sheet	7/16"	Eye spl. & shackle	69'
Genoa sheets	1/2"		60'
Furling line	7/16"		75'
Traveller control lines	3/8"	Eye splice	17'
Vang line, short part	1/2"	Eye splice, snapshackle	10'
Vang line, long part	3/8"	Eye splice	36'
Topping lift	3/8"		60'
Anchor line	1/2"	Shackle	250'
(Anchor chain)	5/16"	Hi-tensile w. 2 shackles	20')

Main and genoa halyards XLS Extra Spectra reinforced line. All other lines low stretch Dacron except anchor line which is nylon. All rigging is supplied by SECO SOUTH.

ROSS BACON

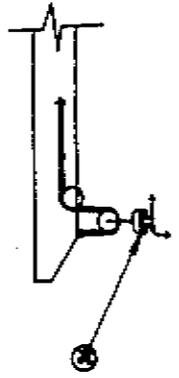
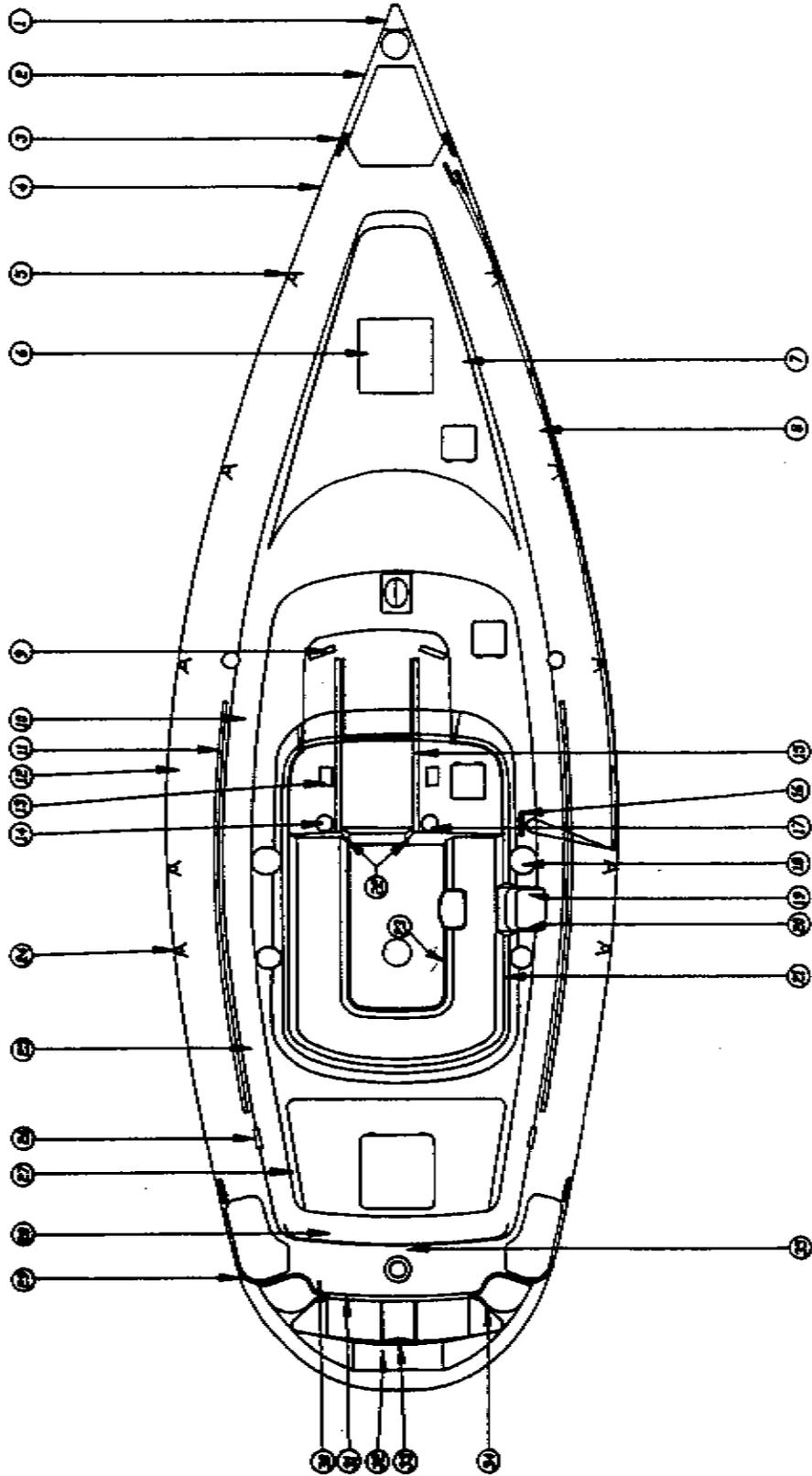


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RIGGING LENGTHS GEN2605A

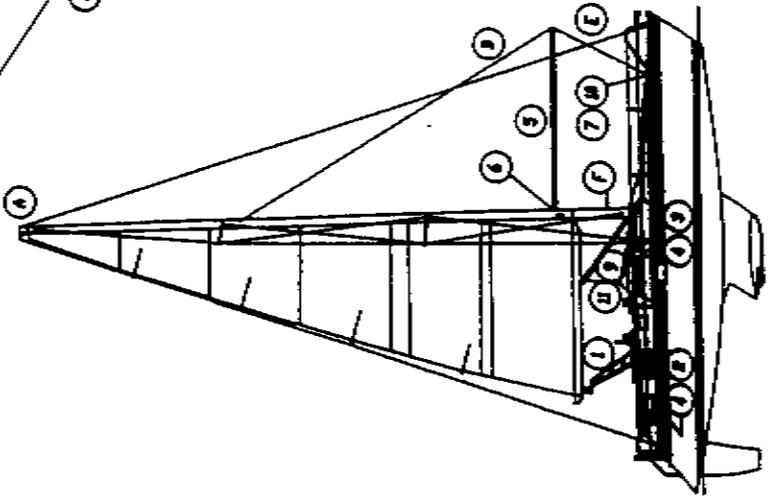
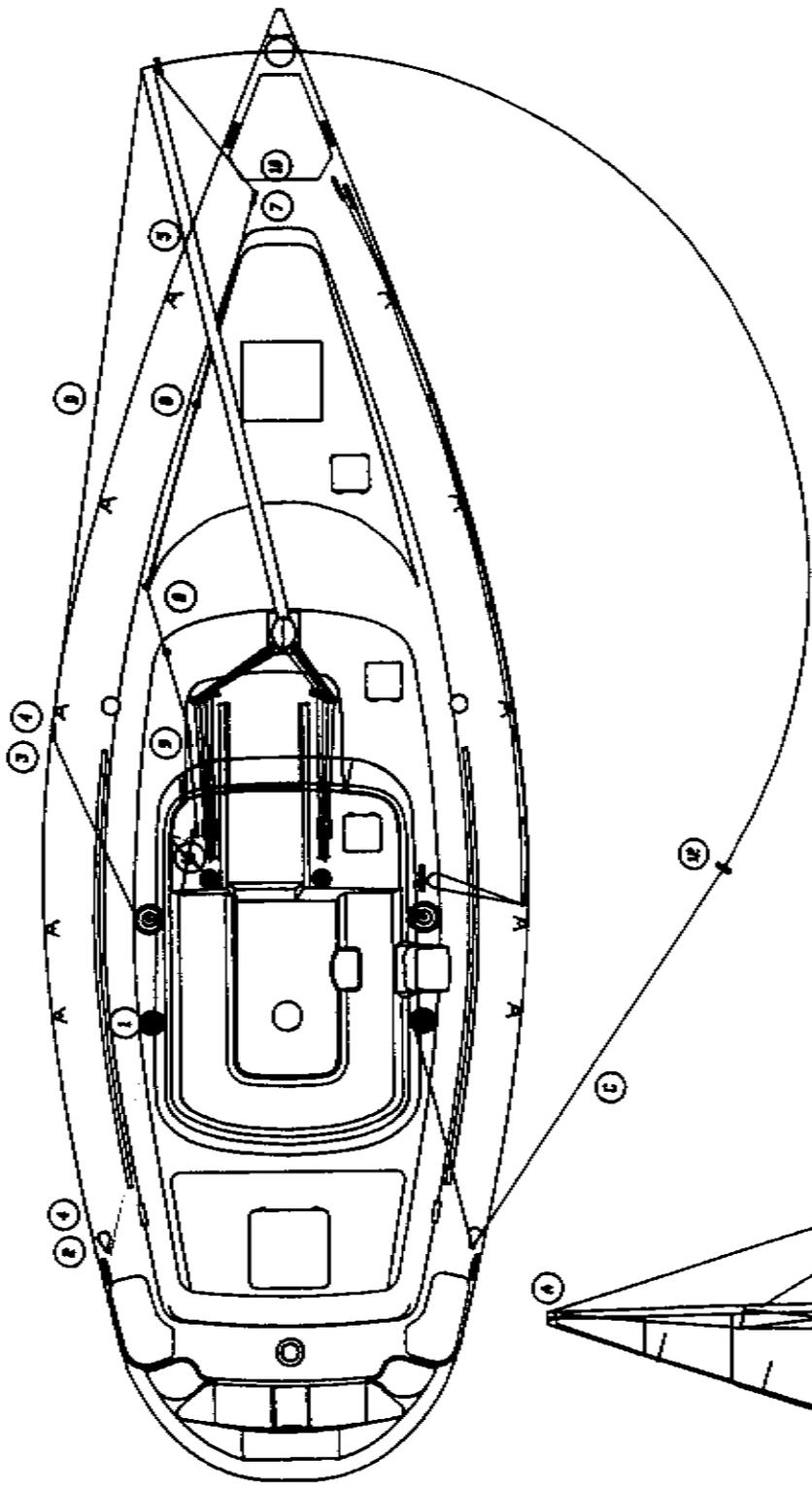
# HUNTER

PASSAGE 42 DECK LAYOUT H42A2610



## PASSAGE 42 DECK LAYOUT - Page Two

	PART	MANUFACTURER	MFG#	HUNTER PART #
1.	Bow plate w/roller	Custom	NA	HW1612
2.	Bow rail	Custom	NA	HW2400
	Bow light	Heila	NA	HW4009
3.	Mooring cleat	Y/S	YS7107F-10"	HW0977
4.	Toe rail	Tifton	FAB-543	HW2501
5.	Stanchion	Custom	NA	HW2100-A
6.	Foredeck hatch	Bomar	1049-10	HW0070
	Trim ring	Bomar	NT2049	HW0070-A
	Screen	Bomar	NS2049EX	HW0070-B
7.	Handrail FWD	Custom	NA	HW2440
8.	Waste pump-out	Nordic	6126-00	PL1140
9.	Deck organizer	Garhauer	NA	HW0172
10.	Ports thru plexi	Beckson	PO414DBS20	HW0023
11.	Genoa track	Schaefer	SK6096	HW0257
	End stop	Schaefer	74-36G	HW0215
	Block lead	Schaefer	32-98	HW0217
12.	Water tank fill	Nordic	6124-00	PL1130
13.	Quad sheet stopper	Garhauer	NA	HW1285
14.	Halyard winch	Bariant	21-33CST	HW2542
15.	Slider track, companionway	Bomar	NA	HW0178A-42'
16.	Cleat	Y/S	YS7107D-7"	HW0966-A
17.	Main sheet winch	Bariant	24-45CST	HW2546
18.	Primary winch	Bariant	32CST	HW2552
	Winch handle	Bariant	V10LIC	HW2566
	Winch handle	Bariant	10CX	HW2564
19.	Shore power	Marinco	302SSIB	LG0100
20.	City water inlet	Perko	499-000	PL1175
21.	Engine panel cover	Custom	NA	EL0108-A
	Engine stop switch/cable	Yanmar	129470-67550	HW3407-A
22.	Pinboard slider track	Bomar	NA	HW0178-42'
23.	Opening port, cockpit	Lewmar	8912	HW0049
	Screen	Lewmar	8912	HW0049-A
24.	Stanchion gate	Custom	NA	HW2117
25.	Opening port, side deck	Lewmar	8942	HW0046
	Screen	Lewmar	8984	HW0046-B
26.	Turning block	Schaefer	30-20	HW0226
27.	Handrail aft	Custom	NA	HW2431
28.	Opening port, aft deck	Lewmar	8912	HW0049
	Screen	Lewmar	8912	HW0049-A
29.	Stern rail, center	Custom	NA	HW2292
	Port and starboard	Custom	NA	HW2291
30.	Diesel fuel fill	Nordic	6125-03	PL1126
31.	Opening port, lower	Lewmar	8902	HW0043
	Screen	Lewmar	8902	HW0043-B
32.	Swim ladder	Custom	NA	HW2177
	Retainer	Custom	NA	HW3172
33.	Grab rail, swim platform	Custom	NA	HW2504
34.	Cockpit shower	Stowaway	48500	PL0189
35.	Backstay chainplate	Custom	NA	HW1607
36.	6 wheel car	Schaefer	72-78	HW0236



# HUNTER

PASSAGE 42 SPINNAKER PACKAGE H42A2627

## PASSAGE 42 SPINNAKER PACKAGE (Page Two)

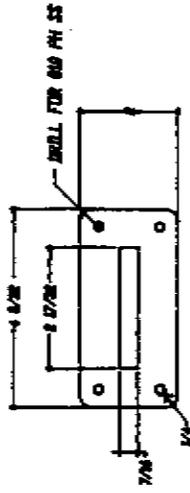
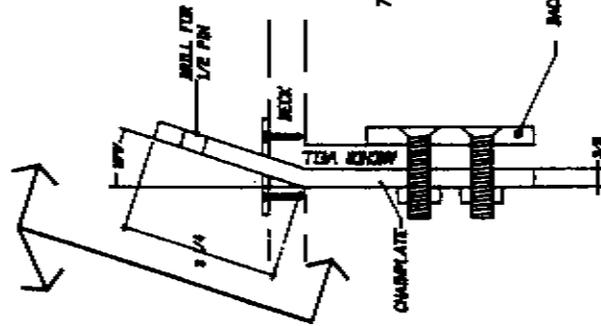
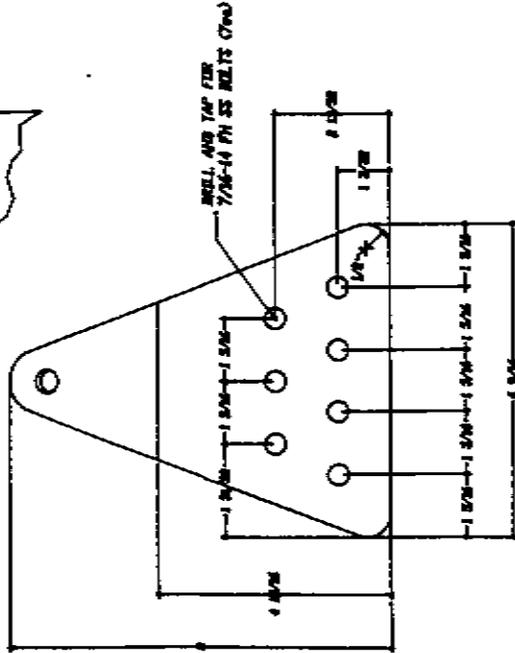
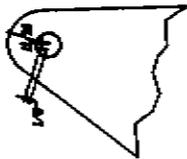
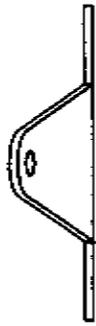
### DECK FITTINGS

#	Item	Quantity	Vendor & Model	Notes
1.	Spinnaker sheet winches	2	Bariant 28CST	
2.	Spinnaker sheet blocks	2	Schaefer 10-15	
3.	After guy blocks	2	Schaefer 10-15	
4.	Pad eyes sheet & guy	4	Schaefer 78-25	Mount on toerail
5.	Spinnaker pole with ends	1	Isomat	Dip pole style
6.	Spinnaker pole car		Isomat	Car & adj. gear
7.	Pad eye for foreguy	1	Schaefer 78-25	Just behind anchor well
8.	Fair lead eyes for foreguy	3	Schaefer 78-51	Along edge of house
9.	Halyard exit plate	1	Schaefer 34-46	Guide through seahood
10.	Block with snap shackle	1	Schaefer 701-09	Foreguy
11.	Sheet stoppers	3	Garhauer single, S.S.	2 port, 1 stbd.
12.	Spinnaker sheet donuts	4	Schaefer 45-50	2 green, 2 red

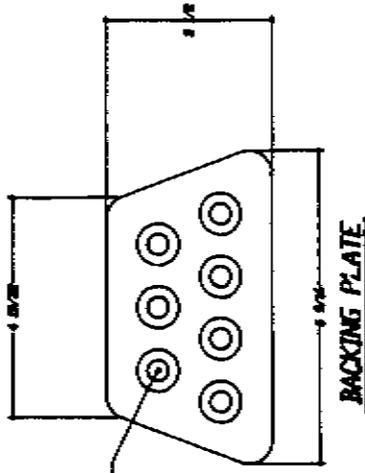
### LINES

Letter	Item	Line	Length	Shackles	Vendor
A.	Spinnaker halyard (XLS extra)	7/16"	130'	Nicro Fico NF 15000S	Seco South
B.	Spinnaker pole topping lift	7/16"	100'	Nicro Fico NF 11000S	Seco South
C.	Spinnaker Sheets	7/16"	2 @ 80'	Nicro Fico NF 15000 FR	Seco South
D.	Spinnaker after guys (XLS extra)	1/2"	2 @ 65'	Nicro Fico NF 15000 FR	Seco South
E.	Spinnaker foreguy	7/16"	50'	Nicro Fico NF 15000S	Seco South
F.	Spinnaker car control line	3/8"	30'		Isomat

CHAIN PLATE



COVER PLATE



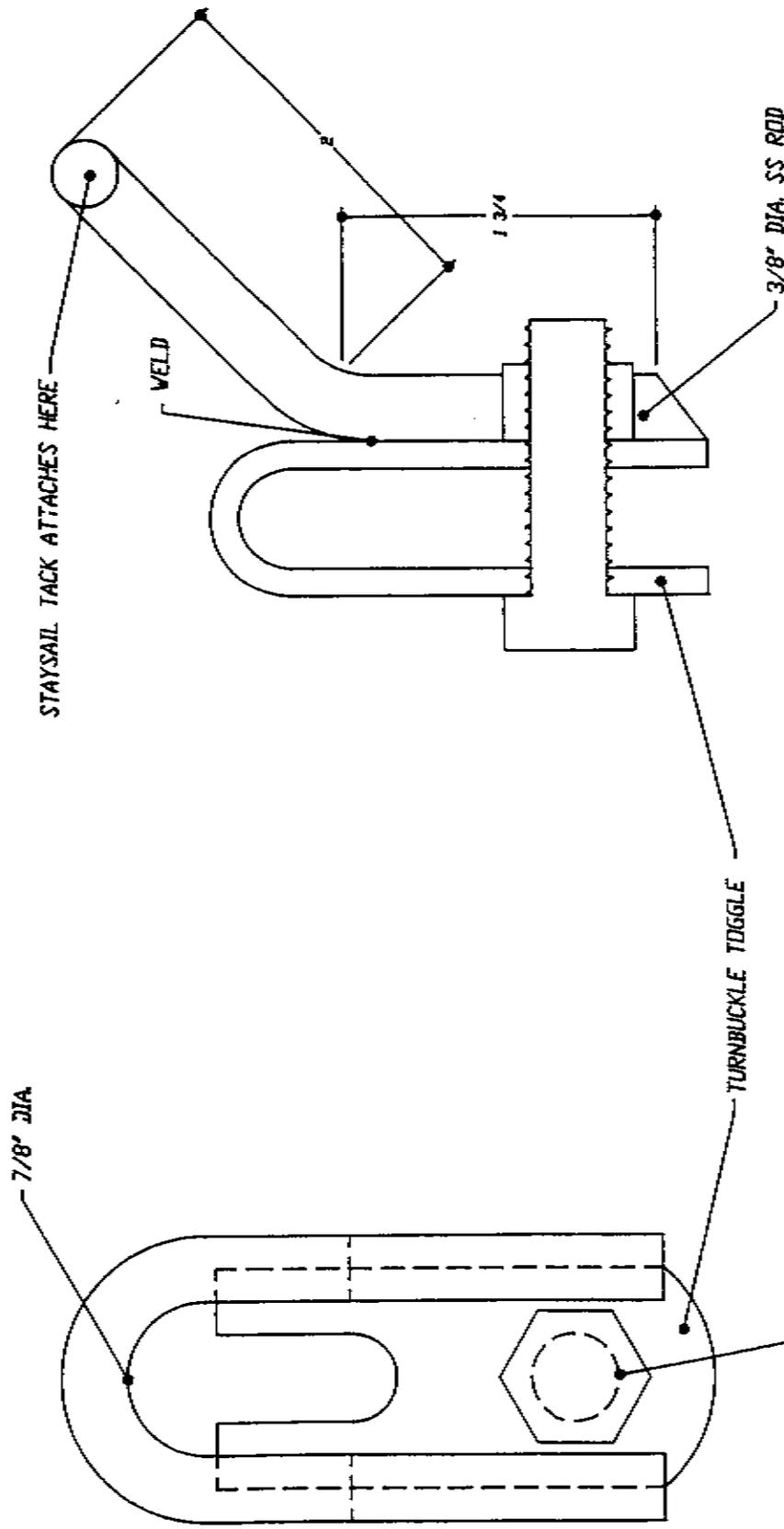
**HUNTER**

INNER STAY CHAIN PLATE

SCALE 3" = 12"

H42A2109

MODIFICATION REQUIRED TO INNER FORESTAY TURNBUCKLE  
TOGGLE FOR STAY SAILSAIL TACK ATTACHMENT.



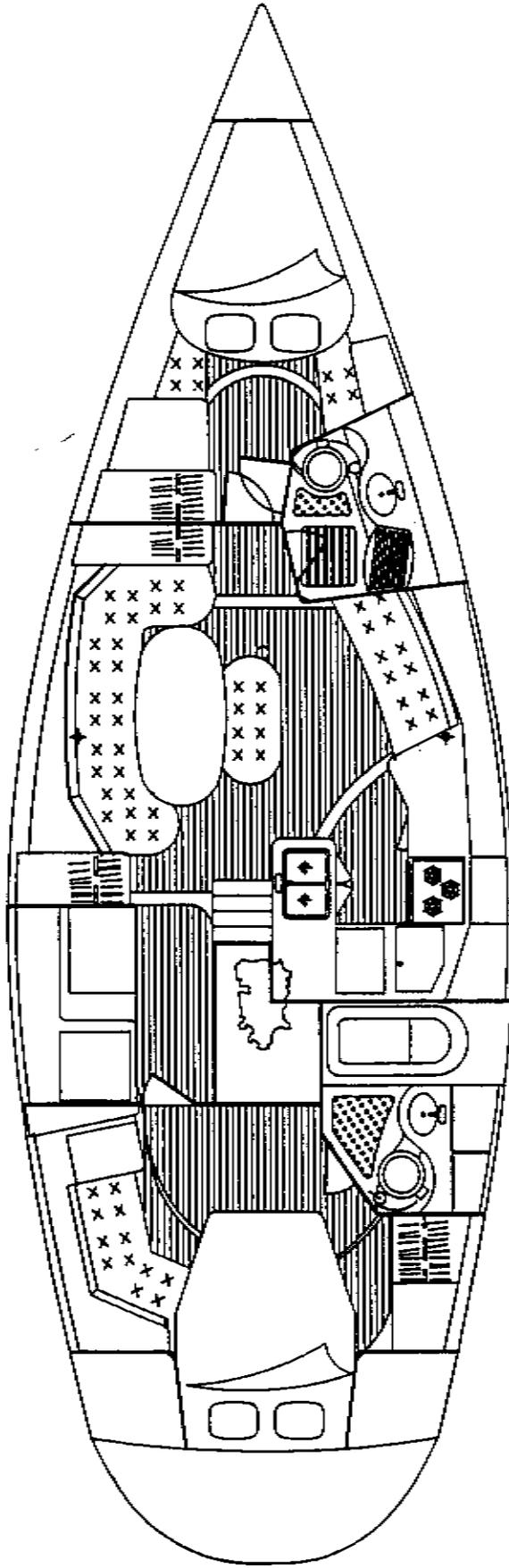
ATTACH TO CHAINPLATE WITH  
1/2" DIA. BOLT. DO NOT USE  
CLEVIS AND COTTER PINS .

# HUNTER

INNER FORESTAY TURNBUCKLE MODIFICATION

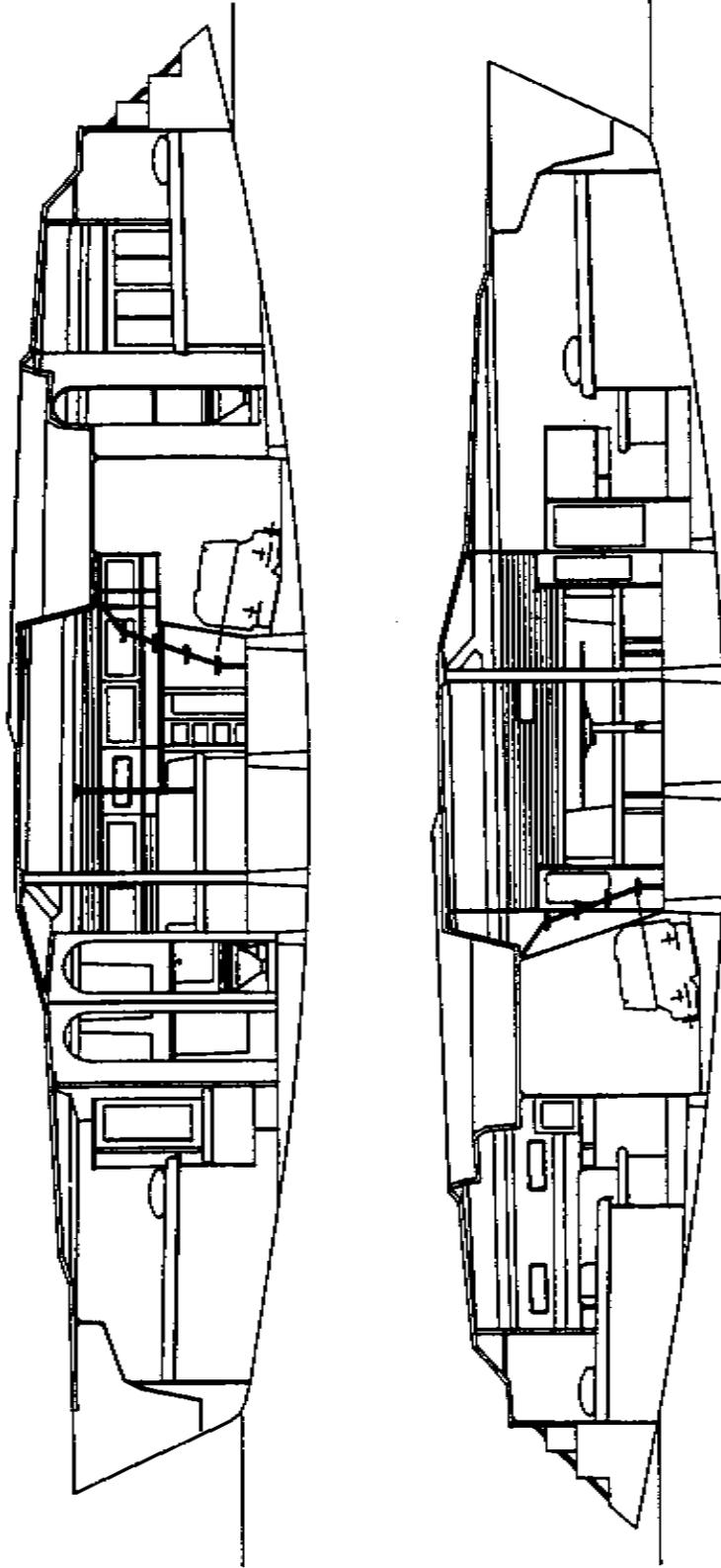
FULL SCALE

H42A2112



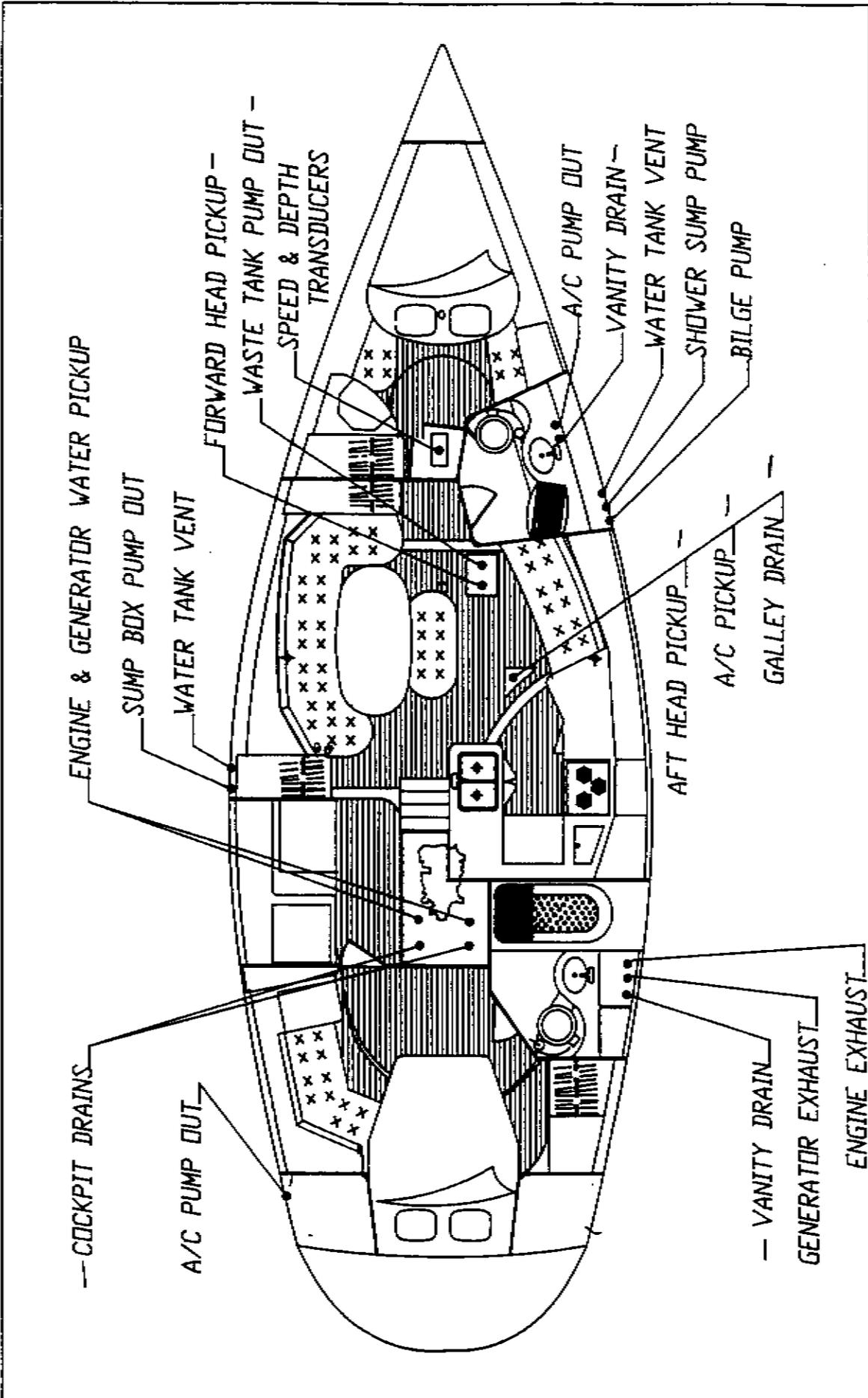
# HUNTER

PASSAGE 42 INTERIOR LAYOUT H42A2622



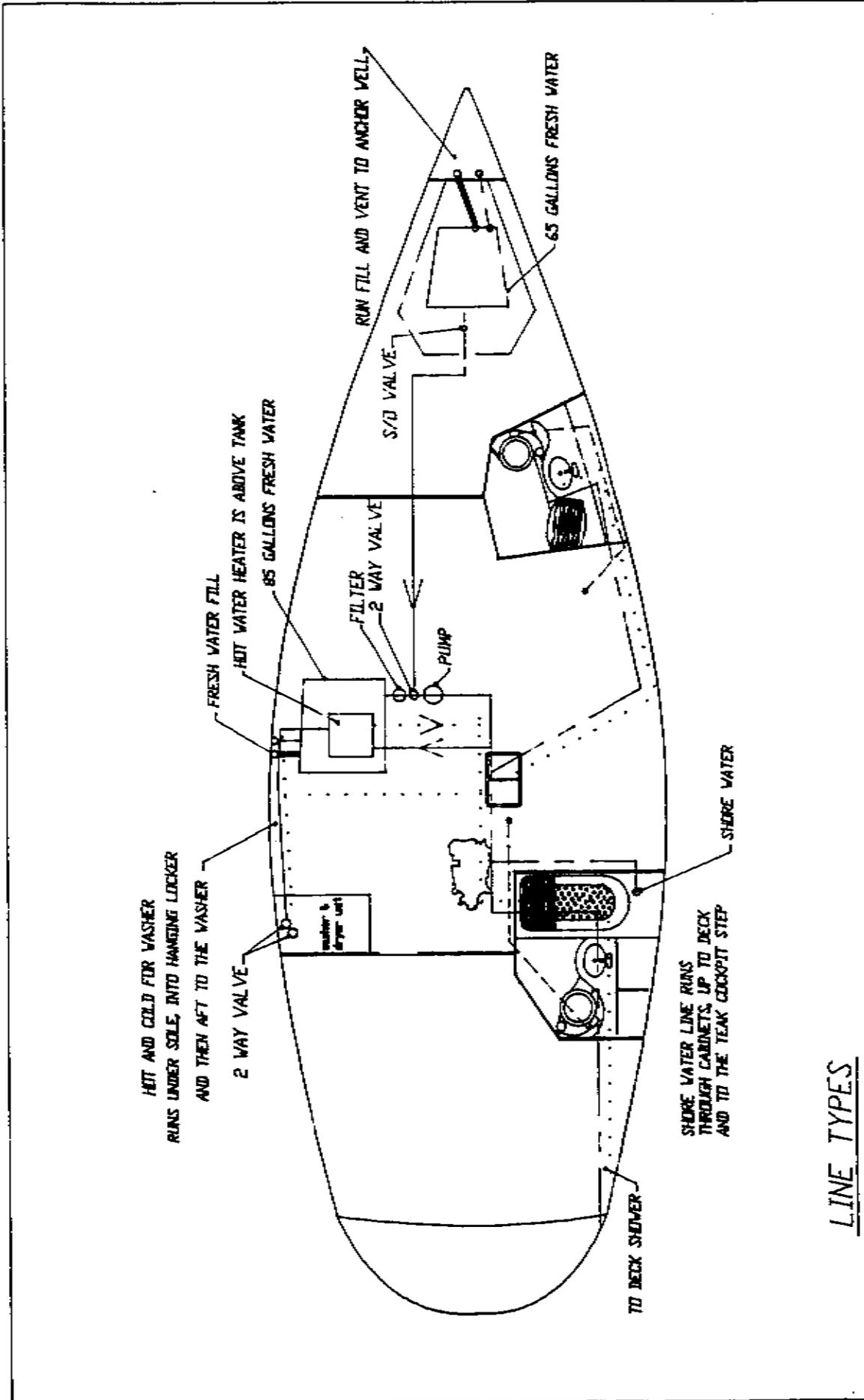
# HUNTER

PASSAGE 42 INTERIOR PROFILE H42A2625



# HUNTER

PASSAGE 42 THRU--HULL LOCATIONS H42A2623



HOT AND COLD FOR WASHER  
 RUNS UNDER SOLE, INTO HANGING LOCKER  
 AND THEN AFT TO THE WASHER  
 2 WAY VALVE

FRESH WATER FILL  
 HOT WATER HEATER IS ABOVE TANK  
 85 GALLONS FRESH WATER

85 GALLONS FRESH WATER  
 S/O VALVE  
 RUN FILL AND VENT TO ANCHOR VELL

FILTER  
 2 WAY VALVE  
 PUMP

SHORE WATER LINE RUNS  
 THROUGH CABINETS UP TO DECK  
 AND TO THE TEAK COCKPIT STEP

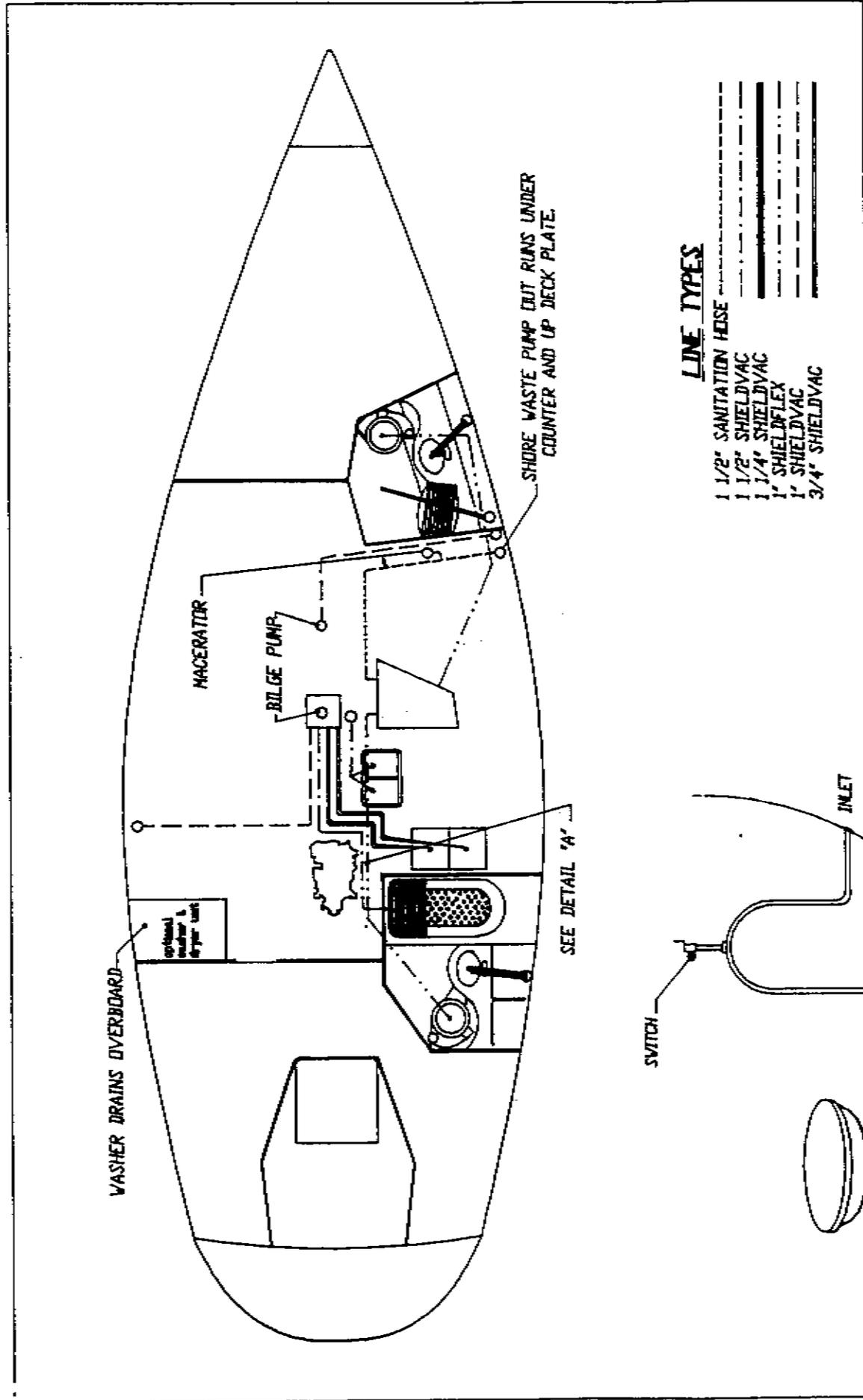
TO DECK SHOWER

LINE TYPES

- 1/2" POLY COLD
- 1/2" POLY HOT
- 5/8" SHIELD/LEX
- 3/4" SHIELD/VC
- 1 1/2" SHIELD/VC

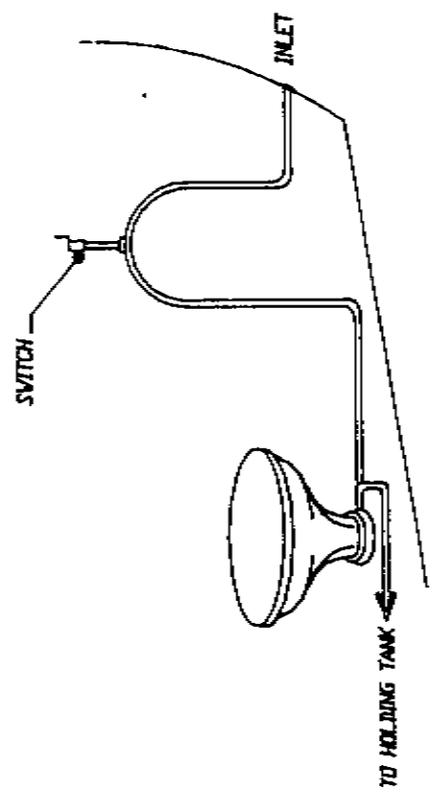
# HUNTER

PASSAGE 42 FRESH WATER SCHEMATIC H42A2613



**LINE TYPES**

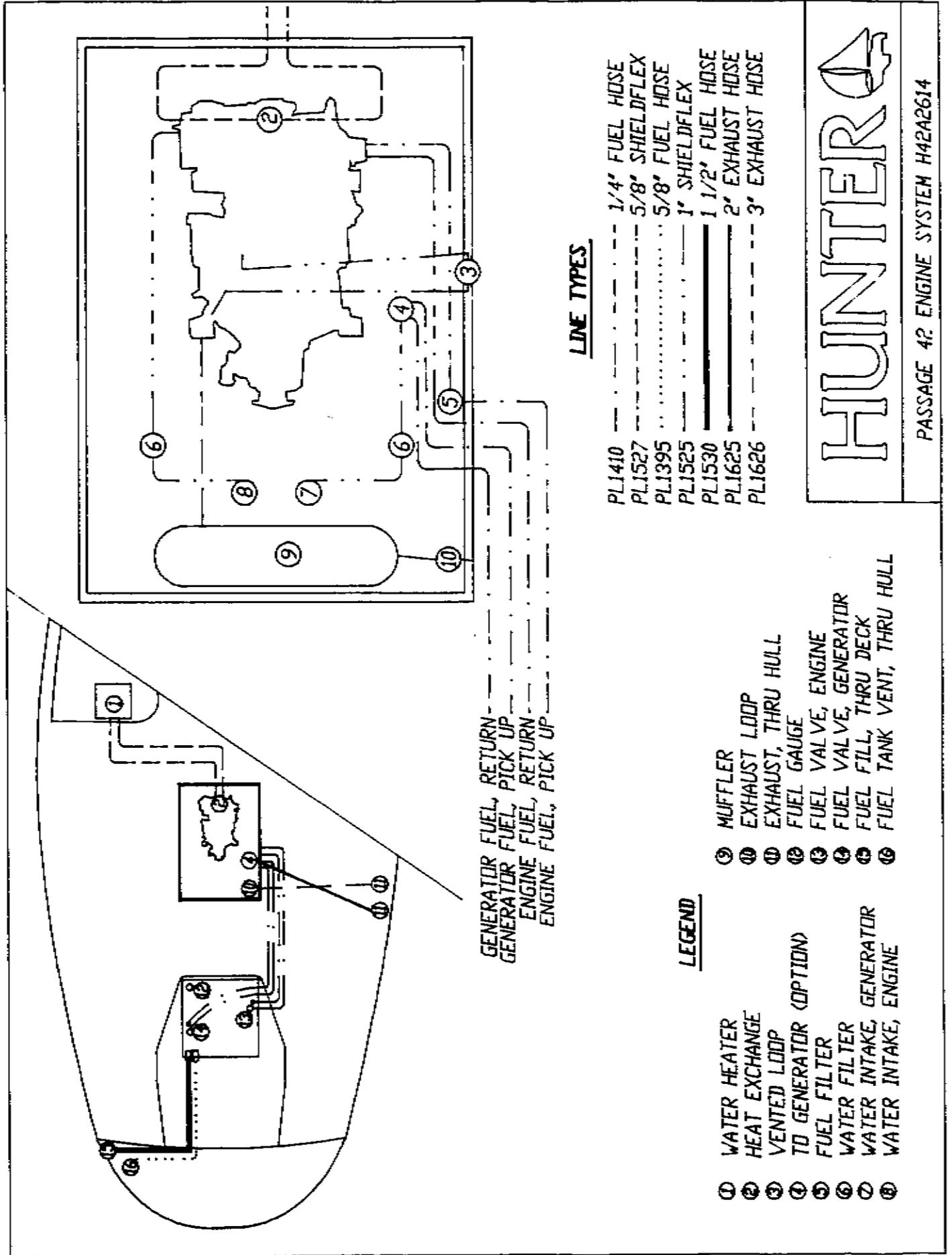
- 1 1/2" SANITATION HOSE
- 1 1/2" SHIELDVAC
- 1 1/4" SHIELDVAC
- 1" SHIELDFLEX
- 1" SHIELDVAC
- 3/4" SHIELDVAC



DETAIL 'A'

# HUNTER

PASSAGE 42 WASTE WATER PLUMBING H42A2612



① GENERATOR FUEL, RETURN  
 ② GENERATOR FUEL, PICK UP  
 ③ ENGINE FUEL, RETURN  
 ④ ENGINE FUEL, PICK UP

**LEGEND**

- ① WATER HEATER
- ② HEAT EXCHANGE
- ③ VENTED LOOP
- ④ TO GENERATOR (OPTION)
- ⑤ FUEL FILTER
- ⑥ WATER FILTER
- ⑦ WATER INTAKE, GENERATOR
- ⑧ WATER INTAKE, ENGINE
- ⑨ MUFFLER
- ⑩ EXHAUST LOOP
- ⑪ EXHAUST, THRU HULL
- ⑫ FUEL GAUGE
- ⑬ FUEL VALVE, ENGINE
- ⑭ FUEL VALVE, GENERATOR
- ⑮ FUEL FILL, THRU DECK
- ⑯ FUEL TANK VENT, THRU HULL

**LINE TYPES**

- PL1410 --- 1/4' FUEL HOSE
- PL1527 --- 5/8' SHIELD/FLEX
- PL1395 ..... 5/8' FUEL HOSE
- PL1525 --- 1' SHIELD/FLEX
- PL1530 --- 1 1/2' FUEL HOSE
- PL1625 --- 2' EXHAUST HOSE
- PL1626 --- 3' EXHAUST HOSE

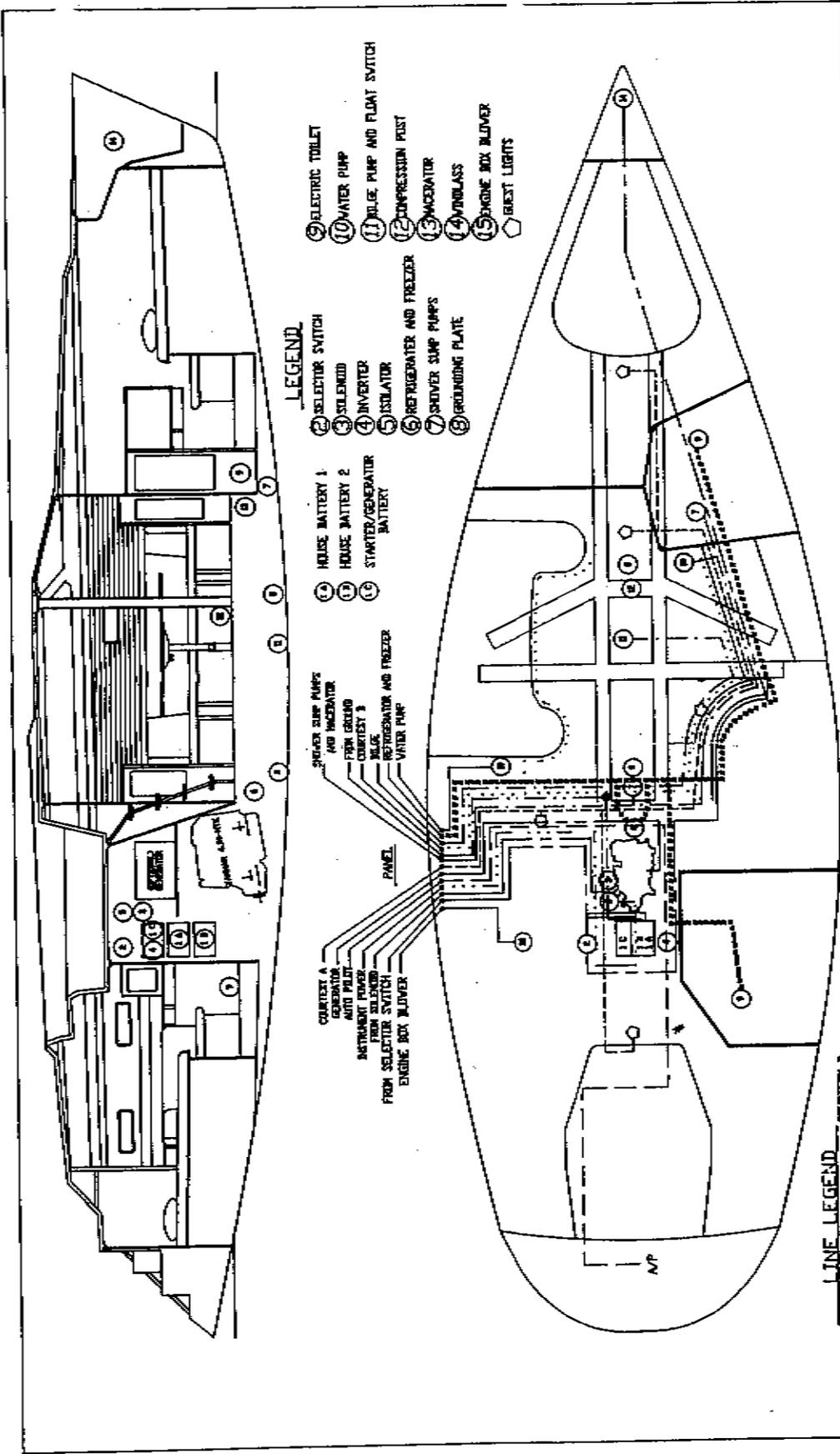
# HUNTER

PASSAGE 42 ENGINE SYSTEM H42A2614

# PUMPS, STRAINERS, FILTERS

---

<u>Component</u>	<u>Manufacturer And Part Number</u>
Bilge pump	Rule 1500 and Mayfair 800
Waste pump	ITT Jabsco 18590-500
Water pump	ITT Jabsco Flo-Jet 4405-143C
Water strainer	ITT Jabsco 364000-1000
Engine strainer	1" Perko 493-006 PLB
Fuel filter	Racor 110



**LEGEND**

- 1 HOUSE BATTERY 1
- 2 HOUSE BATTERY 2
- 3 STARTER/GENERATOR BATTERY
- 4 SELECTOR SWITCH
- 5 SILENCER
- 6 INVERTER
- 7 ISOLATOR
- 8 REFRIGERATOR AND FREEZER
- 9 SHOWER SUMP PUMPS
- 10 GROUNDING PLATE
- 11 ELECTRIC TOILET
- 12 WATER PUMP
- 13 BILGE PUMP AND FLOAT SWITCH
- 14 COMPRESSION PUMP
- 15 ACCORDATOR
- 16 WINDLASS
- 17 ENGINE BOX BLOWER
- 18 GUEST LIGHTS

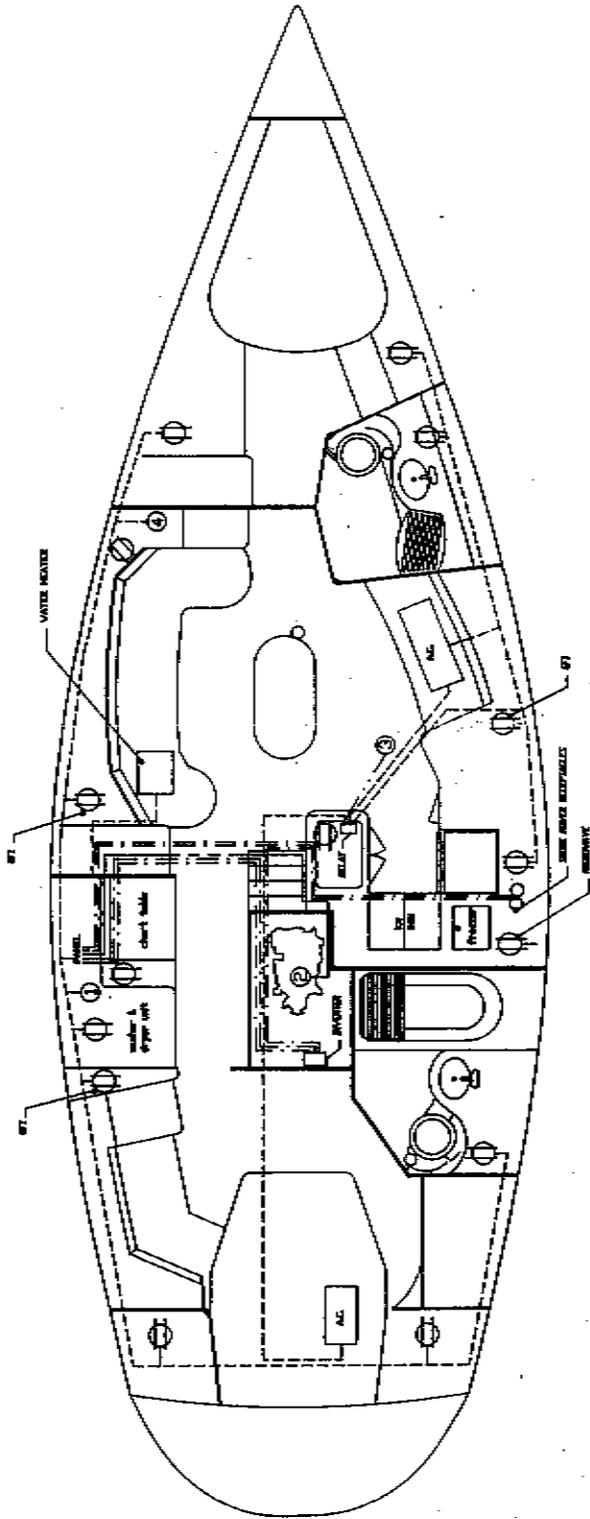
- COURTESY A GENERATOR
- FROM PILOT
- BATHROOM POWER FROM SELECTOR SWITCH
- ENGINE BOX BLOWER
- SHOWER SUMP PUMPS AND ACCORDATOR
- FISH COOLING
- COURTESY B BLACK REFRIGERATOR AND FREEZER
- WIND PUMP
- PANEL

- LINE LEGEND**
- COURTESY A
  - 16GA WIRE
  - 12GA WIRE
  - 10GA WIRE
  - 8 WIRE
  - 4 WIRE
  - 2 WIRE

NOTE: COURTESY B LIGHTS ON AROUND PERIMETER OF BUNKS AND SETTLES

# HUNTER

PASSAGE 42 PAN SCHEMATIC H42B2624



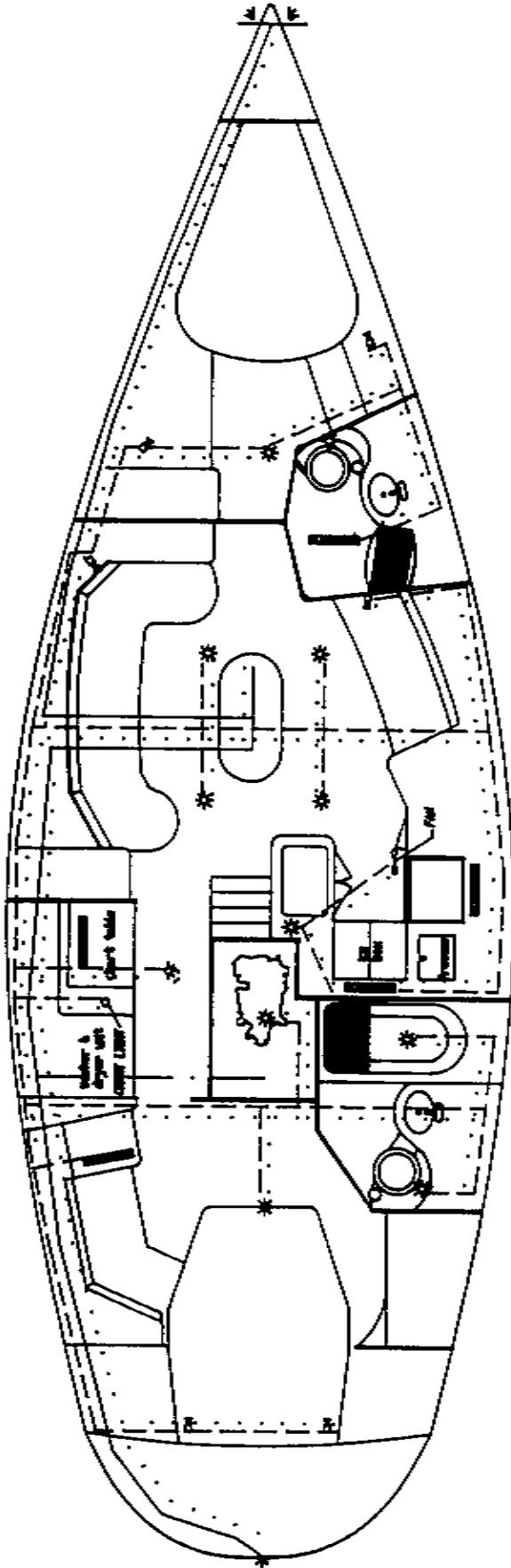
LEGEND

- EL0060-RECEPTACLES  $\phi$
- 18/3 SHIELDED CABLE -----
- EL0560-14/3BC - - - - -
- EL0570-10/3BC 32' - - - - -
- LG0103 - MARINCO SHORE POWER CORD
- ① STEREO
- ② GENERATOR
- ③ A.C. PUMP
- ④ TELEVISION
- GFI - GROUND FAULT PROTECTED RECEPTACLE
- AIR CONDITIONER, GENERATOR AND WASHER/DRYER ARE OPTIONAL

HUNTER

PASSAGE 42 110 VOLT SCHEMATIC H42B2616



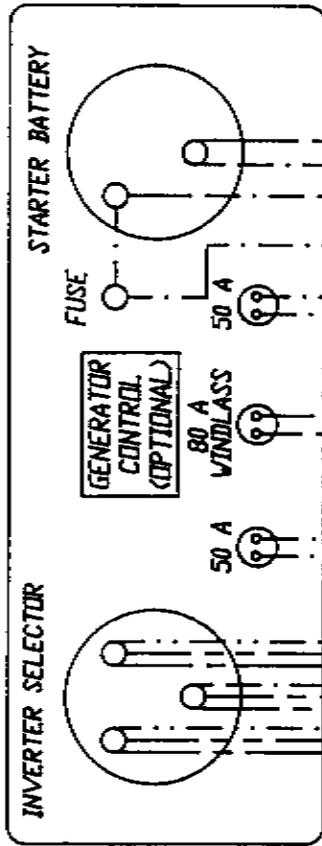


- CHART LIGHT - EL0309
- FLUORESCENT - EL0392 24'
- \* CABIN LIGHT - EL0438 15-1/2'
- SWIVEL LIGHT - EL0345
- △ STERN LIGHT - EL0347
- ◇ BOW LIGHT - STBD.
- ◻ BOW LIGHT - PORT

- EL0720 - 16GA. BLUE - CABIN
- EL0750 - 16GA. BLACK - COMMON
- EL0760 - 16GA. WHITE - NAVIGATION
- EL0580 - 14/2 GREY - COMPASS

# HUNTER

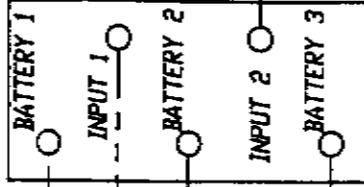
VIEW FROM INSIDE ENGINE BOX



- 16 GAUGE WIRE
- #6 WIRE
- #4 WIRE
- #2 WIRE
- 2/0 WIRE

TO PANEL

ISOLATOR



FROM ALTERNATOR

TO WINCH

# HUNTER

TO ENG/GEN

TO BATTERY 3

TO BATTERY 2

TO INVERTER

TO BATTERY 1

# INTERIOR AND EXTERIOR LIGHTING

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Your Passage 42 has 32 interior lights and 8 exterior lights. Of the interior lights, 13 are dome lights, 6 swivel lights, 5 courtesy step lights (A), 5 fluorescent lights, two courtesy tube lights (B) and 1 light which is removable from its bracket and installed over the chart table. Of the exterior lights, 3 are navigation lights, 3 are on the mast and 2 on the radar arch.

LIGHTS	REPLACEMENT BULB
<u>Interior</u>	
Dome	#1572 and Wagner #S8-1141
Swivel	#1831 and Wagner #S8-1073
Courtesy A	GE#57 3W .25A 12V
Fluorescent (24")	#F13T5CW/GE
Fluorescent (15")	#F8T5CW/GE
Courtesy B	Vista TAC15'-3-CL
Chart	Aqua Signal #90400282
<u>Exterior</u>	
Red bow	Osram 12V #6411, 24V #6429 Philips 12 V #12866, 24V 13866
Green bow	Same as above
Stem	Same as above
Anchor	Perko #375-12V-10W
Steaming	Perko #69-12V-10W
Deck	Perko #68-12V-20W
Cockpit	Guest #A22998

# MAINTENANCE

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## Engine, Transmission and Drivetrain

**ENGINE:** Follow the fuel and lubrication requirements in the Engine Manual. Check the engine oil level before and after operation and use quality motor oil (refer to Engine Manual). Be certain the proper amount of oil is in the crankcase at all times.

**Engine alignment:** The engine should be aligned by experienced marine service personnel. Final alignment should be done after launching, with all normal gear aboard. A description of the procedure follows:

The coupling flanges must come together evenly at all points, a feeler gauge is used to check the gap. If adjustment is necessary, the engine is tilted up or down and/or side to side until the flanges meet equally. Severe vibration will result from misalignment and can cause strut bearing and shaft damage.

Alignment should be checked again after several weeks of use.

(Refer to this manual's alignment drawing)

Any questions or problems concerning the engine, please contact our distributor, Mack Boring at (201) 964-0700.

**TRANSMISSION:** Follow the lubrication requirements of the Engine Manual. The oil level should be checked immediately after operation.

**DRIVETRAIN:** The shaft log (stuffing box) should be inspected periodically.

The stuffing box is held to the shaft log tube by a rubber tube secured by hose clamps. The clamps should be tight and no water should leak from this location. A slight drip from the stuffing box at the shaft exit is necessary (four drops a minute) and is normal.

To adjust, loosen the lock nut, tighten gland nut one-quarter turn, and retighten lock nut. If excessive water flow persists after adjustment, replace the packing and then adjust as above.

## Steering

Refer to the manufacturer's instructions for maintaining pedestal steering system. Cables should routinely be inspected for proper tension. Lightly oil all cables.

## Electrical Systems

The electrical system is a 12-volt, negative ground installation. The owner should weekly inspect battery(ies), terminals and cables for signs of corrosion, cracks, and electrolyte leakage. Battery terminals are to be kept clean and greased. Refer to separate instructions on batteries, wiring diagram, and electronics.

# MAINTENANCE

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## Plumbing Systems

All pumps should be checked frequently to insure proper operation. This is an especially important regular maintenance item since proper functioning of a pump could save your vessel from serious damage in the future.

Inspect all hoses for chafing and dry rot. See that hose clamps are tight. Check that the pump impeller area is clean and free of obstructions.

Inspect electrical wiring for corrosion. Make sure float switches move freely and are making an electrical connection. Refer to Engine Manual.

The owner should become familiar with the layout of the water and waste systems by walking through the boat with the diagrams provided in this manual. It is especially important that the owner knows all thru-hull valve locations and inspects for leaks frequently. Refer to plumbing diagrams in Spec & Tech section.

**General Thru-hull List** (*varies from boat to boat-see diagrams in Spec & Tech Info.*)

- 1) Engine cooling system
- 2) Galley sink
- 3) Head sink
- 4) Head toilet (water intake)
- 5) Holding tank discharge
- 6) Scupper drains

## Fuel System

The owner should inspect the condition of fuel lines for cracks or leaks. A primary source of fuel-related problems is water in the system. The owner should seek out only well maintained fueling facilities and make sure fuel fill caps are tightly secured after filling. Check and maintain fuel filters periodically. Refer to your Engine Manual for additional information.

## General Care

**CLEANING FIBERGLASS SURFACES:** Fiberglass surfaces should be cleaned regularly. Normal accumulations of surface dirt can be removed simply by occasional rinsings with water. If your boat is operated in salt water, more frequent rinsing will be required. To remove stubborn dirt, grease or oil, use a mild detergent and a soft brush. Rinse with clean fresh water.

It is also a good idea to wax the fiberglass once or twice a year to maintain a deep, glossy appearance. Your local marine supply should be able to provide an appropriate wax.

**Sail Care:** Sunlight is a sail's worst enemy, so cover the sails when they are not in use. An ultraviolet guard, fitted down the leech of a roller headsail, will protect the exposed part from the weathering effect of the sun and from dirt and grit. Mildew, which discolors, is prevented by storing sails dry and by hand-washing twice a season.

# MAINTENANCE

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## **Sail care continued.**

Check all sails regularly for chafe, particularly where they chafe on deck fittings or rigging, at reef points, batten sleeves and the foot of the headsail. Sail batten pockets should be inspected on a regular basis.

To stow the mainsail, start at the leech and flake it on to the boom, left and right, in about 18-in. (46-cm) folds, while pulling the leech aft. Secure with a sail tie and continue to the luff. Lash to the boom with sail ties or shock cord.

The headsail, neatly rolled and fastened, can be temporarily stowed along the lifelines. To stow below, flake it into a length; 1. then roll from luff to leech, 2. Take care not to crease the leech. Pack in a clearly marked bag.

## **Fabric Care**

If wet, prop cushions vertically to promote airflow around each cushion. Cushions can be cleaned by most dry cleaners. Dry clean only.

## **Winch Maintenance**

Follow the maintenance instructions prescribed by the winch manufacturer. We recommend a minimum of an annual cleaning and light greasing.

## **General Hardware Maintenance**

Check all fittings regularly to be sure screws are tight. Occasionally lubricate (use silicone lubricants) all moving parts on such fittings as blocks, turnbuckles and cam cleats, as well as the locking pins of snatch blocks, track slides, spinnaker poles, etc. Inspect cleats and fairleads for roughness and smooth with fine grained emery paper if necessary. Also, replace any missing or damaged cotter pins in turnbuckles and shackles, and either tape them or use protective covers manufactured for that purpose.

# MAINTENANCE

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## Electrolysis and Galvanic Protection

Salt water allows electric current to flow from anodic to cathodic material. Any two metals from two components, and their relative positions in the galvanic rating table, will determine which loses material (the anode) and which remains largely undisturbed (the cathode). The rate of wear is determined by the distance apart on the galvanic table of two metals. Thus a sacrificial zinc anode is often fitted to the underwater area of a boat to attract any destructive currents away from bronze or steel propeller shafts, for example.

It is not enough to know that your boat does not suffer from electrolysis: a newcomer in the adjacent marina berth may start a too-friendly association with metal components on it. An easy place to fit an anode is on the propeller shaft, or covering the propeller nut. The anode should not be painted because this will only defeat the purpose.

To prevent electrolysis in sea water, the difference between the voltage of two adjacent metals should not exceed 0.20V. Zinc and carbon steel, for example, used together, risk corrosion, while lead and active stainless steel are compatible. Metals with a high voltage corrode faster and need a larger area to diffuse the electro-chemical reaction.

# MAINTENANCE

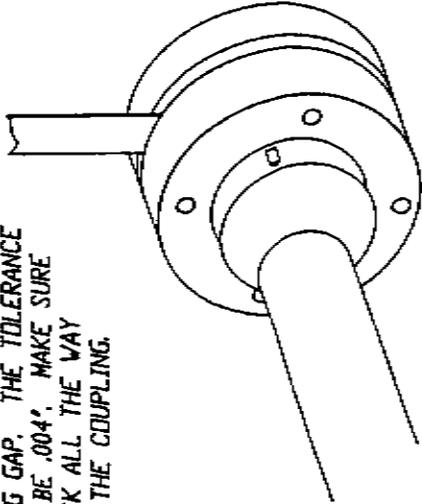
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## Alignment Procedure

1. Separate the coupling, move the shaft end back to clear the pilot in the center.
2. Establish the shaft in the center of the shaft log by raising the shaft until it touches the top of the log - note position - lower the shaft until it touches bottom of the log - note position - repeat sidewise and locate shaft in the center; block shaft in this position, using a block of wood under the shaft packing gland.
3. Now, adjust the engine mounts to allow the pilot on the coupling halves to slip together without moving shaft up, down, or sideways.
4. Adjust the engine mounts as necessary until a 0.004" feeler gauge will not enter anywhere along the edge of the flange between the faces.
5. Tighten the locks on the adjustable mounts.
6. Re-check coupling with feeler, re-adjust if necessary.
7. Check stuffing box (allow to drip slightly).

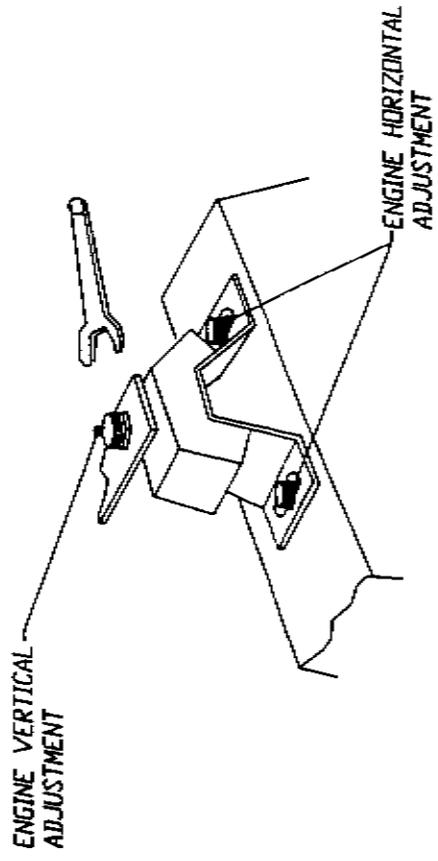
STEP 2

USE FEELER GAUGE TO CHECK COUPLING GAP. THE TOLERANCE SHOULD BE .004". MAKE SURE TO CHECK ALL THE WAY AROUND THE COUPLING.



NOTE: CHECK COUPLING GAP WITHOUT COUPLING BOLTS IN PLACE.

STEP 1



# HUNTER

ALIGNMENT DIAGRAM

GEN2619A

# STORAGE/WINTERIZATION

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**IMPORTANT:** Winter storage is recommended to be done in one of the following three ways, either: 1) by blocking the boat via a cradle; or 2) with chained stands on level ground; or 3) by storing the boat in the water with a bubbler system to prevent icing. Damage to your boat, including engine misalignment caused by twisting, is not covered by the warranty.

## SAILS

Sails should be properly folded and stowed in a dry, well ventilated place. Many sailboat owners send their sails back to the sail manufacturer at the end of each season. The sailmaker will check the stitching and sailcloth for wear and store the sails until the start of the next season.

## ELECTRICAL

Remove battery from boat. (Refer to Engine Manual.) and charge. It is a good idea to also to remove the electronics (Radio, Radar, etc.) and store in a safe place.

## CUSHIONS

Cushions should be removed and stored at home if possible. If not, prop them vertically to promote airflow around each cushion. *Dry Clean Only!*

## HATCHES

Tenting the deck during storage will help prevent ice from forming and damaging hatches and deck fittings. The installation of a passive vent will help with ventilation while the boat is in storage.

## WATER SYSTEM - WATER HEATER

### WATER SYSTEM:

Open a faucet and allow the pump to empty the tank. Then add approximately two gallons of non-toxic anti-freeze solution to the tank and repeat the pumping out procedure.

A second method is to disconnect the hoses at the pump, allowing them to drain. Find the lowest point in the system and disconnect the fitting. Open all faucets to allow the lines to drain. If possible, use a short piece of hose on the faucet to blow through the lines to clear all water. A diluted solution with baking soda will help freshen the system.

### WATER HEATER:

Open valve and drain fully. Leave valve open during lay-up time.

## TOILET AND HOLDING TANK

Drain and flush toilet. Using automotive anti-freeze (ethyleneglycol) in a 50/50 mixture with water, pump through toilet and into holding tank. Refer to Galley/Head section for instructions.

# STORAGE/WINTERIZATION CONTINUED.

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## ENGINE

1. Drain the cooling water completely out of the engine and flush the line thoroughly with fresh water. Don't use high pressure through the line.
2. Remove the fuel completely from all fuel lines.
3. Disconnect the main battery cables from the battery terminals.
4. To prevent corrosion inside the cylinders, pour a little lubricating oil into the suction pipe while turning the engine. Enough oil to reach the intake/exhaust valve is sufficient.
5. Put the piston at top dead center of compression stroke so that the intake/exhaust valves are completely closed.
6. Apply a thin anti-corrosion treatment to the plating and exposed painted surfaces.
7. The engine should be in a well ventilated area, and protected from any kind of dampness.
8. Put a dust cover over the engine.
9. Check your operation manual for engine diagram and for "Manufacturer's Recommended Winterizing Procedures."

## OUTBOARD ENGINE

Take it home and store it in a safe place. Be very careful storing the gas tank as the gasoline is very flammable. Refer to "Engine Manual" for specific maintenance schedule.

## DEPARTURE FROM THE BOAT

The check list for leaving a boat unattended is very important because items overlooked often will not be remembered until you are far from the boat and corrective actions are impractical or impossible. Primary choices for this list are items relating to the safety and security of the unattended craft—turning off fuel valves, the proper settings for electrical switches, pumping out the bilge and leaving the switch on automatic (or arranging for periodic pumping out). Other departure check list items are securing ports, windows, hatches, and doors.

## ROUTINE MAINTENANCE

Routine maintenance check lists should include items based on how much the boat is used (usually in terms of engine hours) and on calendar dates (weekly, monthly, or seasonal checks). Typical of the former are oil level checks and changes, and oil and fuel filter changes.

On a calendar basis the lists should note such matters as electrolyte levels in storage-batteries, pressure gauges on dry-chemical fire extinguishers, and all navigation lights. Check the operation of automatic bilge alarms or pump switches by running water into the boat. Periodically close and open seacocks several times to ensure their free and easy operation in case they are needed in an emergency. Equipment and supplies carried on board for emergencies should be inspected for any signs of deterioration.

# VIPLEX ACRYLICS FOR MARINE USE

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## CARE AND CLEANING

### Dont's

- \* Do not subject acrylic material to high temperature when polishing.
- \* Do not use glass cleaning sprays, scouring compounds, or solvents like acetone, gasoline, benzene, carbon tetrachloride or laquer thinner.
- \* Do not use masking tapes, duct tapes or packing tapes on your acrylic materials.
- \* Do not drill holes without proper drill bits in your acrylic materials (special bits are used in acrylic material to avoid damage).

### Do's

- \* Wash your acrylic hatches, windshields, and other acrylic components on your boat with a mild soap and plenty of lukewarm water.
- \* Use a clean soft cloth, applying only light pressure.
- \* Rinse with clear water and dry by blotting with a damp cloth or chamois.
- \* Grease, oil or tar may be removed with a good grade of hexane, aliphatic naphtha, or kerosene. These solvents may be obtained at a paint or hardware store and should be used in accordance with the manufacturers recommendations.
- \* To maintain a high-luster finish on your acrylics, we recommend that after properly cleaning, apply Megulars Mirror Glaze #10 with a soft towel. Note: If slight scratches appear on acrylics, use Megulars Mirror Glaze #17.

# ELMO LEATHER

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## WELCOME TO THE WORLD OF ELMO LEATHER

With your purchase of furniture upholstered in full top grain Elmo leathers, you have joined a world of natural distinctiveness and quality.

Because your leather upholstery is a natural product, your upholstery will bear individual characteristics - nature's proof - from each hide's history that will make your leather furniture exclusive.

Beginning with only top quality Scandinavian hides, the Elmo parent company in Sweden employs the tanning, dyeing and finishing processes it has perfected in over a half century of expertise. These processes retain the leather's natural characteristics while adding special care and durability capabilities to assure you of the finest quality upholstery leathers available in the world.

When these leathers reach your retailer's floor, they have been joined in partnership with the best furniture manufacturers internationally, to give you a product of natural beauty and quality.

We therefore welcome you to the quality, elegance, comfort, durability, and value of Elmo leathers. We trust you'll enjoy their friendly hand and natural distinction for years to come.

## TAKING CARE OF OUR LEATHER

Because Elmo leathers remain as natural as possible, they breathe. The process of absorbing moisture, then drying - or breathing - is what allows a natural leather product to age so gracefully and always be comfortable.

Under normal usage conditions, regular dusting and vacuum cleaning in crevices or bottoms is all that is necessary to clean your furniture but do remember that exposure to excessive sun light and heat or extremely dry rooms may cause the leather to fade or lose its soft supple hand. Just draw the drapes or add humidity to the room.

The following instructions are suggested for cleaning during special circumstances.

**For Spots and Spills.** Wipe excess liquid up **IMMEDIATELY** with a clean absorbent cloth or sponge. If necessary, use clean luke warm water only and let air dry naturally. If water is used, clean the entire area where the spot occurred. An example would be the entire seat cushion or entire arm. **DO NOT** dry wet areas with hair driers, etc.

**For Stubborn Spots and Stains.** Use a mild **NON-DETERGENT** soap solution. Apply the soap to a clean wet sponge and wash, then rinse well. Let air dry naturally.

**For Butter, Oil or Grease.** Wipe excess butter, oil or grease off the leather with a clean dry cloth, then leave it alone as the spot should dissipate into the leather in a short period of time. Do not apply water or try to wash such spots.

**DO NOT USE,** Saddle Soap, cleaning solvents, furniture polish, oils, varnish, abrassive cleaners, detergent soaps or ammonia water.

**NOTE:** These are recommended or suggested methods of cleaning, but the manufacturer is not responsible for damage incurred while cleaning.

ALWAYS TRY THE CLEANING METHOD IN A HIDDEN AREA  
FIRST TO CONVINCING YOURSELF OF THE RESULTS.

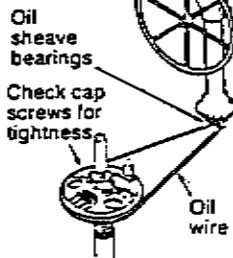
To properly maintain the moving parts in the top of the pedestal, it is necessary to remove the compass and its cylinder. For proper alignment when re-installing the compass, we recommend placing three or four lengths of tape on the pedestal and compass as shown below. Slit the tape when removing compass, align the strips of tape when re-installing the compass for visual realignment. Your compass **MUST** then be checked out for accuracy. Lubrication of needle bearings should be done by squeezing Edson Fig 827 Teflon Lubricant into the holes located on top of the bearing housings inside the pedestal bowl. Spin the wheel when squeezing the lubricant in to make sure the entire bearing is serviced. Winc grease or water pump grease can be used as an alternative, but don't let the bearings run dry. Do not over grease as it will run onto the brake pads. Oil the chain with #30 weight motor oil. Do NOT grease chain as it does not penetrate the links.

Inspect the condition of the wire, tension of the wire and lightly oil. Edson recommends placing about five layers of "Kleenex" on the palm of your hand, squirt oil on the tissues and lightly oil the wire. This will lubricate the strands but will also "flag" a broken or hooked strand by tearing off a small section of tissue. If you do have a wire break, replace the wire immediately. See Edson Fig 775 Wire and Chain Replacement Kits. (Caution: Wire splinters can cause painful cuts.) Replace the wire after 5 years. If still good, keep the old wire on board as a spare.

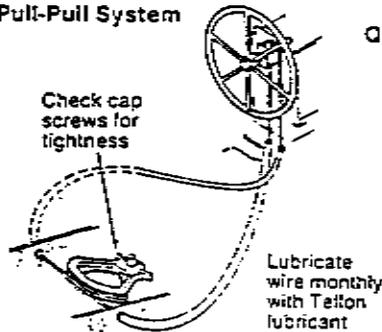
## STEERING WIRE TENSION

A top quality roller chain to wire steering system can be kept in "as new" sensitivity by keeping the wire at a correct tension. To check for proper wire tension, lock the wheel in position by using the pedestal brake, or by tying off the wheel. Cable tension is best when you cannot

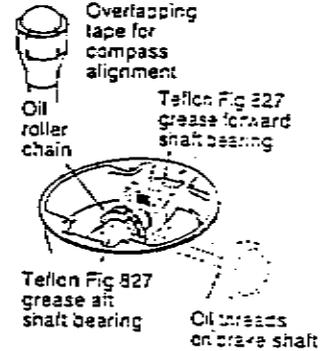
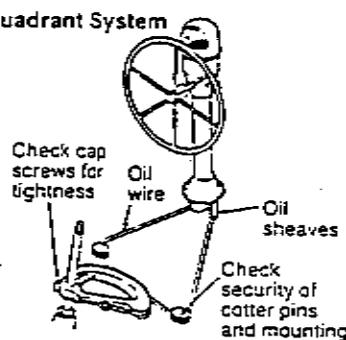
### Radial Drive System



### Pull-Pull System



### Quadrant System



move the quadrant or drive wheel by hand with the wheel locked in place. Over tightening will greatly reduce the sensitivity of the system.

It must be emphasized that all on board must be familiar with the care and operation of the Steering System and engine controls. One person must be assigned the job of maintenance and must be thorough, familiar with the operation and intent of all the equipment. If at any time your Steering System makes strange noises or reacts differently than it has previously, you must find the causes immediately and correct the problem.

Screws, nuts, bolts, as well as clevis and cotter pins that are part of the steering system, engine controls or pedestal accessories, must be checked regularly for tightness and wear. Failure to inspect all steering parts, engine controls and pedestal accessories may cause loss of control or failure of the engine or steering system. *All boats must have an emergency tiller or its equivalent and all on board must be familiar with its location and operation. An emergency tiller drill is just as important as a man-overboard drill and must be regularly conducted.*

On a new boat and at least once a year, inspect the system when under a strong load. On a calm day and under power, go away from the other boats and with the person who is assigned the maintenance watching from below, put the wheel hard over at full throttle. The maintenance man should watch carefully for all parts of the system bending, distorting, creaking, or giving any indication of failing if placed under a heavy load for a period of time. If, for any reason something did fail or needs adjusting, the day is early and you will have plenty of time.

When leaving your boat at her mooring or slip, make sure that your wheel is properly tied off. **DO NOT LEAVE THE STEERING SYSTEM TO FREE WHEEL.**

## CLEANING STAINLESS STEEL

Pedestal guards, steering wheels and shafts are all made from top quality stainless steel. The implication of its name "stainless steel" does not mean it is totally rustproof. All stainless steel will rust to a certain degree due to chemical reaction to air and saltwater. This is mainly cosmetic and will require an occasional polishing with an abrasive type cleaner such as "Brasso" or equivalent.

## CLEANING PEDESTAL AND ACCESSORIES

Clean them with soap and water; don't use chemicals such as MEK or acetone as they break down the super finish on your Edson pedestal

system, compasses and instruments. Most manufacturers of compasses and electronic instruments suggest that they all be removed during winter storage and kept in a warm dry area. Compasses are normally held in place by two or three slotted-head screws, placed near the top of the compass. A Fig 672 Rubber Connector will assist in removing the compass. Instruments can be removed by the screws in the Edson faceplate. Just unplug the instrument and you are all set.

**CAUTION:** When the equipment is in the tropics or in charter service, the maintenance schedule must be speeded up. Or, to put it in a few words: clean it up, oil it, inspect it, cover it. The effects of sun, saltwater and inexperienced operators can be severe.

### LUBRICATION RECORD

component	lubricant	schedule	1st year	2nd year	3rd year	4th year	5th year	6th year	7th year
			19__	19__	19__	19__	19__	19__	19__
sheave bearings	#30 oil*	check and oil monthly							
pull-pull cables	Teflon Fig 827	check and grease monthly							
wire rope	#30 oil*	check and oil annually							
roller chain	#30 oil*	check and oil annually							
pedestal shaft bearings	Teflon Fig 827	check and grease annually							

\*Any light oil is suitable. We recommend #30 weight motor oil since most boat owners have it aboard.

**CAUTION:** 1.) On extended voyages your steering system should be inspected each day and lubricated weekly. Carefully inspect your steering system at least one week before a vacation cruise to avoid last minute maintenance.

2.) When the boat is unattended secure the wheel with the brake or a line. In rough weather the rudder can swing violently from side to side causing damage.



# IM LEWMAR EXTENDED WARRANTY

## Warranty Statement:

- Winches - Models 6-66 inclusive, self-tailing & standard
- Powered Winches - Models 40-66 inclusive
- Portlights
- Hatches
- Hardware
- Windlass - Models 700 - 2500 inclusive

Lewmar warrants the above products in normal usage to be free of defects in materials and workmanship for a period of five years from the date of purchase, subject to conditions and limitations and exceptions listed below. Any product or part which proves to be defective under normal usage during that five year period will be repaired or replaced by Lewmar at their discretion.

## Conditions and Limitations:

1. Warranty only applies to the first two owners of the yacht manufactured by HUNTER MARINE, CORP. and products installed by them as original equipment
2. Warranty does not apply to yachts used at any time for charter.
3. Lewmar's liability shall be limited to repair or replacement of goods or parts defective in materials and workmanship.
4. Determination of the suitability of the product for the use contemplated by the buyer is the sole responsibility of the buyer and Lewmar shall have no responsibility in connection with such suitability.
5. Lewmar shall not be liable in any way for:
  - a. Failures due to use of products in applications for which they are not intended.
  - b. Failures due to corrosion, ultra violet degradation, wear and tear or improper installation.
  - c. Failures due to incorrect maintenance.
  - d. Failures due to conditions that exceed the product's performance specifications as stated in the Lewmar Sailboat Equipment catalog.

## Conditions and Limitations (Continued)

6. Product subject to warranty claim must be returned to the head US office of Lewmar Marine (International Marine Marketing) for examination unless otherwise agreed by Lewmar (IMM) in writing.
7. Lewmar shall not be responsible for shipping or installation labor associated with any warranty claims without prior written authorization. On products found to be defective, Lewmar (IMM) will cover the cost of the return shipment with the method matching that of the customer return.
8. Service by anyone other than an authorized Lewmar representative shall void this warranty unless it accords with Lewmar guidelines and standards of workmanship.

## Exceptions:

1. Warranty is limited to one year in the case of the following:

- Electric Motors and Electrical Equipment
- Electric Controls
- Hydraulic pumps, valves and actuators
- Weather seals
- Products used in "Grand Prix" racing applications

2. There are no warranties of merchantability fitness for purpose or any other kind, express or implied, and none shall be implied by law. The duration of any such warranties that are nonetheless implied by law for the benefit of a consumer shall be limited to a period of one year from original purchase (first owner) by the user. Some countries do not allow limitations on how long an implied warranty last.

3. Lewmar shall not be liable for consequential damages to yacht, equipment or other property or persons due to any failure of Lewmar equipment. Some countries do not allow the exclusion or limitation of consequential damages, so the above limitation exclusion may not apply to you.

Lewmar Marine Limited reserve the right to alter design and specification without prior notice.

## IM LEWMAR WARRANTY REGISTRATION (Detach and Return to the Lewmar office stated below)

Hunter Model: \_\_\_\_\_ Hull Number: \_\_\_\_\_ Date Commissioned: \_\_\_\_\_

Owner's Name: \_\_\_\_\_ Dealer's Name: \_\_\_\_\_

Address: \_\_\_\_\_

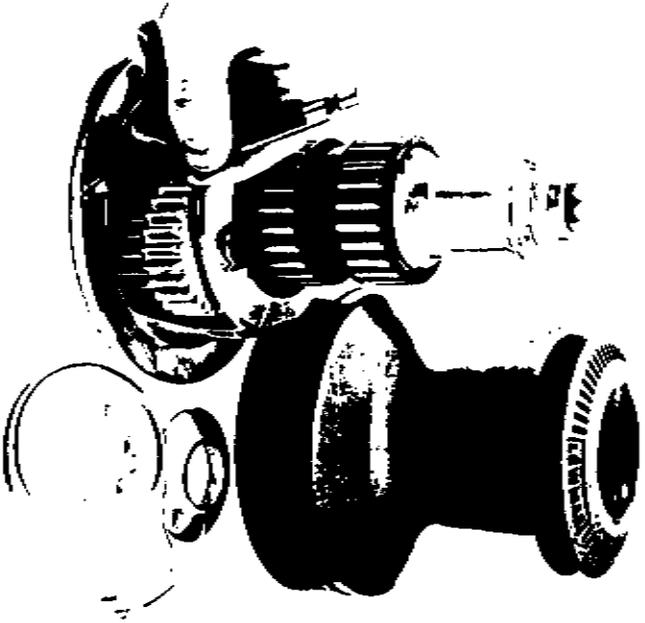
Phone No: \_\_\_\_\_

Registration Card must be filled out completely and returned to: IM LEWMAR

Date Registered: \_\_\_\_\_

International Marine Marketing Inc.,  
P.O. Box 308, New Whitfield ST.  
Guilford, CT, 06437  
(203) 458-6200

# HOW TO SERVICE YOUR LEWMAR WINCH

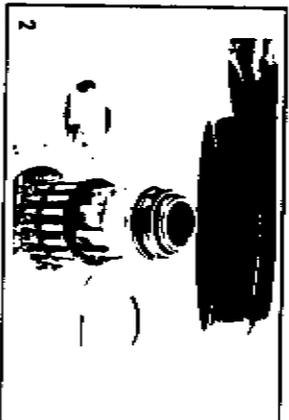


## IN LEWMAR

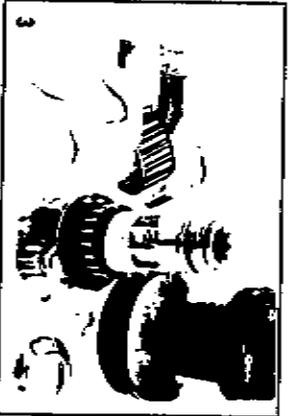
### Single Speed 165T



1 Unscrew and remove the top cap, lift off the feeder arm and the 2 bronze retaining collets.



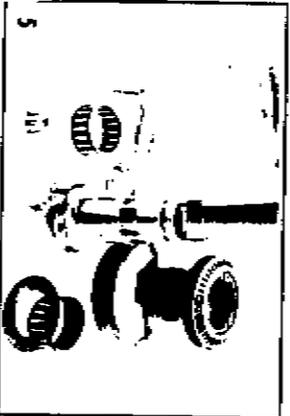
2 Lift off the drum.



3 Remove and clean the drum bearings and washer.



4 Remove and clean the gear spindle and gear.

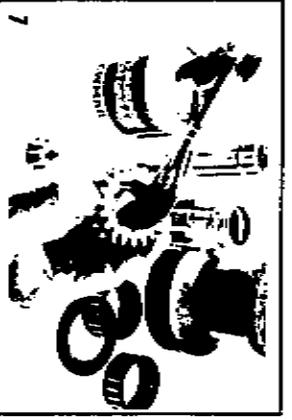


5 To remove the main spindle, rotate it in a clockwise direction as you lift it, also remove the ratchet gear.

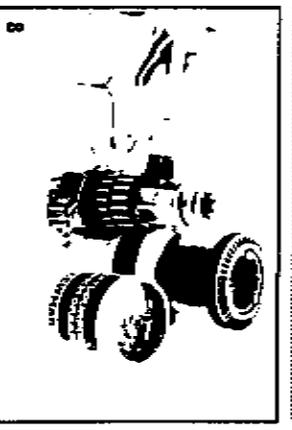


6 Remove, clean and inspect the pawls and springs, look for excess wear, replace if necessary. Lubricate pawls with a light machine oil.

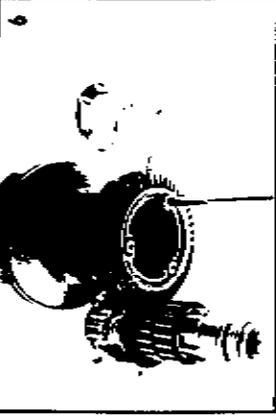
Single Speed 16ST



7 Lightly grease the ratchet gear, place it in position with the ratchet facing up as shown.



8 Re-assemble in reverse of the above, remember to lightly grease all gears, ratchet's tracks and splines.



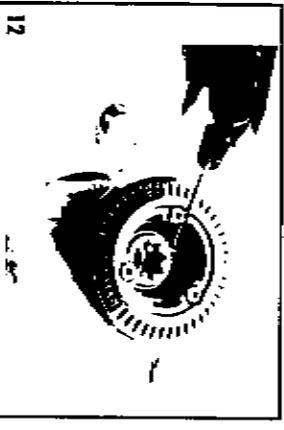
9 Remove the 3 fixing screws holding the crown assembly to the drum.



10 Carefully lift off the crowns and lift out the springs.



11 Remove, clean and inspect pawls and pawl springs, look for excess wear, replace as necessary. Lubricate pawls with a light machine oil. Re-assemble.



12 To replace the drum you will need to use a small bladed screwdriver to chase the pawls.

Winches from 16ST to 48ST are Lower sprung laws

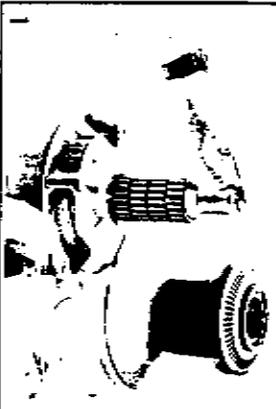
Use a cross headed screwdriver, remove the 3 x cross head screws which secure the crown assembly to the drum.  
Lift the crowns clear of the drum, care should be taken not to lose any springs that may have stuck to the lower crown. Separate the crowns, clean and replace.

Winches from 50ST to 66ST have Upper sprung laws

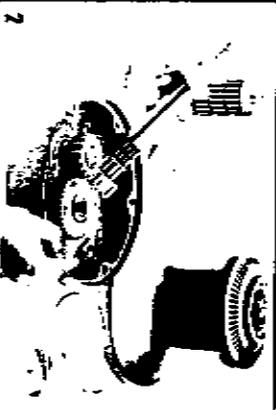
Using an Allen key, undo the 4 x cap head retaining screws evenly. (5 screws on 66ST).  
Lift off the top plate together with the retaining screws. Also remove the springs and spring pillars. You can now remove the crown assembly, separate, clean and replace.

Note: When rebuilding the drum assembly, care should be taken to engage the locating pip on the underside of the lower crown with its locating hole on the drum top.

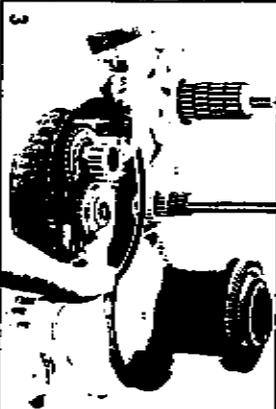
2 Speed 665T



1  
Unscrew top cap, remove the feeder arm and retaining collets. Lift off the drum. Undo and remove the 6 x 10mm fixing screws holding the centre stem to the base.



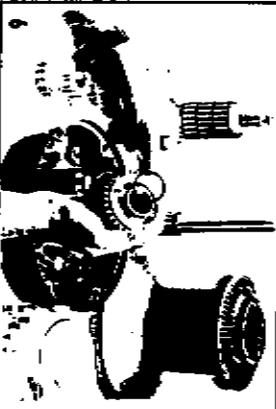
2  
Carefully lift off the centre stem, take care to support the main spindle as you do so.



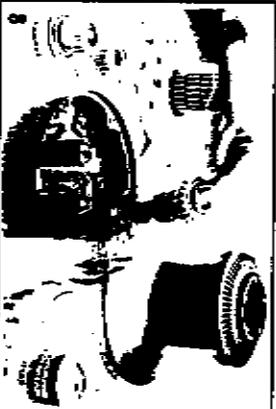
3  
To remove the gear assemblies lift them both out at the same time.



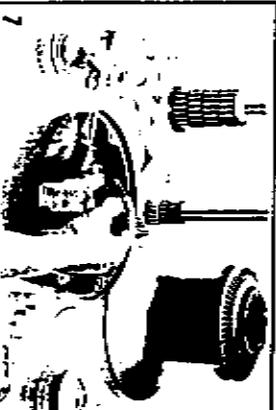
4  
Separate the gear assemblies clean and inspect for signs of excess wear.



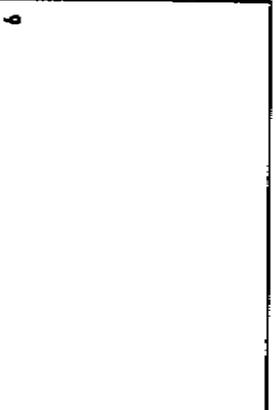
5  
Lightly grease the ratchet gears and bearing surfaces. Remember to replace the plastic washer shown before re-assembling these gears.



6  
Remember to lightly grease all bearings and moving parts.



7  
Remove the clutch, remove, clean and inspect pawls and springs replace as necessary.



8  
Care should be taken when replacing the drum washer. Ensure the chamber is facing down when replacing the washer.

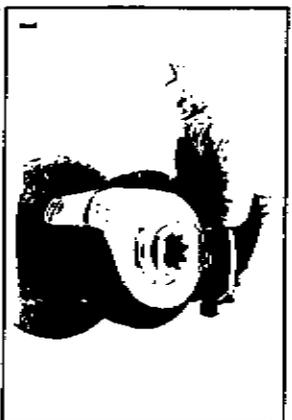


9  
Using a cross headed screwdriver, remove the 3 screws securing the pawl retaining plate. Clean and inspect all pawls and springs, replace if necessary.

Note: Remember to use only light machine oil to lubricate the pawls.

30ST, 40ST, 44ST, 48ST, 50ST, 54ST, 58ST, 62ST

2 Speed Whirl



1 Unscrew top cap.



2 Lift and remove the feeder arm.



7 Remove and inspect the pawls and pawl springs. replace if necessary.



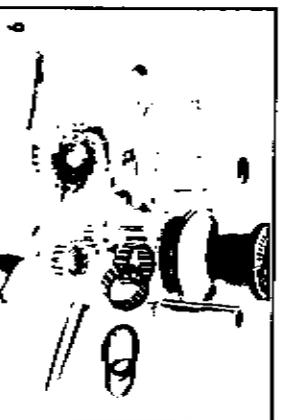
8 Replace the pawls and springs, lightly oil the pawls, check for correct operation. (no sticking)



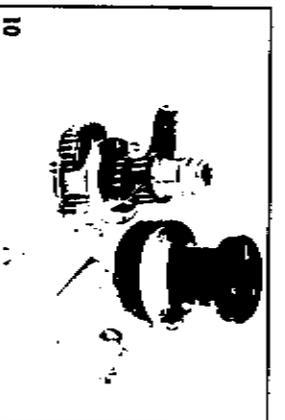
3 Remove the 2 split retaining collars, lift out the main spindle.



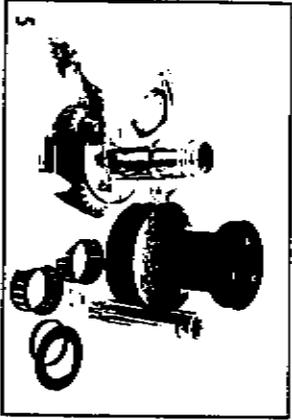
4 Remove and clean the drum, bearings and washer.



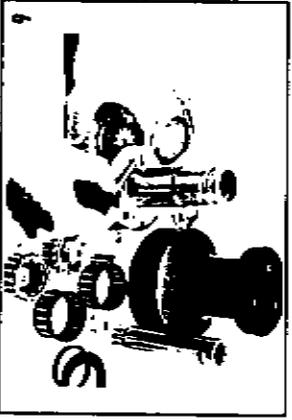
9 Lightly grease the ratchet and bearing surfaces, re-assemble the gears.



10 Lightly grease and replace the gears, gear spindles and the main spindle.



5 Using a small bladed screwdriver lift the 2 gear spindles.



6 Lift out the gear spindles and remove the gear assemblies.



11 Strip and clean crown assembly (see 'BEFORE YOU START')



12 Replace the drum, main spindle retaining collars and feeder arm. Lightly grease the O-ring and thread of the top of the cap before replacing it.

# SERVICING

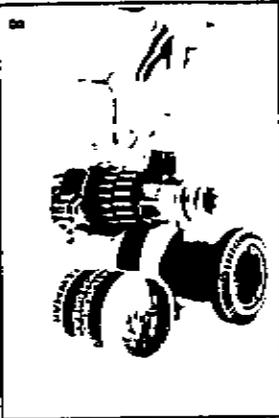
# THE TWO TYPES OF SPRUNG JAWS

## Single Speed 16ST

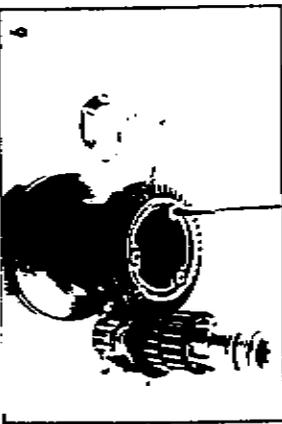
## Winches from 16ST to 66ST are Lower sprung jaws



7 Lightly grease the ratchet gear, place it in position with the ratchet facing up as shown.



8 Re-assemble in reverse of the above, remember to lightly grease all gears, ratchets tracks and spindles.



9 Remove the 3 flaking screws holding the crown assembly to the drum.



10 Carefully lift off the crowns and lift out the springs.



11 Remove, clean and inspect pawls and pawl springs, look for excess wear, replace as necessary. Lubricate pawls with a light machine oil. Re-assemble.



12 To replace the drum you will need to use a small bladed screwdriver to close the pawls.

## Winches from 50ST to 66ST have Upper sprung jaws

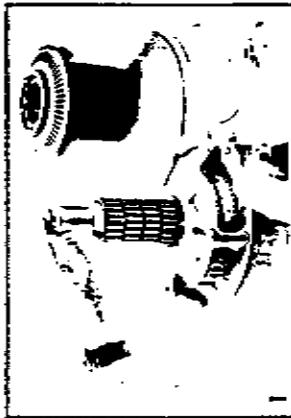
Using an Allen key, undo the 4 x cap head retaining screws evenly. (5 screws on 66ST).

Lift off the top plate together with the retaining screws. Also remove the springs and spring pillars. You can now remove the crown assembly, separate, clean and replace.

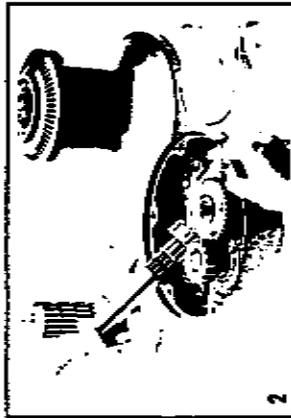
Note: When rebuilding the drum assembly, care should be taken to engage the locating pip on the underside of the lower crown with its locating hole on the drum top.

# SERVICING

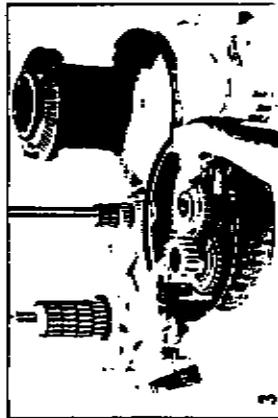
## 2 Speed 66ST



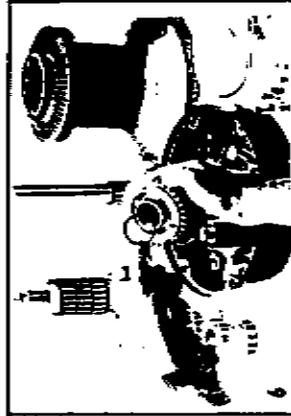
1  
Unscrew top cap, remove the feeder arm and retaining coils. Lift off the drum. Undo and remove the 6 x 10mm fixing screws holding the centre stem to the base.



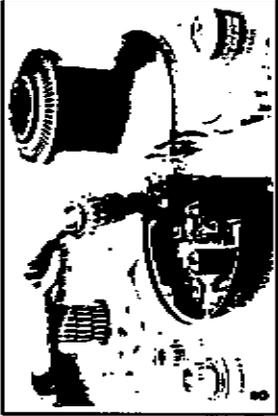
2  
Carefully lift off the centre stem, take care to support the main spindle as you do so.



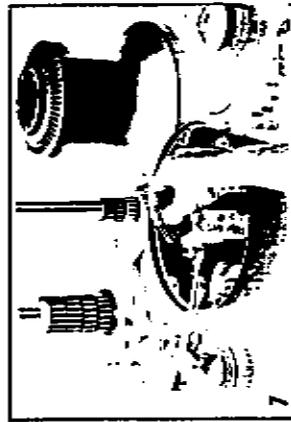
3  
To remove the gear assemblies lift them both out at the same time.



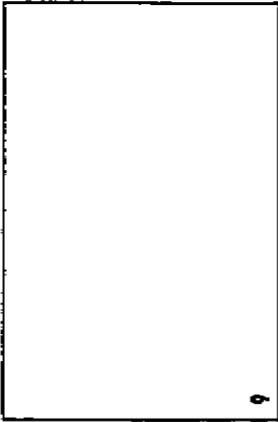
4  
Separate the gear assemblies clean and inspect for signs of excess wear.



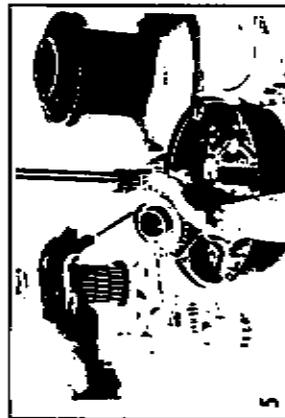
5  
Lightly grease the ratchet gears and bearing surfaces. Remember to replace the plastic washer shown before re-assembling these gears.



6  
Remove the circlip, remove, clean and inspect pawls and springs replace as necessary.



7  
Care should be taken when replacing the drum washer. Ensure the chamfer is facing down when replacing the washer.



8  
Using a cross headed screwdriver, remove the 3 screws securing the pawl retaining plate. Clean and inspect all pawls and springs, replace if necessary.

Note: Remember to use only light machine oil to lubricate the pawls.

9  
Remember to lightly grease all bearings and moving parts.

# SERVICING

30ST, 40ST, 44ST, 48ST, 50ST, 54ST, 58ST, 62ST



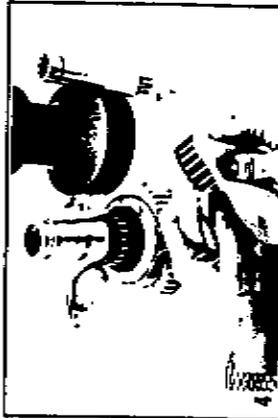
1 Unscrew top cap.



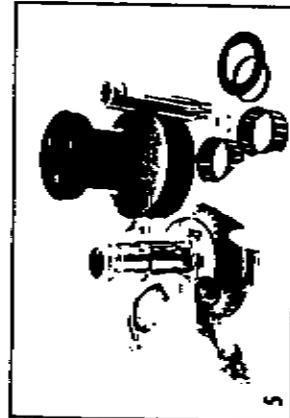
2 Lift and remove the feeder arm.



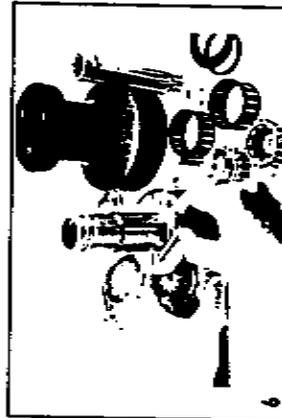
3 Remove the 2 split retaining collets, lift out the main spindle.



4 Remove and clean the drum, bearings and washer.



5 Using a small bladed screwdriver lift the 2 gear spindles.



6 Lift out the gear spindles and remove the gear assemblies.

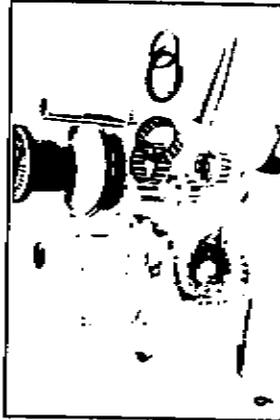
## 2 Speed Wind



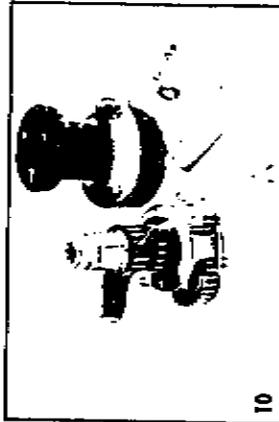
7 Remove and inspect the pawls and pawl springs. replace if necessary.



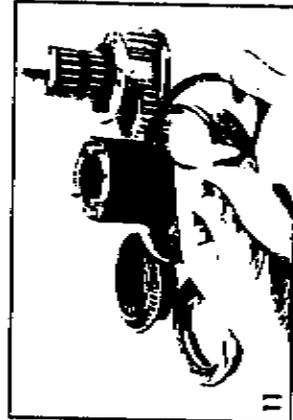
8 Replace the pawls and springs, lightly oil the pawls, check for correct operation, (no sticking)



9 Lightly grease the ratchet and bearing surfaces, re-assemble the gears.



10 Lightly grease and replace the gears, gear spindles and the main spindle.

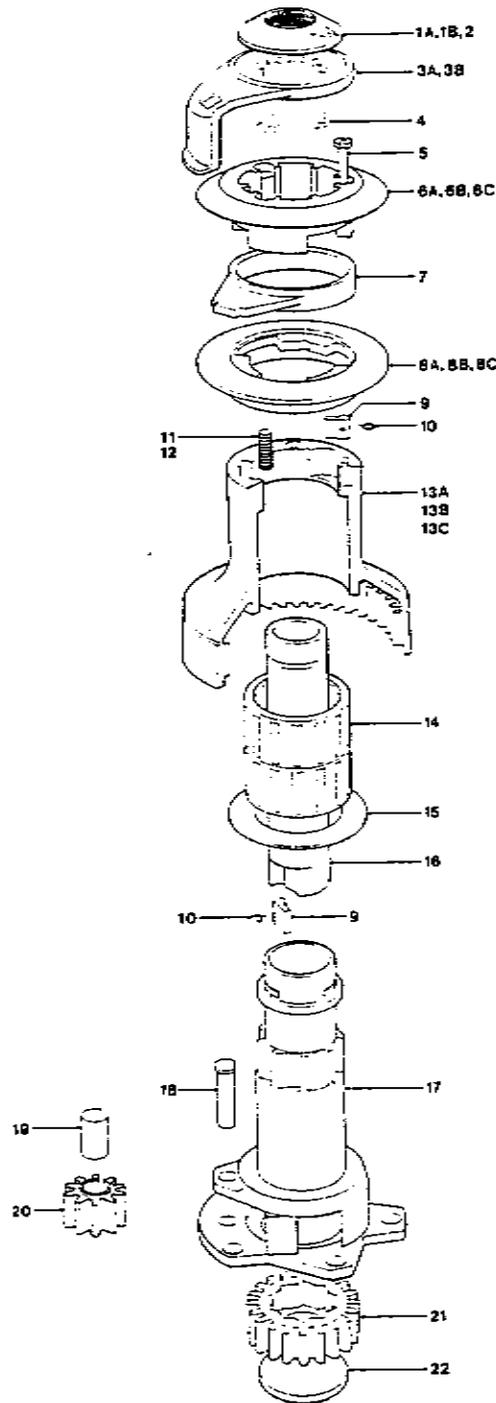


11 Slip and clean crown assembly (see 'BEFORE YOU START')



12 Replace the drum, main spindle retaining collets and feeder arm. Lightly grease the 'O' ring and thread of the top of the cap before replacing it.

# No. 16ST



## No 16 - 1 SPEED SELF TAILING WINCH

ITEM No	PART No	DESCRIPTION	No Off
1A	45000000	Chromed Top Cap 16AST/16CST/16CCST	1
1B	45000001	Bronze Top Cap 16BST/16BBST	1
2	B6061	'O' Ring (Fitted in Item 1A/1B)	1
3A	45000003	Chrome Feeder Arm 16AST/16CST/16CCST	1
3B	45000004	Bronze Feeder Arm 16BST/ 16BBST	1
4	45000102	Collet	2
5	45000064	M5x30 S/S Posidriv Pan HD Screw	3
6A	45000005	Upper Crown (Grey) 16AST/16CST/16BST	1
6B	48016000	Bronze Upper Crown Assy 16BBST	1
6C	48016001	Chrome Upper Crown Assy 16CCST	1
7	45000008	Stripper Ring (Grey)	1
8A	45000009	Lower Crown (Grey) 16AST/16CST/16BST	1
8B	48016005	Bronze Lower Crown Assy 16BBST	1
8C	48016006	Chrome Lower Crown Assy 16CCST	1
9	1260/8	Pawl	5
10	1260/7	Pawl Spring	5
11	45000112	Spring	3
12	45000113	Spring Cup	3
13A	45000014	Drum Alloy 16AST	1
13B	45000016	Drum Bronze 16BST/16BBST	1
13C	45000015	Drum Chrome 16CST/16CCST	1
14	15008007	Roller Bearing Assy	2
15	15000466	Drum Washer	1
16	45000018	Main Spindle	1
17	48016017	Centre Stem	1
18	45000023	Gear Spindle	1
19	45000033	Gear Spindle Sleeve	1
20	15000827	Idler Gear	1
21	15000464	Ratchet Gear	1
22	15000461	Gear Retainer	1

### NOTE:

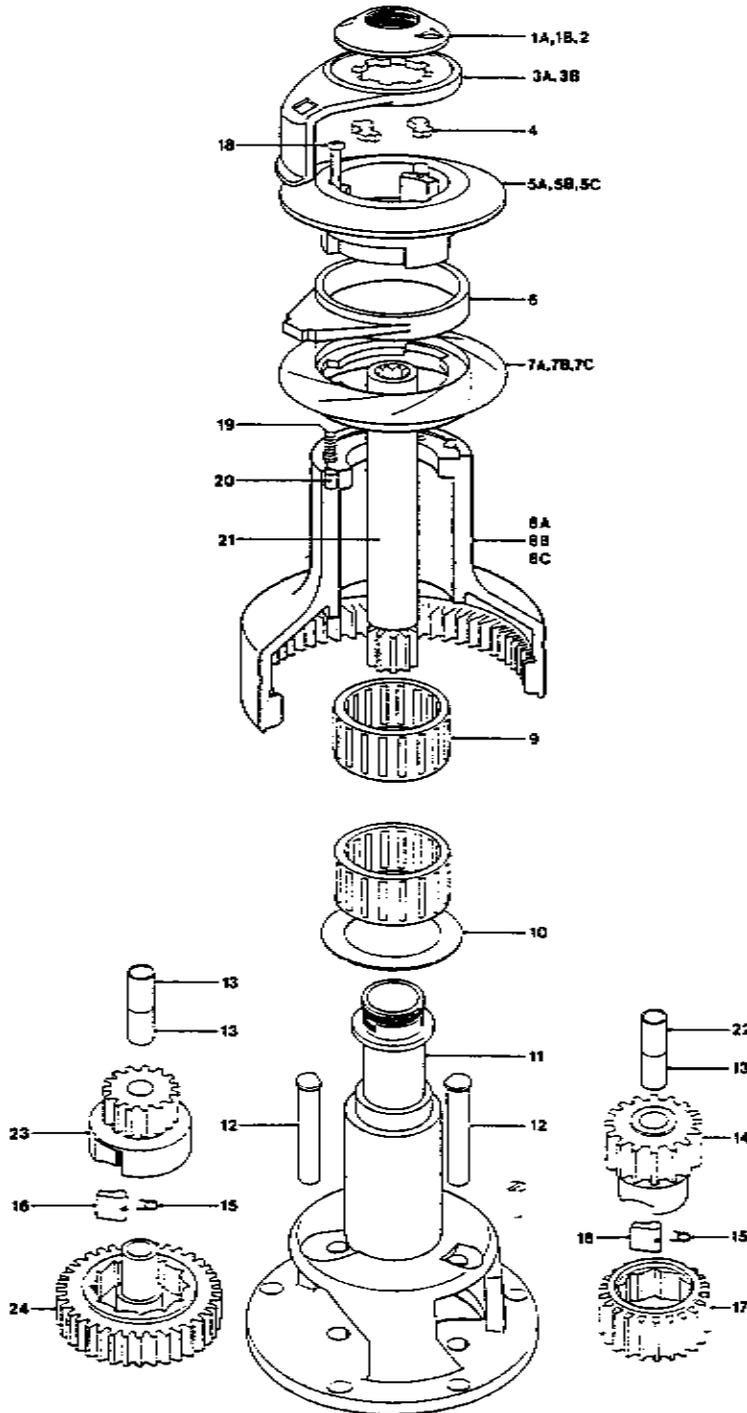
Conversion Kit for All Bronze and All Chrome winch:

6B + 8B = 48016022

6C + 8C = 48016023

6B/6C/8B/8C are assembled components **NOT** available separated.

# No. 30ST



## No 30 - 2 SPEED SELF TAILING WINCH

ITEM No	PART No	DESCRIPTION	No Off
1A	45000100	Chrome Top Cap 30AST/30CST/30CCST	1
1B	45000101	Bronze Top Cap 30BST/30BBST	1
2	B6061	O' Ring (Fitted in Item 1A/1B)	1
3A	45000103	Chrome Feeder Arm 30AST/30CST/30CCST	1
3B	45000104	Bronze Feeder Arm 30BST/30BBST	1
4	45000102	Collet	2
5A	45000105	Upper Crown (Grey) 30AST/30BST/30CST	1
5B	48030000	Bronze Upper Crown Assy 30BBST	1
5C	48030001	Chrome Upper Crown Assy 30CCST	1
6	45000108	Stripper Ring (Grey)	1
7A	45000109	Lower Crown (Grey) 30AST/30BBST/30CST	1
7B	48030005	Bronze Lower Crown Assy 30BBST	1
7C	48030006	Chrome Lower Crown Assy 30CCST	1
8A	45000114	Alloy Drum 30AST	1
8B	45000116	Bronze Drum 30BST/30BBST	1
8C	45000115	Chrome Drum 30CST/30CCST	1
9	15008007	Roller Bearing Assy	2
10	15000466	Drum Washer	1
11	48030017	Centre Stem	1
12	45000123	Gear Spindle	1
13	45000029	Gear Spindle Sleeve	3
14	45000119	Pawl Gear	1
15	1260/7	Pawl Spring	4
16	1260/8	Pawl	4
17	45000120	Ratchet Gear	1
18	B0326	M5x30 S/S Posidriv Pan HD Screw	3
19	45000112	Spring	6
20	45000113	Spring Cup	6
21	45000118	Main Spindle	1
22	15000378	Gear Spindle Sleeve	1
23	45000121	Pawl Gear	1
24	45000122	Ratchet Gear	1

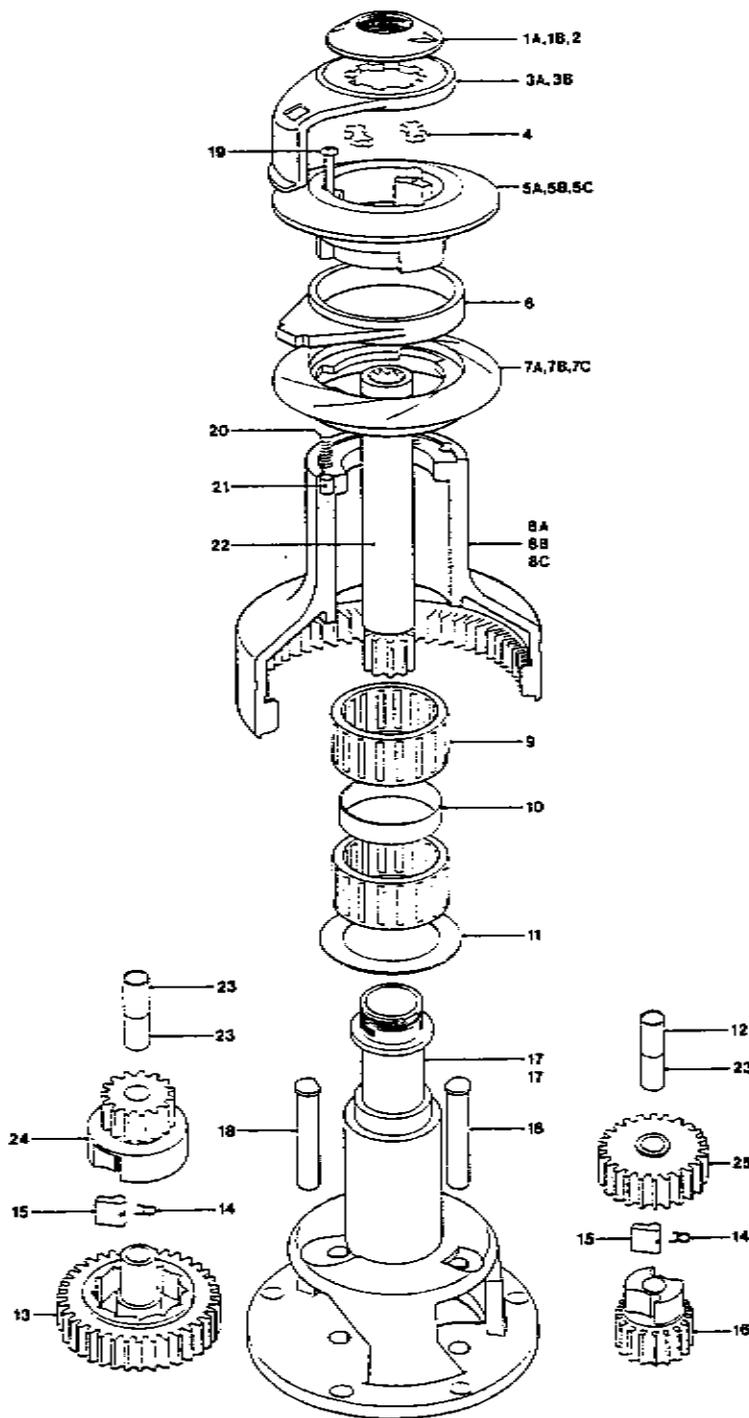
**NOTE:**  
Conversion Kit for All Bronze and All Chrome winch:

5B + 7B = 48030022

5C + 7C = 48030023

5B/5C/7B/7C are assembled components **NOT** available separated.

# No. 40ST



## No 40 - 2 SPEED SELF TAILING WINCH

ITEM No	PART No	DESCRIPTION	No Off
1A	45000100	Chrome Top Cap 40AST/40CST/40CCST	1
1B	45000101	Bronze Top Cap 40BST/40BBST	1
2	B6061	'O' Ring (Fitted in Item 1A/1B)	1
3A	45000203	Chrome Feeder Arm 40AST/40CST/40CCST	1
3B	45000204	Bronze Feeder Arm 40BST/40BBST	1
4	45000102	Collet	2
5A	45000105	Upper Crown (Grey) 40AST/ 40BST/40CST	1
5B	48030000	Bronze Upper Crown Assy 40BBST	1
5C	48030001	Chrome Upper Crown Assy 40CCST	1
6	45000108	Stripper Ring (Grey)	1
7A	45000109	Lower Crown (Grey) 40AST/ 40BST/40CST	1
7B	48030005	Bronze Lower Crown Assy 40BBST	1
7C	48030006	Chrome Lower Crown Assy 40CCST	1
8A	45000214	Alloy Drum 40AST	1
8B	45000216	Bronze Drum 40BST/40BBST	1
8C	45000215	Chrome Drum 40CST/40CCST	1
9	15008007	Roller Bearing Assy	2
10	15000491	Bearing Spacer	1
11	15000466	Drum Washer	1
12	15000378	Gear Spindle Sleeve	1
13	45000220	Ratchet Gear	1
14	1260/7	Pawl Spring	4
15	1260/8	Pawl	4
16	45000221	Pawl Gear	1
17	48040017	Centre Stem	1
18	45000123	Gear Spindle	2
19	80337	M5x35 S/S Posidriv Pan HD Screw	3
20	45000112	Spring	6
21	45000113	Spring Cup	6
22	45000218	Main Spindle	1
23	45000029	Gear Spindle Sleeve	3
24	45000119	Pawl Gear	1
25	45000222	Ratchet Gear	1

### NOTE:

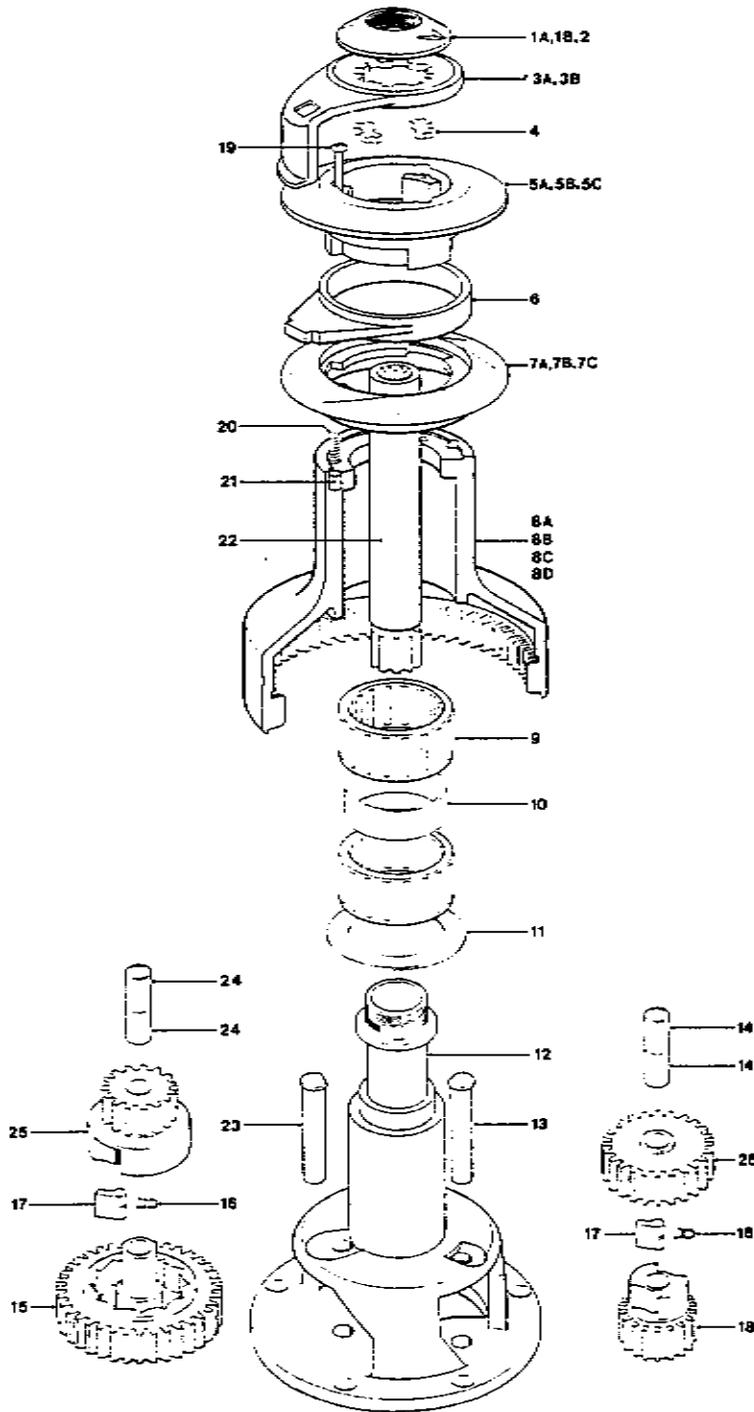
Conversion Kit for All Bronze and All Chrome winch:

5B + 7B = 48030022

5C + 7C = 48030023

5B/5C/7B/7C are assembled components NOT available separated.

# No. 44ST



## No 44 - 2 SPEED SELF TAILING WINCH

ITEM No	PART No	DESCRIPTION	No Off
1A	45000100	Chrome Top Cap 44AST/44CST/44CCST	1
1B	45000101	Bronze Top Cap 44BST	1
2	86061	O' Ring (Fitted in Item 1A/1B)	1
3A	45000303	Chrome Feeder Arm 44AST/44CST/44CCST	1
3B	45000304	Bronze Feeder Arm 44BBST	1
4	45000102	Collet	2
5A	45000305	Upper Crown (Grey) 44AST/44BST/44CST	1
5B	48044000	Bronze Upper Crown Assy 44BBST	1
5C	48044001	Chrome Upper Crown Assy 44CCST	1
6	45000308	Stripper Ring (Grey)	1
7A	45000309	Lower Crown (Grey) 44AST/44BST/44CST	1
7B	48044005	Bronze Lower Crown Assy 44BBST	1
7C	48044006	Chrome Lower Crown Assy 44CCST	1
8A	45000314	Drum Alloy 44AST	1
8B	45000316	Drum Bronze 44BST/44BBST	1
8C	45000315	Drum Chrome 44CST/44CCST	1
8D	TBA	Drum Stainless Steel	1
9	15010007	Roller Bearing Assy	2
10	15000404	Spacer	1
11	15044116	Drum Washer	1
12	48044017	Centre Stem	1
13	45000324	Gear Spindle	1
14	15000398	Gear Spindle Sleeve	2
15	45000320	Ratchet Gear	1
16	1260/7	Pawl Spring	4
17	1260/8	Pawl	4
18	15000397	Pawl Gear	1
19	B0327	M5x40 S/S Positiv Pan HD Screw	3
20	45000112	Spring	6
21	45000113	Spring Cup	6
22	45000318	Main Spindle	1
23	45000323	Gear Spindle	1
24	45000029	Gear Spindle Sleeve	2
25	45000319	Pawl Gear	1
26	45000322	Ratchet Gear	1

### NOTE:

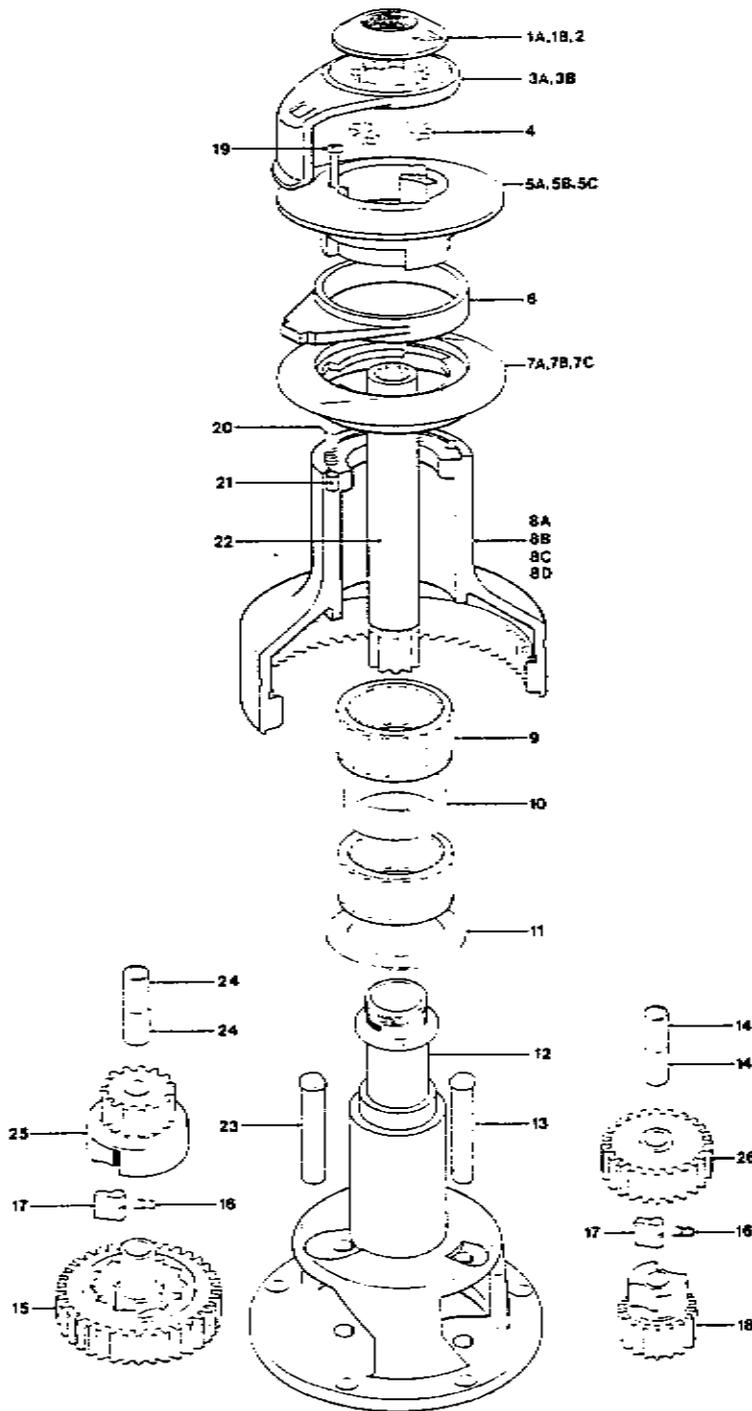
Conversion Kit for All Bronze and All Chrome winch:-

5B + 7B = 48044022

5C + 7C = 48044023

5B/5C/7B/7C are assembled components **NOT** available separated.

# No. 48ST



## No 48 - 2 SPEED SELF TAILING WINCH

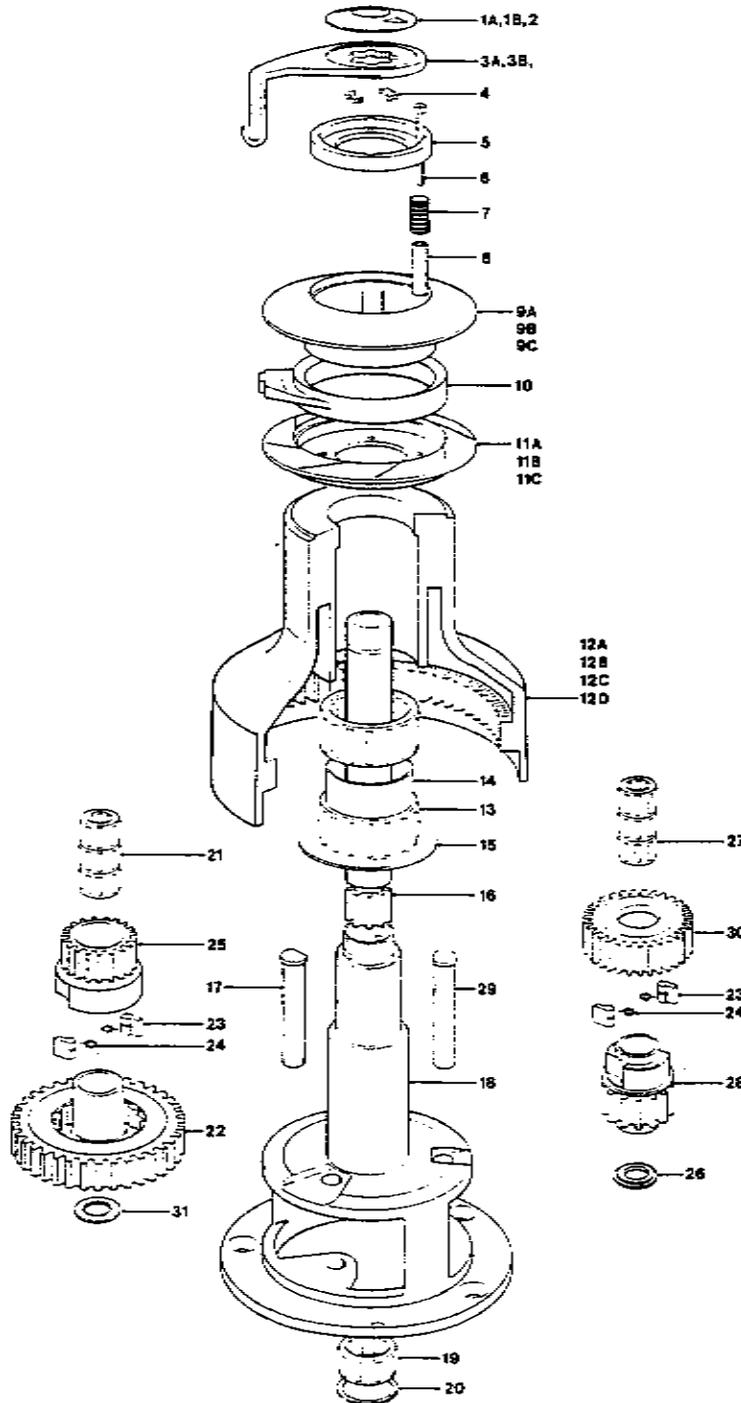
ITEM No	PART No	DESCRIPTION	No Off
1A	45000100	Chrome Top Cap 48AST/48CST/48CCST	1
1B	45000101	Bronze Top Cap 48BST/48BBST	1
2	86061	'O' Ring (Fitted in item 1A/1B)	1
3A	45000403	Chrome Feeder Arm 48AST/48CST/48CCST	1
3B	45000404	Bronze Feeder Arm 48BST/48BBST	1
4	45000102	Collet	2
5A	45000405	Upper Crown (Grey) 48AST/48BST/48CST	1
5B	48048000	Bronze Upper Crown Assy 48BBST	1
5C	48048001	Chrome Upper Crown Assy 48CCST	1
6	45000408	Stripper Ring (Grey)	1
7A	45000409	Lower Crown (Grey) 48AST/48BST/48CST	1
7B	48048005	Bronze Lower Crown Assy 48BBST	1
7C	48048006	Chrome Lower Crown Assy 48CCST	1
8A	45000414	Drum Alloy 48AST	1
8B	45000416	Drum Bronze 48BST/48BBST	1
8C	45000415	Drum Chrome 48CST/48CCST	1
8D	TBA	Drum Stainless Steel	1
9	15044121	Roller Bearing Assy	2
10	15000404	Spacer	1
11	15044116	Drum Washer	1
12	48048017	Centre Stem	1
13	45000424	Gear Spindle	1
14	15000398	Gear Spindle Sleeve	2
15	45000420	Ratchet Gear	1
16	1260/7	Pawl Spring	4
17	1260/8	Pawl	4
18	15000397	Pawl Gear	1
19	B0327	M5x40 S/S Posidriv Pan HD Screw	3
20	45000112	Spring	6
21	45000113	Spring Cup	6
22	45000418	Main Spindle	1
23	45000423	Gear Spindle	1
24	45000029	Gear Spindle Sleeve	2
25	45000419	Pawl Gear	1
26	45000422	Ratchet Gear	1

**NOTE:**  
Conversion Kit for All Bronze and All Chrome winch:

5B + 7B = 48048022  
5C + 7C = 48048023

5B/5C/7B/7C are assembled components NOT available separated.

# No. 50ST



## No 50 - 2 SPEED SELF TAILING WINCH

ITEM No	PART No	DESCRIPTION	No Off
1A	45000100	Chrome Top Cap 50AST/ 50CST/50CCST	1
1B	45000101	Bronze Top Cap 50BST/50BBST	1
2	B6061	'O' Ring (Fitted in Item 1A/1B)	1
3A	45000503	Chrome Feeder Arm 50AST/50CST/50CCST	1
3B	45000504	Bronze Feeder Arm 50BST/ 50BBST	1
4	45000102	Collet	2
5	45000525	Spring Retainer	1
6	B0746	M6x50 Slit Hd Cap Screw	4
7	45000512	Spring	4
8	45000513	Spacer	4
9A	45000505	Upper Crown (Grey) 50AST/50BST/50CST	1
9B	48050000	Bronze Upper Crown Assy 50BBST	1
9C	48050001	Chrome Upper Crown Assy 50CCST	1
10	45000508	Stripper Ring (Grey)	1
11A	45000509	Lower Crown (Grey) 50AST/50BST/50CST	1
11B	48050005	Bronze Lower Crown Assy 50BBST	1
11C	48050006	Chrome Lower Crown Assy 50CCST	1
12A	45000514	Drum Alloy 50AST	1
12B	45000516	Drum Bronze 50BST/50BBST	1
12C	45000515	Drum Chrome 50CST/50CCST	1
12D	TBA	Drum Stainless Steel 50SST	1
13	15044121	Roller Bearing Assy	2
14	15042012	Bearing Spacer	1
15	45000534	Drum Washer	1
16	45000518	Main Spindle	1
17	45000523	Gear Spindle	1
18	45000517	Centre Stem	1
19	15000019	Roller Bearing Assy (Fitted in item 18)	1
20	B2092	Circclip (Fitted in Item 18)	1
21	1300/SA2	Roller Bearing Assy	3
22	45000520	Ratchet Gear	1
23	1264/8	Pawl	4
24	1260/7	Pawl Spring	4
25	45000519	Pawl Gear	1
26	15000646	Flanged Washer	1
27	15000017	Roller Bearing Assy	3
28	45000521	Pawl Gear	1
29	45000524	Gear Spindle	1
30	45000522	Ratchet Gear	1
31	15000981	Washer	1

### NOTE:

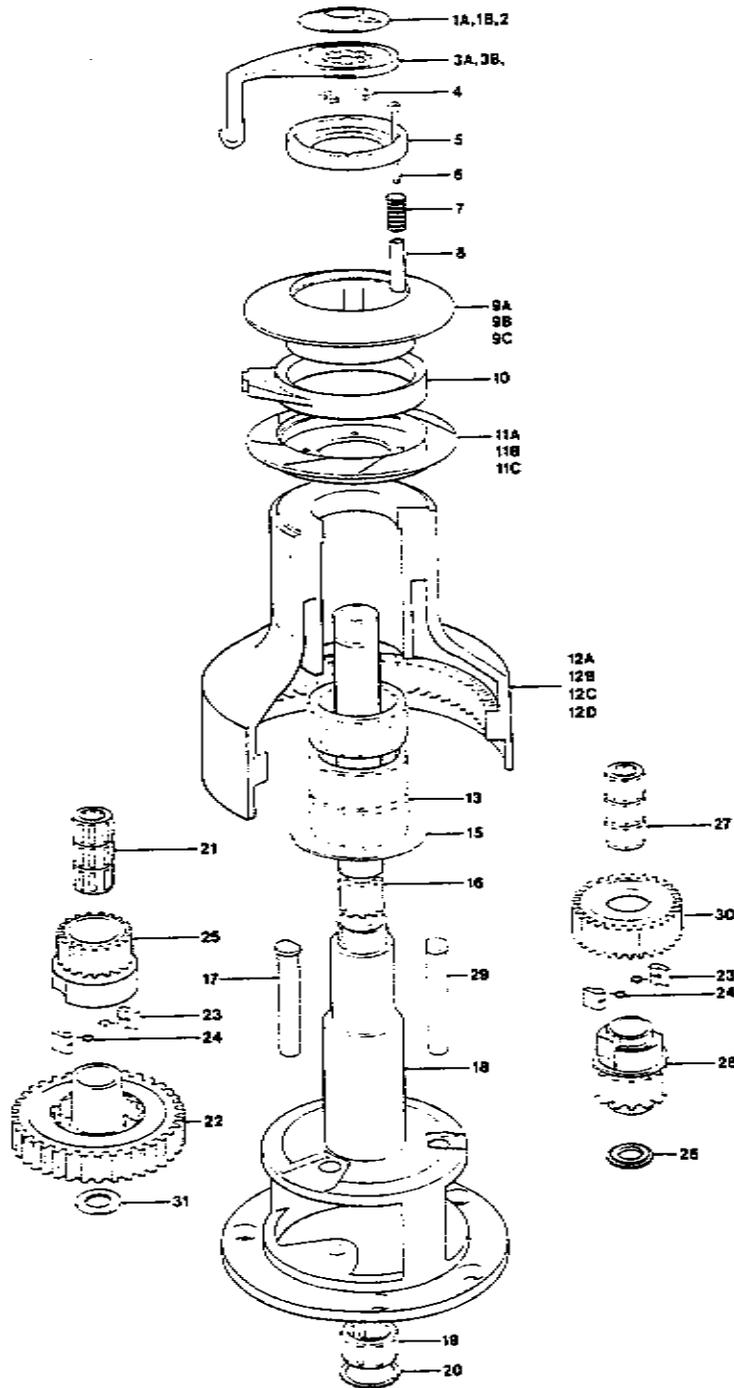
Conversion Kit for All Bronze and All Chrome winch-

9B + 11B = 48050022

9C + 11C = 48050023

9B/9C/11B/11C are assembled components **NOT** available separated.

# No. 54ST



## No 54 - 2 SPEED SELF TAILING WINCH

ITEM No	PART No	DESCRIPTION	No Off
1A	45000100	Chromed Top Cap 54AST/54CST/54CCST	1
1B	45000101	Bronze Top Cap 54BST/54BBST	1
2	B6061	'O' Ring (Fitted In Item 1A/1B)	1
3A	45000603	Chrome Feeder Arm 54AST/54CST/54CCST	1
3B	45000604	Bronze Feeder Arm 54BST/54BBST	1
4	45000102	Collet	2
5	45000525	Spring Retainer	1
6	B0746	M6x50 Skt HD Cap Screw	4
7	45000512	Spring	4
8	45000513	Spacer	4
9A	45000505	Upper Crown (Grey) 54AST/54BST/54CST	1
9B	48054000	Bronze Upper Crown Assy 54BBST	1
9C	48054001	Chrome Upper Crown Assy 54CCST	1
10	45000508	Stripper Ring (Grey)	1
11A	45000509	Lower Crown (Grey) 54AST/ 54BST/54CST	1
11B	48054005	Bronze Lower Crown Assy 54BBST	1
11C	48054006	Chrome Lower Crown Assy 54CCST	1
12A	45000614	Drum Alloy 54AST	1
12B	45000616	Drum Bronze 54BST/54BBST	1
12C	45000615	Chrome Drum 54CST/54CCST	1
12D	TBA	Drum Stainless Steel 54SST	1
13	15044121	Roller Bearing Assy	3
14	-	-	-
15	45000534	Drum Washer	1
16	45000618	Main Spindle	1
17	45000523	Gear Spindle	1
18	45000617	Centre Stem	1
19	15000019	Roller Bearing Assy (Fitted In Item 18)	1
20	B2092	Circlip (Fitted In Item 18)	1
21	1300/SA2	Roller Bearing Assy	3
22	45000520	Ratchet Gear	1
23	1264/8	Pawl	4
24	1260/7	Pawl Spring	4
25	45000519	Pawl Gear	1
26	45000646	Flanged Washer	1
27	15000017	Roller Bearing Assy	3
28	45000621	Pawl Gear	1
29	45000624	Gear Spindle	1
30	45000522	Ratchet Gear	1
31	15000981	Washer	1

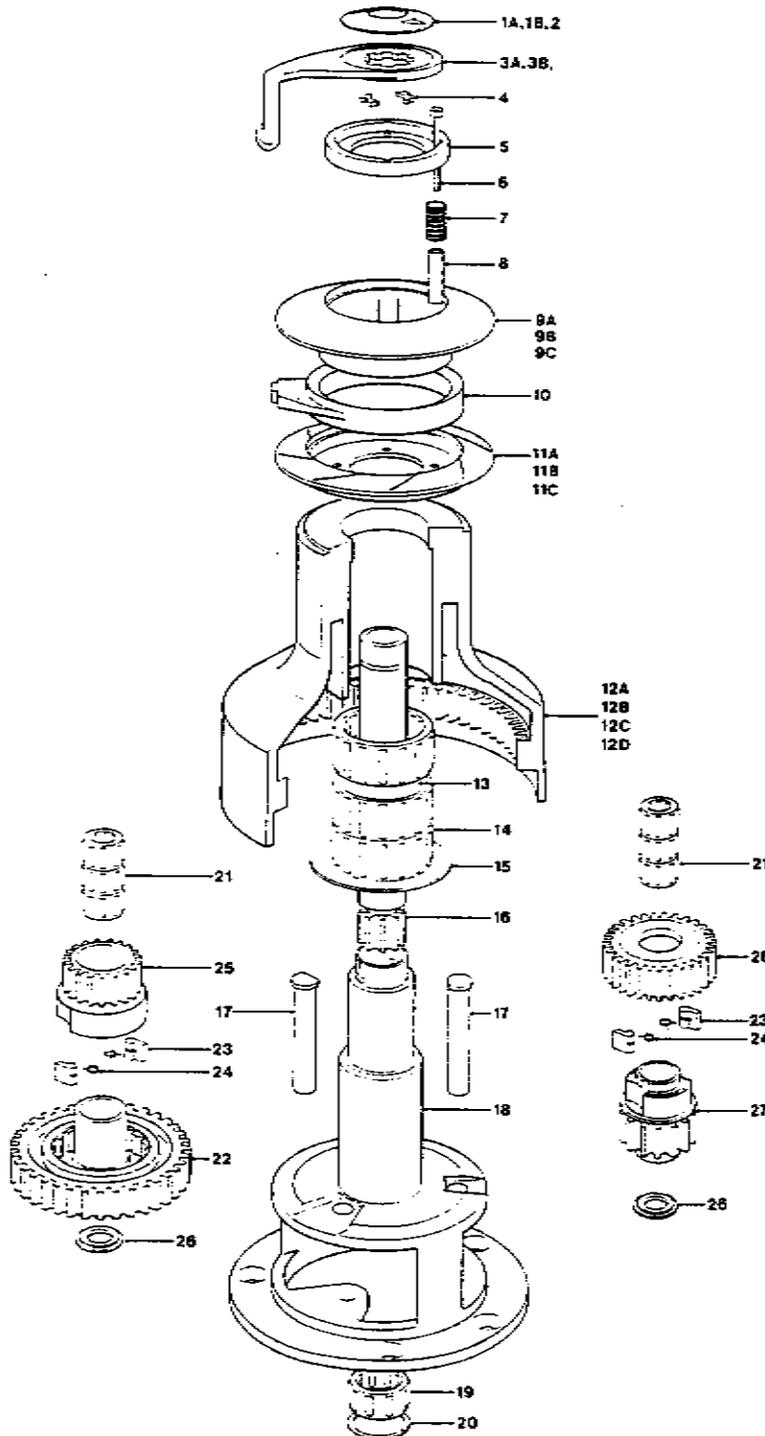
### NOTE:

Conversion Kit for All Bronze and All Chrome winch:-

9B + 11B = 48050022  
9C + 11C = 48050023

9B/9C/11B/11C are assembled components **NOT** available separated.

# No. 58ST



## No 58 - 2 SPEED SELF TAILING WINCH

ITEM No	PART No	DESCRIPTION	No OFF
1A	45000700	Chromed Top Cap 58AST/58CST/58CCST	1
1B	45000701	Bronze Top Cap 58BST/58BBST	1
2	B6061	'O' Ring (Fitted in Item 1A/1B)	1
3A	45000703	Chrome Feeder Arm 58AST/58CST/58CCST	1
3B	45000704	Bronze Feeder Arm 58BST/ 58BBST	1
4	45000102	Collet	2
5	45000725	Spring Retainer	1
6	B0756	M6x55 Slt HD Cap Screw	4
7	45000512	Spring	4
8	45000713	Spacer	4
9A	45000705	Upper Crown (Grey) 58AST/58BST/58CST	1
9B	48058000	Bronze Upper Crown Assy 58BBST	1
9C	48058001	Chrome Upper Crown Assy 58CCST	1
10	45000708	Stripper Ring (Grey)	1
11A	45000709	Lower Crown (Grey) 58AST/58BST/58CST	1
11B	48058005	Bronze Lower Crown Assy 58BBST	1
11C	48058006	Chrome Lower Crown Assy 58CCST	1
12A	45000714	Drum Alloy 58AST	1
12B	45000716	Drum Bronze 58BST/58BBST	1
12C	45000715	Drum Chrome 58CST/58CCST	1
12D	TBA	Drum Stainless Steel	1
13	15065115	Spacer	1
14	15044121	Roller Bearing Assy	3
15	45000534	Drum Washer	1
16	45000718	Main Spindle	1
17	45000624	Gear Spindle	2
18	45000717	Centre Stem	1
19	15000019	Roller Bearing Assy (Fitted in Item 18)	1
20	B2092	Circlip (Fitted in Item 18)	1
21	15000017	Roller Bearing Assy	6
22	45000720	Ratchet Gear	1
23	1264/8	Pawl	4
24	1260/7	Pawl	4
25	45000719	Pawl Gear	1
26	15000646	Flanged Washer	2
27	45000721	Pawl Gear	1
28	45000722	Ratchet Gear	1

### NOTE:

Conversion Kit for All Bronze and All Chrome winch:-

9B + 11B = 48058022

9C + 11C = 48058023

9B/9C/11B/11C are assembled components **NOT** available separated.