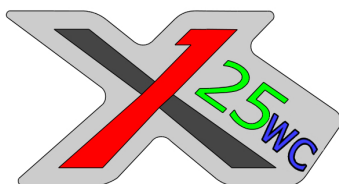


Manufacturer Address

X125
Via XXIV maggio, n 9
Cava de' Tirreni (Sa) 84013
email: engines@x125.com



Engine #

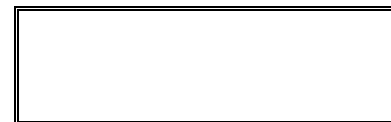
Manufacturer	X125
Make	X125T-WC
Model	TAG
Inlet type	REED VALVE
Number of pages	18



Signature and Stamp

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Importer	ITALIAN MOTORS USA
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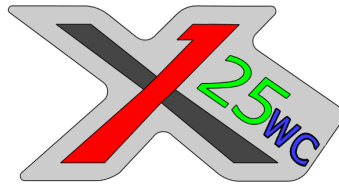
TECHNICAL INFORMATION

A CHARACTERISTICS		
	Measurement	Tolerances
Volume of cylinder	11.5 cm ³	
Original bore	53.90mm	
Theoretical maximum bore	54.28mm	
Stroke	54mm	
Cooling system	WATER	
Number of carburation systems	1 (Tryton HB27/Tillotson HL334AB/ Tillotson HW32A)	
Number of transfer ports / ducts, cylinder / sump	3	
Number of exhaust ports / ducts	3	
Shape of the combustion chamber	Spherical	
Length between axes of the connecting rod	102mm	±0.10
Minimum weight of connecting rod	110gr	
Volume of combustion chamber	11.5cm ³	min
Type of bearings and size	Big End of Con. Rod Bearing = 20 x 26 x 15 Little End of Con. Rod Bearing = 14 x 18 x 20 Crankshaft Bearing = 6205 C4 25 x 52 x 15	6204 C4 SNR (ALSO)

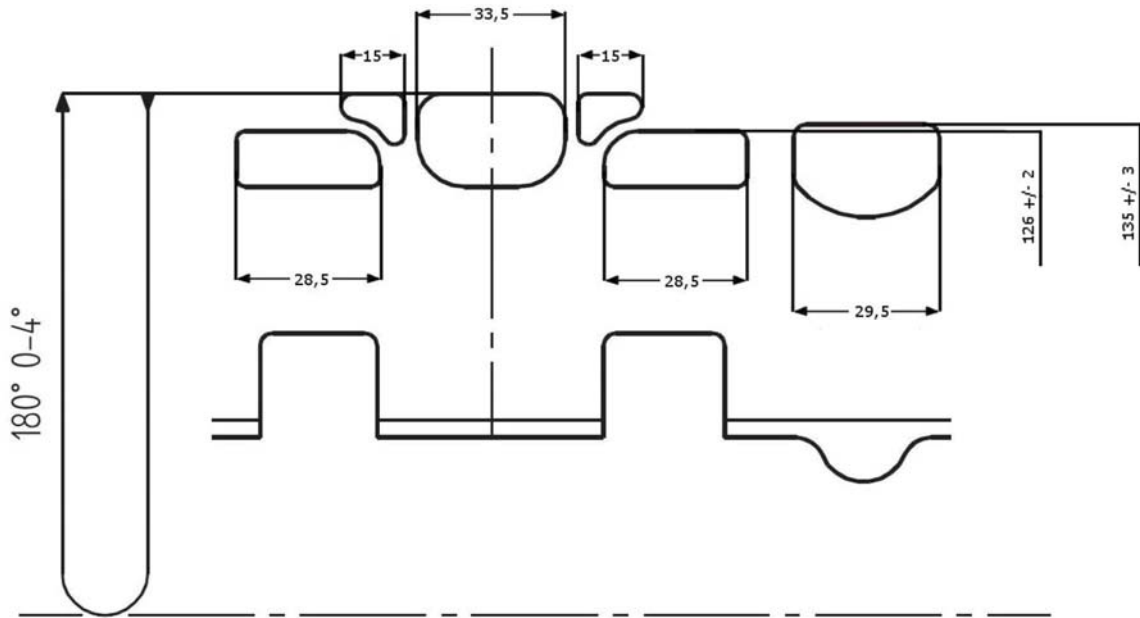
B OPENING ANGLES		
Exhaust	184°	
Of exhaust ports / ducts	3	

C LIST OF ACCESSORIES INCLUDED	
<i>(List accessories as shown below)</i>	<i>Centrifugal clutch</i>
<i>Carburetor (Tryton HB27/Tillotson HL334AB/HW32A)</i>	<i>Airbox with or without filter</i>
<i>Generator for battery charging</i>	<i>Cooling including Radiator</i>
<i>Electric starter</i>	
<i>Exhaust with flex</i>	

D MATERIAL	
Cylinder	AL-SI
Connecting rod	STEEL
Crankshaft	STEEL
Head	AL-SI
Liner	STEEL
Crankcase	AL-SI
Piston	AL-SI
Piston Ring	STEEL
Piston Pin	STEEL

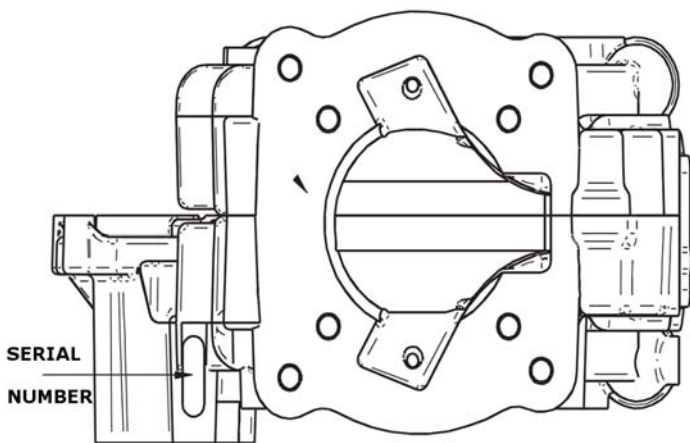


DRAWING OF THE CYLINDER DEVELOPMENT

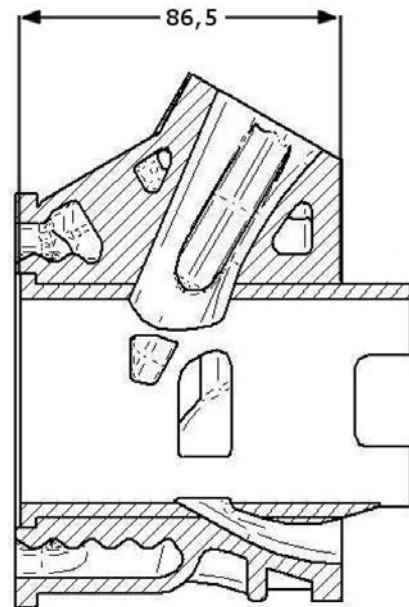


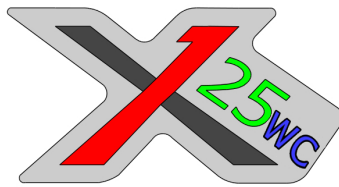
****Port Timing to me measured with official X125T Port Timing Tool X125-IM9495****

DRAWING OF THE CYLINDER BASE



CYLINDER SECTION VIEW

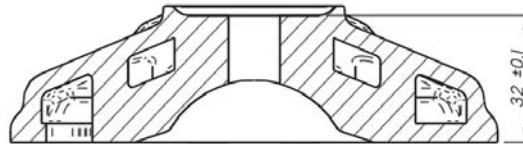
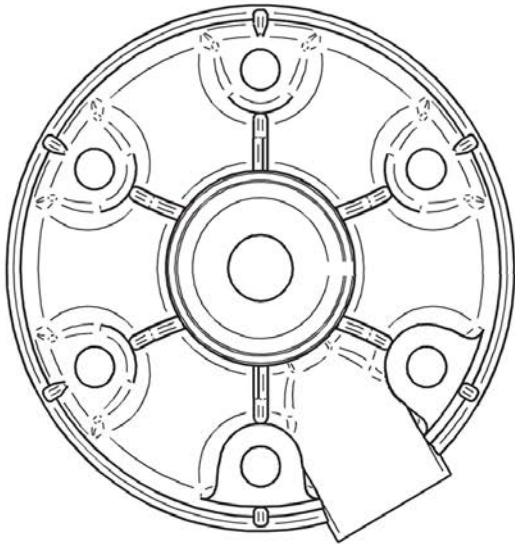




DRAWING OF THE CYLINDER HEAD AND THE COMBUSTION CHAMBER

HEAD MODEL " T "

THE EDGE OF THE SPARK PLUG, ELECTRODES EXCLUDED, MUST NEVER PROTRUDE INSIDE THE COMBUSTION CHAMBER



COMBUSTION CHAMBER VOLUME = 11,5 cm³ MIN.
(WITH ENGINE MOUNTED-PIST. AT THE PMS AND INSERT CIK) APPLYING A LIGHT LAYER OF GREASE ON THE EDGE OF THE PISTON TO AVOID LEAKAGE

SQUISH = 0.85mm MIN.
DETECTED WITH TIN FROM Ø1,5 mm (0.06 inches) COMPARATIVELY OPPOSED ON TWO POINTS

JR.1 SQUISH 1.50mm CHECKED WITH 2mm SOLDER

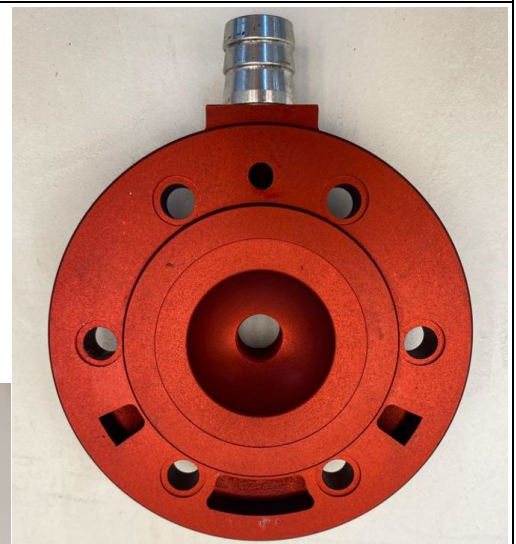
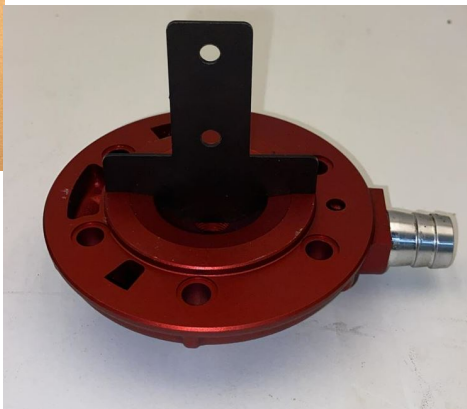
MATERIAL = ALUMINUM

THE MINIMUM SQUISH MEASUREMENT WILL BE DETECTED WITH A TIGHTENING OF THE HEAD FROM 10 Nm

PHOTO OF CYLINDER HEAD

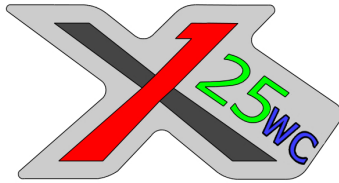


10.10080.00 (TOP)

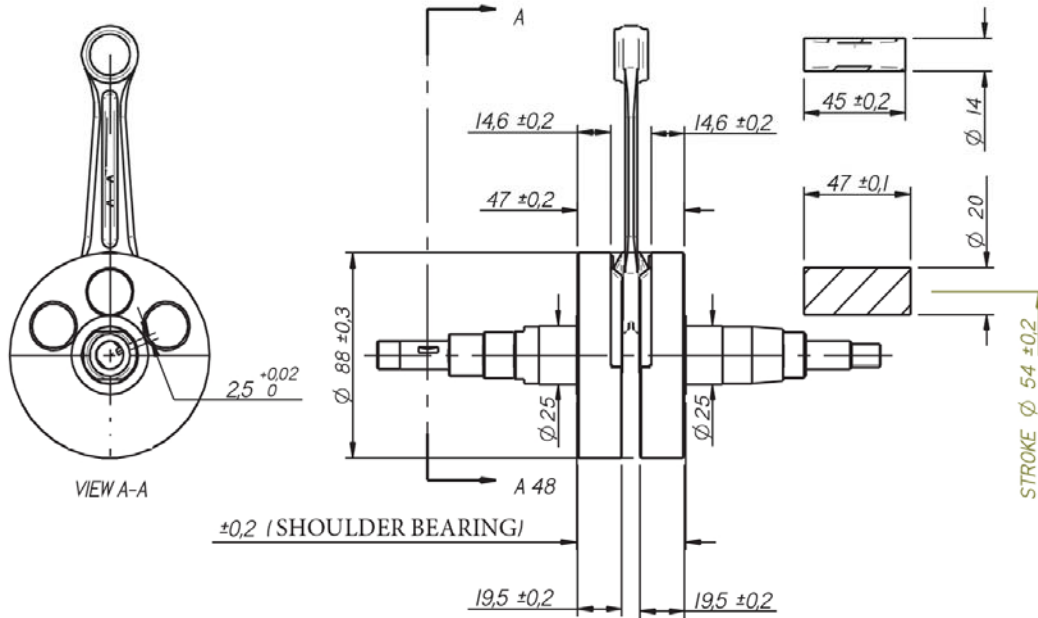


10.10080.00 (BOTTOM)

**NOTE: Cylinder head must be checked with X125-WC profile head gauge
Part number 10.10080.00-PHG**



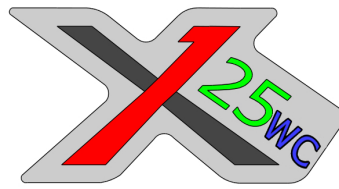
COMPLETE CRANKSHAFT



MATERIAL = STEEL
COMPLETE WEIGHT 2070 gr +/-20 gr.
PIN = 22 gr MIN

PHOTO OF CRANKHALVES AND STUFFERS





IGNITION

Manufacturer Selettra	
Model Number 40.13698.00 (RED 16K REV LIM)	
Rotation Counter Clockwise	
Description: Timing is fixed, no modification to bolts or ignition plate	

PHOTO OF IGNITION ROTOR (40.7893.00)



PHOTO OF COIL (40.13698.00)

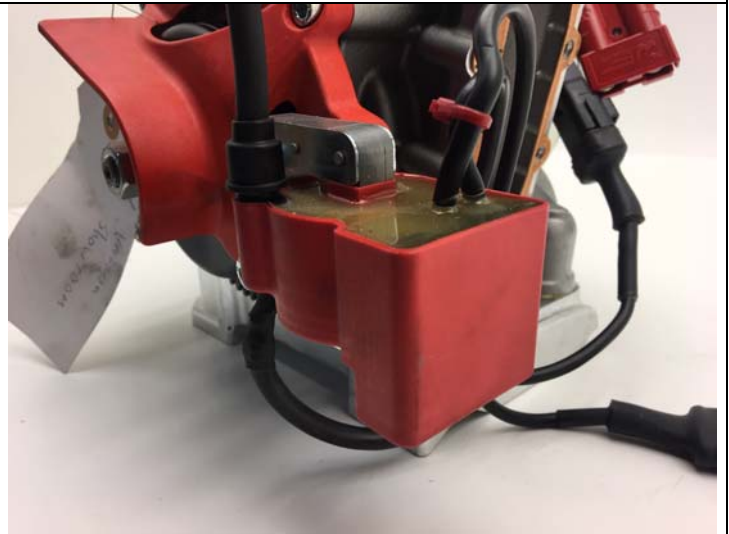
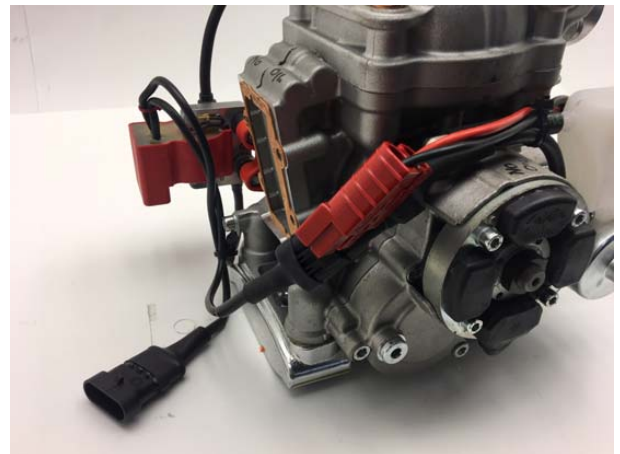
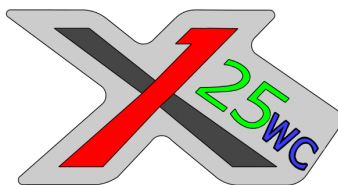


PHOTO OF STATOR (10.13687.00)



PHOTO OF IGNITION



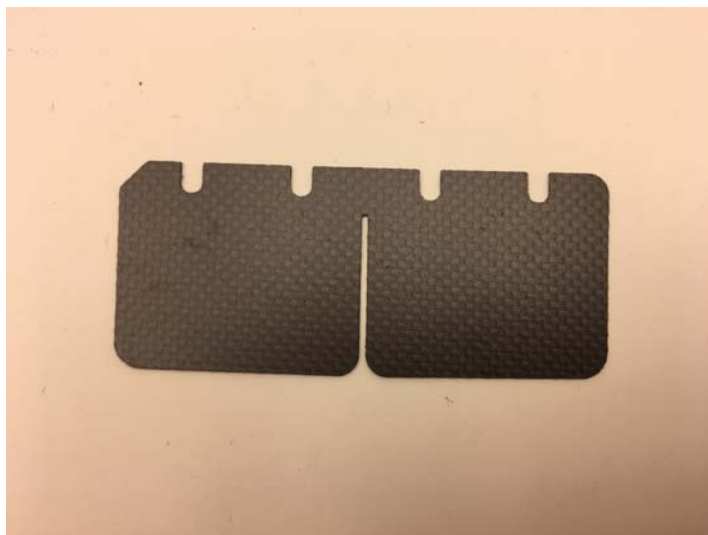


INTAKE

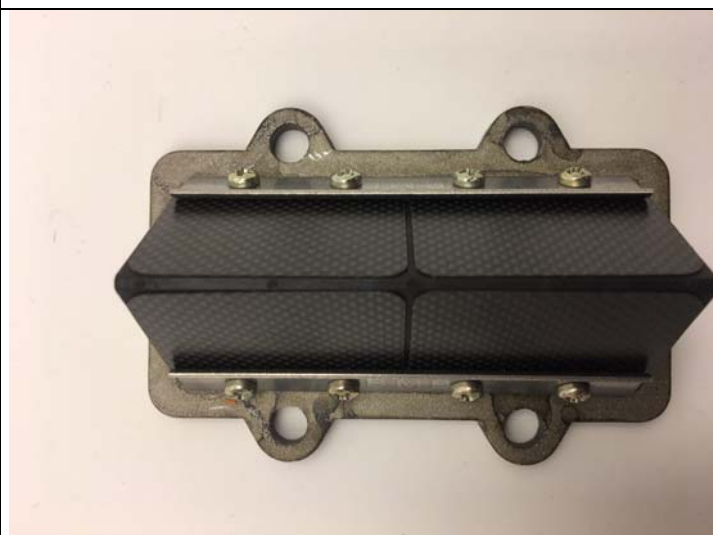
PHOTO OF REED ASSEMBLY



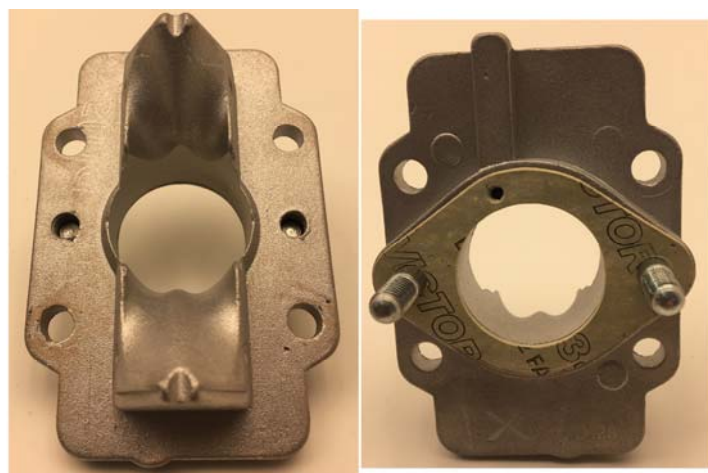
PHOTO OF REED PETAL



REED PETAL - 40.13783.00

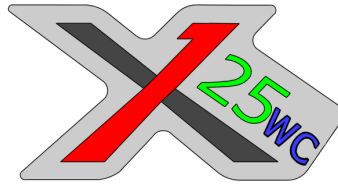


REED ASSEMBLY - 10.9653.00



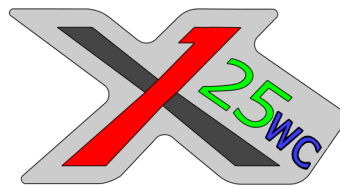
MANIFOLD (without studs/gasket) - 40.9456.00

PULSE HOLE = 4.1mm max

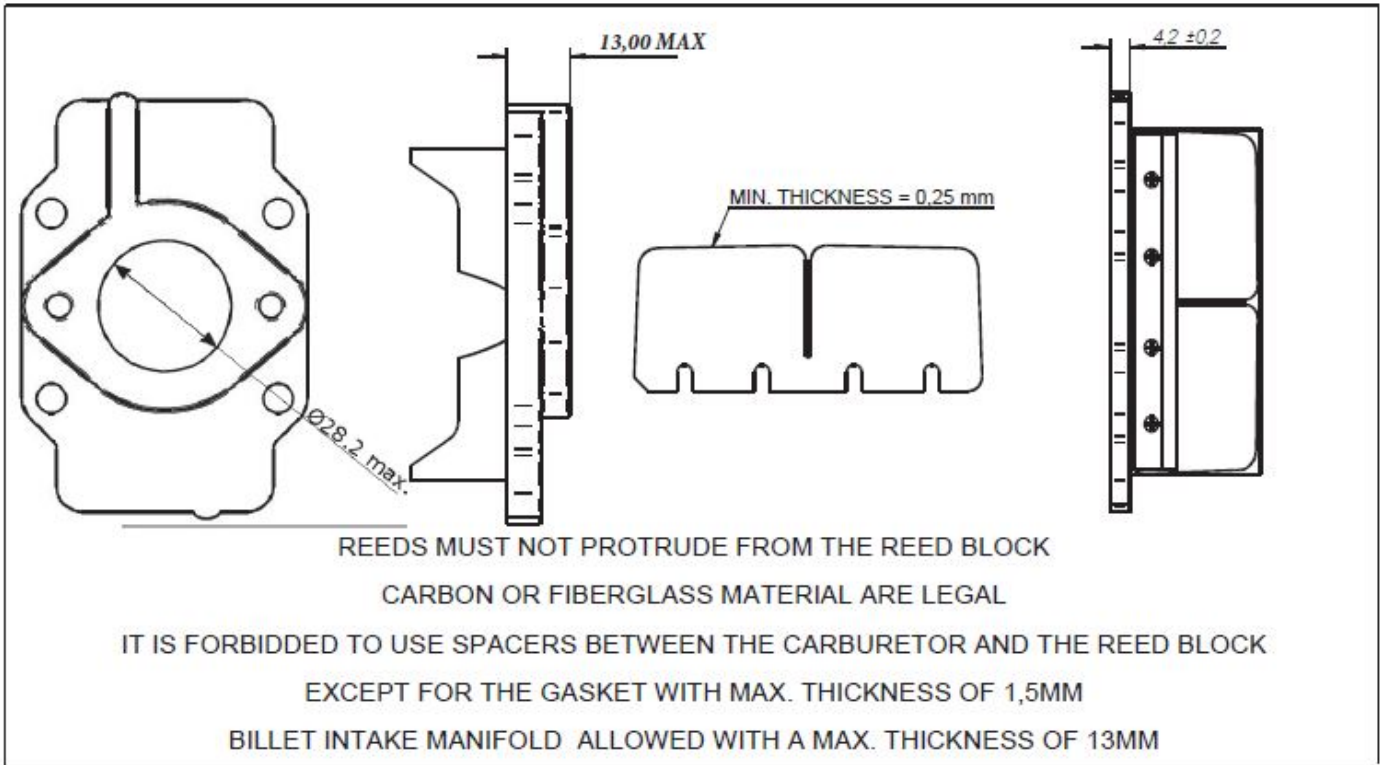


PISTON 10.9434.00 (refer to manual for sizes)	CONNECTING ROD 20.11079.06
<p>PISTON MATERIAL = ALUMINUM SEGMENT MATERIAL = CAST IRON COMPLETE SEGMENT WEIGHT = gr. 125 MIN.</p>	<p>TOP BEARING ROD RECESS = 14X18X20 BOTTOM BEARING ROD RECESS = 20X26X15 MATERIAL = STEEL / WEIGHT = MIN 110 gr.</p>

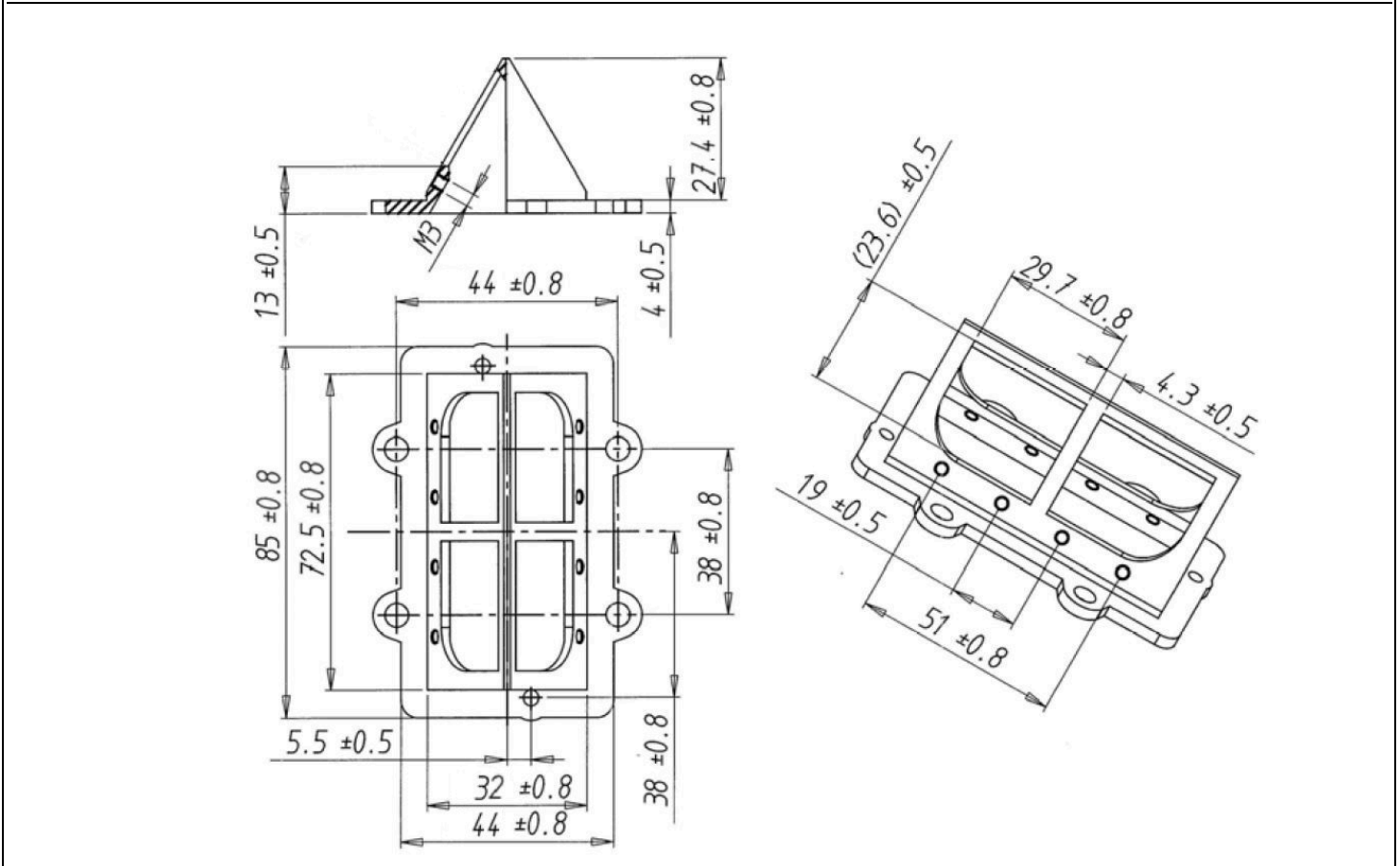
PHOTOS OF PISTON (refer to manual for sizes) 10.9434.00	
<p>PRODUCTION NUMBER MAY VARY</p> <p>TOP</p>	<p>SIDE</p>

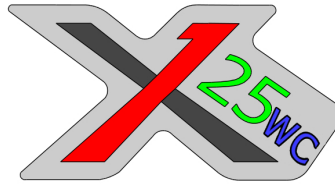


INLET



DRAWING OF THE REED VALVE (DIMENSIONS incl. tolerances)



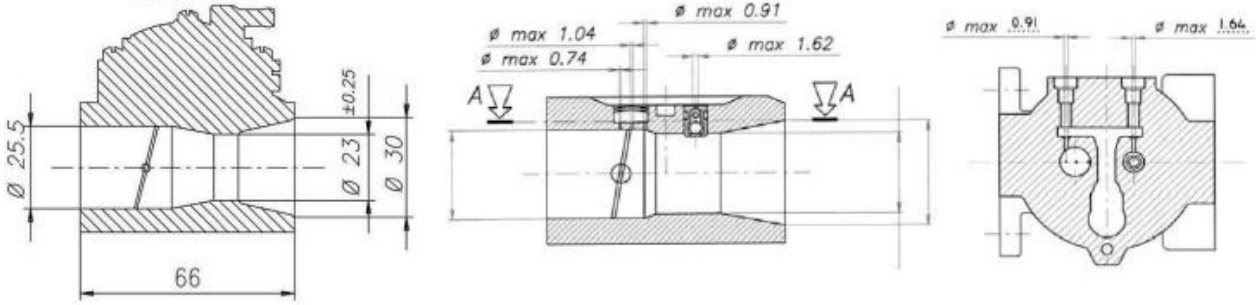


CARBURETOR

TILLOTSON mod. HL-334 AB - for Junior 1, Junior 2

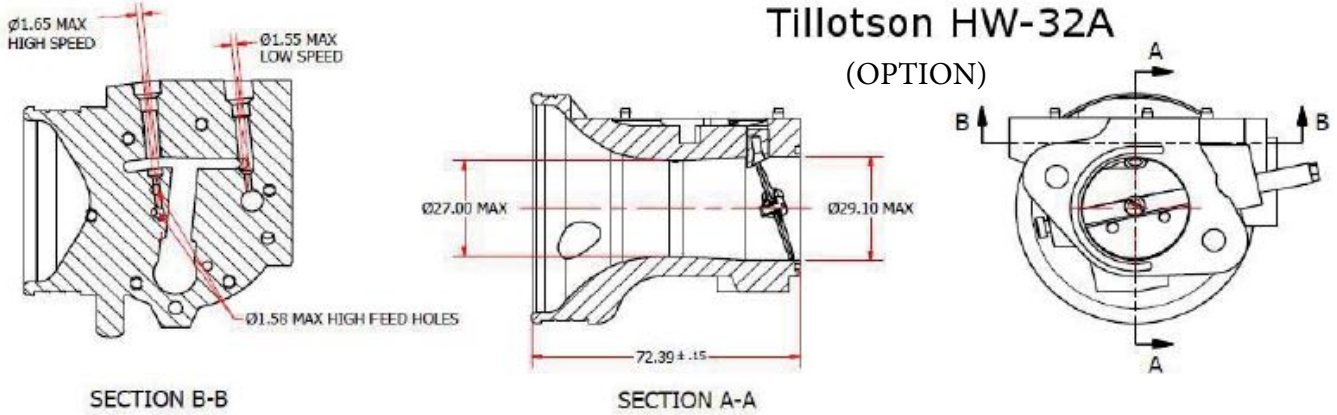
TILLOTSON mod. HL-334 A

*pulse hole 4.1mm MAX



Tillotson HW-32A

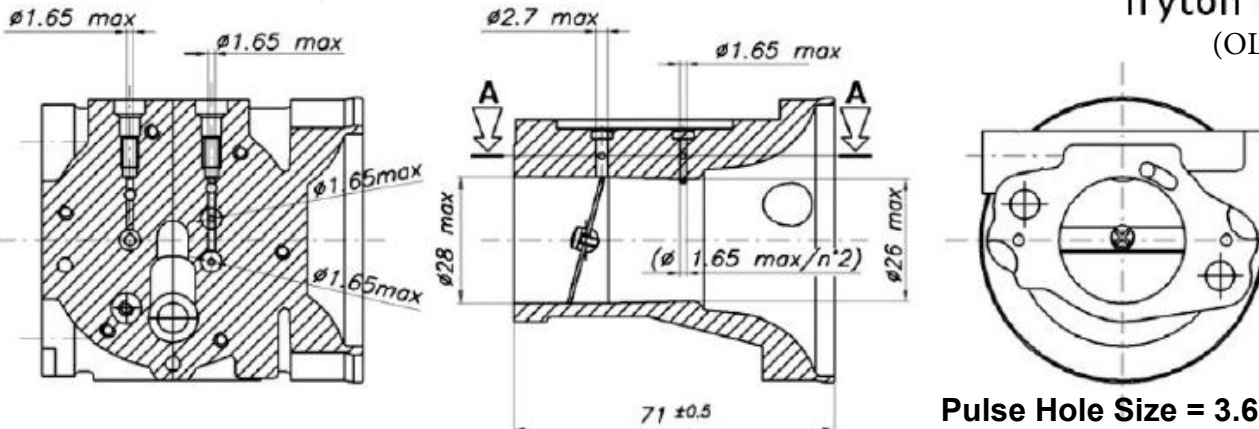
(OPTION)



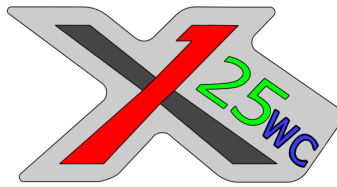
Pulse Hole Size = 3.6mm max

Tryton 27-C

(OLD)



Pulse Hole Size = 3.6mm max



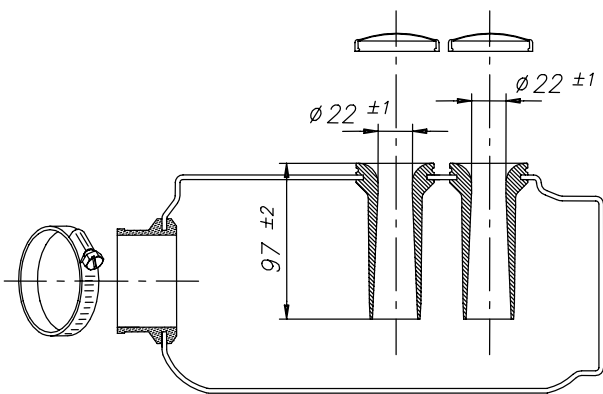
Carburetor Notes (see preceding page for diagrams)

-Junior 1, Junior 2 uses 22mm Tillotson HL-334AB with Intake -Masters/Heavy and Senior uses Tillotson HW-32A

No modifications allowed. Specifications included in drawing supplied by manufacturer. All parts to be as supplied with the following exceptions:

1. Plastic cap may be Tillotson or Ibea equivalent with no modification allowed.
2. The external brass fitting on the throttle linkage may be changed but the throttle shaft, butterfly and butterfly screw must be stock as supplied.
3. Only the top cover screws may be replaced - all other fasteners must be supplied.
4. The only induction silencer adapter allowed are by specification in manufacturer's drawing
5. A washer may be welded onto the original Low Jet to allow for easier adjustment
6. The pulse hole on the Tillotson HL-334 (A or AB) cannot exceed 4.1mm

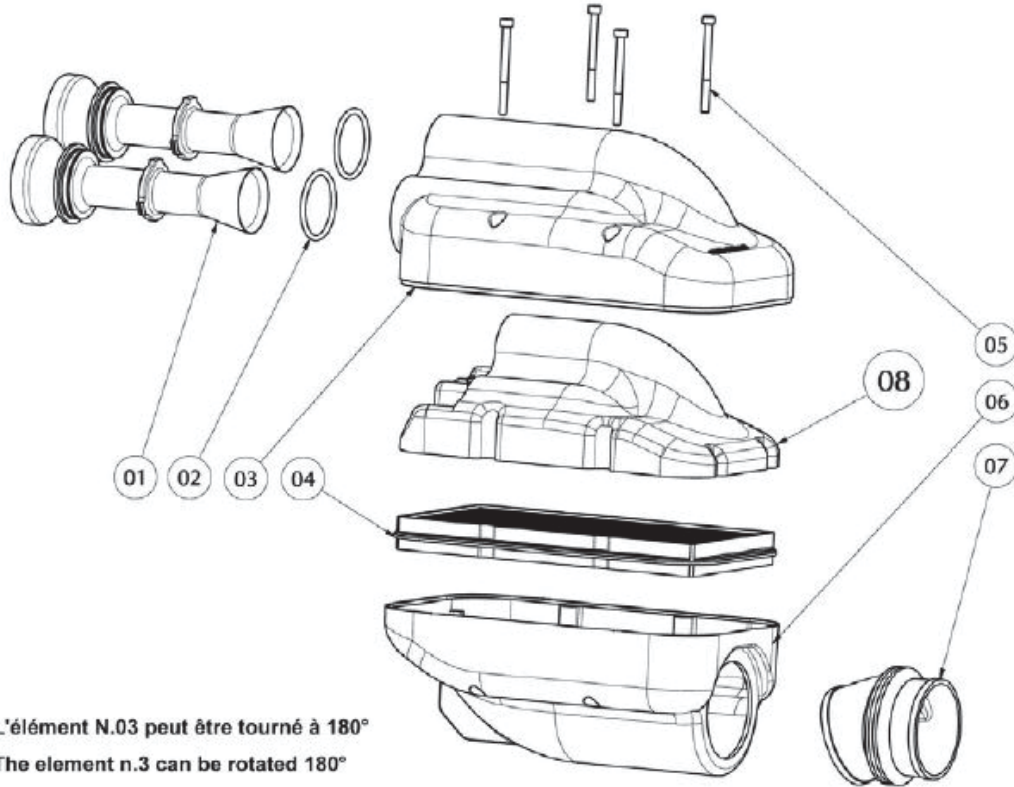
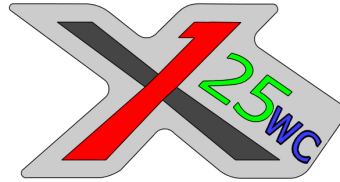
AIRBOX



*FREE LINE mod. AL-22-PS esclusivament
-L-22-PS only*



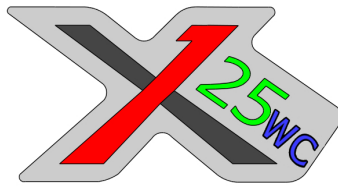
175.00.50-RO



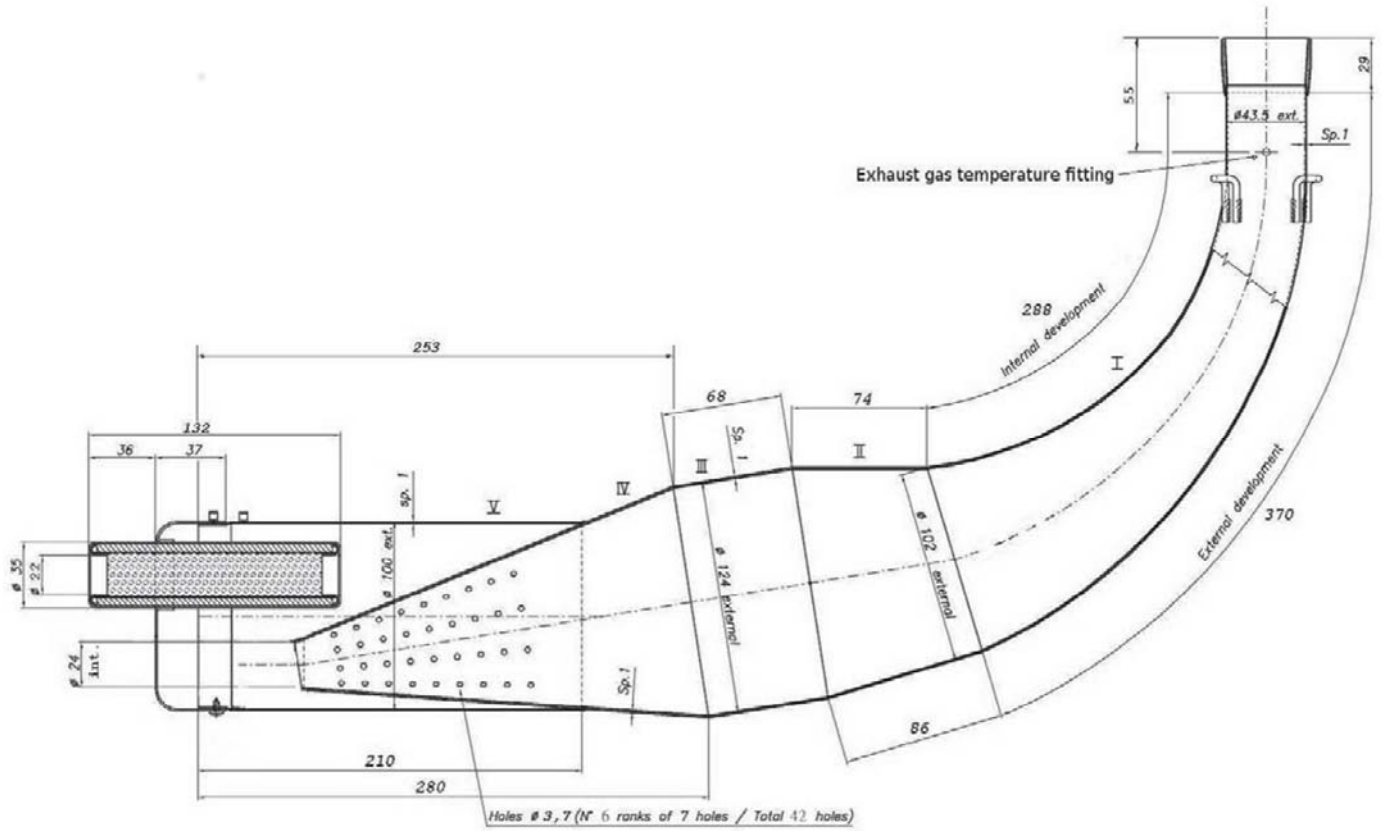
L'élément N.03 peut être tourné à 180°
 The element n.3 can be rotated 180°

N°	DESIGNATION	Catalogue reference number
01	Suction Tubes D.23mm	ZZKE012
02	O-Ring	KE067
03	Upper body filter	ZZKE006
04	Filter	ZZKE011
05	Screw M5	KVP05050S
06	Engine side body filter	ZZKE007
07	Rubber Connector	K070
08	Noise-absorbing parts	KE062

Inlet Silencer Note: All current and previous CIK approved Inlet Silencers or Airboxes with 23mm diameter suction tubes are approved



DRAWING OF THE EXHAUST 10.10003.00

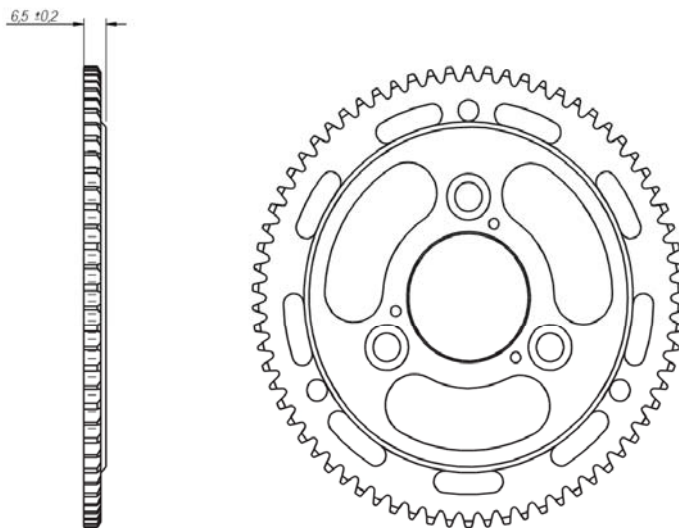


MATERIAL = STEEL

GENERAL TOLERANCE ± 1 mm

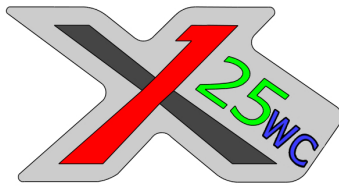
MINIMUM WEIGHT 2020 g.

STARTER GEAR 20.10186.06-BR

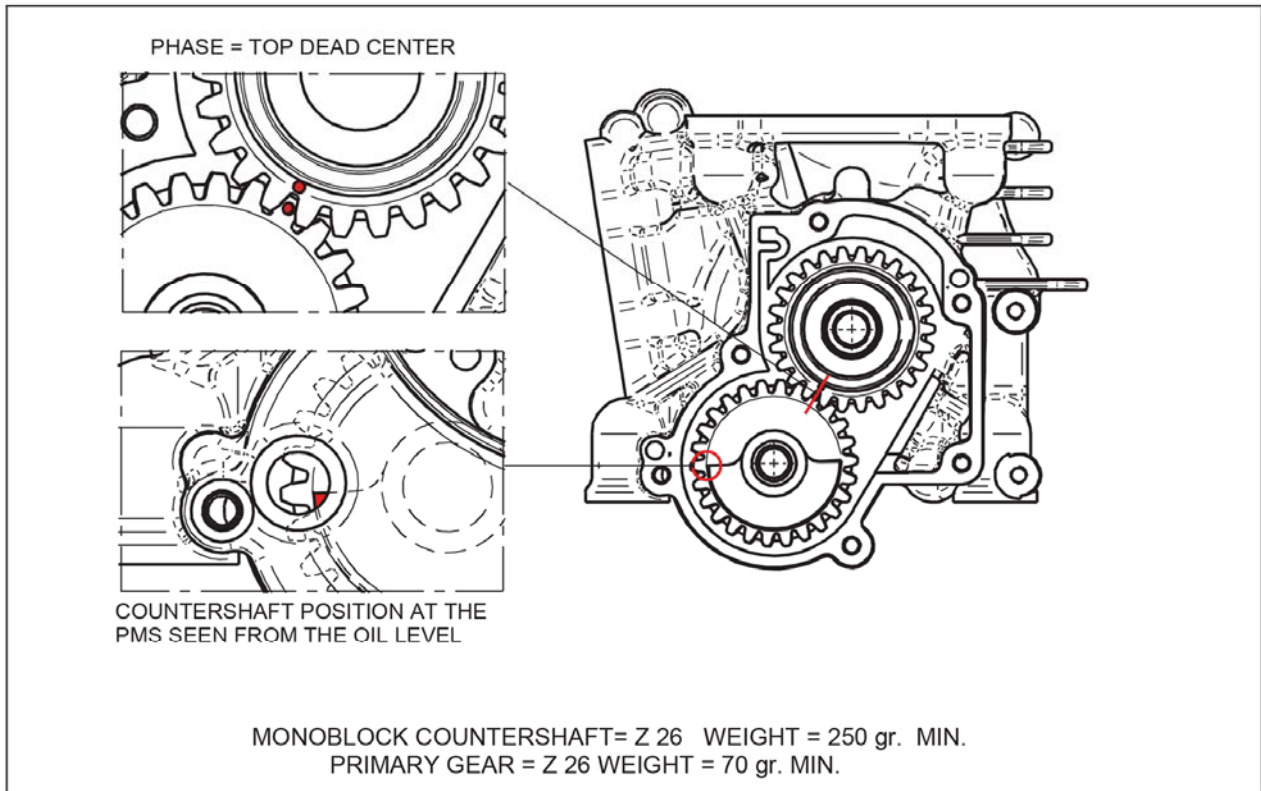


STARTER GEAR Z=70

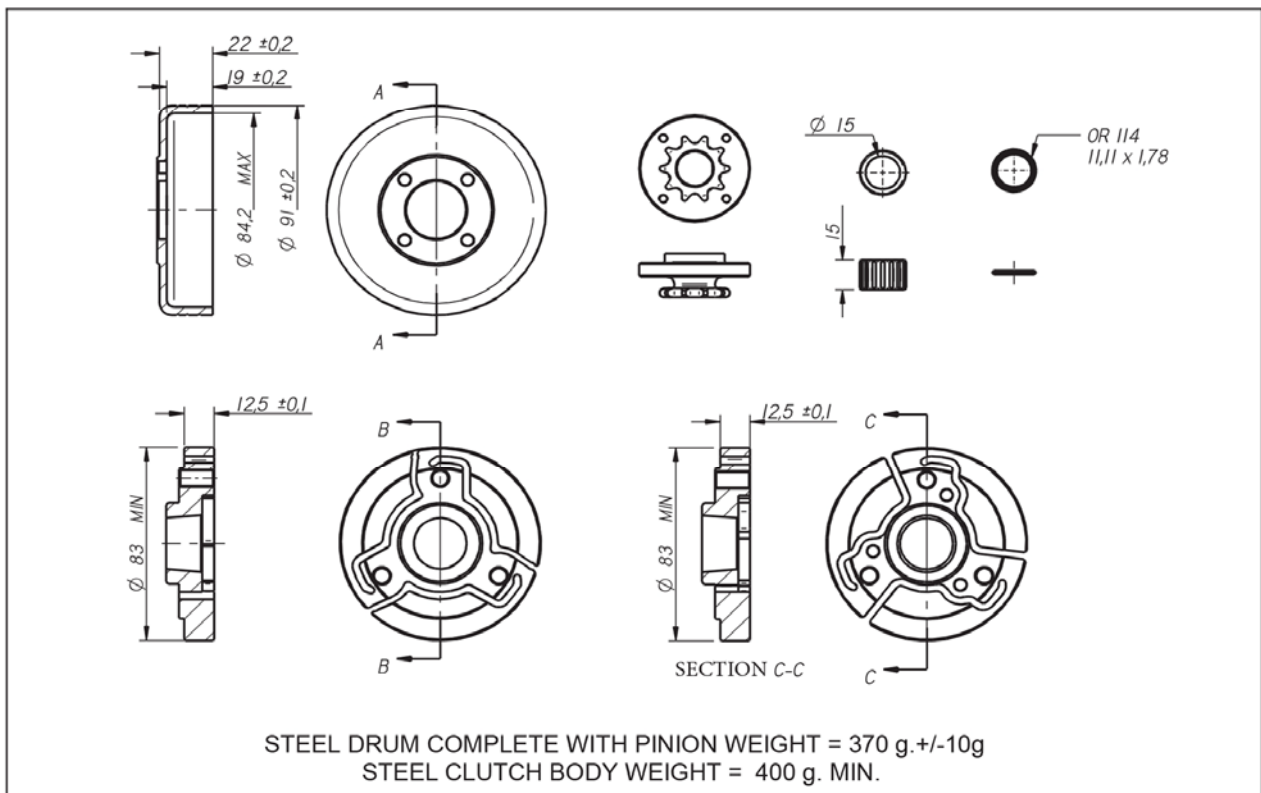
GEAR MATERIAL = STEEL / WEIGHT = 260 g. ± 10g



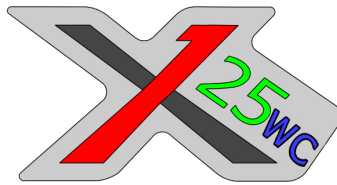
COUNTERSHAFT



CLUTCH

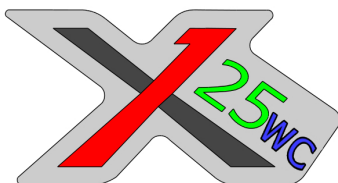



PADDED CLUTCH HUB 20.9447.00

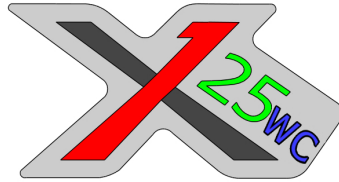


X125-WC 125cc TaG Notes

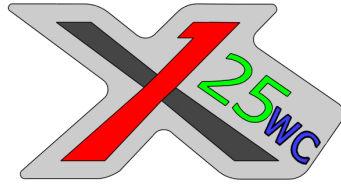
1.	Displacement	Volume of cylinder 11.5 cm ³ , Original bore = 53.90mm Theoretical maximum bore = 54.28mm
2.	Cylinder	Cylinder is of aluminium with iron liner. All ports must be of intended design, conforming to drawings supplied by manufacturer. No modification or grinding permitted.
3.	Cylinder Head	Cylinder head is aluminium and shall conform to drawing supplied by manufacturer. No modification allowed. Cylinder head volume is measured using the standard procedure except for the following notes. * The CIK cc tool is used(CIK Technical Drawing 6)
4.	Crankcase	Crankcase is aluminium and shall conform to drawing supplied by manufacturer. Optional roller bearing upgrade available X125-110281 (6204 C4 SNR)
5.	Crankshaft and Conrod	Crankshaft and conrod are of steel and shall be of original as supplied by original manufacturer. Parts must conform to drawings supplied by manufacturer. No modification allowed.
6.	Piston	Piston is aluminium, supplied by original manufacturer with manufacture's marking on dome and conforms to drawing supplied by manufacturer. No modification allowed.
7.	Piston Ring	Must be magnetic material.



8.	Clutch	Dry centrifugal in design, as supplied by original manufacturer as specified in manufacturer's drawings. No modification allowed. Both versions of clutch and starter wheel allowed.
9.	Carburetor	<p>Junior 1, Junior 2 uses 22mm Tillotson HL-334AB with Intake. Masters, Heavy, Senior and Junior uses Tillotson HW-32A</p> <p>No modification allowed. Specifications included in drawing supplied by manufacturer. All parts to be as supplied with the following exceptions:</p> <ol style="list-style-type: none"> 1. Plastic cap may be Tillotson or IBEA equivalent no modifications allowed 2. The external brass fitting on the throttle linkage may be changed but the throttle shaft, butterfly and butterfly screw must be stock as supplied. 3. Only the top cover screws may be replaced all other fasteners must be as supplied 4. The only Induction Silencer adapters allowed are by specification in manufacturer's drawing. 5. A washer may be welded onto the original "Low jet" to allow for easier adjustment.
<p>INTAKE RESTRICTOR IM111-17</p>  <p>Diameter = 17mm MAX Thickness = 5.9 +/- 1mm Pulse Hole = 2.90 mm</p>		<p>Intake Restrictor - Inlet Restrictor are used as follows: JR.1=17mm (IM111-17) and JR.2=19mm (IM111-19). *No restrictor used for JR.3</p>
10.	Inlet Silencer	The induction silencer must comply with the dimensions shown in the drawing. All current and previous CIK approved inlet silencers or airboxes with 23mm diameter suction tubes are approved. New CIK homologated airbox allowed.
11.	Cooling	External water pumps are allowed to be used.



12.	Spark Plug	Spark Plug make is free except that the electrode must be present. The spark plug must retain the original washer and the body of the plug (electrodes not included). When tightened on the cylinder head, must not extend beyond the upper part of the dome and combustion chamber. *The Spark Plug Boot is a NON-TECH item
13.	Ignition	Selettra MAX RPM is 16000. Unmodified key must be installed in the keyway for the ignition. Mounting holes must be as supplied.
14.	Battery	12V battery - not supplied with engine, open manufacturer.
15.	Muffler/Header	Must be supplied by original manufacturer - No modifications allowed. JR.1=22mm(20.14647.06), JR.2=26mm(20.15559.06), JR.3=31mm (20.14230.06) * Exhaust springs are a NON-Tech item.
16.	Remaining Parts	All parts to be original as supplied by the original manufacturer. No grinding, polishing or modification of any part allowed. Following exceptions: 1. Radiator and Mounting Hardware is NON-TECH 2. Water Hoses and Clamps are NON-TECH 3. Data Acquisition Systems and installation of sensors is considered NON-TECH
NON-TECH		The term "NON-TECH" shall mean that the item has no technical specifications. Items that are deemed "NON-TECH" can not be used to disqualify a competitor. These items however must comply with any rules from the governing federation that are applicable.



NOTE		If you are unsure as to whether or not a "non-stock" or modified part can be used, ask the technical representative at the event. If you are unable to get an answer then assume that you can not use it and the part in question must remain as a "stock" part as supplied by the original manufacturer.
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