

2004 NATIONAL SHORT SHEET
BOARDWALK CASINO/HOTEL LAS VEGAS, NEVADA
FEBRUARY 5-7, 2004
Submitted by Patty Abbott, QMA National Secretary

Based on the outcome of the voting of the RCP's and motions from the floor, the following is being distributed to the general membership of QMA to be effective April 1, 2004 unless otherwise noted. If any member has specific questions regarding the process, they must **first** contact their Regional Director and then if necessary a Board of Director member. All regions were represented at the meeting. The approved changes are listed below with any addendum's or motions to clarify wording included.

Rule Change Proposal's to be incorporated into the existing QMA Racing Rules and Administrative Guidelines.

Handicapped Children

Handicapped children that wish to participate in Quarter Midget racing will be evaluated on an individual basis. K&K Insurance has advised us of their requirements and opinions on the subject.

USAC

The QMA board is currently going thru negotiations with USAC for another 3 year contract to be QMA's Management service.

The relationship between USAC and QMA has improved, there are still some issues that we are currently working together to iron out.

Being affiliated with USAC has many benefits, we are working on ways to keep our kids involved in QMA and not to lose them at such early ages to other racing organizations.

There is also a new email address that goes right to Courtney for all membership questions, her email address is: Qma_usac2@iquest.com

RCP Forms

There were some RCP's that were either lost in the mail or not sent in to National in time for the deadline, it has been suggested that all RCP's are to be sent registered mail to the QMA National office.

Each Region will be able to submit as many RCP's as there are clubs in their region(which means if your region has 8 clubs your region will be able to submit 8 RCP's, clubs can still submit as many RCP's as they want to their region but only 8 RCP's will be sent to National) The QMA National board will be allowed to submit 5 RCP's as long as they have gone through the proper procedure.

QMA Website

The QMA website is being taken to another level, we are working on improving our site and to making it the #1 site for Quarter Midgets. QMA is looking into hiring a Graphic artist and improving the Member's Only section. Financials, documents and the *Quarter*

Reporter will be available to download in the Member's Only section. We would like to spend 20-25k on improving the website. Art Davis the QMA Webmaster has been putting in many hours of his time to design ,improve and maintain the website so earlier this year the QMA board decided to pay Art a fee of \$250.00 a month to maintain the site. Curt and John Mitchell will work with Art on the website.

Quarter Reporter

The *Quarter Reporter* will be going on line and the next issue of the *Quarter Reporter* will be the last issue to be in a magazine format. The last issue will have the 2004 National Short Sheet in it. Having the *Quarter Reporter* on line will enable all pictures to be in color. If members do not have access to the internet they may call the QMA National office and they will print a copy and mail it to them.

National Election

We will be using a nomination committee as per the by-laws for the National election. We may do background checks on candidates and also make sure that they are qualified for the position. The President of QMA will assign the committee.

Chain of Command

We need to get members to start following and using the Chain of Command (Club level to Regional level and then to National). We will be enforcing this. The Chain of Command will be put into the *Quarter Reporter*.

Membership Applications

Clubs need to get the QMA applications into the QMA National office within 15 days after the application and fees have been collected.

QMA Directory

Patty is working on a QMA Directory that will be available to all, she has asked the RD's to get maps ,directions, names of club officers and days that the club races are ran on.

Novice Packets

The Novice packets will be improved on, Patty is working with Kim Kendall to get this complete. Kim has completed a Novice packet for Region 2 and if requested Kim will send a copy. Kim and Patty will continue to finish up the Novice packet distributed from National.

90 Day Grace Period

The 90 day grace period only holds your QMA member/driver # in the data base so that it is not reassigned. If you have not renewed before Jan 1st of each year you are not a member and you are not insured you may not race or participate until your dues are paid in full. You will not receive any correspondence from QMA until you are a paid member.

Judging Video

Jim Muck has volunteered to complete the Judging Video with help from Mark Lloyd and Michelle Barzee.. Jim will review the video and get back with the QMA National

board and the RD's with his committee's thoughts on what we need to do to complete the video.

Electronic Scoring

Kim Kendall and Patty Abbott are working on the Electronic Scoring. Kim will be checking into batch timing and also will be looking into using Electronic Scoring at dirt tracks.

Assistant RD travel expense for the National Meeting

It was decided in 2002 for a maximum allowance of \$600.00 for each region to send an assistant, this includes flight/mileage and hotel only. This recommendation is to be for the Assistant to attend but the Region has the final decision on who they will send as their second person. The replacement has to be another regional board member chosen by the regional board.

Anyone that has run for a position from local to National level must be a paid member by the day that your term begins.

QMA Stickers

The QMA stickers will be given to the RD's and they will distribute to their clubs.

"AA" age limit

The minimum age limit for "AA" will be raised to 9 years old effective 1/01/05.

Mod age limit

The minimum age limit for Mod will be increased to age 7 effective 1/01/05.

Mod Weights

The Heavy Mod weight will be 325lbs. **effective 4/01/04**

Hall Of Fame

QMA will induct 4 people into the Hall of Fame. Scott Tankersly the Regional Director for Region 3 has volunteered to work on bringing the Hall of Fame up to date.

Vacancies in Regional Boards

Unfilled positions can be filled by the regional board effective 2/05/04. The last sentence in section 5 of the Regional Directors Authorities and Responsibilities to read "vacancies shall be filled by a majority vote of the remaining members of the regional board of directors."

Internet voting

The BOD's and Rd's have agreed to adopt a trial Internet Voting policy. Once the guidelines are established, any type of mid year voting can be accomplished quicker without the use of registered mail. At the end of 2004 an evaluation will be made on this practice.

Grands Bidding process

Prioritized list

1. If a club has held a Grand National race within the last three years, clubs that have not will take priority.
2. A club that has bid on the Grands previously and not been awarded the bid, will take priority over those that have not. Assuming it's been at least three years since the last time the club has held a Grands event.
3. First Tie breaker: If two clubs have come to bid and either both have previously bid before or neither have bid, the club that has never held a Grands before will take priority.
Second Tie breaker: If none of the clubs have ever held a Grands, then a vote by the BOD's and Rd's will be held.
4. If a club does not receive an award and does not come back the next year to rebid, they lose their priority the next time they come back to bid and will be considered a first time bidder.

Disclaimer

All clubs that come forward to bid must have an appropriate facility to host a National event. Just because your club would take priority to be the Host on a particular year, does not indicate you will receive the award unless the facility can host such an event. QMA reserves the right to remove bidders from the list if the club cannot meet the requirements as set forth in our Grands Contract and National rulebook.

Grands Bids deadline

The submittal date for Grands bids will be October 15th of each year.

Committee to investigate solutions for high car counts at the Grands

There was a committee formed to investigate solutions for car counts over 675 cars. The committee consists of: Dave Fox, Mike Williams, Rick Ramstrom, Tisha Bucanek, Maggie Brown, Patty Abbott, Michelle Barzee, Kim Kendall, and Ed Spencer.

Qualifying at the Grands

The Qualifying laps have been reduced to 5 warm up laps and 3 on the clock at all QMA National events. The States race and Grands are the only races affected, you may still use the 10/3 at all other qualifying events.

Code of Conduct

A paragraph has been added to the QMA Code of Conduct under the Appeals process (for all code of conduct issues filed after 2/06/04)

(add the following paragraph)

In the case where a Code of Conduct is filed by the National Board of Directors, any appeal to the Code of Conduct shall be referred to all Regional Directors of QMA that

are uninvolved in the incident. All Regional Directors of QMA that are uninvolved in the incident will then hear the member's case and those uninvolved Directors will have the final authority to either; uphold, overturn, or modify the decision made by the National Board. The Regional Board of Directors hearing the appeal to the incident must agree by simple majority on their decision.

Safety Issues

- The SFI 24.1 youth helmet is now approved in all 50 states including New Jersey.
- Cars can not be left running on carts or stands unattended.
- Page 16, section 2, line 16a to read: "all fuel lines must have metal automotive fittings or a metal positive clamp.
- Page 20, section 3 5c2 and 5c5, and remove "2 layers must be sewn, glued or otherwise fastened together.
- QMA will enter an agreement with SFI, Inc. at the cost of \$100.00 per month for the purposes of technical safety advice and consultation.
- Rule Clarification page 19 section 2: video cameras may be used as long as they do not interfere with a driver's helmet and they are permanently secured to the roll cage.
- Due to padding required on steering wheels, data acquisition systems will not be allowed on the steering wheel.
- No data acquisition systems can be touched when they are underneath the tailcone at anytime when on the racetrack.
- Page 18 21.j.3 remove "cotter pin" from the rulebook and substituted 6/32 minimum 10/32 maximum bolt.
- Add to article 4, Modification of any car construction specification for a Quarter Midget or Half Midget class necessary for a physically disabled child must be approved by the National Safety Director on a case by case basis.
- Add to Article 1, Introduction, To support all children who wish too participate in the growth in Quarter Midget racing. To work with handicap children to meet their needs to allow the children to participate.
- Helmet hooks are not allowed within the perimeter of the roll cage.
- No decorative lights on any QMA racecar.

Regional Directors Authorities and Responsibilities

Section 16 will be removed from the Regional Directors Responsibilities and Authorities and will add: The Regional Directors of QMA designated appointee will be the designated chair of the annual meeting of the Regional Directors.

Scoring Procedures

- After all cars have been refueled the lap counting will start when the green flag falls.
- In case of a tie in Qualifying, the second fastest lap will be used as the tie breaker to determine Qualifying position.

Photo ID's

QMA will issue photo ID's for the 2005 racing season. Photo ID's will be issued to Handlers only (no one under the age of 16 will be issued a photo ID) The National board and the Regional Directors will be issued photo ID's this year so that the membership will see what we will be using next year.

Hardship Waiver Fees

The Hardship Waiver fee will now be split between the clubs hosting the States races and National, National and the host club will receive \$75.00 each.

Expense Receipts

Effective 2/06/04 all expense receipts must be received by the National Treasurer within 30 days of the date on the receipt for reimbursement.

Club Charters

All QMA Club Charters are due 10/01 annually with a late date of 12/31 annually with a \$100.00 penalty for late payment.

Trailer parking fees at Grand National Events

The maximum parking fee for a QMA grands event per trailer is \$100.00, effective 1/01/2005.

Grands Contract

A line will be added to the contract to read:

The undersigned has read and agrees to abide by the above conditions subject to a penalty to be decided by Regional Directors and National Board present.

The Grands Contract and Format have been combined into one document.

Golf Carts at Grand National Events

The maximum cap that the facility charges for golf car permits will be the maximum that the host club can charge for golf carts. The club also has the option for no golf carts at all if they so choose. To avoid danger to all participants, all golf cart drivers must have a current driver's license.

Alternate Cars

Article 8 Section 3

If a car from the original lineup is unable to lineup on the initial start the alternate car will be sent out after a lineup is called for and will start in the rear of the field. If a car from the original lineup is past the designated line on the track (nose over the line) before the original green flag falls the driver may rejoin the lineup at the rear of the field.

In the case where a car from the original lineup is past the designated line on the track before the initial green flag falls and the alternate car is on the track, the flagger will throw the caution flag if there are more cars on the track than allowed by Article 5 Section 1.

The Alternate car will be removed from the lineup and double file initial start will follow. The alternate car will return to the standby position until the initial green flag falls.

Rulebook

The rulebook will be published in the old Pocket size version and will be printed every year.

There will be a new section added to the QMA Publications section titled Website.

Regional Qualifiers

It is no longer required for regions to run a RQM race.

2005 Grands

Eastern Grands: North Georgia, Western Grands: Portland, Dirt Grands: Terra Haute

RCP Changes

RCP #8

Engine may be claimed for \$550.00. Effective 4/01/04

RCP #11

All removable roll cages will conform to all appropriate specifications as follows and be raced only in the Novice class. Effective Immediately

RCP # 12

The switch must be installed so that when the handle is down or to the rear the ignition is off. Effective 4/01/04

RCP #13

If a car is rolling and obviously going dead on the track and the flagman throws the yellow flag for safety before the car goes dead on the track, that car will be restarted at the rear of the pack and will be charged with a DOT unless a call is made.

Effective 4/01/04

RCP #18

Article 5 Sec 2 Table 5-1

Super Stock Junior 5-8 N/A 250 lbs. 160 lbs.

Super Stock Senior 9-15 N/A 285 lbs. 160 lbs.

Effective 4/01/04

RCP #19

Heating tires prior to racing or qualifying with any device using external or internal energy sources other than the direct sunlight on the tire surface or tire cover is prohibited in the hot chute and staging area. Tire covers may not be heated prior to use on the car and may not contain any heating devices. Effective 4/01/04.

RCP #20

Refusal of claim on a Honda motor is an automatic 6 month suspension on first offense. Effective 4/01/04

TECH

120 SHORT SHEET NOTES

2004 National Tech Committee
Glenn Lewis Tech. Director

KEY: Red Highlight = Removed or Replaced Segment
Yellow Highlight = New Segment

Changes to HONDA CLAIM RULE - For GX120 QMA Type Engines

Claims will be from within the same division of class only, I.E., Jr. Sr. Lt. Hvy. 120 160 – Only competitors in the same division may make a claim on an engine. No claiming in Novice class. **One claim per race event, per handler, per class.**

Engines may be claimed for **\$550.00** cash only. No claim related inspection will be started prior to the funds being posted with the proper official.

If the claimed engine is found to be illegal, the motor must be completely torn down to check for additional illegalities. The Tech Director must confiscate ALL illegal parts and related parts from the claimed engine and shall immediately forward them to the National Tech Director along with confiscation form. **Claiming party has the option to accept the engine, as is, less confiscated parts or void the claim if engine is found illegal** and claim money will be returned to the person filing the claim.

Note: Reference to Wear Limits in “*Engine Block Internal*” section of both Honda Manuals

CHANGES TO GENERAL RULES

Factory air cleaner must be removed. Any air filter may be attached to the outside of air filter adapter. Outer wear style or equivalent can be used over carburetor only with no adapter. The approved air filter adapter may be run with or without an air filter. Any air filter may be used with adapter as long as there are no devices inside the air filter or adapter. (I.E. Springs not allowed) Hose from valve cover must go into a catch can. (We are using “outerwear” to define a style not brand name).

The use of air filters during qualifying at Quarter Midget events is illegal. The Senior Tech. Official reserves the right to allow filters at any event that it’s deemed necessary

Recoil starter must be removed. Pull cup may be cut down for washer. **Must use original Cup.**

All QMA ¼ midget mufflers must be Briggs & Stratton Part # 294599 or equivalent. No drilling holes in the baffles. Inside seam of baffle must be straight edged. (NOTE: Some seams may not be parallel in baffle) You cannot cut off the threaded flange if it is to be used in Honda. It is OK to weld a washer or nut on the flange for a place to apply safety wire.

All pin measuring gauges are plus tolerance.

Exhaust oxygen sensor or temp. sensor attached to any part of Honda exhaust system is illegal

Valve seals are illegal

Cryogenics of any Honda part is illegal

Note: Taking parts out of service. Reference: Wear Limits in Engine Block Internal section

DQ Only – Not a Suspension for: Exhaust, Air Filter Adapter, Spark Plug

CARBURETOR

Failure to use proper restrictor plate, alteration of restrictor plate, or improper installation of plate in designated classes is cause for immediate DQ and all applicable suspensions will be applied.

Main jet and main nozzle: **(MUST BE TIGHT)**

Main nozzle will be checked with a NOGO Gauge (0.429”) If gauge goes over dump tube – carb is illegal.. This is best measured using a 0.452” rod type gauge with a 0.429” flat area to be used as a go gauge.

TECH PROCEDURE

Factory air cleaner must be removed. Any air filter may be attached to the outside of air filter adapter. Outer wear style or equivalent can be used over carburetor only with no adapter. The approved air filter adapter may be run with or without an air filter. Any air filter may be used with adapter as long as there are no devices inside the air filter or adapter. (I.E. Springs not allowed) Hose from valve cover must go into a catch can. (We are using “outerwear” to define a style not brand name).

1. The use of air filters during qualifying at a Quarter Midget event is illegal. The Senior Tech. Official reserves the right to allow filters at any event that it's deemed necessary.

ENGINE COOLING SHROUDS

Zero Dial Indicator after exhaust bump. (0.050) ref.

CYLINDER HEAD, HEAD GASKET, VALVES, SPRINGS

B. Thickness of retainer will be:

Intake: 0.228” minimum

Exhaust: 0.251” 0.241” minimum

C. Flange thickness of retainer will be:

Intake: 0.100” 0.110” maximum

Exhaust: 0.070” maximum

E. All Valve oil seals must be removed.

1. The use of valve seals is illegal and will result in applicable suspension per Honda suspension program.

VALVE SPRINGS

Spring pressure: 12 LBS maximum at 13/16" (0.912") (0.812")

Rocker Arms - Push Rods – Studs

Rocker arms will be stock Honda and will not be altered in any way. Rocker arm studs will be stock Honda. They or their mounting position may not be altered in any manner. No heli-coiling of mounting holes. No bending of studs. Push rods will be stock Honda and will not be altered in any way. Push rod length will be Maximum 4.799-4.775 4.799"- 4.770".

ENGINE BLOCK

C. Addition of brackets, fittings etc. to accommodate throttle linkage, tachometer, temperature gauge is allowed.

Check bore: 2.364" 2.365" maximum NOTE: All measurements taken at top of bore or very bottom of bore.

Check stroke: 1.659" Maximum 1.644" 1.640" Minimum

CAMSHAFT PROFILE LIMITS

IN TAKE	Degrees		EXHAUST	Degrees	
0.050"	10.5 to 14	ATDC	0.050"	207 to 210.5	BTDC
0.100"	26.5 to 30	ATDC	0.100"	190 to 193.5	BTDC
0.150"	45 to 48.5	ATDC	0.150"	170.5 to 174.5	BTDC
0.180 Split			0.180 Split		
0.200"	71 to 74.5	ATDC	0.200"	144 to 148	BTDC
Maxlift .227"	Peak 104 - 107	ATDC	Maxlift .229"	Peak 107.5 - 110.5"	BTDC
0.200"	136 to 141	ATDC	0.200"	70.5 to 73.5	BTDC
0.180 Split			0.180 Split		
0.150"	162.5 to 167	ATDC	0.150"	44.5 to 47.5	BTDC
0.100"	180.5 to 185	ATDC	0.100"	26 to 29.5	BTDC
0.050"	197.5 to 201	ATDC	0.050"	9 to 12.5	BTDC

Flywheel, Fan and Ignition System

Spark Plug: Any automotive type spark plug with 3/4" reach maximum is allowed

Piston Notes

Total Piston weight with rings, retainers, complete with rod, pins and bolts 263 grams minimum

RINGS

Compression: 0.056" min.
Scraper: 0.056" min.
Oil Ring: 0.098" 3 piece lower 0.095" min. 1 piece 0.097" min.

Connecting Rod

Connecting rod big end size: 1.024" 1.021" minimum - 1.0265" maximum
Pin end bore is 0.5118 0.5111 ref.

TAPPETS

Stem diameter: 0.3147" 0.312 minimum
Weight: 17 16 grams minimum

Engine Block Internal

Cylinder bore will be 2.364" 2.365" maximum. NOTE: All measurements taken at top of bore or very bottom of bore.

Confiscation of Parts – Wear Limits

QMA Reserves the right to confiscate 120 Honda engine parts deemed illegal or at QMA maximum wear limits. Example: Cylinder bore will be 2.365 max. Note: All measurements taken at top of bore or very bottom of bore parallel to crank 90 degrees from crank. Any cylinder block that one measurement is over QMA maximum wear limits will be taken out of service. If no measurements exceed QMA Maximum wear limits the part or block will not be confiscated. Handler has the right to confiscate parts at QMA wear limits returned to them, but it will be rendered unusable.

Machined surface of block down to thrust face of cam boss:
3.228" minimum 3.232" 3.240" maximum

Machined surface of block down to bearing face:
3.430" minimum 3.434" 3.442" maximum

Tech officials have the right to tech any or all cars in any class at their discretion. Tech Officials follow the same chain of command as all officers of QMA – as follows: Local – Regional – National I.E. Regional tech officials can tech at any event at their region and National Tech Officials can tech at any event in QMA. National Tech Director is final authority on all tech issues.

Intake Valve Margin = 0.022 Min 0.033 Max 0.039 Max

Exhaust Valve margin = 0.041 Min 0.053 Max 0.059 Max

Intake Valve Stem to Retainer Groove = 0.154 Min 0.140 Min 0.162 Max

Piston Top = 2.342 Min 2.346 Max 2.350 Max.

Bottom of Lower Ring Land to Top of Piston = 0.567 Min 0.530 Min 0.571 Max 0.538 Max.

160 SHORT SHEET NOTES

2004 National Tech Committee

Glenn Lewis Tech. Director

KEY: Red Highlight = Removed or Replaced Segment
Yellow Highlight = New Segment

Changes to HONDA CLAIM RULE - For GX160 QMA Type Engines

Claims will be from within the same division of class only, I.E., Jr. Sr. Lt. Hvy. 120 160 – Only competitors in the same division may make a claim on an engine. No claiming in Novice class. **One claim per race event, per handler, per class.**

Engines may be claimed for **\$550.00** cash only. No claim related inspection will be started prior to the funds being posted with the proper official.

If the claimed engine is found to be illegal, the motor must be completely torn down to check for additional illegalities. The Tech Director must confiscate ALL illegal parts and related parts from the claimed engine and shall immediately forward them to the National Tech Director along with confiscation form. **Claiming party has the option to accept the engine, as is, less confiscated parts or void the claim if engine is found illegal** and claim money will be returned to the person filing the claim.

Note: Reference to Wear Limits in “*Engine Block Internal*” section of both Honda Manuals

CHANGES TO GENERAL RULES

1. Only stock Honda GX160K1 HX2* and **HX2 6** engine and gearbox will be used in this class. All parts will be stock Honda specifically made for the Honda GX160OK1 HX2.
 - A. **All 160 Honda engines must be updated to the new E2 Style piston and cylinder head.**
 - B. **FAILURE TO UPDATE = DQ AND 6 MONTH SUSPENSION**

Factory air cleaner must be removed. Any air filter may be attached to the outside of air filter adapter. Outer wear style or equivalent can be used over carburetor only with no adapter. The approved air filter adapter may be run with or without an air filter. Any air filter may be used with adapter as long as there are no devices inside the air filter or adapter. (I.E. Springs not allowed) Hose from valve cover must go into a catch can. (We are using “outerwear” to define a style not brand name).

The use of air filters during qualifying at asphalt and dirt events is illegal. The Senior Tech. Official reserves the right to allow filters at any event that it's deemed necessary

Recoil starter must be removed. Pull cup may be cut down for washer. **Must use original Cup.**

All QMA ¼ midget mufflers must be Briggs & Stratton Part # 294599 or equivalent. No drilling holes in the baffles. Inside seam of baffle must be straight edged. (NOTE: Some seams may not be parallel in baffle) You cannot cut off the threaded flange if it is to be used in Honda. It is OK to weld a washer or nut on the flange for a place to apply safety wire.

Main jet in carburetor may be a maximum of **#80 #82 (0.033 nogo).**

All pin measuring gauges are plus tolerance.

Exhaust oxygen sensor or temp. sensor attached to any part of Honda exhaust system is illegal

Valve seals are illegal

Cryogenics of any Honda part is illegal

Note: Taking parts out of service. Reference: Wear Limits in Engine Block Internal section

DQ Only – Not Suspension for: Exhaust, Air Filter Adapter, Spark Plug

CARBURETOR

Carburetor venturi bore: 0.521 0.522 0.523- no/go. This measurement is best made with a no go gauge but may be made using a telescoping gauge as a no go.

Main jet and main nozzle: (MUST BE TIGHT)

Main jet size: maximum #80 (0.0312") check with #67 (0.032") #82 - 0.033 no/go.

Main nozzle will be checked with a No/Go Gauge (0.424") If gauge goes over dump tube – carb is illegal.. This is best measured using a 0.452" rod type gauge with a 0.424" flat area to be used as a go gauge

TECH PROCEDURE

Factory air cleaner must be removed. Any air filter may be attached to the outside of air filter adapter. Outer wear style or equivalent can be used over carburetor only with no adapter. The approved air filter adapter may be run with or without an air filter. Any air filter may be used with adapter as long as there are no devices inside the air filter or adapter. (I.E. Springs not allowed) Hose from valve cover must go into a catch can. (We are using "outerwear" to define a style not brand name).

1. The use of air filters during qualifying at asphalt and dirt events is illegal. The Senior Tech. Official reserves the right to allow filters at any event that it's deemed necessary.

ENGINE COOLING SHROUDS

Zero Dial Indicator after exhaust bump. (0.050) ref.

CYLINDER HEAD, HEAD GASKET, VALVES, SPRINGS

Thickness of retainer will be: Intake: 0.228" minimum Exhaust: 0.251 0.241" minimum

Flange thickness of retainer will be: Intake: 0.100 0.110" maximum Exhaust: 0.070" maximum

Combustion Chamber CC: 17.2 Min with stock spark plug.

All Valve oil seals must be removed -

The use of valve seals is illegal and will result in applicable suspension per Honda suspension program.

Rocker Arms - Push Rods - Studs

Push rod length will be 5.259 5.257-5.279".

HEAD

Measure from surface of head to lowest machined area in the bowl of the port. This dimension will be:

Intake: 1.062 1.162" maximum

Exhaust: 0.993 1.122" maximum

Measure from head surface to top of valve

Exhaust: 0.225 Min., Old Spec. 0.230 Min.

ENGINE BLOCK

Check stroke: Check Bore: 2.681 Maximum

1.778 maximum to 1.758" minimum

Zero dial indicator after exhaust bump (0.050) ref.

CAMSHAFT PROFILE LIMITS

IN TAKE			Degrees	EXHAUST			Degrees
0.050"		10.5 to 14	ATDC	0.050"	207-1/2	207	to 210.5 BTDC
0.100"	26.5 to	29-1/2 30	ATDC	0.100"	190-1/2	190	to 193.5 BTDC
0.150"	45 to	48 48.5	ATDC	0.150"	171.5	170.5	to 174.5 BTDC
0.180 Split"				0.180 Split			
0.200"	71 to	74 74.5	ATDC	0.200"	145	144	to 148 BTDC
Maxlift .227"	Peak 104 -	107	ATDC	Maxlift .229"	Peak 107.5 -	110.5	BTDC
0.200"	136 to	140 141	ATDC	0.200"		70.5	to 73.5 BTDC
0.180 Split				0.180 Split			
0.150"	162.5 to	165.5 167	ATDC	0.150"		44.5	to 47.5 BTDC
0.100"	180.5 to	183.5 185	ATDC	0.100"	26.5	26	to 29.5 BTDC
0.050"	197.5 to	200.5 201	ATDC	0.050"	9.5	9	to 12.5 BTDC

Flywheel, Fan and Ignition System

I. Any automotive type spark plug with 3/4" reach maximum is allowed.

PISTON NOTES

Total Piston weight with rings, retainers, and rod, and bolts 363 360 grams minimum.

RINGS

Oil Ring: 0.097" min. 3 piece oil ring = 0.095 min. 1 piece oil ring = 0.097 min.

Connecting Rod

Connecting rod big end size: 1.182 1.176" minimum - 1.184" maximum

Pin end bore is: .710" maximum ref.

TAPPETS

STEM DIAMETER: 0.3147 0.312" MINIMUM

WEIGHT: 17 16 GRAMS MINIMUM

Engine Block Internal

Cylinder bore will be 2.680 2.681" maximum.

Machined surface of block down to thrust face of cam boss: 3.220" minimum 3.224 3.235" maximum

Machined surface of block down to bearing face: 3.416" minimum 3.420 3.435" maximum

Confiscation of Parts – Wear Limits

QMA Reserves the right to confiscate 160 Honda engine parts deemed illegal or at QMA maximum wear limits. Example: Cylinder bore will be 2.681 max. Note: All measurements taken at top of bore or very bottom of bore parallel to crank 90 degrees from crank. Any cylinder block that one measurement is over QMA maximum wear limits will be taken out of service. If no measurements exceed QMA Maximum wear limits the part or block will not be confiscated. Handler has the right to confiscate parts at QMA wear limits returned to them, but it will be refund unusable.

Tech officials have the right to tech any or all cars in any class at their discretion. Tech Officials follow the same chain of command as all officers of QMA – as follows: Local – Regional – National I.E. Regional tech officials can tech at any event at their region and National Tech Officials can tech at any event in QMA. National Tech Director is final authority on all tech issues.

Intake Valve Margin = 0.033 Max 0.036 Max

Exhaust Valve Margin 0.053 Max 0.059 Max

Piston Top = 2.662 Max 2.665 Max

Bottom of Lower Ring Land to Top of Piston = 0.532 Min 0.530 Min 0.536 Max 0.538 Max

Top of Piston to Bottom of Skirt = 2.108 Max 2.110 Max.

DECO SHORT SHEET NOTES

2004 National Tech Committee
Glenn Lewis Tech. Director

KEY: Red Highlight = Removed or Replaced Segment
Yellow Highlight = New Segment

Tech officials have the right to tech any or all cars in any class at their discretion. Tech Officials follow the same chain of command as all officers of QMA – as follows: Local – Regional – National I.E. Regional tech officials can tech at any event at their region and National Tech Officials can tech at any event in QMA. National Tech Director is final authority on all tech issues.

The use of air filters during qualifying at any quarter midget event(s) is illegal. The Senior Tech. Official reserves the right to allow filters at any event that it's deemed necessary.

In addition to existing rule #8 - Firing. Deco manual page 7. Stock DECO Timing = No cone, wave, spring, foam or offset washers allowed in any QMA stock engine. 0.015", (15 thousandths), maximum endplay on crankshaft.

- The philosophy of the committee is to push in to prove engine is legal rather than pulling out to prove the engine illegal.

Deco Tech Manual Basic Engine Section I, C. All QMA ¼ midget engines will be 4 cycle, normally aspirated, air cooled and American made. Blocks will be cast iron or similar ferrous material. No overhead valves, fuel injection, blowers, water cooled engines or free spinning flywheels. The gear box is not considered a part of these engines, there fore any gear box may be used.

Deco Tech Manual ½ Class Section VIII,B – (replace first paragraph) – Any make 4 cycle engine

American or Foreign – single cylinder only. No Water Cooled engines – no blowers – no fuel injection – no free spinning flywheels. 253 Cubic Centimeters - 15.439 cubic inches maximum displacement. All other modifications allowed. Second paragraph stays as is.

Deco Tech Manual Basic Engine Section I, D – All “special”/ after-market of the same, or different basic engine designs, must be approved by QMA Technical Director.

Stock/MOD and “AA” Engine Head bolts must remain in stock location.

Maximum intake valve size for “B” Class = 1.500”

Approved Super Stock Carbs.

HP Pumper Carb # _____ and Tillitson Carb # 357 with approved restrictor plates.

Walbro Big Bowl Model #'s LMG and LMB will only be legal for Novice, (Deco), Class effective 1/1/05

RULEBOOK SHORT SHEET NOTES

2004 National Tech Committee

Glenn Lewis Tech. Director

KEY: Red Highlight = Removed or Replaced Segment

Yellow Highlight = New Segment

All QMA ¼ midget mufflers must be Briggs & Stratton Part # 294599 or equivalent. No drilling holes in the baffles. Inside seam of baffle must be straight edged. (NOTE: Some seams may not be parallel in baffle) You cannot cut off the threaded flange if it is to be used in Honda. It is OK to weld a washer or nut on the flange for a place to apply safety wire

Any form of exhaust wrap must be able to be removed for the purpose of tech. Inspection. Tech Director can remove exhaust wrap to inspect pipe.

Failure to use proper restrictor plate in designated classes, any alteration of restrictor plate, or improper installation of plate is cause for immediate DQ and applicable suspension within Deco or Honda Suspension Program.

Fuel test procedure Recommended – Clubs to specify one location for purchase of fuel within a close proximity to racing facility. Identify one mid range octane fuel (suggested: 89 Octane). Clubs publish location and Octane for the season on race schedules and promo material. Club must also purchase one gallon or more of same for each event for comparative sample. *Alternative:* “Track Fuel” = Track to supply all fuel at nominal fee.

Add to Rule book (all classes)

- Section 10.H – (6) NO Water Cooled engines allowed in any QMA Class.
- Section 10.H – (7) NO external cooling devices of any kind allowed any QMA class.

Updates to Restrictor Plate Program – to be announced.

Remove explanation of fluids from Reasons for DQ – any fluid = DQ – no need to list them.

As of January 1, 2005, all Briggs & Stratton Engines including model #82352 will be removed from competition in the Quarter Midget classes.

The use of air filters during qualifying at any $\frac{1}{4}$ midget event is illegal. The Senior Tech Official reserves the right to allow air filters at any event that it's deemed necessary.