

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Marine Safety Center
www.uscg.mil/hq/msc

400 7th Street, S.W.
Washington, DC 20590-0001
Staff Symbol: MSC-1
Phone: (202) 366-6481
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16710/P009861
Serial: H1-0400133
March 9, 2004

Needmore Adventures
Attn: Mr. Nick Williams
5013 Needmore Rd.
Bryson City, NC 28713

Subj: Smoky Mountain Jet Boat; O.N. Unknown
18.5' Small Passenger Vessel (T)
Hull Bottom Structure

Ref: (a) "Smoky Mountain Jet Boat Structural Design Standards," Survey Nelson, dated 1/21/04
(b) "Addendum", attachment to Survey Nelson email of 2/22/04
(c) New Aluminum Marine Alloy Specification Developed (ASTM B 928 "High Magnesium Aluminum-Alloy Sheet & Plate for Marine Service"), by Michael Skillingberg and Marc Cruder

Dear Sir:

We reviewed and marked "Approved" the vessel's enclosed structural plan submitted with your e-mail of November 24, 2004. The installation, workmanship, and testing shall be to the satisfaction of the cognizant Officer-in-Charge, Marine Inspection (OCMI). The vessel's structural calculations, references (a) and (b), are marked "Examined." Supporting calculations such as these are not normally approved; however, we used the information to evaluate the vessel's compliance with Det Norske Veritas Rules for the Classification of High Speed and Light Craft. We consider a vessel designed and built to these Rules as sufficient evidence that the vessel's bottom structure has adequate safety and strength in accordance with Title 46 CFR 177.340, *Alternate Design Considerations*. As with all calculations, the responsibility for their accuracy rests with the submitter. The following comments apply:

1. Per our discussions with the OCMI, our review was limited to the bottom plate thickness and stiffener arrangement.
2. Our approval of the vessel's bottom structure is based on the vessel having a displacement not greater than 6,600 pounds and compliance with the following design restrictions regarding wave height and vessel speed:

Significant Wave Height (feet)	Maximum Speed (knots)
3.28	5
0.65	20
0	30
0	40
0	50

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Failure to load and operate the vessel in accordance with this operational envelope may result in excessive hull stresses not contemplated by our approval. Accordingly, these limitations will be specified on the Certificate of Inspection (COI) issued by the OCMI.

3. Hull plating and structural members are to be constructed of 5083 H321 aluminum or a marine grade of equivalent strength and resistance to corrosion. We strongly recommend that the aluminum be manufactured to ASTM B-928 vice B-209. There have been a number of vessels constructed with 5083 H321 aluminum to the B-209 standard which have suffered severe exfoliation. The ASTM B-928 standard incorporates additional material testing used to predict the material's susceptibility to exfoliation. For more information, please see reference (c), which we e-mailed to you on March 5, 2004. Please resolve this issue to the satisfaction of the OCMI.

4. The use of 5052 grade aluminum is to be restricted to non-structural items and the 10-mm-thick center section of the bottom plate. In addition, 5052 aluminum must be either H32 or H34 temper.

As you submitted only one copy of the references, none are available to return to you. Should you need, or the OCMI require, stamped copies of these references, please forward copies to our office.

Please refer to the MSC project number P009861 in future correspondence regarding the certification of this vessel. Use of this number will greatly facilitate the ease and accuracy with which we process your submittals.

Should there be any questions please feel free to contact the project officer, Lieutenant Tim Connors, at (202) 366-6505, or at the above number.

Sincerely,



A. D. WIEST
Lieutenant Commander, U.S. Coast Guard
Chief, Small Vessel Branch
By direction

Encl: Structure drawing, plan, profile, and section, undated

Copy: Commanding Officer, Coast Guard Marine Safety Office Wilmington

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Marine Safety Center
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400 7th Street, S.W.
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16710/P009861/emg
Serial: E2-0400742
April 1, 2004

Mr. Nick Williams
Needmore Adventure
5013 Needmore Road
Bryson City, NC 28713

Subj: Smoky Mountain Jet Boat
18' Small Passenger Vessel (T)
Electrical One-Line

Ref: (a) Your electronic mail dated March 22, 2004
(b) MSC Letter Serial No. E2-400150 of January 21, 2004
Smoky Mountain Jet Boats LLC Dwg.:
(c) CE001SM, Battery Wiring; Date: 24/02/2004
(d) CE002SM, Engine Wiring; Date: 2/03/2004
(e) CE003SM, Ship Wiring; Date: 03/03/2004
(f) CE004SM, Bilge Pumps/Alarm; Date: 27/02/2004
(g) Cable Schedule; 2 Sheets
(h) Equipment Schedule

Dear Mr. Williams:

References (c) through (h), submitted with reference (a), are marked "**Approved**". Comments (1) through (7) of reference (b) are resolved. The installation, workmanship, and testing shall be to the satisfaction of the Officer in Charge, Marine Inspection, Wilmington.

If you have any questions concerning this review please contact LT Errol Glenn at (202) 366-6459. As an agreed upon condition for your participation in the MSC Electronic Commerce Program, you must provide the OCMI with an identical paper copy of references (c) through (h). Your assistance and cooperation in this regard is appreciated.

We appreciate your continued effort in providing all future correspondence on this project with the USCG project file number P009861. Use of this file number will greatly facilitate the ease and accuracy with which we process your submittal.

Sincerely,

A handwritten signature in black ink, appearing to read "B. G. Bubbar", with a long horizontal flourish extending to the right.

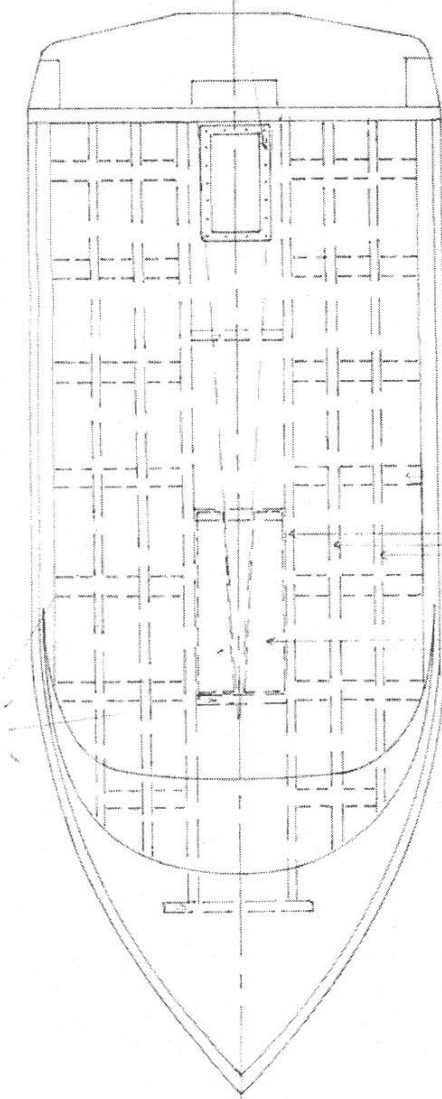
B. G. BUBAR
Commander, U.S. Coast Guard
Chief, Engineering Division
By direction

Copy: MSO Wilmington

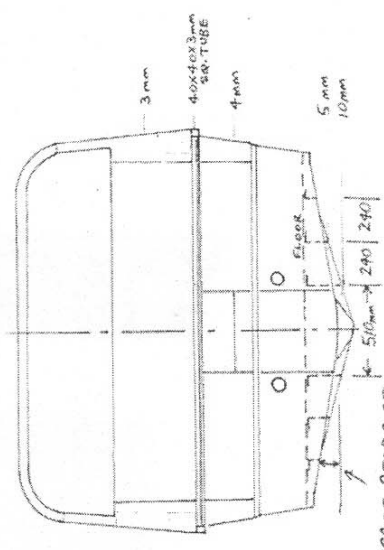
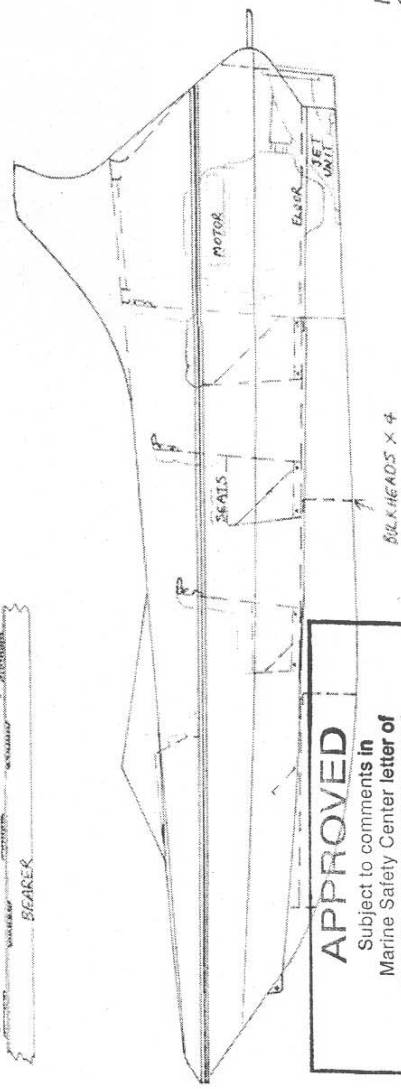
4 BULK HEADS: 5mm SECTION/60mm 90° RETURN/BULK HEADS FROM TRANSOM, 1200mm, 2209, 3300, 4520mm.

ALL ALUMINIUM IS MARINE GRADE: 5083 + 5052
 FLOOR: 3mm TREAD PLATE SCREWED TO BEARERS WITH SS. 5/16" C/S SCREWS.
 HULL: 10mm PLATE 600x2400mm OUT TO FIRST 2 BEARERS
 5mm FROM 10mm PLATE TO CHINE
 SIDES: 4mm PLATE | TOP SIDES: 3mm PLATE
 GUN WHALE LINE: 40x40x3 59. TUBE.
 JET BLOCK INTAKE: 50x20 SOLID SECTION WELDED TO 10mm PLATE HULL.
 3 ROWS OF FABRICATED ALUMINIUM SEATS (FULL WIDTH) EACH BOLTED WITH 4x7" BOLTS, TOP + 4x7" BOLTS BOTTOM. FUEL TANK: 3mm (5005 GRADE) WITH TWO BAFFLES TIG + MIG WELDED, PRESSURE TESTED @ 14 P.S.I. DASH + SEATS: 3mm PLATE.

TYPE, WIRE USED: 5356
 WELDERS: PULSE MIG + AC/DC TIG.
 TYPE, GAS USED: ARGON.



WELDS (e.g. BELOW) BEARER



Smoky Mountain Jet Boat

Bryson City NC

CONSTRUCTION DETAIL OF

APPROVED
 Subject to comments in Marine Safety Center letter of

MAR 9 2004
 CONSTRUCTION DETAIL OF

Ray A. Neal
 Commanding Officer
 USCG Marine Safety Center

SCALE: 2.5:1

U.S. Department of
Homeland Security

United States
Coast Guard



Commanding Officer
United States Coast Guard
Marine Safety Office

1502 23rd Street
Wilmington, NC 28405-1816
Staff Symbol: MST E-City
Phone: (910) 772-2200
Fax: (910) 772-2205

16711/2338639
15 April 2005

Mr. Nick Williams
Smoky Mountain Jet Boats
22 Needmore Road
Bryson City, NC 28713

Subj: M/V SMJ-2 O.N. NC0324WT; STABILITY LETTER
Partially Protected Waters

A simplified stability test as set forth in 46 C.F.R. 178.330 was conducted on the M/V SMJ-1, O.N. NC0326WT, in Lake Fontana, NC on April 15, 2005. SMJ-1 is a sister vessel of SMJ-2, O.N. NC0324WT. The test was supervised and witnessed by the U.S. Coast Guard. The results of this test indicate that the M/V SMJ-2, as presently outfitted and equipped, has satisfactory stability for the carriage of 13 total persons (passengers and crew) on partially protected waters under reasonable operating conditions, subject to the restrictions below:

1. A maximum of 13 persons may be carried on protected waters. IN NO CASE SHALL THE NUMBER OF PERSONS EXCEED THAT ALLOWED ON THE CERTIFICATE OF INSPECTION.
2. It shall be the master's responsibility to ensure the vessel has satisfactory stability at all times. The master shall make every effort to determine the cause of any list before taking corrective action.
3. Bulkheads and structure shall not be removed or altered without authorization and supervision of the cognizant Officer in Charge, Marine Inspection.
4. No permanent ballast or weights shall be added, removed, altered and/or relocated without authorization from the cognizant Officer in Charge, Marine Inspection.
5. Bilges shall be kept pumped to a minimum content at all times.
6. The superstructure/vessel hull shall not be altered without authorization from the Officer in Charge, Marine Inspection.
7. Passengers must be seated at all times.

This stability letter supercedes all previous letters and shall be posted under suitable transparent material in the pilothouse of the vessel and is valid only as long as the vessel has a current Certificate of Inspection.

Sincerely,

A handwritten signature in black ink, appearing to read "Jane M. Hartley".

JANE M. HARTLEY
Captain, U. S. Coast Guard
Officer in Charge, Marine Inspection

Subj: Smoky Mountain Jet Boat; O.N. Unknown; Hull Bottom Structure

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A. D. WIEST
Lieutenant Commander, U.S. Coast Guard
Chief, Small Vessel Branch
By direction

Encl: Structure drawing, plan, profile, and section, undated

Copy: Commanding Officer, Coast Guard Marine Safety Office Wilmington