

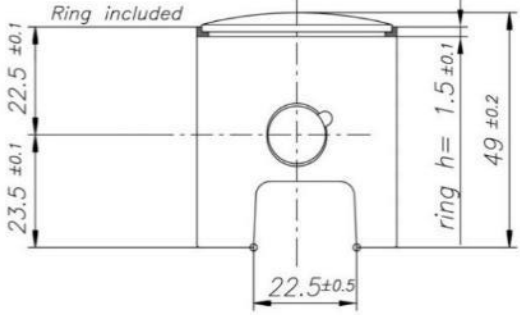
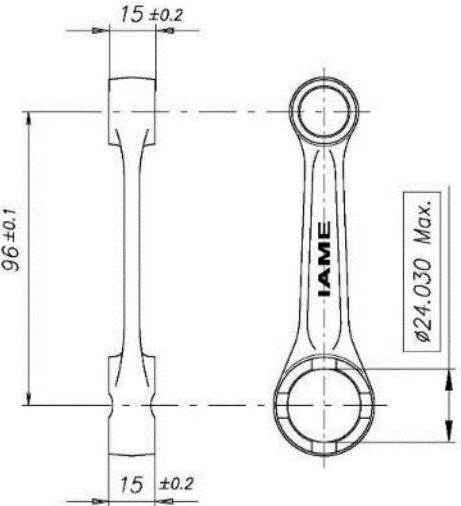


# M1 60cc - PULL START

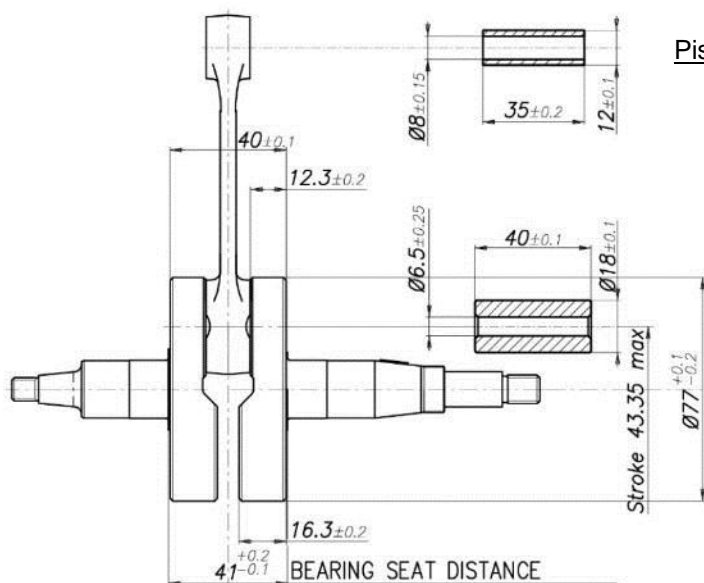


## FEATURES

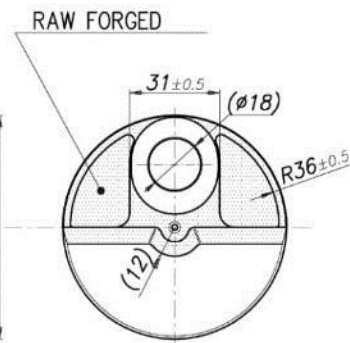
		Cylinder volume	60.00 cm <sup>3</sup> max
		Bore	41.80 mm
		Max. theoretical bore	41.97 mm
		Stroke	43.35 mm max
		Cooling system	Air
		Inlet system	Piston Valve
		Number of carbs	1
Carburettor Tillotson	HS-325A (Ø10.3 Venturi)	Cylinder/crankcase transfers n°	2 / 2
Number of piston rings	1	Inlet / exhaust ports	1 / 2
Big end conrod ball-bearing diameter	18x24x15	Combustion chamber shape	Spherical
Crankshaft ball-bearing diameter	20x47x14	Selettra ignition	Analogic Cod. A-61953-C
Small end conrod ball-bearing diameter	12x16x16	Distance between Conrod centres	96 mm
Pull Start	Yes	Combustion chamber Volume	8 cm <sup>3</sup> min.

DESCRIPTION OF THE MATERIAL		PISTON
Conrod material	Steel	 <p>Min Weight (ring incl.) 60 g</p>
Crankshaft material	Steel	
Head material	Aluminium	
Cylinder material	Aluminium	
Liner material	Cast Iron	
		DISTANCE BETWEEN CONROD CENTERS
Crankcase material	Aluminium	 <p>Min. Weight 97 g</p>
Piston material	Aluminium	
Piston rings material	Cast Iron	
Exhaust muffler material	Sheet-steel	
Ball-bearings	6204 type	

### CRANKSHAFT

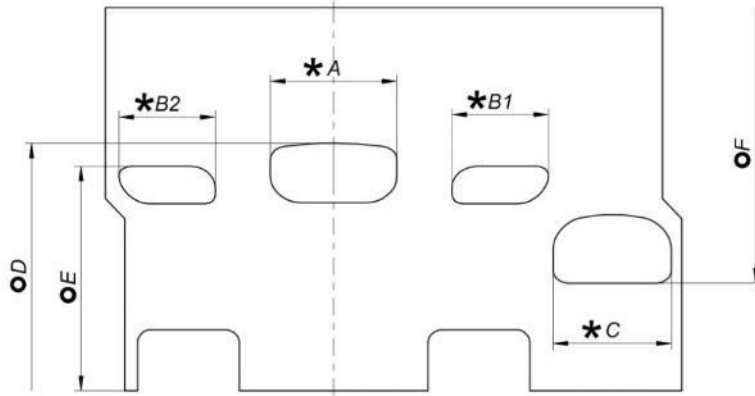


Piston pin min. weight 15.5g



Complete Crankshaft min. weight 1190 g

## CYLINDER DEVELOPMENT



A	27.5 ±0.2 mm
B1 = B2	21.7 ±0.4 mm
C	26 ±0.2 mm
D	151.5° max.
E	114.5° ±1.5°
F	141.5° max.

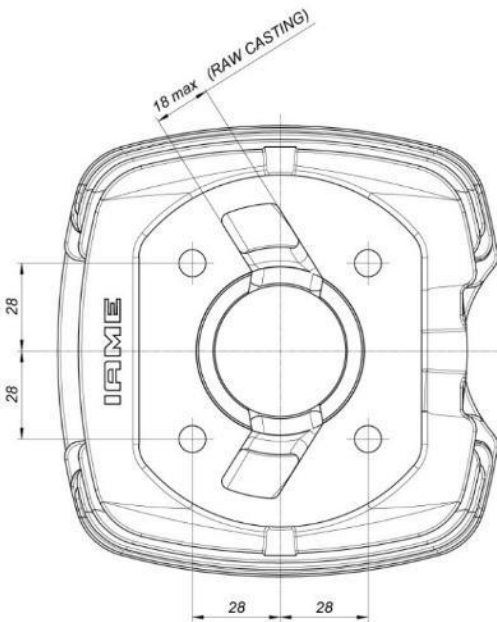
TOOL IAME Cod. 10194



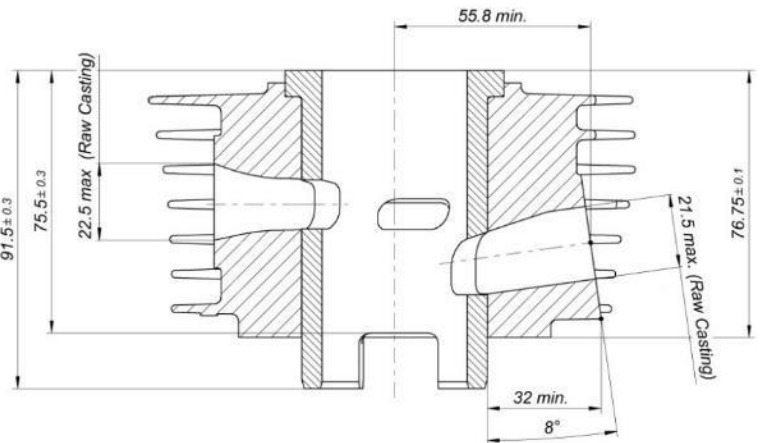
\* **CHORDAL READING**

○ **ANGULAR READING BY INSERT A 0.2x5 mm GAUGE**  
USING IAME TOOL - Cod. 10194

### CYLINDER BASE VIEW



### CYLINDER CROSS SECTION VIEW

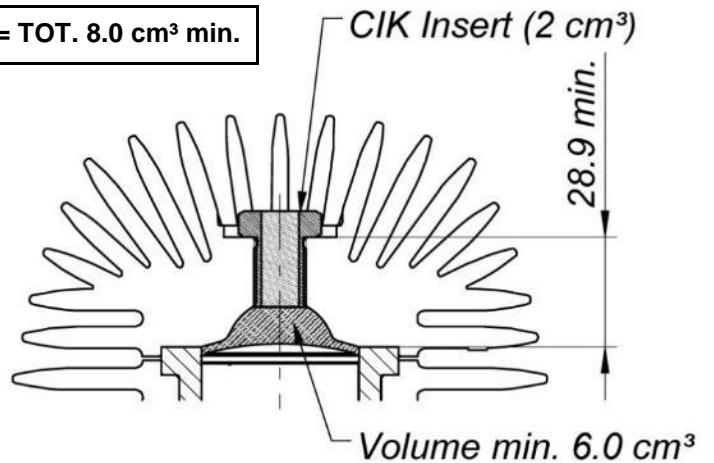


### COMBUSTION CHAMBER VIEW

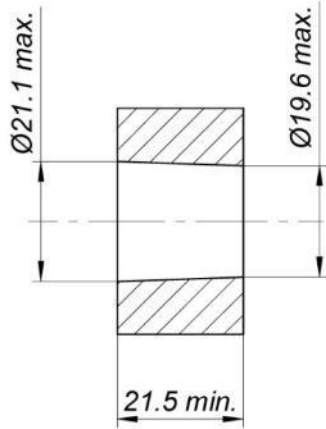
**COMBUSTION CHAMBER VOLUME = 6.0 + 2 = TOT. 8.0 cm<sup>3</sup> min.**

**SQUISH MIN.= 0.078" (2.0 mm)**

Combustion chamber volume in the cylinder head  
(with Volumeter and CIK insert):  
**7.0 cm<sup>3</sup> min**

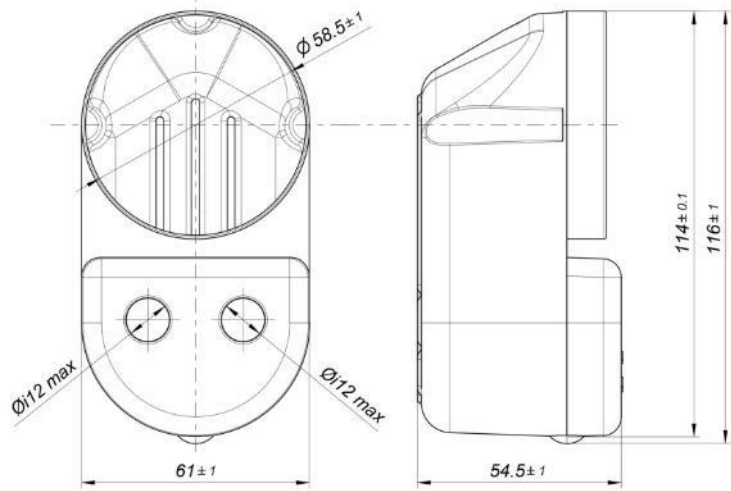


THERMAL SPACER

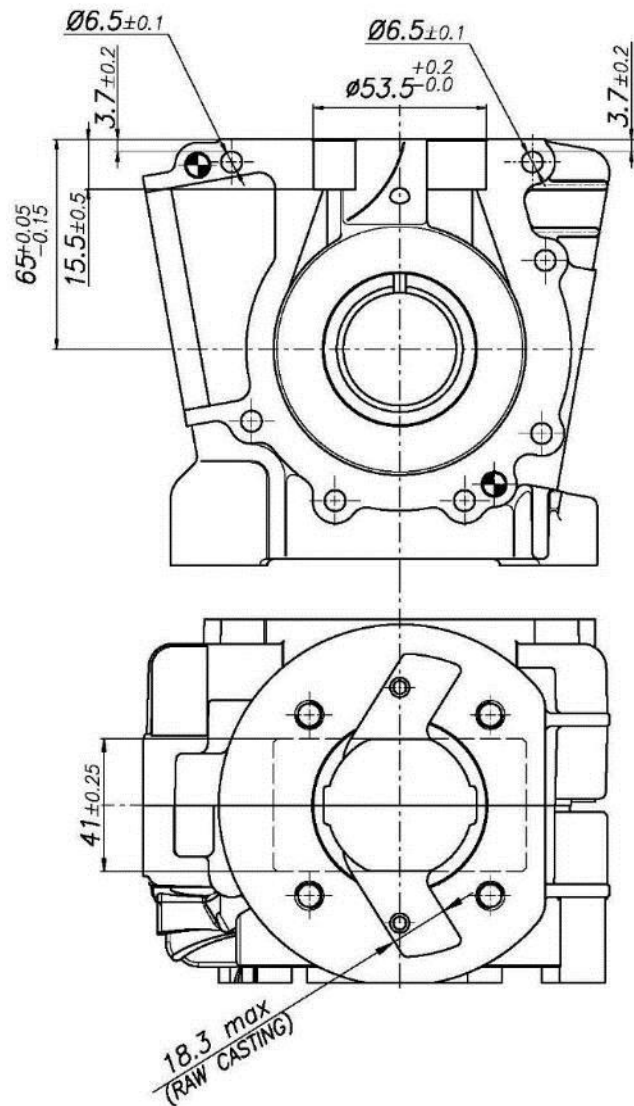


Q.ty: 1

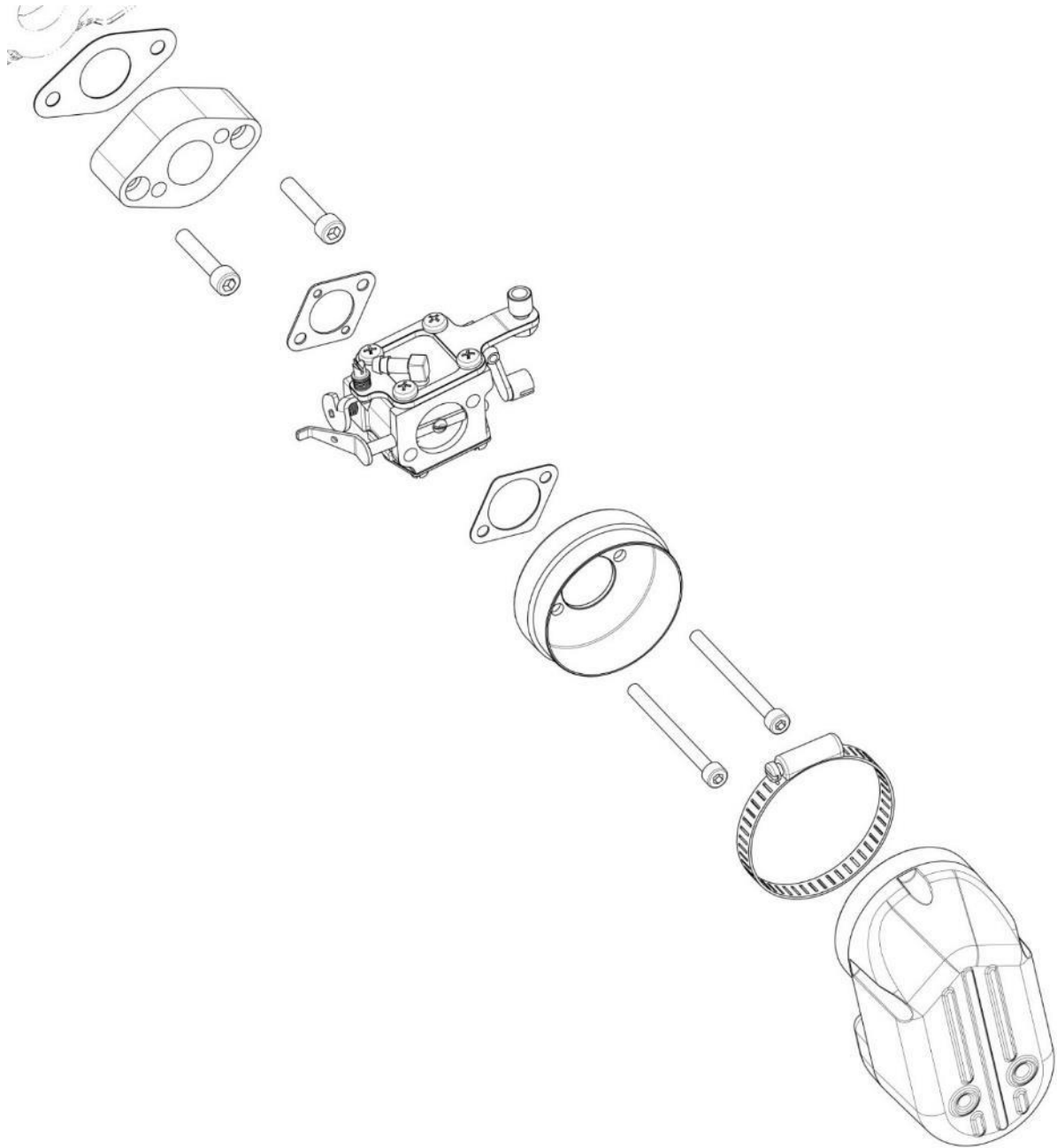
INLET SILENCER



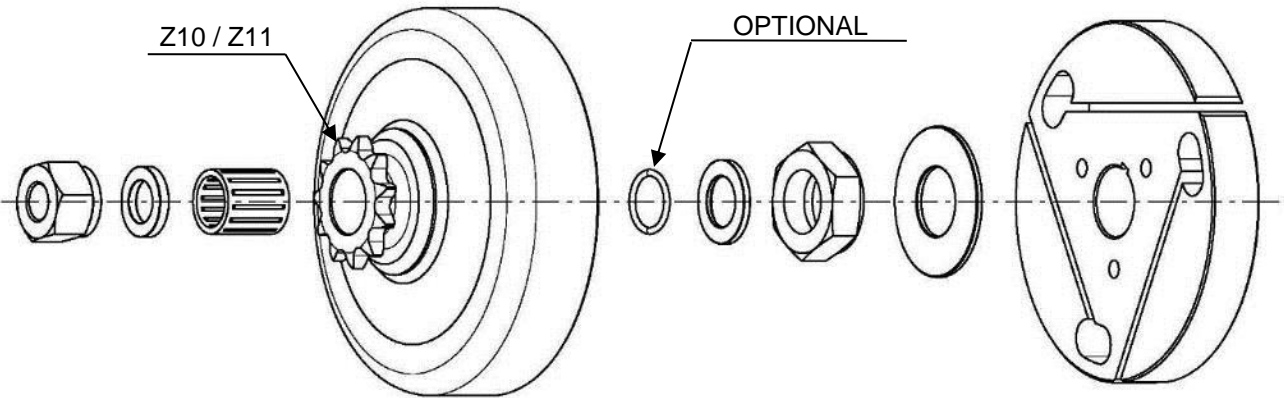
CRANKCASE INSIDE VIEW



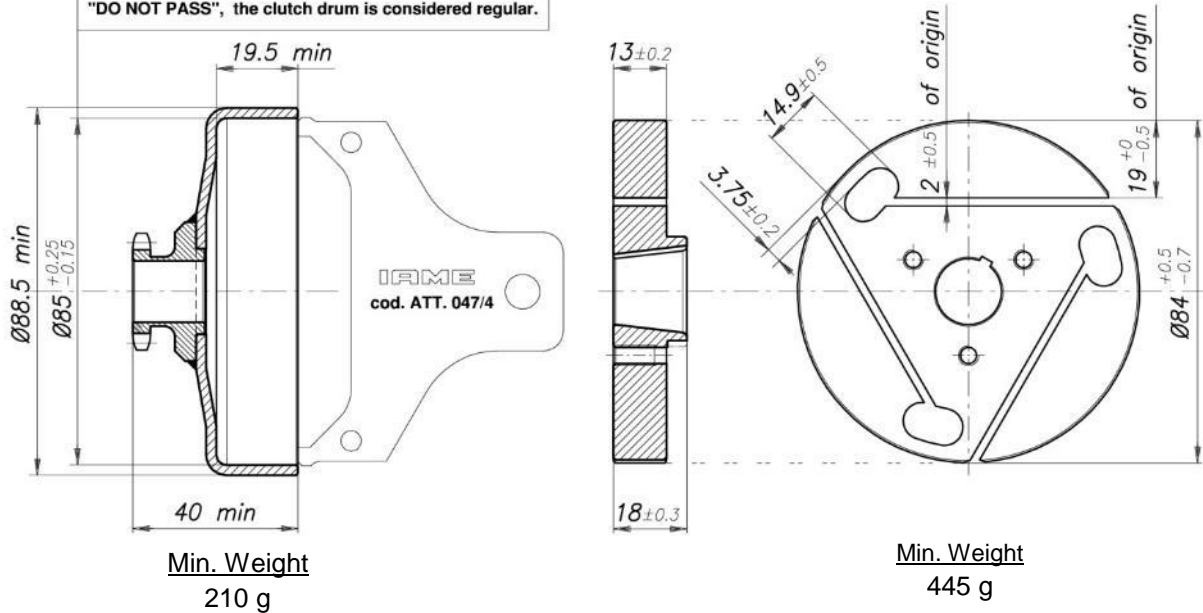
INLET SYSTEM EXPLODED VIEW



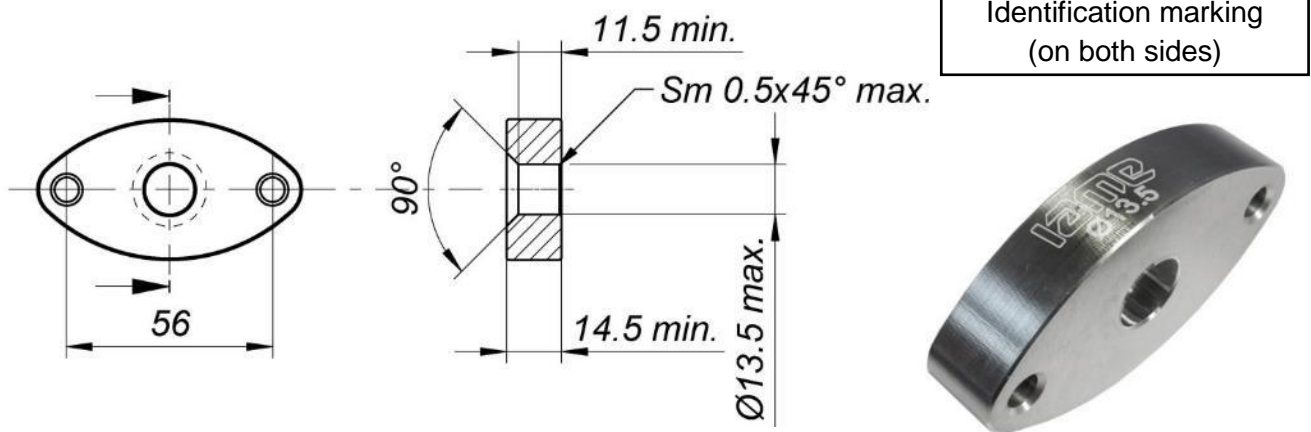
## DESCRIPTION OF THE CLUTCH



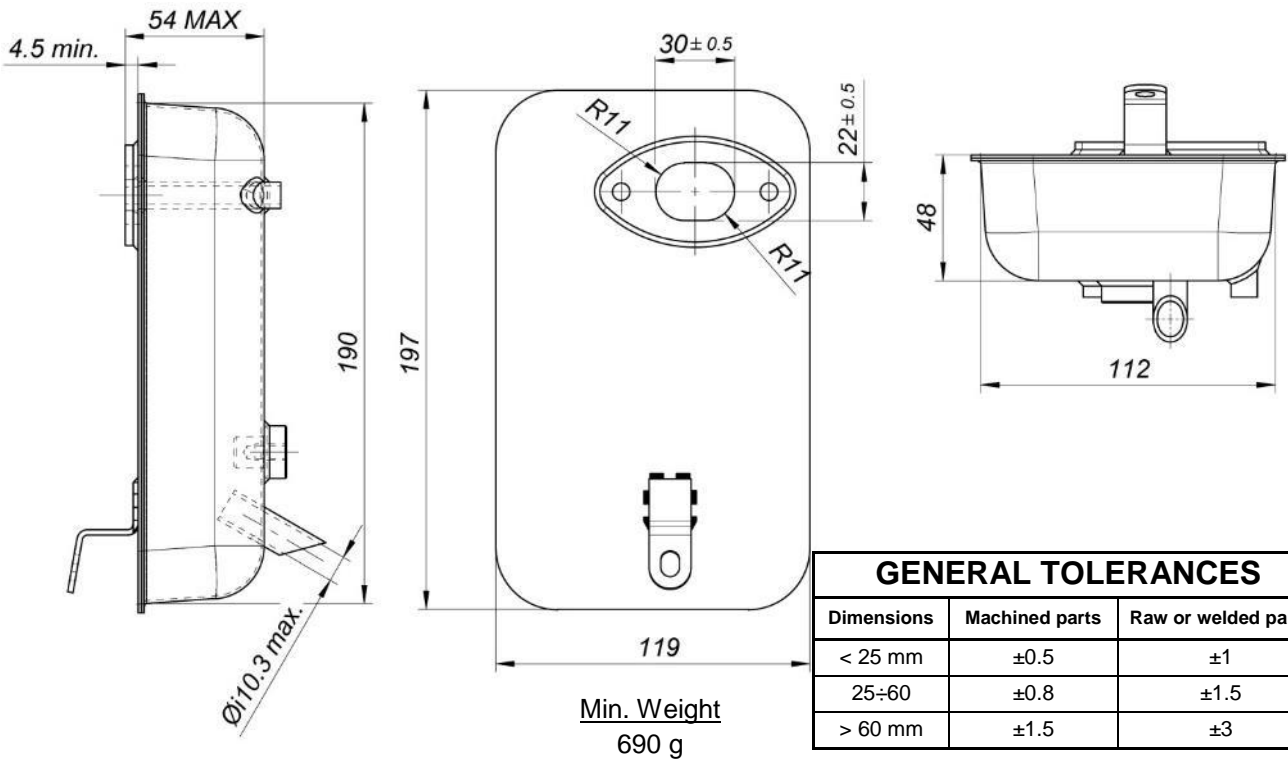
The template "N.P." must be used in multiple directions.  
In case it happens that in a direction "PASS" and another,  
"DO NOT PASS", the clutch drum is considered regular.



## EXHAUST MANIFOLD

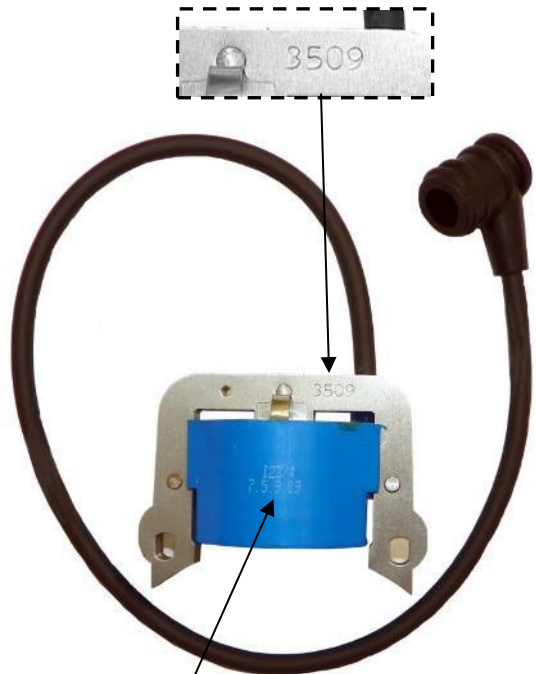
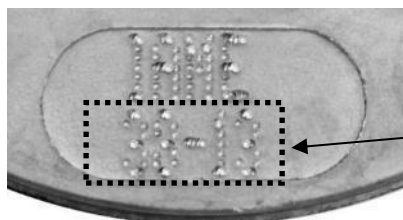


## EXHAUST MUFFLER VIEW AND DIMENSIONS



## IGNITION PHOTO IDENTIFICATION MARKING

Min. Weight  
362 g

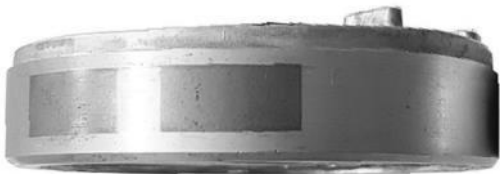


**VARIABLE**

**ALTERNATIVE IGNITION ROTOR**

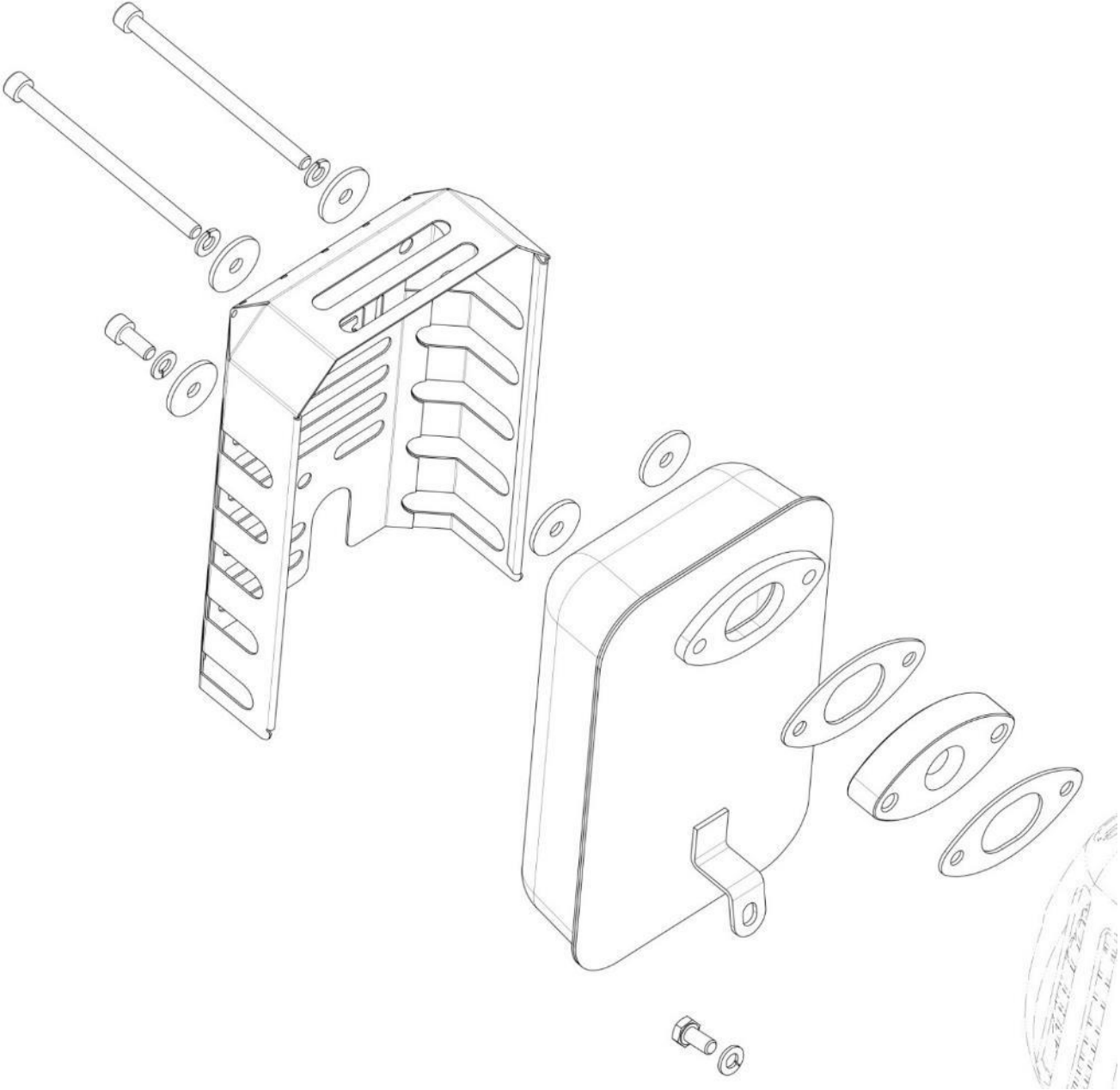
CURRENT ROTOR

NEW ROTOR

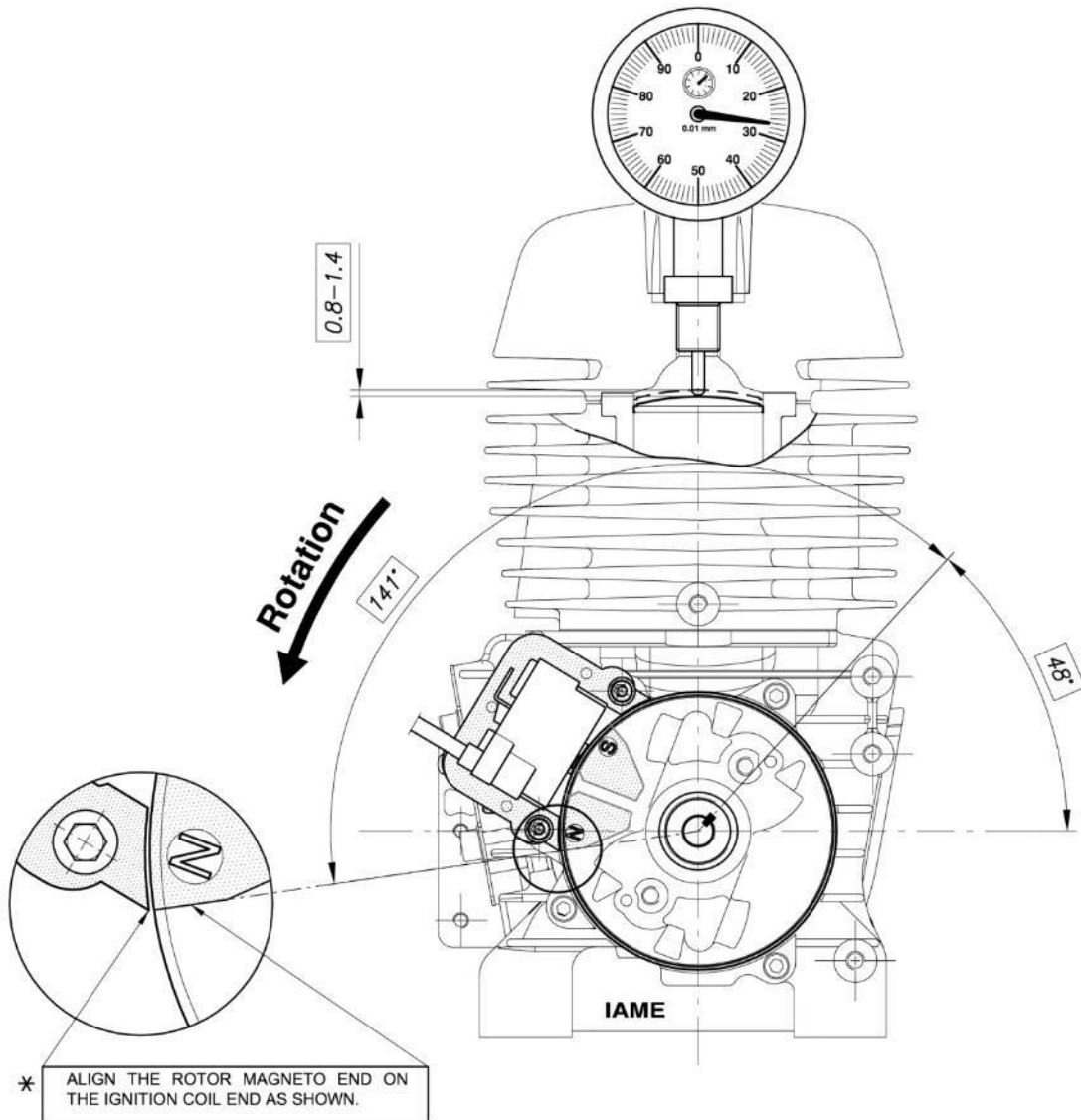




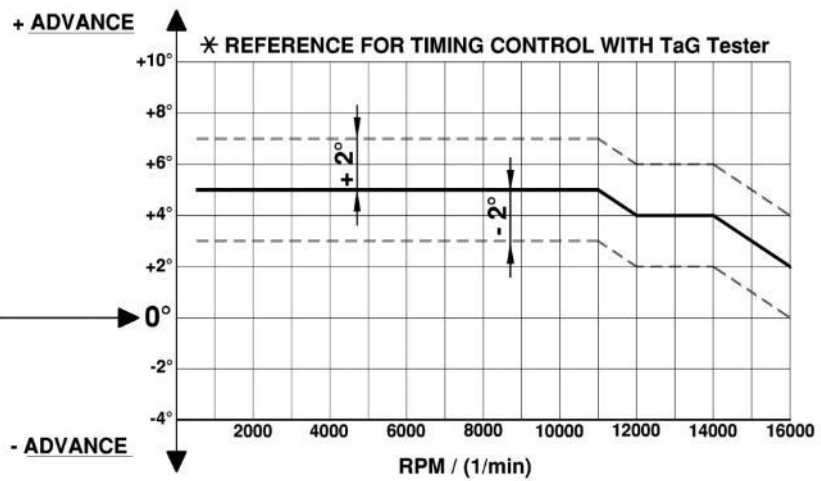
EXHAUST SYSTEM EXPLODED VIEW



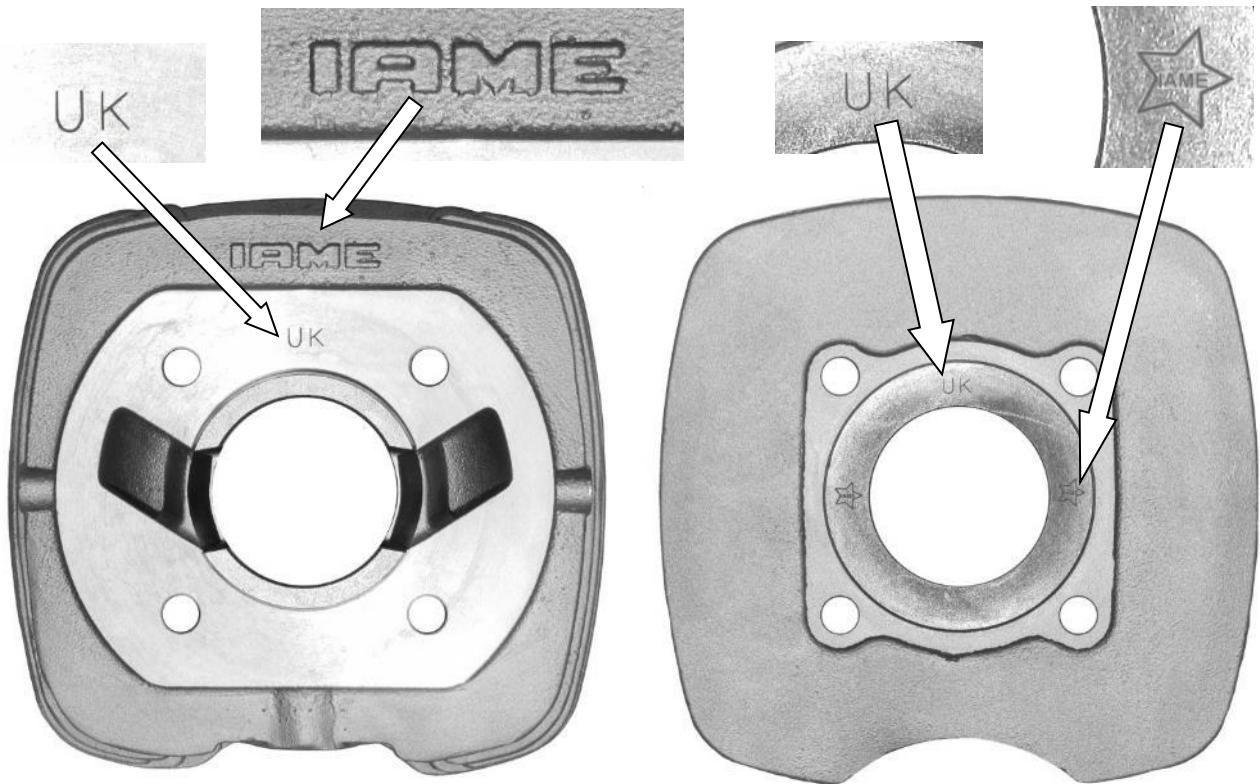
# SCHEME FOR ADVANCE CONTROL



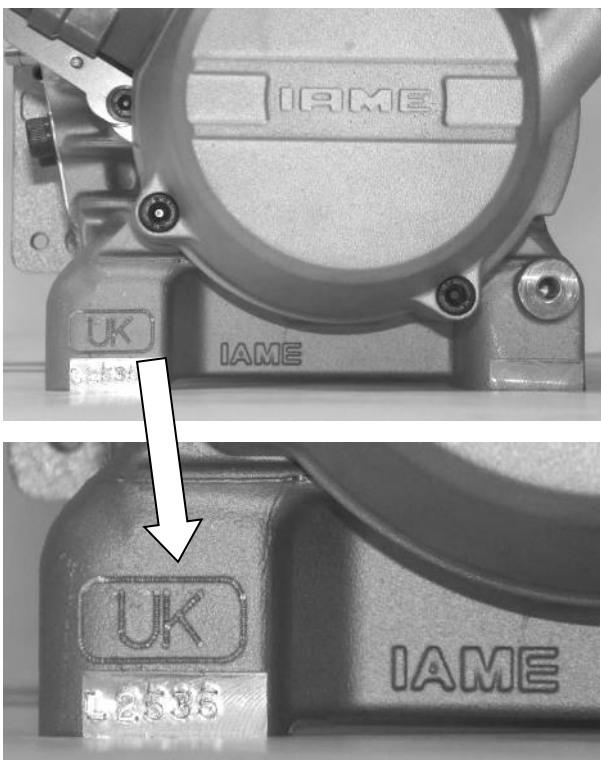
## ADVANCE CURVE GRAPHS



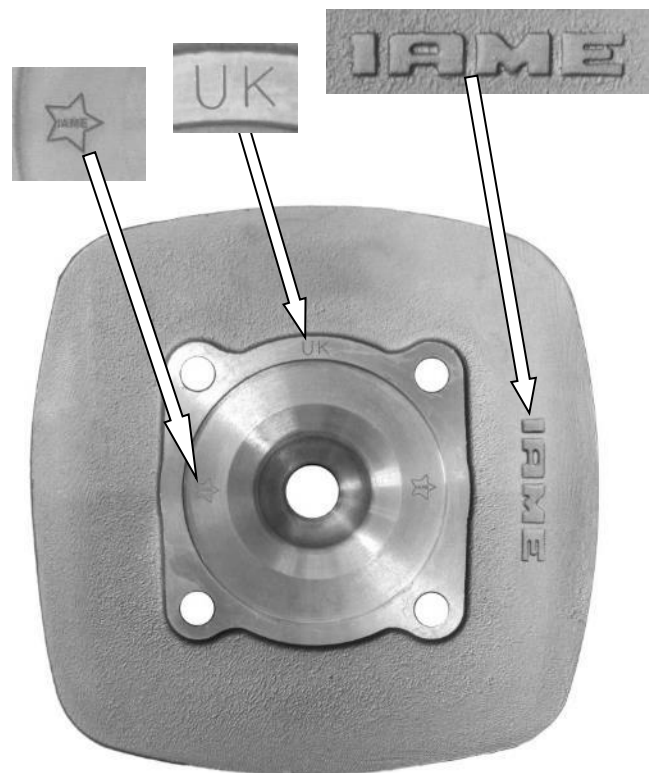
### CYLINDER IDENTIFICATION MARKING



### CRANKCASE IDENTIFICATION MARKING



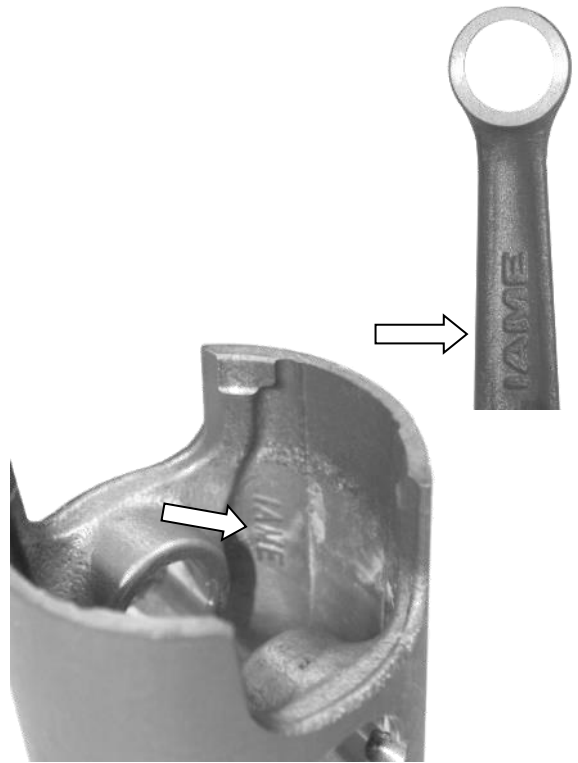
### CYLINDER HEAD IDENTIFICATION MARKING



EXHAUST IDENTIFICATION MARKING



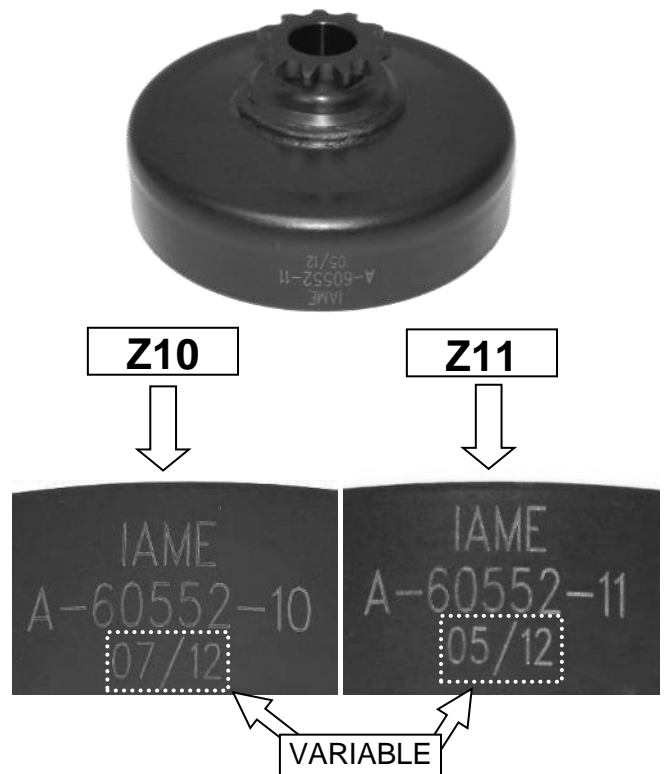
CONROD / PISTON IDENTIFICATION MARKINGS



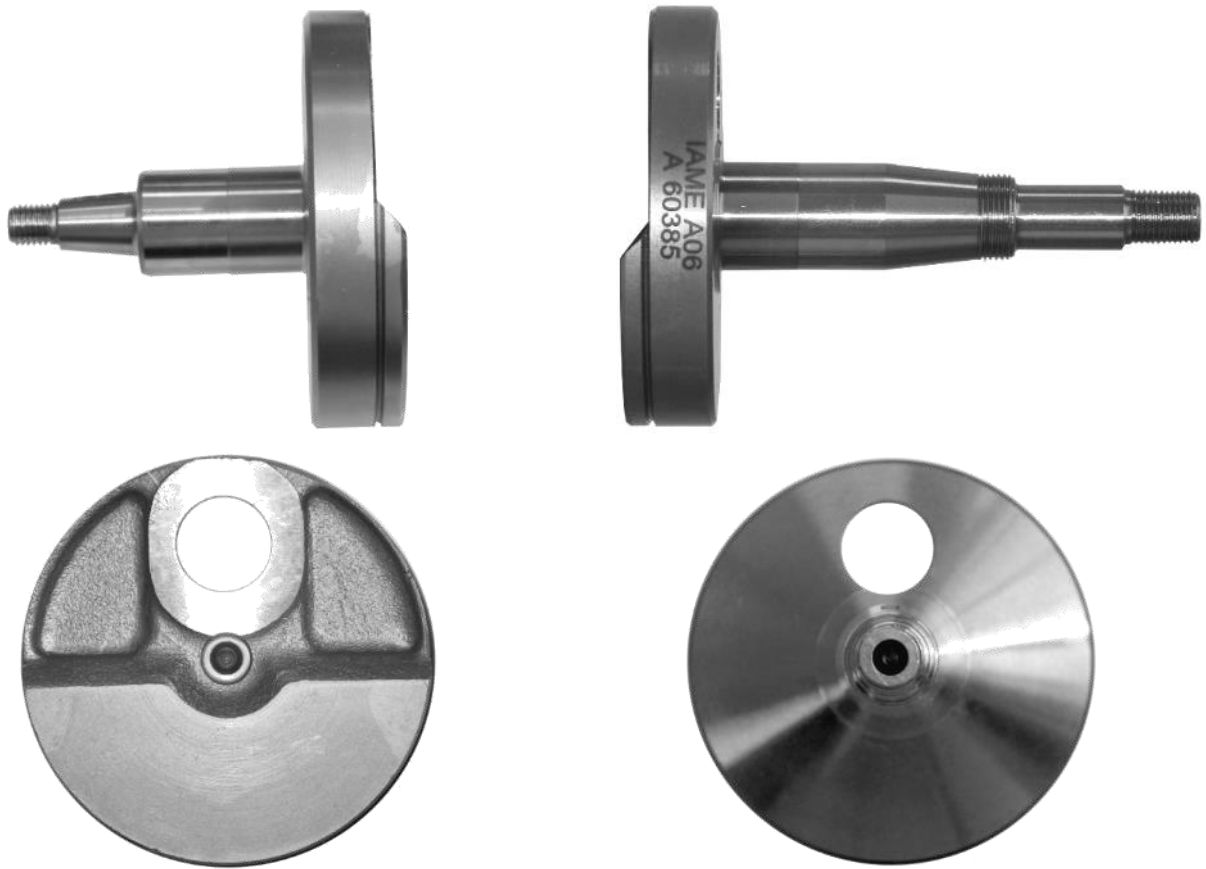
CLUTCH HUB IDENTIFICATION MARKING



CLUTCH DRUM IDENTIFICATION MARKING

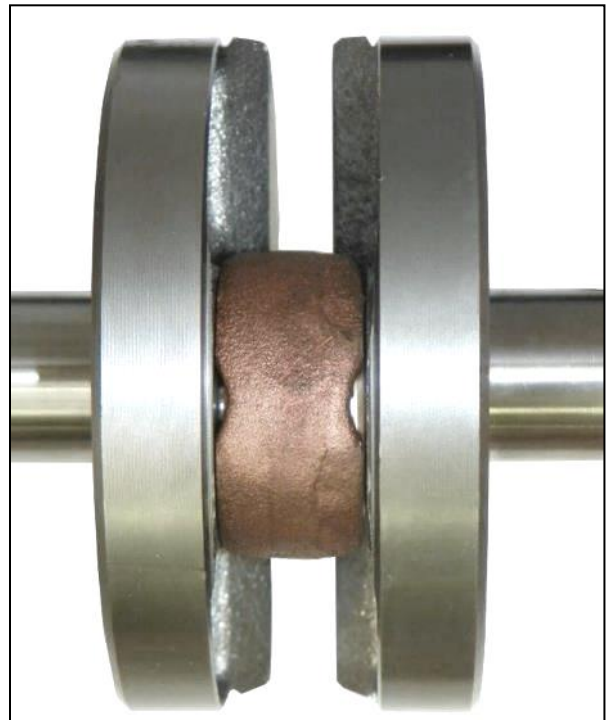


CRANKSHAFT PHOTOS



CRANKSHAFT IDENTIFICATION MARKINGS

PARTICULAR OF COMPLETE CRANKSHAFT



ALTERNATIVE CLUTCH DRUM



Z10



Z11



VARIABLE

ALTERNATIVE CLUTCH COVER



ALTERNATIVE



PULLEY PHOTO IDENTIFICATION MARKING

VARIABLE



COMPONENTS WITH ALTERNATIVE NEW LOGO "IAME"

CYLINDER HEAD



NEW LOGO



CYLINDER



NEW LOGO



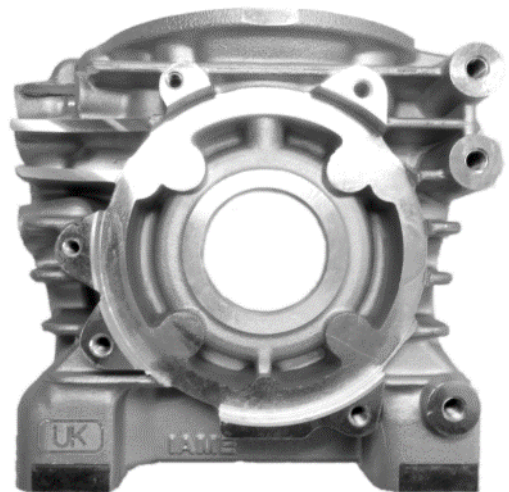
SEMICARTER TRANSMISSION SIDE



NEW LOGO



SEMICARTER IGNITION SIDE



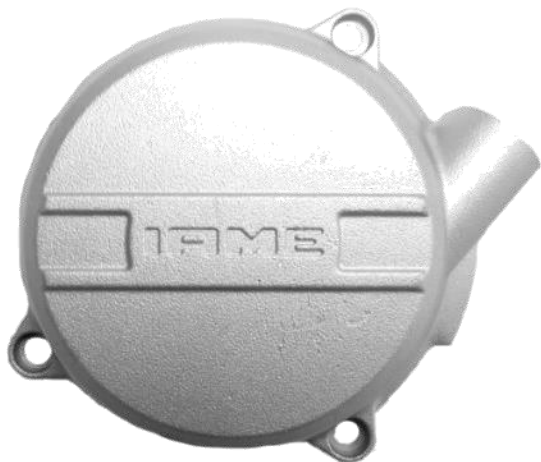
NEW LOGO





COMPONENTS WITH ALTERNATIVE NEW LOGO "IAME"

RECOIL COVER



NEW LOGO



CLUTCH COVER



NEW LOGO



EXHAUST



NEW LOGO



COMPONENTS WITH ALTERNATIVE NEW LOGO "IAME"

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

I A M E

or

**IAME**

**NOW COULD BE MARKED WITH NEW LOGO "IAME"**

IAME

or

IAME

or

IAME



**CARBURETTOR**  
**Tillotson HS-325A**



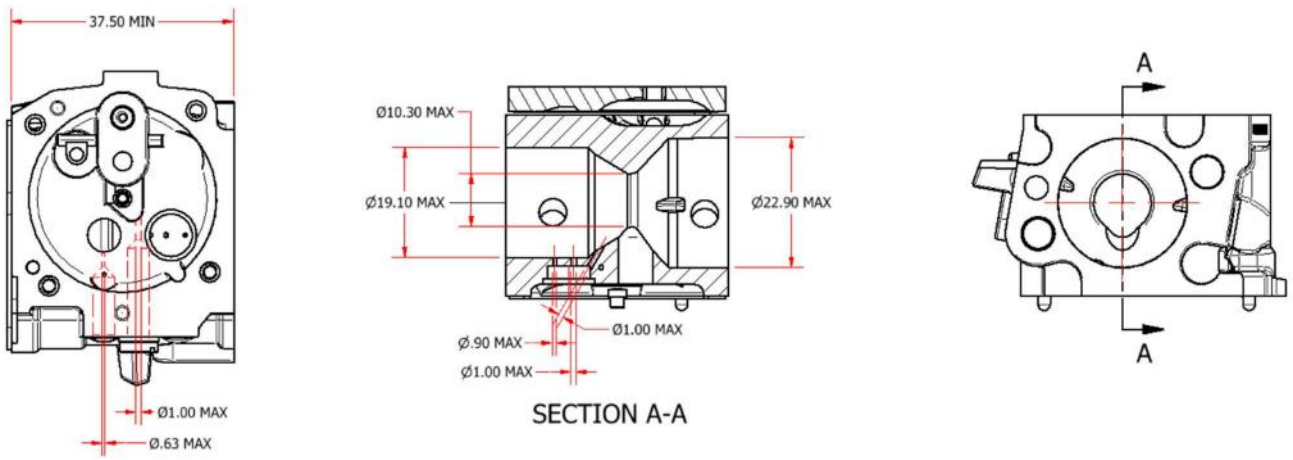
PHOTO OF ADJUSTING SIDE



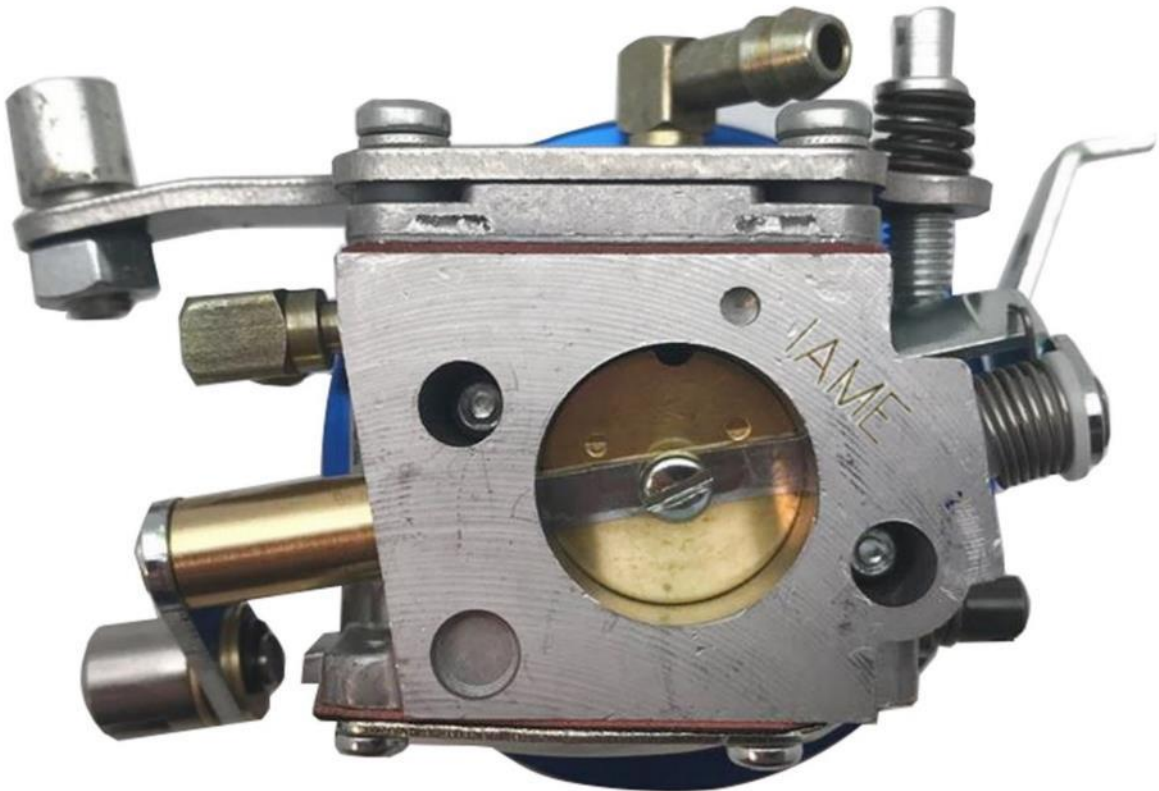
PHOTO OF INLET SIDE

Manufacteur	<b>TILLOTSON LTD.</b>
Make	<b>TILLOTSON</b>
Model	<b>HS-325A</b>

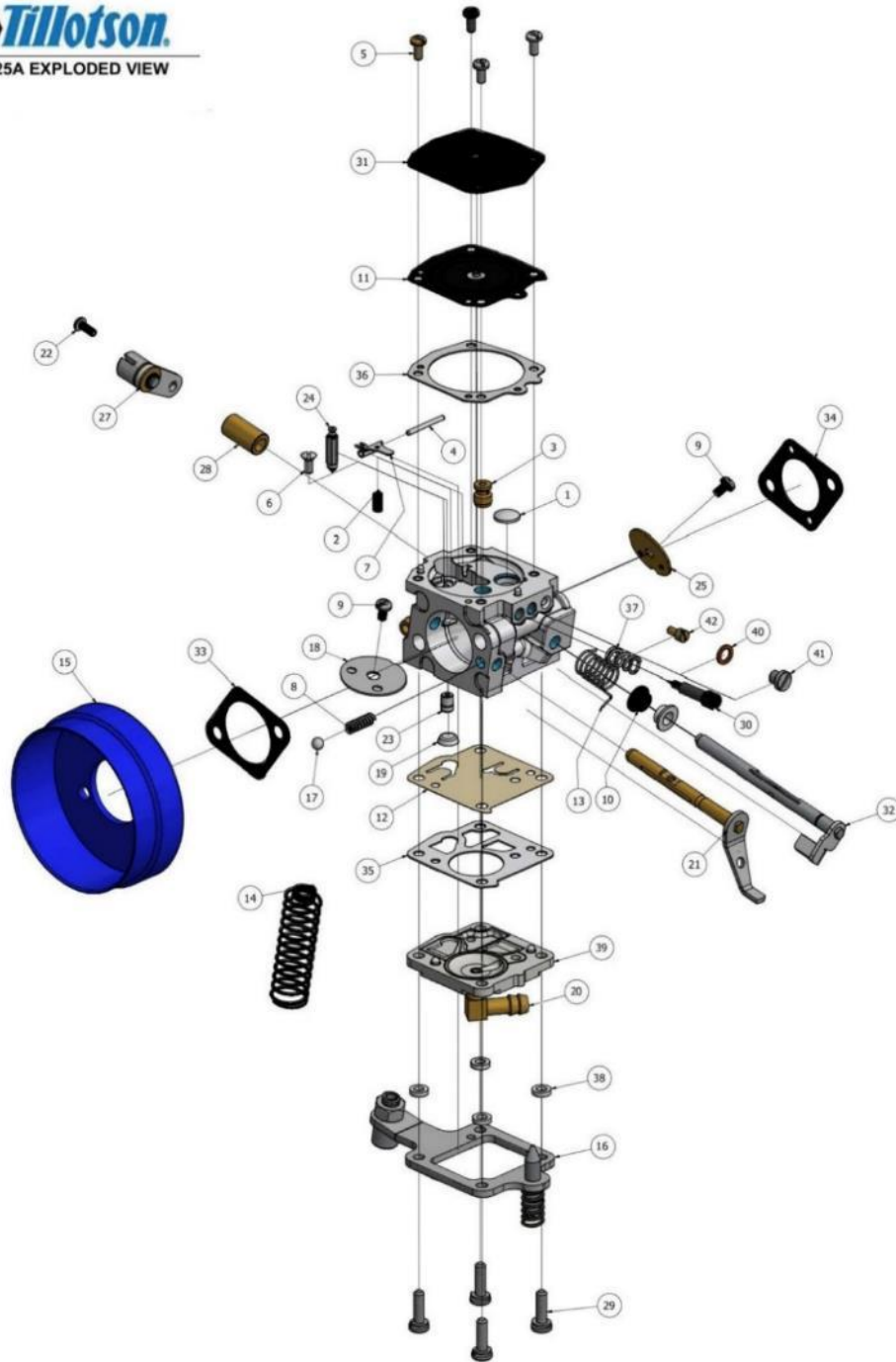
## SECTION VIEW



## "IAME" MARKING



# CARBURETTOR DESCRIPTION AND SKETCH OF PARTS



ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	179-59	* WELCH PLUG	18	1	27-392	CHOKE SHUTTER	35	1	16-B514	++ PUMP GASKET (ORANGE)
2	1	24-B323	INLET TENSION SPRING 26g	19	1	95-177	FILTER SCREEN	36	1	16-B513	++ METERING GASKET (ORANGE)
3	1	363-598	CHECK VALVE	20	1	68-307	FUEL CONNECTOR	37	1	24-B449	ADJUSTMENT GASKET SPRING
4	1	32-78	FULCRUM PIN	21	1	26-1279	CHOKE SHAFT & LEVER ASSEMBLY	38	4	78-A351	NYLON WASHER
5	4	15-C19	4-40 UNC SCREW	22	1	15-B348	3-48 UNC SCREW	39	1	91-1036	PUMP COVER ASSEMBLY
6	1	15-B345	FULCRUM PIN SCREW	23	1	36-A33	INLET SEAT	40	1	16-B184	RUBBER WASHER
7	1	155-A71	* FULCRUM LEVER	24	1	34-216	+ INLET NEEDLE	41	1	15-C135	SCREW - CAP
8	1	24-B281	SPRING	25	1	14-A133	THROTTLE SHUTTER	42	1	49-B134	FIXED JET - .43MM
9	2	15-C20	4-40 UNC SCREW	26	1	219-D281	MACHINED BODY				
10	2	102-204	PLASTIC SLEEVE	27	1	12-1228	THROTTLE LEVER & SWIVEL ASSEMBLY			*	REPAIR KIT CONTENTS
11	1	237-653	++ METERING DIAPHRAGM	28	1	102-236	BRASS SLEEVE			+	DIAPHRAGM & GASKET SET CONTENTS
12	1	237-143	++ TEFLON PUMP DIAPHRAGM	29	4	15-C127	6-32 SCREW & LOCK WASHER				
13	1	24-C29	THROTTLE RETURN SPRING	30	1	43-A268	M4 X 0.5 ADJUSTMENT SCREW			RK-28HS	REPAIR KIT
14	1	24-C34	CABLE RETURN SPRING	31	1	91-A274	METERING COVER			DG-7HS	DIAPHRAGM & GASKET SET
15	1	SA-506	CHOKE TRUMPET	32	1	13-2160	THROTTLE SHAFT & LEVER ASSEMBLY				
16	1	136-569	CABLE BRACKET ASSEMBLY	33	1	16-B384	++ FLANGE GASKET (CHOKE)				
17	1	206-121	BRASS BALL	34	1	16-B228	++ FLANGE GASKET (THROTTLE)				

PARTS OF CARBURETTOR

REF.36 - P. N°16-B513  
DIAPHRAGM GASKET  
(ORANGE COLOR)



Thickness =  $0.5 \pm 0.1$  mm

REF.35 - P. N° 16-B514  
PUMP DIAPHRAGM GASKET  
(ORANGE COLOR)



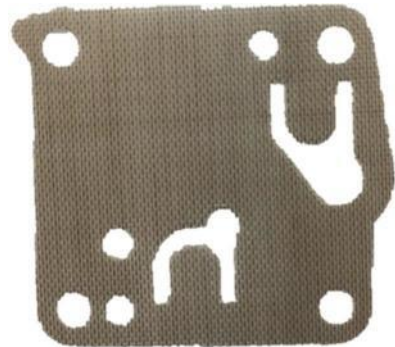
Thickness =  $0.5 \pm 0.1$  mm

REF.11 - P. N°237-601  
DIAPHRAGM



Thickness =  $0.15 \pm 0.05$  mm

REF.12- P. N°237-143  
PUMP DIAPHRAGM



Thickness =  $0.21 \pm 0.05$  mm

REF.31 - P. N° 91-A274  
DIAPHRAGM COVER



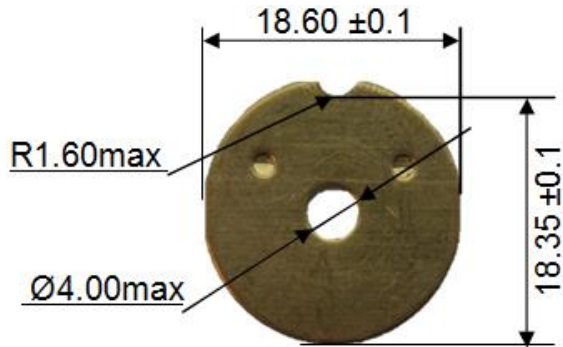
Thickness =  $3.10 \pm 0.15$  mm

REF.39 - P. N° 91-1036  
PUMP COVER



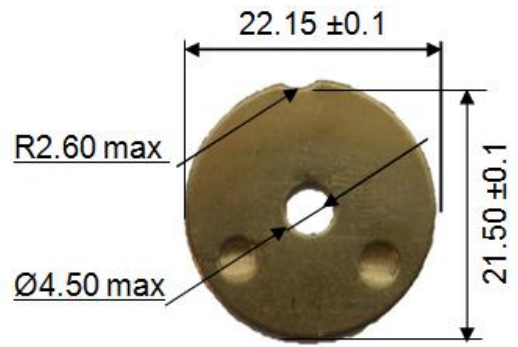
Thickness =  $6.30 \pm 0.15$  mm

REF.25 - P. N° 14-A135  
THROTTLE SHUTTER



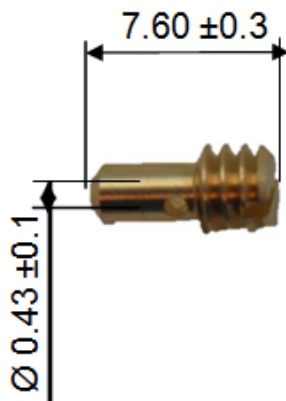
Thickness = 0.81 ± 0.1 mm

REF.18 - P. N° 27-392  
CHOKE SHUTTER

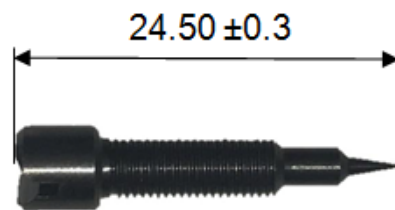


Thickness = 0.81 ± 0.1 mm

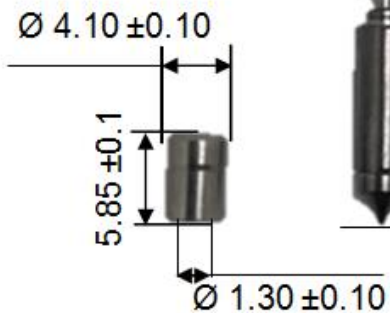
REF.42 - P. N° 49-B134  
FIXED JET - 0.43mm



REF.30 - P. N° 43-A268  
NEEDLE HIGH SPEED



REF.23 - P. N° 36-A33  
INLET SEAT



REF.24 - P. N° 34-216  
INLET NEEDLE



REF.15 - P. N° SA-506  
CHOKE TRUMPET

