** Office use only:**

 Control Number: T6

 Assigned Group:

 Initial Screening:

 **Ballot:** Pass: \_\_\_\_\_\_/ Fail: \_\_\_\_\_

 **Effective for Race Year**: 2019

2019 Inboard Rule Change Proposal

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**Date: Sept. 19, 2018**

Note: Proposals must be submitted to the Inboard Office by December 1, 2018 to be considered.

Save and E-mail completed form to: inboardracing@apba.org or melildon@yahoo.com

US mail to APBA Inboard Office 8039 Stone Barn Dr, West Chester, Ohio 45069

*Check all* that *apply:*

General Safety Rule [ ]

General Racing Rule [ ]

Stock Class Technical Rule \* [ ]

Modified Class Technical Rule \* x

Affected Class(es): 2.5 Litre Modified Class

## Specific Rule Information: [Note: All fields must be completed for consideration.]

**Author’s VERY BRIEF Summary of Proposed Action: Change of Inboard Rule 44.2.2 to allow boats with up to 155.5 cubic inches to have a minimum weight of 1125 lbs when using gasoline only and a minimum weight of 1225 lbs with methanol ethanol- based fuels.**

**Affected Rule: 44.2.2 Boats using engine with pushrods or a single overhead cam, no more than 2 valves per cylinder, and a displacement not exceeding 155.5 cubic inches, shall weigh a minimum of 1225 pounds. Fuel shall be gasoline, methanol, or ethanol- based fuels.**

**Proposed rule: 44.2.2 Boats using engine with pushrods or a single overhead cam, with no more than 2 valves per cylinder and a displacement not exceeding 155.5 cubic inches, shall weigh a minimum of 1125 pounds when running only gasoline, and shall weigh a minimum of 1225 pounds if running on methanol, or ethanol- based fuels.**

**Reason for change: With the replacement of the older wood and fiberglass boats, the newer composite / carbon boats are stronger and lighter. With many stock 2.5 Liter boats being converted to. 2.5 Liter Mod boats, and many 2.3 Liter engines being converted to 2.5 Liter engines. These engines can be converted simply by changing to a longer stroke crankshaft which can cost as little as $300. Doing this will allow these engine to be more competitive against the larger displacement engines, and the new multiple overhead cam engines. This increased stroke length will mostly increase the torque from this engine. In 1998 thru mid 2001,the Ford Ranger was made with a 2.5- Liter SOHC engine that with the longer stroke gave a 6 % increase in power over the older 2.3- Liter motor. The 2.5 Liter crankshaft are available in stock form for $300, or billet form. Long block are available for $1993 thru parts houses. Allowing these motors on “gasoline only” at a reduced weight of 1125 pounds would give the 2.5 Litre Mod class of boats additional ways for boats to be converted at a reduced cost and be more equal and not having to add ballast to these boats to make them meet the present spec, which could be dangerous if the ballast should come loose. Also, electronic fuel injection throttle bodies are available to improved dependability and tuneability, since some of the new throttle bodies are self learning. Doing all this would help increase the boat count and give competitors another less expensive option to get into this class with better reliability.**

**To better understand the full range of this proposal in the 2.5 Liter Mod Class the following chart should help:**

**Rule 44**

**Engine Configuration Engine displacement Fuel Minimum weight Capsule req. Pounds /Cu In displacement**

**(up to max progression) (up to max noted) (with driver) (reg. on capsule) (reference)**

**DOHC - 4 valve ​ 148.5 Cubic in. Gasoline 1025 LBS 2.5 Stock 6.90 Lbs.**

**SOHC – 2 valve 155.5 Cubic in. Gasoline 1125 LBS 2.5 Stock. 7.23 Lbs. (proposed)**

**SOHC – 2 valve 155.5 Cubic in. Gasoline. 1225 LBS 2.5 Stock. 7.87 Lbs (current rule)**

**DOHC - 4 valve \* ​ 148.5 Cubic in. Methanol / Ethanol 1125 LBS 2.5 Mod 7.57 Lbs.**

**SOHC – 2 valve 155.5 Cubic in. Methanol / Ethanol 1225 LBS 2.5 Mod 7.87 Lbs.**

**SOHC – 2 valve 166 Cubic in. Gas/ Meth./ Ethanol 1325 LBS 2.5 Mod 7.98 Lbs**

**Push rod- 2 valve\*\* 313 Cubic inch Gas 1525 LBS 5 Liter 4.87 Lbs.**

**\* Note: Engines using methanol must use production blocks and head(s), but they may be modified.**

**\*\* 44.2.4 Any boat meeting Rules 45.1, 45.2, and 45.4 shall be considered legal within the 2.5 Mod Class**

**Note: Engine progression: Push Rod -2 valve, SOHC - 2 valve, SOHC - 4 valve, DOHC -2 valve, DOHC- 4 valve**