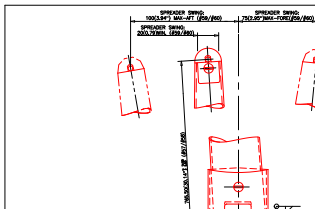

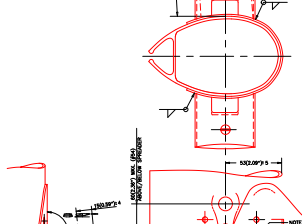

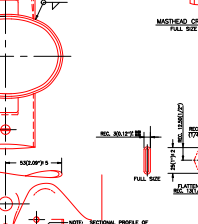

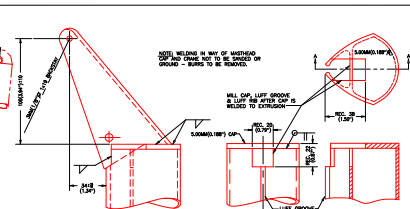

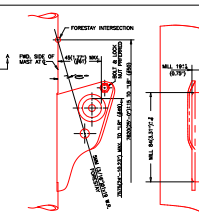

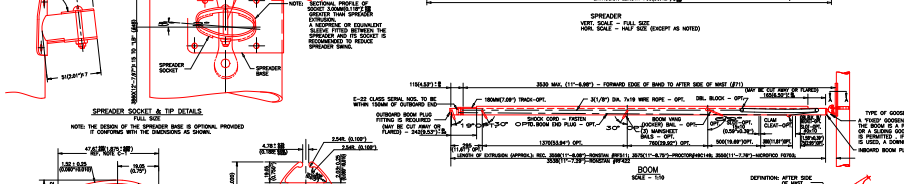

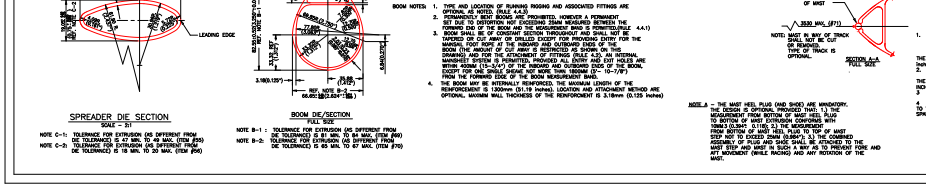

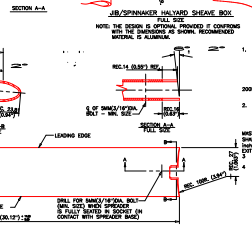

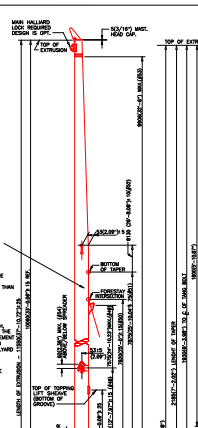

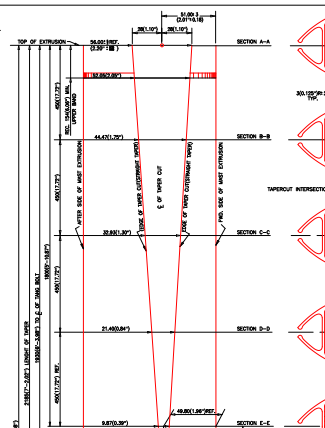

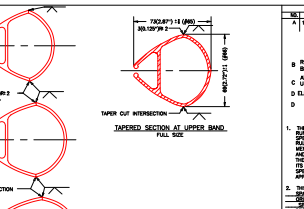

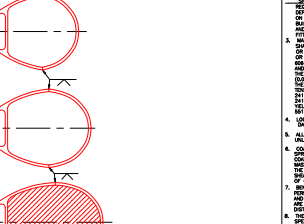

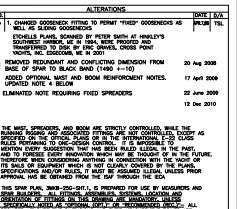

ALTERATIONS

NO.		DATE	BY
A	1. CHANGED GOOSENECK FITTING TO PERMIT "FIXED" GOOSENECKS AS WELL AS SLIDING GOOSENECKS 2. ETCHELLS PLANS, SCANNED BY PETER SMITH AT HINKLEY'S SOUTHWEST HARBOR, ME IN 1994, WERE PROVIDED AND TRANSFERRED TO DGN BY ERIC BRAWLEY, CROSS POINT YACHTS, INC. EDGECOMB, ME IN 2001		TSL
B	REMOVED REDUNDANT AND CONFLICTING DIMENSION FROM SIDE OF SPAR TO BLACK BAND (1490 +/–10)	20 Aug 2008	
C	ADDED OPTIONAL MAST AND BOOM REINFORCEMENT NOTES. UPDATED NOTE 4 BELOW	17 April 2009	
D	ELIMINATED NOTE REQUIRING FIXED SPREADERS	22 June 2009	
D		12 Dec 2010	

1. THE MAST, SPREADERS, AND BOOM ARE STRICTLY CONTROLLED, WHILE THE RUNNING RIGGING AND ASSOCIATED FITTINGS ARE NOT CONTROLLED, EXCEPT AS NOTED IN RULE 4.3. THE INTENT OF THE CLASS RULES, AS STATED IN THE RULES PERTAINING TO ONE-DESIGN CLASSES, IS TO LIMIT, AS MUCH AS WE CAN MENTION EVERY SUGGESTION THAT HAS BEEN RULED ILLEGAL IN THE PAST, AND TO FORESEE EVERY INNOVATION WHICH MAY BE THOUGHT OF IN THE FUTURE. THEREFORE WHEN CONSIDERING ANYTHING IN CONNECTION WITH THE YACHT OR ITS EQUIPMENT, IF IT IS NOT SPECIFICALLY MENTIONED IN THE RULES OR SPECIFICATIONS AND/OR RULED, IT MUST BE CONSIDERED ILLEGAL UNLESS PRIOR APPROVAL HAS BE OBTAINED FROM THE IDA THROUGH THE EEA
2. THIS SPAR PLAN, 3908-250–SW1, IS PREPARED FOR USE BY DESIGNERS AND BUILDERS WHO WISH TO CONSTRUCT A SPAR WHICH CONFORMS TO THE CLASS RULES. DIMENSIONS AND TOLERANCES ARE CONSIDERED TO BE MANDATORY UNLESS SPECIFICALLY NOTED AS "OPTIONAL (OPT.)" OR "RECOMMENDED (REC.)". ALL REQUIRED MEASUREMENT DIMENSIONS AND THEIR ASSOCIATED TOLERANCES ARE PLOTTED AND DEPICTED. NUMBERS ENCLOSED IN BRACKETS, i.e. [#440], REFER TO ITEM NUMBERS IN THE INTERNATIONAL E-23 CLASS MEASUREMENT FORM, 1974. BUILDERS ARE REFERRED TO THE "3908-SW2-3 SPAR PLAN–WOOD DETAILS" AND "3908–250–SW1-2 SPAR PLAN–BOOM DETAILS" FOR DETAIL INFORMATION ON FITTINGS AND ASSEMBLY.
3. MATERIAL: THE MATERIAL FOR MAST, BOOM, AND SPREADERS AND THEIR WELDMENTS SHALL BE AS SPECIFIED IN THE CLASS RULES, EXCEPT AS NOTED IN RULE 4.3. OPTIONAL AND EXOTIC MATERIALS SHALL BE INCLUDED IN THE BODY OF, OR ATTACHED TO, OR USED WITH THE SPARS. THE NOMINAL COMPOSITION OF BRIGHT SS SLOTS SHALL CURE SILICON, 1% MAGNESIUM, 0.5% CHROMIUM, AND ALUMINUM AND NORMAL IMPURITIES CONSTITUTE THE REMAINDER. THE MINIMUM MECHANICAL PROPERTIES OF EXTRUDED 6061-T6 ARE: ULTIMATE TENSILE STRENGTH – 310 N/mm² (45 KSI) YIELD STRENGTH – 276 N/mm² (40 KSI) ELONGATION – 8% MINIMUM MECHANICAL PROPERTIES OF EXTRUDED 6061-T6 ARE: ULTIMATE TENSILE STRENGTH – 240,000 KN/M (35 KIPS/IN) YIELD TENSILE STRENGTH – 241,320 KN/M (35 KIPS/IN) ELONGATION – 8% YIELD COMPRESSIVE STRENGTH – 241,320 KN/M (35 KIPS/IN) SHEAR STRENGTH – 165,480 KN/M (24 KIPS/IN) BEARING STRENGTH – 413,700 KN/M (60 KIPS/IN) YIELD BEARING STRENGTH – 551,600 KN/M (80 KIPS/IN) YIELD BEARING STRENGTH – 386,100 KN/M (56 KIPS/IN).
4. LOCAL REINFORCEMENT OF THE MAST AND BOOM IS PERMITTED AS NOTED. DAMAGED SPARS MAY BE REPAIRED AS SPECIFIED BY OD RULE 4.2
5. ALL WELDS ARE CONTINUOUS AND OF USER'S STANDARD PROPORTIONS, UNLESS OTHERWISE NOTED.
6. COATINGS: A PROTECTIVE COATING IS TO BE APPLIED TO THE MAST, BOOM, AND SPREADERS. ANODIZING, OR APPLICATION OF A PVC OR ELECTRO-STATIC COATING IS RECOMMENDED. A CLEAR OR ALUMINUM COLOR IS PREFERRED FOR THE MAST AND BOOM, AND A BLACK, CLEAR OR ALUMINUM COLOR IS PREFERRED FOR THE SPREADERS.
7. BEND SPARS: PERMANENTLY BENT MASTS ARE PROHIBITED, HOWEVER A PERMANENT SET DUE TO DISTORTION NOT EXCEEDING 6MM MEASURED BETWEEN THE FORWARD END OF THE BOOM AND THE MEASUREMENT BAND IS PERMITTED(RULE 4.4.1) AND FOR THE ATTACHMENT OF FITTINGS (RULE 4.3). AN INTERNAL MAINSHEET SYSTEM IS PROHIBITED. PROVIDED ALL SHARP AND EDGE HOLES ARE REMOVED, THE BOOM MAY BE INTERNALLY REINFORCED. BOOM SHALL BE SOLID EXCEPT FOR END SHOULD SHEAVE NOT MORE THAN 1800MM (5'–10–7/8") FROM THE FORWARD EDGE OF THE BOOM MEASUREMENT BAND. FOR DETAILS OF MEASUREMENT PROCEDURE, SEE INTERNATIONAL E-23 CLASS MEASUREMENT FORM, 1974. EXAMPLE: (#440).
8. STANDING RIGGING: BOTH MAST TIP WEIGHT, AS DEFINED IN RULE 4.3.5, SHALL NOT BE LESS THAN 11.3KG (25 LBS.). THE RIGGED MAST TIP WEIGHT, AS DEFINED IN RULE 4.3.6, SHALL NOT BE LESS THAN 13KG (28.7LBS.)
9. STAINLESS STEEL OR BRONZE FITTINGS ATTACHED TO THE MAST OR BOOM SHALL BE INSULATED FROM THE ALUMINUM WITH SUITABLE MATERIAL. PAINT IS NOT CONSIDERED SUITABLE.
10. EXTERNAL SHROUD TANGS ARE REQUIRED. INTERNAL SHROUD ATTACHMENTS ARE PERMITTED.
11. AFTER MEASUREMENT AND CERTIFICATION OF CONFORMANCE OF THE MAST OR BOOM BY AN OFFICIAL E-23 MEASURER, THE MAST OR BOOM SHALL BE INSCRIBED WITH LYJEU AUTHORIZED SERIAL NUMBERS ISSUED BY THE NATIONAL CLASS ASSOCIATION) AND THE MEASURER'S INITIALS AT THE LOCATIONS AS SPECIFIED IN THE MEASUREMENT FORM. SERIAL NUMBERS SHALL BE 10MM HIGH. THE MAST OR BOOM MEASUREMENT BANDS SHALL BE PERMANENTLY IDENTIFIED BY MEANS OF PUNCH MARKS IN THE MEASUREMENT ENDS OF THE BAND BY THE MEASURER'S SUPERVISOR.
12. SPINNAKER BOOM: THE DESIGN, MATERIAL AND METHOD OF CONSTRUCTION OF THE SPINNAKER BOOM ARE OPTIONAL, EXCEPT NO EXOTIC MATERIALS MAY BE USED. THE LENGTH SHALL BE 3530MM (11'–6.99") MAX. FOR DIMENSIONAL PURPOSES, THE BOOM END IS 100MM (3.93") FROM THE FORWARD END OF THE BOOM.
13. SPINNAKER TRACK: SHALL BE FITTED AND FASTENED TO THE FORWARD SIDE OF THE MAST AS SHOWN. THE TRACK SHALL BE CUT OR FLARED OPEN TO ALLOW SHEAVE BOX. SPACING: 75MM (3").
14. SPINNAKER HALYARD EXIT SLOT: SHALL BE CUT OR FLARED OPEN TO ALLOW SHEAVE BOX. BOTTOM OF TRACK MAY BE CURVED DOWN TO THE CLEVIS'.

DESIGNER:
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CONTROLLING AUTHORITIES:
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NEW YORK, NY 10268 U.S.A.
AND
INTERNATIONAL YACHT RACING UNION
60 KNIGHTSBRIDGE
LONDON SW1 7LW ENGLAND

INTERNATION E-22 CLASS
DWG. NO. 3908-250-1

SPAR PLAN
SCALE 1:1, 1/5, 1/10, 2/1
DATE: JAN. 16, 1981 DRAWN/APPROVED: TSL/CSO SHEET 1 OF 3