

RMC ASIA FESTIVAL 2022

Technical Regulations DD2 Master



Tec	hnical R	egulatio	ns MAX DD2 I	MASTER
5.00 / Chassis	Maximum one cha	assis per competitor	per event (weekend). Only Cl	K/FIA homologated chassis
	and DD2 certified	chassis are allowed	d. Check www.rotax-kart.com /	approved chassis DD2.
5.01 / Brakesystem	Only hydraulic. C	IK/FIA homologated	brakes are allowed.Front brak	es are mandatory.
	Between the mas	ter brake cylinder ar	nd the brake pedal an extra sec	curity brake cable is mandatory
	Minimum 1.8 mm	thickness. Also an e	xtra security clip is mandatory	at the brake pads. A ceramic
	brake disc is not a	allowed.		·
5.02 / Rear axle				
Diameter	Ø40mm magnetic	material, in a whole) .	
Wall thickness	(40mm) minimum	2.9mm (entire lengt	h).	
5.03 / Rims	Aluminium or mag	gnesium / diameter 5	5 inch.	
Dry	Maximum 135/21	5mm / measured to t	the outside of the rim	
Rain	Maximum 130/180	0mm +/- 5mm / meas	sured to the outside of the rim	OR Dry rims
	Any additions to t	he rims are not allow	ved. Except : adhesive balanci	ng lead. Bead retaining screws
	are allowed.			
Rear width	Maximum 140cm	/ measured to the or	utside of the rim. Minimum : se	e 4.05 "rear bumper"
5.04 / Tyres	# m	റപഠ	D®	
Dry	MOJO D5 CIK wit	th barcode	Front: 4.5x10x5	Rear: 7.1x11x5
Rain	MOJO W5 CIK wi	ith barcode	Front: 4.5x10x5	Rear: 6.0x11x5
5.05 / Rearbumper	pre-grid area that to the parc-ferme. one (1) mechanic other technical ch Afterwards he ma formation laps. If relevant part of th It is not allowed to always need to be Rotax rear bumpe Rotax rear bumpe	a driver has fitted h . The drivers has the s;.Only putting the time hanges. by start, but only whe the observation take he competition. comodify the tires. The evisible on the tires. For and CIK-FIA homo- er: Rollers orange or	is tires incorrectly (wrong direct e possibility to assemble his tire es in the correct direction is all en the start is given. He is not e es place after the race, the drive ne brand name, code number, the control normal air is allowed to the plogated rear bumper is legal to red are allowed to be used.	etion) then he will be moved es correctly, with the help of owed. It is not allowed to do entitled to participate in the er will be excluded from the barcode and the indications fill the tires.
		and the second s	5 2 0 8 4 3 5 12 12	

	All parts from the rear bumper should be mounted .
	No part shall be added or removed from original content (except safety wire or bolt connection
	between pos.1 and pos.2 as well as number plate with support).
	Rotax original (orange or red) protection rollers only are allowed to be used.
	CIK rear bumper: cover at least 2/3 of the rear wheels, and may not protrude the rear tires.
5.06 / Side-pods	Only a complete homologated plastic spoiler set is allowed. The complete spoiler set should have
Front panel Front	the same homologation number. Using composite like carbon fiber is not allowed.
fearing	Only plastic frame protection parts (left, right, front) is allowed. The complete set should be free of
	damage.
	A CIK front fearing bumper is mandatory for all type of chassis and has to be mounted according
	to the CIK regulations.
5.07 / Fuel tank	The plastic fuel tank should be mounted in a correct way, at the appropriate place. All vents must
	be culminate in a reservoir.
5.08 / Age	32 years (or reach the age of 32 in 2022) and above.
5.09 / Weights and	Minimum 180 kg on each moment of the event. Kart + complete race gear.
clothing	A driver must be equipped and appear for inspection with the following gear.
	Complete equipment must comply with the CIK regulations
	A turbo visor is allowed in case of rain
	Gloves which cover the entire hand
	High shoes that cover and protect the ankles.
	The responsible doctor on the event may, for safety reasons, disapprove certain types of breast,
	neck of hid protections.
	A neck protection is not required yet recommended.
	From the moment when the driver goes on track he must wear the mendatory race goes as
	described in this article
5 10 / Race numbers	Vellow plate with black digits (Numbers 501 to 599) (Front, rear, left and right sides)
5.10 / Race numbers	Data logging with or without a GPS module is allowed. Data from the GPS module may only be
o.rr, butt systems	saved in a system which has been mounted on the kart. Every other form of telemetry or radio
	communication is not allowed. Transferring data during sessions to a device, other than the data
	logger on board is not allowed. 2 temperature sensors water/exhaust only allowed
	I ambda/ $O2$ sensors strictly forbidden
5.12 / Seat / Extra	The seat has to be fixed at minimum 4 places 2 at the top (left and right) and 2 on the bottom (left
Seat Support	and right) All seat supports have to be fixed with washers with a minimum thickness of 1.5 mm and
	a diameter of 40 mm. Additional seat stay is allowed. Maximum 1 on engine side and maximum
	2 on the radiator side. On the engine side seat stay has to be mounted to the engine anchor point.
	The additional seat support must be fastened to the engine using the threaded hole designed for this
5.13 / Lead	Drivers who are lighter than the required minimum weight shall attach extra weight on their kart,
	until they reach the prescribed weight. Lead may only be installed on the chassis or on the seat.
	The Technical Scrutineering can force each driver to mount the lead on another place.
	The lead shall be mounted so that everyone's security is guaranteed at all times:
	Up to 3kg: at least with 2x M6 bolts including washer
	Up to 6kg: at least with 2x M8 bolts including washer
	Up to 10kg: at least with 4x M8 bolts including washer
5.14 / Camera's	Camera is allowed during free practice only.

	ENGINE - Rotax MAX DD2 EVO		
5.15 / Foreword	Only original spare parts which are manufactured by BRP-Rotax are legal to be used. Any modifications are not allowed.		
	Eventually heliix reparations with heli coils and/or wire bushes are allowed.		
5.16 / Engines	Driver is allowed to enter maximum 2 engines.		
-	The engine origin has to matched with his/her competition license nationality or using the		
	engines supply by the regional distributors (Malaysia, Thailand or Phillipine) is allowed.		
5.17 / Squish	Minimum 1.30 mm (including possible carbon deposits)		
Method of	The squish gap must be measured with a certified slide gauge and by using 2 mm tin wire (Rotax		
measuring	part no. 580 130).		
	The crankshaft must be turned by hand slowly over top dead centre to squeeze the tin wire.		
	The squish gap must be measuredd on the left and right side in the direction of the piston pin. The engine temperature below 30 degrees Celcius		
	The average value of the two measurements counts.		
5.18 / Combustion	Cast identification code has to be "223 389" or "223 389 1" or "223 389 2" or 223 389 2/1"		
	or "223 389 2/2". Casted wording "ROTAX" and/or "MADE IN AUSTRIA" must be shown		
	MADE DI AUSTRIA		
	Height of the combustion chamber insert has to be 28.80mm +/- 0.2mm (H)		
	H		
	The profile of the combustion chamber insert has to be checked with a template (ROTAX part no. 277 390). The crack of light between the template and the profile of the combustion chamber insert has to be the same over the whole profile.		
	JSE WY		
5.19 / Cylinder head cover	It is allowed to change the colour of the cylinderhead cover for identification.		









Red surrounded picture below: NOT CNC machined.



White surrounded picture below: CNC machined



The exhaust port is CNC machined but not over the entire length

All transfer ports and passages have cast finish surface except some removal (done by the manufacturer) of cast burr at the inlet passage, exhaust port and passages.



All ports have chamfered edges to prevent ring snagging. Any additional machining is not permitted. (see picture below).



The upper edge of the central boost port may show factory machining. (see picture below).



The top edge of exhaust port may show some pre-existing machining from the manufacturer.

Any modification is strictly for bidden!

5.24 / Maximum bore	Maximum bore of cylinder = 54.035 mm (measured 10mm above the exhaust port)		
	Light alloy cylinder with GILNISIL plating. Any re-plating of cylinder is not allowed.		
5.25 / Cylinder measurements	<image/>		
	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 part no. 277 402). Insert the template for DD2 Max cylinder 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 (nikasil).		
	Any modification is strictly forbidden!		
	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).		
	<image/> <image/> <image/> <image/>		



The inlet manifold is marked with the name ROTAX and identification code 267 410 or 267 411		
Some factory flash removal may be present at the conjunction of the inside contour and the carburettor stop mounting face. No additional grinding or machining is permitted.		
thickness of the reeds is 0.60 mm \pm /- 0.10 mm		
Modification is not allowed. Both reed valve assy. are legal to be used.		
Part no. 224 380 (left picture)		
Part no. 224 389 (right picture)		
Reed valve stopper gap measurement MUST be between 18-22mm (inside measurement) Stroke: 54 50 mm ± 0.1 mm Conrod has to show forged numbers "367" or "362"		
(see pictures)		
(bee pictures) Shafts of conrods are not machined. Grinding or polishing of shaft of conrod is not permitted.		
Crankshaft has to be unprocessed and may not be damaged.		
Ignition signal on crankshaft :		
Fit the template (Rotax part no. 277 391) on the crankshaft. Align the hole in the template for the big end pin with the big end 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) of the template.		



Balance gear :

Image below : balance gear with Rotax part nr. 635 745 00 engraved. The fly weight of balance gear may show machined surfaces. The minimum weight including cage may not be lower th 255.00 g



Image below : balance without engraving The fly weight of balance gear may show machined surface The minimum weight including cage may not be lower than 250.00 g



Both type of balance gears are legal to be used !

Dimension A (widest part of balance weight) must be 57.00 mm +/- 0.5 mm.



5 32 / Clutch	Clutch specifications at any time :	× R
5.527 0101011	Ciucit specifications at any time .	
	Thickness of clutch shop (Δ) :	
	minimum : 24.10 mm	
	Measurements must be done at the 3 open ends of the clutch	
	5 10 mm from the machined groove (all clutch shoes must be	R
	completely closed at measurement _ no gap)	Tá l
	completely closed at measurement – no gap).	T
	Height of clutch (R) :	
	Minimum : 14.45 mm	
	C +	1
		l 1
		-
		<u> </u>
	The outer diameter of the clutch drum (C) : minimum 89.50 mm.	Diameter has to be measured with
	a sliding calliper just beside the radius from the shoulder. (Not a	t the open end of the clutch drum).
	The inner diameter of the clutch drum (D) : maximum 84.90 mm.	. The inner diameter has to be
	measured with a sliding calliper. The measurement has to be do	one in the middle of the clutch
	drum (in the contact area between clutch and clutch drum).	
	Clutch drum height with sprocket (E) : minimum : 39.50 mm	
5.33 / Primary drive	Original primary drive gears (4 & 5) of following gear ratio option	ns must be used only.
	Following combinations are legal to be used :	
	Drive gear / Driven gear	
	32/65	
	30/01	4
	37/60	
		13000
	be the	
		15
	10 - CA Manual	- <u>-</u>
		K00405





The organization reserves the right at all times to exchange ignitions coils and / or ECU boxes with ignition coils and or ECU boxes from the organization.

The electrical contact at the shift assembly must be connected, as per picture:



The ECU box can be checked with the ECU box tester (Rotax part no. 276 230)

Start the test by pressing the button . After approx. 3 seconds the type of ECU box that is actually tested will be indicated in the second line of the display. After approx. 30 seconds the result of the test will be indicated in the first line of the display.

The ECU box tester has to indicate following results: **125 MAX category** 1. 666816DD2MAX! 2. !! Test OK !!

The marking of the pick-up must show the following numbers in the first line : 029600-0710. A steel ball (diameter 3-5 mm) placed on circular surface of the sensor must stay in the center of the circular surface.





Additional gasket, Rotax part no. 431 500, gasket thickness = 0.8 mm are allowed to be fitted. Maximum two gasket (Rotax 431 500) are allowed to be fitted.

Fitting position of the additional gaskets: Crankcase – rubber sealing ring – additional gaskets – pick-up.

It is not necessary to install any additional gaskets with the exception of the rubber sealing ring on crankcases with the machined sealing surface for the pick-up sensor.





5.40 / Carburettor	DELLORTO Type VHSB 34. Housing has to show the cast wording "VHSB 34".
	Carburettor housing is stamped with "XS".
	The complete inlet bore of the carburettor must show cast surface
	Carburettor slide shows digits "45" in casting
	Following specific cations:
	T onowing specifications.
	• Carburettor venturi insert 12.5
	Needle jet stamped with "DP267"
	• let needle stamped with "K57"
	Start let stamped with "60"
	Idle jet stamped with "60"
	 Idle emulsion tube stamped with "15"
	Elect lover according template (Petax part no. 277.400.)
	• Float level according template (Rotax part no. 277 400.)
	• Floats marked 4.0 gr are legal to be used only.
	• Needle valve assembly stamped 150. Needle of heedle valve marked with diamond
	Symbol INC Only.
	• An jets must be correctly sealed and securely inted at any time (tightened)!
	• Settings of the carburettor adjustment screws (idle and idle all) are nee.
	• Settings of main jets is free.
	• Optional carburettor plug (Rotax part no. 261 030) is legal to be used.
	• Using the fuel sieve in the carburettor is not mandatory. (see picture)
	Only original Dellorto parts are legal to be used.
	See checklist DELLORTO for further info.

	F		
5.41 / Fuel pump	MIKUNI fuel pump, type DF 44-210 is mandatory. Fuel pump		
	must be mounted on the bottom side of the support bracket		
	for the intake silencer.		
	Rotax part no. 651 055 or 651 056, attached to the clutch		
	cover (see image)		
	Mounting the fuel pump with the two original rubber buffers to		
	the chassis is an allowed option. In the case the fuel pump		
	must be mounted below the inlet center line of the carburettor.		
5.42 / Fuel filter	It is mandatory to mount a fuel filter, but if a fuel filter is mount	ed only the version showed in	
	the picture below is allowed. Rotax part no. 274 161.	2	
	Except the fuel line, the fuel nump and the original fuel filter no	additional parts are legal to be	
	mounted between the fuel tank and carburettor	additional parts are legal to be	
5 43 / Radiator	Only the original radiator, with (ROTAX part no. 295.926) is led	al to be used	
		jai to be used.	
	Cooling area :		
	Height: 290 mm	15 14	
	Width: 196 mm	0 11 0 0 13	
	Thickness of radiator: 34 mm		
		12	
	The removal of the thermostat from the cylinder head cover	G 9632	
	in an allowed modification. Dedictor must be mounted with all		
	is an anowed modification. Radiator must be mounted with an	C ^{ee}	
	components.	Pt 10	
	The removal of the radiator flap is an allowed option.	1	
	i o apply tape (neutral tape without advertising only) around	121111	
	the radiator is an allowed modification to control the air flow		
	through the radiator.	VØ	
	Using a plate to control the air flow is not an allowed option.		
	Tape may not be removed or loosen from the radiator during operation on the track.		
	Any other non-original device to control the air flow through the	e radiator is prohibited.	
1	The radiator has to be mounted on the left side of the driver se	at.	





The exhaust system should be mounted to the chassis by using the two original mounting brackets Rubber buffers are mandatory to be placed between the system and chassis. The use of maximum 4 pieces of original Rotax exhaust springs, to fix the exhaust system to the cylinder is allowed. Any other item is not allowed. Welding a socket on the top of the exhaust system for measuring the exhaust gas temperature is an allowed modification. Distance : 50-80 mm from the ball joint. It should be able that a steal ball with dimension of 27.5 mm can roll through the 180 degrees exhaust curve. The silencer has to fitted. Welding at the exhaust system is only allowed in case of a repair. Modifications are not allowed. Length of inlet cone 575 mm +/- 5 mm Length of cyndrical part of exhaust pipe 80 mm +/- 5 mm (measured outside) Diameter hole end of tube Maximum 22.50 mm Total length end silencer Minimum 500 mm +/- 1 mm 5.47 / Exhaust restrictor Only restrictor Rotax no. 273 190 including seal ring is legal to be used. The measurement (C) must be at least 15.50 mm Image: I		Clamp (1) must be fitted at a distance of 18 (+/-2 mm), measured from the end of the tube. Clamp (2) must be fitted at the end of the perforated tube to the beginning of the steel isola is a specification for assembly purpose only. Both clamps (1 and 2) are mandatory to be fitted and tightened.		
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