

STRETTON CIRCUIT SPRINT SERIES 2008



PRO KART SPRINT SERIES RULES AND REGULATIONS 2008

Introduction

These regulations provide the basis on which Sprint Karting Events will be run and are intended to provide a fair basis for all drivers and to keep costs under control.

This document contains information on the following classes;

Honda Super pro

Honda Pro

Honda Clubmans

Honda Twin Engine Juniors (NEW FOR 2008)

BUDGET HONDA (NEW FOR 2008)

Subaru Junior

Subaru Senior

Any changes to regulations will be advised to every registered driver via the Stretton2000.com website. Stretton Circuits "rules and regs" are always the first point of call on any issues, if this fails to resolve an issue then the MSA Blue Book for Honda Seniors will be consulted and used as a reference point. Subarukart will be judges of fact on any technical issues relating to Subaru.

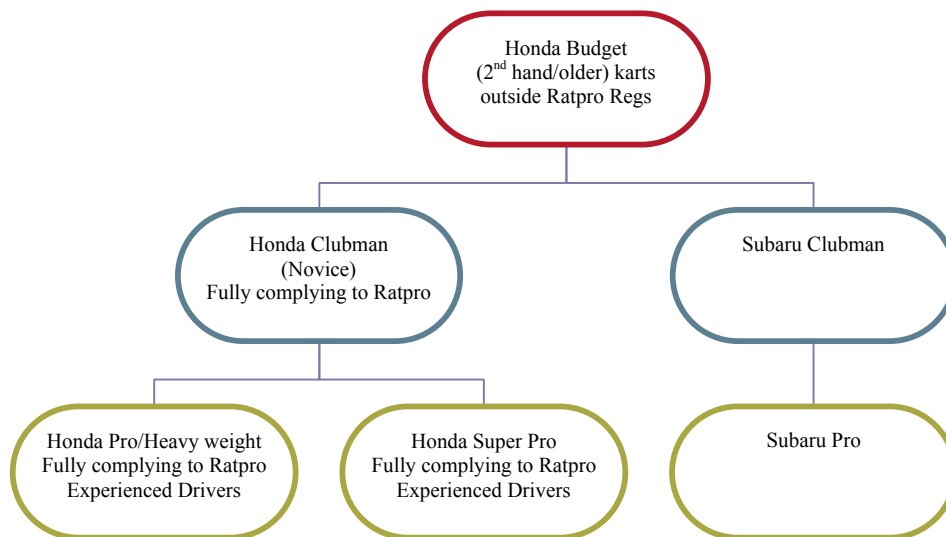
It is mandatory that all drivers read and understand these regulations. If you have any questions please ask for clarification.

The Series has traditionally relied on web based forums to communicate any issues relating to the series and you are encouraged to join these forums to receive any updated information. www.strettoncircuit.co.uk & www.midland4stroke.co.uk will mirror information relating to the series.

To compete in the series you must be a member of Stretton Kart Club 2008 details of which can be found on the website.

Pro kart racing at Stretton circuit aims to provide as many opportunities as possible for drivers of all ages and abilities to compete in sprint racing. Over the years, grids sizes have varied due to a number of factors not least the cost of competing at the highest level in the Honda Classes. In an effort to assist newcomers, a NEW Honda Budget class has been introduced to encourage new owner drivers to get involved in racing in a safe and controlled environment.

The ethos of the class is to provide a structured racing environment for drivers not in a position to bring an older/2nd hand kart up to full Honda racing specification who would still like to compete on an even playing field. It is not intended to be a full open class where there are no restrictions on modifications but it is intended to incorporate as many Honda GX 160 prokarts as possible. It is also hoped that drivers racing in the class will look to progress into the more formal Honda Clubman/Pro classes or change over to the Subaru classes. The class is intended as an introduction to racing where modifications are limited but the regulations cover as many karts as possible.



In addition to the Budget class we will also introduce a Honda Twin Engine Junior class which will run as a separate class if the numbers allow. Although there will be no lower age limit, juniors must show an acceptable level of driving or hold an MSA licence or have passed an ARKS test. Entry to the class will be entirely at the discretion of the organisers.

1. GENERAL

- 1.1 Stretton Circuit sanctioned events are open to all drivers from any Country using recognised Honda powered Pro-Karts or Subaru powered Pro-karts, subject to the technical and other regulations laid out in this and any supplementary regulations.
- 1.2 Registration is deemed acceptance of Stretton Circuit regulations.
- 1.3 Stretton Circuit reserves the right to refuse or suspend registration of any driver. Such refusal to be used only to protect the best interests of all competitors and the good name of the Association.

- 1.4 Only receipt of the total amount of the entry fee will constitute confirmation of your entry as far as Stretton Circuit are concerned.
 - 1.5 Each driver entered must have studied these regulations in full and signed a declaration of indemnity before taking part in any event.
 - 1.6 All drivers must attend the briefing by the Clerk of the Course or the Race Director.
 - 1.7 The itinerary has been arranged as detailed, however Stretton Circuit reserves the right to alter this, if circumstances require. No refund, either in full or part, will be given to participants barred from the race by Stretton Circuit officials for non-observance of the rules.
 - 1.8 The minimum age for entry in the senior class is 16 years **however lower aged drivers will be admitted to the series if they have demonstrated a level of competence which will not endanger themselves or their fellow competitors.**
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- 1.9 Championship entry is conditional upon each competitor surrendering his/her rights for TV filming and broadcast footage or images using for magazine publication collected during the series for use at the organiser's discretion.

2 REGISTRATION

All competitors must be members of Stretton Circuit Kart Club.

3. SAFETY

- 3.1 Emphasis is on the safety of the kart in respect of securely fitted bumpers, seats and other equipment; freedom from sharp protrusions which could cause injury or damage and correct operation of the brake/throttle and steering.

Please note that fuel caps must be secure and, if found to be loose or defective, must be replaced before the team is permitted to race.

- 3.2 Karts will not be required to be fitted with a rearward red facing light. Teams wishing to run a rear light should ensure its operation is **not** flashing.
- 3.3 All drivers will be required to wear suitable protective clothing. Overalls designed specifically for racing should be used and the organisers strongly recommend use of racing suits incorporating protective padding. Suitable leathers may also be used. Waterproof over suits may be used in bad weather but must be used over the top of a protective racing suit. Full-face crash helmet with visor, racing gloves and footwear providing suitable protection for the ankles are compulsory. No "bum-bags", driver belts and other such weights may be carried by drivers. No tools to be carried on driver's person.

IT IS THE RESPONSIBILITY OF THE DRIVER TO BE SUITABLE CLOTHED

If you are unsure please ask. Race wear is available to hire should drivers require.

- 3.4 The presence of officials trained in first aid will be statute.
- 3.5 Any driver found or suspected of taking alcohol or any other drug or prohibited substance will be immediately barred from any further part in the meeting.

4. RACE PROCEDURE

- 4.1 A Clerk of the Course will be appointed for each event and, where appropriate, deputies will also be appointed. The Clerk of the Course will have full control over the event with the power to stop and/or penalise drivers/team causing a danger of breaching regulations.
- 4.2 On arrival all drivers must report to reception. ALL DRIVERS ARE REQUIRED TO COMPLETE A SCRUTINEERING DECLARATION giving details of chassis, engine numbers, class entered, kart number and tyre details, prior to signing on.
- 4.3 Once the Scrutineering declaration has been completed, drivers may sign on at the official race administration point.
- 4.4 Official practice will only commence when scrutineering has finished and practice is declared open.
- 4.5 Individual details of times will be given in the final instructions of each event, however in general the format will be as follows:

Signing on
Scrutineering
Briefing
Practice
Qualifying
Grid Formation
Races
Presentations

- 4.6 Each meeting will generally be as follows (times may vary):

Signing on	08.30am – 09.30am
Scrutineering	09.30am – 10.00am
Official Practice	10.30am – 10.45am
Qualifying	10.45am – 11.00am
First Race	11.30am

- 4.7 A whistle will be sounded 7 minutes before the start of a heat/final. Pit lane will close at the end of this period. It is the responsibility of the driver to ensure that they are on the grid. **This rule will be rigorously enforced especially in changing weather conditions to avoid competitors making late changes to a Karts set up to the disadvantage of drivers already assembled in the pit lane.**

4.8 Three races of 25 laps – Standing Start

4.9 One 35 lap final standing start

5. POINTS SCORING SYSTEM AND DATES

5.1 The SCSS will be run over 8 rounds, with 6 rounds to count in **Both Championships.**

5.1 Listed below are the dates of all race meetings for 2008:

Sunday March 9th 2008

Sunday April 13th 2008

Sunday May 11th 2008

Sunday June 1st 2008 (1st Week of the Month)

Sunday September 14th 2008

Sunday October 12th 2008

Sunday November 9th 2008

Sunday December 14th 2008

PLEASE NOTE. There are NO rounds scheduled for July or August this year to avoid clashing with annual holidays. The majority of other meetings take place on the 2nd Sunday of the month with the exception of the June meeting.

5.1

Heats

1st	: 24 points
2nd	: 23 points
3rd	: 22 points
4th	: 21 points
5th	: 20 points
6 th	: 19 points
7th	: 18 points
8th	: 17 points
9th	: 16 points
10th	: 15 points
11th	: 14 points
12th	: 13 points
13th	: 12 points
14th	: 11 points
15th	: 10 points
16th	: 9 points
17th	: 8 points
18th	: 7 points
19th	: 6 points
20th	: 5 points

Final

1 st	: 100 points
2 nd	: 95 points
3 rd	: 90 points
4 th	: 85 points
5 th	: 80 points
6 th	: 75 points
7th	: 70 points
8th	: 65 points
9th	: 60 points
10th	: 55 points
11th	: 50 points
12th	: 48 points
13th	: 46 points
14th	: 44 points
15th	: 42 points
16th	: 40 points
17th	: 38 points
18th	: 36 points
19th	: 34 points
20th	: 32 points

21st	: 4 points	21st	: 30 points
22nd	: 3 points	22nd	: 28 points
23rd	: 2 points	23rd	: 26 points
24th	: 1 points	24th	: 24 points

If there are more than 24 finishers in a heat each finisher after 24th will receive 1 point in the heats and in the final 24 points

2008 will carry NO additional points for competing in All rounds.

- 5.3 Maximum of 2 drivers per kart. Both drivers must be named at the beginning of the season and only those drivers to race that kart for points. No additional drivers allowed to race for points for that kart. In the event of a shared Drive, only one trophy will be awarded.
- 5.4 In the event of a tie for any of the final Championship positions at the end of the season, the advantage will go to the driver with the highest number of race wins. If these are equal, the decision will be made on the highest score. If there is still a tie, the driver with the highest score in the last scoring round will get the decision.
- 5.5 **Entry Fee - £40.00 per round + £5.00 TX hire** (new for this year is that a credit card or drivers licence will be required as a deposit on the TX)

Entry Fee for Juniors - £25.00 per round + £5.00 TX hire

- 5.6 Any driver failing to assemble on the grid prior to pit lane closing must start from the pit lane and will not be permitted to take part in a green flag lap.
- 5.7 All the timing and lap scoring will be computerised based on AMB 160 transponders. Transponders can be hired from Stretton 2000 for £5.00. These must be securely attached to your kart using the correct transponder holder.

You are actively encouraged to purchase your own transponder.

In the event of a shortage of transponders, priority will go to Drivers who have previously competed in the Championship. You May be asked to take part in the meeting without using a Transponder and be manually lapped scored. Please consider buying your own.

**PLEASE NOTE THERE IS A £30.00 REFUNDABLE DEPOSIT FOR
TRANSPONDER HIRE**

- 5.8 The Clerk of the Course will call in any driver causing danger or ignoring flag signals. Stop-go penalties may be applied depending on the seriousness of the offence. Serious or repeated offenders may be excluded. No work may be carried out on a kart held for a stop/go penalty.

Flag signals will be used in line with international motor sport, i.e.:

Blue	Another competitor is following close behind
Yellow	: Danger ahead, slow down, no overtaking
Green	: All clear, continue racing
Red	Stop racing immediately. Roll to a stop, away from the racing line and await further instructions. No overtaking
Black/orange	: Shown with the number of the kart – mechanical danger, return to pits with care
Black/white	Shown with the number of the kart – warning of driver behaviour
Black	Shown with the number of the kart – report to the Clerk of the Course on completion of that lap
Green flag/greenlight	: Starts race
Chequered flag	: Race or practice finishes

5.10 Any kart breaking down on the circuit may be returned to the pits for repair. Drivers may push their karts back on the track. In the event of a stalled engine the kart **may** be started on the track but it must be done safely.

6. REFUELLING/PIT STOPS

- 6.1 Refuelling must only take place within the official refuelling area. This is a strictly non-smoking area.
- 6.2 The drivers must remain with the kart when refuelling and act on the instruction of the refuelling marshal in charge. Engines must be switched off.
- 6.3 Repairs/driver changes etc may only be carried out within the designated pit area. This will be identified in final instructions and at the event. Emergency repairs may be carried out at a safe place on the circuit in order to return the kart to the pits. If a kart breaks down on the circuit the driver is permitted to make a minor repair to speed the return of the kart to the pits so long as the kart is first removed to a position of safety.
- 6.4 During the course of an event, drivers must notify the clerk of the course if they intend to use more than one chassis, although the components, including engines, may be replaced at will.

- 6.5 In the interest of cost reduction the use of the following is specifically prohibited:
- Any equipment or chemical designed to pre-heat or soften tyres prior to use.
 - The fitment of any device allowing adjustment to the performance of engines/chassis by the driver while on the move.
- 6.6 Karts must at all times use slick dry weather tyres unless the Clerk of the Course declares conditions are open. In open conditions teams may choose the use either wet or dry tyres.
- 6.7 Karts must be driven at no more than walking pace within the pit area. Speeding in the pits will result in stop/go penalties. This is for the safety of all concerned and will be rigorously applied by the Clerk of the Course.
- 6.8 On rejoining the circuit from the pits, drivers must be aware of karts on the circuit and only rejoin when safe to do so.
- 6.9 In the event of a race being stopped/red flagged, drivers should stop racing immediately, roll to a stop and await further instructions. Under no circumstances should drivers overtake.
- 6.10 The drivers will be permitted to carry out running repairs providing that these are carried out by hand only; no tools of any kind are permitted on the track. There will be no refuelling as soon as the red flag is in process and will only be permitted once the race has been restarted. Any karts not able to make the restart will be moved to the pit entrance – when the race is restarted these karts will be allowed into the pit.
- 6.11 Competitors will be given five minutes warning of the restart of the event. The restart will be in single file in the order at the time when the race was red flagged.
- 6.12 No outside assistance is permitted prior to a restart.

7. DRIVING STANDARDS

- 7.1 Drivers will be expected to compete with the safety of others in mind. Any driver in breach of this will be subject to penalties as decided by the Clerk of the Course.
- 7.2 In sprint races there will be a great deal of variation in the pace and skill of drivers. Those who are novices are reminded of the need to pay attention to faster karts catching them, indicating to the faster driver which side they should pass by pointing their finger. Faster drivers are reminded that a little patience in overtaking is better than a damaged kart and lengthy repairs.
- 7.3 Drivers must pay attention to the flag signals and other assistance from marshals. Ignoring flag signals will result in penalties.

- 7.4 Any weaving from side to side with the intention of stopping others from overtaking will be penalised.
- 7.5 Drivers must not cross the line indicating the edge of the circuit except in emergency circumstances. Deliberate missing of corners or any short cuts will be penalised by stop/go penalties.
- 7.6 All drivers will be expected to act in a “sportsman like” manner; under no circumstances will we tolerate verbal or physical abuse towards other competitors at any time. Supporters and guests of teams are the responsibility of the drivers.
- 7.7 Any driver, spectator or guest found to be in breach of the above point 7.6 will be penalised.

8. TECHNICAL REGULATIONS

(Honda – Super Pro, Clubman & Heavyweight Junior and Budget classes)

Competitors should work on the basis that if it does not clearly state that you can do something, then you cannot. If in doubt, ask.

- 8.1 Wheel base between 104cm and 108cm.
- 8.2 All karts **MUST** be fitted with side pods, front Nassau panel and front fairing spoiler panel. “Big Foot” Nassau panels are permitted.
- 8.3 Sponsors names and other graphics may be applied to the kart making use of the side pods, nose cone etc. There is no restriction of these subject to the numbers being clearly visible; any graphics liable to restrict media coverage by nature of their message may be subject to removal.
- 8.4 Rear axle must be 30mm diameter, solid or hollow magnetic material. No differential of any type is permitted.
- 8.5 One hydraulic or mechanical brake should be fitted to the rear axle only. The disc must be made of metal, but can be vented and drilled/slotted. A Caliper with a maximum of two pistons, one each side of the disc, may be used. Additional air ducting to the rear brake is permitted but must be securely attached.
- 8.6 Rear bumpers must be fitted; these should be made from a minimum of 25mm diameter 14g steel tube. The rear bumper must extend the width of the floor pan and must form an extended loop of 180mm centres. The bottom loop is to be 60mm from the ground plus or minus 5mm. These loops to be supported in a minimum of two places from the chassis and capable of withstanding a substantial impact.

- 8.7 The front bumper must also be of strong construction as originally homologated with the chassis. A front fairing of suitable construction and fixing must be attached.
- 8.8 Karts will be run on unleaded fuel which is purchased from any garage forecourt. (This applies to both the Honda and Subaru Classes) to which additives must not be added. No additional or alternative tanks may be fitted. We reserve the right to take fuel samples at random to ensure conformity with the regulations.
- 8.9 Karts must be powered by two Honda GX 160 series engines, which will be strictly limited in modifications (unless running in the budget class). They should be mounted on either side at the rear driving through chain or belt.
- 8.10 Separate return springs must be fitted to each carburetor and to the throttle pedal, each acting independently. The linkage connecting the cables to the standard carburetor throttle arm is free. Additional springs may be fitted.
- 8.11 Stretton 2000 recommend gear ratios of **20** front and **72** rears.

9. CLASSES AND WEIGHTS

All Classes will continue to compete for outright champion but there will be individual class awards at the end of the season.

Weight may be added to the kart but must be **FIRMLY AND SECURLY ATTACHED**. The driver may not carry any additional weighting. **All drivers must supply their own lead**. It is recommended that drivers should have their kart weighed on empty tanks.

ANY DRIVER FOUND UNDERWEIGHT WILL BE DISQUALIFIED FROM THAT RACE AND WILL SCORE NO POINTS .

9.1 Super Pro

Minimum weight of kart and driver should not be less than **180kgs**. This will be checked during both racing and qualifying. This class carries specific tyre requirements.

This class is intended for the most experienced drivers who have competed at a National Level and are considered to have a proportionately higher budget available for racing.

Entrants to Pro class **MUST** display a **Red** Number on a **White** background on the front and rear of the kart.

9.1 Pro

Minimum weight of kart and driver should not be less than **180kgs**. This will be checked during both racing and qualifying. This class carries specific tyre requirements.

This class is intended for the more experienced driver and will be made up from the majority of the 2007 season Clubman drivers.

Entrants to Pro class **MUST** display a **Red** Number on a **White** background on the front and rear of the kart.

9.3 Clubman

Minimum weight of kart and driver should not be less than **180kgs**. This will be checked during both racing and qualifying. This class carries specific tyre requirements.

Drivers posting a sub 32.50 second lap are excluded from this class as this class is now intended to feature Novice / inexperienced drivers who's primary aim is to gain promotion into the pro class.

To prevent a situation where "trophy hunting" occurs this class will not feature an end of season Class award as the goal of the class is to become a pro driver. It will however award 1st, 2nd & 3rd placed awards on a per round basis and all points scored will count towards the overall championship.

Entrants to Clubman class **MUST** display a **White** Number on a **Black** background on the front and rear of the kart and show a diagonal stripe through the rear number.

9.4 Heavyweight

A heavyweight driver is one with a minimum kart and driver weight of 195kgs. The **MINIMUM DRIVER WEIGHT IS 90Kg (This includes helmet, gloves, rib protector and neck support only.)**

Entrants to Heavyweight class **MUST** display a **White** Number on a **Blue** background on the front and rear of the kart.

It is anticipated that most drivers will select a class suitable for their ability/speed etc. However, if, in the opinion of the organisers, a driver has been entered in the wrong class, we reserve the right to re-classify that driver.

9.5 Budget Hondas

Minimum weight of kart and driver should not be less than **180kgs**. This will be checked during both racing and qualifying. This class carries **NO** specific tyre requirements.

To prevent a situation where “trophy hunting” occurs this class will not feature an end of season Class award as the goal of the class is to become a main championship. It will however award 1st, 2nd & 3rd placed awards on a per round basis and all points scored will count towards the overall championship.

Entrants to the Budget class **MUST** display a **White** Number on a **Blue** background on the front and rear of the kart and show a diagonal stripe through the rear number.

9.6 Honda Junior

Minimum weight of kart and driver should not be less than **155kgs**. This will be checked during both racing and qualifying. This class carries specific tyre requirements.

This class is intended for experienced JUNIOR drivers up to 16 years old at the start of the season who have demonstrated an acceptable level of driving or hold an MSA licence or have passed an ARKS test.

Entry to the class will be entirely at the discretion of the organisers.

Entrants to the Junior class **MUST** display a **Red** Number on a **White** background on the front and rear of the kart.

10. PERMITTED ENGINE CHANGES (excluding Budget Honda) **Please see below for Honda Budget Class regulations – 10.8**

- 10.1 All fasteners on the engines may be drilled for the purpose of lock wiring.
- 10.2 Any driver found to be using an engine using non-allowable modifications will be liable to loss of laps for the race dependent on the nature of the offence or disqualified.
- 10.3 Only one sprocket may be fitted to the rear axle for each engine. All chains or belts must be adequately protected at all times. Sprocket protectors may be used but not have additional teeth.
- 10.4 Wheels must be of metal, alloy or plastic construction in sizes suitable for the tyres specified. They may be of a one or two-piece construction. Unless two securing bolts are fitted to the hubs on the rear axle, a circlip or similar must be fitted on each axle end to prevent accidental loss of the hub.
- 10.5 The type and construction of the seat is free, so long as it is mounted in the originally intended position, is of sound and rigid construction and securely mounted.

- 10.6 The steering wheel type and size is free, but must be made of a material, which will not constitute a danger in the event of an accident.
- 10.7 Special modifications will be permitted to allow use of hand controls to enable disabled drivers to compete.

This aspect of the regulations is covered by the MSA Blue Book 2007 under Honda Senior and thereon the Honda General Purpose Parts Catalogue. In the event of any inconclusive scrutineering, Stretton 2000 will refer to the Blue Book and reserve the right to amend points at any time.

**Volumised Heads are NOT PERMITTED.
Every Engine should have ONE GX160 Headgasket fitted.**

Engine legality checks will be carried out by an Independent Engineer (Kelvin Nichols) on a random basis but please be aware that you may be asked to strip your engine as part of this process.

Honda GX 160 Technical Regulations (Ratpro Regs)

GENERAL

The scrutineer will pay special attention to ensure that the finish of all components match those of the standard unit and reserves the right to compare any part from competitors' engines directly with a standard part as supplied by Honda (UK). Unless competitors have gone out of their way to source alternative parts, their engines should automatically comply with this rule. Furthermore, competitors should note that the term "standard" refers not only to the components used but also to the number used and the manner in which the engines are assembled. Please remember that save for the changes specifically mentioned in these regulations the engines must be completely standard unmodified, and that all components will remain in place unless this document specifically states that they are allowed to be removed.

No specific coating procedures are allowed on any internal or external surface of the engine.

Carbon or gasket residue removal must be achieved by use of chemical agents only, to preserve original finishes.

The fasteners on the engines may be drilled for the purposes of lock wiring. Replacement of external fasteners with non-Honda fasteners is only permitted when the replacement fastener improves safety or when the standard Honda fastener is not readily available. A thread recovery procedure is acceptable providing that the system and replacement fixing used are of no different size or pitch to the original and therefore offer no mechanical advantage over the original fixing.

DEFINITIONS

The standard, unmodified component means that the component has not had its substance altered in any way. It has had no material removed from it or added to

it. It will be of the same, original material. Where appropriate, it should have the manufacturer's original manufacturing process or machining marks on it.

Engine types

The original QHQ4 engine, to engine number 7664037, shall in this document be called the K engine. The QHQ4 engine from engine number 7664037 onwards shall in this document be called the E engine. The QHQ4 engine with suffix T, from engine number 1000000 onwards shall in this document be called the T engine.

Legality limit

In general terms, and where not clarified or qualified elsewhere in this document, the legal limit for eligibility purposes shall be deemed to be the service limit as specified by Honda in the most up-to-date Honda Service manual for the particular engine.

(<http://www.honda-engines-eu.com/en/welcome.html>)

COMPONENT BY COMPONENT

The fuel tank

It is strongly urged that the engine's integral fuel tank be removed. If this is done then the engine must be fitted with a suitable cover. A standard floor mounted fuel tank should then be used, unmodified and this tank and its mounting must be in accordance with chassis manufacturer's instructions or homologation. The capacity of this tank must not exceed 7.5 litres. Ballast may be added to the tank in order to maintain the maximum capacity. In this instance the kart may be fitted with a pulsed fuel pump(s), which will take a vacuum feed from either the governor rod hole or one drilled in the inlet manifold, tapped to accept a vacuum fitting. Fuel pipes must take a direct route to the carburettor and be safely secured. An extra loop of fuel pipe may be used as a return feed to the tank. One in-line fuel filter of nominal capacity per engine may be fitted.

Exhaust

The standard exhaust must be used but a unit modified and sealed by Prokart Engineering may also be used. In this case, the unit will bear a seal applied by Prokart Engineering and it is the competitor's responsibility to ensure this seal is in place at all times. At any time the modified unit on the engine can be exchanged with one held by the scrutineer, who will then send the competitor's exhaust back to Prokart Engineering for inspection. If this unit is found to have been tampered with in any way, then the competitor will be penalised retrospectively. No other repair or modification is permissible.

Prokart Engineering can be contacted at 0796 735 8862 or www.prokart.co.uk

Carburettor

There is no restriction to the use of standard, unmodified A, B or C type carburettors with any of the engine types. However all carburettors are subject to normal dimensional criteria. Overall length (manifold face to airbox face) is 54mm and bore go / no go gauge is 13.2mm / 13.3mm.

Permitted main jets

size 68 (PN 99101-ZF5-0680)
size 70 (PN 99101-ZF5-0700)
size 72 (PN 99101 -ZF5-0720)
size 75 (PN 99101 -ZF5-0750)

Emulsion tube can be either part number 16166-ZH8-W50 or part number 16166-ZH-810. The throttle-actuating arm can be modified to accept an actuating rod onto the throttle butterfly, a method of mounting a throttle actuating cable and a method of mounting a throttle return spring only.

Carburettor air box

Must be standard unmodified.

Air filter

Substitution or complete removal of the renewable paper/foam air filter is allowed, although the plastic outer cover must remain as standard unmodified and in place.

Spark plugs

Spark plugs fitted to the engines must be from the recommended list provided by Honda - please see below. No other spark plugs may be used. The plugs used must not be modified in any way whatsoever and must have a reach identical to that of the plugs listed. Resistor plugs will be used. The standard Honda resistor spark plug cap - as supplied with the engine - must be used.

Permitted spark plugs

NGK BPR6ES BP6ES BP5ES BPR5ES
Nippondenso W20EP-U W20EPR-U W16EP-U W16EPR-U

Bodywork / ducting

All of the bodywork and ducting must be standard unmodified except for the drilling of a small hole to accept one end of a throttle return spring. The pull-cord mechanism must be standard unmodified, although the pull-cord starter may be rotated on its standard mounting holes. All or any of the bodywork / ducting can be painted or chromed.

Rocker cover

Rocker cover must be standard unmodified, although it may be painted or chromed. Its valve must be present and in working order. The breather pipe must be in position and intact, of suitable length that it is securely fixed in both the rocker cover and the outlet of the airbox, and have no perforations or leakage points.

Valve Gear

The valve rocker studs must be standard unmodified. The inlet valve collet (PN 14771-ZE1-000) may be replaced with an exhaust valve collet (PN 14773-ZE1-000) and an exhaust valve rotator (PN 14781-ZE1-000). If this modification is

performed to the inlet valve, it is permissible to fit one 8mm washer between the cylinder head and the base of the valve rocker post to raise the post and ensure that the adjuster locknut sits on a full thread. The valve spring used must offer no mechanical advantage over a standard GX140 valve spring (PN14751-ZE1-000) i.e. a force of 5 kg will compress the spring to less than 25mm overall length. Valve rockers, cam followers and pushrods must be standard unmodified.

Valves

Valves will be standard unmodified. Valve-seat grinding and cutting is allowed, to standard profiles (including seat width) as specified in the latest Honda manual for the engine type.

Cylinder head

Will be standard unmodified and measure a minimum of 73.98mm from the rocker cover gasket face to the cylinder head gasket face. Ports must be standard unmodified. The standard de-burring marks and sharp edges should always be present.

Head gasket

Must be standard unmodified and will at all times have a minimum thickness at all points of 1mm.

Piston

The dished piston must only be used with the cylinder head from the K type engine. The flat-top pistons are interchangeable between the E and T type engines only and must not be used in the K type engine or with the K type head. Piston rings will be standard unmodified. Only standard size rings, marked T or N can be used. Either the single or three-piece oil control ring can be used on all engine types. The rings must always be free in their grooves to function as designed.

Connecting Rod

The standard unmodified unit is interchangeable between all three engine types.

Crankshaft

The governor gear can be removed. The position of the cam gear wheel is free. The standard key must be used. The crankshafts are different between all three engine types but are interchangeable between all three engine types.

Flywheel

The flywheel will be standard unmodified and is interchangeable between all three engine types. It must have a minimum weight of 2.35kgs. The standard unmodified fan shall be used, with all fins in place.

Ignition coil

The ignition coil (including ignition lead and plug cap) will be the standard unmodified unit and is interchangeable between all three engine types. The coil mounting bolts must be standard unmodified and use the original mounting positions.

Camshaft

The standard unmodified camshaft must be used, which is interchangeable between all three engine types. The service limits are 13.916mm for the journals and 26.65mm for the exhaust and 27.60mm for the inlet lobes.

Crankcase

The crankcase can only be modified by the removal of the governor mechanism and in all other respects must be standard unmodified. If completely removed, the hole in the crankcase must be sealed to prevent oil leakage. The crankcase bearings will be standard unmodified. The bore must be standard only, service limit 68.165mm at all points of the bore. No sleeving or surface material change to the cylinder bore is allowed but honing is permitted. The cylinder mating face should always have the manufacturer's original finishing marks visible. A deck height of between 44.95mm and 45.06mm should be read between the cylinder mating face and the centre of the piston crown with the piston at bottom dead centre. When measuring a K type engine, 1.4mm should be subtracted from the obtained reading, to accommodate the dish in the piston.

Gaskets

All gaskets must be standard unmodified. Where there is any doubt about the eligibility or suitability of a particular gasket it should be compared with a new item from the manufacturer.

Clutch

A dry, air-cooled centrifugal clutch of Noram, Horstman, Magnum, Maxtorque 1600 or 4000 series type must be used to transmit the drive. The clutch should be in standard form (as supplied), be incapable of adjustment in position and have a maximum engagement speed of no more than 2,500 rpm engine speed.

TYRES

Super Pro Class

Dry – Bridgestone YDS

Wet – Bridgestone YDK

Pro Class

Dry – Bridgestone YDS

Wet – Bridgestone YDK

Clubman Class

Dry – Bridgestone YDS

Wet – Bridgestone YDK

Heavyweight Class

Dry – Bridgestone YDS

Wet – Bridgestone YDK

Honda Budget Class

Open to any tyre brand and tyres but newly purchased tyres must be Bridgestone YDS or Bridgestone YDK

10.8 PERMITTED ENGINE CHANGES FOR HONDA BUDGET CLASS ONLY

Engine

Must be original GX160 footprint of standard origin –

NO PROFESSIONALLY TUNED ENGINES ARE PERMITTED IN THIS CLASS. Any karts fitted with professionally tuned engines will need to conform to the Honda Clubman or Honda Pro/super pro regulations.

Exhaust design is open

ANY modification carried out on the Engine or kart should be made to bring the kart closer to the full championship regulations rather than take it further away. This is most important as drivers modifying the kart should be encouraged to spend money on conforming to club championship regulations.

The regulations are not intended to allow an open, unlimited tuning class but to allow low budget/ entry level karting. This is a point that should be remembered whenever planning any modifications.

SUBARU TECHNICAL REGULATIONS

TECHNICAL REGULATIONS (Subaru)

WS.0 Group. Junior (Direct Drive)

WS.1 Class. WRK Junior. (Budget Junior class.)

WS.2 Chassis.

Wheelbase is to be between 98 - 108cms, the chassis can have removable rails/torsion bars and any castor camber adjustment. The rear axle is to be constructed from 30 mm nominal diameter solid or hollow magnetic material. Fixed brake disc and sprocket carriers are mandatory.

An extended width rear bumper is mandatory. The bumper is to be constructed from a minimum 25mm nominal diameter 14g magnetic steel tube. The bumper must form an extended loop of 180mm +/- 10mm centres with the bottom loop centre 60mm +/- 10mm from the ground in dry configuration. The horizontal rails must be wider than the outer chassis rails. The bumper must be supported in a minimum of two places from the chassis and be of such a construction to withstand substantial impact. In side view the bumper will be in the vertical plane. The overall width of the bumper must not exceed the rear width of the kart at any time; The measurement to be taken at the outside of the rear wheel or tyre, whichever is the greater and must cover a minimum of 50% of each rear wheel/tyre at all times. Adjustable width bumpers are not permitted.

WS.3 Side Pods.

The fitting of side pods is mandatory and where applicable must comply with current MSA side pod regulations but with the following additional provision. Side pods may be cut away on their inner, upper and lower surfaces by the minimum amount to clear an engine and its attachments. The upper and lower surfaces may be cut away up to a maximum of half the width of the surface. The use of Bigfoot nassau is not permitted.

WS.4 Engine.

Twin Subaru sealed EX17 engines are to be fitted. All engines must be complete with their registration documents. These documents must match driver and engine details.

WS.4.1 Air Filter

The air filter must remain in situation. If a dual element filter is used the paper can be removed the foam rubber must however remain in place

WS.4.2 Carburettor

Only carburettor jet Subaru part no. 277-62412-08 carb main jet to be used. The tab on the slow running jet must remain in place permitting only a minimum adjustment to the jet.

WS.4.3 Reboring and Regrinding

Reboring of the engine and regrinding of the crankshaft are not permitted.

WS.4.4 Fasteners

Replacement of external fasteners with non-Subaru fasteners is only permitted if the replacement fastener saves weight and/or improves safety and/or if the standard Subaru fastener is not readily available. However, any fastener changes must not compromise the safety or increase performance of the kart. The fifth cylinder head bolt, and top left side casing bolt are shear bolts to enable sealing. All remaining fasteners may be drilled and lock-wired to improve safety.

WS.4.5 Modifications

No modifications to the Subaru engine(s) are permitted except those specifically covered in these Regulations. No removal of material from, or addition of material to any part of the engine including the induction and exhaust systems, is permitted. No machining or surface treatment of any part by any means, chemical or otherwise, is permitted including the use of abrasives. The original machining and casting marks must be visible on all surfaces of the engine. The dimensions of any component or combination of components must be within the service limits specified in the current Subaru Tolerances Document. No parts other than genuine Subaru parts specified for the engine type used, are to be fitted. Valve clearance dimensions are free. In deciding if an illegal modification has been made, reference should be made to the standard engine(s) held by the MSA and to the current MSA Homologation Form for the relevant engine.

WS.4.6 Exhaust

The standard Subaru exhaust must be used.

WS.4.7 Centre Fuel Tank and Pulse Pumps

Centre Fuel Tank Pump installation is free. The pulse pump must be mechanical and fed from the crankcase or inlet manifold, there is an M8 tapped hole already provided for this. Centre tank capacity must not exceed 9ltrs.

WS.4.8 Piston Rings.

The use of all piston rings is mandatory. The rings must always be free in their grooves to function as designed. Competitors must ensure that they use appropriate engine oil so that piston rings do not become restricted by carbon.

WS.4.9 Transmission.

Only the following dry air cooled centrifugal clutches are to be used to transmit drive with maximum engagement speed of no more than 2500 rpm engine speed.

Noram's GEL Ultimate, GE Series and their Premier Magnum Series Clutches all of which are to have a 22 tooth drum or in the case of the GEL Ultimate a 22 tooth removable sprocket attached. No other size of drum or sprocket will be permitted.

Standard Shoe Lining material is to be used on all clutch shoes as supplied from new by Noram and Subarukart. Relining with different material is not permitted.

Drive is to be by 219 chain. Drive protection must be fitted. Chain protectors may be attached to the sprockets.

WS.4.10 Ignition.

Only Subaru part no. 065-01401-50 spark plug and Subaru part no. 065-50002-70 spark plug cap to be used.

WS.5 Brakes.

One mechanical/hydraulic disk brake to be fitted to the rear axle and the disc is to be made of metal only. A calliper with a maximum of 2 pistons, one either side of the brake disc must be used.

WS.6 Tyres.

Tyres are as follows:-

SLICKS: Maxxis HG1 (Stamped by Subarukart)

WETS: Maxxis WT4 (Stamped by Subarukart)

WS.7 Weight.

Minimum weight of the kart inclusive of engine, driver and engine oil is to be not less than 158 kgs.

WS.8 Plates.

Number plates are to be green with yellow numbers.

WS.9 Age.

11 – 16 years. Juniors may move to Senior WRK in the year of their 16th Birthday, they cannot then return to Junior WRK.

WS.10 Warranty

Robin Subaru or APS Subarukart will not accept warranty claims on engines used in any practice or racing capacity.

WS.12 Fuel

Only standard unleaded pump fuels are to be used, this does allow for the use of super unleaded fuels with an octane output of 102 or less which can be purchased from local filling stations. No fuel additives are permitted under any circumstances.

WRK Engine - Terms and Conditions

These terms and conditions are in force to keep the racing as fair as possible. If you wish to compete you will not have an issue with any of these. However if you wish to cheat you will get caught. We appreciate that nothing is perfect but hopefully this will go a long way to alleviating any issues.

- Engines are all sold with a registration document.
- This registration document must match the driver and engine number or the kart can not be raced. If the engines are sold and re-registered then a £10 administration charge will be made per engine for the issue of a new log book.
- Corporate engines are not sealed and have a block registration document - these engines can only be raced if they are fitted to a fleet kart and are entered at their home track in an event as a rental kart.
- By purchasing an engine the registered owner agrees that if any official/clerk of the course/group of competitors feels that their kart is going exceptionally quicker than any other, an engine can be removed and sent back to Subarukart for checking (this engine will be returned within ten working days).
- Any engine that is returned to Subarukart for checking that is found to have been tampered with will automatically result in that owners engine being black listed. The engine will be seized and then destroyed by subarukart, with no possible return to the owner. The owner has a right to appeal within 14 days of the notice being served raising the issues found with the engine when it was examined by subarukart.
- A black listed owner will lose any points already gained in any WRK race series for that season.
- By Purchasing an engine the owner also agrees that if their engine is black listed their engine appear in the black listed engines list on this website along with its

partner engine for twin engined karts.

- An owner with black listed engines has the right to appeal as above within 14 days and a fee of £100 which is refundable should the appeal be upheld.
- Any engine that has been tampered will remain black listed and will not be allowed to be raced ever.

WS.0 Group. Senior (Direct Drive)

WS.1 Class. WRK Senior. (Budget Senior class.)

WS.2 Chassis.

Wheelbase is to be between 104 - 108cms, the chassis can have removable rails/torsion bars and any castor camber adjustment. The rear axle is to be constructed from 30 mm nominal diameter solid or hollow magnetic material. Fixed brake disc and sprocket carriers are mandatory.

An extended width rear bumper is mandatory. The bumper is to be constructed from a minimum 25mm nominal diameter 14g magnetic steel tube. The bumper must form an extended loop of 180mm +/- 10mm centres with the bottom loop centre 60mm +/- 10mm from the ground in dry configuration. The horizontal rails must be wider than the outer chassis rails. The bumper must be supported in a minimum of two places from the chassis and be of such a construction to withstand substantial impact. In side view the bumper will be in the vertical plane. The overall width of the bumper must not exceed the rear width of the kart at any time; The measurement to be taken at the outside of the rear wheel or tyre, whichever is the greater and must cover a minimum of 50% of each rear wheel/tyre at all times. Adjustable width bumpers are not permitted.

WS.3 Side Pods.

The fitting of side pods is mandatory and where applicable must comply with current MSA side pod regulations but with the following additional provision. Side pods may be cut away on their inner, upper and lower surfaces by the minimum amount to clear an engine and its attachments. The upper and lower surfaces may be cut away up to a maximum of half the width of the surface. The use of Bigfoot nassau is permitted.

There must also be a standard sponsors decal kit applied to the kart which must be located as per the diagram supplied with the decal kit, if the decals are not displayed and in the correct position then you will not be allowed to race.

WS.4 Engine.

Twin Subaru sealed EX21 engines are to be fitted. All engines must be complete with their registration documents. These documents must match driver and engine details.

WS.4.1 Air Filter

The air filter must remain in situation. If a dual element filter is used the paper can be removed the foam rubber must however remain in place

WS.4.2 Carburettor

Only carburettor jet Subaru part no. 226-62405-08 carb main jet to be used. The tab on the slow running jet must remain in place permitting only a minimum adjustment to the jet.

WS.4.3 Reboring and Regrinding

Reboring of the engine and regrinding of the crankshaft are not permitted.

WS.4.4 Fasteners

Replacement of external fasteners with non-Subaru fasteners is only permitted if the replacement fastener saves weight and/or improves safety and/or if the standard Subaru fastener is not readily available. However, any fastener changes must not compromise the safety or increase performance of the kart. The fifth cylinder head bolt, and top left side casing bolt are shear bolts to enable sealing. All remaining fasteners may be drilled and lock-wired to improve safety.

WS.4.5 Modifications

No modifications to the Subaru engine(s) are permitted except those specifically covered in these Regulations. No removal of material from, or addition of material to any part of the engine including the induction and exhaust systems, is permitted. No machining or surface treatment of any part by any means, chemical or otherwise, is permitted including the use of abrasives. The original machining and casting marks must be visible on all surfaces of the engine. The dimensions of any component or combination of components must be within the service limits specified in the current Subaru Tolerances Document. No parts other than genuine Subaru parts specified for the engine type used, are to be fitted. Valve clearance dimensions are free. In deciding if an illegal modification has been made, reference should be made to the standard engine(s) held by the MSA and to the current MSA Homologation Form for the relevant engine.

WS.4.6 Exhaust

The standard Subaru exhaust must be used.

WS.4.7 Centre Fuel Tank and Pulse Pumps

Centre Fuel Tank Pump installation is free. The pulse pump must be mechanical and fed from the crankcase or inlet manifold, there is an M8 tapped hole already provided for this. Centre tank capacity must not exceed 9ltrs.

WS.4.8 Piston Rings.

The use of all piston rings is mandatory. The rings must always be free in their grooves to function as designed. Competitors must ensure that they use appropriate engine oil so that piston rings do not become restricted by carbon.

WS.4.9 Transmission.

Only the following dry air cooled centrifugal clutches are to be used to transmit drive with maximum engagement speed of no more than 2500 rpm engine speed.

Noram's GEL Ultimate, GE Series and their Premier Magnum Series Clutches all of which are to have a 22 tooth drum or in the case of the GEL Ultimate a 22

tooth removable sprocket attached. No other size of drum or sprocket will be permitted.

Standard Shoe Lining material is to be used on all clutch shoes as supplied from new by Noram and Subarukart. Relining with different material is not permitted.

Drive is to be by 219 chain. Drive protection must be fitted. Chain protectors may be attached to the sprockets.

WS.4.10 Ignition.

Only Subaru part no. 065-01401-50 spark plug and Subaru part no. 065-50002-70 spark plug cap to be used.

WS.5 Brakes.

One mechanical/hydraulic disk brake to be fitted to the rear axle and the disc is to be made of metal only. A calliper with a maximum of 2 pistons, one either side of the brake disc must be used.

WS.6 Tyres.

Tyres are as follows:-

SLICKS: Maxxis HG1 (Stamped by Subarukart)

WETS: Maxxis WT4 (Stamped by Subarukart)

WS.7 Weight.

Minimum weight of the kart inclusive of engine, driver and engine oil is to be not less than 185kgs.

WS.8 Plates.

Number plates are to be green with white numbers.

Novices are to run a Black plate with white numbers on the rear board only. A novice is defined as a person with little or no race experience, novices will progress by attaining six signatures from subarukart officials on the issued novice race permit. One signature per race meeting can be gained by the driver.

WS.9 Age.

16 years plus. Juniors can compete in the year of their 16th birthday.

WS.10 Warranty

Subaru or APS Subarukart will not accept warranty claims on engines used in any practice or racing capacity.

WS.11 Heavyweight.

A heavyweight driver is one with a minimum kart and driver weight of 200 kgs and a minimum driver weight of 90 kgs. Drivers competing in this section must place a white horizontal strip across the bottom of all four number plates. This strip must be the same width as the numbers.

WS.12 Fuel

Only standard unleaded pump fuels are to be used, this does allow for the use of super unleaded fuels with an octane output of 102 or less which can be purchased from local filling stations. No fuel additives are permitted under any circumstances.

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These terms and conditions are in force to keep the racing as fair as possible. If you wish to compete you will not have an issue with any of these. However if you wish to cheat you will get caught. We appreciate that nothing is perfect but hopefully this will go a long way to alleviating any issues.

- Engines are all sold with a registration document.
- This registration document must match the driver and engine number or the kart can not be raced. If the engines are sold and re-registered then a £10 administration charge will be made per engine for the issue of a new log book.
- Corporate engines are not sealed and have a block registration document - these engines can only be raced if they are fitted to a fleet kart and are entered at their home track in an event as a rental kart.
- By purchasing an engine the registered owner agrees that if any official/clerk of the course/group of competitors feels that their kart is going exceptionally quicker than any other, an engine can be removed and sent back to Subarukart for checking (this engine will be returned within ten working days).
- Any engine that is returned to Subarukart for checking that is found to have been tampered with will automatically result in that owners engine being black listed. The engine will be siezed and then destroyed by subarukart, with no possible return to the owner. The owner has a right to appeal within 14 days of the notice being served raising the issues found with the engine when it was examined by subarukart.
- A black listed owner will lose any points already gained in any WRK race series for that season.
- By Purchasing an engine the owner also agrees that if their engine is black listed their engine appear in the black listed engines list on this website along with its partner engine for twin engined karts.
- An owner with black listed engines has the right to appeal as above within 14 days and a fee of £100 which is refundable should the appeal be upheld.
- Any engine that has been tampered will remain black listed and will not be allowed to be raced ever.

12. GENERAL COMPUTER LAP SCORING (All Classes)

- 12.1 In the unlikely event of a computer malfunction or failure, the race will be red flagged.
- 12.2 All timing and lap scoring will be computerised based on electronic transponders fixed to each kart. Any driver found attempting to interfere with such equipment will be excluded, along with their team.
- 12.3 Kart race numbers should be clearly displayed front and rear.

Heat/final progression

- 13.1 Heat 1 starting positions will be determined by the result of a Qualifying session. This will be a 1 lap “superpole” qualification
- 13.2 Heat 2 will be the finishing positions of Heat 1:
- 13.3 Heat 3 is based on accumulated points from the first 2 heats..
- 13.4 The final is based on an accumulation from all 3 heats.
- 13.5 All races will start as follows: Prior to the closure of pit lane, all drivers will make their way round to the starting grid. Once the grid has been formed and the pit lane Marshall is satisfied, a green flag will be shown. Drivers then have one Green Flag lap. At the end of this lap, Drivers form up in their grid positions. When correctly assembled, the pit lane marshall will start to race using either green lights or green flags.

The only exceptions to the Heat/final positions are on the 3 British Subaru Championship rounds where the Subaru Class will compete in line with the BSC Rges

PENALTIES

- 14.1 Any driver infringing or breaking any rules will be dealt with in the following manner:

WARNING FLAG

Stretton circuit attempt to run the race in a friendly and enjoyable manner and will use the warning flag as a means of controlling the event, but reserve the right to penalise drivers more severely should the feel it necessary.

BLACK FLAG

At the discretion of the Clerk of the Course, stop/go penalties may be awarded for breaking any rule, i.e. deliberate contact, overtaking under yellows.

- 14.1.1 All protests must be made to the Clerk of the Course in a reasonable manner. The Clerk of the Course will not take any action unless the protest is within 15 minutes of the incident.
- 14.2 Any Driver jumping the start will be penalised 15 seconds
- 14.3 Any Driver Speeding in pit lane will be penalised 5 points

SUMMARY

In the interest of all concerned, you are strongly advised to pay great attention to making sure that all drivers and their karts are in full compliance with all aspects of the regulations with particular note of Kart numbering/colours of back plates, the new class system and the new tyre regulations.

Any questions concerning these regulations should be addressed to Stretton Circuit and it would be appreciated if all queries could be submitted in writing via the Forum (www.stretton2000.com/forum or www.midland4stroke.co.uk).

It is stressed that any amendments or points of clarification concerning these regulations will be issued in writing and made available through the usual channels.

Stretton Circuit would like to wish all competitors a successful 2008 season.