



OUTLAW KARTS AUSTRALIA

2026 Engine Technical Specification

<i>Manufacturer</i>	AUSTECH INDUSTRIES PTY. LTD.
<i>Make</i>	TORINI
<i>Model</i>	CLUBMAXX 210 (TC210)
<i>Validity of the homologation</i>	3 years (from 01/09/2026 – 2-month phase in period ending 01/11/2026)
<i>Number of pages</i>	28
<i>Effective</i>	1 November 2026

*Disclaimer: This rule package has been prepared by Outlaw Karts Australia using sources from which information has been obtained and acknowledged. This rule package is intended to establish the sole basis for technical control of the Torini Clubmaxx TC210 engine in competition within Outlaw Karts Australia and its State Member Clubs. This rule package covers all engine related technical specifications. **Unless permitted as stated by use of these rules, participants cannot alter these rules.** SMC Scrutineers have a responsibility to enforce these specifications for the integrity of the competition. For all other regulations beyond the engine, refer to the current edition of the Outlaw Karts Australia Rule book.*



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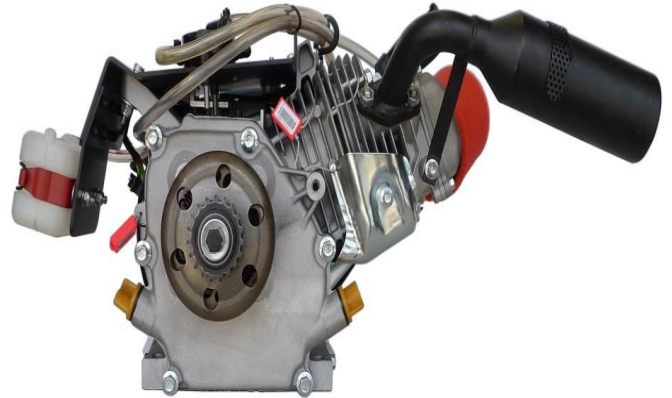
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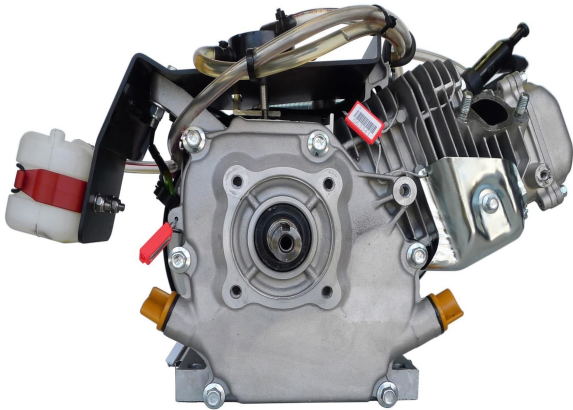
TORINI CLUBMAXX TC210 ENGINE IMAGES



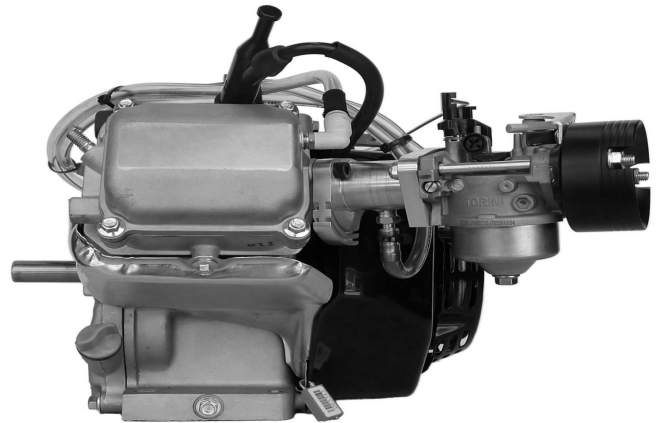
a) Pull start of engine



b) Drive side of engine

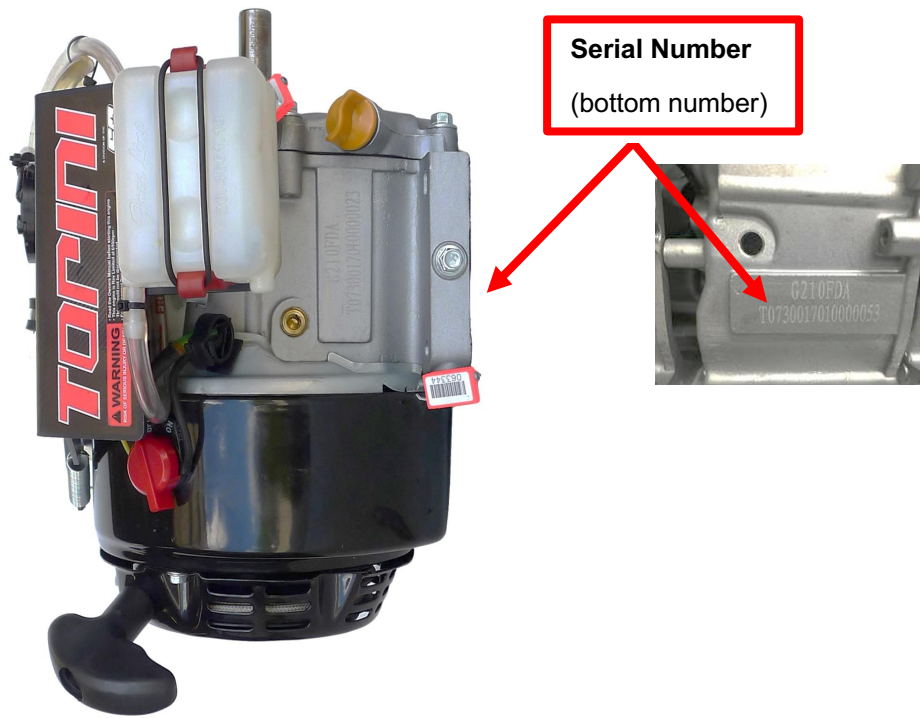


c) Drive/clutch side of engine

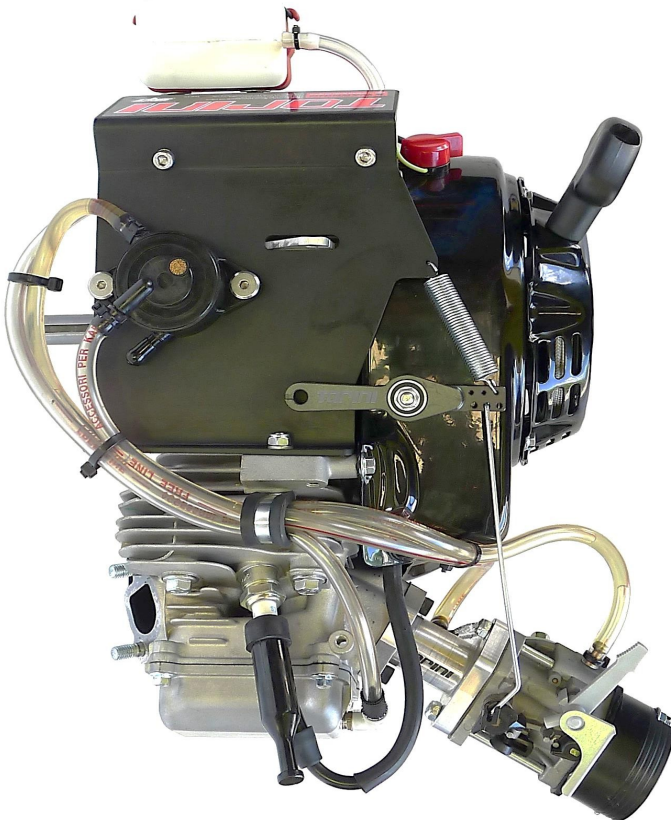


d) Front side of engine





e) Picture of engine serial number location



f) Picture of the top of the engine



g) Picture of the bottom side of engine

1. These Regulations are the Only Regulations

- a. Only **Outlaw Karts Australia** can make changes to the technical specifications herein.
- b. Should any Torini literature, catalogues, manuals, videos, etc. be different than these regulations, these regulations take precedence.
- c. Changes, corrections, addendums, etc. will be submitted to Outlaw Karts Australia and posted at www.outlawkartsaustralia.com.au for republication and will become effective on a date specified.

2. The 3 Core Rule Set Technical Inspection Principals:

- a. Unless these rules state that you can do it, you cannot do it.
- b. Spirit and Intent: Covered, stated, restated, or unstated any change or action with the sole intent to wrongfully create a performance advantage is grounds for disqualification.
- c. All parts are subject to comparison with a known stock part. This includes specified and mandated aftermarket parts.

3. Torini TC210 Product Availability

- a. The TC210 engine products and service parts are available only through the authorised Torini Motor Co Ltd dealers and approved retailers.

4. General Rules

- a. No deviation from the manufacturer's engine specification is allowed.
- b. The terms stock, original equipment, OEM, unaltered, etc., refer to Original Equipment supplied by Torini Motor Co Ltd..
- c. All components must remain OEM. Neither engines nor accessories can be modified. By this we mean any shape, content or function changes which may differ from what previously conceived. Furthermore, this includes any addition and /or removal of material and /or parts from the engine set-up package unless provided by this regulation. No ceramic component coatings.
- d. The engine serial number must be visible at all times.



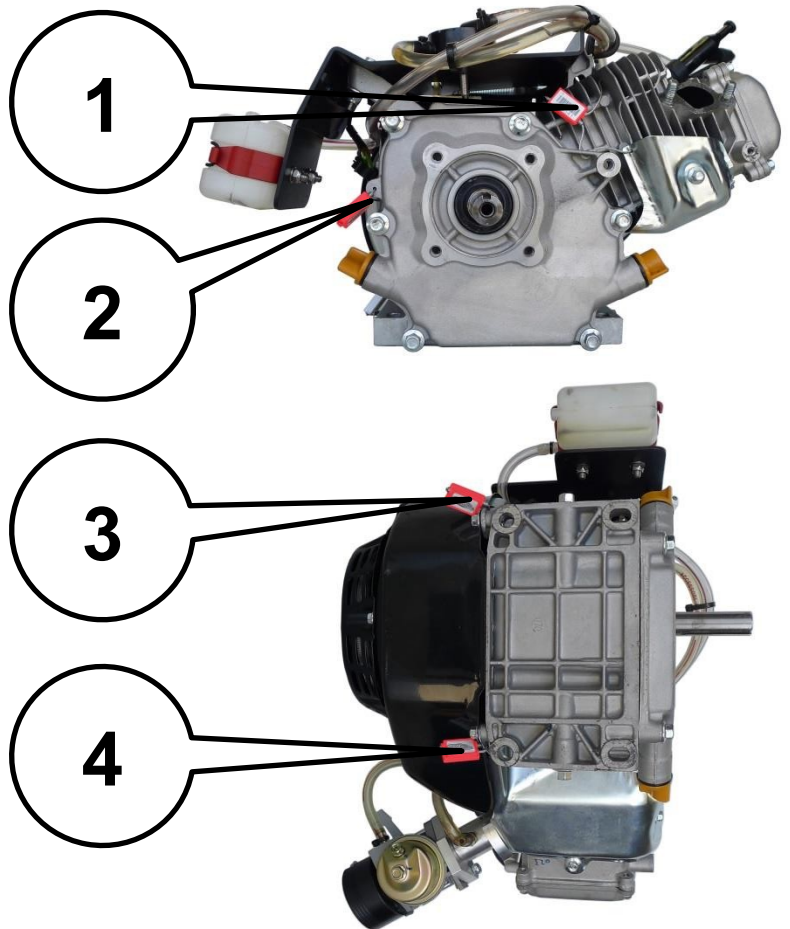
5. Engine Seals (Anti-Tamper)

Manufacturer: **TORINI** Part No: **TCSEAL** Description: **RACE ENGINE SEAL (Anti-tamper)**
Red / White 800mm

Engine Seals : **Qty 4**



1. Head to Crankcase
2. Side Cover to Crankcase
3. Cowel to Crankcase (front)
4. Cowel to Crankcase (rear)



Tampering with the seal/s is not permitted.

Should the seal/s be tampered with, or any of the seals be broken, the engine is no longer eligible for competition.



6. Technical / Characteristic of Engine

The number of decimal places must be 2 or comply with the relevant tolerance.		Tolerances & remarks
Cylinder		
Volume of cylinder	211.66CC	--
Original bore	70.000mm	--
Theoretical maximum bore	70.165mm	--
Original Stroke	55mm	--
Number of transfer ducts, cylinder/sump	n/a	--
Number of exhaust ports / ducts	n/a	--
Volume of the combustion chamber		minimum
Volume of the combustion chamber in the cylinder head		minimum
Crankshaft		
Number of bearings		
Diameter of bearings		
Minimum weight of crankshaft	1750g	minimum
All parts represented section 8.		
Balance shaft		
Minimum weight of balance shaft	n/a	minimum
Percentage of balancing	n/a	minimum
Connecting rod		
Connecting rod centreline	84.5mm	0.50mm
Diameter of big end	30.25mm	0.02mm
Diameter of small end	18.002	
Minimum weight of the connecting rod & cap (with bolts)	110g	minimum
Piston		
Number of piston rings	3	
Minimum weight of the bare piston	145g	minimum
Gudgeon pin		
Diameter	18mm	
Length	54mm	0.50mm
Minimum weight	45g	minimum
Opening Angles		
Of the inlet (main transfer ports)	n/a	
Of the inlet (secondary transfer ports, for 5 transfer ducts engine)	n/a	
Of the exhaust	n/a	
Of the boosters	n/a	



<i>Material</i>	
<i>Cylinder head</i>	YL113 GB/T15115-1994
<i>Cylinder</i>	ADC12
<i>Cylinder wall</i>	CAST IRON
<i>Sump</i>	ADC12
<i>Crankshaft</i>	40CR GB/T3077-199
<i>Connecting rod</i>	BILLET 7075 T6
<i>Piston</i>	ZL109 GBT/T 1173-1995

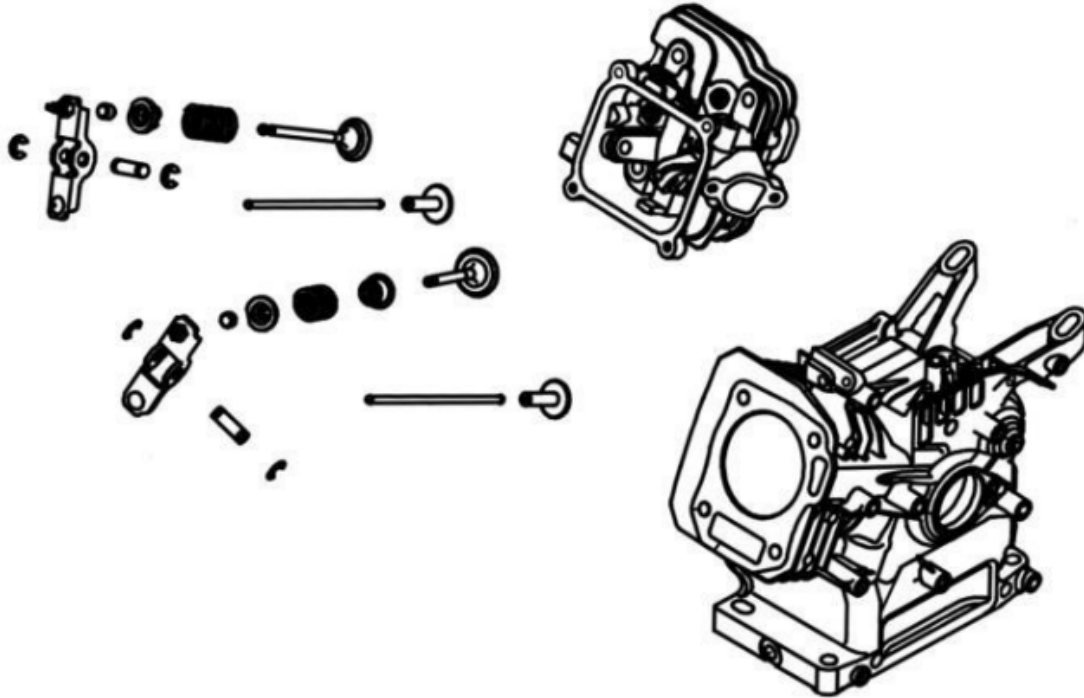


7. Cylinder Unit

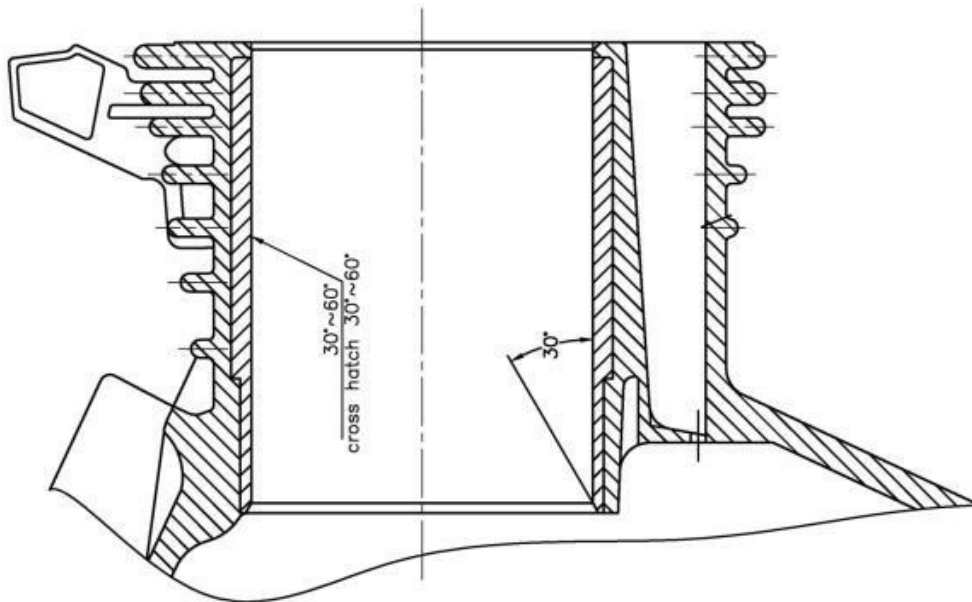
PHOTOS, DRAWINGS & GRAPHS

EXPLODED DRAWING OF THE CYLINDER, CYLINDER HEAD AND EXHAUST MANIFOLD UNIT without screws or gaskets

The aim of the exploded drawings is to identify the principles, the functioning, and the whole mechanical unit.



DRAWING OF THE CYLINDER DEVELOPMENT



Indicate on the drawing:

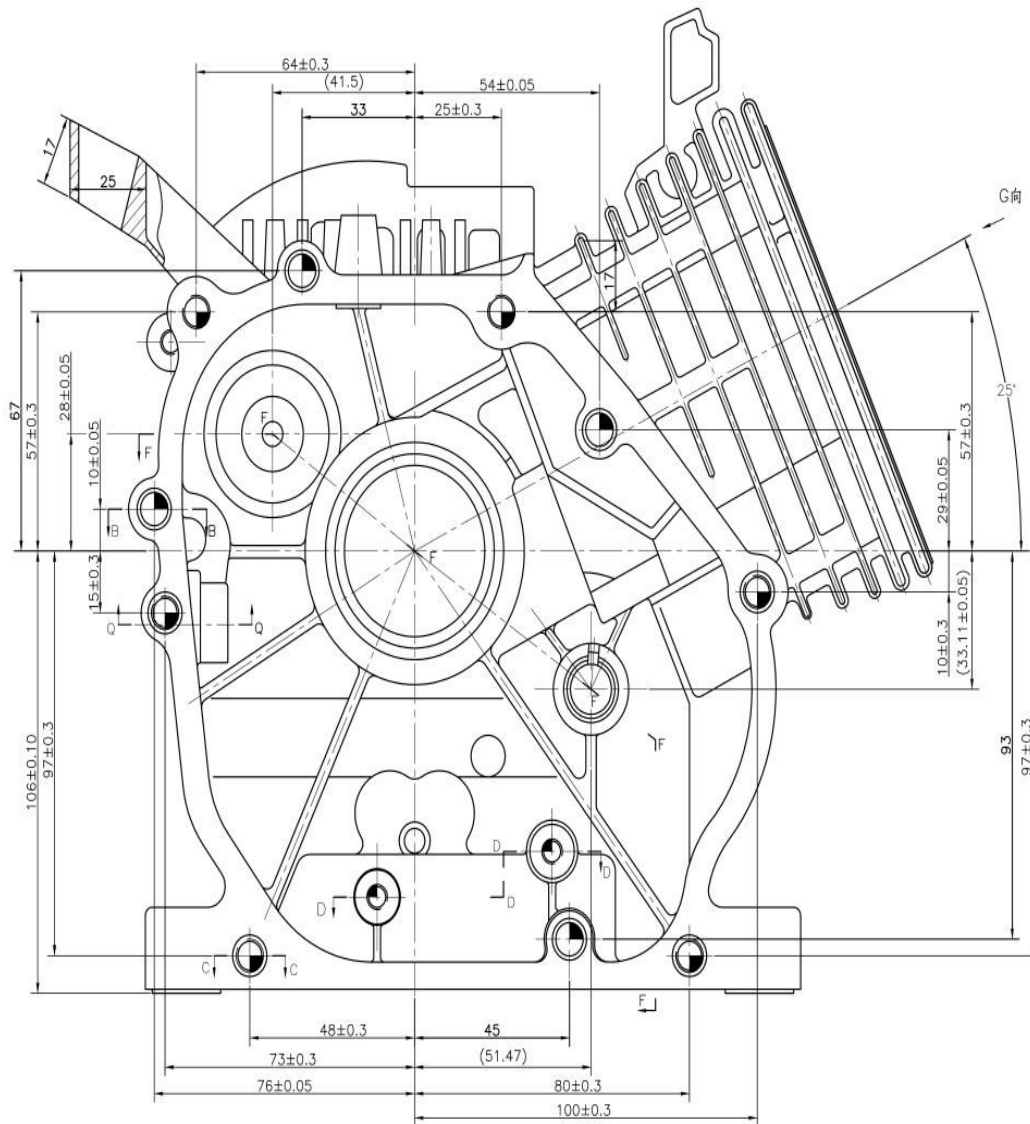
B1/B2 = minimum thickness of the inlet (transfers) ribs.

A1/A2/A... = maximum inlet width measured at the chord.

E1/E2 = minimum thickness of the exhaust rib (if existing).

C1/C2/C... = maximum exhaust width measured at the chord.

DRAWING OF THE CYLINDER BASE



DRAWING OF THE CYLINDER HEAD AND OF THE COMBUSTION CHAMBER without dimensions

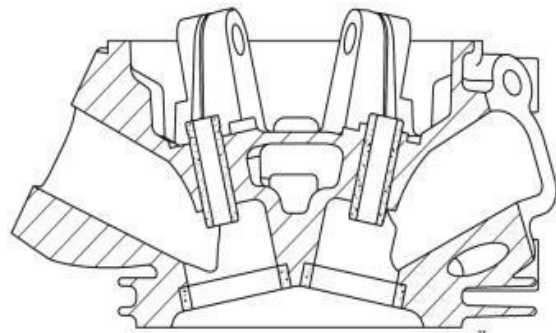
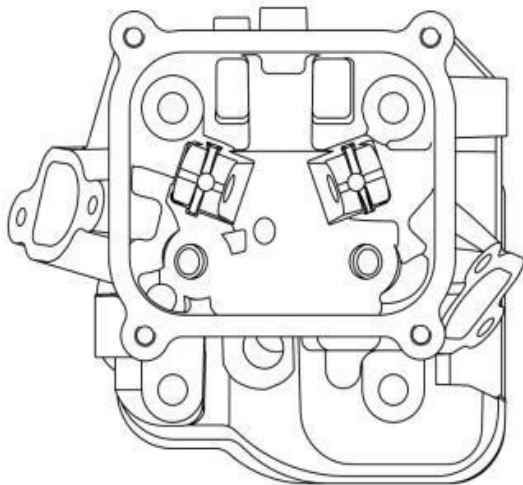
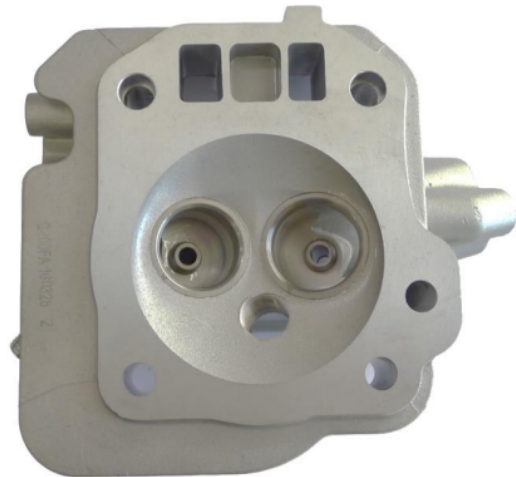
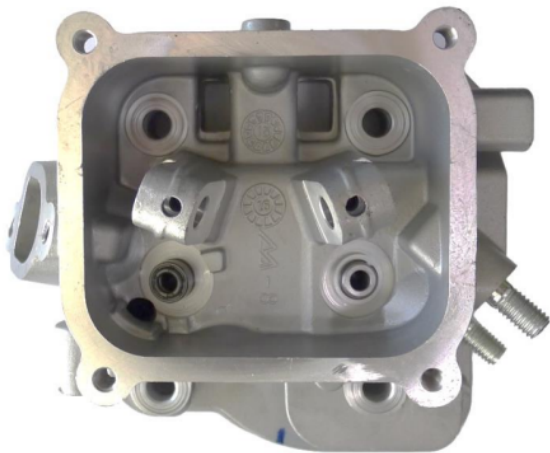


PHOTO OF THE CYLINDER HEAD

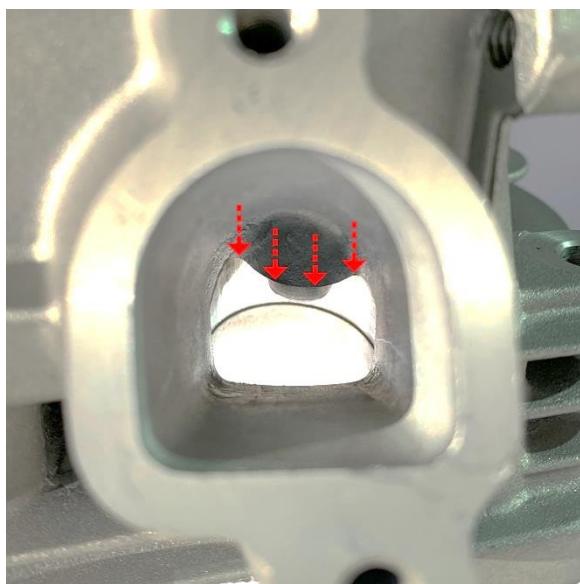
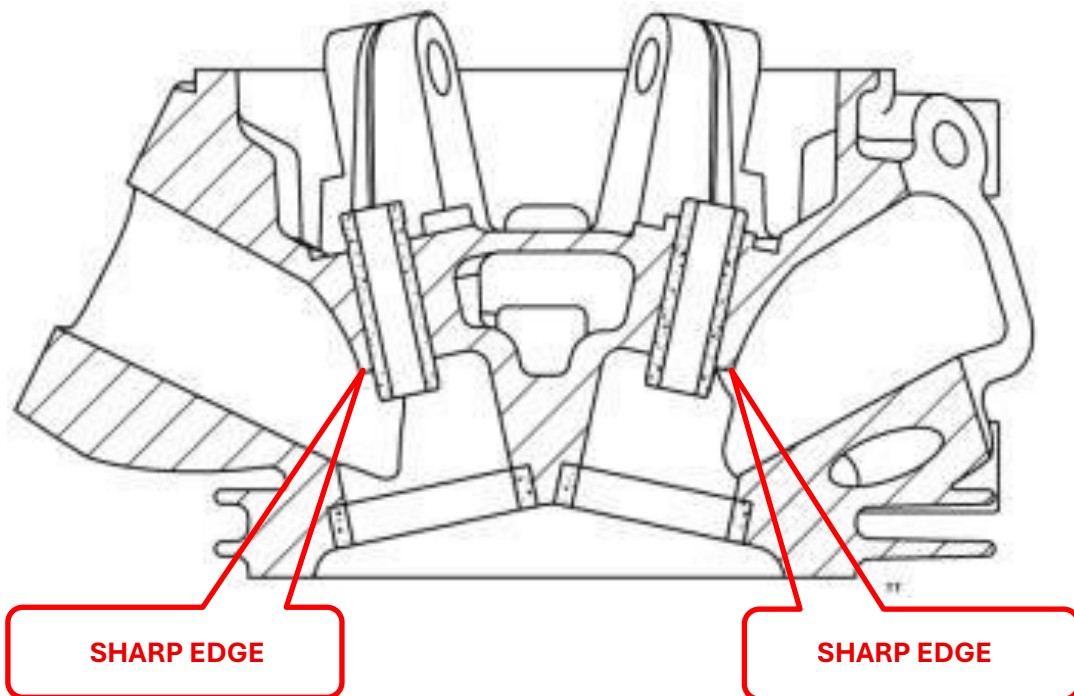
PHOTO OF THE COMBUSTION CHAMBER IN THE CYLINDER HEAD



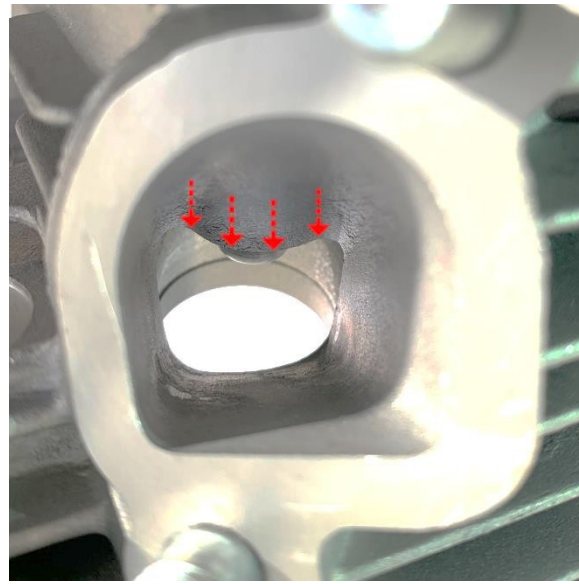
DRAWING OF THE CYLINDER HEAD AND OF THE COMBUSTION CHAMBER without dimensions

Scrutineer's Note : Head Port Checks – Visual Check

Both Inlet and Exhaust Ports are factory standard. There should be no evidence of porting. Look for sharp edge.



INLET SIDE



EXHAUST SIDE

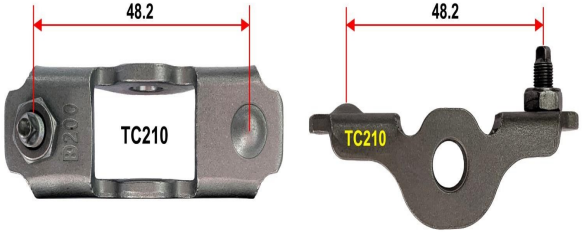
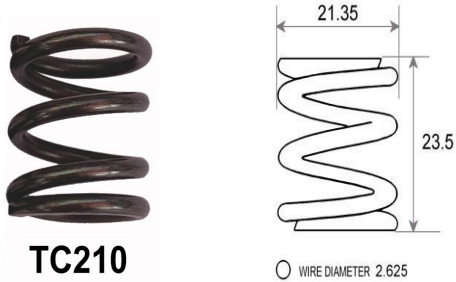
PHOTO OF THE ROCKER ARM	PHOTO OF THE VALVE SPRING
 Scrutineer's Note: Rocker Arms – Measure Both Inlet and Exhaust rocker arms at the same dimensions. Rocker arms can be measured with valve cover removed.	Note: Both valve springs are the same dimensions  TC210 WIRE DIAMETER 2.625 Scrutineer's Note: Valve Springs – Measure Both Inlet and Exhaust springs are the same dimensions. Wire diameter can be measured with valve cover removed.
PHOTO OF THE CYLINDER FROM ABOVE	PHOTO OF THE CYLINDER FROM RH SIDE
	

PHOTO OF THE CAMSHAFT

Base 22.05

Height 27.70

Exhaust Cam

Base 22.10

Height 27.70

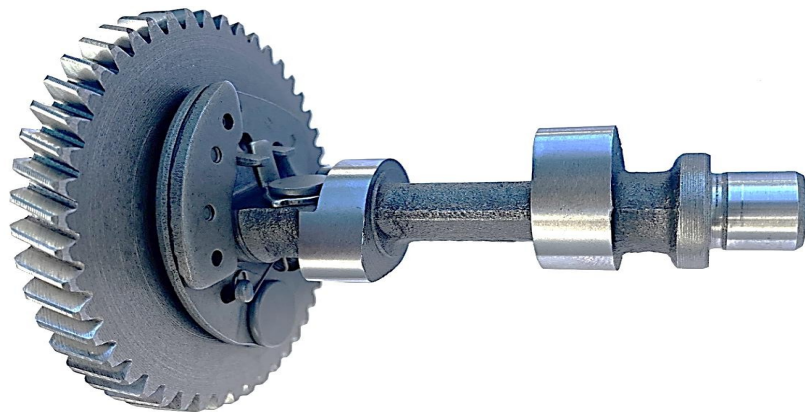
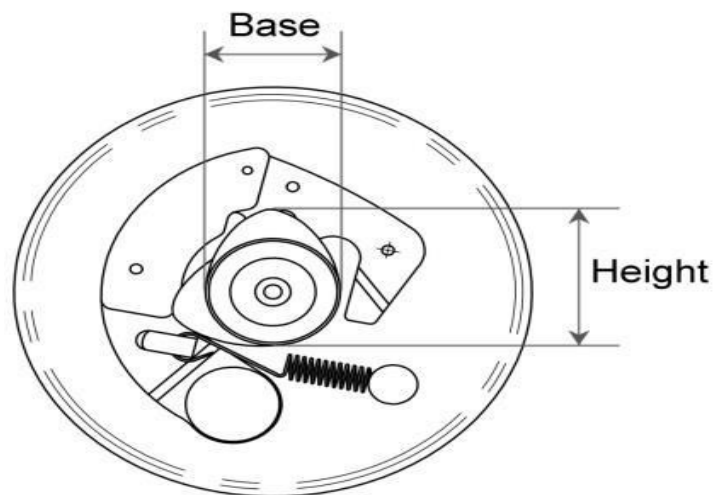


PHOTO OF THE CRANKSHAFT & CONROD



PHOTO OF THE CONROD

Bare Rod Part Number: **TC2505**

Conrod assy. with cap & bolts, Part Number: **TC25005**



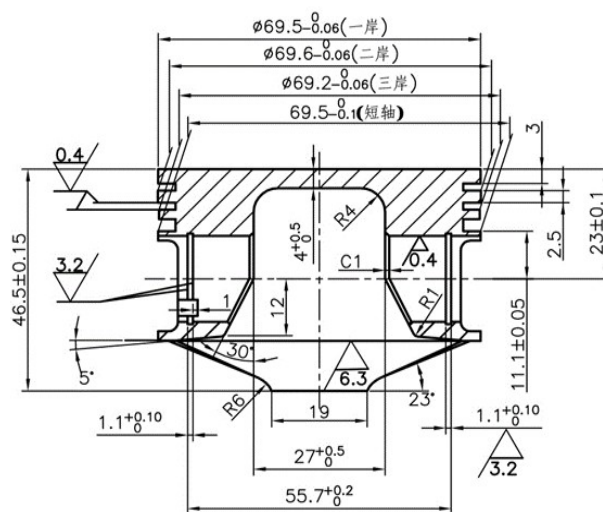
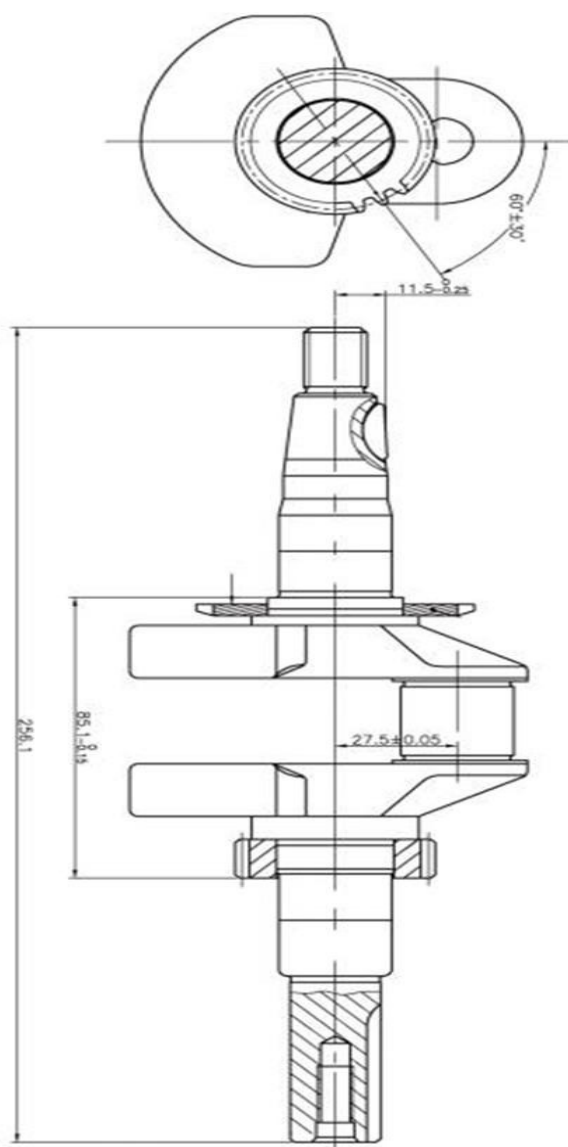
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PHOTO OF THE INSIDE OF THE LH
CRANKCASE



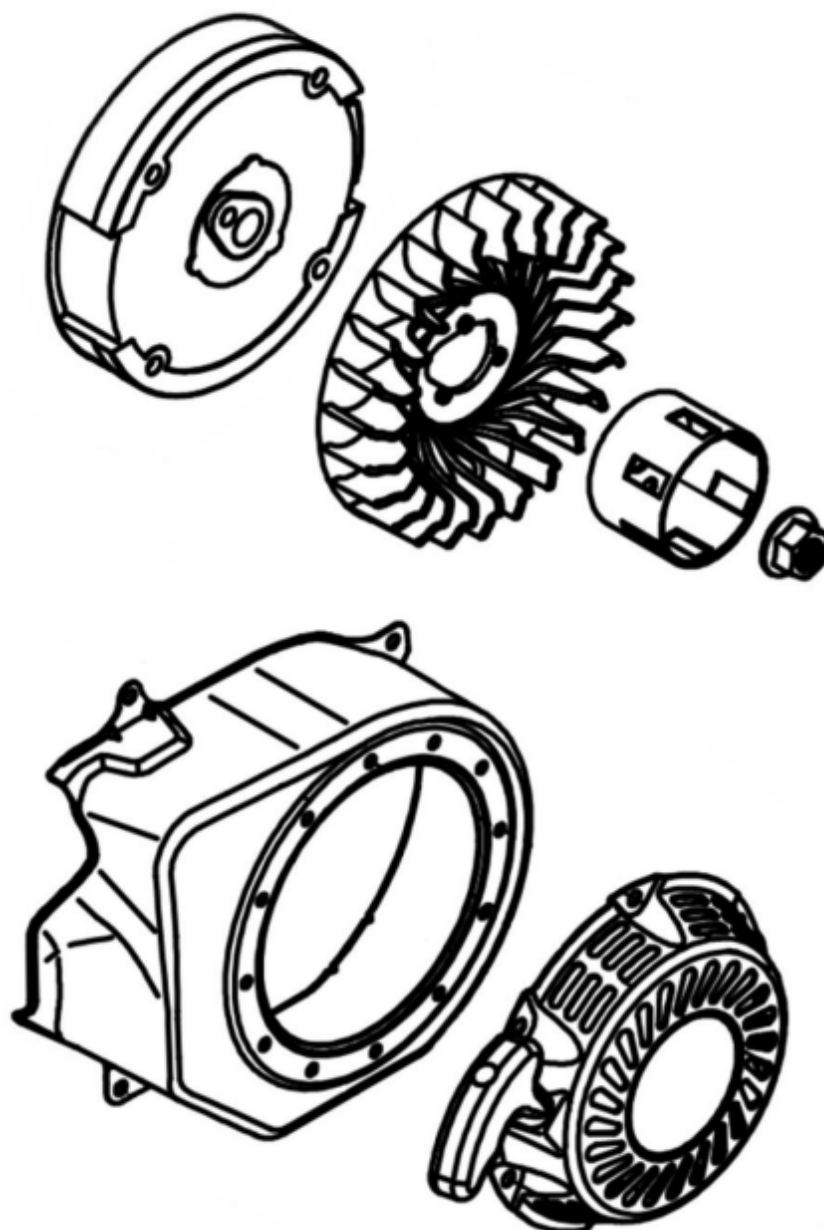
DRAWING OF THE CRANKSHAFT - CON ROD UNIT
 (DIMENSIONS incl. tolerances, big & small ends thickness, crank mass thickness & diameter)



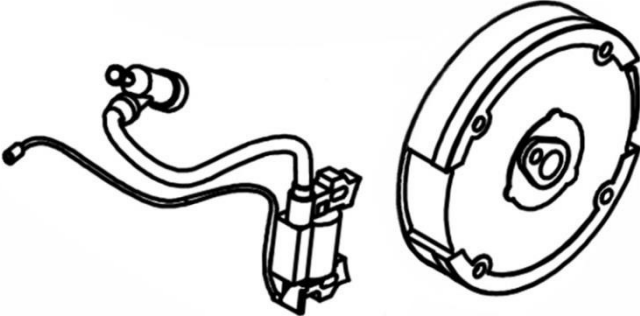
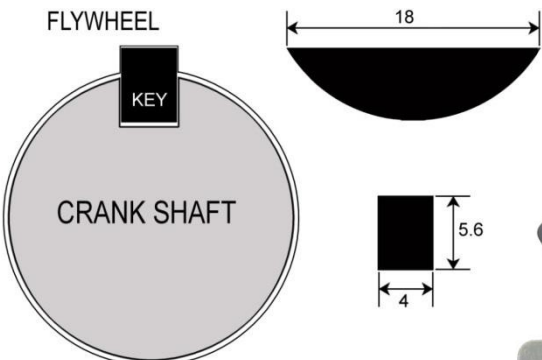
EXPLODED DRAWING OF THE STARTING UNIT AND OF ITS HOUSING (Recoil start only) without screws or gaskets

The aim of the exploded drawings is to identify the principles, the functioning and the whole mechanical unit

RECOIL START SYSTEM



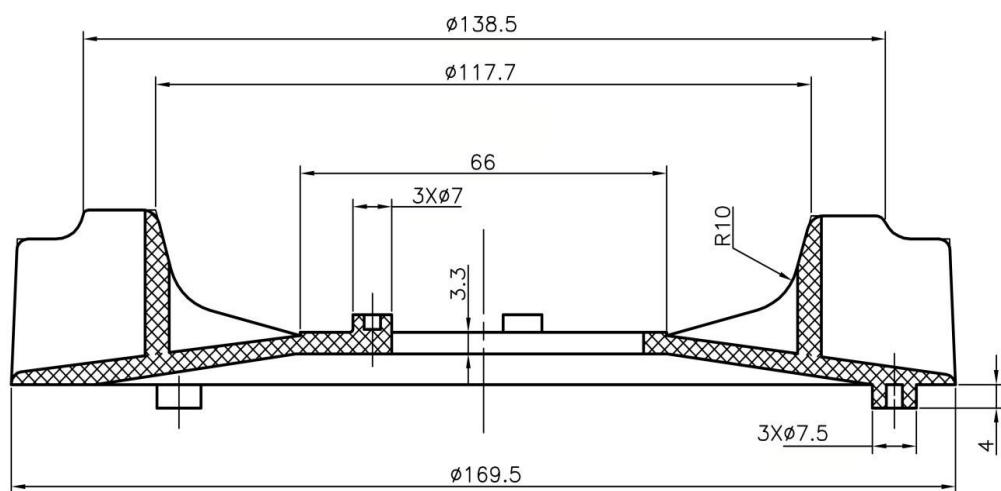
8. Electrical - Ignition System

ELECTRICAL	
Ignition System	
ADVANCE CURVE GRAPHS	
	
• 25 ° BTDC Fixed • Rev Limited • Max RPM 6100	
	
	
Rev Limited Coil Part Number TCRL6100	

9. Cooling System

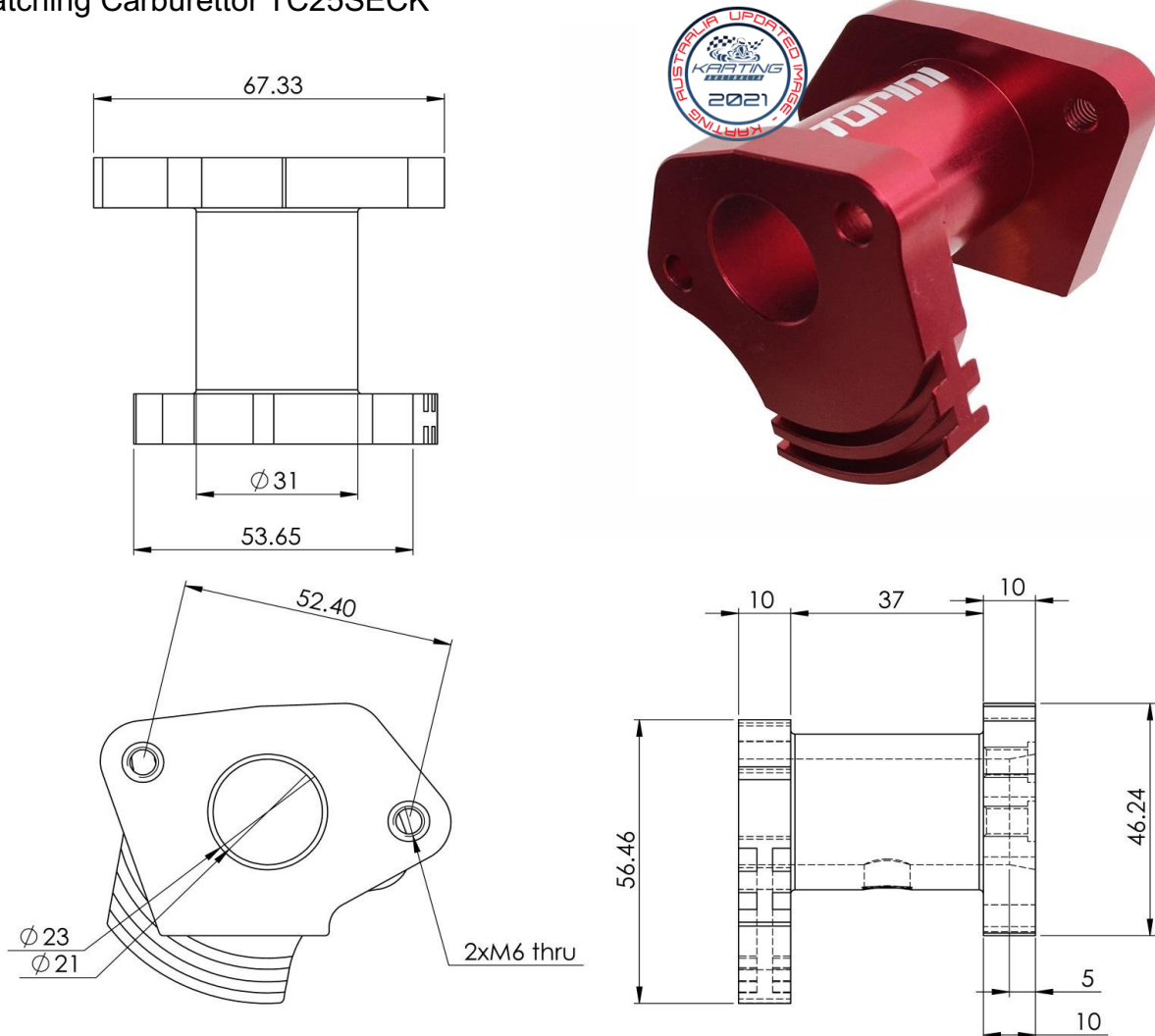
FAN FORCED AIR COOLING FAN DESCRIPTION

- Number of fan blades: **24**
- Minimum fan wheel weight: **0.11 kg**
- Minimum flywheel weight: **2.48 kg**

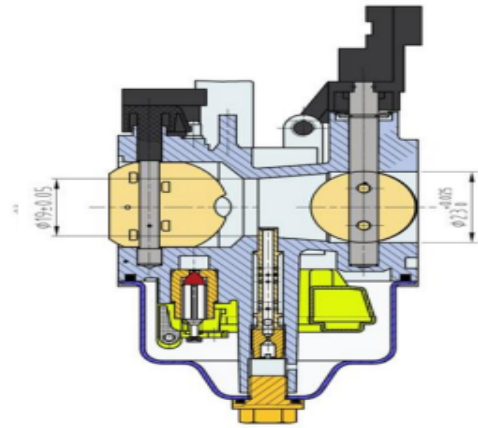
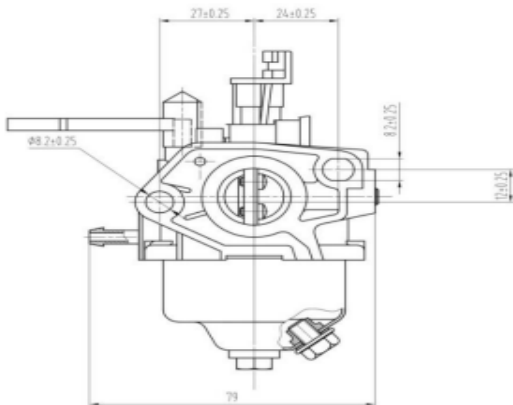


- Outside Blade Diameter: **169.5mm**
- Outside Body Diameter: **170mm**
 - Minimum blade height: **29mm**

10. Manifold

INLET MANIFOLDS		
INLET MANIFOLD DESCRIPTION - Clubmaxx JUNIOR / SENIOR		
Manufacturer: TORINI	Part Number: TC21046	Description: Inlet manifold
Matching Carburettor TC25SECK		
		
Scrutineer's Note: ANNODISED Manifold – Visual Check Modification to increase bore diameter will remove the anodising. Some scratching around the pulse fitting thread is acceptable.		

11. Carburation

CARBURETOR DESCRIPTION - Clubmaxx JUNIOR / SENIOR		
		
NEW : Laser Etched Logo 	Original: Cast logo 	The 2023 model carburettor is manufactured with a laser etched Torini Logo. Both the Original and the New Carburettors are permitted for use. There is no performance difference between them, it is simply the external cast/laser etched markings.
Jet Kit - Clubmaxx (Junior & Senior) Part No : TC25079 (Supplied with below jet sizes)  Main Jet sizes : 88 > 97 Pilot Jet sizes : 40, 43, 45 Emulsion Tubes Clubmaxx Junior / Senior  (2017) (01/09/2021)		

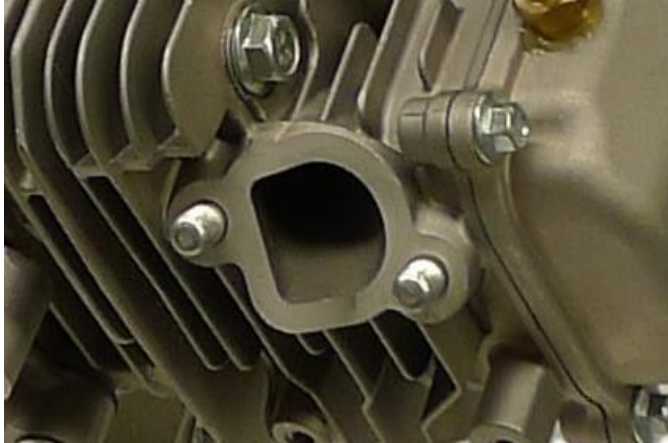


12. Air Filtration System

- a. Air Filter is open to all brands that mount to OEM Torini mounting position without an additional adapter.
- b. A protective shield may be attached for wet-weather competition.
- c. No modification to the filter element is permitted other than for the purpose of attaching a rain cover directly to the air filter element. For the purpose of attaching a rain cover, holes may be created in either or both ends of the air filter element. All holes must be completely filled with fasteners, there can be no clearance between the hole(s) and the fastener(s) and there can be no holes without fasteners.
- d. It is not permitted for the protective shield to create any ram-air effect.
- e. A fabric prefilter is allowed as long as it does not create a ram-air effect. The air filter must remain in place for the entire duration of the race. If the air filter falls off during the race, the kart must immediately return to the pits and replace the air filter.



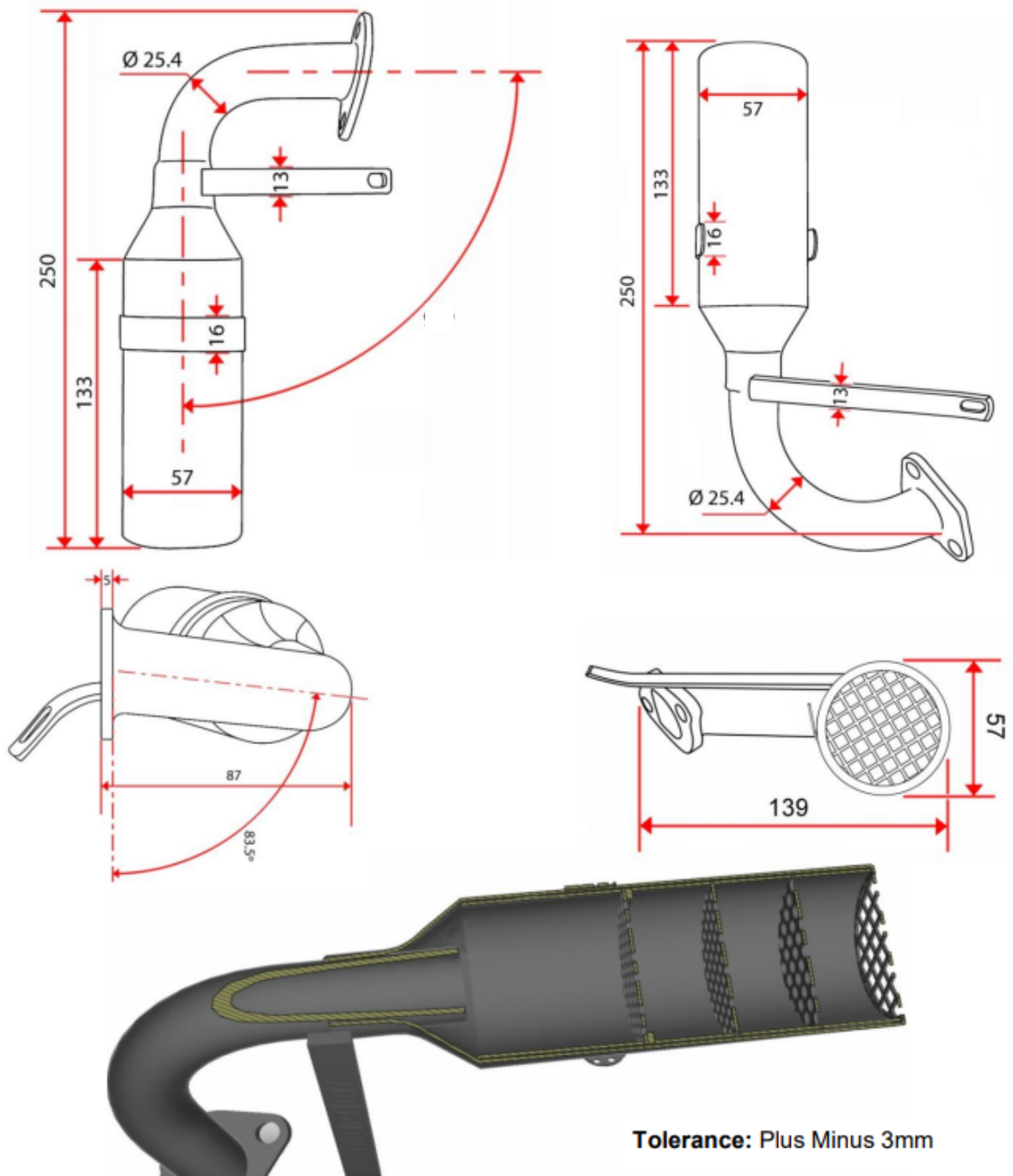
13. Exhaust System

TECHNICAL DESCRIPTIONS OF THE EXHAUST (Art. 8.9.3 of HR)		
Weight in grams	620~660	Minimum
Section includes all the information necessary to build this exhaust.		
PHOTO OF THE EXHAUST MANIFOLD		
		
 For surface protection, this muffler is has been coated with high temprature paint. Over time it will burn off. To prevent corrosion damage, periodic reapplication using a similar high temprature paint (commonly available at most auto stores) is highly reccomended.		

Note: Exhaust may be able to be heated and bent for roll cage.

EXHAUST SYSTEM TECHNICAL DRAWINGS

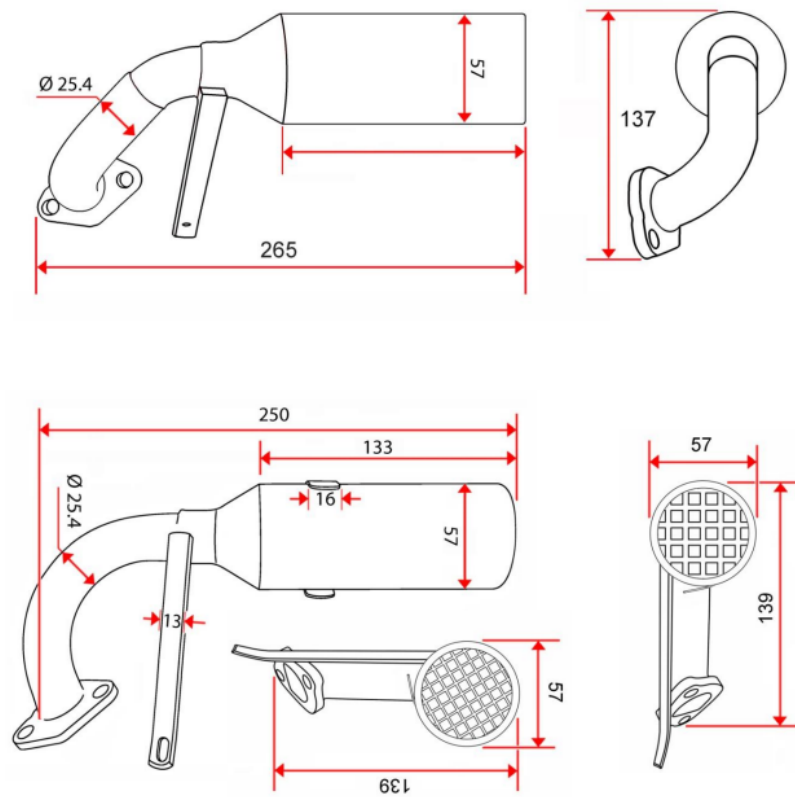
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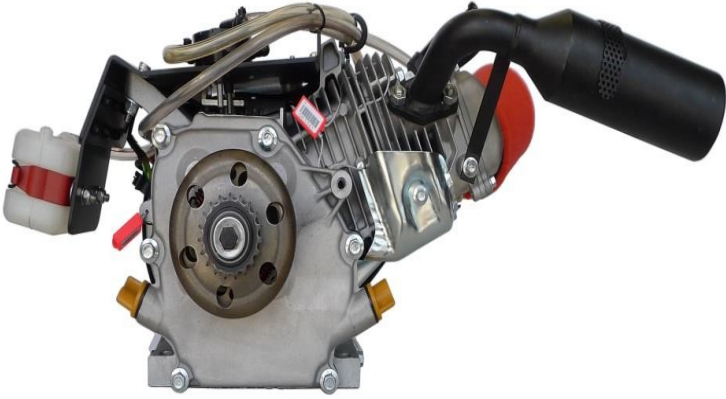
The exhaust system is designed to:

- Direct hot gas away from the vehicle and its operator
- Attenuate the noise output from the engine

Tolerance: Plus Minus 3mm



14. Product Specifications

Product Specifications Engine model	TC210 Clubmaxx
 	
Spark Plug	NGK #BPR6ES and NGK #BPR6EIX
Engine type	Single cylinder, 4-Stroke, Forced Air Cooling, OHV25°
Head Gasket	1.28 +/- .25 Uncompressed (Compressed 1.1 +/-0.1)
Bore × stroke (mm)	70 × 55
Displacement (cc)	211.66
Engine oil capacity (L)	0.5
Idle speed (r/min)	1800±150
Max permissible engine speed	6100 RPM
Starting mode	Recoil
Lubrication mode	Splash
Cooling system	Forced air cooling
Stopping mode	Grounding
Fuel	Premium Unleaded
PTO shaft rotation	Counterclockwise (seen from the end of output shaft)
Ignition system	T.C.I. Rev Limited 6100 RPM
Carburetor (Option 1)	P23

