ROK CUP TROPHY 2021

TECHNICAL REGULATION

(This is just a translation. In case of interpretative conflicts, the Italian text approved by ACI SPORT will prevail)

1. CLASSES:

- MINI ROK
- JUNIOR ROK
- SENIOR ROK
- ROK EXPERT
- ROK EXPERT PLUS
- SUPER ROK
- SHIFTER ROK

1.1 MINI ROK

Engine: Vortex MINI ROK 60cc complying with the current MINI ROK engine identification sheet (technical fiche) approved by ACI SPORT.

Carburettor: DELL'ORTO PHGB 18, it must maintain its original structure, it shall mount the same parts and shall be the same as the ones in the engine identification sheet (technical fiche), in order to allow at any time, the comparison of all components with a new carburettor. **Any kind of processing, connection, polishing, addition or removal of material is forbidden**. The threaded clamp described in the engine identification sheet (technical fiche), screwed onto the carburettor, is used to fix the intake silencer; the clamp must not interfere inside the homologated carburettor inlet. **The only components of the carburettor that can be changed are those described in the table in the engine identification sheet (technical fiche).**

Clutch: Concerning the clutch housing with holes, it is mandatory to use the cover according to the engine identification sheet (technical fiche) supplied by VORTEX.

Ignition: Described in the engine identification sheet (technical fiche). The admitted spark plug is the one described in the Mini Rok engine identification sheet (technical fiche).

Chassis: Brand and model must hold **current CIK FIA Gr.3 homologation and current ACI SPORT 2015-2020 homologation.**

If the chassis holds a MINI Gr.3 CIK FIA homologation all homologated components of the chassis must hold current CIK FIA homologation (brake system, bodyworks, rear wheel protection).

If the chassis holds an ACI SPORT homologation all homologated components of the chassis must hold a current ACI SPORT2015-2020 homologation (brake system, bodyworks, rear wheel protection).

The use of bodyworks and rear wheel protection RDS RT Karting ACI SPORT art. 4.14 and 4.15 is mandatory.

Front fairing: Mounting kit complying with the RDS RT Karting ACI SPORT, art. 4.14.2 art. 4.14.4 comma a-b-c-d-e-f-g

Pre-Race checks: Every driver can use:

2 chassis of the same **Brand**

2 engines.

1.1.a. ENGINE DISTRIBUITION

In the Mini Rok category the races of the Rok Cup Italia 2021 will be reserved (limited number) to a maximum of 34 racers, racing with the engines previously allocated by drawing lots by the Promoter. The same procedure might be applied to other races of the Rok Cup Trophy, if specified in the Specific Race Regulations defining from time to time the max number of driver admitted.

By ENGINE and ENGINES is meant to: Mini Rok engine + carburetor + exhaust + airbox. The engines and the parts given with it (Mini Rok engine + carburetor + exhaust + airbox) will be identified with the same serial number and will be equipped with a seal.
All the conductors must have battery, battery support and wiring of property.
THE ENGINES will be distributed/allocated to each driver by drawing lots, and this will happen just before the official free-races in the presence of all the racers. THE ENGINES must be used starting from the official free practices.
At the end of each race phase, there might be a request to all the racers to leave THE ENGINE at the parc fermè and participate to a new draw in order to allocate another ENGINE.
Every time the drivers will return the engines at the end of the race, a Vortex technician will verify eventual damages, missing parts and the integrity. In case of damaging the costs will be charged to the driver. The ENGINE must be return fully clean after the race.

The cost of renting for the ENGINE for each race of Rok Cup Italia 2021 is of 300,00 Euro vat included.
Registration to each race must be sent to the organization in the given time terms (max of 34 conductors for each race), instead the renting of the ENGINE will be managed by the Promoter himself, according to the given modalities.

1.2 JUNIOR ROK
Engine: Vortex ROK GP JUNIOR 125cc complying with the current ROK GP JUNIOR engine identification sheet (technical fiche) approved by ACI SPORT.
Carburettor: DELL'ORTO VHSH 30, it must maintain its original structure, it shall mount the same parts and shall be the same as the ones in the engine identification sheet (technical fiche), in order to allow at any time, the comparison of all components with a new carburettor. **Any kind of processing, connection, polishing, addition or removal of material is forbidden. The only components of the carburettor that can be changed are those described in the table in the engine identification sheet (technical fiche).**
Cooling: Use of **only one (1)** radiator, complying with the dimensions indicated in the table of Annex A.
Clutch: Concerning the clutch housing with holes, it is mandatory to use the cover according to the engine identification sheet (technical fiche) supplied by VORTEX.
Chassis: Brand and model must hold current CIK FIA homologation or CIK FIA homologation of the previous homologation period, the use of bodyworks and rear wheel protection RDS RT Karting ACI SPORT art-4.14 and 4.15 is mandatory.
Front fairing: Mounting kit complying with the RDS RT Karting ACI SPORT, art. 4.14.3 – art. 4.14.4 comma a-b-c-d-e-f-g.
Pre-Race checks: Every driver can use:
2 chassis of the same **Brand**
2 engines.

1.3 SENIOR ROK - ROK EXPERT - ROK EXPERT PLUS
Engine: Vortex ROK GP 125cc complying with the current ROK GP engine identification sheet (technical fiche) approved by ACI SPORT.

Carburettor: DELL'ORTO VHSH 30, it must maintain its original structure, it shall mount the same parts and shall be the same as the ones in the engine identification sheet (technical fiche) in order to allow at any time, the comparison of all components with a new carburettor. **Any kind of processing, connection, polishing, addition or removal of material is forbidden**. **The only components of the carburettor that can be changed are those described in the table in the engine fiche (technical fiche).**
Cooling: Use of **only one (1)** radiator, complying with the dimensions indicated in the table of Annex A.
Clutch: Concerning the clutch housing with holes, it is mandatory to use the cover according to the engine identification sheet (technical fiche) supplied by VORTEX.
Chassis: Brand and model must hold current CIK FIA homologation or CIK FIA homologation of the previous homologation period, the use of bodyworks and rear wheel protection RDS RT Karting ACI SPORT art-4.14 and 4.15 is mandatory.
Front fairing: Mounting kit complying with the RDS RT Karting ACI SPORT, art. 4.14.3 – art. 4.14.4 comma a-b-c-d-e-f-g.
Pre-Race checks: Every driver can use:
2 chassis of the same **Brand**
2 engines.

1.4 SUPER ROK
Engine: Vortex ROK DVS 125cc complying with the current ROK DVS engine identification sheet (technical fiche) approved by ACI SPORT.
Carburettor: IBEA DVS branded Rok DVS, it must maintain its original structure, it shall mount the same parts and shall be the same as the ones in the engine identification sheet (technical fiche), in order to allow at any time, the comparison of all components with a new carburettor. **Any kind of processing, connection, polishing, addition or removal of material is forbidden**.
Cooling: Use of **only one (1)** radiator, complying with the dimensions indicated in the table of Annex A.
Chassis: Brand and model must hold current CIK FIA homologation or CIK FIA homologation of the previous homologation period, the use of bodyworks and rear wheel protection RDS RT Karting ACI SPORT art 4.14 and 4.15 is mandatory.
Front fairing: Mounting kit complying with the RDS RT Karting ACI SPORT, art. 4.14.3 – art. 4.14.4 comma a-b-c-d-e-f-g.
Pre-Race checks: Every driver can use:
2 chassis of the same **Brand**
2 engines.

1.5 SHIFTER ROK
Engine: Vortex SHIFTER ROK 125cc complying with the current SHIFTER ROK engine identification sheet (technical fiche) approved by ACI SPORT.
Carburettor: DELL'ORTO VHSH 30, it must maintain its original structure, it shall mount the same parts and shall be the same as the ones in the engine identification sheet (technical fiche) in order to allow at any time, the comparison of all components with a new carburettor. **Any kind of processing, connection, polishing, addition or removal of material is forbidden.**
Cooling: Use of **only one (1)** radiator, complying with the dimensions indicated in the table of Annex A.

Chassis: Brand and model must hold current CIK FIA homologation or CIK FIA homologation of the previous homologation period, the use of bodyworks and rear wheel protection RDS RT Karting ACI SPORT art 4.14 and 4.15 is mandatory.
Front fairing: Mounting kit complying with the RDS RT Karting ACI SPORT, art. 4.14.3 – art. 4.14.4 comma a-b-c-d-e-f-g.
Pre-Race checks: Every driver can use:
2 chassis of the same **Brand**
2 engines.

2. TIRES
2.1 For the **Mini Rok** category, admitted tires are the following:
SLICK tires: LeVanto KRT 10x4.00-5/11x5.00-5
RAIN tires: Bridgestone YPW 4,0/10,0/-5+5,0/11,0-5

2.2 For **Junior Rok, Senior Rok, Expert Rok, Expert Rok Plus, Super Rok and Shifter Rok** categories, admitted tires are the following:
SLICK tires: LeVanto KRT 10x4.50-5/11x7.10-5
RAIN tires: Bridgestone YNP 4,5/10,0 - 5 + 6,0/11,0 – 5

The Specific Race Regulation of each ROK CUP TROPHY race might also allow, if specified, different tires models.

With reference to the tire tolerances please note that the tolerance on the circumference is ±20mm measured with tire mounted on the wheel and with operating pressure (1 bar). This measurement will be made by the technical Scrutineer in charge for the race.

2.3 PARC FERME' FOR TIRES
All the Rok Cup Trophy categories are admitted to buy race tires in the paddock (provision to be included in the Specific Race Regulations, under penalty of nullity).
All the Rok Cup Trophy categories will be allowed to use:
- only one (1) set of new SLICK tires per race **(2 front slick tires + 2 rear slick tires)**. To the driver's/entrant's discretion, 1 supplementary slick front tire and 1 supplementary slick rear tire are admitted.
The complete set of tires and the supplementary tires will be delivered at the parc fermé, in return for a VOUCHER purchasable at the **Rok Center**.
- Minimum one (1) set / maximum two (2) sets of new or used RAIN tyres per race **(1set = 2 front rain tires + 2 rear rain tires)** to the driver's/entrant's discretion are admitted, **provision to be included in the Specific Race Regulations, under penalty of nullity.**

The number of tires, the brand and the model of tires as well as the management of tires might be different for some ROK CUP TROPHY races and it will be specified in the Specific Race Regulation.

The Specific Race Regulation of each race might also allow, if specified, the distribution and management of both slick and rain tyres as described in: RDS ACI SPORT Karting Technical Regulations, art. 4.16/4.16.1/4.16.2/4.16.3.

3. FUEL AND LUBRICANT FOR FUEL MIXTURE

For all Rok Cup Trophy categories the lubricant to be used for the fuel mixture is **ENI KART 2T.**
For the checks, please refer to Art. 4.19 of the RDS ACI SPORT Karting Technical Regulations.

4. LUBRICANT

Counter shafts mechanism chambers and transmission gear set chamber must be filled in with oil.

5. MINIMUM WEIGHT FOR EACH CATEGORY

The minimum weight of kart + driver (in race conditions) for each category is the following:

MINI ROK	110 Kg
JUNIOR ROK	145 Kg
SENIOR ROK	160 Kg
ROK EXPERT	170 Kg
ROK EXPERT PLUS	170 Kg
SUPER ROK	155 Kg
SHIFTER ROK	180 Kg

6. TECHNICAL CHECKS

During the checks, it will be considered the specifications in this Technical Regulation, the engine identification sheets (technical fiches) duly approved signed by ACI SPORT, registered together with this regulation and the RDS ACI SPORT Karting Technical Regulation. **The tolerances described in the engine identification sheets (technical fiches) are construction tolerances**. Moreover, the ACI SPORT Technical Scrutineer, upon authorization request to the Sports Marshals, may at any time refer to any comparisons to value the conformity of any parts, with details provided by the promoter.
The Technical Scrutineers also have the possibility, upon authorization request to the Sport Marshals, to replace any part of the engine with an original spare part supplied by the promoter.

6.1 MARKING

Each part of the following engines MINI ROK, ROK GP, ROK GP JUNIOR, ROK DVS, ROK SHIFTER has a mark which allows the recognition and ensures the originality and the conformity of the part itself during the technical checks.
The marks used for marking the parts are those here below:

6.2 EXHAUST MANIFOLD AND INLET GASKETS

Exhaust manifold and inlet gaskets sealing cannot be anyhow decreased, restricted or blocked.

7. PROCEDURE FOR MEASURING THE VOLUME OF THE COMBUSTION CHAMBER

1. Remove the engine from the chassis;
2. Wait until the engine is at room temperature (the organizer must supply appropriate cooling fans);
3. Remove the cylinder head to check the protrusion of the spark plug inside the combustion chamber;
4. Remove the spark plug (check the 18.5 mm dimension);

5. Screw the plug insert in place of the spark plug (the plug insert, tightened on the cylinder head, must not extend beyond the upper part of the combustion chamber. It must be fixed to the head cylinder exactly in the same way as the spark plug measuring 18.5mm);
6. Make the top part of the piston and the periphery of the cylinder waterproof using grease;
7. Place the piston at top dead centre and block the crankshaft;
8. Carefully remove the excess grease;
9. Make sure the engine lies flat;
10. Place the cylinder head back and screw it in at the tightening torque recommended by the Manufacturer;
11. With a laboratory graduated burette (mechanical A-type or electronic), fill the combustion chamber with **"ATF DEXRON" VI (6) "RED" type OIL** to the uppermost part of the top edge of the plug insert;
12. The measured volume must be as requested and determined by RDS and described in the following table, for each class:

7.1 ALTERNATIVE PROCEDURE

1. Remove the engine from the chassis;
2. Wait until the engine is at room temperature (the organizer must supply appropriate cooling fans);
3. Remove the spark plug (check the 18.5 mm dimension);
4. Screw in the plug insert in place of the spark plug. It must be fixed to the head cylinder exactly in the same way as the spark plug measuring 18.5mm;
5. Place the piston at top dead centre;
6. Make sure the engine lies flat;
7. With a laboratory graduated burette (mechanical A-type or electronic), fill the combustion chamber with **"ATF DEXRON" VI (6) "RED" type OIL** to the uppermost part of the top edge of the plug insert;
8. The measured volume must be as requested and determined by RDS and described in the following table, for each class:
9. In case of discrepancy of the measured value, the complete procedure must be carried out again according to the **PROCEDURE 7.**

Table of the minimum value of the combustion chamber volume, of the classes mentioned below:

Class	Volume of the combustion chamber	
MINI ROK	4,8cm³. + insert 2 cm³	**6,8cm³ Min.**
JUNIOR ROK – ROK GP Junior	7,5cm³ + insert 2 cm³	**9,5cm³ Min.**
SENIOR ROK - ROK GP	7,5cm³ + insert 2 cm³	**9,5cm³ Min.**
SUPER ROK – ROK DVS	9 cm³ + insert 2 cm³	**11cm³ Min.**
SHIFTER ROK	11 cm³ + insert 2 cm³	**13cm³ Min.**

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Dimensions Plug Insert

Volume Inserto = pi x 1 x 2.55 / 4 = 2 cm3/cc

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8 TOOLS FOR MEASURING THE ENGINE DISTRIBUTION

For all Rok categories where the control is required, the exhaust angular reading, exhaust, transfers and gap must be measured with a 0,20 mm thick and 5 mm wide wedge (see drawing below).
The reading is made by using a digital display with encoder measuring device, or with minimum diameter 200 mm graduated disc.

8.1 CONTROL OF THE ADMISSION GAP OF MINI ROK ENGINE

RUOTARE IN SENSO ORARIO PER ALZARE IL PISTONE E PERMETTERE L'INSERIMENTO DELLO SPESSIMETRO CONTRO LO SPIGOLO INFERIORE DELL'ASPIRAZIONE *TURN CLOCKWISE AND LIFT THE PISTON TO ALLOW THE INSERTION OF THE FEELER GAUGE AGAINST THE LOWER EXHAUST EDGE*	RUOTARE IN SENSO ANTIORARIO PER ABBASSARE IL PISTONE FINO AD INCONTRARE LO SPESSIMETRO APPOGGIATO ALLO SPIGOLO DELL'ASPIRAZIONEIN QUESTA FASE SETTARE LA POSIZIONE DI 0° *TURN COUNTERCLOCKWISE AND LOWER THE PISTON UNTIL IT MEETS THE GAUGE RESTING AT THE EXHAUST EDGE , AT THIS STAGE SET THE SCALE ON THE POSITION OF 0 DEGREES*

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LIBERARE LO SPESSIMETRO QUINDI RUOTANDO IN SENSO ANTIORARIO ABBASSARE IL PISTONE PER PERMETTERE L'INSERIMENTO DELLO SPESSIMETRO SOTTO LO SPIGOLO SUPERIORE DELLO SCARICO *RELEASE THE FEELER GAUGE AND TURNING COUNTERCLOCKWISE LOWER THE PISTON TO ALLOW THE INSERTION OF THE FEELER UNDER THE UPPER EDGE OF THE EXHAUST*	RUOTANDO IN SENSO CONTRARIO ALZARE IL PISTONE FINO AD INCONTRARE LO SPESSIMETRO APPOGGIATO ALLO SPIGOLO DELLO SCARICO E CONTROLLARE CHE L'ANGOLO DI SPOSTAMENTO NON SIA INFERIORE **A 31°** *TURN CLOCKWISETO LIFT THE PISTON UNTIL IT MEETS THE FEELER GAUGE RESTING AT THE EXHAUST EDGE. AT THIS STAGE CHECK THAT THE EDGE OF DISPLACEMENTS OF THE VERNIER MATCH NOT LESS THAN **31 DEGREES*** the edge of displacements of the vernier match not less than 31 degrees

8.2 SQUISH HEIGHT MEASUREMENT

Squish height measurement must be done by means of 1.5 mm size round soldering wire.

8.3 TECHNICAL CHECK CONSULTANT AND TECHNICAL CHECKS

The Promoter OTK Kart Group has the right to entrust Technical Scrutineers with its own specialized technician as a support technical check consultant during the technical checks of the engine only.
The control of the chassis and other details is assigned to the only Race Officials designated by ACI SPORT for the event.
The procedures for the technical check of the engine and/or any other parts must be performed only by Race Officials designated by ACI SPORT for the event, in compliance with the RDS Karting 2020; for any complaints and/or appeals we refer to the RNS ACI SPORT 2020.

Moreover, the Race Stewards can request deeper checks for some parts by the Manufacturer headquarters. This request must be done by the Technical Delegate to the Race Stewards and must be duly described.
The Promoter or the Organizer will send the part/s duly sealed and the related official documents by the Race Stewards and the Scrutineers to the Manufacturer.
The part/s will be checked by the Manufacturer's seat, by the presence of the entrant and of the Technical Delegate.
The Technical Delegate will send the check result to the President of the Race Stewards.
The logistic costs will be paid by the Promoter OTK Kart Group srl if the part/s is/are respecting the Regulations, otherwise the entrant will pay them.

9. CLUTCH

For the **Junior ROK - Senior ROK - Expert ROK - Expert Plus ROK** classes, the following clutch checks are admitted:
- from stationary position in pre-grid and at the end of the race, in order to verify the first engagement of the clutch at 4000rpm (after checking the weight); the clutch must be 100% direct-drive at the minimum 5000 rpm in all conditions;
- through the UNILOG ** data acquisition system provided by the Promoter, in order to verify the direct-drive of the clutch in all conditions.

For the **Mini Rok** class, the following clutch checks are admitted:
- from stationary position in pre-grid and at the end of the race, in order to verify the first engagement of the clutch at 3500rpm (after checking the weight); the clutch must be 100% direct-drive at the minimum 4500 rpm in all conditions;
- through the UNILOG ** data acquisition system provided by the Promoter, in order to verify the direct-drive of the clutch in all conditions.

****Any braking or damage to the UNILOG device supplied for the event is under the competitor's responsibility.**

10. RACING SPORTSWEAR

It is mandatory for drivers of all Rok Cup Trophy categories to use racing sportswear (**racing suit and helmet**) complying with homologation and safety measures provided by ACI SPORT and CIK-FIA.

For anything not specified in the Rok Cup Trophy Technical Regulations, refer to the RDS RNS ACI SPORT 2020, Karting Technical Regulation and CIK FIA 2020 Regulation and its rules

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ANNEX A – COOLING

Dimensions and characteristics of the radiators admitted in the different ROK classes:

	A	B	C	D	E	F
JUNIOR ROK – ROK GP	480	210	395	45	32	45
ROK DVS – ROK SHIFTER	465	265	395	40	45	60

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SPECIFICATION 1 – ANNEX A "COOLING"

In addition to the chart in the Annex A regarding the dimensions of the radiator, it is specified that the mass of the radiator and all the parts connected to it, such as the two water reservoirs and the water connection, can only have a linear conformation (drawing 2).
The use of the CURVED conformation **(drawing 1) is forbidden**.

DISEGNO 1	**DISEGNO 2**

Moreover it is specified that the water hose connections on the back side of the radiator **(drawing 2)** must be on the right (1) in the upper part and on the left (2) in the lower part.