



BOATING SAFETY CIRCULAR

INSIDE THIS ISSUE:

Notice of Violation	2
Recreational Boat Testing and Compliance Program	4
Verification of Hull Identification Numbers	5
Hull Reflective Stripe Can Save Lives	6
Carbon Monoxide Hazard Mitigation Revisited	7
Websites of Note	8
Recalls	9

Boating Safety Circular

The *Boating Safety Circular* is a product of the Recreational Boating Product Assurance Branch (CG-BSX-23), Office of Auxiliary and Boating Safety, United States Coast Guard. Commandant (BSX-23), 2703 Martin Luther King Jr Ave SE, Stop 7501 Washington, DC 20593-7501

The *Boating Safety Circular* is for information only. No Federal Statutes or Regulations are established or changed in this circular.

www.uscgboating.org

Texas Flats Boat Stability Study

In early 2013, the Coast Guard's Boating Safety Division began an evaluation of a unique recreational boat: the "Texas Flats" boat. We had received reports that there were instances in which this type of boat was involved in a number of "end swapping" accidents. An end swap occurs when a boat enters into a turn and loses its ability to maintain steering contact with the water and, in some cases, violently spins out.

What makes the "Texas Flats" boat unique is not only its outward appearance but its operating characteristics. First and foremost is that these boats are specifically designed for shallow water fishing. The majority of these boats are mostly flat-deck with little or no gunnels or railings and in general seating for two at the operating station (usually a leaning bench) and maybe a fixed seat on an ice-chest in front of the console. The hull can be modified "V" or flat; all generally will have a tunnel in the aft 1/3 of the hull. Their chines can range from hard to curved. Most are equipped with jack plates to assist in running in shallow water.

We contracted with a company that specializes in Forensic Engineering and Accident Reconstruction involving all manner of watercraft. Our tasking to this contractor was to perform analyses on two recreational boat hulls to determine their stability and operational characteristics. The Coast Guard provided two fully equipped "Texas Flats" boats for this work.

The contractor conducted a visual examination of each boat along with digital mapping. The hulls were weighed and

the center of gravity of each was determined. This step was necessary to understand how each hull would perform while underway. Each hull was rigged with a remote control system, high definition video recording systems, and a digital data acquisition system. There were 19 separate on-water tests performed on each hull providing a large amount of data to be analyzed. In short the results found:

1. Both hulls when operated at speeds of 25 MPH and greater in hard turns resulted in a spin or "swapped ends" event; a rider in the bow deck seat position could experience high g forces acting in opposite directions in a short time period. These forces would be consistent with passenger instability and/or ejection from the boat.
2. The potential for non-oscillatory dynamic instability (e.g., "swapping ends") increased when the longitudinal center of gravity was forward which can occur when one or two passengers or other weight are situated forward of the console.

The report recommended that this style of boat should have a warning label currently described in the American Boat & Yacht Council voluntary standard with wording such as: **SUDDEN TURNS ABOVE 25 MPH MAY CAUSE LOSS OF BOAT CONTROL, WHICH COULD RESULT IN SERIOUS INJURY OR DEATH. REDUCE SPEED BEFORE ATTEMPTING A SUDDEN SHARP TURN.** ■

Notice of Violation

The Coast Guard's Product Assurance Branch of the Boating Safety Division will begin using the agency's Notice of Violation (NOV) civil penalty process in the near future to address non-compliance issues discovered during recreational boat inspections performed at factories. The NOV is a ticket written by an inspecting active-duty uniformed member of the Coast Guard and is intended to be a streamlined process for addressing regulatory non-compliance issues in an expeditious manner.

What this means to the manufacturer is that, during the course of a Coast Guard compliance inspection, the inspector will have the ability to issue a "ticket" for each instance of non-compliance discovered. An example of such non-compliance would be a manufacturer building a boat that contains a hull identification number formatted in accordance with the regulations in 33 CFR 181.25 and the boat labeled for "commercial use only." This is prima facie evidence of a violation of 46 USC 4307 (a) (2) but it is a common practice by some manufacturers to avoid complying with the recreational boat regulations in 33 CFR PART 183 and yet selling the boat to uninformed consumers for recreational use. The amount of the ticket can vary from \$500 for the first instance of non-compliance to \$3,000 for the third. It should be noted here that each boat discovered in the condition cited in the example is its own separate infraction. The recipient of the NOV always has the opportunity to appeal the process.

Another example of where the Coast Guard will be using the NOV is when a manufacturer fails to comply with a Defect Notification recall requirement. This raises a serious safety concern that requires immediate action to be taken against the manufacturer. The NOV process in this instance will follow the above mentioned fine amounts; however, failing

to comply with a Defect Notification can ultimately lead to the Coast Guard pursuing criminal charges against the offender.

The use of the NOV is a new tool for Boating Safety to help us keep non-compliant boats out of the recreational market.

The law concerning prohibited acts for recreational boats is provided in its entirety below.

46 USC 4307 – Prohibited Acts

(a) A person may not—

(1) manufacture, construct, assemble, sell or offer for sale, introduce or deliver for introduction into interstate commerce, or import into the United States, a recreational vessel, associated equipment, or component of the vessel or equipment unless—

(A) (i) it conforms with this chapter or a regulation prescribed under this chapter; and (ii) it does not contain a defect which has been identified, in any communication to such person by the Secretary or the manufacturer of that vessel, equipment or component, as creating a substantial risk of personal injury to the public; or

(B) it is intended only for export and is so labeled, tagged, or marked on the recreational vessel or equipment, including any markings on the outside of the container in which it is to be exported;

(2) affix, attach, or display a seal, document, label, plate, insignia, or other device indicating or suggesting compli-

“The NOV is a ticket written by an inspecting active-duty uniformed member of the Coast Guard”

Continued from page 2



UNITED STATES COAST GUARD NOTICE OF VIOLATION

Coast Guard
Unit Address: _____

Date and Time of Violation: _____ Estimated Known NRC Case # _____

LOCATION OF VIOLATION	WATERBODY	RIVER MILE	Latitude	Longitude	CITY	STATE
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PARTY IN VIOLATION

NAME	TITLE	VESSEL	FLAG
MAILING ADDRESS		VIN	SERVICE
FACILITY			
CITY	STATE	ZIP	FIN
COUNTRY	POSTAL CODE		CATEGORY
TELEPHONE	PARTY INVOLVED	MMD/LIC	ISSUE PORT

DISCHARGE VIOLATION

Owner, Operator, or Person in Charge was found in violation of:

REGULATION	NATURE OF VIOLATION	MAXIMUM PENALTY	PROPOSED PENALTY
33 USC 1321(b)(3)	Discharge of oil in violation of	\$11,000.00	\$

I observed at/ sheen sludge on a navigable water of the U.S.
 It was reported at/ film emulsion an adjoining shoreline

The violation resulted from a discharge from a: commercial vessel Yes No
 non-commercial onshore facility Not considered
 offshore facility

Spill violation in the past 12 months? _____ The estimated volume is: _____

OTHER VIOLATIONS

REGULATION	NATURE OF VIOLATION	MAXIMUM PENALTY	PROPOSED PENALTY
CFR _____		\$	\$
CFR _____		\$	\$
CFR _____		\$	\$
CFR _____		\$	\$
USC _____		\$	\$
USC _____		\$	\$
(Total cannot exceed \$10,000)		TOTAL PENALTY	\$

Incident Description _____

Issued By _____ Date / Time _____

Received By _____ Position _____ Date _____

U.S. DEPT. OF HOMELAND SECURITY, USCG
CG-5582 (05/08) - Previous Editions Obsolete

SN 7530-01-GF3-2770

**UNITED STATES COAST GUARD
NOTICE OF VIOLATION**

Notice of Violation

ance with standards of the United States Government on, in, or in connection with, a recreational vessel or item of associated equipment that is false or misleading; or
 (3) fail to provide a notification as required by this chapter or

fail to exercise reasonable diligence in carrying out the notification and reporting requirements of this chapter.
 (b) A person may not operate a vessel in violation of this chapter or a regulation prescribed under this chapter. ■

Recreational Boat Testing and Compliance Program

“We expect that this next contract period will provide more opportunities to ensure that the American public can enjoy boating with recreational boats that are manufactured in compliance with the Federal safety standards.”

On June 10, 2014, the Coast Guard executed a contract with PPG Marine to begin work on the next iteration of recreational boat testing and compliance inspections. Since the pilot factory inspection program began in 2000, there have been many adjustments to the methods employed to ensure that recreational boats are manufactured to the required Federal safety standards. We expect that this next contract period will provide more opportunities to ensure that the American public can enjoy boating with recreational boats that are manufactured in compliance with the Federal safety standards.

Over the past 10 years, we've found that visits to factories have not yielded large numbers of boats to be inspected. There are numerous reasons for this with the first being a large number of manufacturers are not constantly building with some going into extended periods with the manufacturing line being down. In light of this, we decided that to inspect more boats, including boats that we've never seen in a factory, we needed to start having our inspectors perform inspections of boats at retail outlets and boat shows. We implemented a pilot retail outlet/boat show inspection program last year and found that we sig-

nificantly increased the number of boats we were able to inspect, which increased the overall effectiveness of the program.

Our inspection process at retail outlets and boat shows is much like our factory inspections; the inspectors examine each boat for all aspects where the Federal regulations apply. They will also look for boats that have been granted exemptions to ensure that the exemptions are up to date and applied appropriately.

We also intend to use this inspection process to establish working relationships with retailers as they're a natural conduit to the consumer and a valuable member of the boating industry. Our field inspectors have begun performing retail outlet/boat show inspections and during the process will be providing retailers with additional information on the Coast Guard's many Recreational Boating Safety programs.

Our boat testing program will continue as in the past with one exception; the volunteer boat testing program has been discontinued. Our new contract funds the purchase and testing of a minimum of 35 recreational boats each year and the increased testing schedule has required us to discontinue the volunteer testing program. ■

Boat Essentials Mobile App



Under a U.S. Coast Guard grant awarded to the American Boat & Yacht Council (ABYC) a Boating Safety checklist and iPhone app "Boat Essentials-USCG Safety Gear" were developed for use by the boating public.

The free app is a simple checklist for boaters to identify the required and recommended safety items to have onboard. It also includes a float plan option. To download the paper checklist or the iPhone app go to <http://www.abycinc.org/mobileapps/>

The checklist is also available in paper form. For more information on the app or the checklist, please contact ABYC's Matt Wienold at mwienold@abycinc.org.

The U.S. Coast Guard recommends that boat manufacturers place information on this app as an extra safety benefit to boaters in their boat sales packages. ■

Verification of Hull Identification Numbers

Since the changes to 33 Code of Federal Regulations §174.16 were published [USCG-2003-14963, 77 FR 18701, Mar. 28, 2012] we have received numerous calls regarding hull identification numbers that are non-compliant for a vast array of reasons. By-and-large, the majority of issues are minor and require simple adjustments by the manufacturer to a boat's manufacturer statement of origin (MSO) as well as their future MSO's. Other cases involve non-recreational boats that should not have a HIN applied to the boat in accordance with 33 CFR §181 Subpart C. Most commonly, these are boats from manufacturers building boats that are non-compliant with our minimum safety standards found in 33 CFR Part 183. This presents quite a problem in that these boats mostly end up in recreational service; being sold to knowing or unknowing persons seeking a "cheaper" boat.

The Boating Safety Product Assurance Branch has been fighting an up-hill battle with manufacturers that build boats that are most often identified as "commercial only" boats but are selling them in the recreational boat market. In truth, there is very limited "commercial" application for these boats. True "commercial only" boats can only be used as bridge tenders or for working around construction barges, dry-docks, and mobile off-shore drilling platforms. Uninspected passenger vessels are required to meet the recreational boat regulations and commercial fishing vessels have their own requirements regarding minimum safety standards currently being developed by the Coast Guard. If a manufacturer is found to be building only "commercial" boats but has a recreational boat manufacturer identification code (MIC) action is taken

to revoke the recreational boat MIC by providing written notification of the action to the manufacturer and the MIC database is amended to reflect this action.

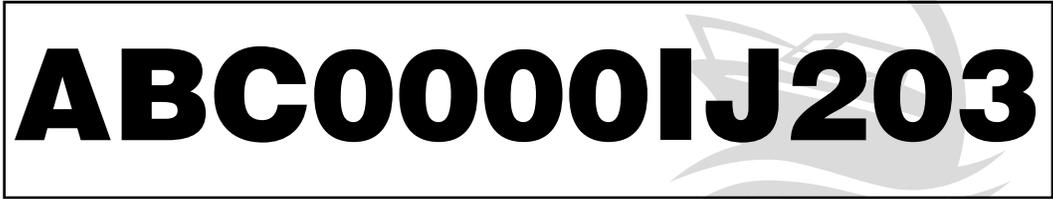
This all seems a little complicated; however, it's important to know where this all comes from. 46 USC §4307 Prohibited Acts states "(a)(2)...A person may not – affix, attach, or display a seal, document, label, plate, insignia, or other device indicating or suggesting compliance with standards of the United States Government on, in, or in connection with a recreational vessel or item of associated equipment that is false or misleading; or..."

What the above means is this – if a manufacturer affixed a HIN in accordance with 33 CFR Part 181, the manufacturer is certifying that the boat is a recreational boat and is compliant with the requirements of 33 CFR Part 183. Non-recreational/commercial boats manufactured in, or imported to, the United States must not have a 12-character hull identification number affixed to the upper starboard transom of the boat or inscribed on the boat's MSO.

The most recent issues with HINs that the States have found have been formatting involving the placement or spacing of characters, correct characters (incorrect MICs being used), or finding that a MIC is being used from a manufacturer that does not exist. These cases involve some research to resolve along with a letter to memorialize the results but others are a little more complex. The more troublesome cases involve a consumer that purchases that "good deal" boat for an unbelievable price and gets an MSO that lists the boat as "commercial only." The State cannot register a commercial only boat using a HIN that should only be affixed

"... we have received numerous calls regarding hull identification numbers that are non-compliant for a vast array of reasons."

Continued from page 5



Sample Hull Identification Number.

to a recreational boat that complies with the recreational boat regulations. In cases such as these, the boat cannot usually be registered for recreational purposes and the manufacturer gets a letter from the Coast Guard advising of the “prohibited act” and the attendant civil penalties for continued infractions.

The Product Assurance Branch is formulating policies and regulatory projects

to better deal with these types of issues. Our corps of Compliance Inspectors will be inspecting boats at retailers and boat shows to ensure compliance and our Coast Guard compliance team will begin issuing Notices of Violation (NOV) to those that fail to comply. The Coast Guard needs the States to help us ensure compliance as well. Refer to [page 2](#) to read the entire text of 46 USC 4307 – Prohibited. ■

“... may assist in not only the safety of the citizens who ride these craft, but also for the safety of crew[s] who respond to these calls and need to find these capsized craft.”

Hull Reflective Stripe Can Save Lives

One of the more difficult tasks for a search and rescue crew is to locate a capsized recreational watercraft.

From calm seas to rough, a capsized boat’s hull color can contribute to the difficulty in locating an in-distress boater and craft. A capsized solid black hull can blend in with the water, especially at dusk or night; while a capsized solid white hull can blend in with white capped waves making the boat appear as part of the wave. However, there is a simple solution to assist in locating a capsized craft — orange reflective tape or paint placed on the hull bottom.

A strip of orange reflective tape or reflective paint, installed on the bottom of a



Photo by Petty Officer 3rd Class Mark Barney | U.S. Coast Guard District 7

boat’s hull, can aid in the recovery of a capsized craft. Martin Butler, a Marine Officer for the Lake County Sherriff’s Department, East Chicago, Indiana Marina, states the use of these markers “... may

assist in not only the safety of the citizens who ride these craft, but also for the safety of crew[s] who respond to these calls and need to find these capsized craft.” This reflective tape or paint will present a visual clue of a capsized craft while making it easier to identify in various weather conditions and seas.

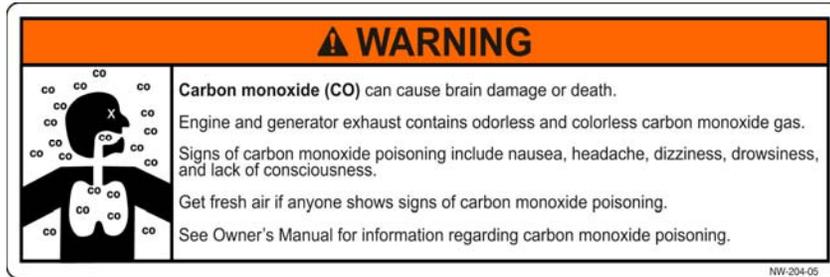
Consider adding a reflective orange strip to the boat’s hull bottom during manufacturing, and help save boaters lives while helping to decrease search and rescue time. ■

Carbon Monoxide Hazard Mitigation Revisited

At a houseboat show this summer it was noticed that not one houseboat at the show had a vertical dry stack exhaust system installed to eliminate the possibility of carbon monoxide (CO) gas accumulating around the hull of the boat where people might be swimming. It was also not clear whether these boats were equipped with low CO producing gasoline generators that would vastly reduce the hazard of CO aboard the boat.

The lesson to be learned from this is that, apparently, all of the effort that was put into the elimination of CO hazards aboard recreational boats by the boating industry ten years ago has either been forgotten or is just being ignored. With a ten

equipped with catalyst technology that greatly reduces the amount of CO flowing



out of the exhaust system. New recreational boats should be built with these engines installed and boats that are being re-engined should replace the old gasoline engines with catalyzed engines.

2. Gasoline generators that are being installed on new recreational boats should be low/no CO generators and older generators being replaced should be replaced with low/no CO generators.

3. Houseboats should have low/no CO gasoline generators installed and should

also have a dewatered vertical stack exhaust system installed as shown in ABYC standard P-1.

4. All boats with enclosed accommodation spaces and in-board gasoline engines or gasoline generators should have marine rated CO detectors installed in accordance with ABYC standard A-24.

Adherence to the above listed recommendations to reduce the CO hazards aboard recreational boats should eventually, almost completely eliminate the CO poisonings that continue to occur.



year average of 6 deaths and 31 injuries occurring each year due to CO poisoning aboard boats, it may be time to revisit all of the methods available to eliminate, or at least greatly mitigate, the CO hazards aboard recreational boats.

1. Inboard gasoline engines are now

“With a ten year average of 6 deaths and 31 injuries occurring each year due to CO poisoning aboard boats it may be time to revisit all of the methods available to eliminate, or at least greatly mitigate, the CO hazards aboard recreational boats.”

Websites of Note

Main Boating Safety Website:

www.uscgboating.org



Regulations

- Federal Laws
- Federal Regulations
- State Boating Laws
- Navigation Rules
- Federal Register
- Boat Builders Handbook

Recalls and Safety Defects

- Manufacturers Identification
- Consumer Safety Defect Report
- Recalls
- Product Assurance Branch
- Boating Safety Circulars

Manufacturer Outreach Website:

www.safeafloat.com

Meet the People

- Headquarters Boating Safety Team
- Factory Visit Team
- Boat Testing Team

Recalls and Safety Defects

- Manufacturers Identification
- Consumer Safety Defect Report
- Recalls

- Product Assurance Branch
- Boating Safety Circulars

Listen to Endorsements

- Factory Visit and Boat Testing Program Endorsements by NMMA, MRAA, ABYC, BoatUS, U.S. Congressman, MSBC, etc.

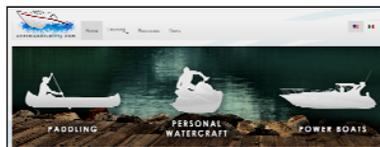
Research the Library

- Factory Visit Checklist



Rental Boat Safety Website:

www.rentalboatsafety.com



General Safety

- Boating Safety Information Videos
 - Negligent Operation
 - Life Jackets
 - Children Onboard

Boat Types

- Boating Safety Information Videos by Specific Boat Type

Resources

- Downloadable Rental Company Resources
 - Rental Info Flip chart
 - Tiller Steered Checklist
 - Wheel Steered Checklist
 - Pontoon/Deckboat Checklist
 - Ski/Runabout checklist

Recalls

Model Year 2014

MALIBU BOATS LLC

(Merced, CA)

Year: 2014

Model(s): Axis 20, 22, 24, T22

Units: 332

Problem: Fuel System: Improper crimp on hose end connector of fuel hose that may potentially leak.

FINELINE INDUSTRIES INC

(Merced, CA)

Year: 2014

Model(s): Centurion Enzo

Units: 7

Problem: Dynamic Instability: Valve body surrounding inlet valve and scoop for wakeboard ballast tanks prone to cracking.. Cracked valve body susceptible to rapid flooding of ballast tank when underway.

STARDUST CRUISERS (DBA)

(Monticello, KY)

Year: 2014

Model(s): '1508' gasoline powered

Units: 1

Problem: Ventilation, Fuel System and HIN: The engine space had an estimated net compartment volume of 400 cubic feet. This requires powered blower air flow capacity of 300 cubic feet per minute (cfm). The boat was outfitted with one 200 cfm capacity blower installed to provide powered exhaust and one 200 cfm capacity blower installed to supply an air flow into the engine space. This arrangement does not provide the required powered exhaust air flow; changing the blower aligned for supply to instead provide powered exhaust will resolve this safety issue of noncompliance. The fuel system had not been pressure tested. Character ten was not the last digit of the stated year of certification of 2013. Characters eleven and twelve were not the last two digits of the model year stated to be 2014. The last four digits of this hull identification number would be 'I314'.

Model Year 2013

BRP US INC

(Benton, IL)

Year: 2013

Model(s): ICON Binnacle

Units: 2230

Problem: Throttle and Shift Control: A limited number of ICON Binnacle mount remote control levers may be incorrectly assembled and pull away from the remote control resulting in loss of throttle and shift control.

EPIC BOATS

(San Diego, CA)

Year: 2013

Model(s): '23v' Inboard Powered Boat

Units: 129

Problem: Ventilation: There was no natural supply ventilation system provided for the gasoline engine compartment.

LEISURE PROPERTIES LLC

(West Frankfort, IL)

Year: 2013

Model(s): 235 SS, E6, 285 SS, 286 SC

Units: 14

Problem: Exhaust System: Corsa side exhaust components installed on Mercury 8.2 engines equipped with stage II exhaust risers can reach temperatures over 200 degrees F. under certain conditions. Danger of personal injury from touching hot components. Danger of fire if components are in contact with combustible materials.

ESSEX PERFORMANCE BOATS

(Ontario, CA)

Year: 2013

Model(s): '24 Valor' Inboard Powered Boat

Units: 1

Problem: Ventilation

TIGE BOATS INC

(Abilene, TX)

Year: 2013

Model(s): RZR R20 Z1 23' Inboard Boat

Units: 1
 Problem: Electrical System

MARINE TECHNOLOGY INC

(Wentzville, MO)

Year: 2013

Model(s): '48 Race Pleasure' Inboard

Units: 1

Problem: Fuel and Exhaust System: The fuel lines from the two fuel tanks to the fuel inlet ran below the level of the tank top. There were no anti-siphon devices installed. The boat did not have the required blower warning label at the operator station. No certification label.

Model Year 2012

MERCURY MARINE

(Miramar, FL)

Year: 2012

Model(s): Mercury Mariner Power Tilt Steer

Units: 2315

Problem: Power tilt steering found on 2012 Verado mounted boats 100-300 horsepower (some with Opti-max Drive) has linkage that fails rendering steering inoperable.

APPONAUG HARBOR MARINA

(Warwick, RI)

Year: 2012

Model(s): BF2.3D Motor

Units: 1944

Problem: Fuel System

UFLEX USA, INC

(Sarasota, FL)

Year: 2012

Model(s): X-66 Tilts Steering Assembly

Units: 1769

Problem: Manufacturer voluntarily informed that limited number of X66 tilt steering assembly produced between March 12, 2012, (LOT 41379-112) and May 13, 2012, (LOT 41379-222) may have defective pivot pin within the tilt assembly, which has potential to cause a locking condition resulting in the loss of steering. 1,742 units were sold to Mercury Marine, and 54 units were sold to additional 14 Other Equipment Manufacturers.

CARAVELLE POWERBOATS

(Florence, AL)

Year: 2012

Model(s) 202 BR Inboard Powered Boat

Units: 1

Problem: The underground supply conductor from the storage battery to the trip pump did not have over current protection within 72 inches of the battery.

Model Year 2011

MERCURY MARINE

(Miramar, FL)

Year: 2011

Model(s): 40/50/60 Horsepower Four Stroke

Units: 6735

Problem: Fuel System: Fuel bulb leaks due to incorrectly installed clamp. Remedy involves replacing with new clamp.

BLACK RIVER CANOES

(Lagrange, OH)

Year: 2011

Model(s): 200, 225, 250 and 300 Horsepower OBS

Units: 229

Problem: Fuel System and Hose Clamp on Vapor Separator : On some affected models, the clamp on the fuel outlet hose of fuel vapor separator may be loose or incorrectly installed. Outboard motor may experience a fuel leak with a risk of fire/explosion if ignition source present.

HELLS BAY BOATWORKS INC

(Titusville, FL)

Year: 2011

Model(s): Glades Skiff Tiller

Units: 3

Problem: Level Flotation and Basic Flotation.

PERKO INC

(Miami, FL)

Year: 2011

Model(s): 0540 0580 0582 1319

Units: 3548

Problem: Fuel System: When the mounting screws on the flange of plastic body fuel fills are tightened the flange may crack.

MASTERCRAFT BOAT COMPANY

(Vonore, TN)

Year: 2011

Model(s): Hydrasport Boats

Units: 259

Problem: Fuel System: Hose clamps prone to corrosion

and breakage.

INNESPACE PRODUCTIONS LLC

(Redding, CA)

Year: 2011

Model(s): 'X-Model' IB Powered Submersible

Units: 1

Problem: Electrical System and Ventilation.

MACKIE'S HOUSEBOAT PARTS AND REPAIR

(Redding, CA)

Year: 2011

Model(s): '1556 Custom' IB Houseboat

Units: 7

Problem: Ventilation and Fuel System.

SEA RAY BOATS

(Knoxville, TN)

Year: 2011

Model(s): 260SD

Units: 81

Problem: Ventilation

BOMBARDIER

(Wausau, WI)

Year: 2011

Model(s): 150 Speedster 180 Challenger

Units: 405

Problem: Electrical: Throttle/shift control may have been incorrectly manufactured. Engine could be started while throttle lever is activated, shift lever can be moved from forward to reverse and vice versa while throttle remains activated — throttle and shift levers could get stuck.

Model Year 2010

MERCURY MARINE

(Fond du lac, WI)

Year: 2010

Model(s): Mercrsr Alpha & Bravo Sterndrive

Units: 12787

Problem: Intermediate Shift Cable Separation: The crimp process used to secure the threaded end of the intermediate shift cable to the inner core wire may not adequately retain the end of the core wire. If the end is detached from the inner wire, shift control will be lost.

ALEXANDRIA SEAPORT FOUNDATION

(Alexandria, VA)

Year: 2010

Model(s): Challenge Wherry

Units: 1

Problem: Failing boat test, failed max person in pounds, max weight capacity and flotation test for persons capacity re-tested.

BAYLINER

(Knoxville, IL)

Year: 2010

Model(s): 195BR, 215BR and 197SD

Units: 40

Problem: Navigation Lights: Some 2010 model year boats built with optional wake toers and bimini tops may not have all around lights installed. May not have all around stern lights installed.

ELIMINATOR BOATS INC

(Mira Loma, CA)

Year: 2010

Model(s): '30 Daytona' Inboard Powered

Units: 1

Problem: Fuel System and Ventilation.

NAUTICSTAR BOATS

(Amory, MS)

Year: 2010

Model(s): Bay, OS DC, SSD, OS, RG

Units: 82

Problem: Boats manufactured in 2010 had extra character inserted into HIN.

MALIBU BOATS

(Merced, CA)

Year: 2010

Model(s): Response LX

Units: 31

Problem: Basic Flotation: A limited number of Response LX inboard ski boats manufactured between January 2009 and December 2010 may have approximately 3 cubic feet of basic flotation foam omitted.

YAMAHA MOTOR CORP

(Cypress, CA)

Year: 2010

Model(s): F2, 5M5H, F4MHA/LMHA, F6MHA/LMHA

Units: 2454

Problem: Deteriorated fuel fill cap gasket.

YAMAHA MOTOR CORP

(Knoxville, IL)

Year: 2010

Model(s): AR240 HO, 5X240 HO, 242 LTD

Units: 775

Problem: Dynamic instability.