



Rule Changes from the Executive Plus Updates from Rotax effective 20-1-18

Issue #2017-7 published 21-12-17

Updates underlined:

Rule E3.1.1 CADET ROK

Replace the current Rule with the following:

E3.1.1 CADET ROK:

Drivers: 6 years and under 11 years. Drivers under 7 years can only hold an Unrated Licence.
Chassis: (Rule K3)
Eligible engine: Vortex Kiwi Mini ROK to KartSport New Zealand specs. (Rule N10)
MAW: 99kg.
Clutch: Obligatory. Must be original Vortex clutch (Rule M2)
Fuel: Pump petrol (Rule L4.1)
Oil: Motul Grand Prix 2T only
Brakes: Front wheel brakes not permitted.
Tyre restricted class. (Rule L3.5)

Implementation: 1-3-18

Reason: The Cadet plastic rear protection pod and fitting kit required from 1-3-17 (ref Issue 2017-5 published 1-9-17) is about 700gm heavier than the current Cadet metal rear bumper.

Rule L3.5 TYRE RESTRICTIONS

Replace the current Rule with the following:

L3.5 TYRE RESTRICTIONS:

Only Tyres approved by KartSport New Zealand and distributed by KartSport New Zealand's official suppliers are permitted to be used in tyre restricted classes at all times.

KartSport New Zealand Official Tyre Suppliers are:

Dunlop – Lascom Motorsport LP/Goodyear & Dunlop NZ, Vega – Paffoni NZ, Mojo – Right Karts 2016.

Control tyres for tyre restricted classes are:

(a) Slick tyre: Dunlop DFH

Front 10x4.50-5

Rear 11x7.10-5

(This dry tyre will be in use until 31 December 2019)

Wet tyre: Dunlop KT12 SLW2

Front 4.5-5x10.0.

Rear 6.50-5x11.0.

(This wet tyre will be in use for all events until 31 December 2017 and optional for Club Day Group F events until 31-12-18)

Dunlop KT14 W13

Front 4.5-5x10.0.

Rear 5.50-5x11.0.

(This wet tyre will be in use for all events from 1-1-18 to 31-12-21)

No mixing of models.

- (b) **Open, KZ2, KZ2 Masters and KZ4**
Slick tyre: **Vega XM Prime Z** (front 11/P/19, rear 12/P/19)
(This dry tyre will be in use from 1-2-17 until 31 December 2019)
Wet tyre: Any tyre model from the CIK homologated "Wet" classification tyre, 2011-2013 or 2014-2016 or 2017-2019 lists. No mixing of models.
- (c) **Rotax DD2 and Rotax DD2 Masters**
Slick tyre: **MOJO D3 or D4, no mixing of models.**
(check event/series Supplementary Rules)
Wet tyre: **MOJO W2 or W3, no mixing of models.**
(check event/series Supplementary Rules)

Implementation: 20-1-18

Reason: New Mojo D4 Dry tyre for Rotax DD2. Check event Supplementary Rules regarding compulsory use of Mojo D4 and/or Mojo W3, eg NZRMC and Championship events. Mojo D3 and Mojo W2 are no longer in production and will be deleted on 31-12-18.

SECTION N12 ROTAX MAX

N12.2 The engine is a single cylinder, liquid cooled, reed valve 2 stroke.

UNLESS IT STATES THAT YOU CAN DO IT, YOU CANNOT.

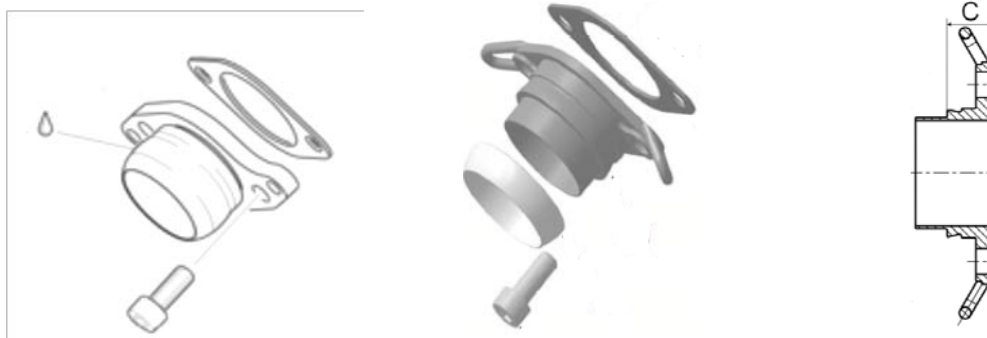
- Unless otherwise specified filing, grinding, polishing, surface treating, machining or lightening of any component is expressly forbidden. All measurements given in these engine rules are for technical references only; you must not machine any parts to the dimensions given.
- The addition of material to any component is not allowed.
- Only genuine Rotax components that are specifically designed and supplied for the FR125 Max engine may be used in or on the engine and its ancillaries, unless otherwise specified. The use of either "red" or "green" OEM gaskets is permitted.
- The engine is to be used with intake silencer, carburettor, fuel pump, radiator, wiring loom, ignition system, clutch, gears and exhaust system as supplied by the manufacturer.
- Unless otherwise specified position and method of mounting the battery, wiring loom, exhaust system and fuel pump are free provided they are securely fixed and comply with Kartsport New Zealand Sprint chassis (Rule K1).
- The ignition coil must be mounted in the original position as supplied by Rotax.
- The use of thermal barrier coatings/ceramic coatings on or in the engine or exhaust system is not allowed.
- Fitting of helicoil type thread repair inserts to repair damaged threads is allowed, providing such repairs are not used to derive any benefit other than rectification of damage.
- The use of silicon type sealant between the ball and socket joint of the exhaust is permitted.
- The use of ceramic / ceramic hybrid bearings or bearings containing any ceramic component, are not permitted.
- The use of anti-friction coatings in or on the engine/engine components is prohibited.
- Welding of the external water jacket only is allowed to repair cracks. The welding may only be carried out on the external surface of the water jacket. Only localized spot facing the external water jacket/cylinder head cover mating surface is permitted to restore the cylinder sealing surface as required where the weld intrudes.
- The fitting of couplings (to enable pre heating or pre cooling the coolant) to the cooling system hoses, radiator or engine is not permitted.
- Information in Rotax Technical Bulletins may be used to confirm compliance or otherwise.

N12.3 EXHAUST SYSTEM: Must be as supplied by Rotax and cannot be modified except for the replacement of the silencer absorption material and the use of threaded fasteners in place of the rivets for securing the silencer end cap. The exhaust system may be welded for repair purposes. The weld must not exceed more than half the exhaust's circumference at the point of the weld. It is permitted to paint the exhaust system with black paint. The use of any other coating or plating is not permitted. Replacement items must be OEM Rotax parts.

Exhaust Headers: Standard exhaust headers(s) must be used. Two versions of original exhaust headers are legal to be used.

Version 1, without gasket ring (left illustration)

Version 2 (EVO) with gasket ring (middle and right illustrations) For version 2 the measurement (C) must be at least 15.5 mm.



The use of maximum 4 pieces of original Rotax exhaust springs, to fix the exhaust system to the cylinder is allowed. (a "safety wire" in the exhaust flange area is not allowed).

Permitted modifications on the original exhaust systems are:

- Replacing the original rivets of the silencer end cap by 4 mm metric screws and corresponding locking nuts.
- Replacing the isolating mat (just one original isolating mat may be fitted) inside the silencer and the silencer end cap with perforated tube by original Rotax spares parts.
- Welding a socket (in a distance of 50-80 mm from the ball joint) on the top of the exhaust system for measuring the exhaust gas temperature (EGT).

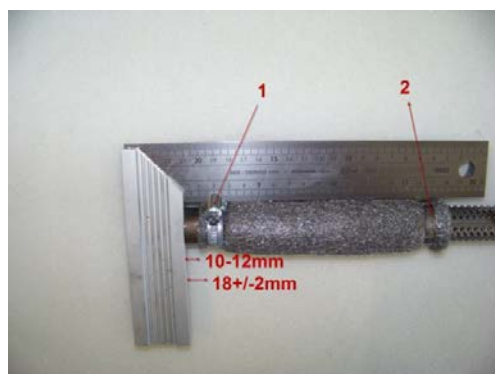
Additional to the standard isolation mat a steel isolation mat (Rotax part no. 297 983) of the square dimension of 165 +10 mm is legal (not mandatory) to be assembled underneath the standard isolation mat according to the illustration.

Clamp (1) must be fitted at a distance of 18+/-2mm, measured from the end of the tube.

Clamp (2) must be fitted at the end area of the steel isolation mat.

The measurement 10-12 mm from the end of the perforated tube to the beginning of the steel isolating mat is a specification for assembly purpose only!

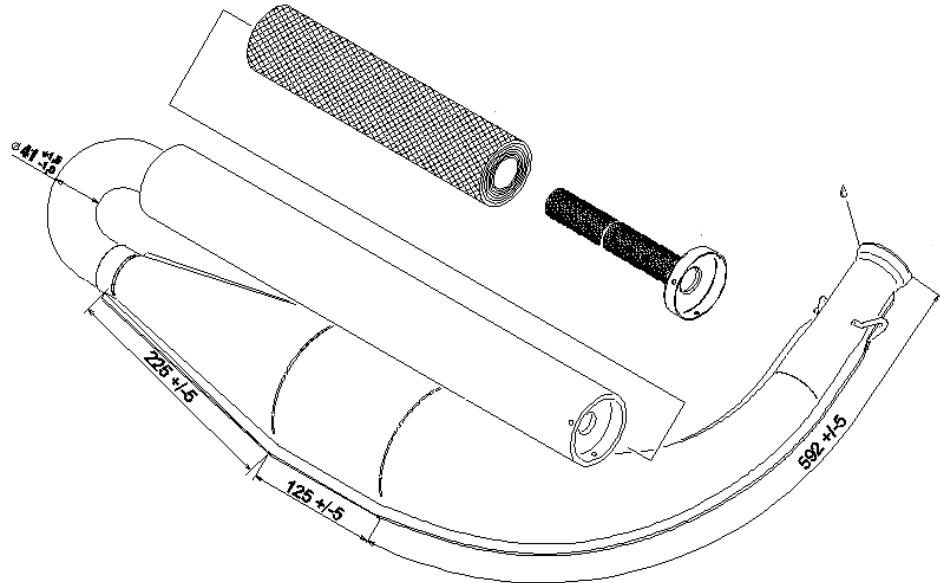
Both clamps (1 and 2) are mandatory to be fitted and tightened.



Exhaust pipe with after muffler as shown in illustrations.

There are three versions of exhaust system:

Version 1: tuned pipe and silencer are one piece. The silencer is welded to the 180° elbow



Version 2: and the tuned pipe (top illustration).
tuned pipe and silencer are one piece. The silencer is welded to the 180° elbow. Two springs fix the silencer to the tuned pipe (bottom illustration).

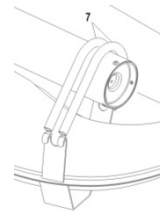
Following measurements are valid for versions 1 and 2:

Silencer end cap, diameter of hole: 21,0 mm (maximum).

Length of inlet cone: 592 mm +/- 5 mm (measured on outside from beginning of exhaust pipe until beginning of cylindrical part).

Length of cylindrical part of exhaust pipe: 125 mm +/- 5 mm.

Length of end cone: 225 mm, +/- 5 mm.



Version 1 and 2 can also use the perforated tube and silencer end cap with the 90 degree elbow. Outside diameter of 180° bent tube: 41mm +1,5 mm/-1,0 mm (measured at beginning and end of bend).

Version 3 (EVO): tuned pipe with 180° elbow and silencer are two separate pieces. The silencer is fixed with 2 springs to the 180° elbow and two springs to the tuned pipe.

Silencer end cap with 90° elbow is mandatory to be used for version 3.

To fit a 3rd original spring (crosswise at the ball joint connection between 180° elbow and silencer) is an allowed option.

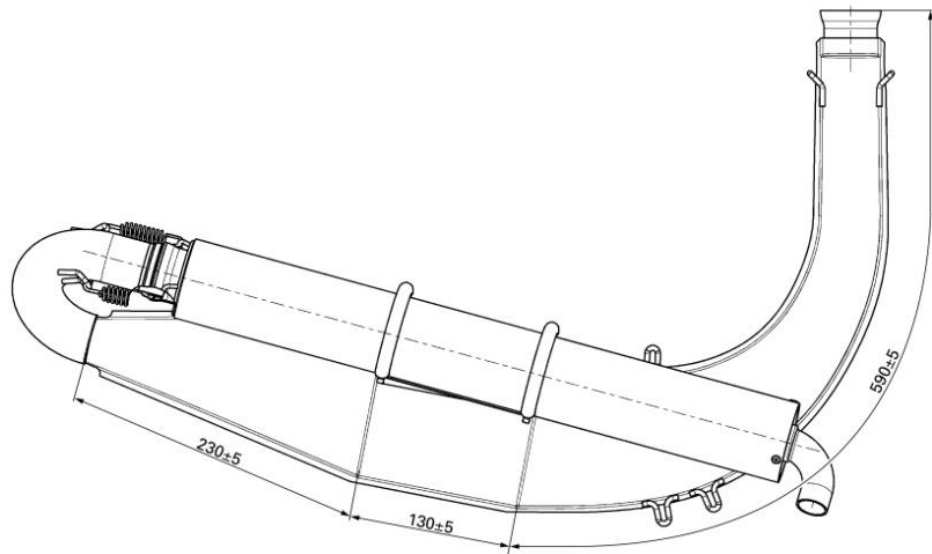
The silencer has to be mounted in a position where the direction of the 90° elbow outlet (direction of the hot exhaust gasses) does not harm any component of the chassis.

Dimensions to be checked are:

Length of inlet cone: 590 mm +/- 5 mm

Length of cylindrical part of exhaust pipe: 130 mm +/- 5 mm

Length of end cone: 230 mm +/- 5 mm



N12.5 CARBURETTOR: DELLORTO carburettor VHSB 34" cast in the housing of the carburettor. "QD", "QS" or "XS" (EVO) stamped in the housing of the carburettor. The complete inlet bore in the casting of the carburettor must show cast surface. All jets must be correctly seated and securely fitted at any time (tightened)! Settings of the carburettor adjustment screws (idle and idle air) are free. The position of the jet needle is free. Genuine OEM Dellorto Main Jets must be used. The Main Jet size is free.

The two carburettor vent fittings can be connected with the original air vent hose minimum length 155mm (Rotax part no. 260 260). The location of the hose opening has to be placed at the rear of the carburettor.

Or the two carburettor vent fittings can be connected with hoses. They must be leak proof venting into an overflow container as per Rule K1.23.

One of the above options must be used.

N12.16 CYLINDER: Light-alloy-cylinder with GILNISIL-plating. Any re-plating of cylinder is not allowed. Cylinder with one main exhaust port and exhaust valve. Maximum bore of cylinder = 54.035 mm (measured 10 mm above the exhaust port). Cylinder has to be marked with the "ROTAX" logo. Cylinder with pneumatic timed exhaust valve.
Cylinders marked with lettered or numbered casting codes and identification codes 223 993, 223 996 or 223 997 are legal to be used for all competition.



Cylinders marked 223 993 and showing the cast letter mark "V" in the inlet port show a fully CNC machined exhaust port and a fully CNC machined top edge of the central boost port. These cylinders must also display the KSNZ/Rotax stamp (picture to come). The horizontal and vertical dimensions of the exhaust port (cylinder 223 993 with fully CNC machined exhaust port only) have to be checked with the template (Rotax part no. 676 245). The template has to be moved in horizontal and vertical position as far as possible into the exhaust port. In both directions the template may not touch the exhaust socket flange.



N12.17 EXHAUST PORT TIMING: The "exhaust port timing" (distance from the top of the cylinder to the top of the exhaust port) has to be checked by means of the template (ROTAX 277 397). Insert the template into the cylinder ensuring that the template is touching the cylinder wall and that the finger of the template is located in the middle of the exhaust port (highest point). Move the template upwards, until the finger is touching the top edge of the exhaust port. Insert a feeler gauge between the top of the cylinder and the template. It must not be possible to fit the feeler gauge specified (FR125 MAX: 0.75 mm). At cylinders 223 993 the cylinder is also legal if the template doesn't fit in at all.



The "exhaust port timing" (distance from the top of the cylinder to the top of the exhaust port) has to be checked by means of the template (ROTAX part no. 277 402). Insert the template (take care to use the correct gauge MAX) into the cylinder, and move the template (at the highest point of the exhaust port) as far as possible into the exhaust port. In this position the template may not touch the cylinder wall.



N12.19 CON ROD and CRANKSHAFT: Con rod has to show forged numbers "213", "365", "367" or "362"(EVO) on shaft.

Grinding or polishing of shaft of con rod is not permitted.

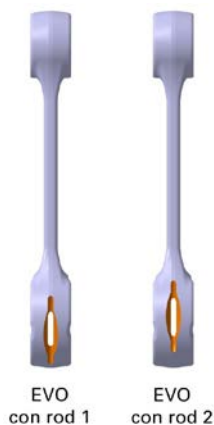
Shafts of con rods "213", "365" and "367" are not machined and are copper plated.



Shaft of con rod "362" (EVO) is not copper plated and is blank (grey/brown).



The EVO2 con rod is permitted (see picture).



Ignition signal on crankshaft: Fit the template (Rotax 277391) on the crankshaft.

Align the hole in the template for the big end pin with the pin of the crankshaft.

The two edges of the signal machining on the crankshaft must be in line (+/-0,5 mm) with the corresponding edges (MAX or DD2) of the template.



N12.24 CLUTCH: Add the following text and images to the end of the current Rule:

Signs of emission of grease from the needle/plain bearing into the clutch drum may not exceed that shown in the pictures below.

The contact area between the clutch and the clutch drum has to be dry at all times – no lubrication is allowed.



N12.28 NON TECH ITEMS: Non-original fasteners, circlips, washers, throttle cable housing, fuel and pulse line (type and size) as well as length of coolant hoses are allowed unless otherwise specified. The starter motor shall be installed as originally supplied and be operable, but may be repaired and its parts not subject to technical inspection.

SECTION N14 ROTAX JUNIOR MAX

N14.2 The engine is a single cylinder, liquid cooled, reed valve 2 stroke.

UNLESS IT STATES THAT YOU CAN DO IT, YOU CANNOT.

- Unless otherwise specified filing, grinding, polishing, surface treating, machining or lightening of any component is expressly forbidden. All measurements given in these engine rules are for technical references only; you must not machine any parts to the dimensions given.
- The addition of material to any component is not allowed.
- Only genuine Rotax components that are specifically designed and supplied for the FR125 Max engine may be used in or on the engine and its ancillaries, unless otherwise specified. The use of either “red” or “green” OEM gaskets is permitted.
- The engine is to be used with intake silencer, carburettor, fuel pump, radiator, wiring loom, ignition system, clutch, gears and exhaust system as supplied by the manufacturer.
- Unless otherwise specified position and method of mounting the battery, wiring loom, exhaust system and fuel pump are free provided they are securely fixed and comply with Kartsport New Zealand Sprint chassis (Rule K1).
- The ignition coil must be mounted in the original position as supplied by Rotax.
- The use of thermal barrier coatings/ceramic coatings on or in the engine or exhaust system is not allowed.
- Fitting of helicoil type thread repair inserts to repair damaged threads is allowed, providing such repairs are not used to derive any benefit other than rectification of damage.
- The use of silicon type sealant between the ball and socket joint of the exhaust is permitted.
- The use of ceramic / ceramic hybrid bearings or bearings containing any ceramic component, are not permitted.
- The use of anti-friction coatings in or on the engine/engine components is prohibited.
- Welding of the external water jacket only is allowed to repair cracks. The welding may only be carried out on the external surface of the water jacket. Only localized spot facing the external water jacket/cylinder head cover mating surface is permitted to restore the cylinder sealing surface as required where the weld intrudes.

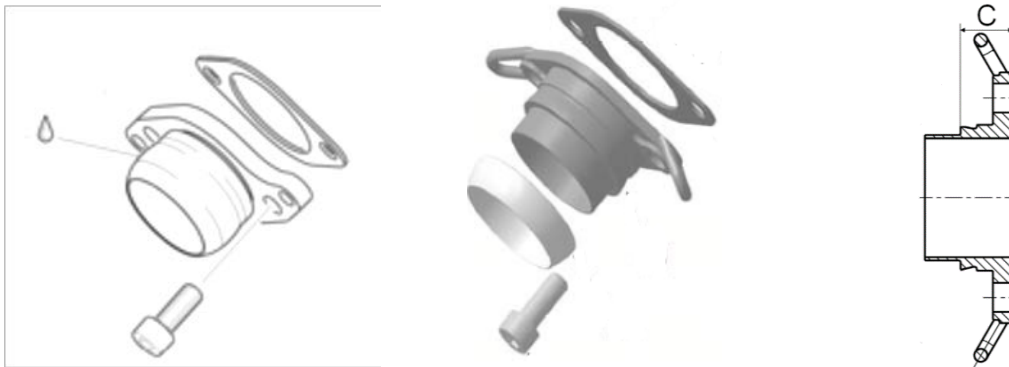
- The fitting of couplings (to enable pre heating or pre cooling the coolant) to the cooling system hoses, radiator or engine is not permitted.
- Information in Rotax Technical Bulletins may be used to confirm compliance or otherwise.

N14.3 EXHAUST SYSTEM: Must be as supplied by Rotax and cannot be modified except for the replacement of the silencer absorption material and the use of threaded fasteners in place of the rivets for securing the silencer end cap. The exhaust system may be welded for repair purposes. The weld must not exceed more than half the exhaust's circumference at the point of the weld. It is permitted to paint the exhaust system with black paint. The use of any other coating or plating is not permitted. Replacement items must be OEM Rotax parts.

Exhaust Headers: Standard exhaust headers(s) must be used. Two versions of original exhaust headers are legal to be used.

Version 1, without gasket ring (left illustration)

Version 2 (EVO) with gasket ring (middle and right illustrations) For version 2 the measurement (C) must be at least 15.5 mm.



The use of maximum 4 pieces of original Rotax exhaust springs, to fix the exhaust system to the cylinder is allowed. (a "safety wire" in the exhaust flange area is not allowed).

Permitted modifications on the original exhaust systems are:

- Replacing the original rivets of the silencer end cap by 4 mm metric screws and corresponding locking nuts.
- Replacing the isolating mat (just one original isolating mat may be fitted) inside the silencer and the silencer end cap with perforated tube by original Rotax spares parts.
- Welding a socket (in a distance of 50-80 mm from the ball joint) on the top of the exhaust system for measuring the exhaust gas temperature (EGT).

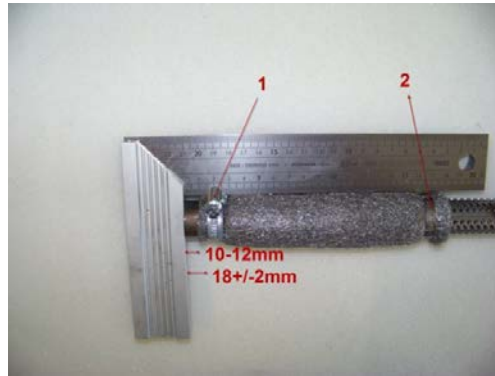
Additional to the standard isolation mat a steel isolation mat (Rotax part no. 297 983) of the square dimension of 165 +10 mm is legal (not mandatory) to be assembled underneath the standard isolation mat according to the illustration.

Clamp (1) must be fitted at a distance of 18+/-2mm, measured from the end of the tube.

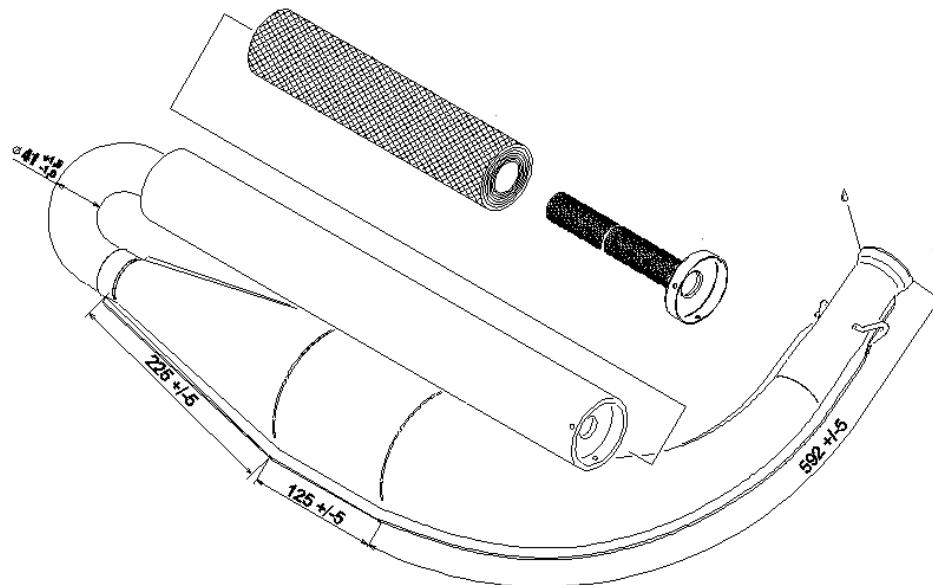
Clamp (2) must be fitted at the end area of the steel isolation mat.

The measurement 10-12 mm from the end of the perforated tube to the beginning of the steel isolating mat is a specification for assembly purpose only!

Both clamps (1 and 2) are mandatory to be fitted and tightened.



Exhaust pipe with after muffler as shown in illustrations.



There are three versions of exhaust system:

Version 1: tuned pipe and silencer are one piece. The silencer is welded to the 180° elbow and the tuned pipe (top illustration).

Version 2: tuned pipe and silencer are one piece. The silencer is welded to the 180° elbow. Two springs fix the silencer to the tuned pipe (bottom illustration).

Following measurements are valid for versions 1 and 2:

Silencer end cap, diameter of hole: 21,0 mm (maximum).

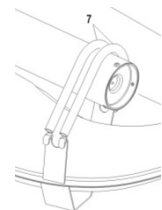
Length of inlet cone: 592 mm +/- 5 mm (measured on outside from beginning of exhaust pipe until beginning of cylindrical part).

Length of cylindrical part of exhaust pipe: 125 mm +/- 5 mm.

Length of end cone: 225 mm, +/- 5 mm.

Version 1 and 2 can also use the perforated tube and silencer end cap with the 90 degree elbow.

Outside diameter of 180° bent tube: 41mm +1,5 mm/-1,0 mm (measured at beginning and end of bend).



Version 3 (EVO): tuned pipe with 180° elbow and silencer are two separate pieces. The silencer is fixed with 2 springs to the 180° elbow and two springs to the tuned pipe.

Silencer end cap with 90° elbow is mandatory to be used for version 3.

To fit a 3rd original spring (crosswise at the ball joint connection between 180° elbow and silencer) is an allowed option.

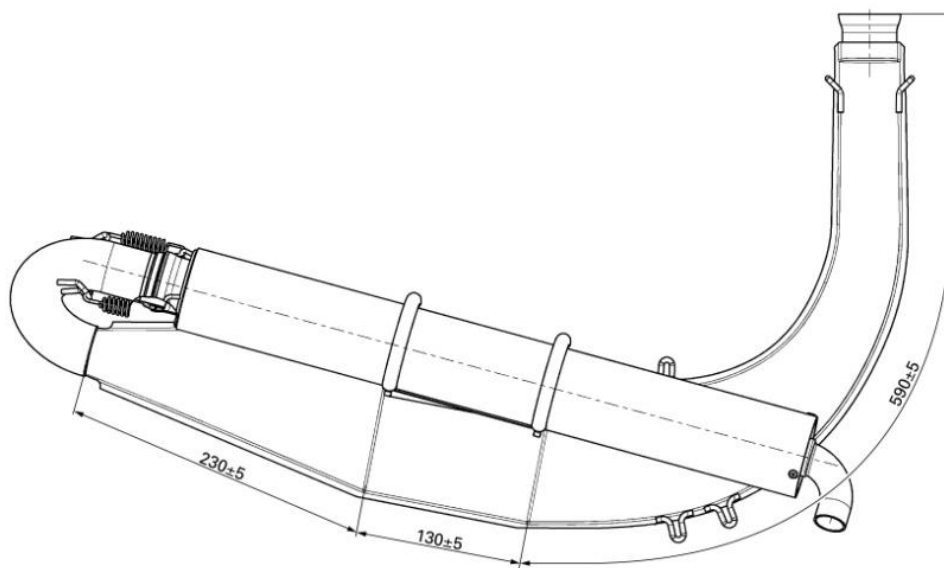
The silencer has to be mounted in a position where the direction of the 90° elbow outlet (direction of the hot exhaust gasses) does not harm any component of the chassis.

Dimensions to be checked are:

Length of inlet cone: 590 mm +/-5 mm

Length of cylindrical part of exhaust pipe: 130 mm +/-5 mm

Length of end cone: 230 mm +/-5 mm



N14.5 CARBURETTOR: DELLORTO carburettor VHSB 34" cast in the housing of the carburettor. "QD", "QS" or "XS" (EVO) stamped in the housing of the carburettor. The complete inlet bore in the casting of the carburettor must show cast surface. All jets must be correctly seated and securely fitted at any time (tightened)! Settings of the carburettor adjustment screws (idle and idle air) are free. The position of the jet needle is free. Genuine OEM Dellorto Main Jets must be used. The Main Jet size is free.

The two carburettor vent fittings can be connected with the original air vent hose minimum length 155mm (Rotax part no. 260 260). The location of the hose opening has to be placed at the rear of the carburettor.

Or the two carburettor vent fittings can be connected with hoses. They must be leak proof venting into an overflow container as per Rule K1.23.

One of the above options must be used.

N14.16 CYLINDER: Light-alloy-cylinder with GILNISIL-plating. Any re-plating of cylinder is not allowed. Cylinder with one main exhaust port and exhaust valve. Maximum bore of cylinder = 54.035 mm (measured 10 mm above the exhaust port). Cylinder has to be marked with the "ROTAX" logo. Cylinder with pneumatic timed exhaust valve.

Cylinders marked with lettered or numbered casting codes and identification codes 223 994, 223 998 or 223 999 are legal to be used for all competition



Cylinders marked 223 994 and showing the cast letter mark "J" in the inlet port show a fully CNC machined exhaust port and a fully CNC machined top edge of the central boost port. These cylinders must also display the KSNZ/Rotax stamp (picture to come) at all events from 1-3-18 and at other earlier events as specified in event/Series Supplementary Rules.

The horizontal and vertical dimensions of the exhaust port (cylinder 223 994 with fully CNC machined exhaust port only) have to be checked with the template (Rotax part no. 676 240). The template has to be moved in horizontal and vertical position as far as possible into the exhaust port.

In both directions the template may not touch the exhaust socket flange.



N14.17 EXHAUST PORT TIMING: The "exhaust port timing" (distance from the top of the cylinder to the top of the exhaust port) has to be checked by means of the template (ROTAX 277 397). Insert the template into the cylinder ensuring that the template is touching the cylinder wall and that the finger of the template is located in the middle of the exhaust port (highest point). Move the template upwards, until the finger is touching the top edge of the exhaust port. Insert a feeler gauge between the top of the cylinder and the template. It must not be possible to fit the feeler gauge specified
FR125 Junior MAX:
Cylinders 223999 and 223998 0.90mm



Cylinder showing Part Number 223 994 (with fully CNC machined exhaust port only), has to be checked by means of the template (ROTAX 277 402). Insert the template (take care to use the correct JUNIOR gauge) into the cylinder and move the template (at the highest point of the exhaust port) as far as possible into the exhaust port. In this position the template must not touch the cylinder wall.



N14.18 CON ROD and CRANKSHAFT: Con rod has to show forged numbers "213", "365", "367" or "362"(EVO) on shaft.

Grinding or polishing of shaft of con rod is not permitted.

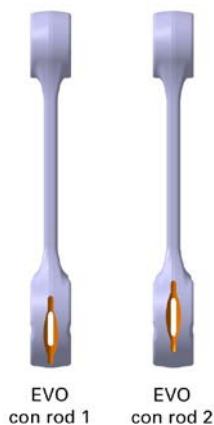
Shafts of con rods "213", "365" and "367" are not machined and are copper plated.



Shaft of con rod "362" (EVO) is not copper plated and is blank (grey/brown).



The EVO2 con rod is permitted (see picture).



Ignition signal on crankshaft: Fit the template (Rotax 277391) on the crankshaft.

Align the hole in the template for the big end pin with the pin of the crankshaft.

The two edges of the signal machining on the crankshaft must be in line ($\pm 0,5$ mm) with the corresponding edges (MAX or DD2) of the template.



N14.23 CLUTCH: Add the following text and images to the end of the current Rule:

Signs of emission of grease from the needle/plain bearing into the clutch drum may not exceed that shown in the pictures below.

The contact area between clutch and clutch drum has to be dry at all times – no lubrication is allowed.



N14.27 NON TECH ITEMS: Non-original fasteners, circlips, washers, throttle cable housing, fuel and pulse line (type and size) as well as length of coolant hoses are allowed unless otherwise specified. The starter motor shall be installed as originally supplied and be operable, but may be repaired and its parts not subject to technical inspection.

SECTION N16 ROTAX DD2

N16.2 The engine is a single cylinder, liquid cooled, reed valve 2 stroke with a two speed gearbox.

UNLESS IT STATES THAT YOU CAN DO IT, YOU CANNOT.

- Unless otherwise specified filing, grinding, polishing, surface treating, machining or lightening of any component is expressly forbidden. All measurements given in these engine rules are for technical references only; you must not machine any parts to the dimensions given.
- The addition of material to any component is not allowed.
- Only genuine Rotax components that are specifically designed and supplied for the 125 Max DD2 engine may be used in or on the engine and its ancillaries, unless otherwise specified. The use of either “red” or “green” OEM gaskets is permitted.
- The engine is to be used with intake silencer, carburettor, fuel pump, radiator, wiring loom, ignition system, clutch, gearbox, gears, gear shifting components and exhaust system as supplied by the manufacturer.
- Any type of ignition switch may be used; it must in no way enhance the ignition system.
- Position and method of mounting the battery, wiring loom, exhaust system and fuel pump are free provided they are securely fixed and comply with Kartsport New Zealand Sprint chassis (Rule K1).
- The ignition coil must be mounted in the original position as supplied by Rotax.
- The use of thermal barrier coatings/ceramic coatings on or in the engine or exhaust system is not allowed.
- Fitting of helicoil type thread repair inserts to repair damaged threads is allowed, providing such repairs are not used to derive any benefit other than rectification of damage.
- The use of silicon type sealant between the ball and socket joint of the exhaust is permitted.
- The use of ceramic / ceramic hybrid bearings or bearings containing any ceramic component, are not permitted.
- The use of anti-friction coatings in or on the engine/engine components is prohibited.

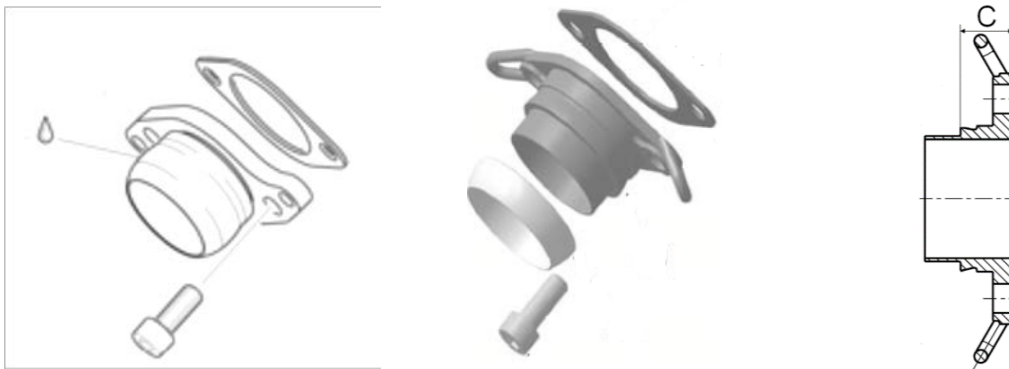
- Welding of the external water jacket only is allowed to repair cracks. The welding may only be carried out on the external surface of the water jacket. Only localized spot facing the external water jacket/cylinder head cover mating surface is permitted to restore the cylinder sealing surface as required where the weld intrudes.
- The fitting of couplings (to enable pre heating or pre cooling the coolant) to the cooling system hoses, radiator or engine is not permitted.
- Information in Rotax Technical Bulletins may be used to confirm compliance or otherwise.

N16.3 EXHAUST SYSTEM: Must be as supplied by Rotax and cannot be modified except for the replacement of the silencer absorption material and the use of threaded fasteners in place of the rivets for securing the silencer end cap. The exhaust system may be welded for repair purposes. The weld must not exceed more than half the exhaust's circumference at the point of the weld. It is permitted to paint the exhaust system with black paint. The use of any other coating or plating is not permitted. Replacement items must be OEM Rotax parts.

Exhaust Headers: Standard exhaust headers(s) must be used. Two versions of original exhaust headers are legal to be used.

Version 1, without gasket ring (left illustration)

Version 2 (EVO) with gasket ring (middle and right illustrations) For version 2 the measurement (C) must be at least 15.5 mm.



The use of maximum 4 pieces of original Rotax exhaust springs, to fix the exhaust system to the cylinder is allowed. (a "safety wire" in the exhaust flange area is not allowed).

Permitted modifications on the original exhaust systems are:

- Replacing the original rivets of the silencer end cap by 4 mm metric screws and corresponding locking nuts.
- Replacing the isolating mat (just one original isolating mat may be fitted) inside the silencer and the silencer end cap with perforated tube by original Rotax spares parts.
- Welding a socket (in a distance of 50-80 mm from the ball joint) on the top of the exhaust system for measuring the exhaust gas temperature (EGT).

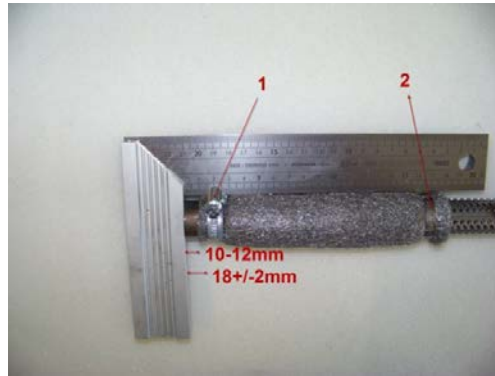
Additional to the standard isolation mat a steel isolation mat (Rotax part no. 297 983) of the square dimension of 165 +10 mm is legal (not mandatory) to be assembled underneath the standard isolation mat according to the illustration.

Clamp (1) must be fitted at a distance of 18+/-2mm, measured from the end of the tube.

Clamp (2) must be fitted at the end area of the steel isolation mat.

The measurement 10-12 mm from the end of the perforated tube to the beginning of the steel isolating mat is a specification for assembly purpose only!

Both clamps (1 and 2) are mandatory to be fitted and tightened.



Exhaust pipe with after muffler as shown in illustrations.

There are three versions of exhaust system:

Version 1, tuned pipe and silencer are one piece. The silencer is welded to the elbow and the tuned pipe (top illustration).

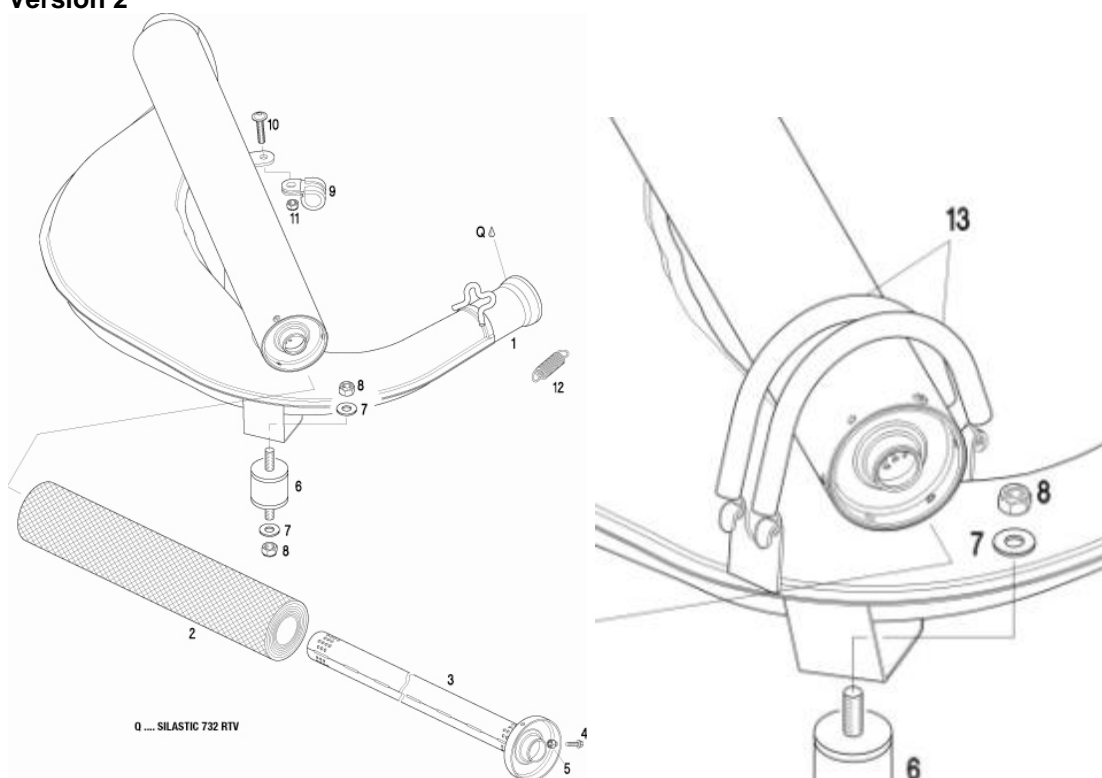
Version 2, tuned pipe and silencer are one piece. The silencer is welded to the 180° elbow. Two springs fix the silencer to the tuned pipe (bottom illustration).

Following measurement is valid for version 1 and 2:

Silencer end cap, diameter of hole: 19.6 +/-0,2 mm.

This silencer end cap (without 90° elbow) may be used for version 1 and 2 only. Version 1 and 2 can also use the perforated tube and end cap with the 90 degree elbow.

Version 2



Version 3 (EVO), tuned pipe with 180° elbow and silencer are two separate pieces. The silencer is fixed with 2 springs to the 180° elbow and two springs to the tuned pipe.

The silencer can be turned that the 90° elbow outlet of the silencer shows either downwards towards the asphalt (preferred version for lowest noise emissions) or towards the back.

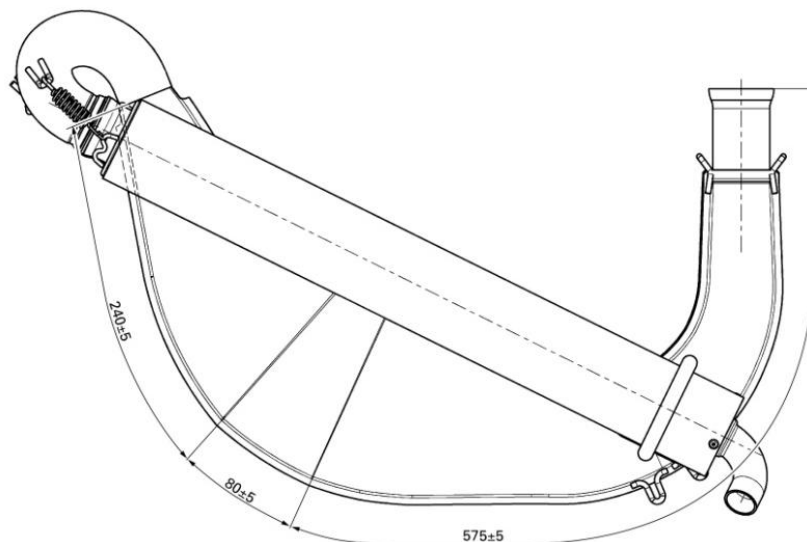
Silencer end cap with 90° elbow is mandatory to be used for version 3.

Dimensions to be checked are:

Length of inlet cone: 575 mm +/-5 mm

Length of central part: 80 mm +/-5 mm

Length of end cone: 240 mm +/-5 mm



N16.5 CARBURETTOR: DELLORTO carburettor VHSB 34" cast in the housing of the carburettor. "QD", "QS" or "XS" (EVO) stamped in the housing of the carburettor. The complete inlet bore in the casting of the carburettor must show cast surface. All jets must be correctly seated and securely fitted at any time (tightened)! Settings of the carburettor adjustment screws (idle and idle air) are free. The position of the jet needle is free. Genuine OEM Dellorto Main Jets must be used. The Main Jet size is free.

The two carburettor vent fittings can be connected with the original air vent hose minimum length 155mm (Rotax part no. 260 260). The location of the hose opening has to be placed at the rear of the carburettor.

Or the two carburettor vent fittings can be connected with hoses. They must be leak proof venting into an overflow container as per Rule K1.23.

One of the above options must be used.

N16.16 CYLINDER: Light-alloy-cylinder with GILNISIL-plating. Any re-plating of cylinder is not allowed. Cylinder with one main exhaust port and two side exhaust ports. Maximum bore of cylinder = 54.035 mm (measured 10 mm above the exhaust port). Cylinder has to be marked with the "ROTAX" logo. Cylinder with pneumatic timed exhaust valve.

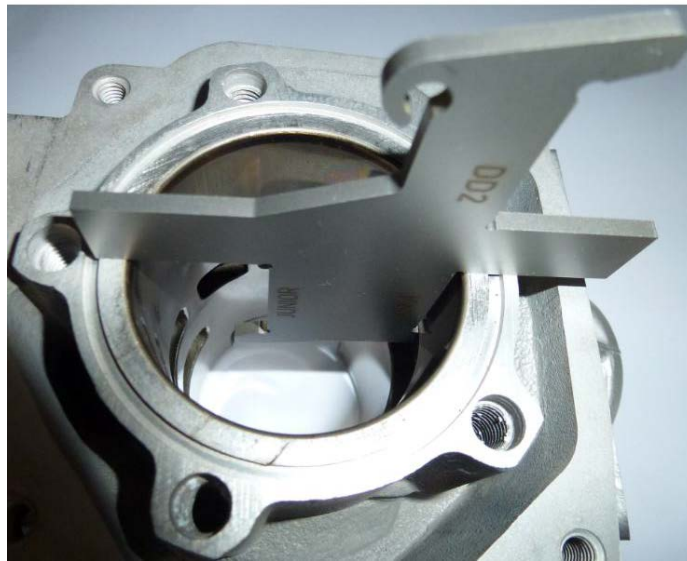
Cylinders marked with lettered or numbered casting codes and identification codes 613 930, 613 931 or 613 933 are legal to be used for all competition.



Cylinders marked 613 933 and showing the cast letter mark “X” in the inlet port show a fully CNC machined exhaust port and a fully CNC machined top edge of the central boost port. These cylinders must also display the KSNZ/Rotax stamp (picture to come)
The horizontal and vertical dimensions of the exhaust port (cylinder 613 933 with fully CNC machined exhaust port only) have to be checked with the template (Rotax part no. TBA).
The template has to be moved in horizontal and vertical position as far as possible into the exhaust port.
In both directions the template may not touch the exhaust socket flange.



N16.17 EXHAUST PORT TIMING: The "exhaust port timing" (distance from the top of the cylinder to the top of the exhaust port) has to be checked by means of the template (ROTAX 277 397). Insert the template into the cylinder ensuring that the template is touching the cylinder wall and that the finger of the template is located in the middle of the exhaust port (highest point). Move the template upwards, until the finger is touching the top edge of the exhaust port. Insert a feeler gauge between the top of the cylinder and the template. It must not be possible to fit the feeler gauge specified (125 MAX DD2: 0.75 mm). For cylinders 613 933 (125 MAX DD2) it is also legal if the template doesn't fit in at all. Cylinder showing Part Number 613 933, (with fully CNC machined exhaust port only), has to be checked by means of the template (ROTAX 277 402). Insert the template (take care to use the correct DD2 gauge) into the cylinder and move the template (at the highest point of the exhaust port) as far as possible into the exhaust port. In this position the template must not touch the cylinder wall.



N16.19 CON ROD and CRANKSHAFT: Con rod has to show forged numbers "213", "365", "367" or "362"(EVO) on shaft.

Grinding or polishing of shaft of con rod is not permitted.

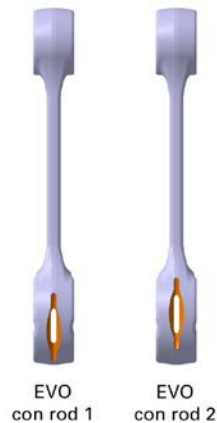
Shafts of con rods "213", "365" and "367" are not machined and are copper plated.



Shaft of con rod "362" (EVO) is not copper plated and is blank (grey/brown).



The EVO2 con rod is permitted (see picture).



Ignition signal on crankshaft: Fit the template (Rotax 277391) on the crankshaft.
Align the hole in the template for the big end pin with the pin of the crankshaft.
The two edges of the signal machining on the crankshaft must be in line ($\pm 0,5$ mm) with the corresponding edges (MAX or DD2) of the template.



N16.23 CLUTCH: Add the following text and images to the end of the current Rule:

Signs of emission of grease from the needle/plain bearing into the clutch drum may not exceed that shown in the pictures below.
The contact area between the clutch and the clutch drum has to be dry at all times – no lubrication is allowed.



N16.28 NON TECH ITEMS: Non-original fasteners, circlips, washers, throttle cable housing, fuel and pulse line (type and size) as well as length of coolant hoses are allowed unless otherwise specified. The starter motor shall be installed as originally supplied and be operable, but may be repaired and its parts not subject to technical inspection.

Implementation: 20-1-18

Reason: Latest round of updates from Rotax.

Rule P1.18 National Sprint Championships TRACK AVAILABLE FOR TESTING
Replace the current Rule with the following:

P1.18 TRACK AVAILABLE FOR TESTING: As defined in Rule R3.10. The host Club must make its track available, for testing purposes, for a minimum of 2 days for 6 hours minimum per day immediately prior to Day 1 of the event. The track will be closed to all karts on the Monday and Tuesday immediately prior to the event. Rule R3.10 - General, must be obeyed. Details regarding this testing must be stipulated in the Supplementary Rules. The host Club is permitted to charge a maximum testing fee of \$20 per day per competitor.

Implementation: 1-2-18

Reason: To bring into line with practice fees currently being charged by Clubs.

Rule P6.18 Island Sprint Championships TRACK AVAILABLE FOR TESTING
Replace the current Rule with the following:

P6.18 TRACK AVAILABLE FOR TESTING: As defined in Rule R3.10. The host Club must make its track available, for testing purposes, for a maximum of 1 day for 8 hours minimum, immediately prior to Day 1 of the event. The track will be closed to all karts between the Monday and Thursday inclusive immediately prior to the event. Rule R3.10 - General, must be obeyed. Details regarding this testing must be stipulated in the Supplementary Rules. The host Club is permitted to charge a maximum testing fee of \$20 per day per competitor.

Implementation: 1-2-18

Reason: To bring into line with practice fees currently being charged by Clubs.