



## Annex N

# 2024 Novice Hydro Rules

The objective of the Novice Class is to be a foundation to build and inspire a future generation of boat racers. The class is designed to give young drivers between the age of 9 and 16, the experience needed to prepare them for the larger and faster classes in the adult categories.

The Novice class is a probationary entry class within the Inboard Division and has no affiliation with the CBF/APBA Junior classes in the Outboard Division.

### 1. Race Logistics

1.1. The racecourse shall consist of the following:

1.1.1. Soft turn buoys that do not damage, deflect or upset boats.

1.1.2. 4 buoy turns (recommended) with the entrance pin at each turn being larger than the rest of the turn buoys for ease of visibility. A 1000 foot score up marker or 1000 foot marker (distance from marker to start line) will be setup as part of the starting lane prior to the 500' marker; this time distance may be shortened by the referee when local conditions warrant.

1.1.3. It is recommended that the distance from the starting line to the entrance buoy of the first turn be approximately between 500 and 1,000 feet.

1.1.4. Novice Class heats will start at 9:00am each race day. (unless otherwise specified)



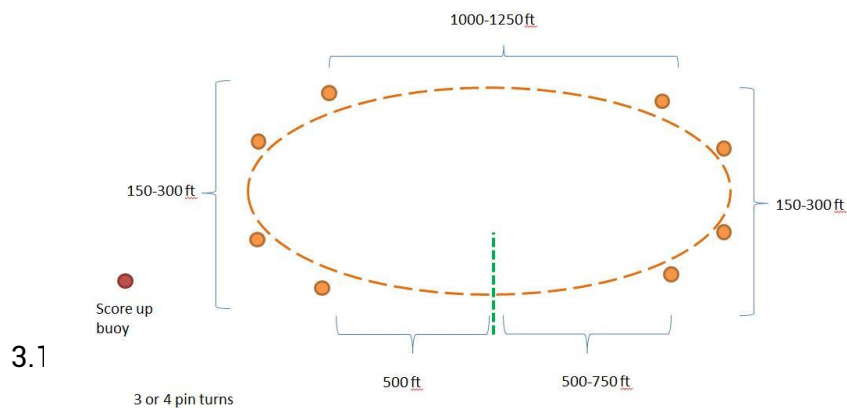
## 2. Driver Registration

- 2.1.1. Only boats registered with Inboard Division shall be allowed to participate in the Novice Hydro championship points. *(Note: Points for Novice class events are NOT eligible towards CBF/APBA Outboard Division Junior class high points)*
- 2.1.2. The maximum number of Novice entries per HRL event is 14.
- 2.1.3. Non-registered Novice class drivers must submit a written request to: [administration@hrlhydroplane.com](mailto:administration@hrlhydroplane.com) seven (7) days prior to the event and must be approved by Inboard committee to participate in a race weekend.
  - 2.1.3.1. Non-registered Novice Hydro drivers
    - Pay a registration fee of \$30.00 (for the weekend)
    - Points will not count towards the Novice Hydro championship.
- 2.1.4. Registration of the boat is mandatory every weekend on Friday from 12:00 to 7:00 pm. Drivers will need to sign-in Saturday and Sunday morning between 7:30 to 8:00 am. A driver who fails to sign in within the given time will be sanctioned as per article 11.2.
  - No boat registration will be accepted on Sunday.
- 2.1.5. A mandatory drivers meeting will be held at 8:00 am on each day of the race weekend. Attendance will be verified by the chief referee and/or the race director. An absence will result in a warning for the first offence and possible further sanctions as per HRL Rules 11.2 for a subsequent offence.
- 2.1.6. At the completion of the drivers meeting, drivers will draw a number for the Propeller they will be assigned for the day. The propeller must be returned to the Novice class rep or a race official after the Novice class final each day. Teams are not permitted to put identification marks on the propeller. Any team caught marking the propeller will be sanctioned as per Inboard rule 11.2.
- 2.1.7. At the completion of drivers meeting, the drivers will be given a "Race Receiver" communication receiver to be used during the event. Drivers will be required to provide their own earplugs for the receivers. The receivers must be returned to the Novice class rep or a race official at the end of the race weekend.



### 3. Start and Finish Procedure

- 3.1.1. The boats may leave the pits only after the five (5) minute countdown has started (green flag) and must pass at least one (1) time in front of the start/finish line before the official start of the race. If a driver is unable to get the boat on plane, they may return to the pits during the five (5) minute countdown for assistance. No boats shall be allowed to leave the pits after one (1) minute to the start is indicated (white flag). Non-compliance results in a P11.
- 3.1.2. The boat(s) passing the start buoy between thirty (30) and five (5) seconds before the start will automatically be disqualified (DNQ) from the race. (P2); this time period may be shortened by the referee when local conditions warrant. Those who pass the start buoy between five (5) seconds and zero (0) seconds before the start of the race will be considered as "jumping the gun" (P1).
- 3.1.3. Where possible a score up buoy will be installed on the course. Drivers must go around the buoy to approach the start. Any boat passing the score up buoy during the white flag is considered committed and must proceed to the starting chute. Any boat passing the 500 foot marker is committed to the start and must be on plane and maintain a straight line (failure to maintain a straight line will result in a P11 penalty); this time period may be shortened by the referee when local conditions warrant.



- 3.1.5. The first boat to finish the race receives the checkered flag as will all following boats that cross the start/finish line without any external assistance. Once the first boat finishes the race (regardless of whether it has a penalty or not, except a (P2) as it will be disqualified (DNQ)), other participants will have 2 minutes to complete the full distance of the race. If participants cannot complete the remainder of the race, the black flag will be raised, and the remaining boats scored based on their position on the last completed lap.
- 3.1.6. When the black flag is given, the race is considered finished for all participants and boats must return to the pits as per instructions of the chief referee explained at the drivers meeting. Drivers who do not abide by these instructions will be sanctioned as per Inboard Rule 11.2 A.
- 3.1.7. At any time, the chief referee may give the checkered flag to end the race.
- 3.1.8. The warmup period prior to the 1 minute (white flag) can be between 2 to 4 minutes in duration. If all boats are in position in the milling zone, the chief referee will



communicate live to the drivers with a countdown to the white flag when the time is less than 4 minutes.

- 3.1.9. Once a timing run has been completed the drivers will go to the milling area in turn 2 as instructed by the chief referee at drivers meeting.
- 3.1.10. In the event of a clock malfunction or should the Referee and Race director deem a relocation of the course setup is required a flag start will be used. The referee or Race director with the participation of the class rep will conduct a brief driver's meeting to explain the starting procedure.

*When the five (5) minute signal is given (green flag), the drivers may enter the racecourse. Drivers are to head directly to the milling area, and within 2 to 4 minutes the chief referee will communicate to the drivers the white flag is about to be raised. Once the white flag is displayed the drivers approach the starting chute and head towards the start line as a pack at reduced speed and line up as close as possible in a row. If the referee approves the line-up of the pack, the white flag will be dropped to signal the start of the race. If the chief referee does not approve the start they shall leave the white flag up, wave the green flag as well and the referee shall verbally communicate to the drivers the carefully proceed to the milling area for another run at the start line as a group. The official timing of the heat starts once the white flag is dropped.*



#### 4. Points System

##### 4.1.1. Point distribution chart.

Position	Qualification	Final
1	25	25
2	21	21
3	18	18
4	15	15
5	11	11
6	8	8
7	5	5
8	1	1
9	1	1
10	1	1
DNS/DNF/DNQ	0	0

DNS: Did not start.

DNF: Did not finished.

DNQ: Did not qualify or disqualified.

##### 4.1.2. The final positions of a race are determined by:

- The number of laps completed after the penalties are applied.
- By the boat position on the same completed lap.
- In case of a tie at the finish line, the same number of points will be awarded to all boats tied for this position. The following boats will receive points according to the rank where they crossed the finish line.

##### 4.1.3. If a race day is cancelled by the race officials for a specific class during the weekend, all registered boats in this class will receive 30 points toward the championship for each day cancelled.



## 5. Practice, Qualifications and Finals

- 5.1.1. Novice class will have 10 minutes of practice time each day to ensure they are able to get their boat on plane with the Novice class propeller. Once on plane they will do 1 lap and return to the pits. If the boat does not go on plane, they will be permitted to make a setup adjustment and/or a prop change and go back out.
- 5.1.2. Qualification heats

For the first race event of the season, there will be a random draw to establish the first set qualification heats. Boats that are not registered in the Novice Class championship will be placed after the registered boats with a second random draw. Once the Novice class season has begun, the boats with no points in the championship or tied points, after applying Inboard General Rule 5.6.2, will be ranked by a random draw.
- 5.1.3. Groups for qualification A & B will be determined by the championship standings before the start of the race weekend event. If a class does not run any qualification heats on Saturday, the qualification heat draw from Saturday will be applied on Sunday.
- 5.1.4. The number of boats per qualification group and final is determined by the Race Director. There will be a maximum of 10 boats per elimination heat and a maximum of 10 boats in the final.
- 5.1.5. There will be only one final for the Novice Hydro class per day.
- 5.1.6. If a final cannot be presented, the final standings for the weekend will be determined by the number of points accumulated during the qualifications each day.
- 5.1.7. If there is a tie in the accumulation of points, the best time of the qualifications will determine the standings/winner. If the tiebreaker cannot be broken by the times, the standings will remain as they are and there will be more than one boat in the same position.



## 6. Racing Rules

- 6.1.1. A pre-determined committee of four (4) Inboard division members including the Novice class rep, Race Director, chief referee and a designated experienced adult driver (familiar with racing Novice class type boats) will decide if the weather conditions are favorable to race the Novice class.
- 6.1.2. If a race is stopped by the Race Director and/or by the chief referee, it is considered official when the boat in first (1st) place has completed more than fifty percent (50%) of the race.
- 6.1.3. All qualifications and finals will be a maximum of three (3) laps.
- 6.1.4. The chief referee and/or race director may delay a race if circumstances demand it.
- 6.1.5. In the case where race is stopped, the boats that caused and/or are implicated in its stoppage will be excluded from the restart.
- 6.1.6. A race will automatically be stopped if a driver boat goes into the water, or a boat goes dead on the water in a location deemed by the officials as unsafe for the driver's safety.
- 6.1.7. All Novice hydro drivers must wear a "Race Receiver" device at all times during a race. The "Race Receiver" will permit the chief referee to communicate to the Novice drivers during the race. Race teams are not permitted to communicate to their driver via electronic devices during a race. Teams who do not abide by these instructions will be sanctioned as per Inboard Rule 11.2 A.
- 6.1.8. Overlap
  - When there is less than one boat length of open water between a leading boat and a following boat, an overlap is established. In a position of overlap, the following rules shall apply:
    - a. The front boat shall not alter its course across or into the established path of the rear boat.
    - b. The outside boat must give the inside boat room to clear any course marker.
    - c. Any violation of the overlap rules listed above will result in the application of penalties as listed in section 7.1.1.
- 6.1.9. Flags

Flag signals are used to designate specific time or to give instructions to contestants. The flag and their purposes are as follows:

  - BLACK or BLACK & YELLOW X: Return to the pits.
  - RED: Race is stopped – Boats are to go off plane on the water. If a boat does not go off plane, a warning will be issued by the referee.
  - WHITE: One (1) minute before the start of the race – Last lap for the race.
  - GREEN: Between the five-minute and one-minute signal before the start of the race – During the race except for the last lap.
  - YELLOW: Caution, problem on the racecourse.
  - CHECKERED: End of the race.



## 7. Penalties

7.1.1. There will be a one (1) lap penalty for all infractions. A P2 will result in automatic disqualification. During qualifications A & B, a boat who receives a penalty during a heat will receive a maximum of eight (8) points. If several boats receive penalties, a number of points corresponding to the number of penalized boats having finished before him will then be deducted from the eight (8) points maximum.

P1 – A boat that passes in front of the start buoy between three (5) and zero (0) seconds left on the countdown clock.

P2 – A boat that passes in front of the start buoy between ten (10) and five (5) seconds left on the countdown clock.

P3 – A boat that changes lanes with less distance than one (1) boat length lead.

P4 – A boat that did not pass at least one (1) time in front of the start buoy before the official start of the race.

P5 – A boat that pushes another boat towards the inside or outside, two (2) lanes or more.

P6 – A boat destroying or dislodging a buoy for no apparent reason.

P7 – A boat that misses a buoy for no apparent reason.

P8 – A boat that goes outside of the out of course markers or in a designated no go zone.

P9 – At the start of the race, a boat that changes lane without a 1 boat length overlap.

P10 – not applicable to Novice class

P11 – All situations judged unacceptable by the chief Referee.





## 8. Restrictions

- 8.1.1. The restrictions are under the responsibility of the chief referee. The drivers must pass their restrictions in the presence of a recognized Inboard official on duty. However, Inboard committee will recognize restrictions passed at sanctioned events. If a driver passes fifty percent (50%) of his/her restrictions in the same year, the driver will have the opportunity to complete his remaining restrictions the following season.
- 8.1.2. New drivers must, for ten (10) heats of racing which are sanctioned place a white cross (X) on their helmets, with the stroke of the X to be a minimum of 2 inches wide. The cross must extend from the front tip up over the top of the helmet to the back rim of the helmet, and from the left ear up over the top of helmet to the right ear. A new driver is any CBF member in good standing who has never driven a registered Novice Hydro or similar class boat in closed course competition heat racing. The new driver must show knowledge of course racing rules before being approved to enter a race. Any new driver's first day of participation in competition must consist of at least one (1) heat of racing during a sanctioned event in which the new driver will drive in a position at the rear of the pack and be observed by the chief referee and course officials. If the driver is not cleared for "open competition" at the end of that heat, he/she shall run an additional heat in the same manner until cleared by the Referee. *(Note: in the event of more than one (1) new driver in a heat the referee shall have the option to assign restrictions as he/she sees fit)*
- 8.1.3. The Novice Class new drivers must complete the "Introduction to Boat Racing" course given by the Novice class rep.



## 9. Technical Rules, Safety and Inspection

9.1.1. Motor Eligibility: The following are approved legal motors for use in the Novice Hydro Class.

- 9.1.1.1. The 13.2 CID OMC-A with an approved restrictor opening of a maximum diameter of 0.562 inches, with an approved Inboard Novice class restrictor at a maximum diameter. All approved OMC restrictor plates are required to be manufactured by Brown Tool and Machine and must meet the dimensions called out in the Tech Manual, including the .050"  $\pm$ .005" thickness. Any OMC restrictor plate that has not been manufactured by Brown Tool and Machine is not legal for competition.
- 9.1.1.2. The 15.9 CID Mercury 15 (produced in 1999 or later) with an approved Inboard Novice class restrictor plate. All approved Mercury restrictor plates are required to be manufactured by Brown Tool and Machine and must meet the dimensions called out in the Tech Manual. Any Mercury plate that has not been manufactured by Brown Tool and Machine is not legal for competition.

9.1.2. Motor Rules

- A. The engine shall retain the factory colors and decals, with the following exceptions:
- The powerhead may be either painted or unpainted. If it is painted, the color must be the same as the original color.
  - Gearcases must be painted original factory colors or have no paint. Unpainted gearcases may be polished.
- B. The engine shall be operated with the production upper and lower motor covers installed and supplied by the manufacturer. Air inlets into cowlings must remain closed as in original factory condition, either with plugs or with tape. Any year OEM motor cover may be used, i.e. Johnson or Evinrude for OMC motors, Mercury/Mariner covers for Mercury motors. It is permissible to permanently affix bracketry to the motor cover and lower pan to install cover hold downs.
- C. The mounting of a fuel tank to the engine or steering bar is prohibited.
- D. Any type or make of spark plug is permissible.
- E. Adjustable high speed carburetor jets are not permissible. Larger or smaller fixed jets are permissible.
- F. The addition or removal of material from the flywheel is prohibited.
- G. Polishing or removal of material on the carburetor or exhaust system is prohibited.
- H. Broken parts may be repaired by welding or use of plastic compound, if all contour and dimensions remain as original. Broken skegs and cavitation plates may be used provided that the edges of the break or breaks have not been filed or smoothed or otherwise altered.
- I. It is permissible to repair stripped threads by tapping oversize, or using helicoils, or using threaded inserts.
- J. The addition of engine thrust brackets is permissible.
- K. Any make or type of bolt, nut, screw, stud or washer may be used (with the exception of the butterfly screw), provided it does not require alteration of the engine to permit its use.
- L. It is permissible to secure the impeller to the prop shaft by any means.
- M. Internal machined surfaces may be re-machined so long as minimum and maximum dimensions are met. Cast or forged surfaces must remain as cast with



no alterations, bead blasting, media blasting, or polishing. It is not permissible to re-machine surfaces that do not have specific dimensions. The reed plate openings are cast surfaces and must remain as cast. 1) The Motor Inspector may compare questionable parts to known legal or new parts to determine legality.

**N.** Electric starters shall be permissible.

**O. OMC**

- On the OMC A motors, safety wires must be in place from the steering bar-power head bolts. Drivers will be warned once before being disqualified. A powerhead may be fitted with double threaded studs and attached to the drive housing and through the steering bar brackets and secured with washers and self-locking nuts.
- It is permissible to use non-OEM steering bars, steering bar brackets and throttle linkages. No modifications to the carburetor are permitted.
- Boyesen, Reeds part no. 122 shall be legal replacement parts.
- It shall be allowable to plug off the "water slot hole" with dimensions Z and Z11 in the engine specifications. It is also allowable to plug the small hole that is at the top of the water passage around the exhaust ports which has no dimensions in the engine specifications.
- The use of genuine OMC/BMC oversize pistons and rings is permissible. It is also permissible to use aftermarket pistons and piston rings, as long as specific specifications are met. Any oversize piston that conforms to the E, F, and M dimension is approved so long as it is 0.040" oversize or smaller and so long as the piston crown (dome) configuration conforms to the OEM piston and the maximum bore specification is maintained. (The piston crown and ring configuration on the Sierra/Napa/Dolphin 0.010, 0.020 & 0.030 oversize pistons as well as the oversize GLM, WSM, and Wiseco pistons are specifically approved.)
- Port openings may have plastic compound added for repair.
- Only those OMC restrictor plates purchased from the Inboard committee may be used in OMC motors competing in the Novice Hydro class.



<b>ENGINE MODEL</b>		JOHNSON	JKT
		EVINRUDE	EKT
VOLUME OF COMBUSTION CHAMBER AT T.D.C. TO TOP OF SPARK PLUG HOLE		MIN. CM3	13.5
NUMBER OF CYLINDERS		2	
DISPLACEMENT (CUBIC INCH)		13.2	
CYLINDER BORE DIAMETER	STANDARD	G	2.188 +0.007 / -0.005
	0.010 O.S.		2.198 +0.007 / -0.005
	0.0.20 O.S.		2.208 +0.007 / -0.005
	0.0.30 O.S.		2.218 +0.007 / -0.005
	0.0.40 O.S.		2.228 +0.007 / -0.005
CRANK STROKE		J	1.760 ±0.008
ROD LENGTH		L	3.000 ±0.006
PISTON DIMENSION		E	3.918 ±0.010
		F	1.868 ±0.010
		M	0.642 ±0.014
PISTON RINGS	NUMBER PER PISTON		2
	MATERIAL		CAST IRON
	THICKNESS	UPPER	0.068 ±0.002
		LOWER	0.062 ±0.002
	DESIGN	UPPER	PRESSURE BACK
		LOWER	RECTANGULAR
	FREE DIAMETER	UPPER	2.235 ±0.025
LOWER		2.335 +0.030 / -0.070	
NO. OF PORTS PER CYLINDER	TRANSFER		3 ROUND HOLES
	EXHAUST		3 ROUND HOLES
PORT HEIGHT	TRANSFER	A	3.480 MAX
	TRANSFER	A3	3.490 MAX
	EXHAUST	C	3.680 MAX
PORT DIMENSION	TRANSFER	A1	0.625 ±0.010 DIA*
	EXHAUST	C1	0.625 ±0.015 DIA*
	TRANSFER	A2	0.625 ±0.025 DIA*
	EXHAUST	C2	0.625 ±0.025 DIA*
CYLINDER HEIGHT		K	4.880 ±0.015
CYLINDER WIDTH		K1	4.520 ±0.025
CRANKCASE HEIGHT		K2	1.830 ±0.020
INTAKE MANIFOLD HEIGHT		1.040 ±0.025	
REED BLOCK (1 PER CYLINDER)	REED MATERIAL		STAINLESS STEEL OR PLASTIC
	REED THICKNESS		0.011 ±0.0005
	SHIM THICKNESS		0.012 ±0.001
	REED STOP HEIGHT	H	0.256 ±0.020
	REED STOP RADIUS	H1	5.000 ±0.50
	CHECKING DISTANCE	Y	1.260 ±0.030
	PORT LOCATION	N	1.430 ±0.015
	PORT LENGTH	N1	1.010 ±0.030
PORT WIDTH (DIA.)	N2	0.675 ±0.025	
CYLINDER BASE		X	1.056 MIN.
FLYWHEEL WEIGHT (LBS.) MIN.		5 LBS. 4 OZ.	
CARBURETOR	VENTURI DIAMETER		0.875 ±0.005
	BORE DIAMETER		1.000 ±0.005
MEG. LENGTH		U	10.633 ±0.050
		U1	10.510 ±0.050
MEG. RELIEF HOLE (DIA.)		T	0.280 ±0.060
INSIDE EXHAUST OUTLET HOLES		D	0.860 MIN. DIA.
		D1	0.480 MIN. DIA.
HOUSING RELIEF HOLE		0.310 ±0.020 DIA.	
WATER RELIEF HOLE		P	0.040 ±0.010 DIA.

Annex N Novice Hydro Class Rules 2024\_V5.docx • be used in OMC motors competing in the Novice Hydro class.  
 Ligue de Régates d'Hydroplanes (HRL)

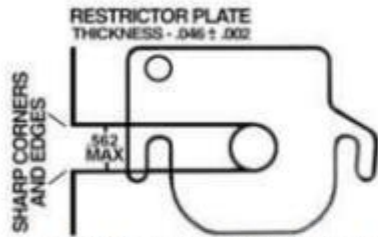


GEAR CASE SPECIFICATIONS			BEARING SPECIFICATIONS		
IMPELLER BLADES	5		ROLLER		
GEAR RATIO	14:19		ROLLER		
Q	11.550 ±0.200		BALL		
Q1	9.100 ±0.200		ROLLER WIRETAINER		
R	2.050 MIN.		ROLLER		
S	0.980 MIN.		ROLLER		
W	4.765 ±0.020		ROLLER/ROLLER THRUST		
W1	4.340 ±0.100		ROLLER/ROLLER THRUST		
V	18.000 ±0.060		ROLLER		

HOLE DIAMETER

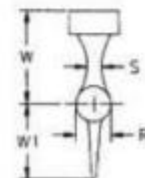
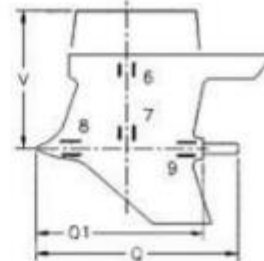
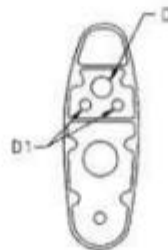
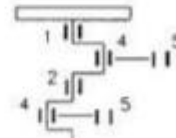
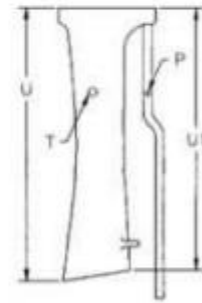
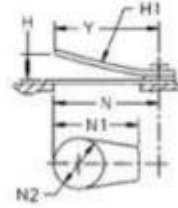
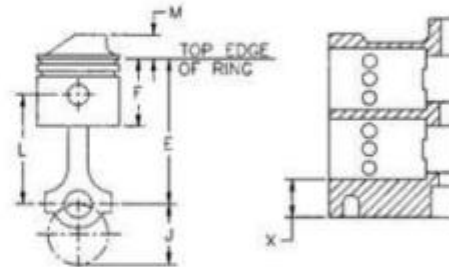
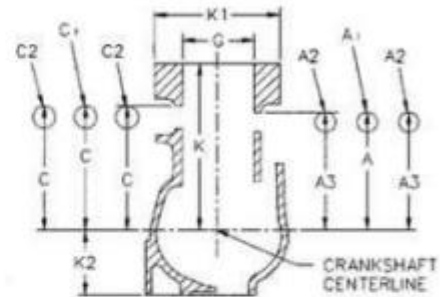
JH, JR 0.562"

AXH, AXR 0.650"



NOTE: IT IS PERMISSIBLE TO ADD MATERIAL TO THE FOLLOWING WATER PASSAGES:

1. THE WATER SLOT HOLE (FORMERLY CONTROLLED BY DIMENSIONS Z AND Z1); AND
2. THE SMALL HOLE AT THE TOP OF THE WATER PASSAGES AROUND THE EXHAUST PORTS.





## P. Mercury

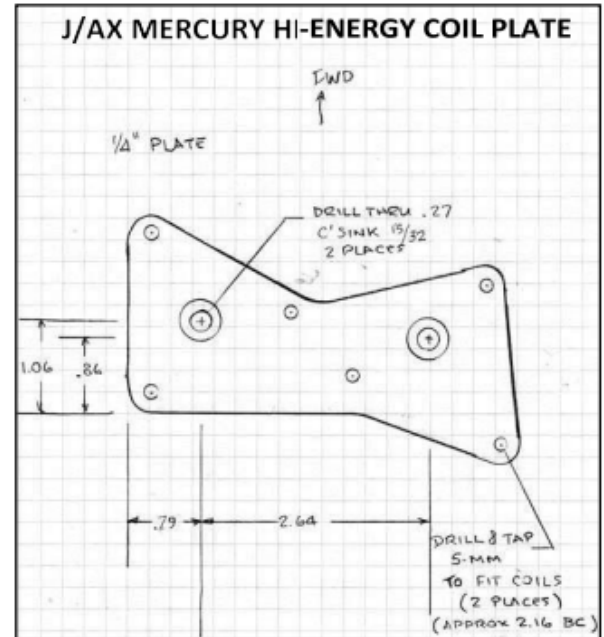
- Steering bars, brackets and throttle linkage that have been approved by CBF shall be used.
- The carburetor butterflies shall be replaced with the Inboard committee approved full butterfly (Part J55). It is also permissible to close the hole in the service carburetor butterfly with solder or epoxy.
- It is permissible to replace the upper and lower rubber tower housing bushings. Part J56.
- It is permissible to place fuel cell material (foam) in the carburetor or utilize the Inboard committee approved baffle.
- It is permissible to remove the thermostat and to restrict the water in any manner within the thermostat housing. Water may be restricted at the 1/8" diameter tuner pipe cooling hole in the powerhead adapter plate.
- It is permissible to remove the transom cleats located on the stern bracket.
- The use of genuine Mercury oversized pistons is permissible. Any piston ring may be used in the Mercury motor provided that the piston is not altered in any way to accommodate the ring. The piston shall remain as furnished by the manufacturer.
- It is permissible to remove the OEM fuel connector. 9) It is permissible to add a throttle stop to the carburetor.
- It is permissible to use Mariner engines that meet all Mercury specifications.
- It is permissible to use aftermarket or modified motor mounts. The driveshaft housing and brackets may not be modified to accept aftermarket or modified motor mounts.
- It is permissible to use any bearing or seal. It is permissible to replace the OEM bearings with bearings of the same design and dimensions. It is not permissible to machine any surface to incorporate an aftermarket bearing or shim. The crankshaft and lower main (ball) bearing must be positively retained in their axial position in the cylinder block as originally manufactured, and the lower main (ball) bearing must be retained on the crankshaft by its original interference fit. Machining or other means, including wear, to allow the lower main (ball) bearing to move axially in relation to the cylinder block is strictly forbidden.
- It is permissible to hone connecting rods as long as all specifications are met.
- It is permissible to hone the center main bearing shell as long as all specifications are met.
- It is permissible to use any Bowden cable clamp when electric start is used.
- It is permissible to use Mercury's "High Energy Ignition Kit" (Mercury part number: 339-7370A40).
- It is permissible to remove foam from inside of the motor cowling. It is permissible to use any mounting plate in replacement of the mounting plate supplied with Mercury's "High Energy Ignition Kit." The mounting plate must be installed in the factory location.
- It is permissible to replace the OEM fuel line with any fuel line.
- It is permissible to replace the OEM tell-tale hose with any hose of equal or greater inside diameter. The OEM fitting at the block and the OEM tell-tale outlet nozzle must remain in place.



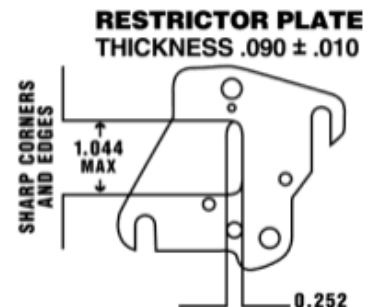
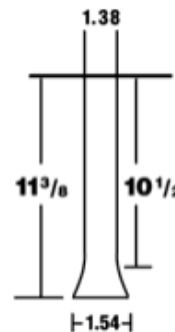


- It is permissible to countersink the three (3) reed plate cover holes.
- During the manufacturing process, Mercury Marine removed aluminum flashing from the exterior lower corner of number two (2) cylinder lower exhaust port. Blocks with this deburring are legal for use in the Novice Class.
- In non-production Mercury J/AX engines, any decal that says Mercury or Mariner and matches the OEM size and style is legal.

MERCURY 15 ENGINE SPECIFICATIONS			
(References are the same as the Mercury 25XS specifications)			
ITEM		REF.	SPEC.
Displacement	CID		15.9
No. of cylinders			2
Compr. Vol. @ TDC	min. cc		16.00
Transfer Ports	Timing	A	3.640+/-0.015
	Height	A1	0.630+/-0.010
	Width		0.950+/-0.020
Exhaust Ports	Timing	C	3.781+/-0.015
	Height	C1	0.630+/-0.010
Cylinder #1	Width		1x0.900; 1x0.950+/-0.020
Cylinder #2	Width		2x0.950+/-0.020"
Port Edge Radius			0.020 maximum
Exhaust Relief Hole		C	4.305 +/- 0.020
	Width/Height	C1	0.195 +/- 0.010
Comb. Ch. Corner Ht.		H	5.713+/-0.010
Cylinder Bore	(ref.)	G	2.376
	max.	G	2.41
Stroke		J	1.800+/-0.010
Piston	Material		Aluminum
	Deck Ht.	E	4.180+/-0.015
	Defl. Ht.	E1	0.563+/-0.005
	Total Ht.	F	2.653+/-0.030
Conn. Rod Length		L	3.100+/-0.005
Reed Block	no. of opens per cyl.		3



length		M	0.906+/-0.015
width		N	0.510+/-0.015
stop ht.		P	0.325 MAX
stop lt.		P1	1.23 MIN
petal th.		O	0.008+/-0.002
Flywheel Weight	lbs/oz.		7.9 LBS. MIN.
CARBURETOR	VENTURI		1.00+/-0.01
BOOST VENT		N/A	
THROAT			1.13+/-0.01
EXH. ADAPTER & PIPE		D	13.28+/-0.125
<b>GEAR CASE SPECS — SAME AS OMC A SPECS (ALSO, SEE BELOW)</b>			
DSHSG.		V	16.0+/-0.25
G/C ADAPTER HEIGHT			0.50+0.010/-0.025





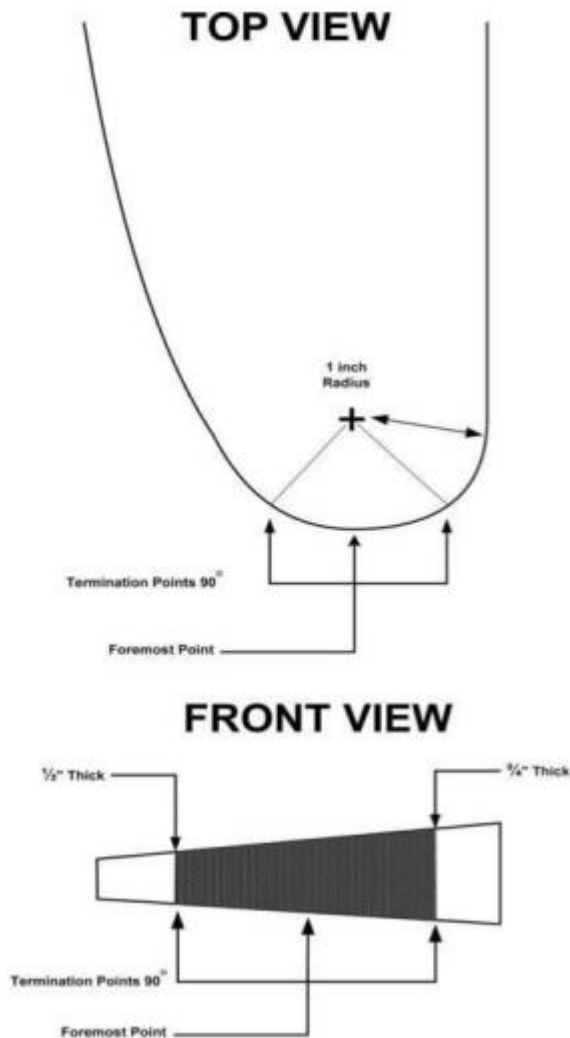
- 9.1.3. Technical rules (inspection procedures) will be as listed below.
- All Novice Hydro hulls shall meet the minimum weight requirement of 300lbs.
  - The minimum overall weight shall include driver, hull, motor, steering bar, steering wheel, with cables and pulleys, motor controls, propeller, permanently attached speedometers and tachometer, permanently attached cushions and hardware, securely fastened weights, securely fastened fuel tank with remaining fuel, helmet, goggles, life jacket, cut gear, driving suit.
  - For Novice Hydroplanes hulls will maintain a minimum of 1" setback distance between the leading tip of the gear case and the aft portion of the planning surface.
- 9.1.4. Basic technical inspection at an event shall be:
- Height
  - Weight
  - Tuck
  - Set-back
  - Fuel with Digitron meter. (*Note: a sample of fuel may be taken from a local fuel supplier and the readings deemed the fuel measurement of the day*)
  - Removal and measurement of restrictor plate (at the inspector's discretion)
  - Boats must have an adequate towing hook or handle, positioned at the front of the boat.
- 9.1.5. Safety Rules - Equipment
- Unless explicitly specified in this annex the CBF safety rules apply.
  - All boats must have an operational steering system. Steering cables must be attached to the steering bar with fully enclosed interlocking hooks; or by use of clevis and bolt, said bolt to be secured with cotter pin or wire. "S" hooks are specifically prohibited. Two cable clamps will be required at both terminations of the steering cable. Steering cable anchors must be bolted to the boat.
  - Any boat's plastic windshield or cowling must have a protective molding on the exposed edge.
  - All boats must have an automatic device to close the throttle and completely close the carburetor butterfly when the throttle is released. All engines must be equipped with full carburetor butterflies and must shut down when the throttle is released.
  - All Novice boats will have a tether-activated operational ignition cutoff switch (kill switch). When activated, kill switches must cut off the ignition to all cylinders of the engine. The tether switch should be mounted forward of the driver and use a minimum length cord, which at full extension from the switch, may not come within 12" of the top of the transom. The tether must be attached to the life jacket or wrist while racing. Taping of either kill switch cap or tether in a manner which interferes with the functional operation of the kill switch is prohibited.
  - Drivers must wear closed footwear, life jackets, helmets, eye protection and cut-resistant, wrist-length sleeves and cut-resistant, ankle-length pants at all times while on the water for the purpose of driving racing equipment. In closed course racing, when stopped on the course, the driver's helmet only may be removed when no other racing craft are underway anywhere on the course or when the driver's boat is tethered to a towboat. All drivers in Novice Class must wear impact/flak material incorporated into the life jacket. The impact/flak material will provide full coverage of the front and back of the torso. The intent is to provide





impact/flak coverage of vital internal organs. The referee or inspector has the power to prohibit the use of any helmet or life jacket that he/she determines to be potentially unsafe.

- Each boat must be equipped with a device enabling it to be towed, such as a bow handle or screw eye capable of handling a rope.
- A permanently fixed fin or fins may be used on the hull. No Novice Class boats may have a fin or mounting hardware that protrudes beyond the maximum beam of the boat.
- Hulls used in Novice Class may not utilize the following:
  - hull surfaces that are adjustable while underway
  - fins that are adjustable while underway
  - water brakes
  - trim that is adjustable while underway (power trim)
- Engines must remain firmly clamped and/or bolted to the transom at all times.
- It is recommended that gear cases be maintained and contoured, if necessary, within class technical specifications. Gouges, breaks and hollows should be sanded or filled.
- On the OMC J motors, safety wire must be in place on the steering bar-powerhead bolts. Drivers will be warned once before being disqualified.
- The driver must be able to exit the cockpit without moving or removing any windshields, canopies or cockpit cowlings.
- An annual technical inspection of all boats is required prior to competition. A sticker shall be affixed to any boat that meets all safety requirements. Such approval expires each October 31.
- Novice Class Hydroplane Pickleforks and Cockpit Noses (ALL HYDROPLANES MUST COMPLY)
  - The foremost points of the pickleforks shall have a minimum radius of 1" in one view. This minimum radius shall extend at least 45 degrees to both sides of the fore-most point. At one termination point, the thickness must remain at  $\frac{3}{4}$ ", at the other the thickness must remain at  $\frac{1}{2}$ ". (SEE DIAGRAM)
  - All Novice Class hydroplane hulls built where the cockpit nose extends forward of the body of the hull, shall have a cockpit nose that conforms to the same requirements for shape as the picklefork foremost points described in the paragraph above.



#### 9.1.6. Safety Rules - Engine Mounting Height

- Novice Hydro has a limitation on where the engine's propshaft may be mounted. The distance between the center of the propshaft at its aft end, and the planning surface, must be no less than 1-3/4". The planning surface shall be flat (with a tolerance of 1/16 inch for inspection purposes) transversely between the air traps and forward for 18".
- In Novice Hydro the difference between the propshaft location, as measured at the aft end of the propshaft, and the foremost end of the gear case and the planning surface, as measured at the split line of the gear case, shall not exceed 1/2".
- The measurement of the engine height shall be "as raced" with the engine turned straight (propshaft in-line with the fore-aft centerline of the boat).



#### 9.1.7. Safety Rules - Operation

- Locked throttles are prohibited in competition. While getting on plane, drivers must keep one hand on the throttle and one foot in the cockpit. No driver may assume a driving position which requires that he/she remove his/her hand from the throttle. While racing, one knee must remain below the top of the cockpit at all times, unless the driver is in a sitting position. While racing, standing in the boat or sitting on or straddling the engine are specifically prohibited. The final decision regarding driving safety will be made by the Referee and Race Committee.
- No motor shall be started when affixed with a propeller, nut, washer or pin – any part of which is out of the water – unless it is hand-held over the water prior to a launch. Boat stands are permitted for this function only if they are specifically designed as launching stands. For the purpose of testing or warming up, motors with propellers affixed may be started under the following conditions: The boat must be on a secure stand or dolly with the bow pointing directly towards shore, and adequate warning must be given to participants nearby prior to startup. Engines required to use gasoline as fuel must have at least half of the propeller in the water. Violation of this rule will result in the driver's disqualification for the remainder of the day. This prohibition shall not apply during the five minutes immediately preceding the start of a race using a "wharf".
- Drivers shall not drag feet, legs, hands, or arms through the water to aid in turning, this will result in the assessment of a P11 penalty.
- No driver shall leave the pits after the one-minute signal has been given. Violation of this rule will result in a P11 penalty.
- Any driver who is off plane at the start of the race or during the race and pursues a position on the racecourse in an unsafe manner shall be assessed a P11 penalty.



## 10. General Rules

The general appearance, cleanliness of the racing equipment and the dress code will be enforced upon the arrival of the team at a race site. The dress code is intended for members with HOT PIT passes of participating teams in a competition, Directors and Officials.

Mandatory dress code for crew members with HOT PIT passes in the pit area: Otherwise, there will be sanctions as per article 11.2.

- Shirt (Team shirt or not) - For men's: Shirt with or without sleeves. - For ladies: Shirt with or without sleeves including tank top exception for strappy tank top that is not permitted.
- Closed shoes.
- Pants, Bermuda shorts or skirts.

To standardize the visual/professional aspect of the race teams and reflect a unified image of the League, the HRL Logo must be positioned:

- Team shirt: on the left sleeve or on the front right side.

10.1.1. All boats participating in Novice class events must display in a highly visible location (vertical surface) on the right side of the boat an approved HRL logo. Teams must also display a CBF Logo anywhere on their boat.

10.1.2. No boat may display an obscene or dubious name that could shock spectators or damage the sport's reputation.

10.1.3. Boat numbers shall be assigned by the CBF office when first time drivers submit their memberships.

10.1.4. In the Novice Class, the same boat and motor must be used in all heats of a race where points of a heat are counted in the final standings. It shall be legal to change engines between elimination heat and/or final heats only if there is irreparable damage to the engine. However, the driver/owner must notify the Inspector/race official, make proper notification and registration prior to the finals with the inspector/race official, and present both engines to the Inspector for inspection immediately following the final heat if requested. It shall not be legal to change boats between elimination heats and/or final heats unless the boat is deemed damaged and unsafe by the Inspector or Referee. Drivers in different qualifying heats may not use equipment previously used in qualifying for the same event.

10.1.5. The chief referee will be available for thirty (30) minutes after the last race of the day at the location specified during the drivers meeting. If a Novice driver/member has been summoned by the chief referee to meet, he/she must be present. Failure to appear will result in sanction as per article 11.2 A.

10.1.6. All rules will be interpreted by the officials, not by the drivers and/or owners. If there is a disparity, the French version will take precedence over the English version.



## Appendix A Novice Hydro Class Four Stroke Motor Rules

The current production 4 Stroke, 15 HP Mercury/Tohatsu Engines are legal for the Novice Hydro category.

### Motor Rules

Current production 4 Stroke, 15 HP Mercury/Tohatsu engines, built starting in 2023 and newer are legal motors. These motors must be run in the "as produced" form, other than removing the tiller bar, installing a steering bar and changing propellers. The year of manufacture can be found on one side of the transom clamps. The second box from the top contains the date of manufacture.



### Novice Class Propellers

It is the intention of the Novice Category to institute a 4 stroke propeller program which is equivalent to the 2 stroke propeller program currently being used. As the motor is still in a development phase 4 stroke junior props are open (GT-15 Propellers, Ron Hill Propellers, Dewald Propellers, etc...).

### HULL SPECIFICATION

Novice Hydroplanes using the four stroke motor shall meet the following dimensions:

- The minimum boat length for use of a 4-stroke motor 105" on a hydroplane as follows:
  - a. For 4-cycle hydroplanes, the measurement is a minimum and shall be taken from the aft most trailing edge of the bottom, to the front of the forward deck line. Picklefork and cockpit/nose extensions are not included in this measurement.
  - b. In the event a hull has afterplanes, assuming the afterplanes are flush to the bottom of the boat then the measurement is from the end of the afterplane to the forward deck line.

### TECHNICAL INSPECTION

Given the four stroke motor is in development phase there will be no minimum weight restriction. There will also be no height restriction, however a suggested starting point guideline for height would be 1 ¾" to ensure the motor pumps water during operation.

Note: It is the intent of the Novice Hydro Committee to leave the rules as open as possible to encourage development of the new motor and boat combination. As development matures and hopefully teams running the new motor increases, we will slowly introduce rules to maintain a level playing field. Our focus is implementing a stock motor, which is easily available to all existing and new racers and enhances growth opportunities within HRL and CBF.