

Proposal to Adopt a New Motor for TEKA

As many members are aware, your committee has been investigating an alternate motor for use in our Enduro Class racing. Specifically, the investigation has centred upon the Briggs & Stratton 'Animal' motor. The pros and cons of that motor are set out below.

That motor in the configuration as proposed yields approximately 8 h.p., some 20% greater than the current Honda.

Trials have been conducted by Briggs and Stratton out of competition and also at our races at Albury, Newcastle and Griffith this year. Those trials have led the committee to believe that the 'Animal' motor provides a reliable, cost effective alternate to our current Honda motor. In order to maintain momentum, we have with Briggs and Stratton's support and at Briggs and Stratton's cost, but without any commitment on TEKA's part, proceeded with lodging of an Animal motor c/w with full specifications at the AKA in order to achieve homologation of that motor by end of July 2008. Such homologation will then permit TEKA to adopt that motor for 2009 as an alternative to the GX200 Honda engine.

We have now finalised a formal commercial agreement with Briggs & Stratton ('B&S') that will become effective from 1 January 2009, if the members vote to adopt this motor. That agreement includes the following keys parameters:

Cost: \$ 775, inc GST per motor to members, a cost which includes a modest margin to the club to recompense for ongoing administration and other incurred costs. Motor includes carburettor, exhaust / muffler, pull start system, log book and sealing charges; Excludes: clutch, fuel pump, air filter, engine mounts.

Engine control: All motors for use in TEKA events to be supplied through TEKA, guaranteed by B&S to meet a closely controlled specification and all uniquely engine number engraved / stamped. TEKA are to inspect and seal all motors and to issue a log book for all motors. Any repairs or refurbishment of a motor are to be recorded in the log book by the refurbisher and inspected and resealed by TEKA with the log book so endorsed. B&S will assign a number of authorised commercial outlets at locations convenient to TEKA members to facilitate professional repairs / rebuilds where so desired.

Delivery: If members elect to adopt this engine class for 2009, engine orders will need to be placed prior to the 15th of October. Delivery time from the USA is expected to be 8 weeks for delivery prior to Christmas. However delivery may be expedited by air freight at a premium charge of \$A125 per motor.

Classes of motors: For the 2009 TEKA series it is proposed that the existing Honda motor remain as the principal category for A and B Grade championships.

Concurrent, with the support of members it is proposed for 2009 that a single grade class for the B&S Animal motor, as homologated and specified, be conducted at all races. If entries are sufficient, then it is possible that this class also be divided into A & B Grade.

Again, if members so decide, then it is proposed that for 2010, the primary TEKA Championship be based upon the B&S motor. Provided that there are sufficient entries, then an ongoing class can continue to be run for the Honda motor.

Questions: Rohan Carroll, the National Service Manager for Briggs & Stratton Australia will be present at our race meeting at Eastern Creek in July to answer any further questions you may have. If members have any questions regarding our proposal or the proposed agreement with Briggs & Stratton, please speak to Brian Trinder, by email vicepresident@teka.com.au, or phone 0412 411 149 or at Eastern Creek.

The pros and cons of the Animal motor are set out hereunder, together with a list of common Questions received to date and Answers thereto.

Voting Process

At the conclusion of the driver's briefing at Lithgow in August prior to the race, members will be requested to lodge a formal vote as to whether your committee should conclude the Agreement with Briggs & Stratton, as outlined herein and to take the necessary steps to have the additional class verified by AKA for 2009.

Those members who are unable to attend at Lithgow, or who wish to consider their vote for a few days will be requested to lodge their vote by email to the Secretary, TEKA, by no later than 7th September.

Pros & Cons of the Briggs & Stratton Animal Motor

Pros

Higher power, higher speed, faster lap times.

Brings some fresh excitement into Enduro karts.

Sounds great!

Reliable and proven in competition in the USA.

Close performance between motors due to close manufacturing tolerances; maintains original intent of Enduro class racing.

Very competitive pricing on motors and spares; total cost of a race ready motor at \$775 incl GST; less than a race prepared Honda.

Motors supplied direct to TEKA by B&S and sealed by TEKA 'out of the box'.

Control on motors with full traceability on engine numbers; TEKA controlled log book system for motor rebuilding and sealing.

Race ready; designed and built as a race engine; less vibration than Honda motors.

Manufacturer's keen support, including promotion of series; full technical support.

Motor widely used in competition in USA, B&S keen for entry into Australian and other markets.

B&S is the largest manufacturer of these types of small motors in the world.

May be able to sell 'old' motors to ProKart competitors or hire kart users.

Tuneable carburettors.

Similar weight and dimensions to Honda motors, no problems with fitting to current chassis, same engine mounts.

Briggs & Stratton will provide 1 year's notice of any intended specification changes.

Motor requires only to be fitted with fuel pump, air filter and clutch to be race ready.

Current fuel pumps and clutches fit straight on.

Price agreement with B&S subject to variance only to adjustment for CPI and / or exchange rate variations.

Manufacturer's support may assist with spread of Enduro class racing interstate

Cons

Higher power and speeds means higher wear and tear on drive chains, sprockets and clutches; higher fuel consumption, higher tyre wear.

Higher speeds mean higher potential for accidents and damage.

Higher power and speeds require a new driving technique.

Cost of changeover; teams with large investment in Honda motors and spares.

Need new sprockets and chains to suit B&S motor power characteristics (Ratios yet to be determined following 2008 tests).

Muffler breakages during trials. Failures have been similar to those experienced with the Honda units on an ongoing basis.

Require new skills to be able to tune carburettors.

Motor not currently used in motor sport outside USA.

8 week's delivery of motors from USA upon order, delivery can be expedited to 2 weeks by airfreight at a cost premium of approx \$A125 ea.

B&S will only stock limited supply of motors in Oz unless and until kart race use grows.

Unable to enter into ProKart events unless they also swap to B&S motors.

Commonly Asked Questions & Answers

Q: What would my team have to do if TEKA decides to adopt Briggs and Stratton engines?

A: You won't need to do anything, your team can continue to run Honda engines throughout 2009.

Q: How long can I run my Honda engines if TEKA decides to move to Briggs and Stratton?

A: From 2010 and on-wards, provided TEKA have enough Honda powered karts entering races, the Honda class will remain as is.

Q: How much are these B&S Animal engines going to cost?

A: TEKA have organised special pricing from B&S Australia and prices to TEKA Members will be \$775 inc. GST, per engine for 2009.

Q: What other parts do I need to buy to run my new B&S engines?

A: Your existing engine mounts, clutches, fuel pumps can be used as is, you will only need to purchase two Air Cleaners at approx. \$25 each.

Q: So, lets say I want to buy Briggs and Stratton engines, what can I do with my Honda engines?

A: TEKA are currently exploring options to assist teams who wish to sell their Honda race engines. Some TEKA members may also elect to stay with the Honda class and may thus be a potential market for those upgrading.

Q: Doesn't running B&S engines mean more wear and tear on tyres, chains and brake pads?

A: Some increase in wear is expected. However during TEKA's testing of the B&S engines, wear and tear has been compared against a kart with the same chassis running Honda engines. To date there has been no significant differences between these two karts. Both karts show similar tyre, brake pad and chain / sprocket wear. We'll certainly let you know after further testing is performed.

Q: How much faster is a B&S powered Endurance kart?

A: Again comparing two identical chassis, one with Hondas engines and one with B&S engines (skilled drivers in both) we have seen an average lap time increase of 1 second (2.5%) on an average 44 second lap.

Q: How much harder is it to drive a B&S powered kart?

A: No doubts, a B&S powered kart does require additional driver input, however, given an average TEKA driver moving from a Honda powered kart to a B&S powered one, it is expected that a couple of days of practice is enough to become familiar with the additional power and handling characteristics of the new power plant.

Q: I've have heard that the B&S engines have tuneable carburettors, are these going to be hard to tune?

A: The B&S factory carburettor settings offer good track performance - the Animal is a race engine after all. The carburettors can be tuned and it is expected that teams should have no problems learning how to do minor adjustments.

Q: What about engine sealing, how is this going to work with the B&S engines?

A: All B&S engines will be supplied by TEKA already sealed. Each engine will have a unique TEKA engine number and include a log book that will remain with the engine, even after its sold.

Q: Where will I be able to get spare parts for my new B&S engines?

A: Briggs and Stratton have several Motor Sport dealers throughout Sydney, Wollongong and Newcastle who will be able to assist TEKA teams with good pricing on spares and engine repairs / rebuilds if required.