

California Mini Cup

General Rules

The rules shall apply to each and every driver, owner, sponsor, mechanic, crew member and/or any other pit personnel (collectively known as participants) participating in any mini cup sanctioned or recognized event.

ALL PARTICIPANTS SUBJECT TO THE RULES ARE EXPECTED TO KNOW THE RULES AND ANY CLAIMED IGNORANCE OF THE RULES WILL NOT BE ACCEPTED OR TOLERATED AS AN EXCUSE.

All rules in this book apply to all mini cups.

All rules are subject to change at any time.

No modifications other than those specified in this rulebook are acceptable. If this rulebook does not specifically say that something can be done or not done, then you must consider that the change or action is illegal.

Anyone attempting to circumvent the rules or judged to be going against the spirit and intent of these rules or the organization is subject to disqualification or suspension. Only authorized officials may decide if a change, alteration or action is an attempt to circumvent the rules.

THE DECISIONS OF TRACK OFFICIALS AT SANCTIONED OR RECONGNIZED EVENTS, INCLUDING THE INTERPRETATION AND APPLICATION OF RULES AND THE SCORING OF POSITIONS, SHALL BE FINAL, BINDING AND AT THE DISCRETION OF THESE OFFICIALS. THIS IS NON-APPEALABLE.

No equipment or car will be considered as having been approved by reason of having passed through inspection "unobserved".

Membership and Licensing

Drivers 8-16 years of age are eligible to race as Future Star but must be cleared to race by the local track and be covered by local track insurance.

If driver is under 8 years old, but would like to compete as a Future Star, and all the following conditions are met....

1. Be approved by Tony Caputo
2. The driver must start at the end of the field in the first three events.

Competition and Race Procedure

No engine or carburetor body may be changed after a car has posted a qualification time or competed in a qualifying heat race without the permission of track officials. If permission is granted, they must start at the tail of the field in next race and the engine or carburetor body will be impounded by track officials and is subject to technical inspection.

Officials may at discretion, make a determination regarding the line-up of cars for any qualifying, heat races, semi features or consolation races and feature races.

Timing and Scoring

At tracks using an AMB style transponder system where the transponder must point down toward the track, the standard location for the transponder shall be at the rear of the car, on the side of the rear down-tube on either the left or right side of the chassis. Only one transponder may be mounted per car, and all transponders must be operational. Penalty will be last place points the Event. See photo below for example how to mount.



General Body Requirements

All bodies must be styled to resemble a NASCAR stock car.

Hinges and pin kits required. Roof opening must be hinged in front only. Positive latches that can be opened from inside and outside body required. Hood and trunk must be held shut with positive pin fasteners-one (1) on each side or fastened in a manner acceptable to official(s). Roof rails no taller than $\frac{3}{4}$ inches running the length of the roof and rear window are permissible. These are for aesthetics only and provide no performance advantage.

Cars must be neat-appearing. Chassis must be painted or powder coated. Body interior may be left unpainted. **Any body damaged must be neatly repaired by the next event.**

Body exterior dimensions shall be no more than 120 inches long, 47 inches in width. Body must remain level with chassis and cannot be offset on frame.

All components shall be in top quality condition. Bodies cannot be altered from original manufacturer. Any reinforcement of body must be acceptable to official(s).

Fenders may not be cut or altered except for tire clearance, subject to approval by official(s). No fender flairs.

At post race tech all Future Stars cars must weigh a minimum of 650 pounds with driver as raced. Maximum left side weight is 55% of total race weight. All weights will be calculated on scales approved by track official. It is the responsibility of the race car driver to see that their car meets the specified minimum weight requirements as raced.

If weight is needed to meet minimum requirements, use of steel or lead (no buckshot or BB's) be painted white and have the car number written on it for easy identification.

Weight must be attached to frame, or placed inside frame rails. With grade 8 hardware and cannot slide from front to back or side to side.

All weight must be located inside driver compartment or approved weight containment box. Original chassis manufactures weight containment boxes are approved.

For old MMI chassis, the lower outside chassis tubes on the right and left side only may be replaced with 14 gauge 2x2x37" square channel for weight containment. Weight bars must not extend beyond existing rear horizontal chassis bar or change the balance or design intent of the car in any way. Weight and/or fastening systems subject to approval by track officials.

A non-adjustable spoiler must be attached to the rear deck lid. The spoiler must not be modified in any way from the original design and must be manufactured by the same company as the body it is installed on. The spoiler must maintain the same contour as the production deck lid with a minimum angle of 35 degrees.

Lexan must be minimum thickness of .060, but may be thicker. Tinting of rear and quarter windows is permitted. Lexan may be attached by rivets or nut and bolt. Bracing is allowed on front windshield and rear window.

Left side speedway window must have window net fastened to roll cage (may have quick release mechanism). Right hand window may have Lexan window that can be easily removed by safety crew. No enclosures of any kind will be allowed in the left speedway window.

No vents are permitted in right side speedway window.

Mirror glass must be secured with silicone or equivalent. **Side view mirrors cannot extend beyond the widest part of the car body. ALL MIRRORS ARE SUBJECT TO APPROVAL BY OFFICIAL(S).**

All dashboards must be constructed of aluminum and fastened in place. All switches must be installed on the left side of the steering wheel. Dashboard may be painted flat black. All dashboards are subject to approval by official(s). Ignition shut-off switch must be labeled, showing on and off.

Foot box interior must be constructed of aluminum at least 22 gauge. Panels must be securely fastened to chassis. Panels may be added to keep debris from driver's compartment. All interior panels are subject to approval by official(s).

One engine cooling hose from the outside of the vehicle to interior of engine compartment is permitted. This hose must be mounted in the rear side window. The pickup point of the hose must not exceed the outside body lines of the car. The hose, or an extension thereof, must not extend more than 1 inch past the inside

edge of the firewall or engine covering. The diameter can be no larger than 3 inches. The rear window may not be altered or drilled.

Engine covering must extend to the body in all directions.

Bumpers must be hollow steel tubing and fastened to chassis.

Equipment and General Accessories

All cars must be fitted with an aluminum racing seat that fits the driver's physical characteristics.

All seats must be securely mounted in the center line of the vehicle. The seat center line must match that of the chassis not track width. The seat can not be off set.

All drivers must wear head and neck restraints...(ie HANS type device)

Two-way radios are required for all cars. No Radio's No Race or Practice NON NEGOTIABLE.

All belts all belts and harnesses must be of the 5-point type and meet the following minimum requirements:

1. Have a minimum SFI rating of 16.1
2. 2 inches wide for Future Stars
3. Be dated by the manufacturer and no more than 3 years old.
4. A quick-release seat lap belt is required.
5. Both ends of the lap belt must be fastened to the roll cage with grade 8 bolts not less than 3/8" in diameter.
6. Shoulder harness must come from behind the driver's seat. Inertia reels can be used.

Mini Cup specific parts such as spindles, cradles, A-arm etc. must be manufactured by approved manufacturers. No homemade or "better engineered" parts. Bolt on or replacement parts such as heim joints, clutches, wheels, etc. must conform to this rulebook but may be purchased from any source. In order to make it easier for racers to keep their cars on the track you will be allowed to interchange parts. i.e, suspension parts from one approved manufacturer may be installed on a chassis built by another approved manufacturer. All homemade or "better engineered" parts remain illegal.

General Engine Requirements

All engines must be sealed. Approved seals are REX Racing Engines, Stockton 99 Speedway, CMRA, WSRA, and MMRA all other seals are illegal.

After owning engine for one race season (i.e. 2014, 2015, 2016) if it is a non REX seal it must be resealed.

REX Hutchison Racing Engines (4526 Auburn Blvd, Sacramento, CA 95841, 916-483-9563) is the official sealing station.

Only Honda GX390K1 or U1 engines will be used in mini cup competition. Serial numbers cannot be removed from engine block.

Engine must remain in stock location. Offsetting of engine is expressly prohibited.

No interchanging of parts from different engine models except that using U1 crankshaft and rods in a K1 motor are allowed. This includes the GX390 QAE also. The new Honda piston and rings may be used in older engines as well.

Engines cannot be altered from stock factory Honda specifications unless otherwise noted in this rulebook.

All parts must be **factory** Honda parts designed for the GX390K1/U1 and will be checked against **factory** Honda parts unless otherwise noted in this rulebook. All official decisions are final.

Specifications for the Honda GX390K1 engines can be found on page 2-4 of the Honda Shop Manual, part number 61ZH910.

Detailed Engine Requirements

Internal and external governor system may be removed. Governor shaft hole may be plugged or vented.

Zero piston pop-up is allowed. Bore may be clearanced, and may not exceed the maximum service limits. Bore may be oversized by 10 thousandths (.010), 20 thousandths (.020), or 30 thousandths (.030) with Honda replacement pistons only. Top piston ring may be oversized. Stock or aftermarket ring permitted. Top ring is a non-tech item. No gapless rings. No tech on rings except for thickness and width.

Crankshaft may be shortened by a maximum of 1.250 inches at the clutch end. Clutch bolt hole may be retapped. No lightening, polishing, or balancing of the crankshaft is allowed. Crankshaft may be ground .010 and use of a .010 Honda replacement rod is permissible.

Piston and connecting rod must remain stock standard size, no grinding, polishing or sizing modification allowed, although modifying oil lubrication hole is allowed. Also, top of piston crown may be machined to ensure 0 piston pop out. Dish in top of piston must remain a minimum of .080

Rotating the piston or rod is expressly forbidden.

Any replacement rod bolt is allowed, as long as the rod is not altered or modified, except for oil lubrication hole as specified above.

Cylinder Head

Cylinder head must remain stock.

Cylinder head may be machined to a minimum thickness of 3.730 inches.

No porting, polishing or sizing of any part of the cylinder head is allowed. New Honda heads with the casting Z1C-ATA-1 have their ports ground from the factory. This grinding **ONLY** will be considered legal because it is from the factory. No additional grinding will be allowed, and it will be up to the officials discretion to determine if a head has been ground beyond the usual seen from the factory.

Only stock valve grinding angles allowed. 30° first& 45° second.

All cylinder head dimensions will be from stock Honda parts.

Worn valve guides may be replaced with stock Honda valve guides or with a bronze guide-liner and must remain in stock location.

Camshaft

NOTE: Mini Cup engines must compete using the profiled camshaft as described below which has not changed since 2001. This is only camshaft profile allowed.

Camshaft timing cannot be changed from Honda factory specifications. (See Honda Manual)

A reground Honda camshaft must be used meeting the following profile and must be checked at the lifter against the camshaft. Specifications are listed below. If a cam does not meet the profile below and track officials determine that the only reason is excessive wear on a formerly legal cam, the cam will pass tech for that race only and the driver will be instructed to have a new cam installed for the next event.

INTAKE

LIFT	DEGREES	POSITION
.050	3BTDC - 3	ATDC
.100	14 - 20	ATDC
.150	30 - 36	ATDC
.200	50 - 56	ATDC
.250	81 -87	ATDC
.265	MAX	
.250	48 - 42	BBDC
.200	19 - 13	BBDC
.150	1 - 7	ABDC
.100	17 - 23	ABDC
.050	34 -40	ABDC

EXHAUST

LIFT	DEGREES	POSITION
.050	37 - 31	BBDC
.100	19 - 13	BBDC
.150	2BBDC - 4	ABDC
.200	21 - 27	ABDC
.245	MAX	
.200	68 - 62	BTDC
.150	46 - 40	BTDC
.100	29 - 23	BTDC
.050	12 - 6	BTDC

Valve Train

All valves, lifters, push rods and rockers arms must remain stock Honda GX390K1/U1 engines. Aftermarket valve springs okay if they meet the dimensions of the stock spring. One stock Honda shim allowed under both intake and exhaust springs. All dimensions will be taken from known stock Honda GX390K1/U1 engine parts. All other specifications will be from Honda GX390K1 shop manual.

A small groove may be cut in the valve stem for a safety (rubber) "O" ring to be installed. Groove must be no more than 0.020" deep – 0.750" from end of valve stem.

Slot in rocker arm may be elongated to prevent binding.

A stock Honda valve seal may be used on intake valve only.

Honda Carburetor

Honda GX 270 Carburetor is the only one allowed.

Choke may be removed from carburetor. Shaft holes must be plugged.

Any stock Honda jet may be used. Jet may be drilled.

Stock Honda throttle stop must remain stock, unaltered – although aftermarket throttle linkages may be attached to the top for throttle actuation only.

Jet size is open

No modifications of shaft or butterfly allowed. Must be stock shaft.

No polishing or grinding allowed.

Hole can be drilled in bottom of carb nut for adjustable jet. Adjustable jet may be used but may not be accessible to the driver during the race.

Idle jet hole may be resized

Idle jet tab may be removed

No polishing or sizing of insulator plate

Carburetor insulator must be drilled for pulse pump. Fuel pump must be pulsed from insulator only
Only one hole is allowed. NO AIR LEAKS.

No-go bore gauge .635

Emulsion tube must remain stock but no tech on holes.

NOTE: ONLY THE MODIFICATIONS MENTIONED ABOVE ARE ALLOWED.
ANY ATTEMPT TO CIRCUMVENT THE RULES WILL BE CAUSE
FOR DISQUALIFICATION AND LOSS OF POINTS

Carburetor Gasoline Filter

Gasoline filters may be used. The location and size of the filter must be acceptable to official(s).

Air Filter and Adapter

All engines are required to have an air filter and carburetor adapter.

Air filter adapter **MUST** be Extreme Engine Systems part #390919 or equivalent for Honda.

Air filter cannot act as a ram air device.

Filter must be no bigger than 3.75 inch wide 4.25 inch long.

Engine/Car Electrical alternator

Oil alert may be removed.

Charging system may be removed.

Charging magnets may be removed.

Flywheel

Flywheel may be balanced. Minimum flywheel weight must be 11 lbs. 10 oz. Weight must be removed from the outer edge of the flywheel. Any flywheel that shows signs of machining on the inside area will be deemed illegal. The tech official will have sole discretion and authority on this matter.

No other alterations to the flywheel allowed.

Spark Plug

Any make or brand of spark plug may be used. Plug must remain unaltered from factory but sealing ring may be removed for head temperature sensor.

Aftermarket spark plug connectors may be used to replace stock Honda connectors.

Ignition System

Altering the ignition timing from a stock Honda GX390K1/U1 specification is NOT allowed.

No alterations to the starter coil or other electrical parts are allowed.

Spark intensifiers are prohibited.

Starter

The electric self starter must be in working order. All cars must be capable of starting under their own power.

The starter cup is an extension of the recoil starter assembly and can be removed if desired. It also presents a hazard when adjusting the carburetor. The cup may be removed and replaced with the following fan flange (Honda part# 19512-ZE2-000) **ONLY**. The screen must be replaced and firmly attached to the motor in the original location and made of ¼ inch mesh. Honda part# 19620-ZE3-810 may be used. It cannot be made of solid materials or be partially covered. A hole may be cut in the center of the mesh to allow access to the crankshaft nut.

Battery

Battery must be located in stock location.

All batteries subject to approval by official(s)

Electrical Switch Locations

All electrical switches must be located on the left side of the car and must be labeled showing the on/off positions.

A switch must be wire so as to ground the ignition.

Accessories

Lap timers and other automated electronics (oil pressure, temperature and rpm) are allowed providing they are mounted securely.

Tach/temp sensor devices may be attached to the spark plug or exhaust. A small hole can be drilled in the pipe to accommodate the sensor.

Engine Cooling System

Air cooling components cannot be altered from Honda GX390K1/U1.

The stock shroud covering the head can be replaced with an aluminum shroud with maximum dimensions of 5" by 10". The replacement of this shroud is not a performance enhancement. The shroud must not extend further forward than the leading edge of the fins on the head. The intent is to equalize cooling over the surface of the aluminum head thus adding durability.

Engine Exhaust System

Exhaust pipe must have no interior restrictions, minimum 28 inches long including muffler. No staged pipes allowed.

Muffler may be used. If used it must be RLV muffler part number 4120. muffler must be welded to exhaust pipe. Muffler must have one baffle.

Bracing to support pipe is legal

Exhaust wrap is legal but no coatings

Fuel and Oil

Fuel to be used at all events is SUNOCO 260 GTX also known as SUNOCO 98.

No additives to fuel (ie. Top end oil, oxygenators or nitro methane)

Oil is to be used to lubricate the engine only. Not for combustion. No additive designed to add power. Only legal additive is Prolong and Militec.

Fuel and Oil is a pass fail test if you fail it is a DQ and loss of all points and/or suspension.

Fuel Cell

Use of fuel cell is mandatory must be 1.5 gallons or less

Fuel cell location must be as manufacturer put it in the chassis.

All fuel lines must be secured by clamps or safety wire.

Clutch

Only a dry centrifugal clutch is allowed. No transmissions, belt driven torque converters, oil bath clutches or axle clutches. Clutch and clutch components must meet the following requirements:

-Ratech clutch # 1300S006

- PREMIER Titan clutch only shoes, springs and drums manufactured by PREMIER for clutch #1000200 are acceptable.

-Horseman Redhawk clutch or Bully Clutch is legal

Chain / Gear Sprockets

Only # 35 chain allowed. Only sprocket gears 53-80 tooth. No skip-tooth gears allowed. Chain guards permitted and must be acceptable to track official(s). No automatic or manual chain oiling systems permitted.

Brake Components

Only hydraulic disc brakes with steel rotors are permitted.

All cars must have brakes on front and rear wheels. Rotors and caliper mounts may not be altered from stock. No altered materials may be used. Brake bias may be adjusted from driver compartment.

All brakes and brake cooling component parts and installation must be acceptable to the official(s).

The rear axle must meet the following requirements:

Only 1.25" steel or chromemoly hollow axles permitted. Maximum axle length is 40". No alternate materials allowed.

Both rear hubs must be keyed and secured to the axle. No floating hubs allowed.

Snap rings must be in place and safety wired

No self oiling bearings.

Wheels

4 or 6 lug wheels are legal

4 lug Douglas wheels part number 005-31 dimensions 8x6 are legal

6 lug rims are 8x6.5

Tires

American Racer Mini Cup Tires sold by Penny Racing Supply are only legal tires.

No liquid or tire hardener or softeners allowed.

Nitrogen is allowed.

Tire Track

Tread width 43-45 in. measured at the widest point of the tire sidewall.

Aluminum spacers are allowed.

Wheelbase

Left and right side 59.5-60.5

Chassis

Approved chassis are MMI, Townsend, NC Chassis, and Ultimate Motorsports.

All chassis must be painted or powdercoated.

Suspension

Future Stars Cars must have a suspension consisting of the following:

Option 1: Four QA1 shocks part #8251 are standard either one or both front shocks may be replaced by QA1 # 8254 two 400# straight front springs any brand front mount only two 140# rear mount only. May be used in conjunction with shock option 2.

-The QA1 shocks must be bought through Tony Caputo.

Option 2: Four (4) Carrera shocks, Carrera part #3361, are standard. Either one or both of the front shocks may be replaced by Carrera part #3364.

-Two (2) 400# straight front springs, any brand allowed (front mount only).

-Two (2) 140# straight rear springs, any brand allowed (rear mount only).

Option 3: Four (4) Afco shocks, part numbers 1553 front and 1551 rear. Afco shock spacers part number 20178 and 20178-1 are legal for use on the rear with 1551 shocks.

-Two (2) 350# straight front springs, any brand allowed (front mount only)

-Two (2) 135# Straight rear springs, any brand allowed

Option #1 Mini Cup shocks will have a \$200.00 claim rule on each shock. Claim MUST be made in writing within 5 minutes after the checkered flag. MUST explain which shock or shocks claiming, MUST pay in cash, MUST be in top 5 and finish on lead lap.

Springs and shocks cannot be altered and must meet original factory specifications. Shocks/springs must be used in designed areas with no combinations other than specified above.

A-arms, and other suspension related components must be original manufactured products produced by approved manufacturers. No homemade parts.

Front shock spacing may not exceed one (1) inch width upper mount.

All suspension and steering components are tunable without any component modifications.

Testing of spring rates by officials will be with a Longacre spring rater using the 1" compression, 1" measurement method.

No mixing and matching of different brands of shocks. All 4 must be Option 1 and 2 or 3

Spindles

All spindles must be manufactured by approved manufacturers.

King pin angles, spindle diameters, spindle arm length and angle, and the location of the outer ball joint mounting hole must remain as originally designed when car was built by approved manufacturers.

Steering

All cars must be equipped with a steering column constructed of 0.750 x .065 steel tubing.

A quick release steel coupling acceptable to the official(s) on the steering wheel is mandatory. Only rack and pinion steering is permitted.

All steering linkage must be properly secured. A single U-joint may be installed on the steering shaft assembly. The U-joint is Afco part number 30309 or similar.

Body Height and Ground Clearance Requirements

All cars must maintain a minimum roof height of no less than 30.5 inches. Not including roof rails. Car height off the ground and body height, including rake or degrees of body angle, shall be determined by measuring overall height of car at rear of the hatch on the roof center line. AS RACED.

Ride height is 1 ¾ in. on all parts of car AS RACED.

No weight shifting devices.

Officials will take into account damage incurred during the race for measuring ride height.

If there is a flat tire in tech a new tire with 18lbs of air will be put on or race tire aired to 18lbs and Tech will continue.

Post Race Tech and Scales.

AS RACED means- as the car raced with driver and equipment after event.

Cars may be scaled after the race or qualifying event. 650 lbs -55% Left Side AS RACED.

Driver will remain in car until official tells them to get out.

Trunk and hood will remain closed until official opens it.

The Champions Engine may be torn down by Tech officials and Engine Sealer with no compensation regardless if it is legal or not.

Officials are not required to reach a conclusion regarding the legality of a car or parts at the race track, and may gather additional information in the days following the event before issuing a ruling.

No equipment or car will be considered as being approved by reason of passing through inspection UNOBSERVED.

Penalties and Fines

Mis-Adjustment infraction. Examples of this include but not limited to minor ride height, minor weight, minor wheelbase, minor track width. Penalty is 5 positions or last car on lead lap. Up to Tech Official

Minor Tech Infraction. Example but not limited to Transponder Location , fuel cell location or size. Air Cleaner Size parts not supplied by Approved manufacturer. Penalty Fine up to \$250 and up loss of all points for event. Illegal parts will be confiscated. Up to Tech Official

Serious Technical Infraction. Examples but not limited to. Fuel, Engine, Carburetor, Exhaust Pipe, Shocks. Fine up to \$500, Total Loss of Points for entire season, suspension for up to entire season. Up to Tech Official, Engine Sealer, Mini Cup Promoter, Track Promoter. Illegal parts will be confiscated.

Refusal to turn over illegal parts. Fine of \$250-\$500 Disqualification from event, suspension from next event at each track. If on last race of season highest previous event points will be removed.

Cheating with Engine Seals. Any Competitor and/or their immediate family who attempts to copy, mock, or circumvent approved engine seals will be banned from further Mini Cup Racing for life.

Any And All Rules May Be Changed At Anytime Without Notice.

Protest Guidelines

Protestor must have finished on the lead lap and in the Top 5

Protest on item must be in writing and given by one individual

Protest fee must be IN CASH by one individual

Must be made within 5 minutes of Checker Flag for event to any Track Official

Carburetor \$ 500.00 -----\$450.00 goes to the prevailing party \$ 50.00 to the Track

Exhaust Pipe \$ 250.00-----\$200.00 goes to the prevailing party \$50.00 to the Track

Engine \$1500.00-----\$1000.00 goes to the prevailing party \$500.goes to Track

Fuel \$ 250.00-----\$200.00 goes to the prevailing party \$50.00 goes to Track

Engine tare down will occur at Rex Hutchison Racing engines with the following people present. Glenn Hutchison, Tony Caputo, Track Official, One member from protested car.

No protest on non-performance items.

Any Driver/ Owner refuses protest is assumed illegal.

Illegal parts will be confiscated and destroyed with no compensation to car owner for illegal parts.

Engine Building

Cylinder head and related parts

1. Check for stock rocker arms
2. Check for stock retainers
3. Check valve springs:

Wire dia.	.110 min. - .118 max.
Spring free length	1.590 max
Outside spring dia.	1.020 max
Inside spring dia.	.785 min
4. Check for only 1 stock spring seat under each spring (max thickness .025)
5. Check for stock valves (only 45 degree angle)
6. Check compression chamber for weld
7. Check valve ports for material removal, valve seat for match up with ports, valve seat one 45 degree and one 30 degree angle only, extra holes in intake port.
8. Check cylinder head for angle cut
9. Check cylinder head thickness (min 3.730)
10. Check head gasket; measure at several places, and inside compression ring (min thickness .043), metal or graphite stock gasket O.K.
11. Check push rod for stock and length; 6.535 + - .005.

Ignition system:

1. Flywheel key must be in place cannot be offset
2. Coil mounting holes cannot be slotted to enable adjustment of timing
3. Check coil mounts for bending or plugged and rethreading

Flywheel:

1. Measure flywheel inner steel ring with hook gauge .335 +/- .005
2. Check flywheel for lightening
3. O.K. to remove magnets
4. O.K. to balance flywheel with no intent to lighten
5. Min. flywheel weight is 11 lbs 10 oz.

Block:

1. Check for piston pop-out (zero allowed)
2. Top of piston should appear to be a stock GX390 piston
Dish in top of piston .085 +/- .005
3. Stroke: 2.52-2.54
4. Bore: 3.465-3.490 (may bore up to .30 over with clearance)
5. Profile cam must meet 2011 specifications
6. Remove side cover and check to see if timing dots align. O.K. to remove oil alert system and governor
7. Check wrist pin for stock Honda GX390 measurements:

Inside-	.552
Length-	2.438
8. Check rod for stock Honda GX390:
No grinding, polishing, or sizing
Enlarging of oil hole and slotting allowed
Approx. length 3.300
9. Check piston for stock Honda GX390:
Dish in top of piston: .085 +/- .005
Oil ring land to bottom of skirt: Old piston 1.948 +/- .002, New piston 2.052 +/- .002
Check for lightening
No coatings
No tech on rings except for thickness and width
10. Check crankshaft for stock Honda GX 390:
No grinding or polishing
No balancing
Crank journal may be reground to -.010
Journal size: 1.416 std.
Journal size for -.010: 1.406
11. Check camshaft for stock Honda GX390:
Easy spin in working order
No lightening
May be welded and reground
12. Check balancer for stock Honda GX390
NO lightening or balancing

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California Mini Cup Promoter----- Tony Caputo 916-300-5668
Rex Hutchison Racing Engines-----Glenn Hutchison 916-483-9563
Stockton 99 Speedway-----209-466-9999
Madera Speedway-Short Track Management-----209-356-1968
All American Speedway-----916-786-2025