"Chonda" Class

The Chonda (or Clone Honda) class is intended to be a low cost, minimal maintenance racing class. This is a spec racing class designed to equalize the power plants of all participants in the class. The engines are affordable and intended to give life to older chassis that may be hidden deep in your garages; however they must be racing karts with nose and side pods and must have some type of rear bumper. There are no specs for the chassis make or model, however they must be a full sized chassis (no Cadets) and if you are converting a chassis with front brakes they must be disconnected. All Chonda class karts must pass tech, so make sure they are safe and have all the pins, clips, etc. installed. If you are unsure if your chassis will pass inspection, please email or ask on the forum before converting it for the class.

"Chonda" Engine Requirements

1. Harbor Freight (Blue Greyhound, part 66015-0VGA) 2009 or newer. Do not buy the California version, part 66014-0VGA. No Yellow engines allowed.
2. Governor and oil sensor must be removed. **No other modifications or aftermarket parts are allowed inside the engine unless specifically mentioned below.** There are different methods for removing the governor and oil sensor. See http://arcracing.blogspot.com/ for a good video. There is also another method that does not require special tools on you tube in 4 parts. http://www.youtube.com/watch?v=FTNbDvfIHoo
3. Install race prep parts kit, DJ-1014 from www.arcracing.com. This includes the following additional or replacement parts to prepare your engine for the class. Select kit **1147** for the HF Blue '09 engine.

    - DJ-1138 ARC Header and muffler kit
    - DJ-114X ARC top plate/throttle hookup (1147 for HF Blue '09)
    - 6931 ARC billet air filter adaptor
    - DJ-1257 Choke hold
    - Fuel Pump (Mikuni or Walbro)
    - 6877 Pulse inlet fitting
    - 6899 Angled air filter
    - 5' fuel hose
    - DJ-1415 Chain guard/heat shield

4. The DJ-1415 (chain guard/heat shield) may not fit on all karts due to seat size and/or seat stays without modification. A chain guard is required, so if the kit supplied guard will not fit you must fabricate one.
5. Carburetor jet may be drilled or replaced to a no-go setting of .042 max. Stock emulsion tube is required and must not be altered.
6. Clutch is limited to the Max Torque SS "Clone" clutch. This clutch is available from many dealers under different part numbers. Do not buy the basic SS clutch, make sure to get the one for "Clone" engines that has an internal key and a black engagement spring. This clutch must remain stock with the black spring that engages in the 2900-3000 range. (see parts spreadsheet for part numbers from a couple of dealers)
7. The ARC exhaust header may be ground to match the exhaust outlet on the engine (port matching). This is referred to on the videos.
8. The choke retaining arm provided with the ARC kit does not fit properly without modification. However, if you use a thicker gasket between the ARC billet air filter adapter it will work without modification. (Part number DJ1315 from arcracing.com)
9. Valve lash may be adjusted and it is advised to check it before racing.
10. Spark plug is open, but it must have the ring/gasket or a temp sensor ring/gasket may be substituted.
11. Engine oil is open.

12. A brace is allowed from the cylinder (there is a threaded hole) to the muffler to minimize vibrations that can cause header failure. (See SWRC website for examples)
13. Header wrap and/or a heat shield may be installed to prevent burns from the header/muffler. These devices must be safely attached and not interfere with engine operation or driver safety. The Tech Director has the discretion to request modifications.

"Chonda" Class Rules

1. The Chonda class will be run as a single race group.
2. Minimum age is 15. Driver must be 15 on race date to compete.
3. Tires are spec Bridgestone YHC or YKC, 4.5 front and 7.10 rear. Tires must be scrubbed-in. New tires or tires that have not been scrubbed in are not allowed.
4. Fuel is 87 octane pump gas only, no additives allowed. Fuel must be purchased at a gas station designated by each track. The location will be posted on the SWRC website before each event. Fuel will be teched using a sample from the designated gas station.
5. Clutch driver is open.
6. Rear gearing is open.
7. The 320 weight class must have a .500 intake restrictor. (PURPLE ARC restrictor)
8. The 360 weight class must have a .550 intake restrictor. (BLUE ARC restrictor)
9. The 405 weight class is not required to have an intake restrictor.
10. All karts must pass safety tech prior to entering the track.
11. All karts are subject to post-race inspections.
12. If engine does not pass tech and is determined to be altered to unfairly enhance performance by the use of unapproved aftermarket parts or by modification of stock parts, the competitor will be disqualified from the series for the remainder of the year and will forfeit all points.
13. Winner's engine may be claimed by anyone finishing in the top 5 positions at a cost of $160 less add on parts. (Clutch, above mentioned ARC kit, restrictor, jet, exhaust braces, and mount) Claimed engines will be impounded by tech and thoroughly inspected for performance enhancing modifications. If engine does not pass tech, the claimer does not have to purchase the engine. **Refusing to cooperate with the claiming process will result in immediate disqualification for the remainder of the year along with forfeiture of all points.**

The following engine specific rules will be used during tech:

ENGINE SPECIFIC TECH SHEET FOR: Harbor Freight Blue 6.5 OVH
Description: Single cylinder, 2 valve, OHV 4 cycle. No machining or alteration of parts is allowed unless specifically noted. All parts will be subject to a comparison to a known HF Blue part (when performing a comparison check it is recommended to use a + /- .005" tolerance).
Combustion chamber volume: 27.5 cubic centimeter minimum, with piston at TDC, using prescribed procedure.
Cylinder Head Requirements: Must be OEM casting only. Porting and / or grinding are not permitted. Valve seats are two angles 45 degrees valve face and 30 degrees top relief. Stock head bolts only, must have four. Head gasket maybe after market, must be of stock configuration. No copper or aluminum gaskets allowed. Any stock configuration gasket allowed no other sealer. Bore and Stroke: Stock cylinder bore is 2.685" max. Stroke is 2.123" + / - .005".
Carburetor requirements: Huayi OR Jing Ke OR Ru X ing model carb only. Carb to intake sealer is gasket only no other sealer allowed. Choke must be as supplied from factory, but may be fixed to stay in open position. Choke bore .810" NO-GO. Venturi .615" NO-GO. Rear carb bore .751" NO-GO. Main fuel jet .042" NO-GO. Carbs with restrictor plates must have a gasket on each side of the restrictor plate.
Valve Train: Stock valve cover only with any stock configuration gasket, no sealer. Factory stock rocker arms and push rods only. Stock valves only 45 degree angle only both valves, no modifications allowed. Stock valve springs only. Max wire diameter on spring wire is .0698" with a maximum tension of 10.8 lbs. at a height of .850".

Ignition system: Stock system only and must be unaltered. Kill switch and low oil sensor may be disabled and removed.
Flywheel: Stock flywheel only with plastic fins. No alterations of any type allowed. Must also run stock flywheel key no alterations to advance timing are allowed.
Piston and Rings: Must be unaltered stock only. No machining of piston and rings allowed.
Connecting Rod: Stock rod only. No machining of any type allowed. Stock rod bolts only.
Crankshaft Requirements: Stock crankshaft required. Machining, polishing, addition of material or other alteration of crankshaft is prohibited. Stock factory timing gear mandatory and must be installed in original location. Crankshaft journal diameter is 1.180”- 1.175” min.
Camshaft Requirements: Stock as cast camshaft only.
Max Intake lift on cam .225” taken at the pushrod.
Max Intake lift at the valve .238” Taken on valve spring retainer with zero lash.
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Max Exhaust lift on cam .232” taken at the pushrod.
Max Exhaust Lift at the valve .242” Taken on valve spring retainer with zero lash.
(Additional cam checks will likely be added later)
Special note. Valve guide wear can give false valve lift readings when checking off the front of the valve spring retainer. It is advised to take readings at several other points around the retainer (back, and both sides) if wear is suspected of giving a false, unfavorable reading.
Block Requirements: Block must remain stock as produced. Stub for governor may be removed and hole plugged. No machining of block allowed. Welding to the block shall be for rod damage repair only and may not constitute a functional modification.

Rule Changes:
4/27/2010 – Changed minimum rear tire size from 6.0 to 7.10.