

ASN CANADA FIA

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## **BULLETIN 04-04 - Book 2 Technical Regulations**

TO: All Holders of 2004 Canadian Karting Regulations

FROM: ASN Canada FIA EFFECTIVE DATE: August 13, 2004

**SUBJECT:** World Formula Classes

The only engine eligible for this class is the CIK-FIA homologated Briggs and Stratton World Formula engine sourced only from ASN designated Briggs & Stratton Canadian World Formula dealers, and bearing the Briggs and Stratton Canada serial number stamped on the block and cylinder head.

The Briggs and Stratton World Formula engine is a purpose-built engine manufactured to a racing specification by Briggs and Stratton in the USA. The engine is homologated by the CIK-FIA. Briggs and Stratton manufacturing is bound by the specifications of the homologation.

The engine assembly should be considered as if it were sealed. No modification of any kind is permitted to any part or component of the engine other than those modifications listed in this Bulletin.

- **1. Dry Weather Operation** The standard air filter, unaltered, must be used.
- 2. **Wet Weather Operation** The fitting of an air box with or without the standard air filter is authorized provided that the box is not capable of providing an intake air ram effect.
- 3. Carburetor Jetting There are reports of rough running of the engine and the perceived need to alter the jetting of the carburetor. Briggs and Stratton advises that the recommended factory settings with the possibility of altering the needle position is sufficient to accommodate competition conditions. The use of the Briggs and Stratton supplied World Formula Jet Kit is authorized. All jet components must remain unaltered.
- **4.** Fuel Supply System The B&S fuel pump must be used. The plumbing of the fuel lines is open.
- **5.** Catch Tank A catch tank must be fitted and the engine and fuel system fitted with plumbing in such a manner as to prevent oil and gas from spilling on the track.
- **6. Engine Oil Level –** The level in the engine sump may be adjusted to minimize loss to the catch tank.
- 7. **Valve Cover Breather** The original engine may not have been shipped with a breather tube. The fitting of a breather tube to a catch tank is authorized.
- **8.** Engine RPM Limiter The B&S rev limiter must be fitted and functional at all times without modification.

- **9. Clutch Springs** The OEM engine is supplied with orange springs. The fitting of unaltered Premier yellow springs is authorized.
- **10. Drive Sprockets -** The OEM 219 clutch drive sprocket may be replaced with a genuine Premier 35 pitch driver.
- **11. Ignition Timing** Modification of the flywheel key is not authorized.
- **12. Cylinder Bore Size** The specifications allow for increasing the bore size: +.010in; +.020in; +.030in.
- **13. Block and Cylinder Head** Modification of the cylinder head and block is not authorized, regardless of the chosen cylinder bore size.
- **14. Cylinder Head Gasket –** Only the standard head gasket is authorized unaltered.
- **15. Combustion Chamber Size** The combustion chamber volume specification is 25.0 cc. This is measured with the piston at top dead centre and filled to the top of the spark plug hole to the top of the machined chamfer.
- **16. Header Pipe –** Wrapping of the header pipe with a non-asbestos material is authorized.
- **17. Exhaust Muffler -** The only eligible muffler is the RLV World Formula Muffler Kit Part number 5447S-K10. The kit consists of an RLV Muffler: 4110; Inner Pipe: 54475; and two springs.
- **18. Starter and Battery** The use of the starter is optional. If the starter is removed a protective metal plate must be installed to cover the opening in the engine shroud caused by removing the starter.
  - The installation of a battery is optional. If a battery is used it must not be a wet lead-acid battery. Only dry or gelsel batteries (sealed lead batteries) are permitted.
- **19. B&S OEM Engine Assembly –** SAE or metric fasteners are used in the manufacturing of the engine. In this regard, the engines must remain as delivered.
- **20. Engine Sealing** ASN, at this time, does not require sealing of the WF engine. Should a Region decide that sealing is desirable, the engines must first be inspected for conformance by an authorized Briggs and Stratton World Formula dealer. ASN will make available, durable and tamper-proof seals.
- **21. World Formula Junior Kit** ASN has available a non-intrusive kit that converts a WF engine for use in a Junior class. The kit consists of an engineered throttle-stop that goes inside the carburettor, a locking collar for the Walbro carburettor cap and a tech tool for verifying throttle opening.

In all other respects the engine must remain as delivered and according to the CIK-FIA Homologation papers and the ASN Canada FIA Karting Regulations.