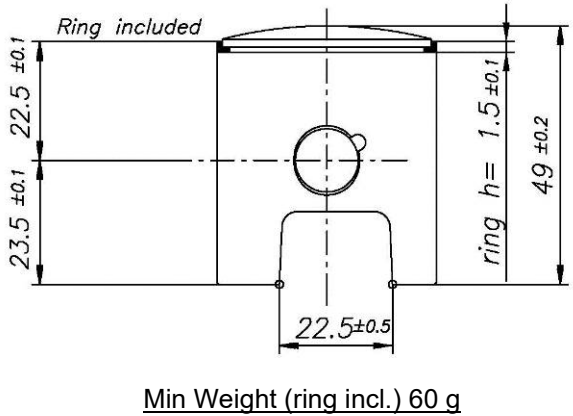
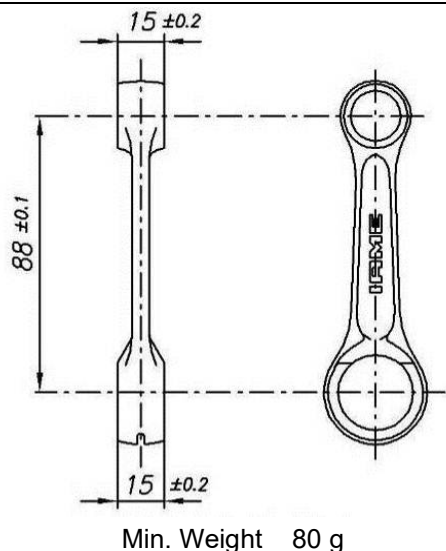


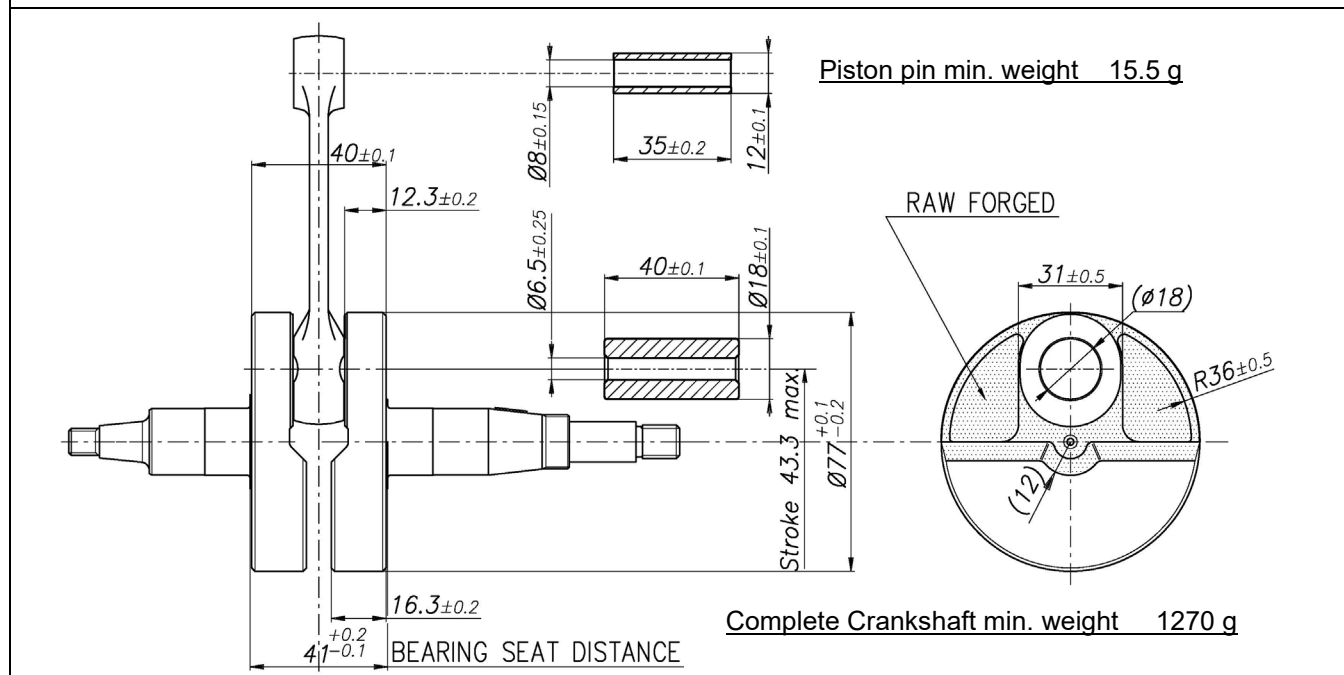
NORSWIFT 60cc – N

(NORWAY)

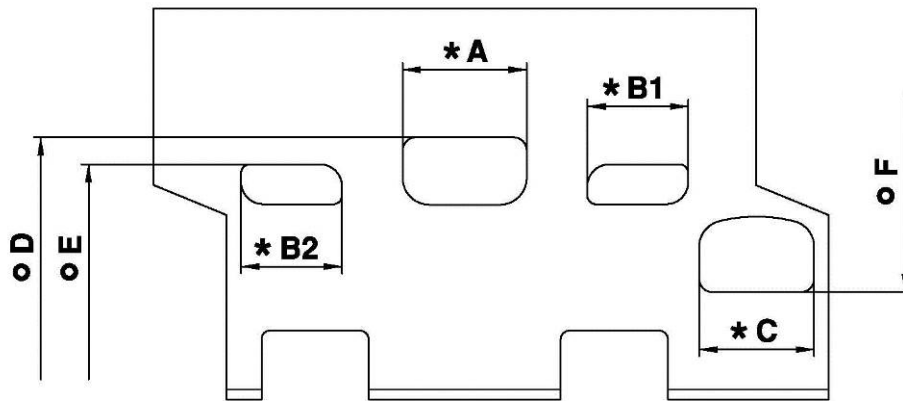
		FEATURES	
		Cylinder volume	59.42 cm ³ (60.00 cm ³ max.)
		Bore	41.80 mm
		Max. theoretical bore	42.00 mm
		Stroke	43.30 mm max.
		Cooling system	Air
		Inlet system	Piston Port
		Number of carbs	1
Tillotson Carburettors HW -	47A Ø15mm (CADETTI CLASS) 34B Ø17mm (MINI CLASS)	Transfers n. cylinder/crankcase	2 / 2
Number of piston rings	1	Inlet / exhaust ports number	1 / 1
Big end conrod ball-bearing diam.	18x24x15	Combustion chamber shape	Spherical
Crankshaft ball-bearing diam.	20x47x14	Selettra ignition	Cod. A-61959N (lim. 12.000 rpm CADETTI CLASS) Cod. A-61959R (lim. 13.500 rpm MINI CLASS)
Small end conrod ball-bearing diam.	12x16x16	Distance between conrod centres	88 mm

DESCRIPTION OF THE MATERIAL		PISTON
Conrod material	Steel	
Crankshaft material	Steel	
Head material	Aluminium	
Cylinder material	Aluminium	
Liner material	Cast Iron	DISTANCE BETWEEN CONROD CENTERS
Crankcase material	Aluminium	
Piston material	Aluminium	
Piston rings material	Cast Iron	
Exhaust muffler material	Sheet-steel	
Ball-bearings	6204 type	

CRANKSHAFT



CYLINDER DEVELOPMENT

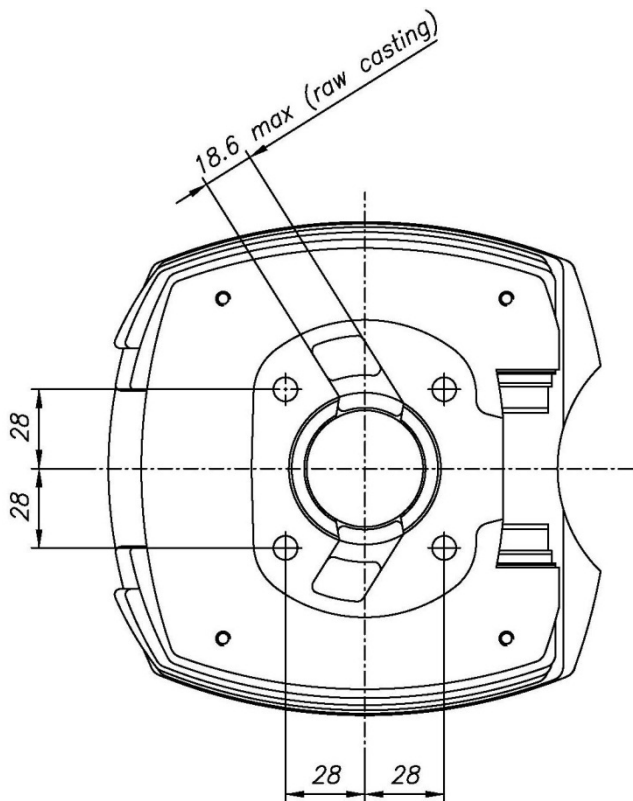


A	≤ 28.5 mm
B1 = B2	≤ 22.3 mm
C	≤ 26.5 mm
D	155.5° ± 1°
E	115.5° ± 2°
F	143.5° ± 1°

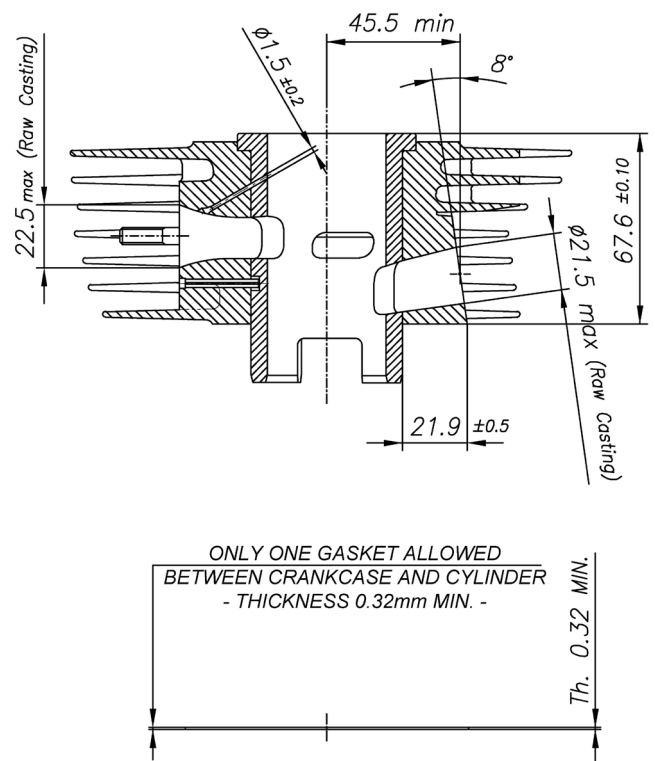
* CHORDAL READING

o ANGULAR READING BY INSERT A 0.2x5 mm GAUGE

CYLINDER BASE VIEW



CYLINDER CROSS SECTION VIEW



COMBUSTION CHAMBER VIEW

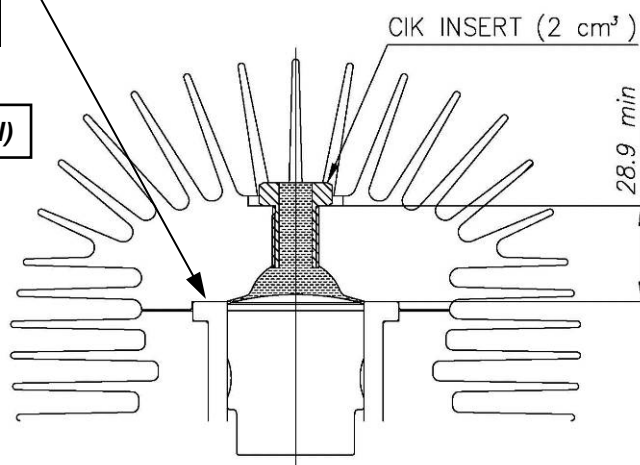
COMBUSTION CHAMBER VOLUME = 6.1 cm³ min.

SQUISH MIN.= 0.65 mm (measured with Ø1.5mm TIN)

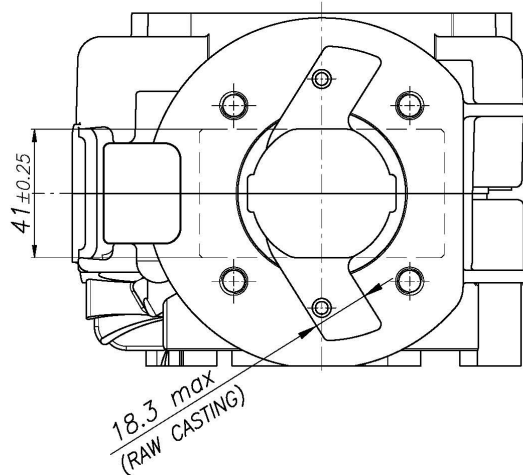
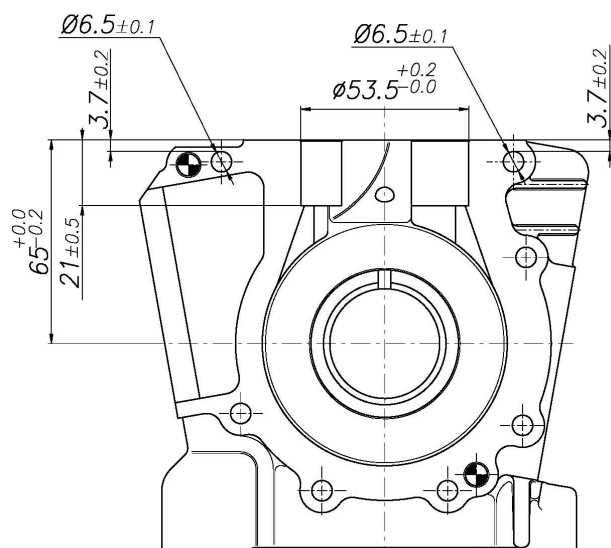
Combustion chamber volume in the cylinder head
(with Volumeter and CIK insert):

7.4 cm³ min

**NO GASKET OR SHIMS ARE ALLOWED
BETWEEN THE CYLINDER AND CYLINDER HEAD**

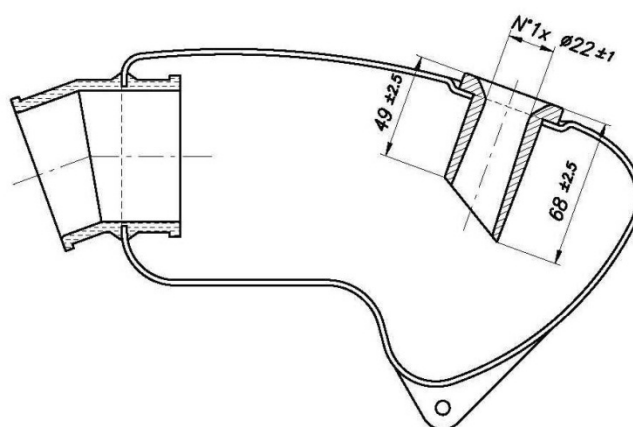


CRANKCASE INSIDE VIEW

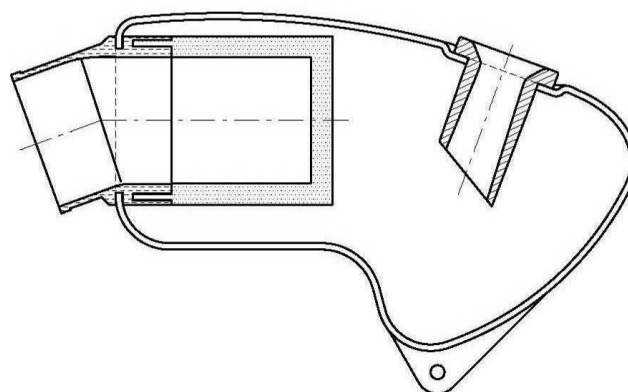


INLET SILENCER

(CSAI Hom. N° 01/SA/14)



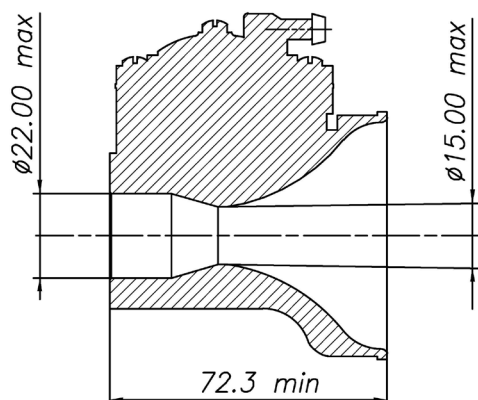
IN ALTERNATIVE (OPTIONAL)



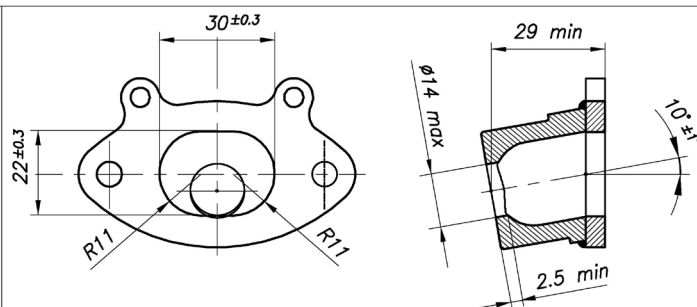
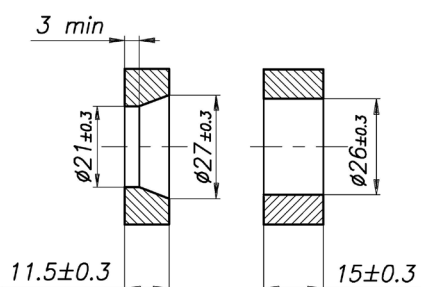
CARBURETTORS, INLET SILENCER SUPPORTS AND EXHAUST MANIFOLDS
FOR "MINI" VERSION AND "CADETTI" VERSION

CADETTI Class

Tillotson HW-47A



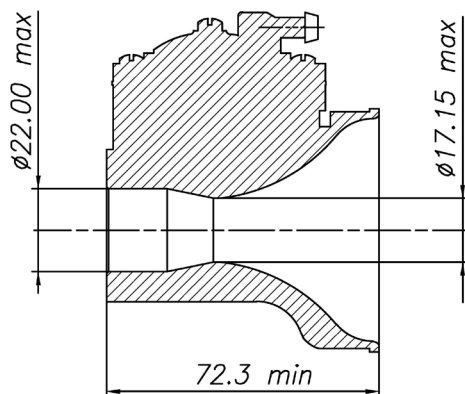
THERMAL SPACERS



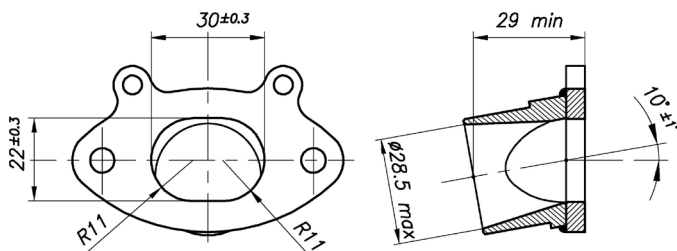
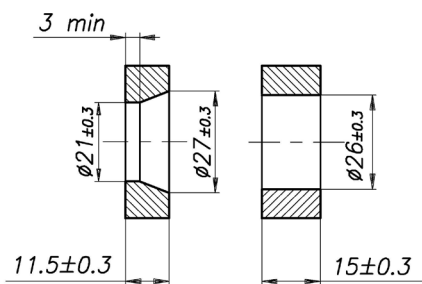
ONLY ONE EXHAUST GASKET ALLOWED

MINI Class

Tillotson HW-34B



THERMAL SPACERS

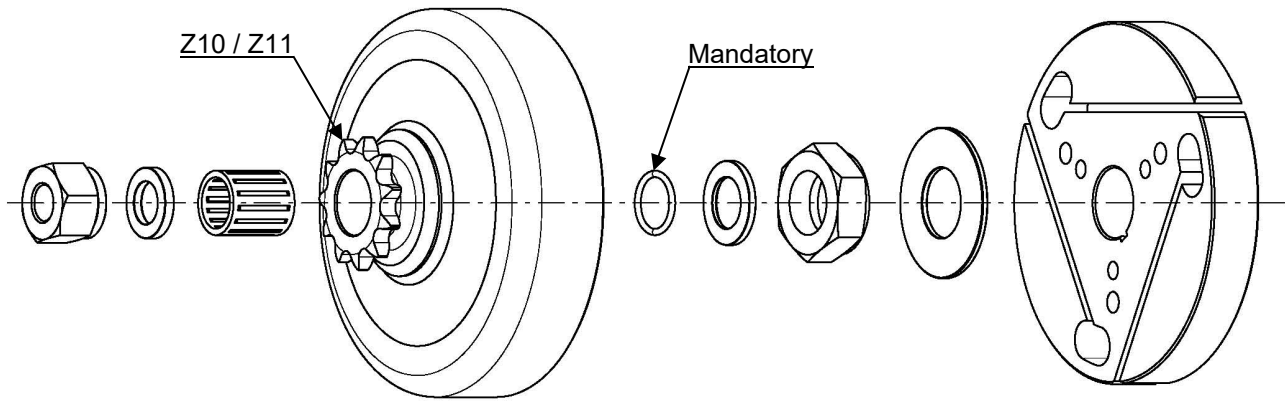


ONLY ONE EXHAUST GASKET ALLOWED

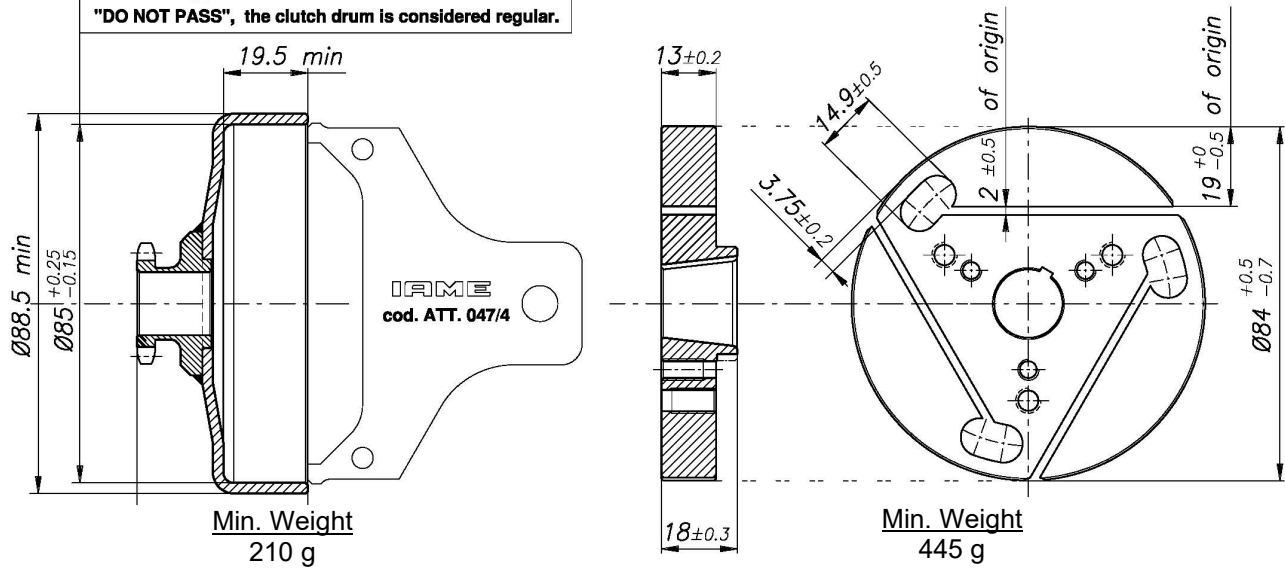
PHOTO IDENTIFICATION MARKING SPONGE FILTER (OPTIONAL)



DESCRIPTION OF THE CLUTCH

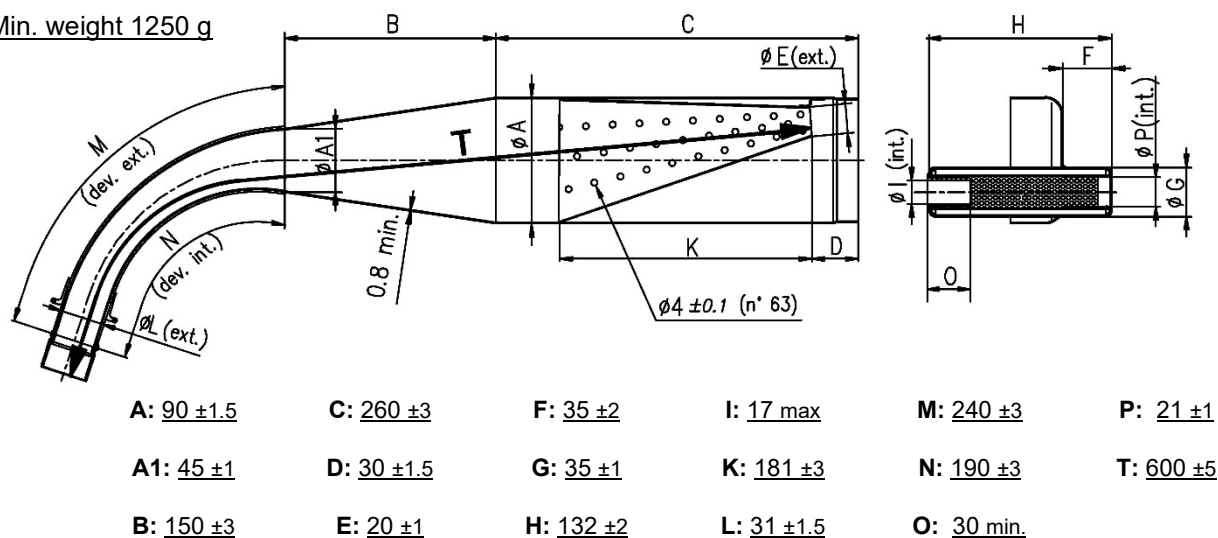


The template "N.P." must be used in multiple directions.
In case it happen that in a direction "PASS" and another,
"DO NOT PASS", the clutch drum is considered regular.

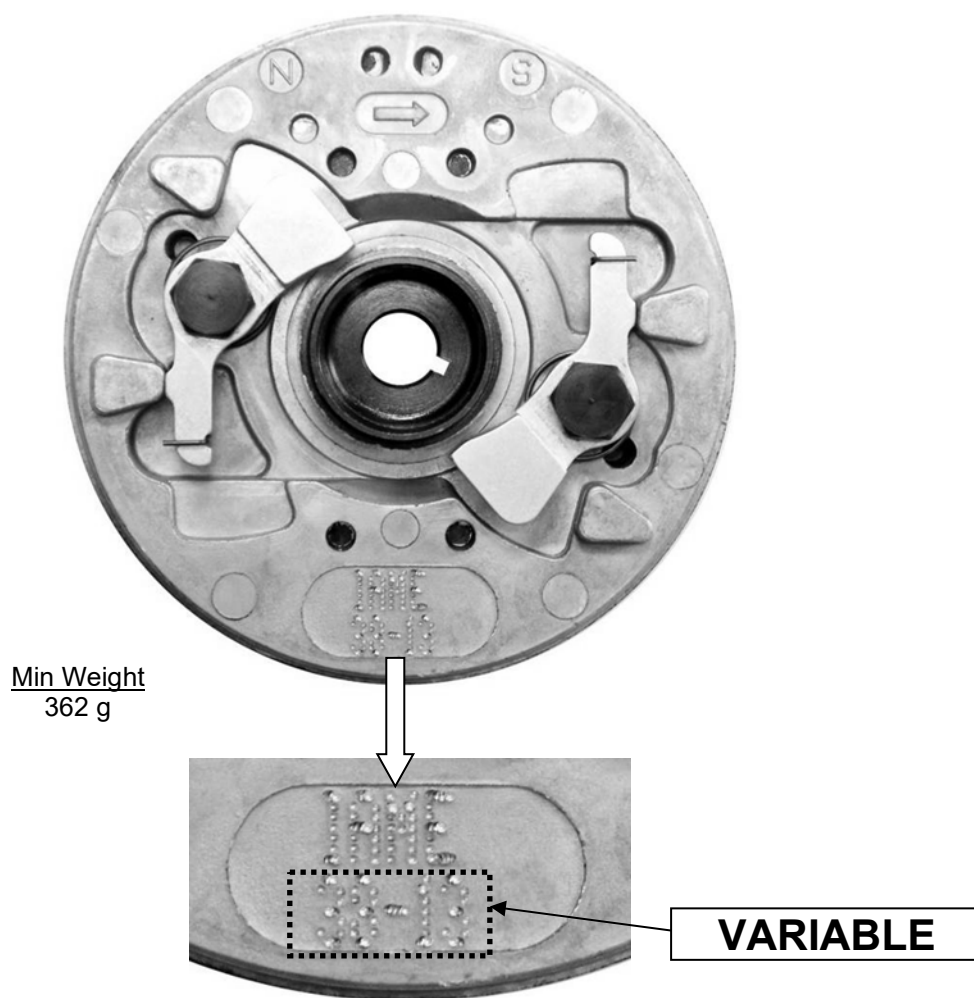


EXHAUST MUFFLER VIEW AND DIMENSIONS

Min. weight 1250 g



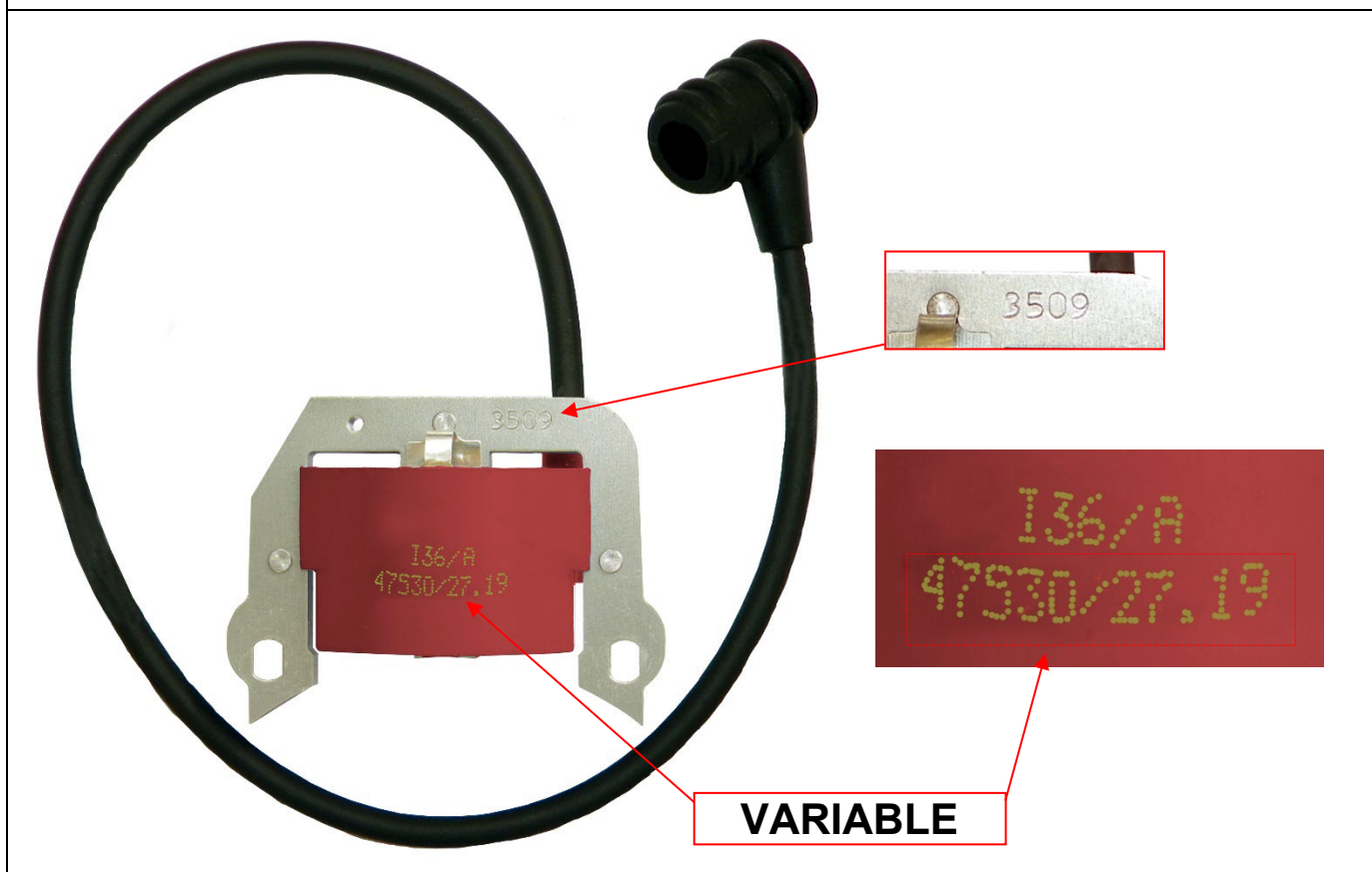
IGNITION PHOTO IDENTIFICATION MARKING



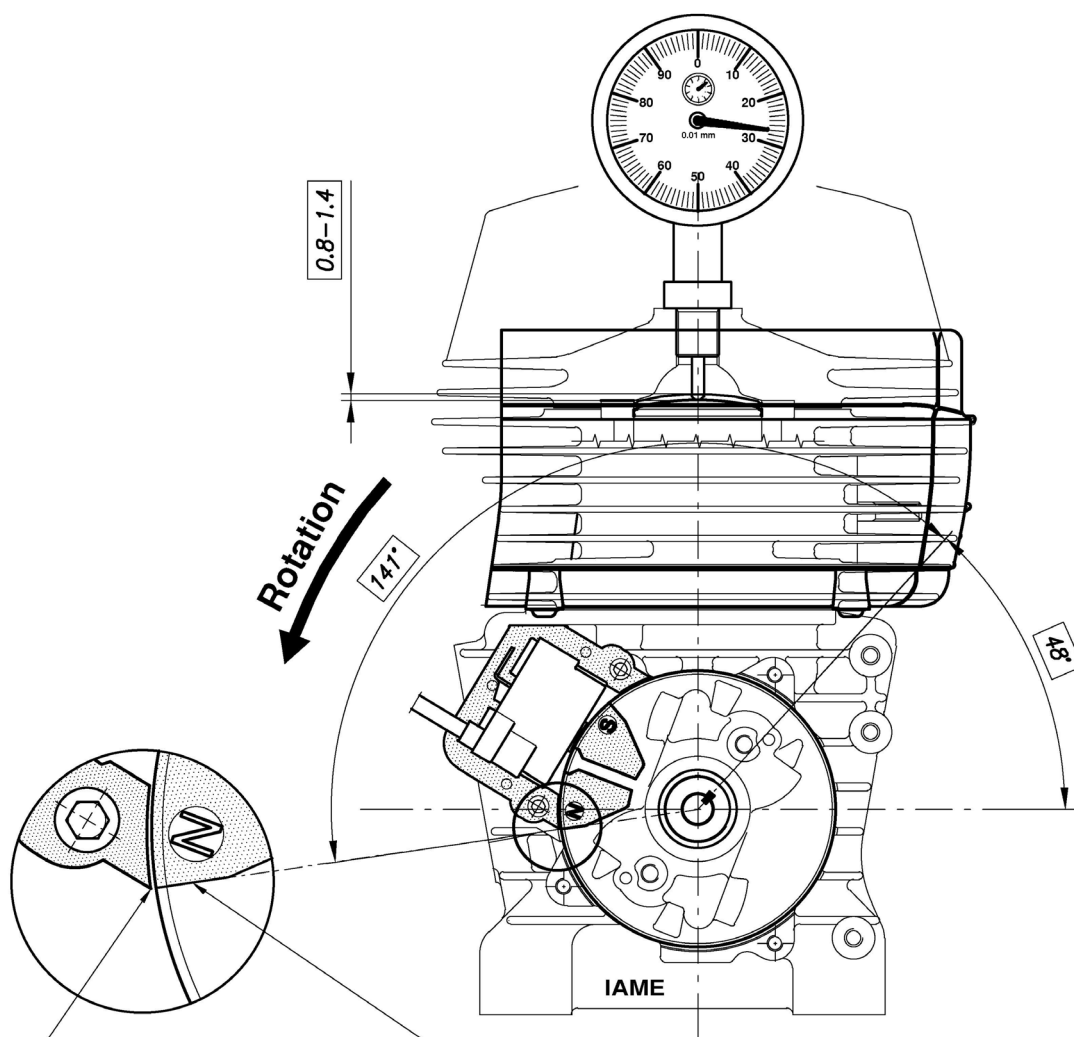
CADETTI CLASS - H.T. COIL PHOTO IDENTIFICATION MARKING – cod. A-61959N



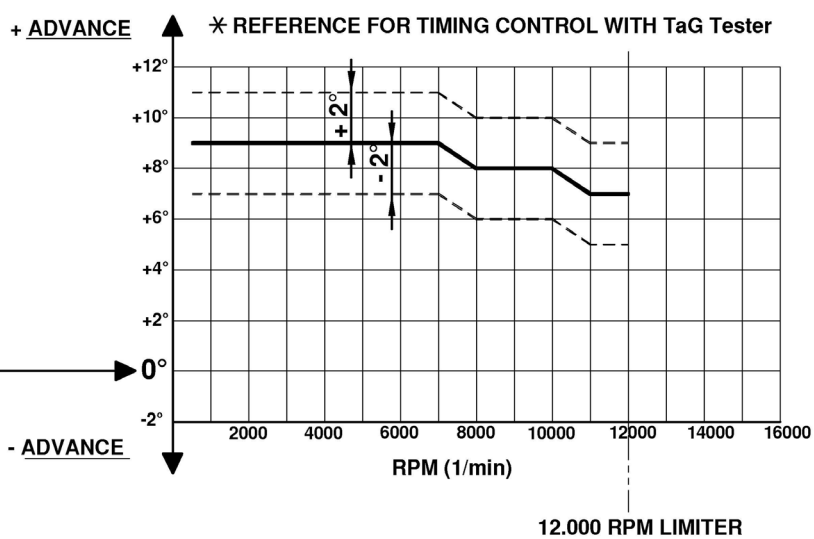
MINI CLASS - H.T. COIL PHOTO IDENTIFICATION MARKING – cod. A-61959R



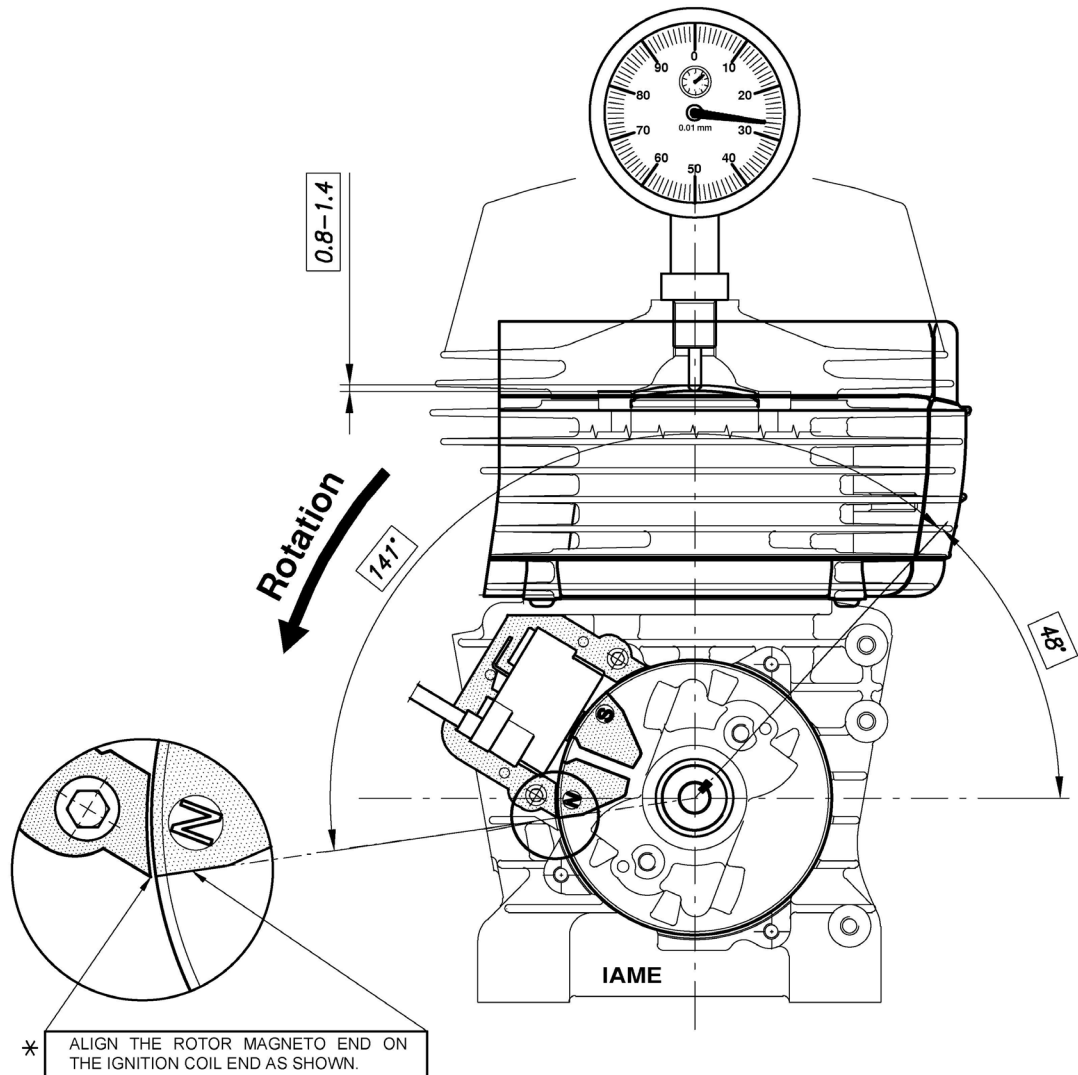
SCHEME FOR ADVANCE CONTROL – CADETTI CLASS



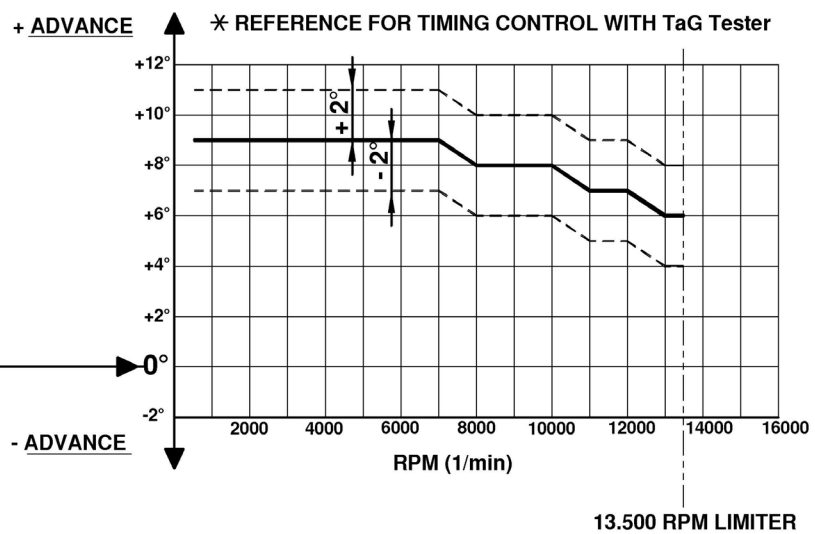
ADVANCE CURVE GRAPHS



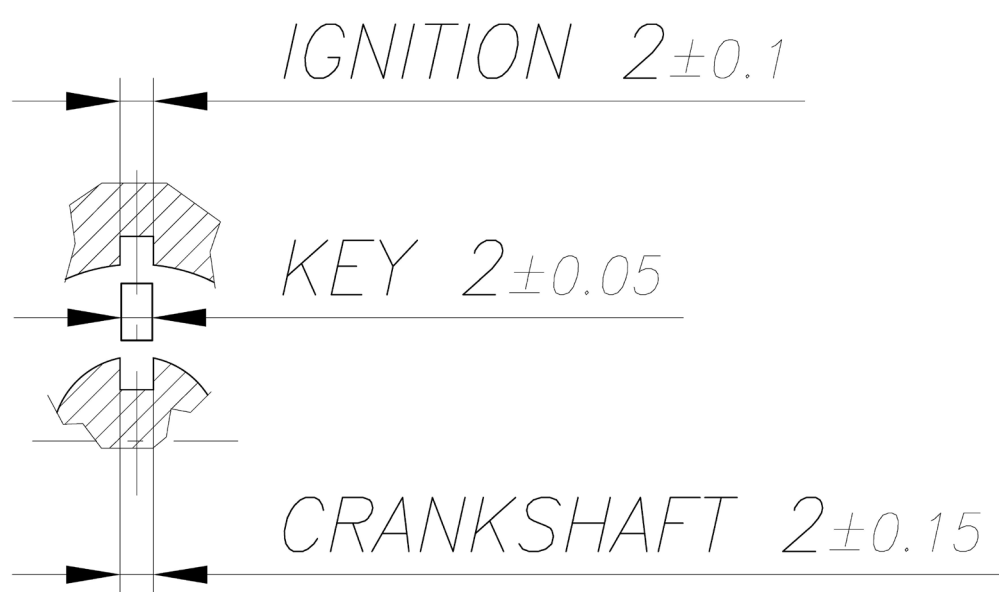
SCHEME FOR ADVANCE CONTROL – MINI CLASS



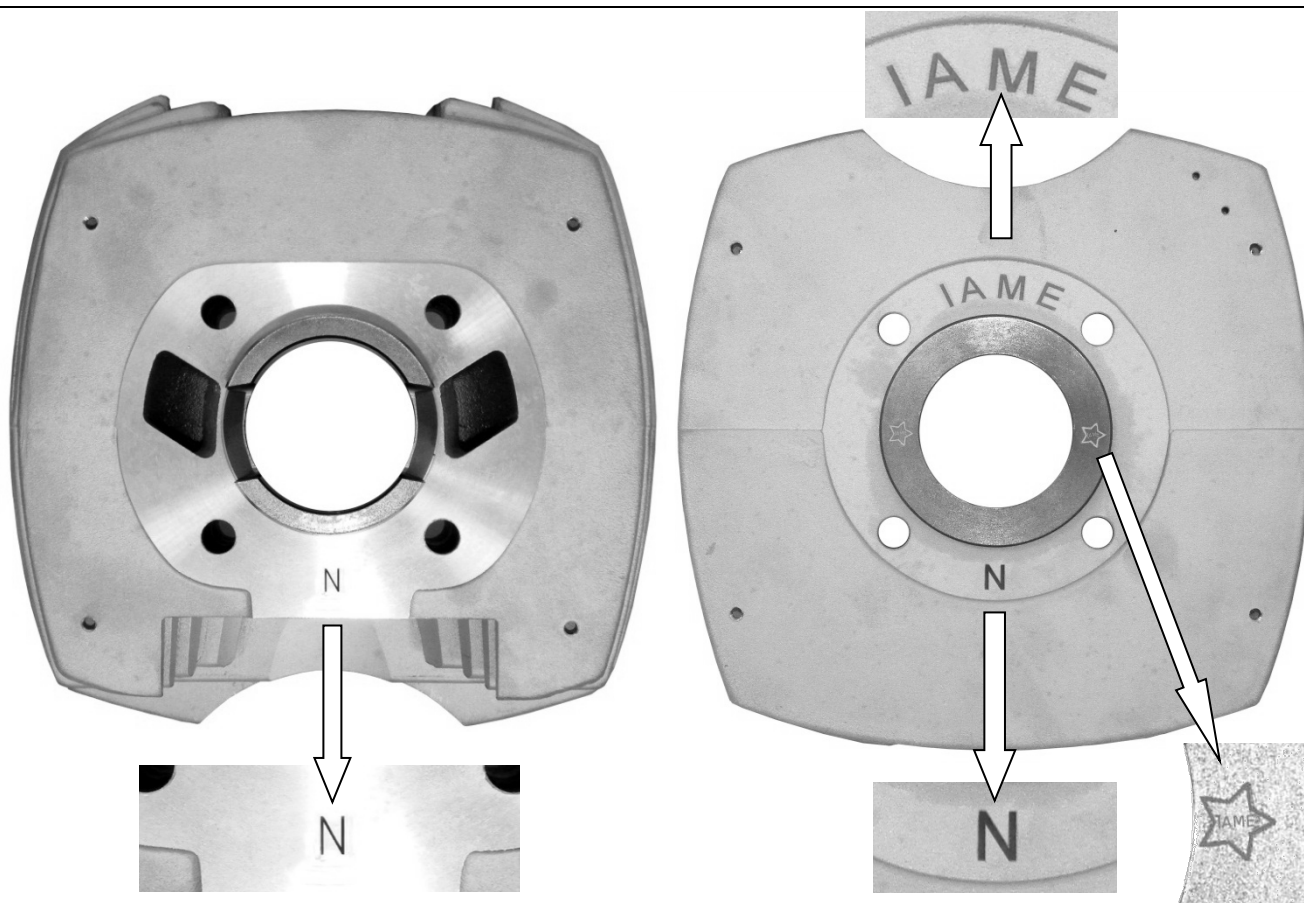
ADVANCE CURVE GRAPHS



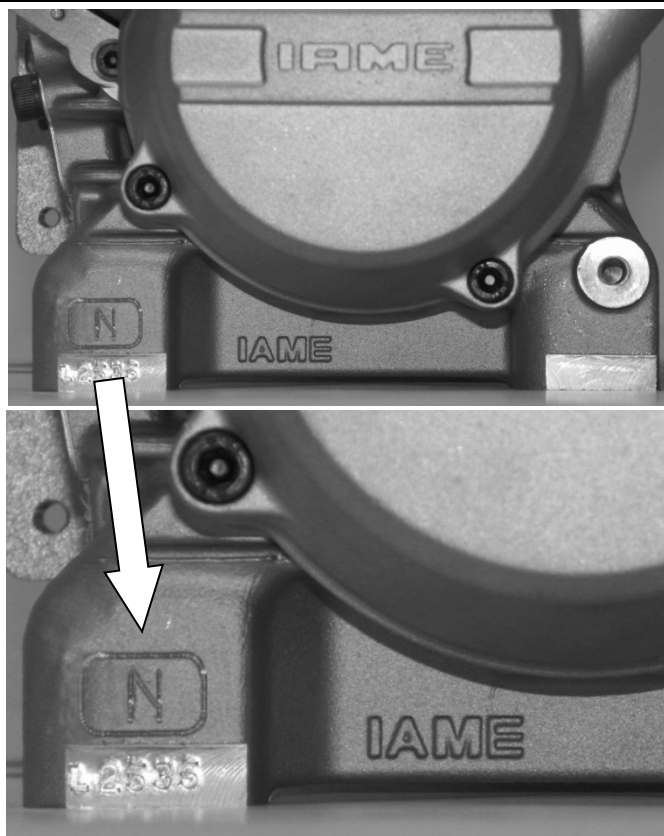
CHECKING DIMENSIONS OF IGNITION-CRANKSHAFT CONNECTION



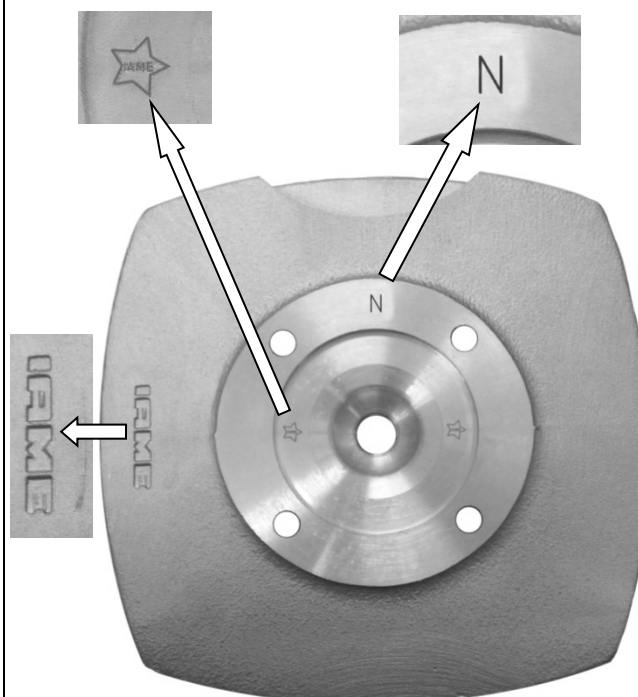
CYLINDER IDENTIFICATION MARKING

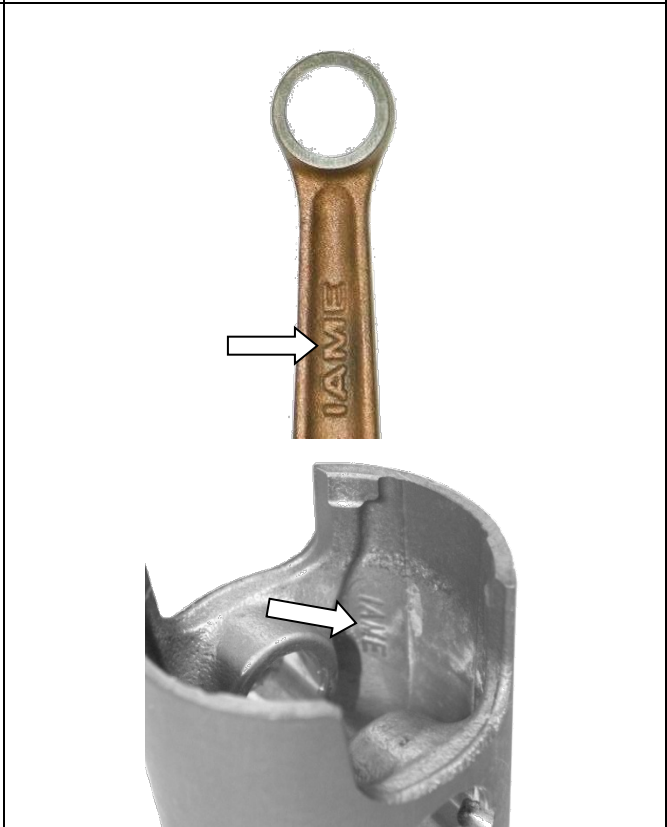
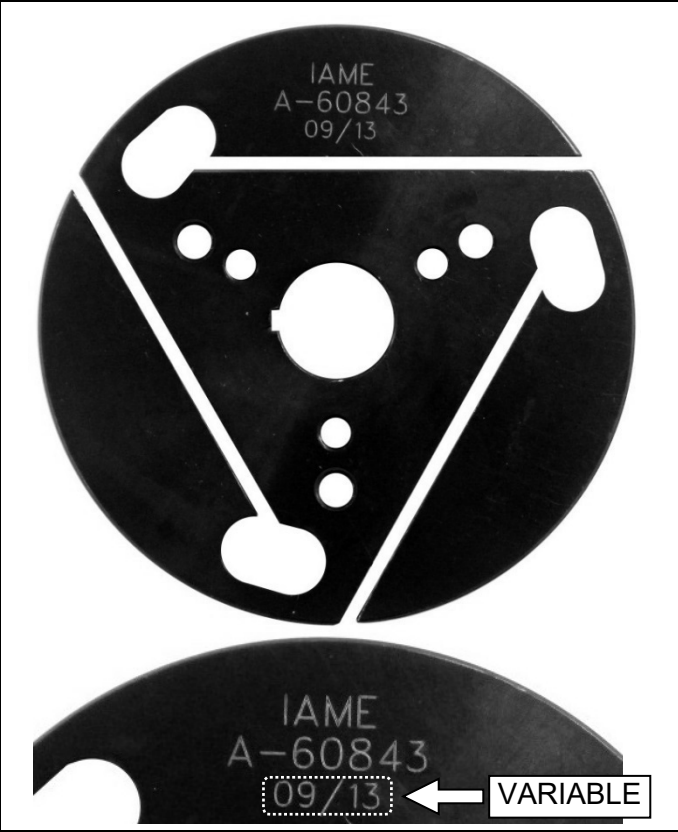
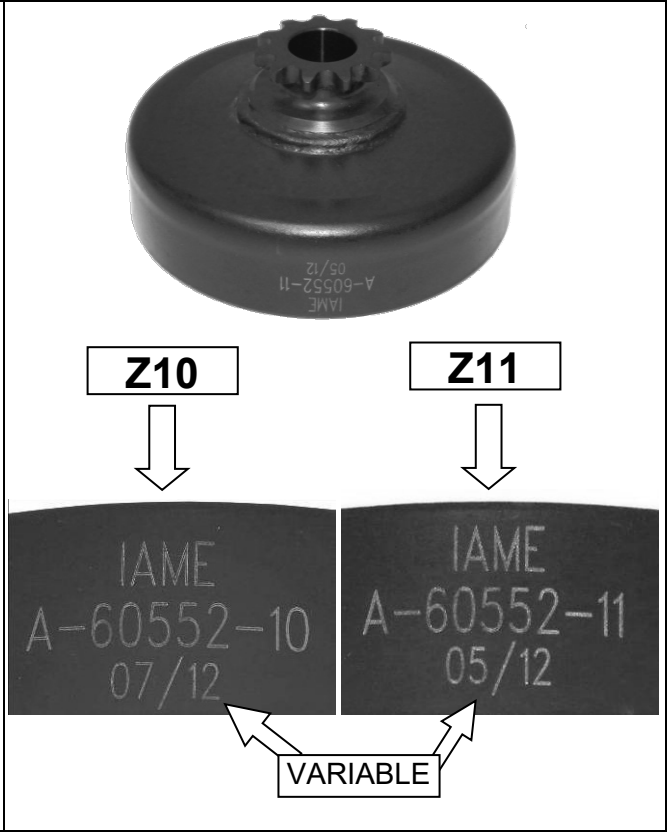


CRANKCASE IDENTIFICATION MARKING

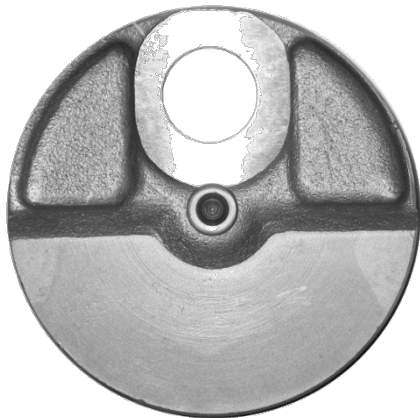


HEAD IDENTIFICATION MARKING



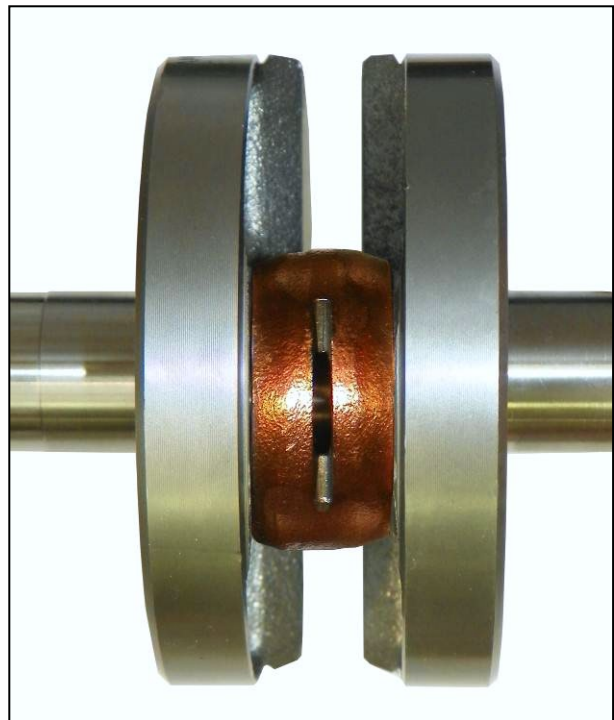
EXHAUST IDENTIFICATION MARKING	CONROD / PISTON IDENTIFICATION MARKINGS
 The image shows a black exhaust pipe and manifold. An arrow points from the pipe to a close-up of the manifold, which has the 'IAME' logo stamped on it.	 The image shows a conrod and a piston. An arrow points to the conrod, which has the 'IAME' logo stamped on it. Another arrow points to the piston, which also has the 'IAME' logo stamped on it.
CLUTCH HUB IDENTIFICATION MARKING	CLUTCH DRUM IDENTIFICATION MARKING
 The image shows a clutch hub with the 'IAME' logo and 'A-60843 09/13' stamped on it. An arrow points to a close-up of the hub, which has the 'IAME' logo and 'A-60843 09/13' stamped on it. A 'VARIABLE' label with an arrow points to the date '09/13'.	 The image shows a clutch drum with the 'IAME' logo and 'A-60552-11 05/12' stamped on it. Two arrows labeled 'Z10' and 'Z11' point to close-ups of the drum. The 'Z10' close-up shows 'IAME A-60552-10 07/12' and the 'Z11' close-up shows 'IAME A-60552-11 05/12'. A 'VARIABLE' label with an arrow points to the date '05/12'.

CRANKSHAFT PHOTOS



CRANKSHAFT IDENTIFICATION MARKING

COMPLETE CRANKSHAFT DETAIL



BALL BEARING IDENTIFICATION MARKING



ALTERNATIVE CLUTCH DRUM PHOTO & IDENTIFICATION MARKING



PHOTO IDENTIFICATION OF CONROD – TYPES ALTERNATIVE

TYPE 1



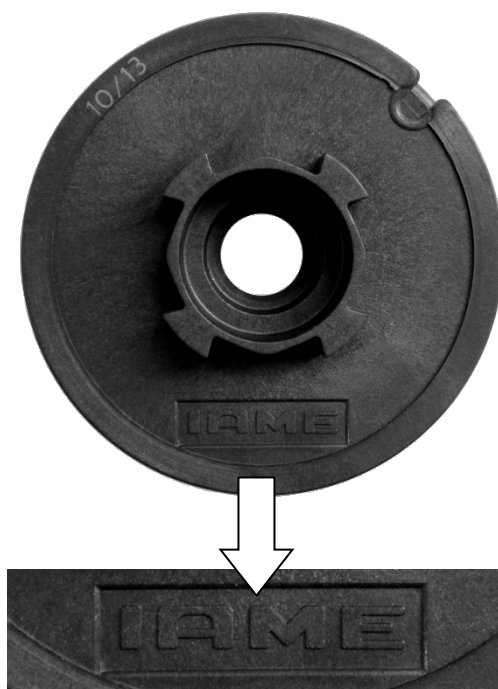
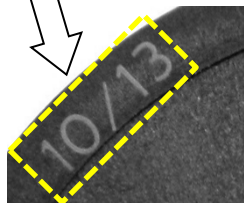
TYPE 2



PHOTO IDENTIFICATION OF PULLEY – TYPES ALTERNATIVE

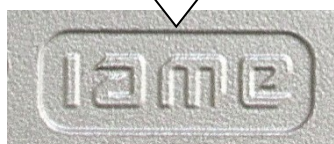
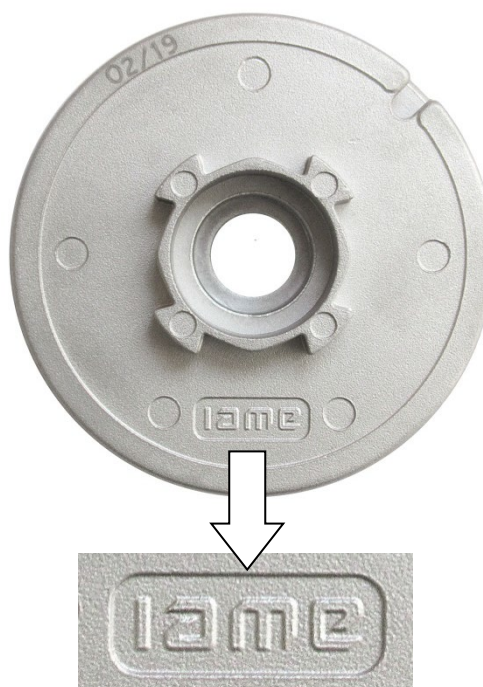
TYPE 1 - PLASTIC

VARIABLE



TYPE 2 - ALUMINUM

VARIABLE



ALTERNATIVE IGNITION ROTOR

TYPE 1

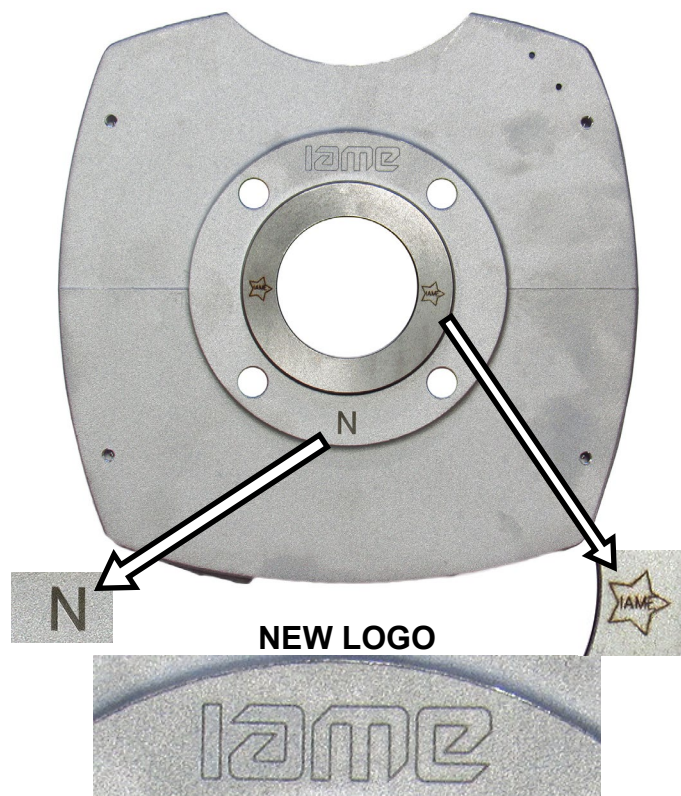
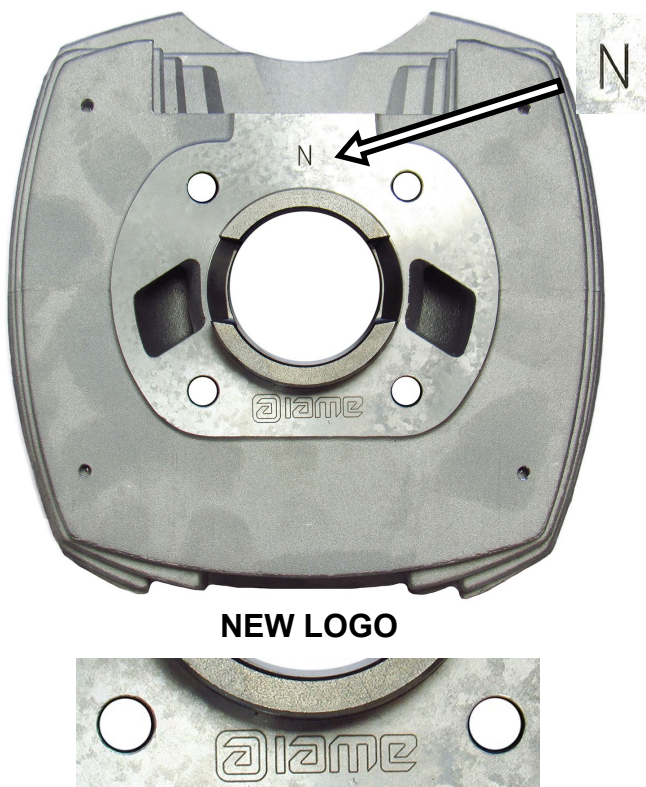


TYPE 2

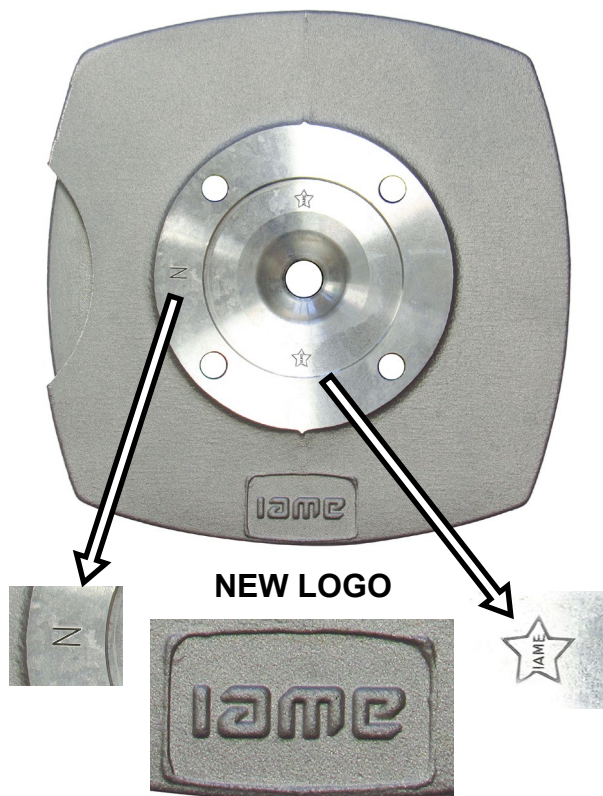


PARTICULARS WITH ALTERNATIVE NEW LOGO “IAME”

CYLINDER



CYLINDER HEAD

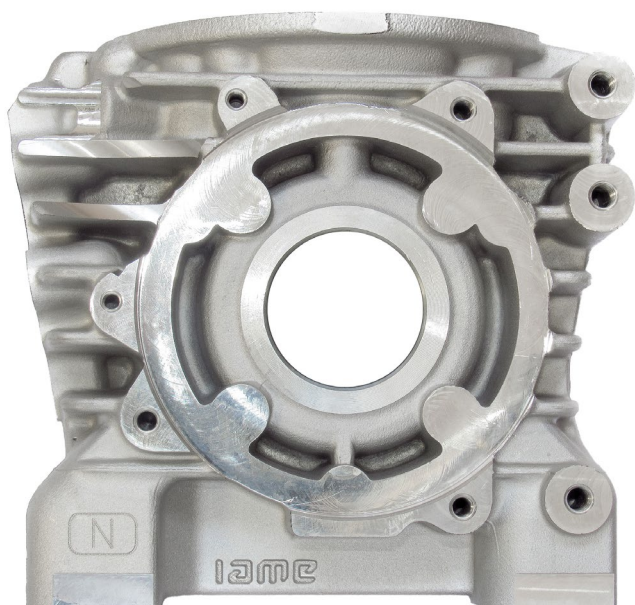


INLET FILTER



PARTICULARS WITH ALTERNATIVE NEW LOGO “IAME”

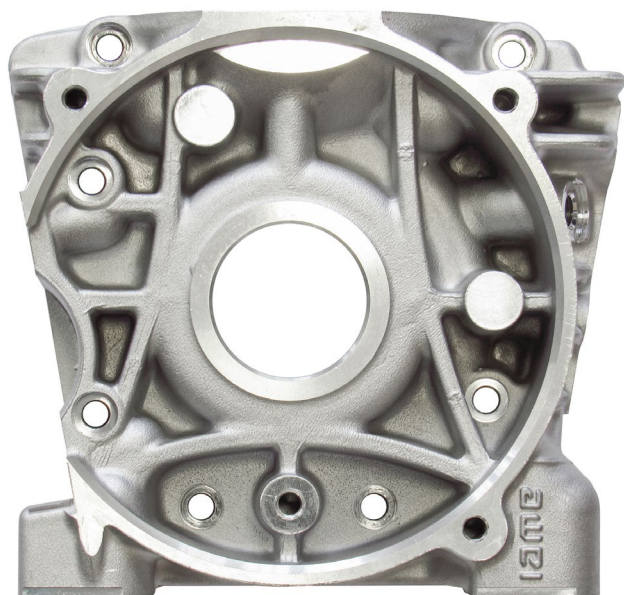
SEMICARTER IGNITION SIDE



NEW LOGO



SEMICARTER TRANSMISSION SIDE



NEW LOGO



COMPONENTS WITH ALTERNATIVE NEW LOGO “IAME”

RECOIL COVER



NEW LOGO



CLUTCH COVER



NEW LOGO



EXHAUST



NEW LOGO



THE OTHER COMPONENTS OF ENGINE THAT ARE MARKED (LASER OR PUNCHING) UNTIL TODAY WITH LOGO OR WRITTEN "IAME"

IAME

or

IAME

NOW COULD BE MARKED WITH NEW LOGO "IAME"

IAME

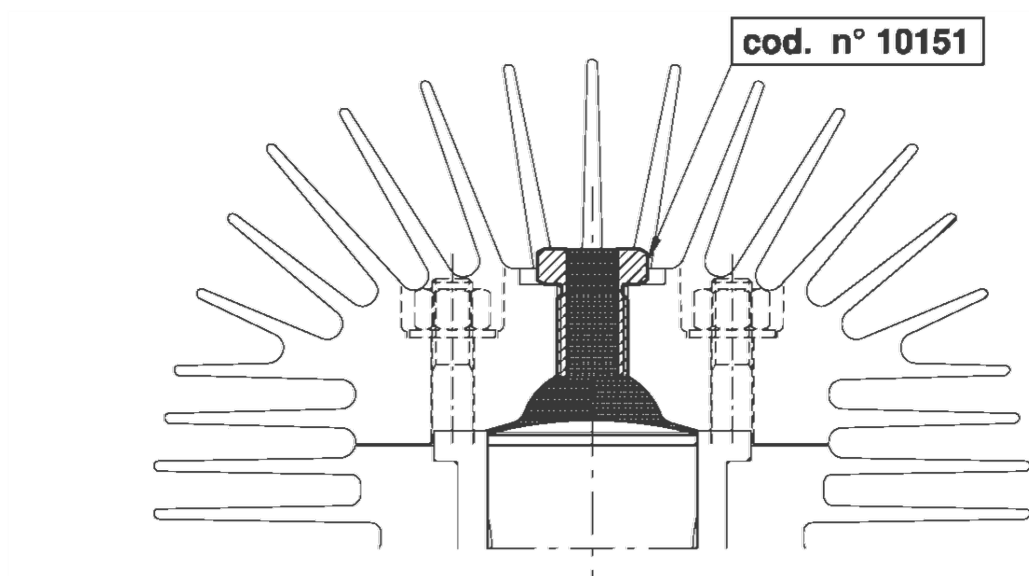
or

IAME

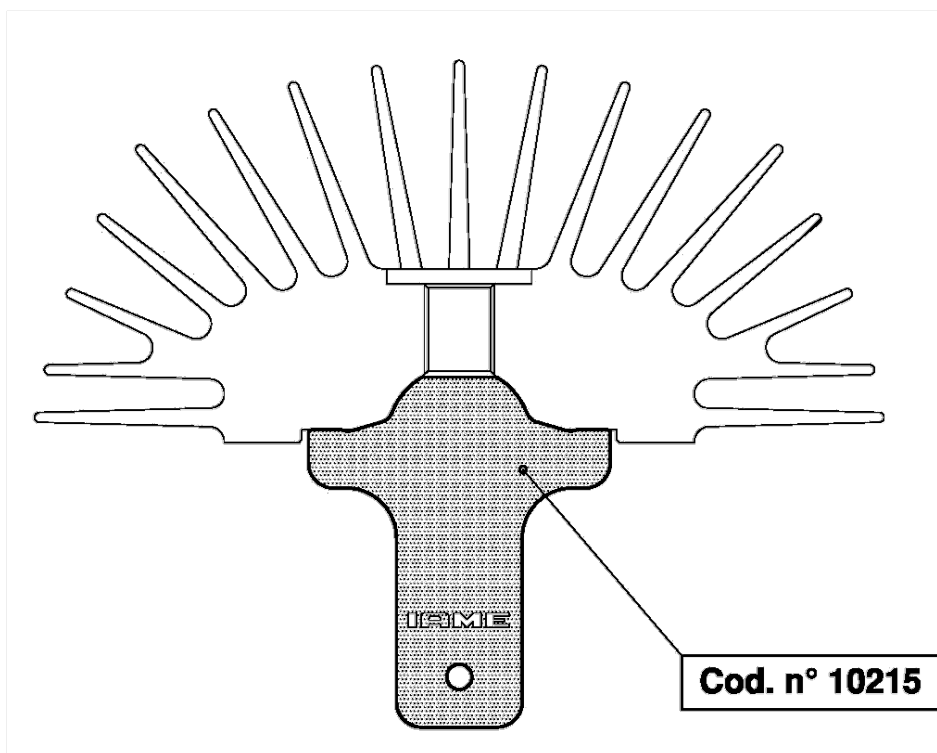
or

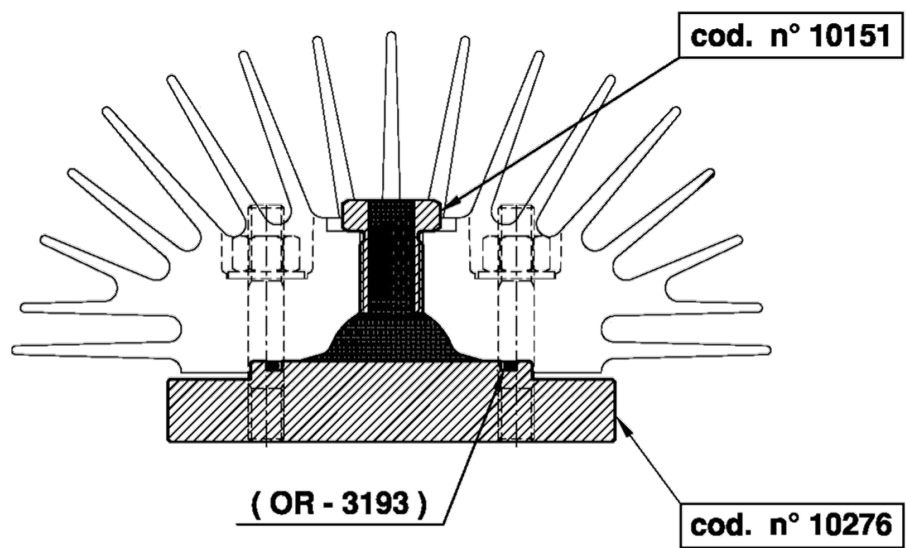


CHECKING TOOLS



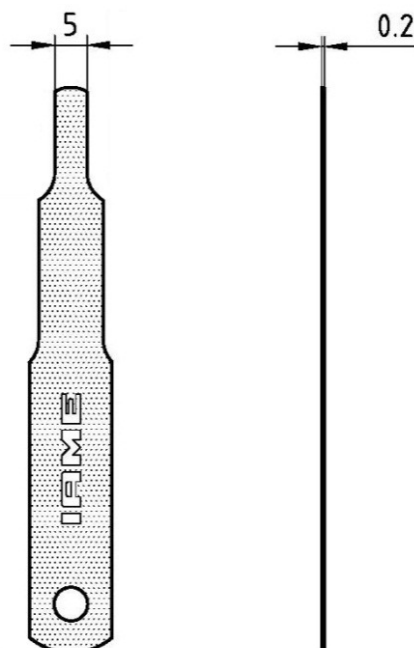
WITH PISTON AT T.D.C. + INSERT

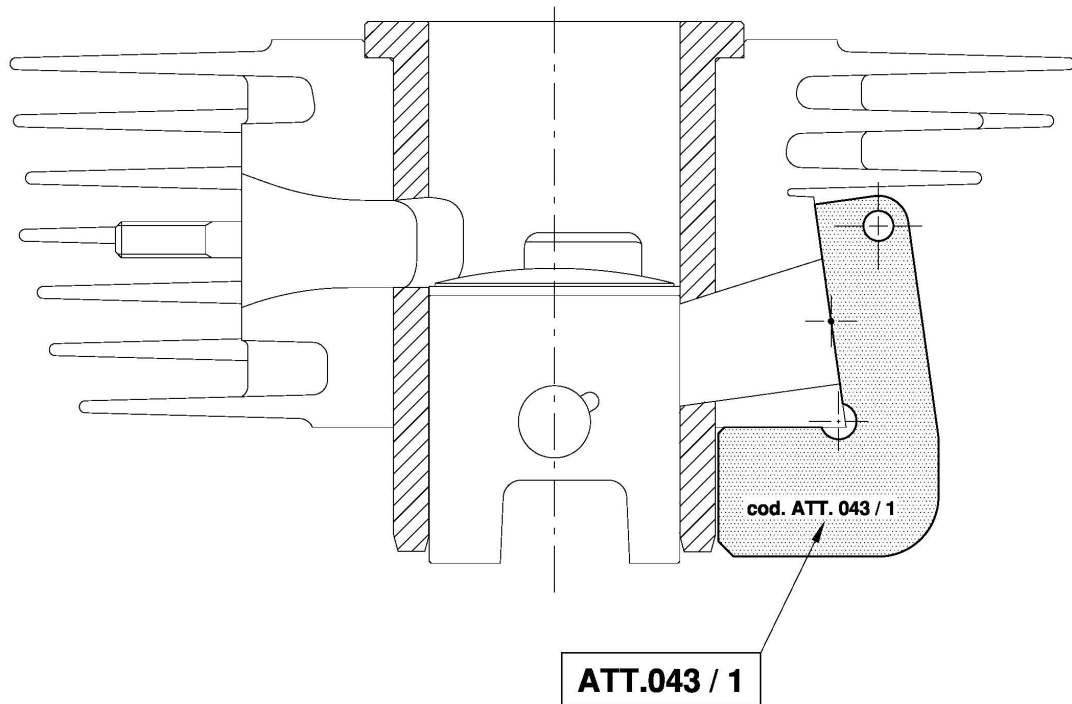




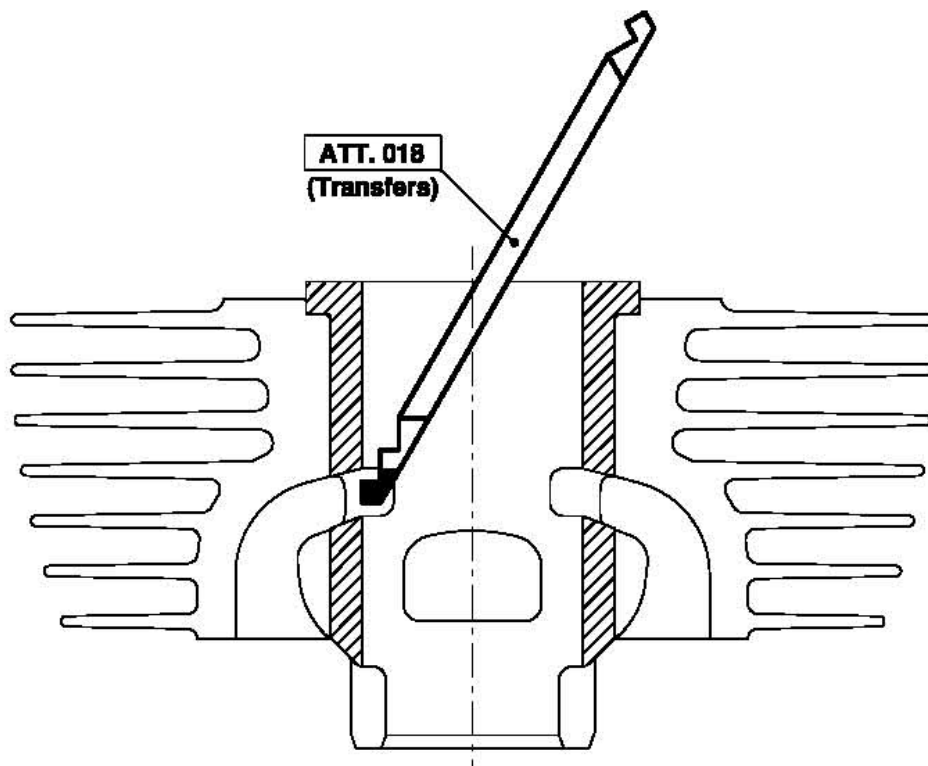
WITH VOLUMETER + INSERT

TOOL IAME Cod. 10194

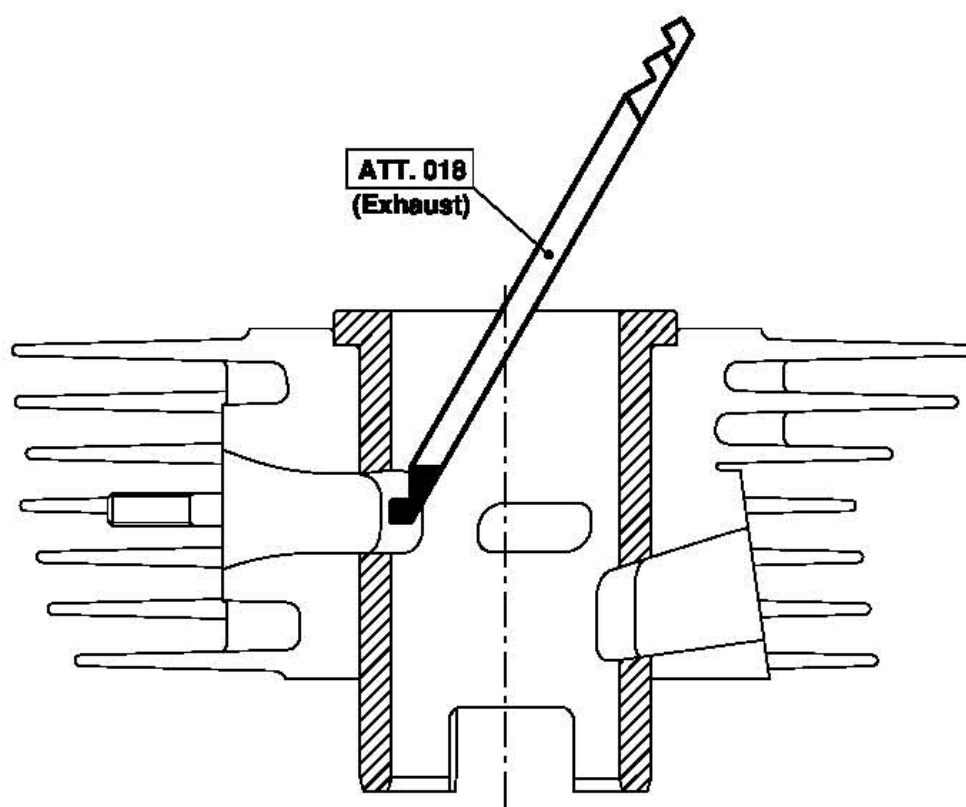
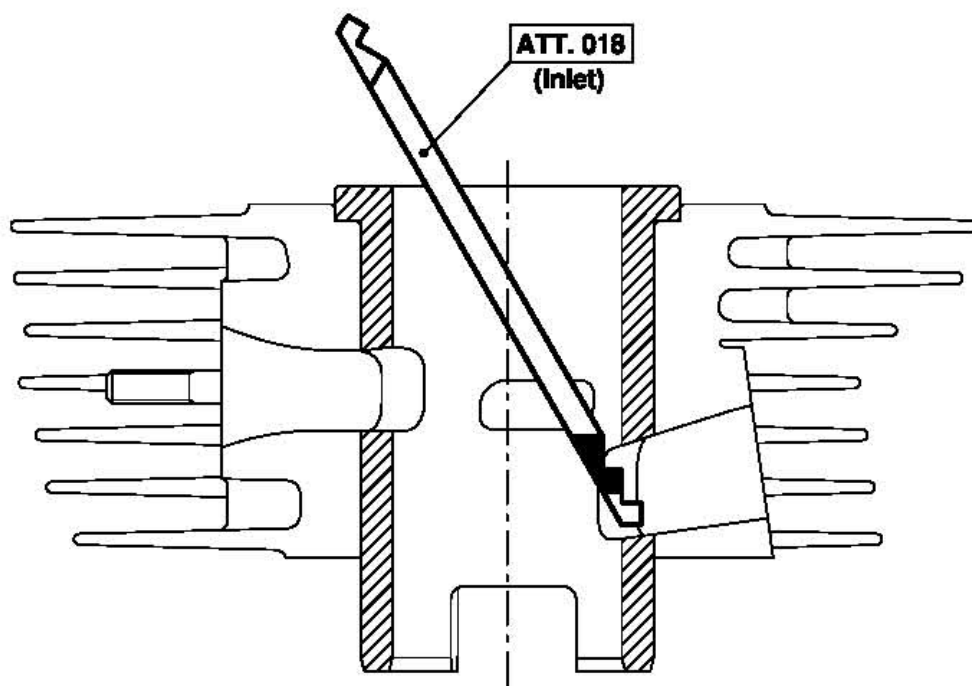




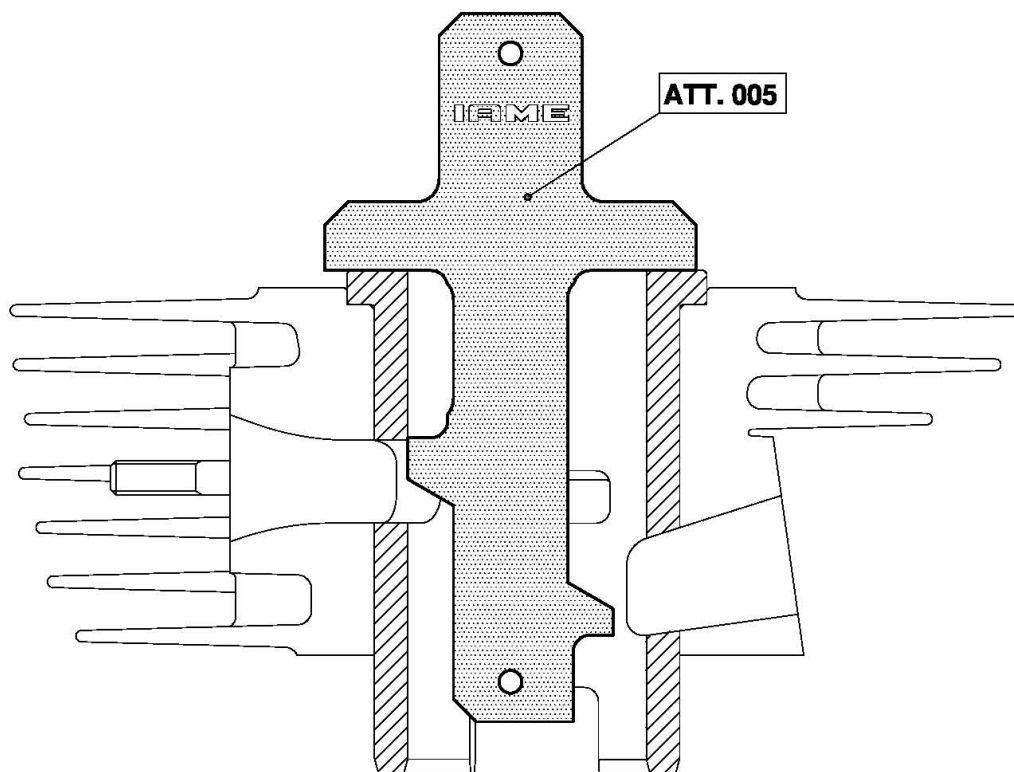
CHECK THAT THE GAUGE DOESN'T TOUCH THE LINER



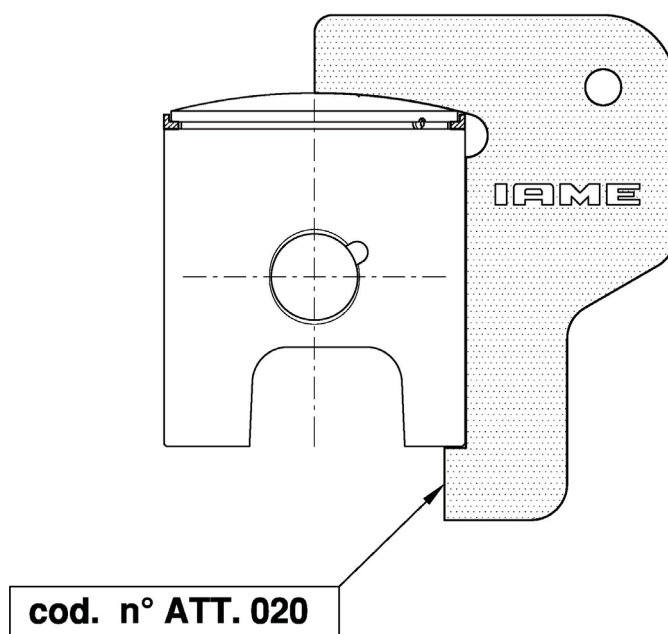
CHECK THAT THE TOOL DOES NOT ENTER INTO THE TRANSFERS DUCT.

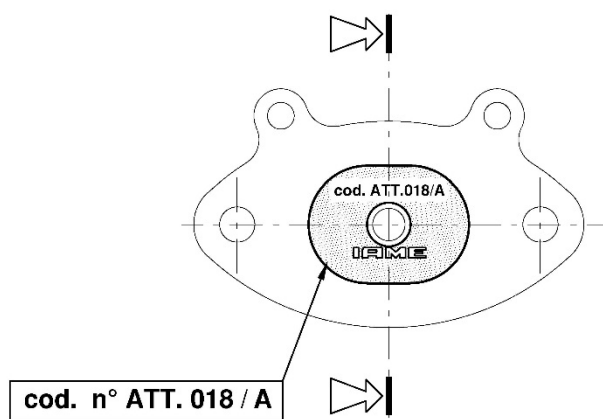
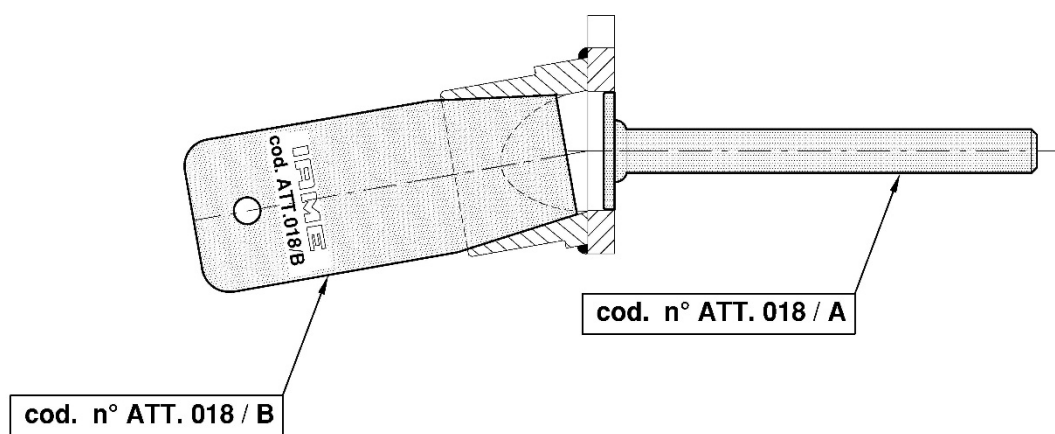


CHECK THAT THE TOOL DOES NOT ENTER INTO THE INLET AND EXHAUST PORTS.

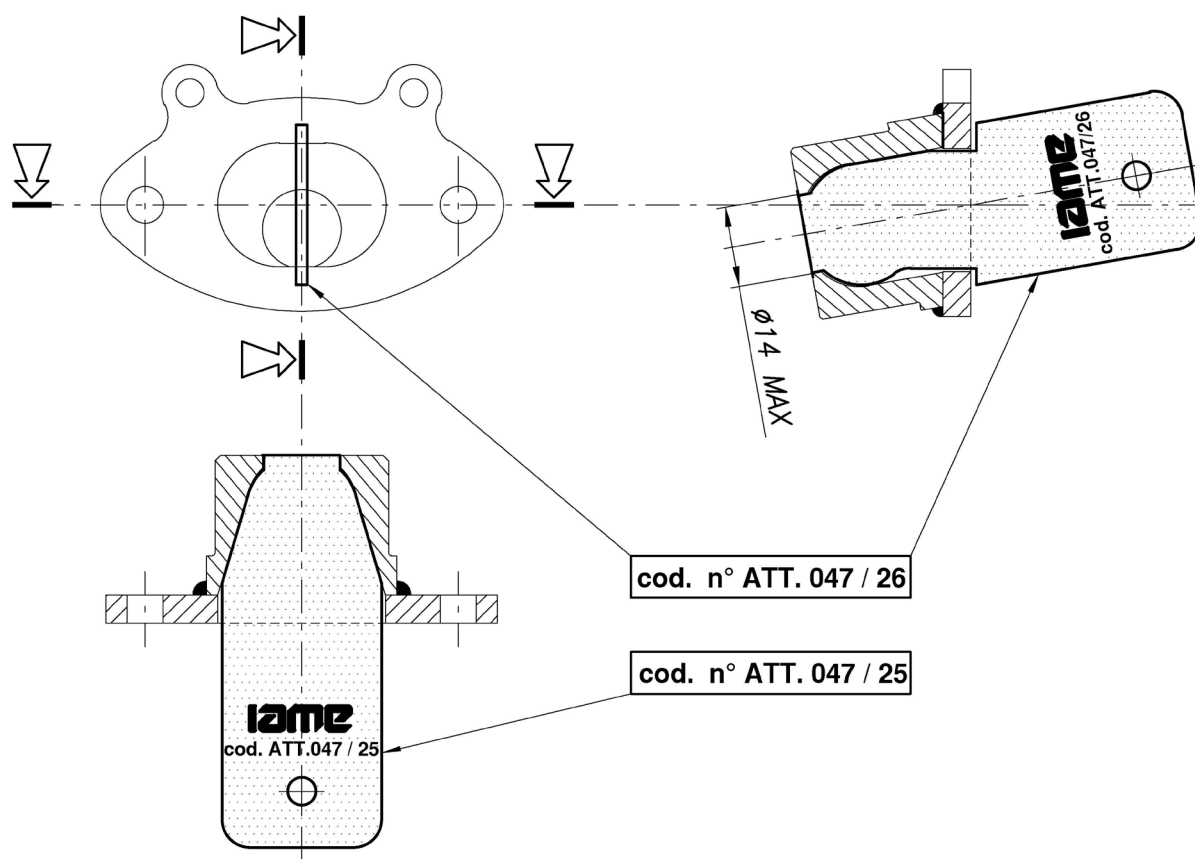


CHECK THAT THE TOOL DOES NOT ENTER INTO THE EXHAUST AND INLET PORTS

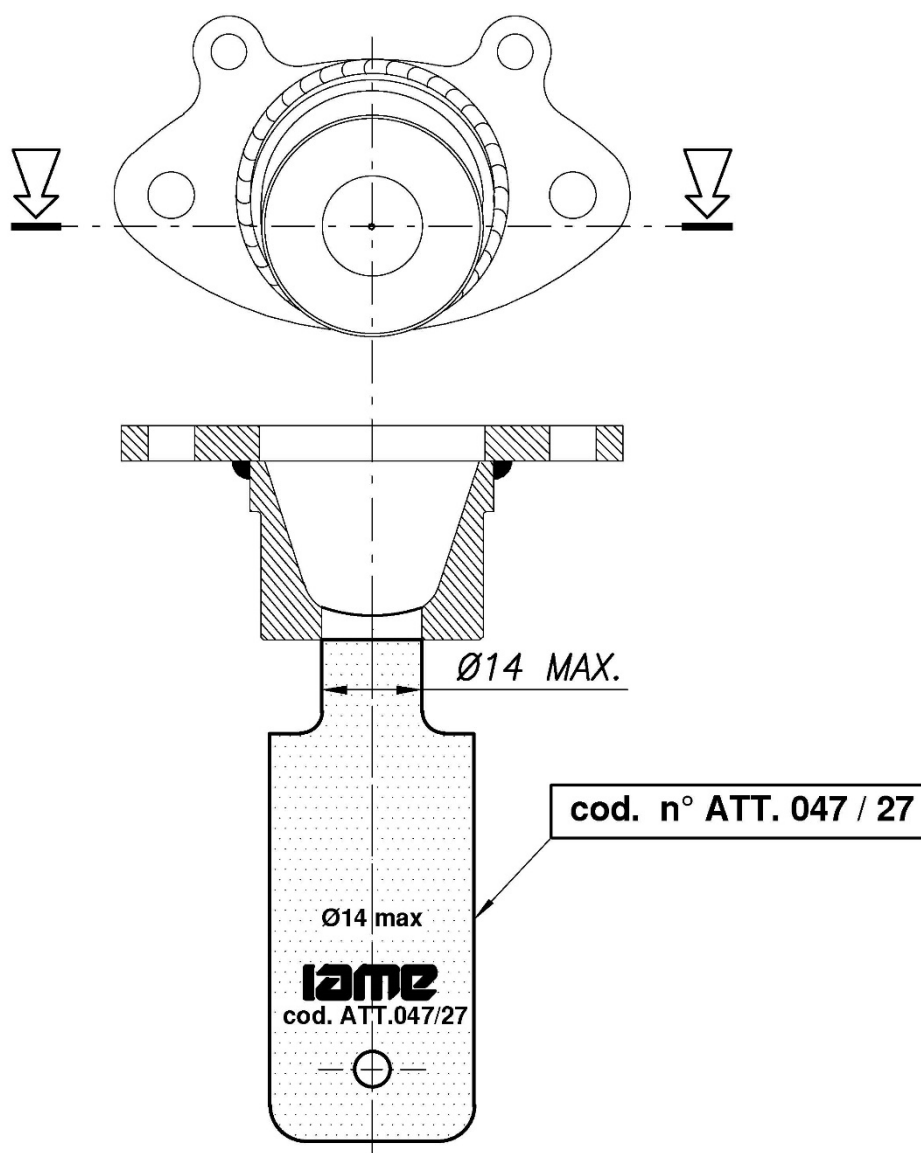




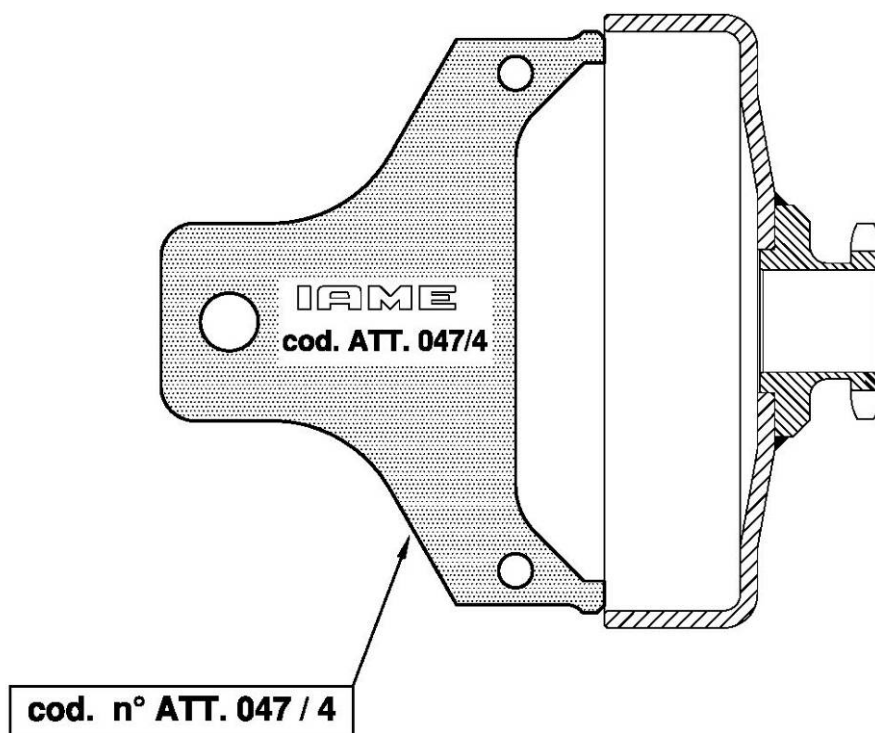
**CHECK THAT THE TOOL MUST BE THE SAME SHAPE OF THE EXHAUST
MANIFOLD.
(MINI CLASS)**



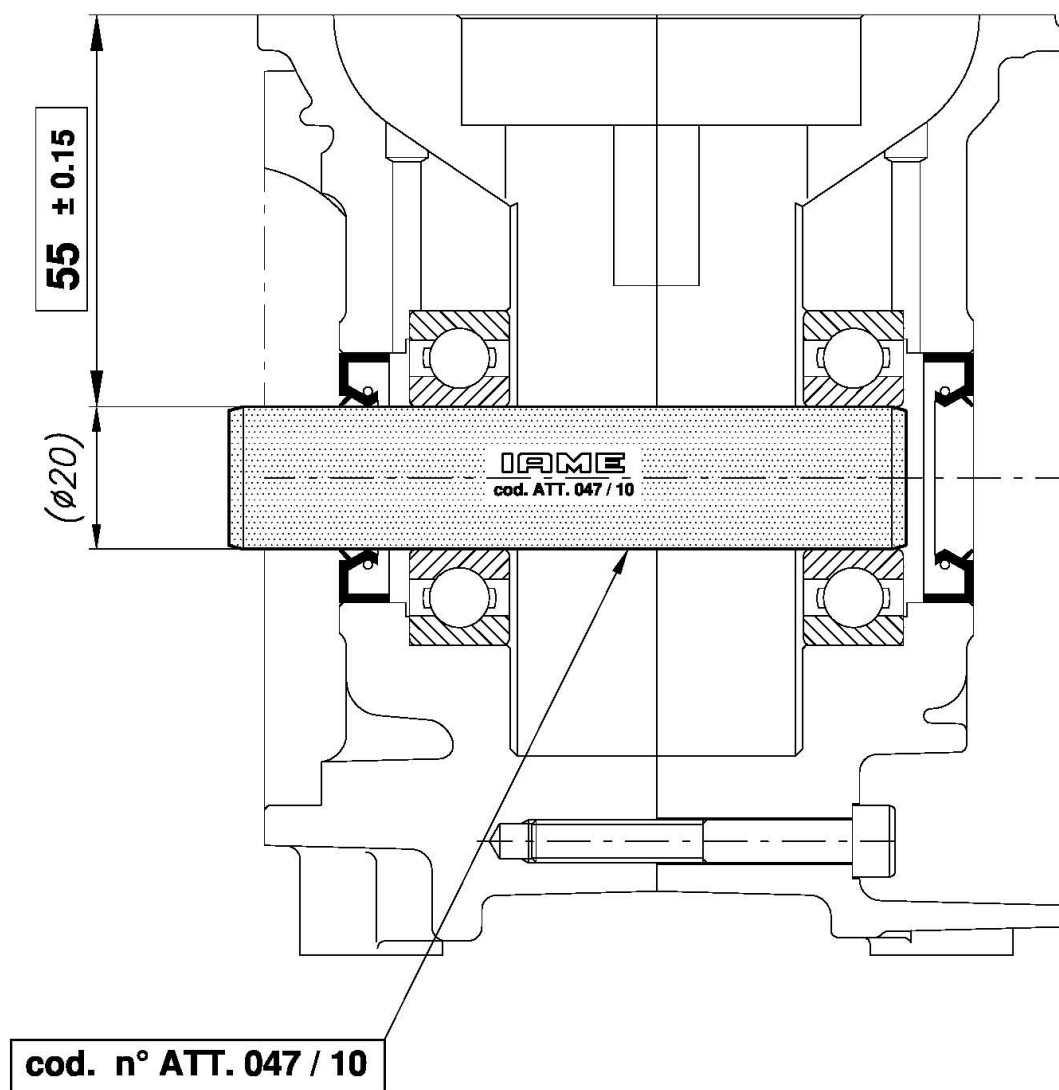
**CHECK THAT THE TOOL MUST BE THE SAME SHAPE OF THE EXHAUST
RESTRICTOR Ø14 MAX.
(CADETTI CLASS)**



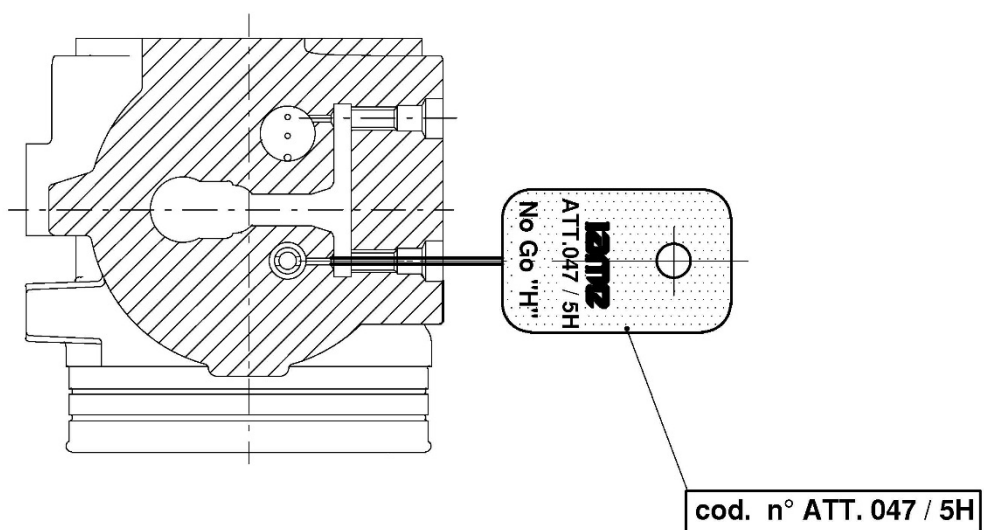
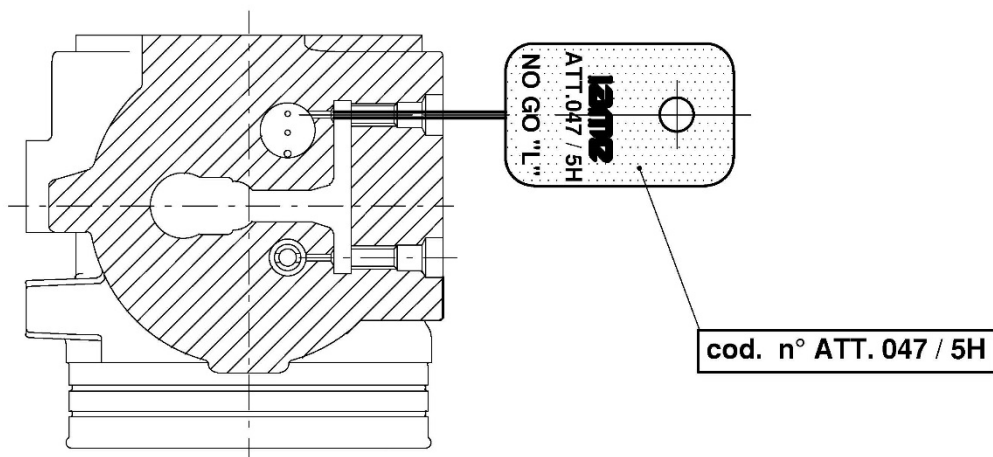
**CHECK THAT THE TOOL DOES NOT ENTER INTO THE EXHAUST
RESTRICTOR.
(CADETTI CLASS)**



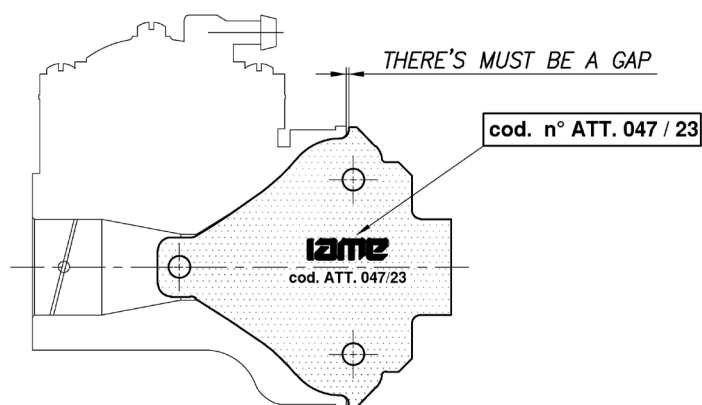
CHECK THAT THE TOOL DOES NOT ENTER INTO THE CLUTCH DRUM IN PERPENDICULAR POSITION RESPECT AT THE CLUTCH DRUM AXIS.



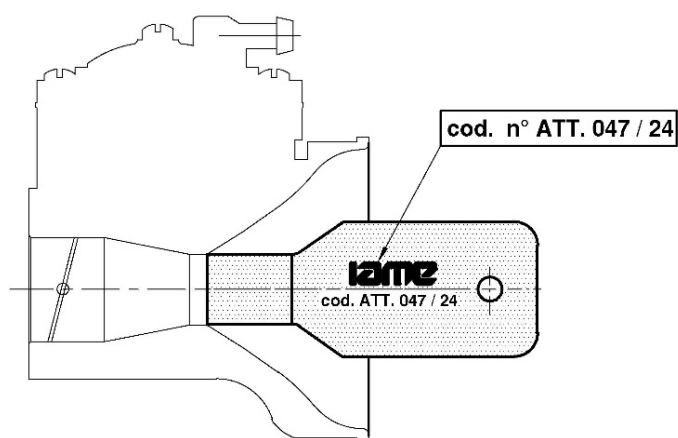
CHECKING TOOLS FOR CARBURETTOR TILLOTSON HW-47A



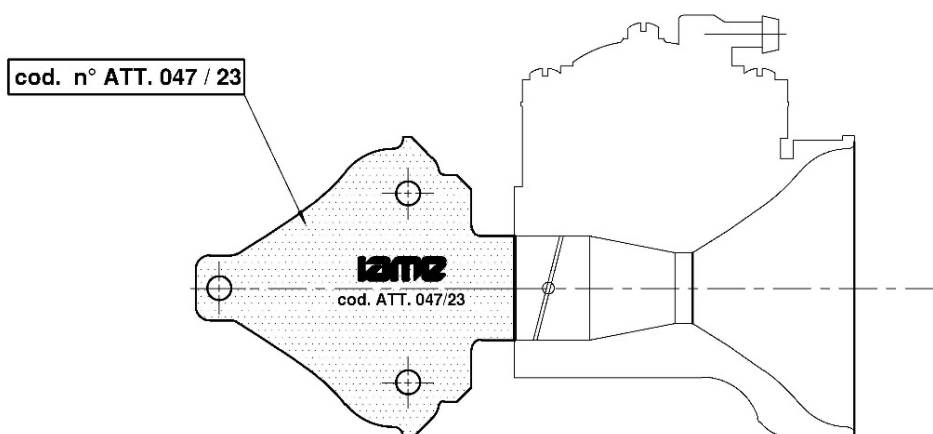
CHECK THAT THE SPIKES DOES NOT ENTER INTO THE HOLES.



CHECK THAT THE TOOL MUST TO BE THE SAME SHAPE OF THE INLET CARBURETTOR.

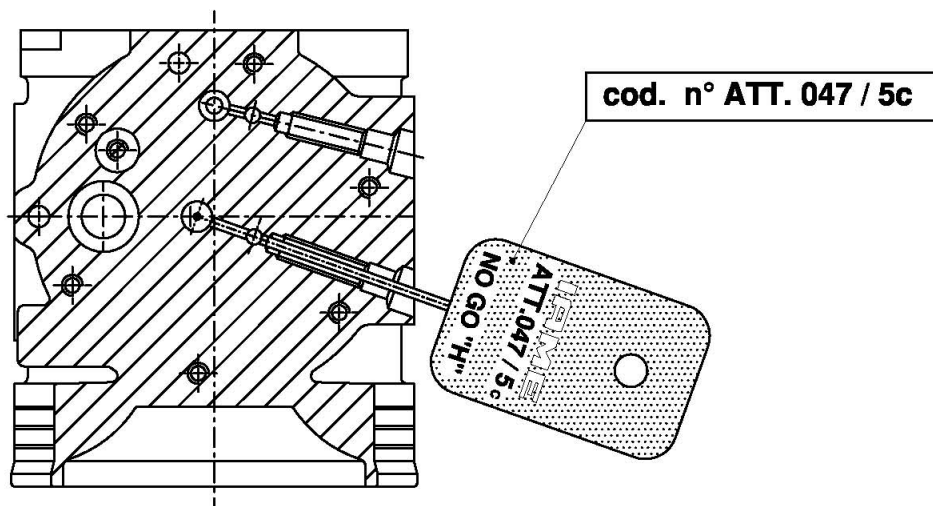
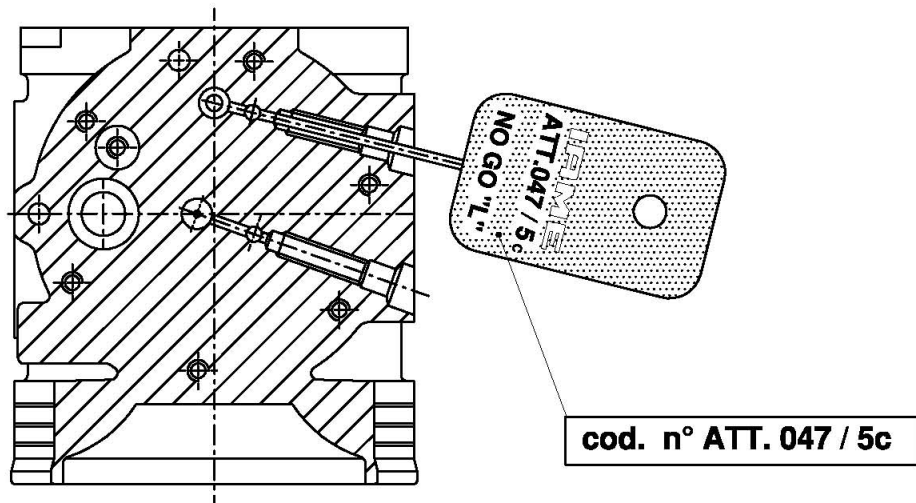


CHECK THAT THE TOOL DOES NOT ENTER INTO THE VENTURE DUCT INLET OF CARBURETTOR.

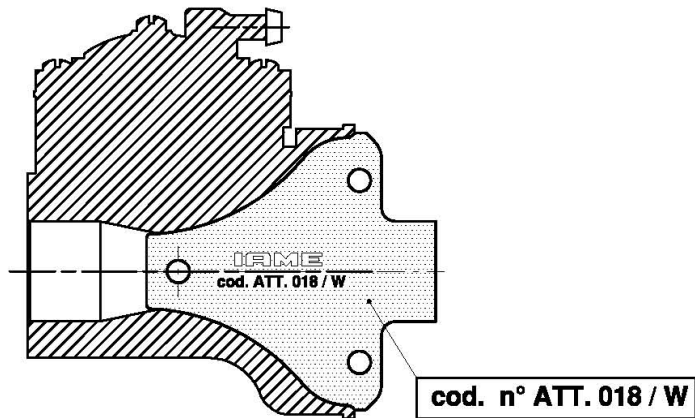


CHECK THAT THE TOOL DOES NOT ENTER INTO THE VENTURE DUCT INLET OF CARBURETTOR.

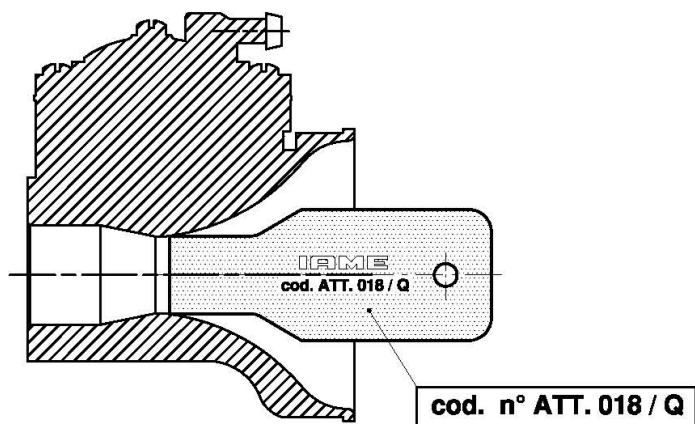
CHECKING TOOLS FOR CARBURETTOR TILLOTSON HW-34B



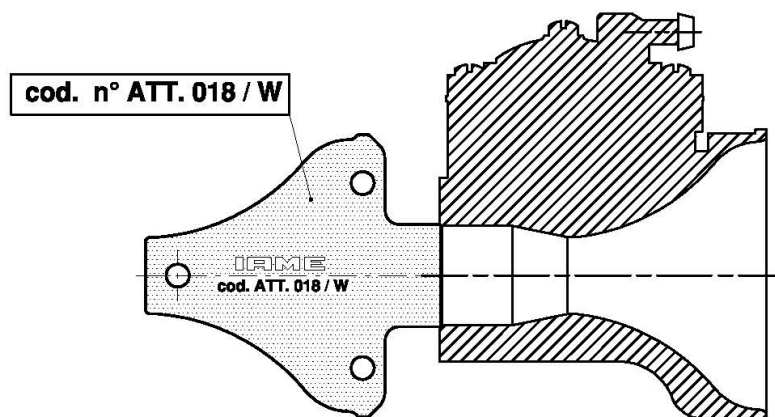
CHECK THAT THE SPIKES DOES NOT ENTER INTO THE HOLES.



CHECK THAT THE TOOL MUST BE THE SAME SHAPE OF THE INLET CARBURETTOR.

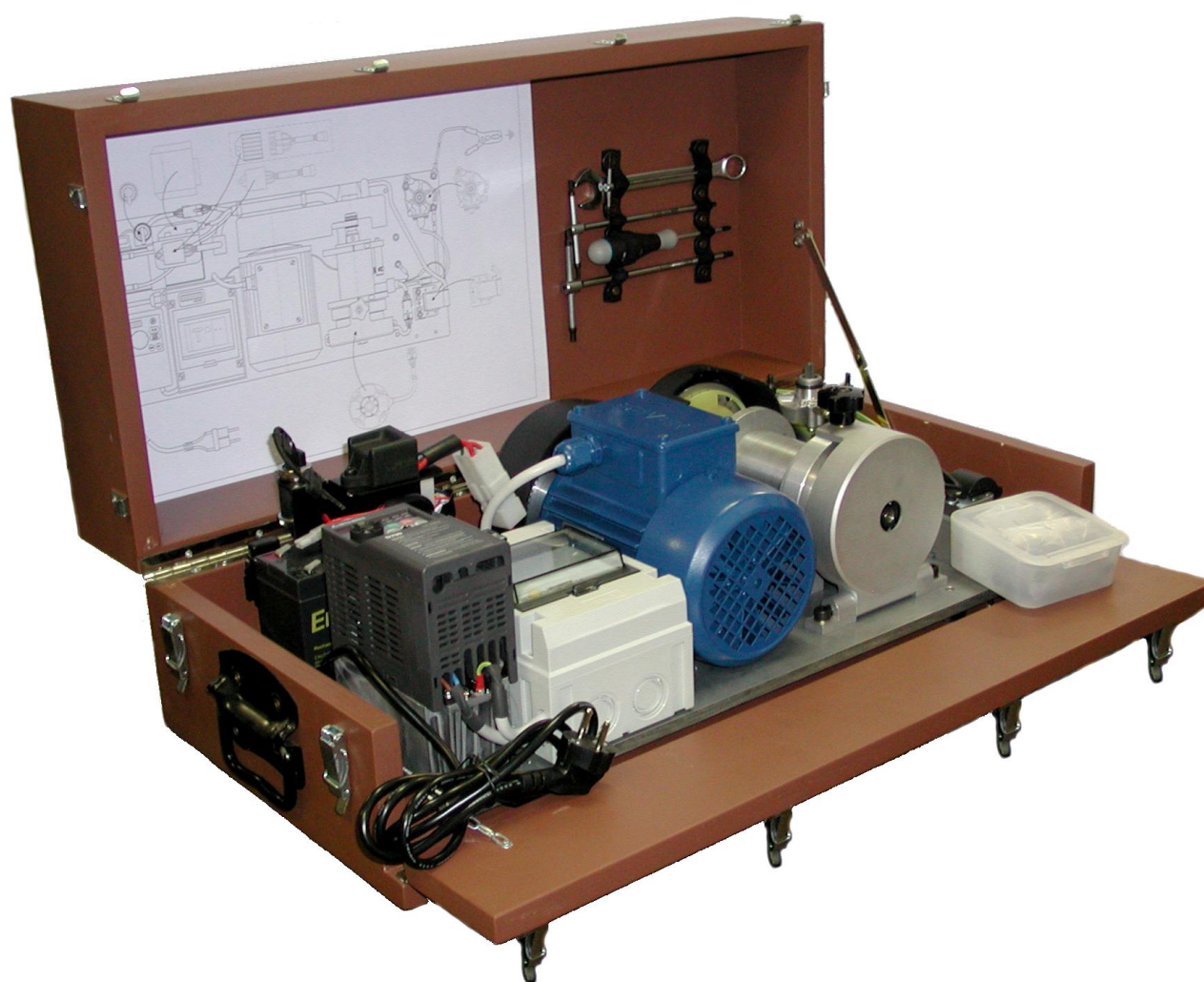


CHECK THAT THE TOOL DOES NOT ENTER INTO THE VENTURE DUCT INLET OF CARBURETTOR.



CHECK THAT THE TOOL DOES NOT ENTER INTO THE VENTURE DUCT OUTLET OF CARBURETTOR.

IGNITION BENCH TESTER





CARBURETTOR Tillotson HW-47A



PHOTO OF ADJUSTING SIDE

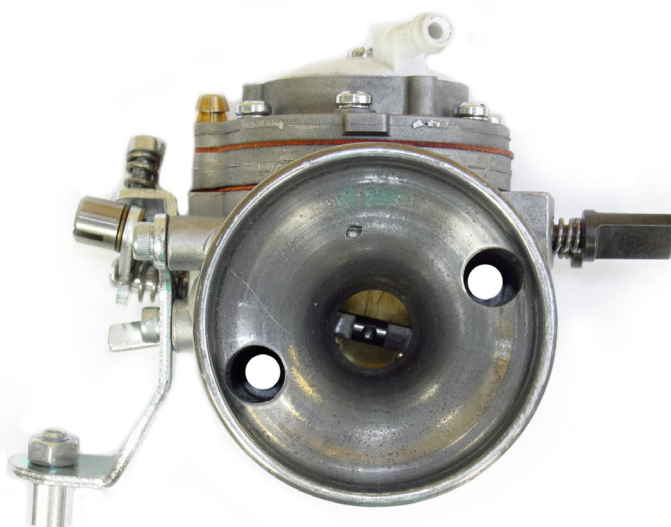
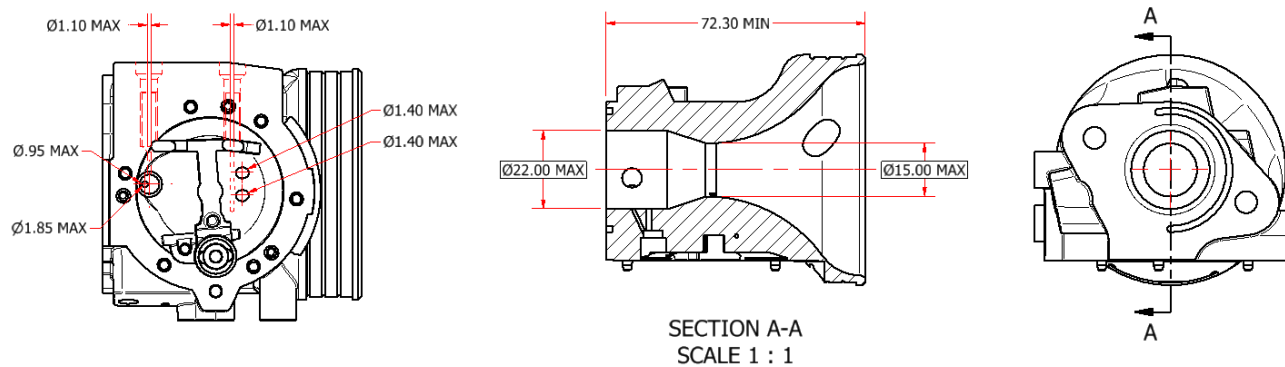


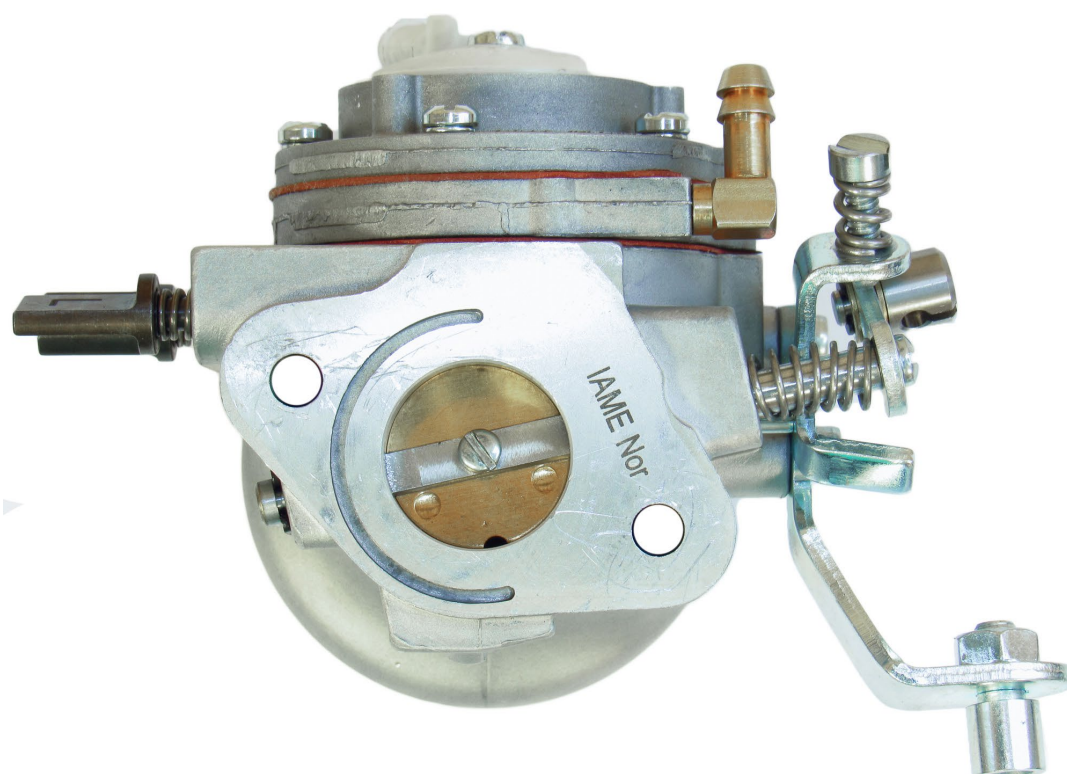
PHOTO OF INLET SIDE

Manufacturer	TILLOTSON LTD.
Make	TILLOTSON
Model	HW-47A

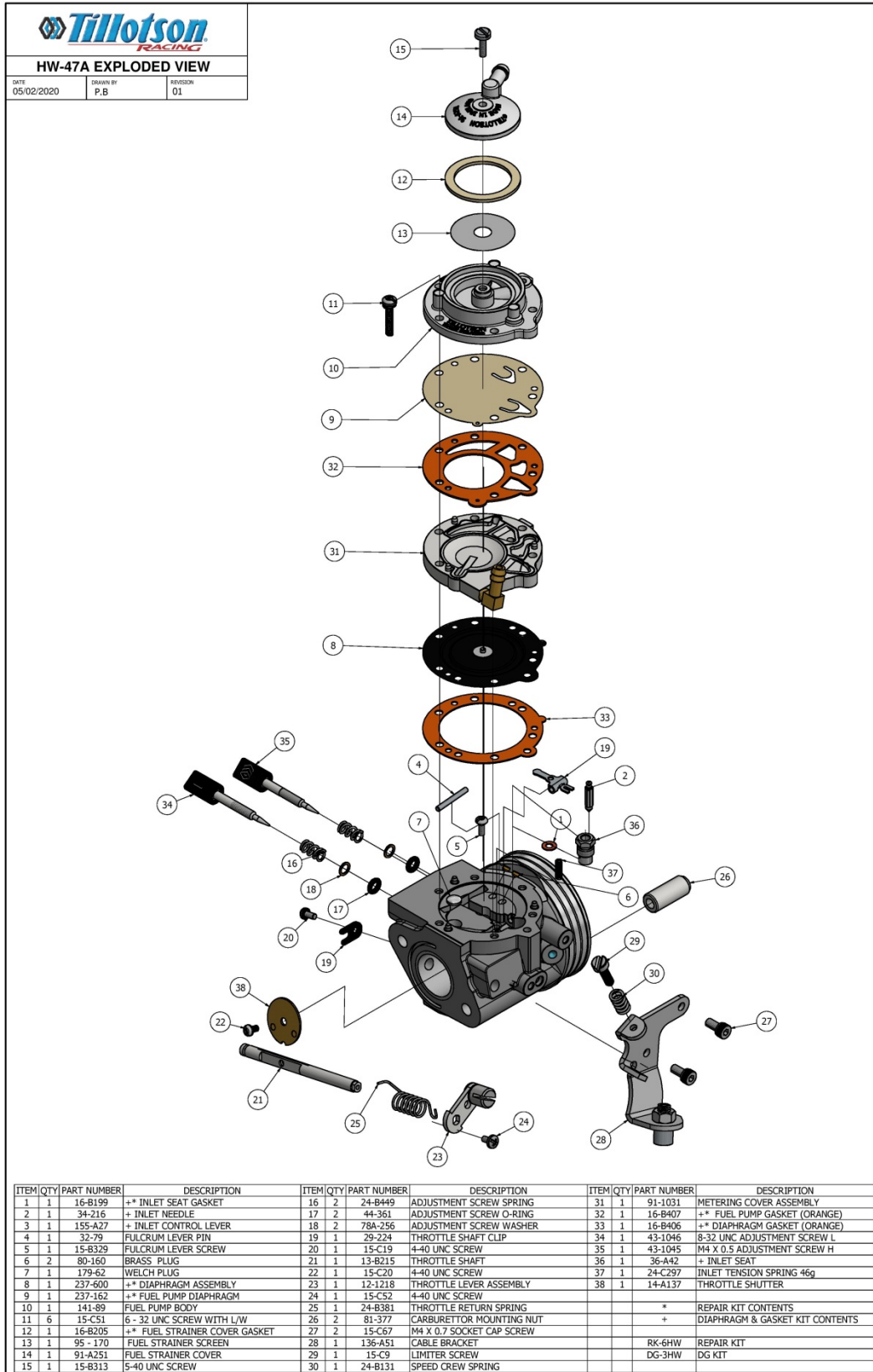
SECTION VIEW



MARKING



CARBURETTOR DESCRIPTION AND SKETCH OF PARTS



PARTS OF CARBURETTOR

**REF.33 - P. N°16-B406
DIAPHRAGM GASKET (ORANGE COLOR)**



Thickness = 0.5 ± 0.1 mm

**REF.32 - P. N° 16-B407
PUMP DIAPHRAGM GASKET (ORANGE COLOR)**



Thickness = 0.8 ± 0.1 mm

**REF.8 - P. N°237-600
DIAPHRAGM**



Thickness = 0.13 ± 0.07 mm

**REF.9 - P. N°237-162
PUMP DIAPHRAGM**



Thickness = 0.10 ± 0.063 mm

**REF.31 - P. N° 91-1031
DIAPHRAGM COVER**



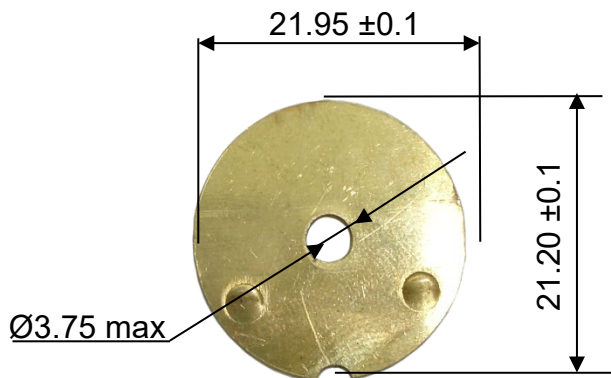
Thickness = 6.75 ± 0.15 mm

**REF.10 - P. N° 141-89
PUMP COVER**



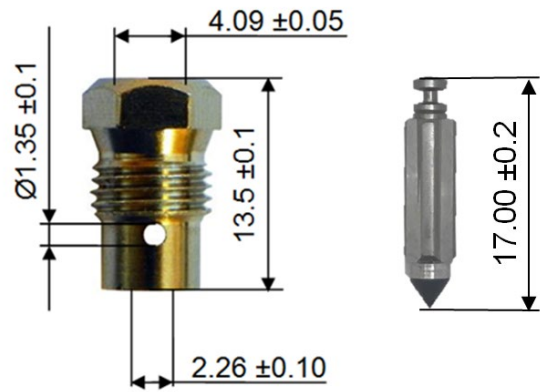
Thickness = 12.5 ± 0.15 mm

REF.38 - P. N° 14-A137
THROTTLE SHUTTER

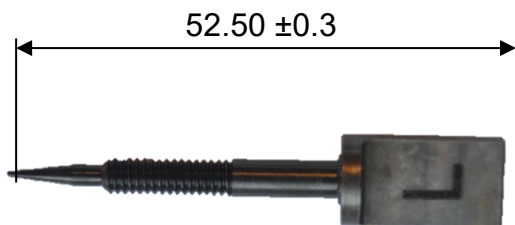


Thickness = 0.81 ± 0.1 mm

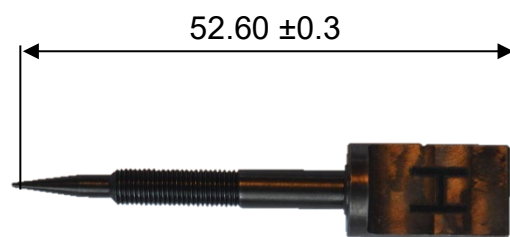
REF.36 / 2 - P. N° 36-A42 / 34-216
SEAT + NEEDLE



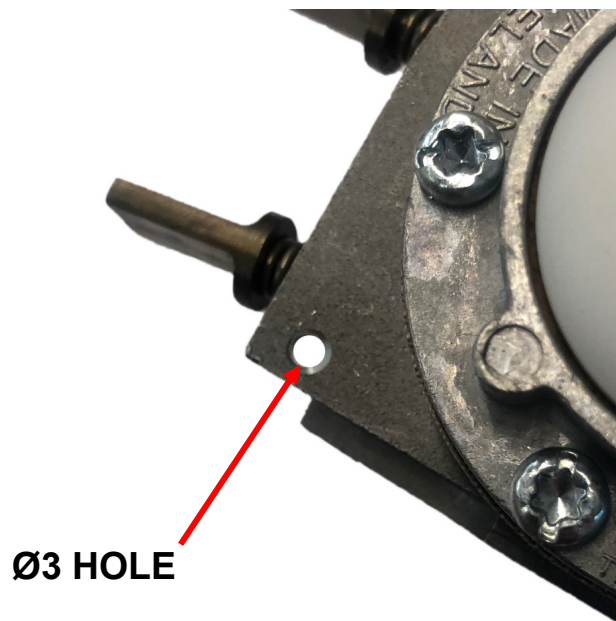
REF.34 - P. N° 43-1046
NEEDLE LOW SPEED



REF.35 - P. N° 43-1045
NEEDLE HIGH SPEED



THE CARBURETTOR CAN HAVE THIS HOLE FOR SEALING



CARBURETTOR Tillotson HW-34B



PHOTO OF ADJUSTING SIDE

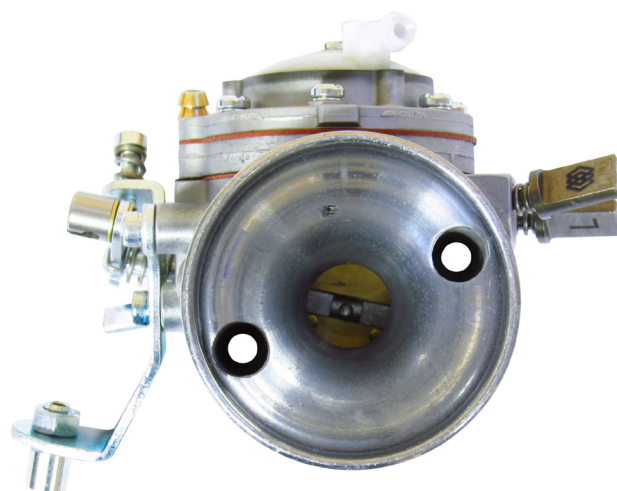
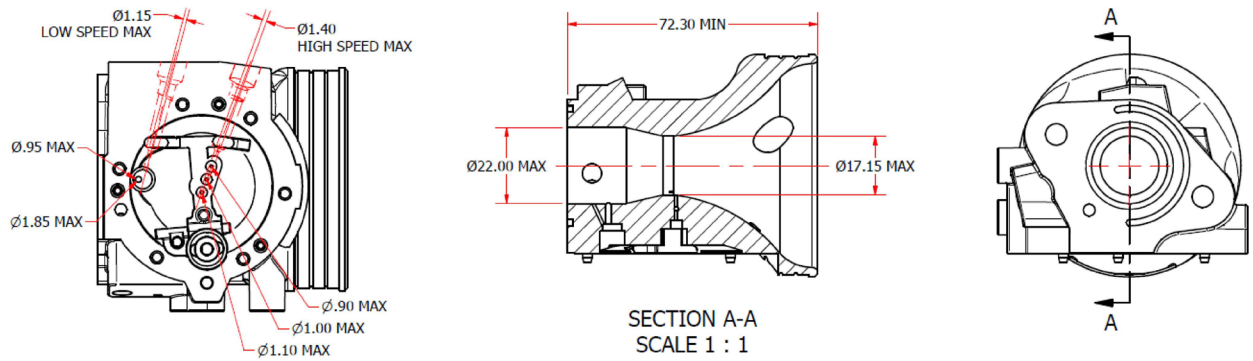


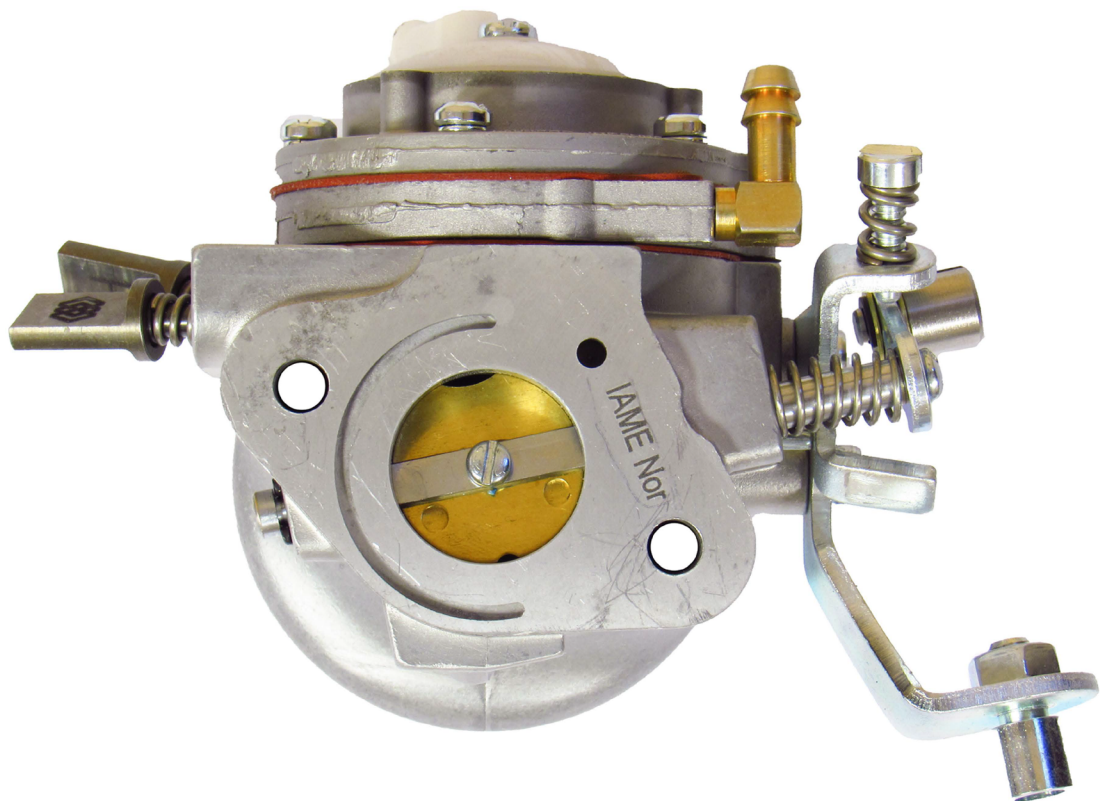
PHOTO OF INLET SIDE

Manufacturer	TILLOTSON LTD.
Make	TILLOTSON
Model	HW-34B

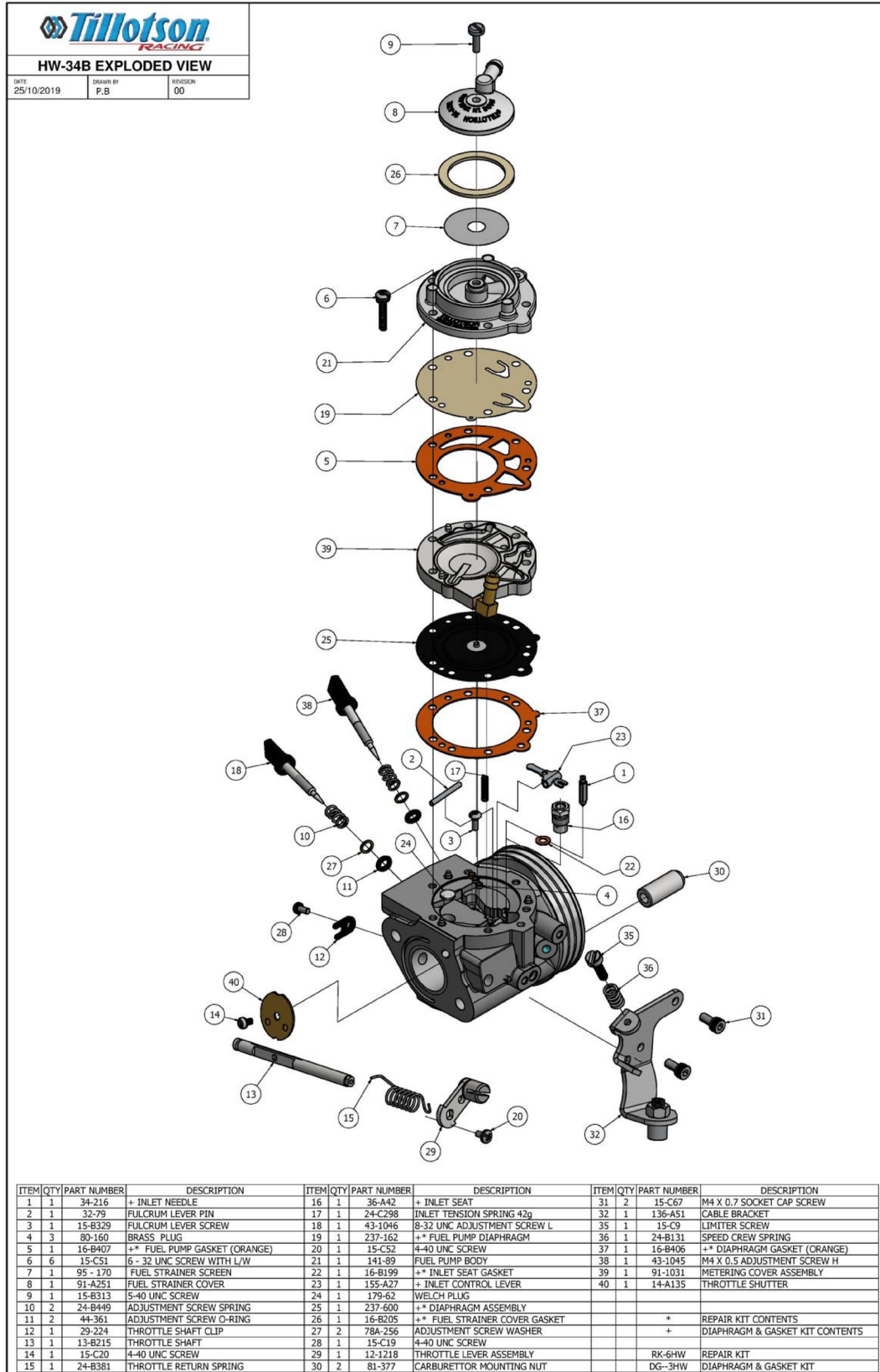
SECTION VIEW



MARKING



CARBURETTOR DESCRIPTION AND SKETCH OF PARTS



PARTS OF CARBURETTOR

**REF.37 - P. N°16-B406
DIAPHRAGM GASKET (ORANGE COLOR)**



Thickness = 0.5 ± 0.1 mm

**REF.5 - P. N° 16-B407
PUMP DIAPHRAGM GASKET (ORANGE COLOR)**



Thickness = 0.8 ± 0.1 mm

**REF.25 - P. N°237-600
DIAPHRAGM**



Thickness = 0.13 ± 0.07 mm

**REF.19 - P. N°237-162
PUMP DIAPHRAGM**



Thickness = 0.10 ± 0.063 mm

**REF.39 - P. N° 91-1031
DIAPHRAGM COVER**



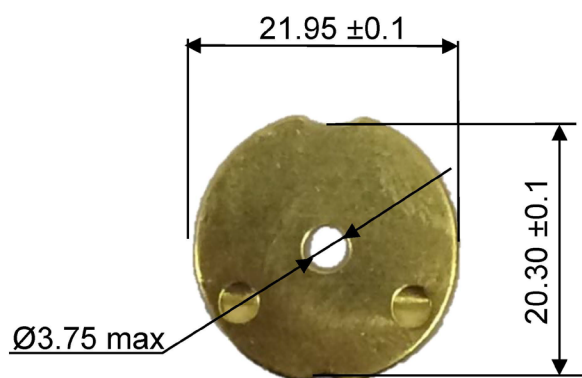
Thickness = 6.75 ± 0.15 mm

**REF.21 - P. N° 141-89
PUMP COVER**



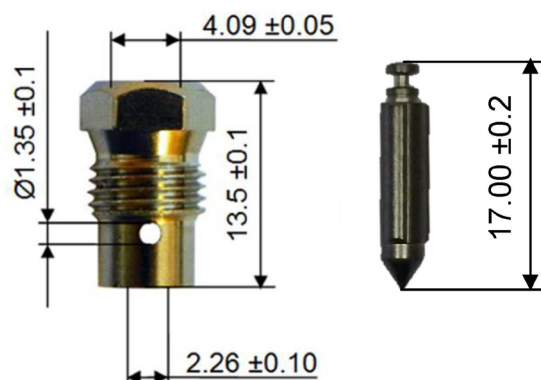
Thickness = 12.5 ± 0.15 mm

REF.40 - P. N° 14-A135
THROTTLE SHUTTER

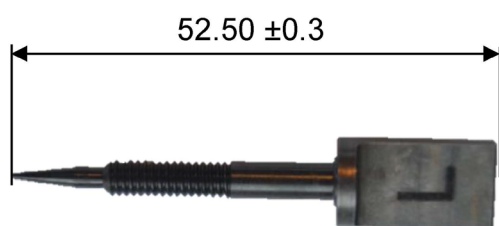


Thickness = 0.81 ± 0.1 mm

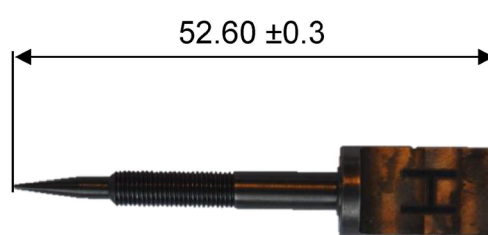
REF.16 / 1 - P. N° 233-721P
SEAT P.N° 34-A42 + NEEDLE P.N° 34-216



REF.18 - P. N° 43-1046
NEEDLE LOW SPEED



REF.38 - P. N° 43-1045
NEEDLE HIGH SPEED



The carburettor can have this hole for sealing.

