

ROTAX Max Challenge Field Inspection Primer 2006

Items in **blue font** are new for 2006

- Intake silencer.
 1. Must be intact with no modifications allowed.
 2. Filter element must be installed and intact (full length and width).
 3. Check to make sure the airbox is securely in place on the carburetor adaptor boot. Easily done by visual verification while they are in line at the scales. This allows more air to flow to the engine and is definitely a performance advantage.
 4. Airbox position must be as supplied. 8mm diameter drain hole allowed to be drilled in bottom of box for drainage. Drilled airbox legal, wet or dry conditions.
- Carburetor.
 1. The letters "VHSB34" and "QD" or "QS" must be cast into the body of the carburetor.
 2. The complete inlet bore must be "as cast" with no machining allowed.
 3. The slide must be stamped with the number "40" and the bottom of the slide must be "as cast" with no machining allowed.
 4. The needle jet must be stamped with "FN 266" and the jet needle must be stamped "K27" or "K98" only. No machining or polishing allowed.
 5. 5.2 gram floats only when used in combination with #30 idle jet and #30 idle jet insert.
 6. 3.6 gram floats only when used in combination with #60 idle jet and #60 idle jet insert.
 7. Series Two atomizer nozzle only. (Brass piece that sticks up into the venturi bore. Series Two nozzle will have half of the cylinder machined off. Series One will be a full cylinder.
 8. The fuel filter in the body of the carb must be in place.
- Intake manifold (rubber carburetor attachment boot.)
 1. The entire intake manifold is subject to visual inspection for alterations. No alteration of any type is allowed. The intake manifold is molded with a special surface treatment such that, when broken by grinding, cutting, etc., the rubber substrata will show deterioration after exposure to fuel. This type of alteration is easily apparent to visual inspection. A flashlight would be a good idea.
 2. A small corner break at the junction of the inner contour and the carb mounting face may be present to 1mm wide maximum. In reference to this corner break, there was a production lot or two of manifolds produced by the sub-contractor where they let this manual corner break get a little "out of hand". Since this rule was enacted, I have seen a small number of them with breaks up to 2.5mm, though none of them showed any degradation of material that would indicate tampering. The vendor has since fixed this problem, but I would ask that you use good judgement when evaluating this element. Blatant trimming is definitely a problem, but you should be aware that some inconsistencies do exist in the field.
 3. Additionally, make sure by verification of part number cast into the manifold that the FR is using P/N 267 915. The DD2 manifold is P/N 267 410.
- Exhaust valve.
 1. The entire exhaust valve assembly must be as supplied by Rotax with no alterations allowed.
 2. The exhaust valve must be operational. (Remove cover and check to make sure valve is free moving and not "blocked".)

3. Please be aware that there are [different bellows and pistons](#) and the "mushroom" adjustment knob for the exhaust valve. All are legal.
- Exhaust pipe.
 1. Visually inspect exhaust pipe for stock configuration.
 2. Two minimum, four maximum, OEM springs only. Silicone may be applied for vibration dampening. Wiring of the springs for retention to the pipe to the manifold is not permitted.
 - Cylinder.
 1. Please ensure that the FR is using P/N 223 997 for senior and 223 999 for junior. DD2 cylinder is P/N 613 930.
 2. Additionally, have them remove the pipe from time to time and check for alterations to the exhaust port and passage with a flash light.
 - Ignition
 1. Please check for three pins only for the FR engine. The DD2 ignition has [either four or six pins](#).
 2. No additional ground straps are allowed.
 3. There are only two acceptable spark plugs. [Denso Iridium IW 24, 27, 29, 31 or 34 only for International rules](#). [The NGK BR..EG is still permitted in US Challenge](#). [Any heat range is acceptable for the NGK plug](#), for example, NGK BR9EG, BR10EG are examples of legal plugs. An illegal plug would be an NGK BR10EIX or B9EG, for example.