

Manufacturer Address  
Sonik S.r.l.  
Via Ragazzi del'99 7/A  
42100 Reggio Emilia  
Italy

### Sonik Engine Specification Form



Manufacturer	SONIK S.R.L.
Make	SONIK
Model	TX 125
Inlet type	REED VALVE
Number of pages	8

#### PICTURE OF ENGINE



Importer: TS Racing, Inc. (352) 793-9600


**TECHNICAL INFORMATION**

A	CHARACTERISTICS	
	Measurement	Tolerances
Volume of cylinder	<b>125 c.c.</b>	<b>MAX</b>
Original Bore	<b>54.02 mm</b>	
Theoretical maximum bore	<b>54.30 mm</b>	
Stroke	<b>54.00 mm</b>	<b>+/- 0.20 mm</b>
Cooling system	<b>WATER</b>	
Number of carburation systems	<b>1</b>	
Number of transfer ports / ducts, cylinder/sump	<b>3/3</b>	
Number of exhaust ports / ducts	<b>3</b>	
Shape of the combustion chamber	<b>SPHERICAL</b>	
Length between the axes of the connecting rod	<b>102 mm</b>	<b>+/- 0.10 mm</b>
Weight of the connecting rod	<b>125 g.</b>	<b>+/- 10 g.</b>
Volume of combustion chamber <sup>A</sup>	<b>10.5cc Measured assembled with LAD tool</b>	<b>MIN</b>
Type of bearings	<b>Crankshaft 6205, 52mm OD</b>	

B	OPENING ANGLES	
Exhaust	<b>179°</b>	<b>MAX</b>
Of exhaust ports / ducts	<b>128° / 135°</b>	<b>MAX</b>

C	ACCESSORIES INCLUDED	
Carburettor with butterfly Ø24	Tryton M1	
Airbox	Two tubes	
Electric starter		
Battery		
Centrifugal clutch		
Exhaust with flex		

D	MATERIAL	
Cylinder	<b>ALLUMINIUM ALLOY</b>	
Connecting Rod	<b>STEEL ALLOY</b>	
Crankshaft	<b>STEEL ALLOY</b>	
Head	<b>ALLUMINIUM ALLOY</b>	
Liner	<b>IRON ALLOY</b>	
Crankcase	<b>ALLUMINIUM ALLOY</b>	
Piston	<b>ALLUMINIUM ALLOY</b>	
Piston Ring	<b>IRON ALLOY</b>	

**DRAWING OF THE CYLINDER DEVELOPMENT**

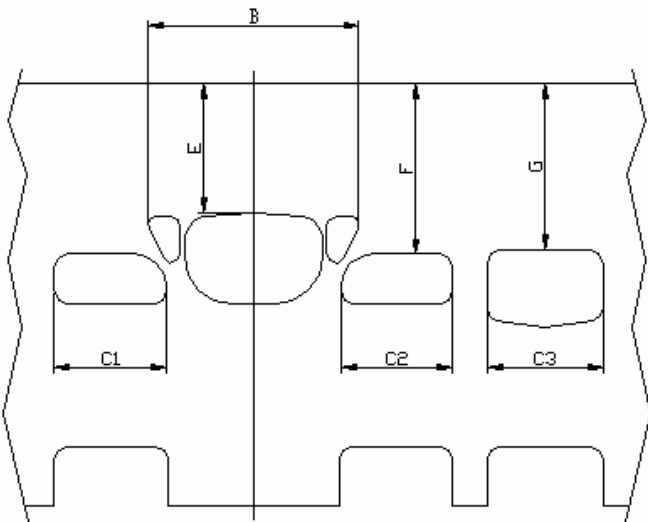
**Chord reading**

B = 52.5 mm C1=C2= 28.6 mm C3 = 28.7 mm (tolerances +/- 0.3mm)

**Angular reading by inserting a 0.2mm gauge**

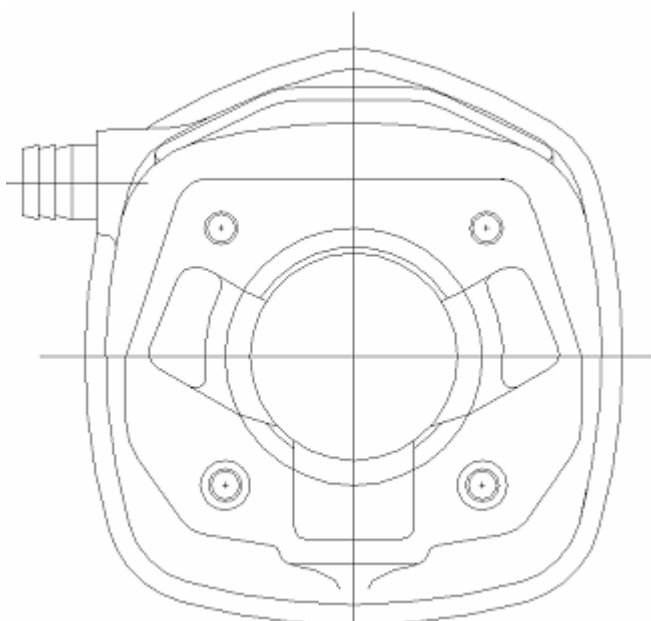
E = 31.9 mm F = 42.5mm G = 41.8 mm (tolerances +/- 0.3mm)

*(Insert drawing here)*



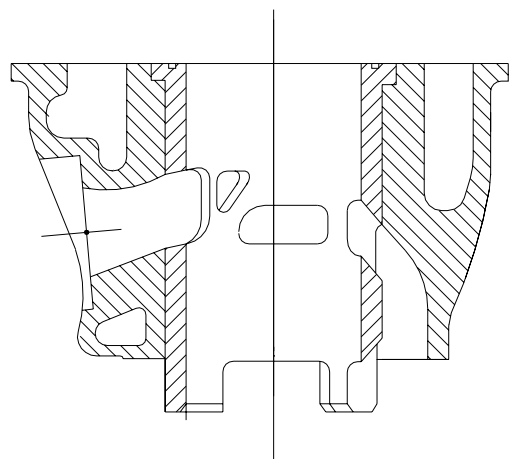
**DRAWING OF THE CYLINDER BASE**

*(Insert drawing here)*



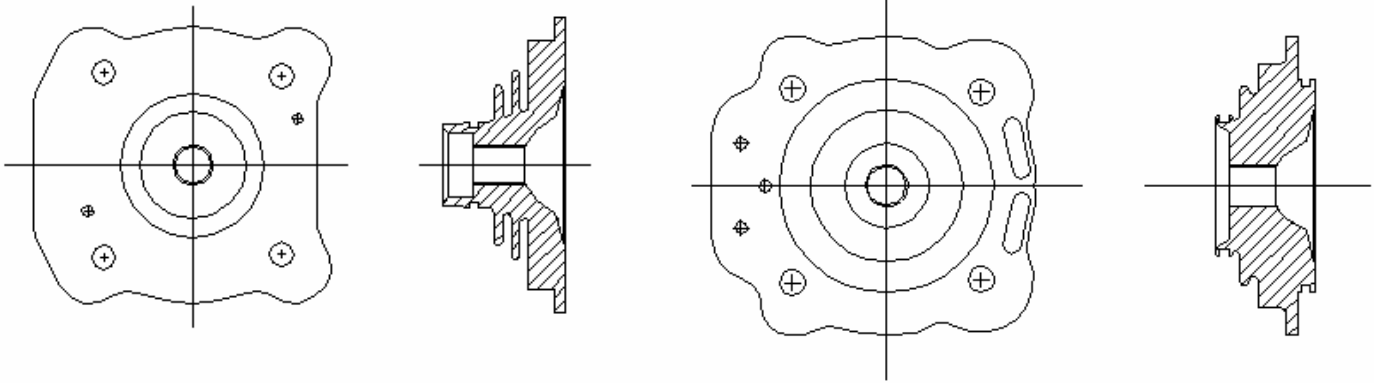
**CYLINDER SECTION VIEW**

*(Insert drawing here)*



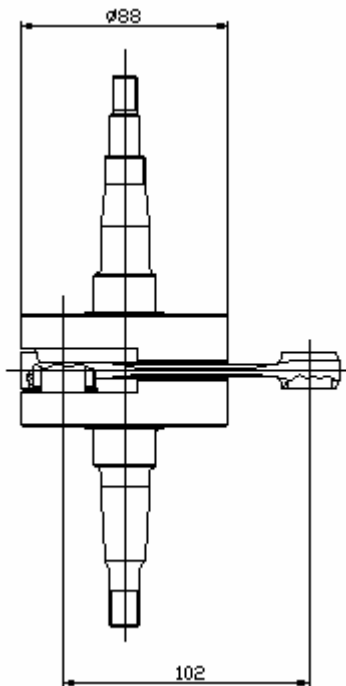
**DRAWING OF THE CYLINDER HEAD AND THE COMBUSTION CHAMBER**

*(Insert drawing here)*



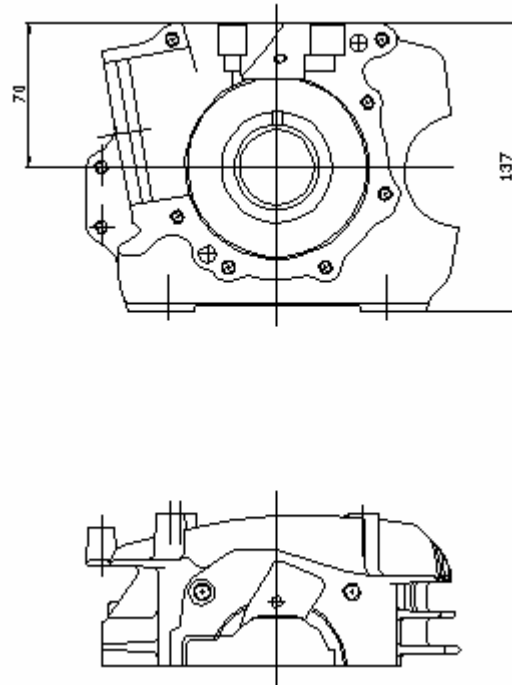
**DRAWING OF THE CRANKSHAFT**

Complete weight = **1980 g. ± 5%**  
(tolerances +/-0.10 mm)



**DRAWING OF THE INSIDE OF SUMP**

(tolerances +/-0.10 mm)



<b>IGNITION</b>	
Manufacturer	<b>Selettra</b>
Model Number	<b>P3356E</b>
Rotation	<b>Counter-clockwise</b>
Description	<b>Sonik - Red</b>

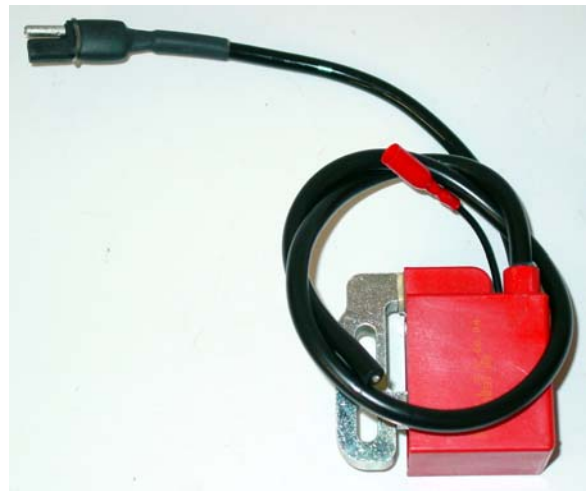
**PHOTO OF IGNITION**

*(insert photo of inside here)*



**PHOTO OF COIL**

*(Insert photo here)*



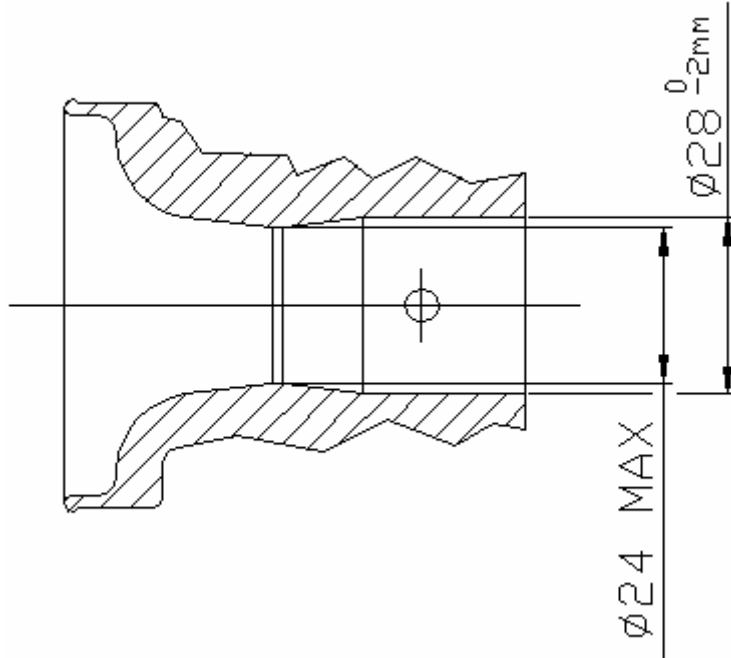
*(insert photo of outside here)*



**Ignition Timing:**  
**.070" to .085" BTDC**  
**1.77mm to 2.16mm BTDC**

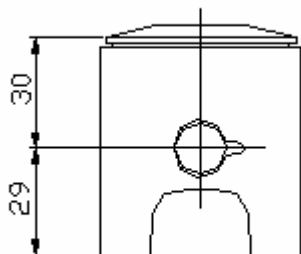
**CARBURETTOR DIMENSION**

*(Insert drawing here)*



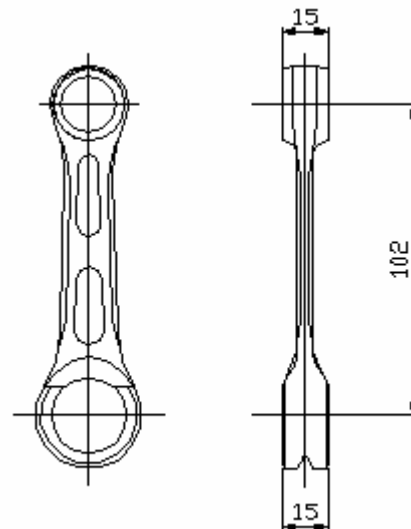
**PISTON**

Weight= **134 g  $\pm 7$  g**  
*(Insert drawing here)*



**DISTANCE BETWEEN CONROD CENTERS**

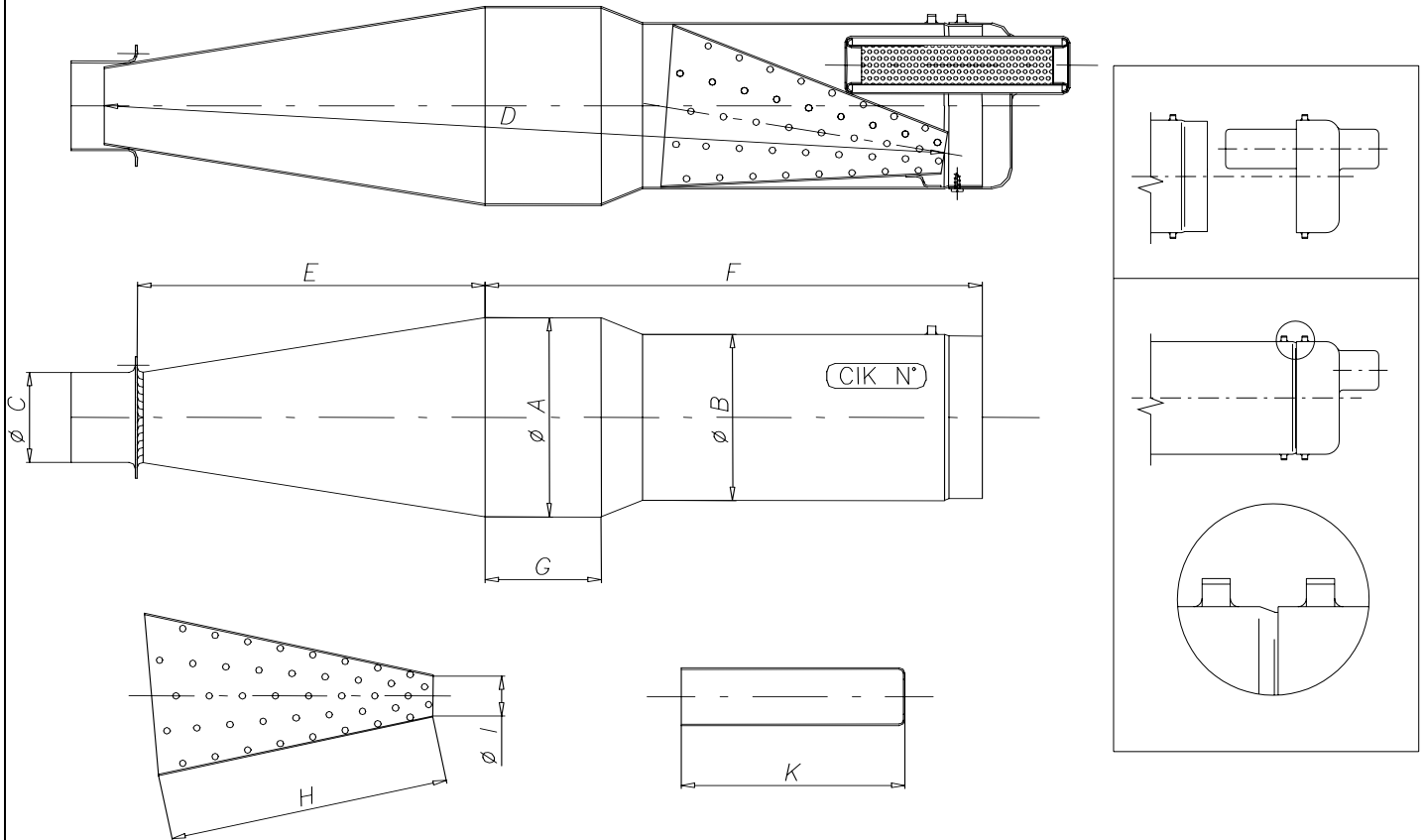
Weight= **125 g  $\pm 10$  g**  
*(Insert drawing here)*



DESSIN DU SILENCIEUX ET DE SES ÉLÉMENTS

DRAWING OF THE SILENCER AND OF ITS COMPONENTS

Épaisseur minimum de la paroi du pot-silencieux 0,8mm / Minimum tickness of the wall of the exhaust silencer 0.8mm.  
Poids minimum de l'échappement \_1,5 Kg / Minimum weight of the exhaust \_1,5 Kg.



Les parties terminales du silencieux doivent présenter deux paires d'anneaux soudés (une en haut et une en bas), pour retenir le sceau en plomb fixé par l'Organisateur pour que le silencieux ne puisse pas être ouvert pendant la compétition.

*The end parts of the silencer must have two soldered pairs of lugs (one pair at the top and one pair at the bottom) for the fixing of seals by the Organiser so that the silencer may be opened during the competition*

Cotes / Readings:

A: \_107.5\_Øext.

F: \_318

B: \_100\_Øext.

G: \_100

C: \_54\_ Øext.

H: \_170

D: \_479

I: \_21

E: \_178.5

K: \_130

TOLÉRANCES

Cotes brutes / Rough dimensions  
Jusque - up to 25mm → ±1mm  
De à - from to 25-60 → ±1,5mm  
Plus que - more than 60mm → ±3mm

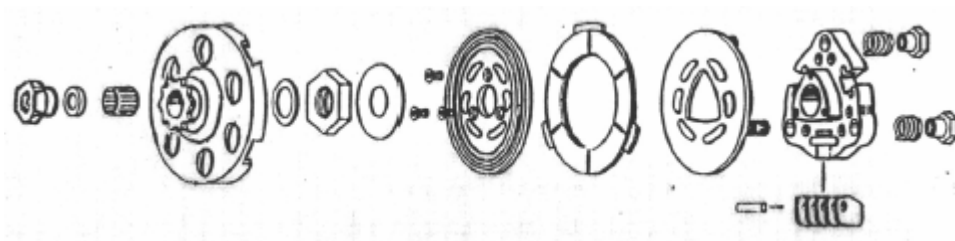
**DRAWING OF THE SILENCER**

*(Insert drawing here)*

**See above drawing**

**DRAWING OF THE CLUTCH**

Sonik Disc Clutch



Sonik Shoe Clutch

