

AKA Homologation No.



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ENGINE			
Manufacturer	IAMEs.p.a.	Category	
Make	PARILLA	Homologation Period	
Model, Type	Leopard X30 125cc RL - TaG - AUS	Pages	16
<p><i>This homologation sheet reproduces description, illustrations and dimensions of the engine at the time of the AKA Homologation. All motors must be manufactured within these dimensions</i></p>			
ENGINE PHOTO - DRIVE SIDE		ENGINE PHOTO - OPPOSITE SIDE	
SIGNATURE AND STAMP OF APPLICANT		SIGNATURE AND STAMP OF AKA	

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PHOTO OF THE ENGINE FROM THE BACK



PHOTO OF THE ENGINE FROM THE FRONT



PHOTO OF THE ENGINE FROM ABOVE

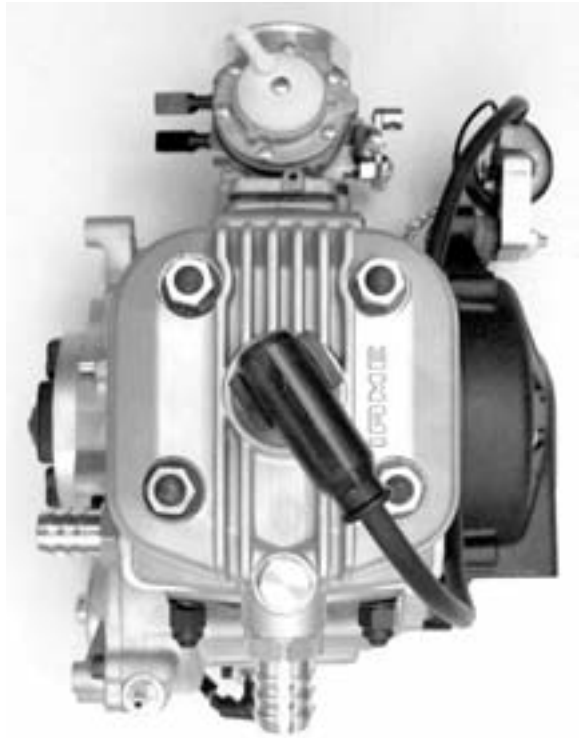


PHOTO OF THE ENGINE FROM BELOW



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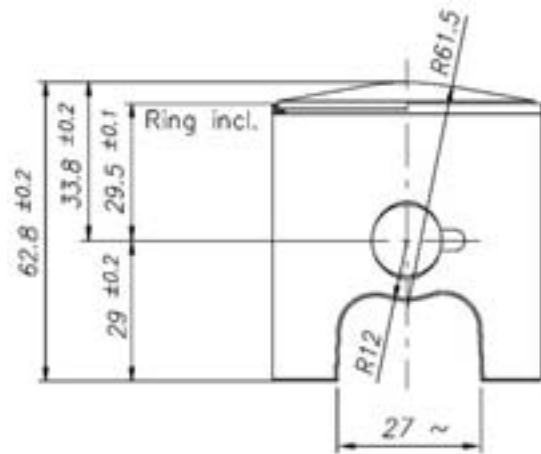
<u>TECHNICAL INFORMATION</u>			
<u>A - Characteristics</u>		<u>C - Materials</u>	
Cylinder volume	123.67 cm ³	Cylinder wall	Iron
Bore	54 mm	Cylinder	Aluminium
Theoretical max. bore	54.28 mm	Cylinder head	Aluminium
Stroke	54 mm	Crankcase / sump	Aluminium
Cooling system	Water	Connecting rod	Steel
Air admission system	Reed valve		
N° of carburation systems	1	<u>D - Tolerances</u>	
N° of transfer ports in the cylinder	3	Opening angles (+/- 2 degrees)	
N° of exhaust ports	3	Combustion chamber volume [+/- 0.5cc]	
Shape of combustion chamber	Spherical	Angles [+/- 2 degrees]	
Volume of the combustion chamber	10.2 cm ³ ±0.5 (WITH "CIK" INSERT)	Stroke [+/- 0.1mm]	
Length between of the axis of connecting rod	102 mm	Length between axis of connecting rod [+/-0.1mm]	
Ignition make	Selettra or PVL	<u>Dimensions on machined surfaces</u>	
Ignition model	Digital (REV. LIMIT 16000 RPM)	< 25mm [+/- 0.5mm]	
		25-60mm [+/- 0.8mm]	
		> 60mm [+/- 1.5mm]	
		<u>Dimensions on rough cast surface</u>	
Inlet			
Transfer	126°± 2° TT=127°± 2°	< 25mm [+/- 1mm]	
Exhaust	177.5° max	25-60mm [+/- 1.5mm]	
Inlet opens before TDC		> 60mm [+/- 3mm]	

Inlet closes before LDC			
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TECHNICAL INFORMATION	
<u>E – piston</u>	
EXHAUST AND INLET TIMING READING LINES	
N° of piston rings	1
Overall length	62.8 mm ± 0.2
Radius of crown	61.5 mm
Crown to pin	33.8 mm ± 0.2
Skirt to pin	29 mm ± 0.2
<u>F – Piston Pin</u>	
material	Steel
Length	44 mm ± 0.2
Inside diameter	$\varnothing 9 \text{ mm } \begin{matrix} +0.25 \\ 0 \end{matrix}$
Outside diameter	$\varnothing 14 \text{ mm}$
CARBURETOR LOCATION	
<u>G - Gaskets</u>	
Barrel gasket material	Paper
Minimum thickness	0.30 mm
Maximum thickness	0.45 mm
Cylinder head gasket material	
Minimum thickness	
Maximum thickness	

NOTE : Indicate in the diagram the type of ring on the piston

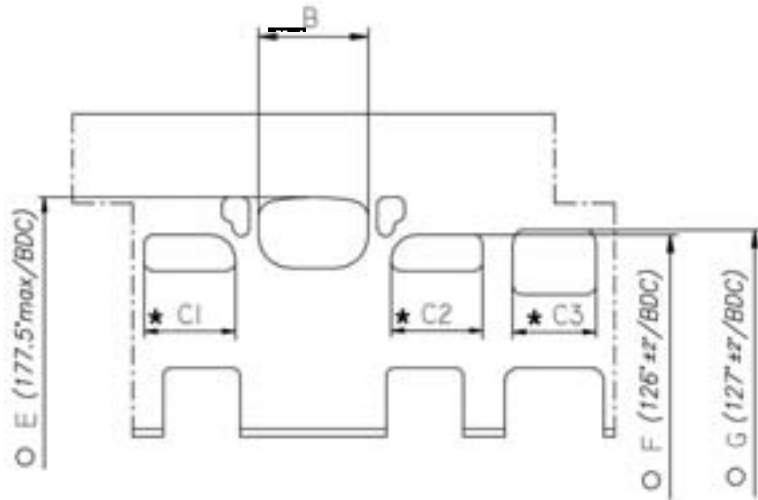


Min. weight with ring= 128 g

NOTE : Distance from the cylinder centre may include an eventual spacer located before the carburettor

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DRAWING OF CYLINDER DEVELOPMENT

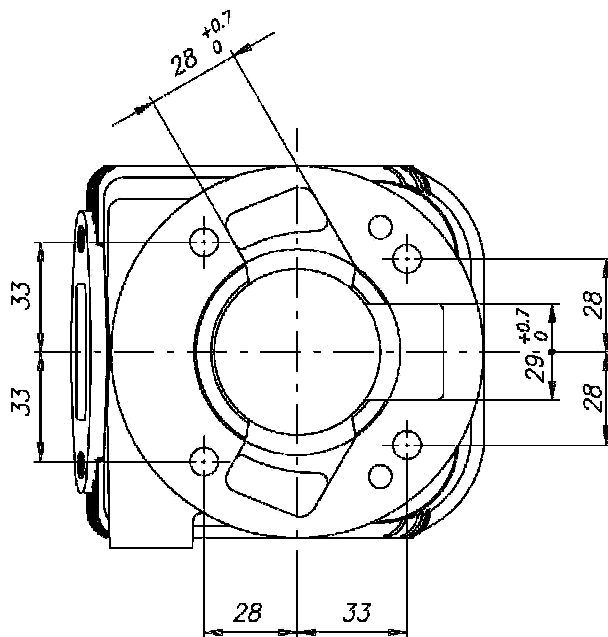


B	≤ 36.5 mm
CI = C2	≤ 30 mm
C3	≤ 28.5 mm
E	177.5° max
F	126° ± 2°
G	127° ± 2°

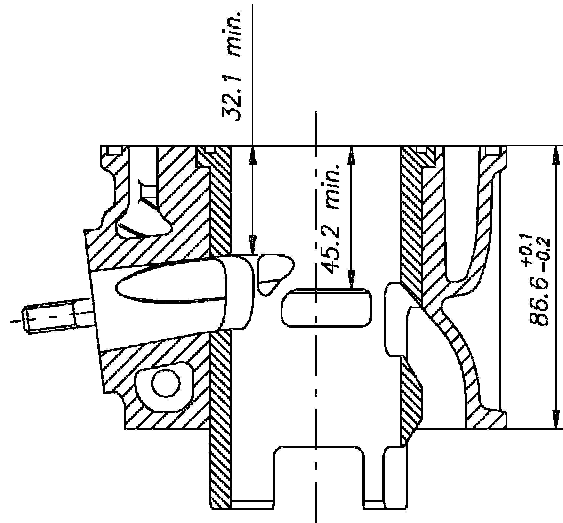
— CHORDAL READING

○ ANGULAR READING BY INSERTING A 0.2 mm GAUGE

DRAWING OF THE BASE OF THE CYLINDER

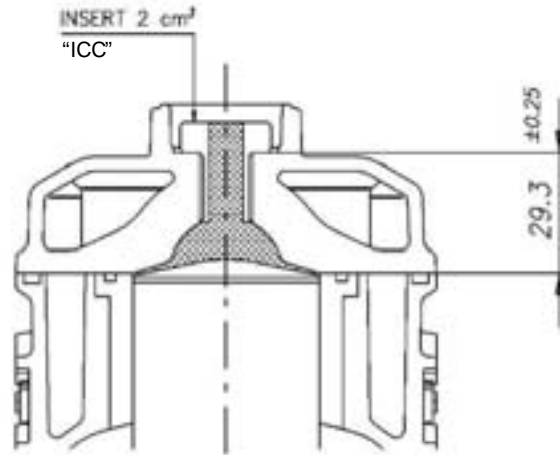


DRAWING OF CYLINDER SECTION



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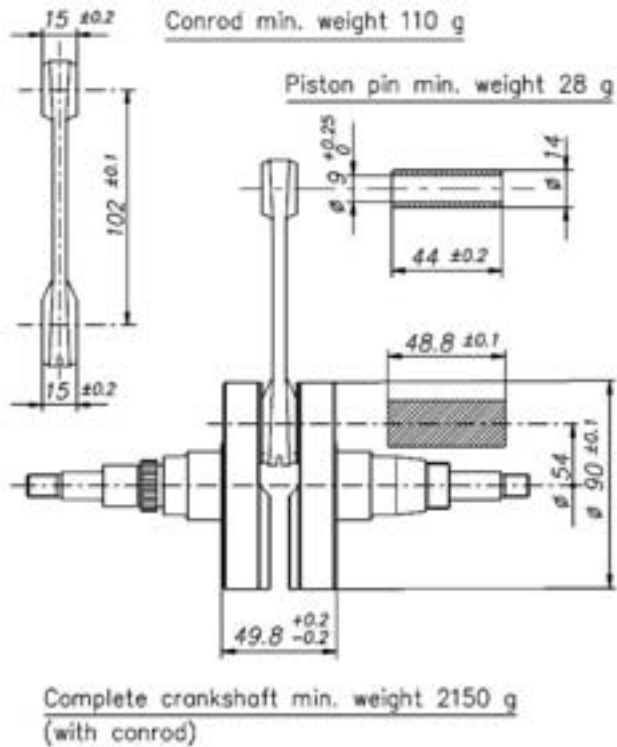
DRAWING OF THE COMBUSTION CHAMBER AND CYLINDERHEAD



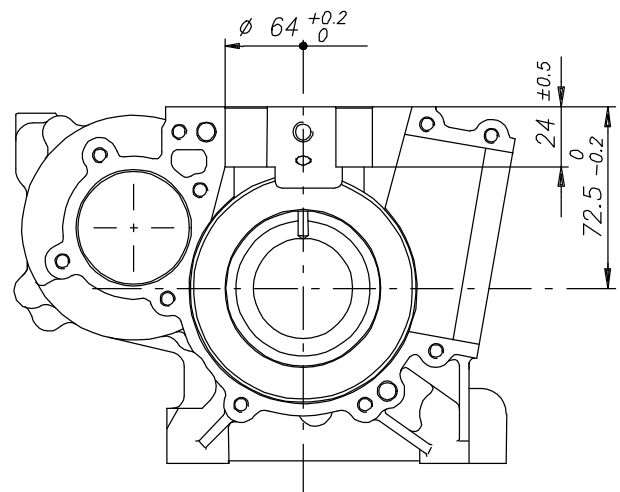
COMBUSTION CHAMBER VOLUME = $10.2 \text{ cm}^3 \pm 0.5$
(WITH "ICC" INSERT: $8.2 + 2 \text{ cm}^3$)

ATT.: SQUISH MIN. = 0.90 mm

DRAWING OF THE CRANKSHAFT







DRAWING OF THE INTERIOR OF THE SUMP

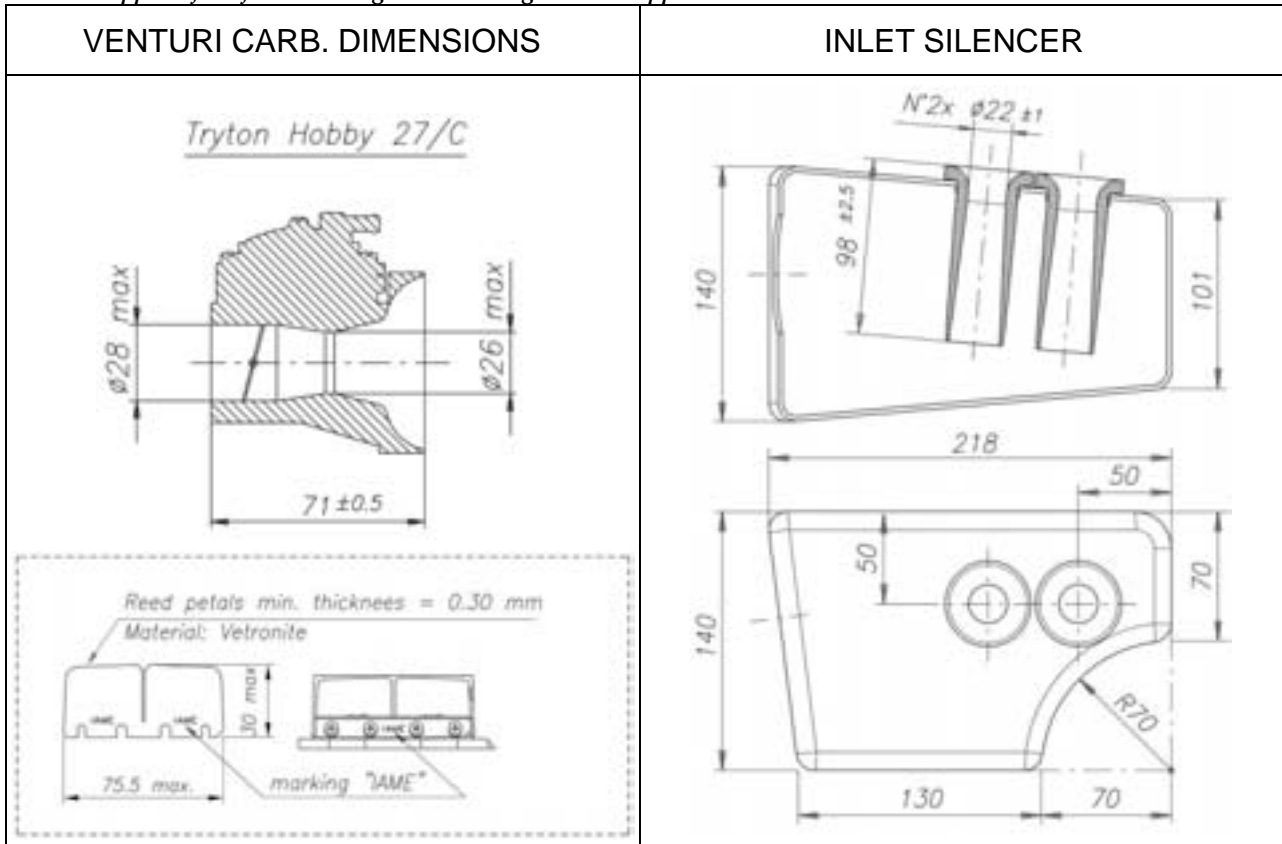


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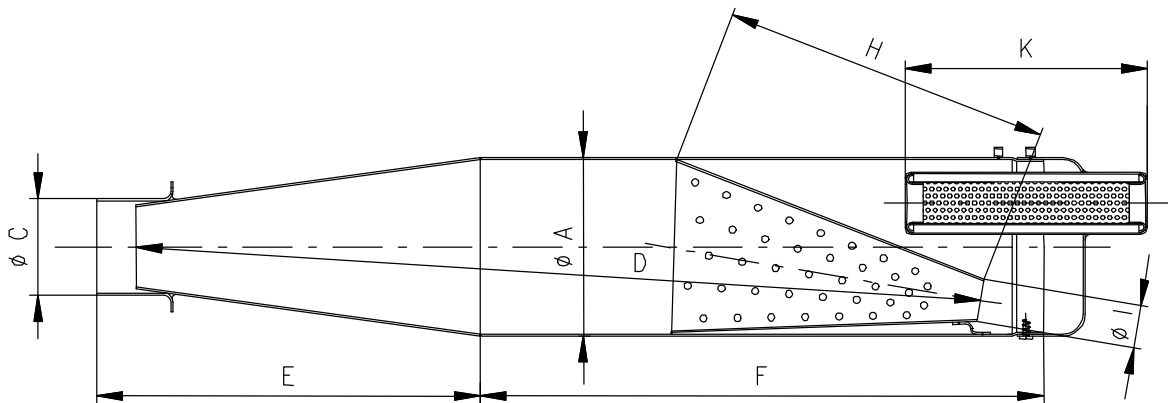
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PHOTO OF THE BASE OF THE CYLINDER	PHOTO OF THE COMBUSTION CHAMBER
	
PHOTO OF CRANKCASE – GASKET FACE	PHOTO OF CRANKCASE – INTERIOR (HORIZONTAL VIEW)
	

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DRAWING OF EXHAUST SILENCER AND COMPONENTS

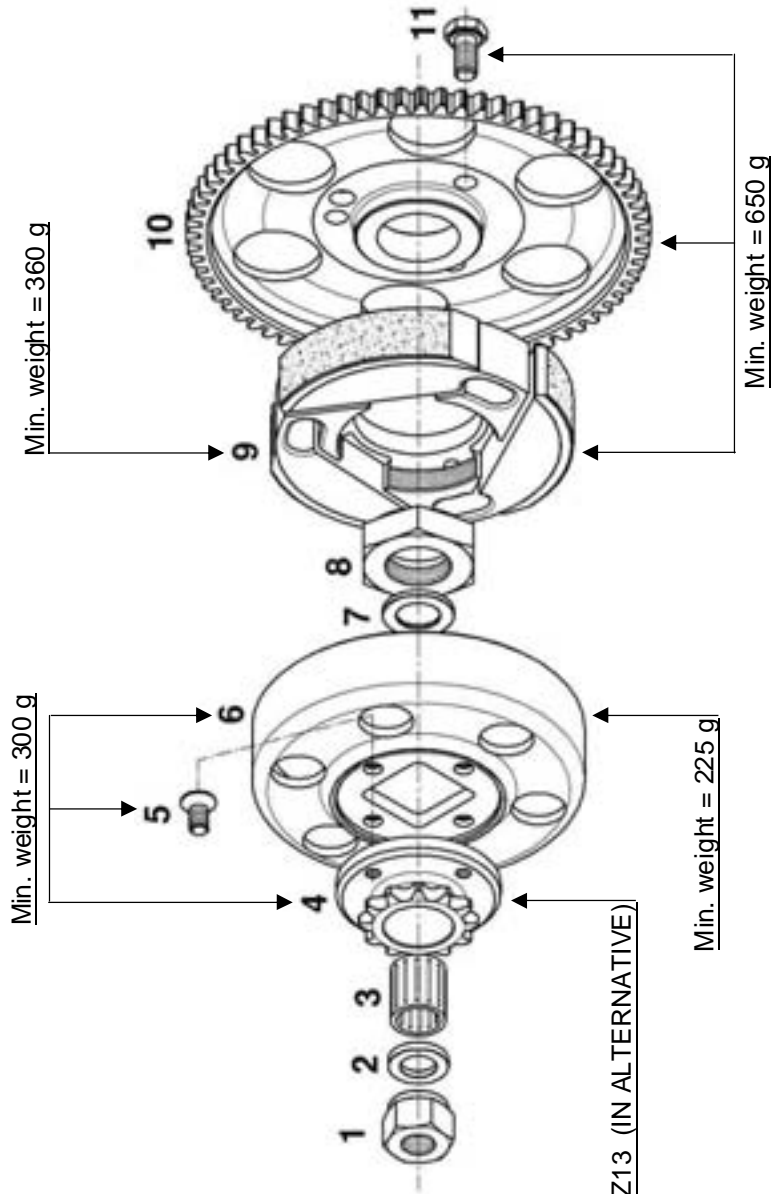


- | | | |
|----------------------------|----------------|---------------------------|
| A: $100 \pm 1 \phi_{ext.}$ | E: 218 ± 5 | H: 180 ± 5 |
| C: $54 \pm 1 \phi_{ext.}$ | K: 130 ± 3 | l: $24 \pm 2 \phi_{ext.}$ |
| D: 485 ± 5 | F: 315 ± 3 | |

Min. weight 1.39 Kg

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CLUTCH DESCRIPTION AND SKETCH OF PARTS

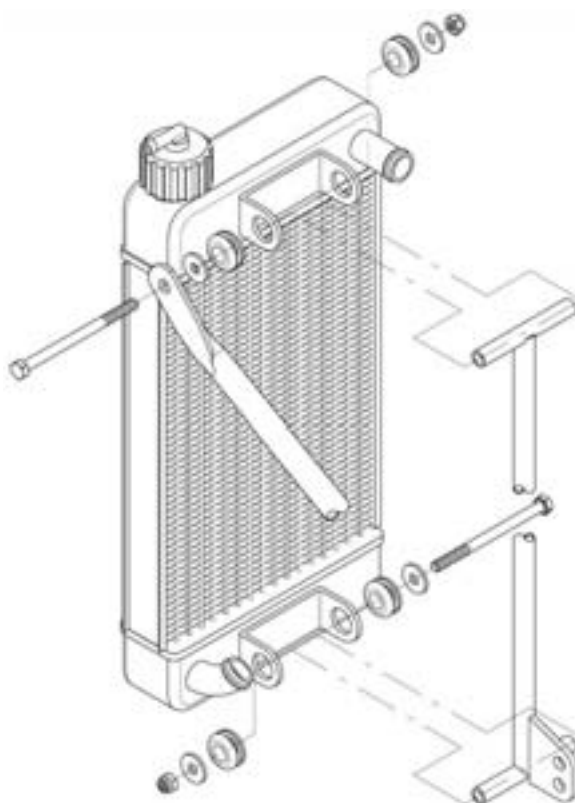
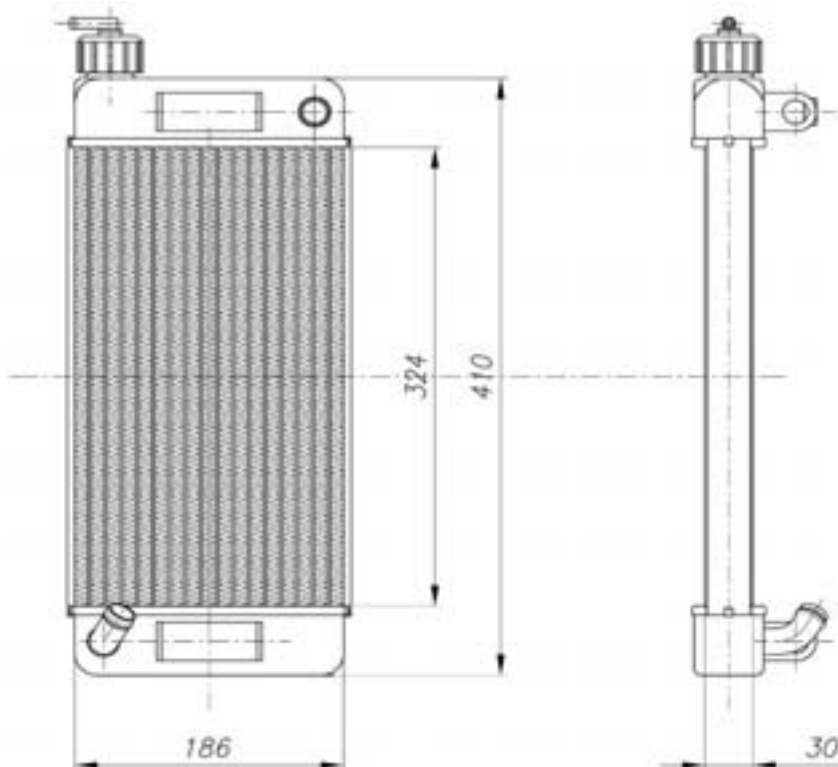


Z10 / Z11 / Z12 / Z13 (IN ALTERNATIVE)

- | | | | | | |
|---|-----------------|---|-----------------|----|--------------|
| 1 | Drum nut | 5 | Screw | 9 | Clutch body |
| 2 | External washer | 6 | Clutch drum | 10 | Starter ring |
| 3 | Roller cage | 7 | Internal washer | 11 | Screw |
| 4 | Sprocket | 8 | Locking nut | | |

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RADIATOR DESCRIPTION AND SKETCH OF PARTS



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INLET PORT CHORD WIDTH	
Either A1 or A2	
The maximum chord width is	The maximum chord width is
Formula for A1 = $D \times \pi \times 0.223 + B$	Formula for A2 = $D \times \pi \times 0.223$
EXHAUST PORT CHORD WIDTH	
Either C1 or C2	
Formula for C1 = $D \times \pi \times 0.223 + E$	Formula for C2 = $D \times \pi \times 0.223$

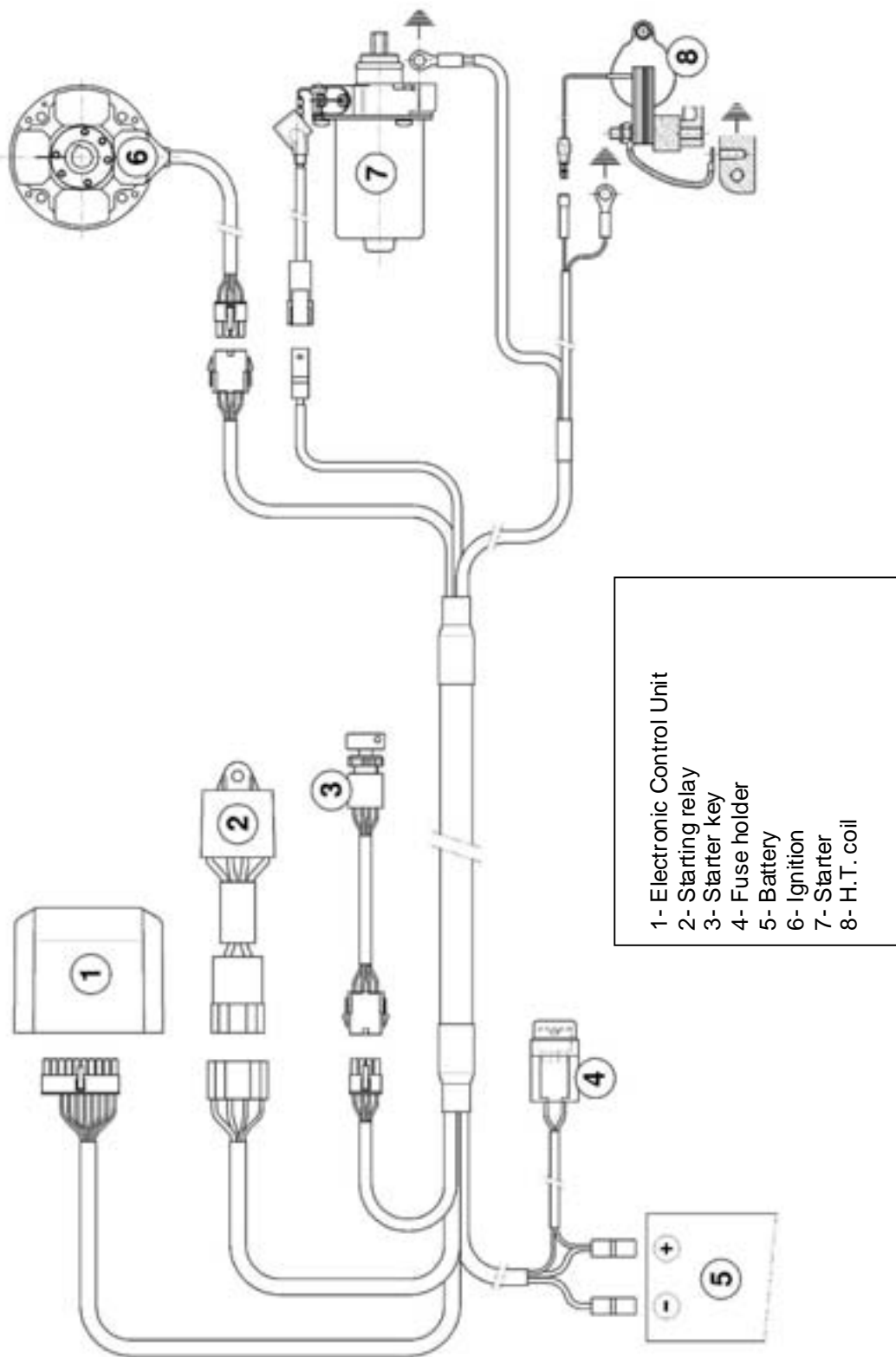
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<u>GEARBOX</u>	
Manufacturer	
Make	
Model , Type	
Primary coupling	

	Primary shaft	Secondary shaft	Degree reading obtained after 3 turns of the engine
1 st gear			
2 nd gear			
3 rd gear			
4 th gear			
5 th gear			
6 th gear			

WIRING DIAGRAM (SELETTRA DIGITAL "K" IGNITION)

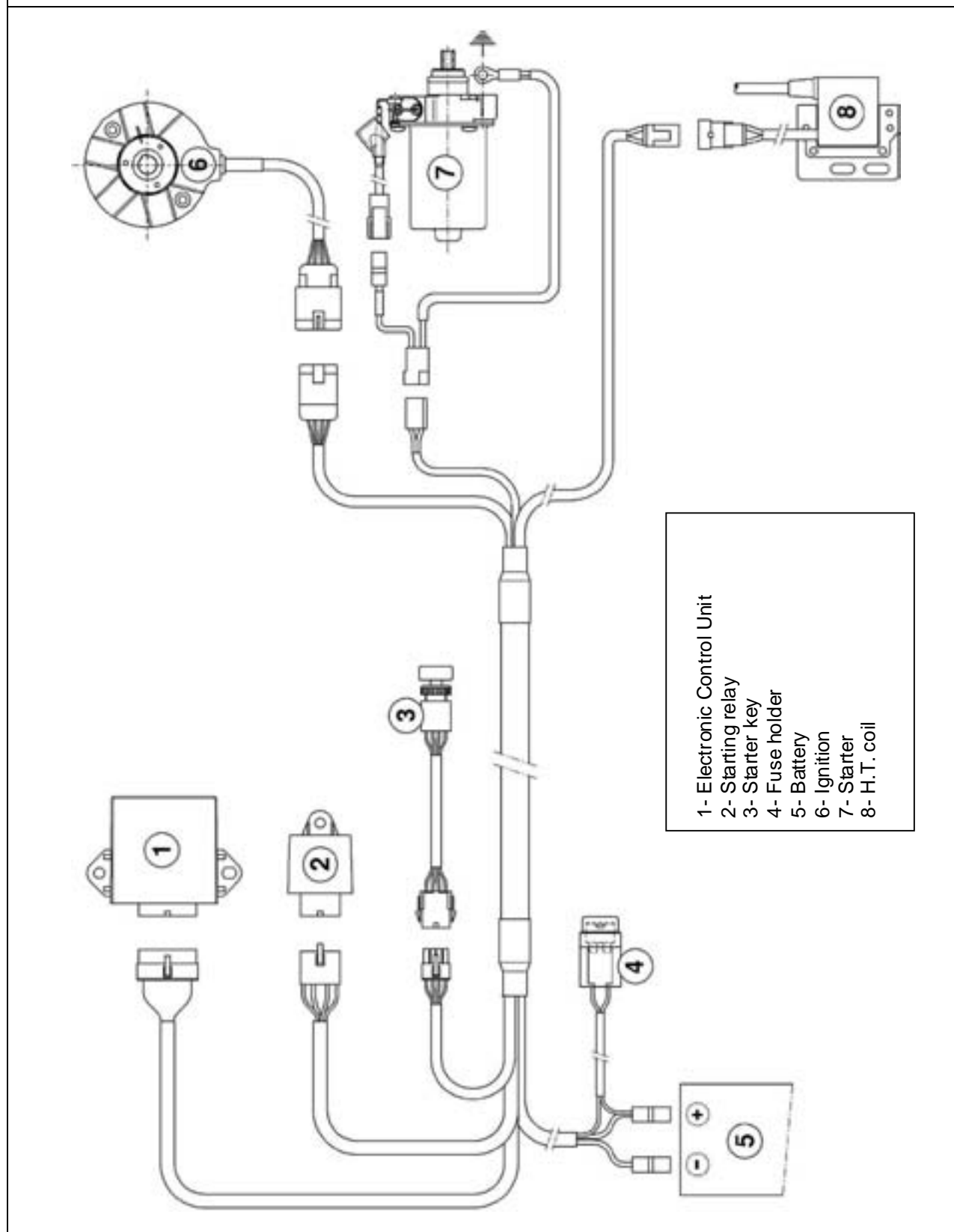


ELECTRONIC BOX MARKING

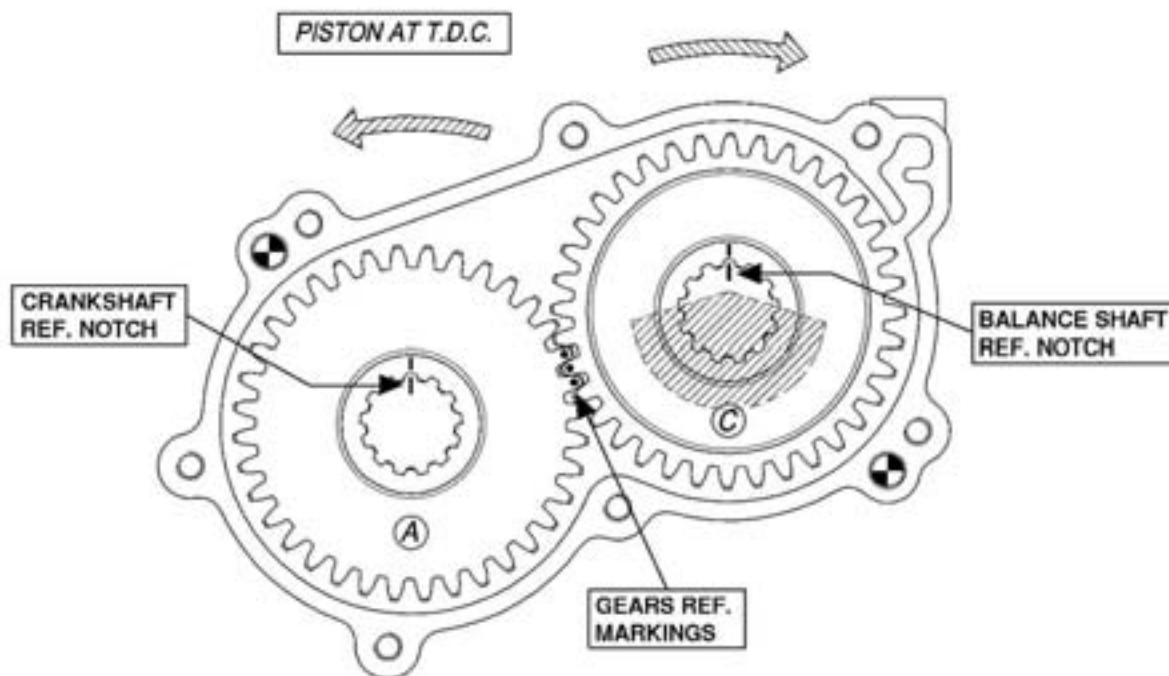


"AKA 20L" MARKING

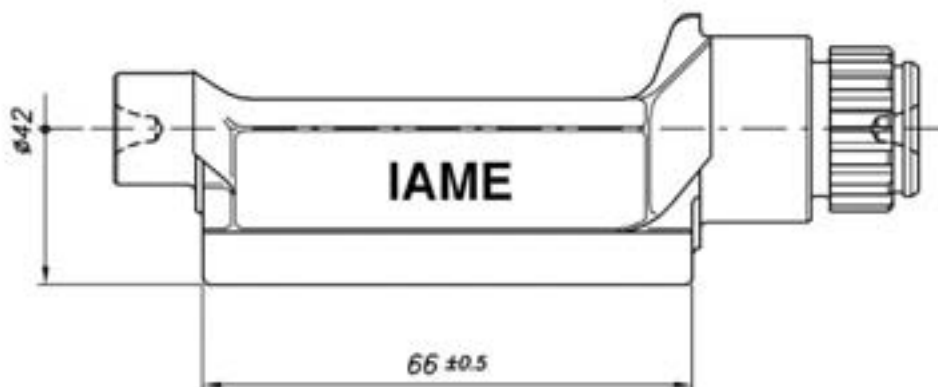
WIRING DIAGRAM (PVL DIGITAL IGNITION)



GEARS TIMING COMMAND BALANCING SHAFT



BALANCING SHAFT



Min. weight 315 gr