
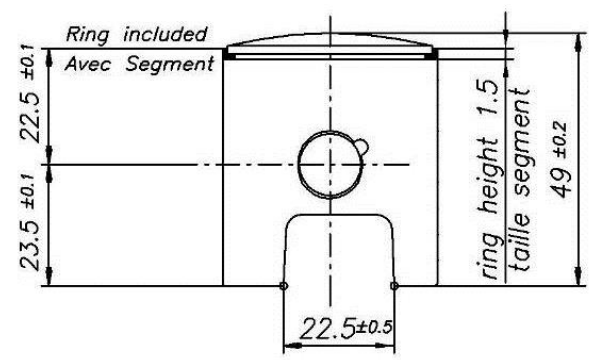
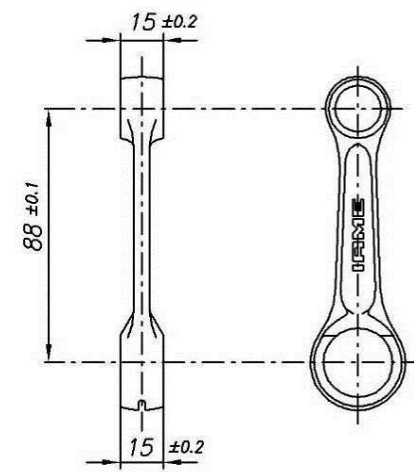


## 60cc Mini Swift “PROMOTIONAL” - TaG

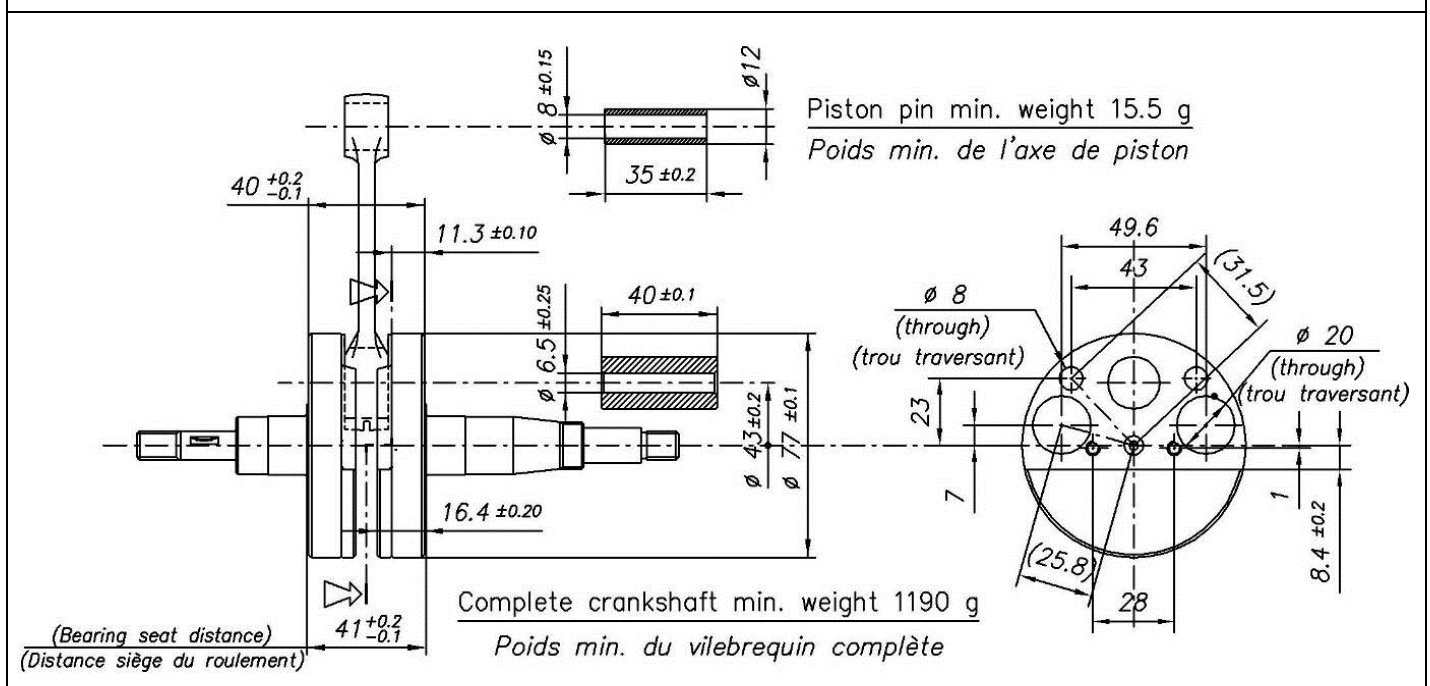


### FEATURES - CARACTERISTIQUES

		Cylinder Volume <i>Volume du cylindre</i>	59.00 cm <sup>3</sup>
		Bore <i>Alésage</i>	41.80 mm
		Max. theoretical bore <i>Alésage théorique max.</i>	42.10 mm
		Stroke <i>Course</i>	43 ±0.2 mm
		Cooling system <i>Système de refroidissement</i>	Air <i>Air</i>
		Inlet system <i>Système d'admission</i>	Piston valve <i>Jupe de piston</i>
		Number of carbs <i>Nombre de carburateurs</i>	1
		Tillotson Carburettor <i>Carburateur Tillotson</i>	<b>HW-31A</b> (ØVenturi 17mm)
Number of piston rings <i>Nombre de segments</i>	1	Inlet / exhaust ports number <i>N° lumières admiss / échapp.</i>	1 / 1
Big end conrod ball-bearing diam. <i>Diamètre palier tête de bielle</i>	18x24x15	Combustion chamber shape. <i>Forme chamber de combustion</i>	Spherical <i>Spherique</i>
Crankshaft ball-bearing diam. <i>Diamètre palier du vilebrequin</i>	20x47x14	Selettra ignition (adjustable) <i>Allumage Selettra (règlable)</i>	2 Poles <i>2 pôles</i>
Small end conrod ball-bearing diam. <i>Diamètre palier pied de bielle</i>	12x16x16	Distance between Conrod centres <i>Lounguer (entre axe) de la bielle</i>	88 mm

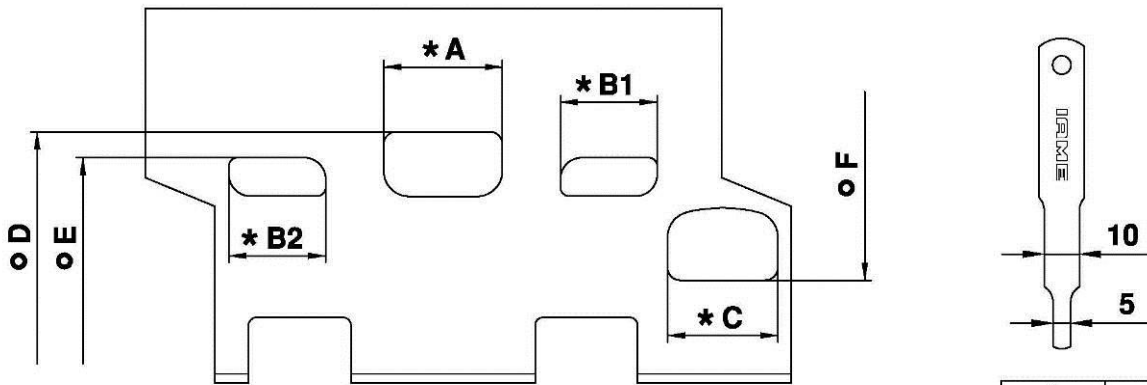
DESCRIPTION OF THE MATERIAL <i>DESCRIPTION DES MATERIAUX</i>		PISTON
Conrod material <i>Matériel de la bielle</i>	Steel <i>Acier</i>	 <p>Min Weight (ring included) 60g Poids min. (avec segment) 60 g</p>
Crankshaft material <i>Matériel du vilebrequin</i>	Steel <i>Acier</i>	
Head Material <i>Matériel de la culasse</i>	Aluminium	
Cylinder Material <i>Matériel du cylindre</i>	Aluminium	
Liner material <i>Matériel de la chemise</i>	Iron <i>Fonte</i>	DISTANCE BETWEEN CONROD CENTERS <i>ENTRE AXE DE LA BIELLE</i>
Crankcase material <i>Matériel du carter</i>	Aluminium	 <p>Min Weight 80 g Poids min.</p>
Piston material <i>Matériel du piston</i>	Aluminium	
Piston rings material <i>Matériel des segments</i>	Iron <i>Fonte</i>	
Exhaust muffler material <i>Matériel du pot d'échappement</i>	Sheet-steel <i>Tôle acier</i>	
Ball-bearings <i>Roulements</i>	6204 type	

### CRANKSHAFT - VILEBREQUIN



# CYLINDER DEVELOPMENT – DEVELOPPEMENT DU CYLINDRE

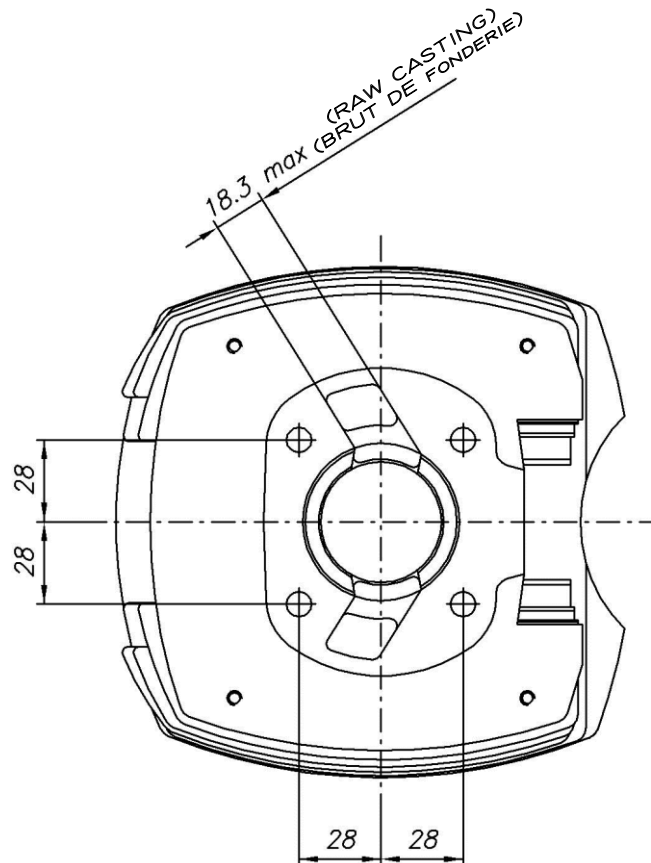
TOOL IAME Cod. 10194



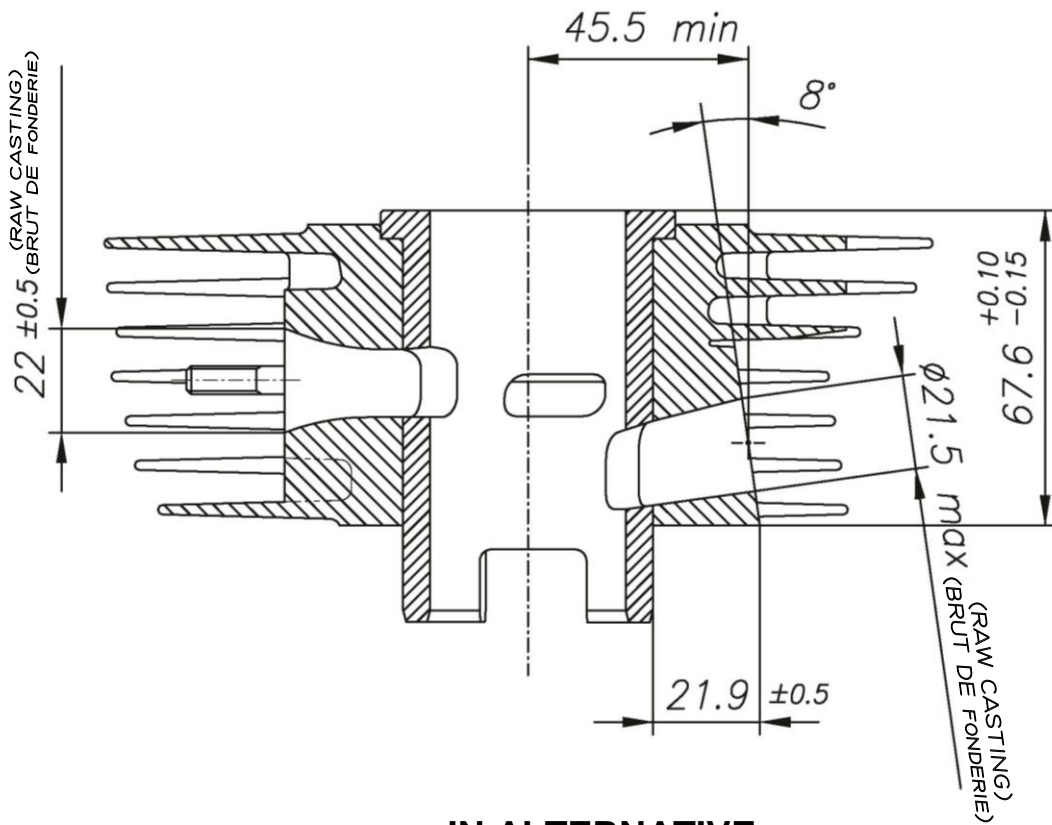
<b>A</b>	28 ± 0.2 mm
<b>B1=B2</b>	21.8 ± 0.2 mm
<b>C</b>	26 ± 0.2 mm
Wedge: 10 mm	<b>D</b> 156° max
Wedge: 5 mm	<b>E</b> 116° ± 2°
Wedge: 10 mm	<b>F</b> 144° max

- \* CHORDAL READING – LECTURE CORDALE
- o ANGULAR READING BY INSERT A 0.2 mm GAUGE –  
LECTURE ANGULAIRE PAR INSERTION D'UNE CALE DE 0.2 mm  
USING IAME TOOL Cod. 10194 – UTILISER OUTIL

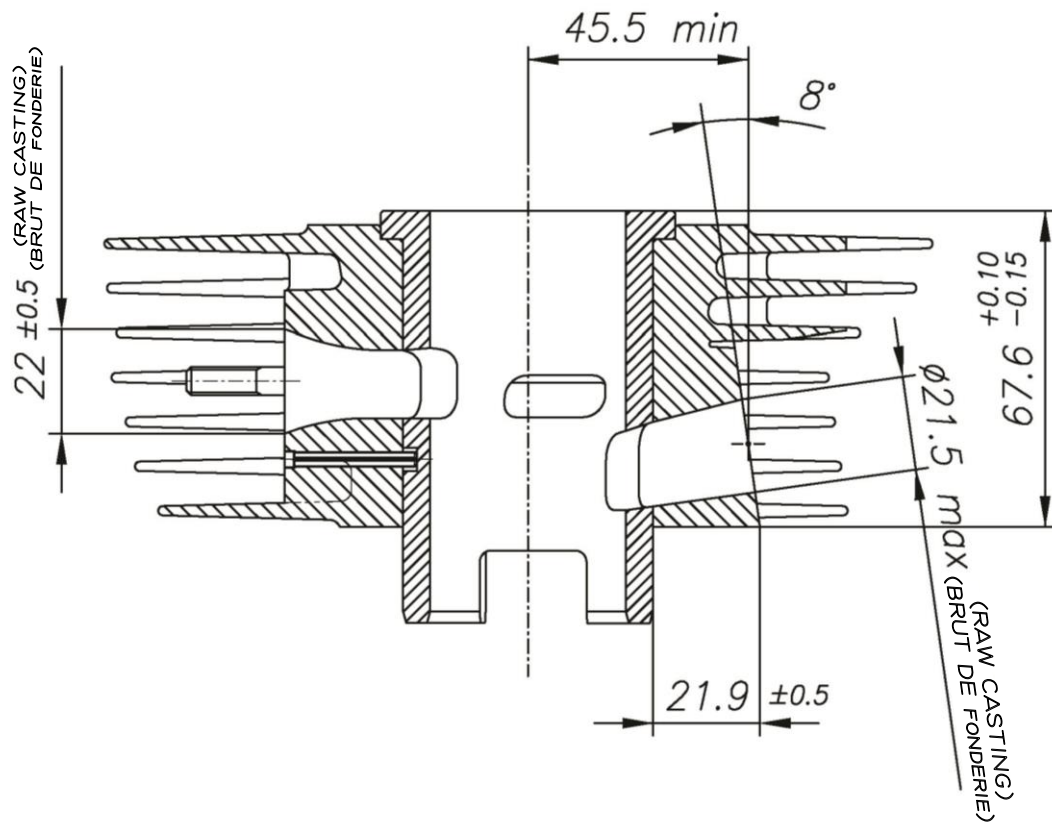
## CYLINDER BASE VIEW VUE DE LA BASE DU CYLINDRE



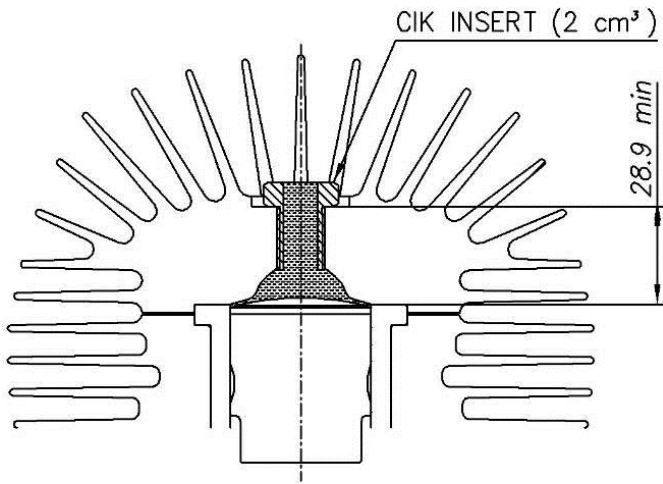
CYLINDER SECTION VIEW  
 VUE EN SECTION DU CYLINDRE



IN ALTERNATIVE

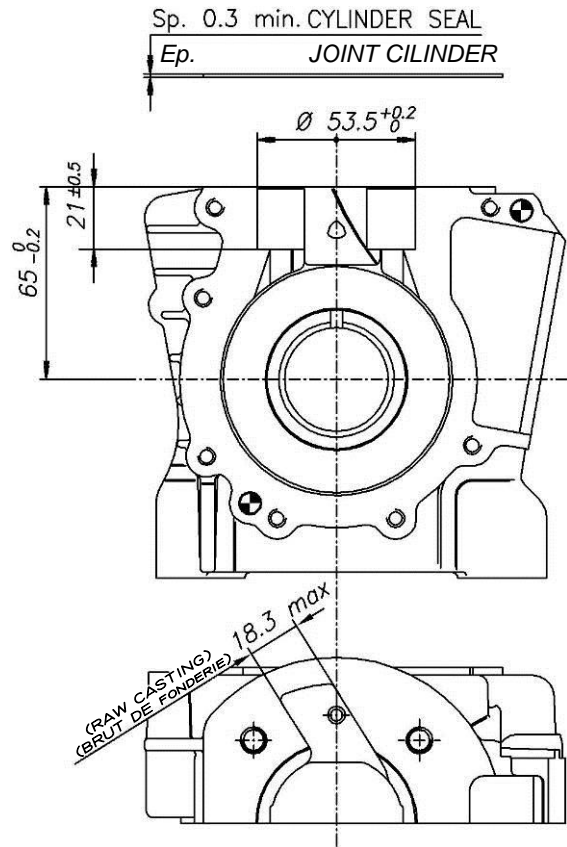


**COMBUSTION CHAMBER VIEW**  
**VUE DE LA CHAMBRE DE COMPRESSION**

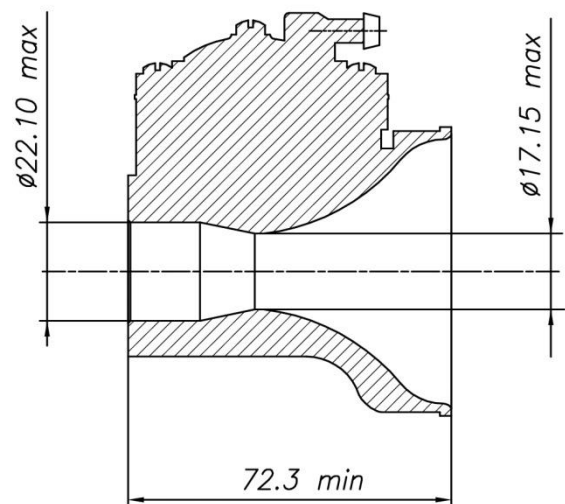
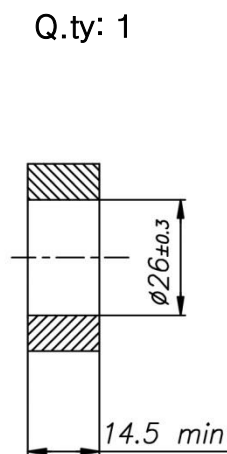
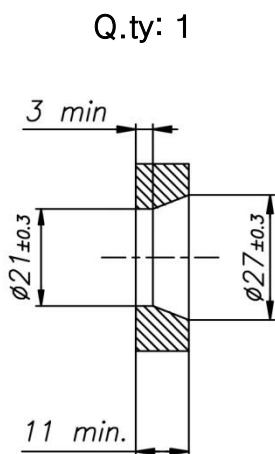


COMBUSTION CHAMBER VOLUME = 6.5 cm<sup>3</sup> min.  
VOLUME CHAMBRE COMBUSTION

**CRANKCASE INSIDE VIEW**  
**VUE A' L'INTERIEUR DU CARTER**



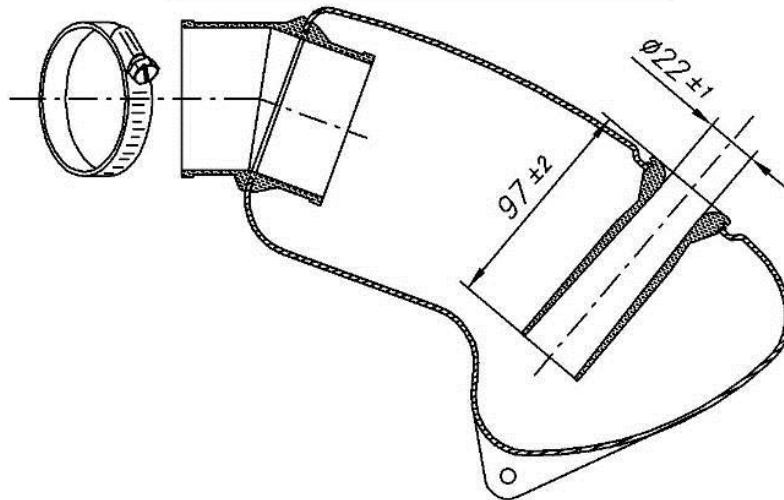
**VENTURI CARB. DIMENSIONS and THERMAL SPACERS**  
**DIMENSIONS DU VENTURI DU CARBURATEUR ET ESPACEURS THERMIQUE**



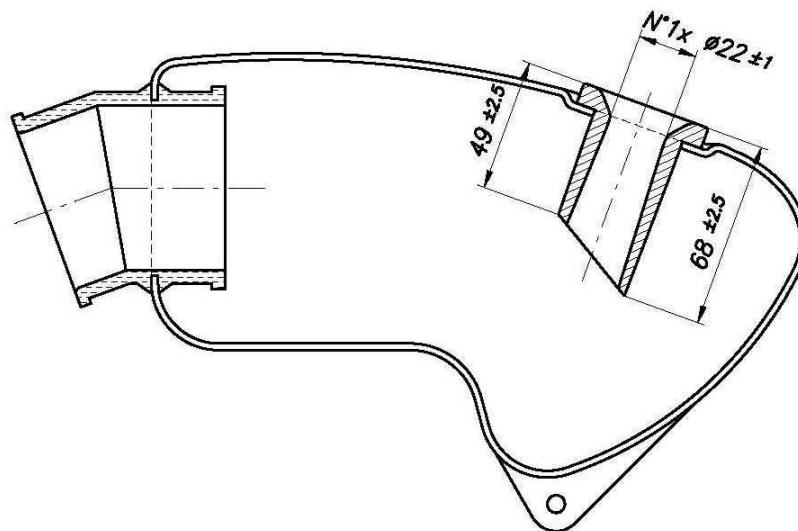
TILLOTSON MOD. HW-31A

INLET SILENCER  
SILENCIEUX D'ASPIRATION

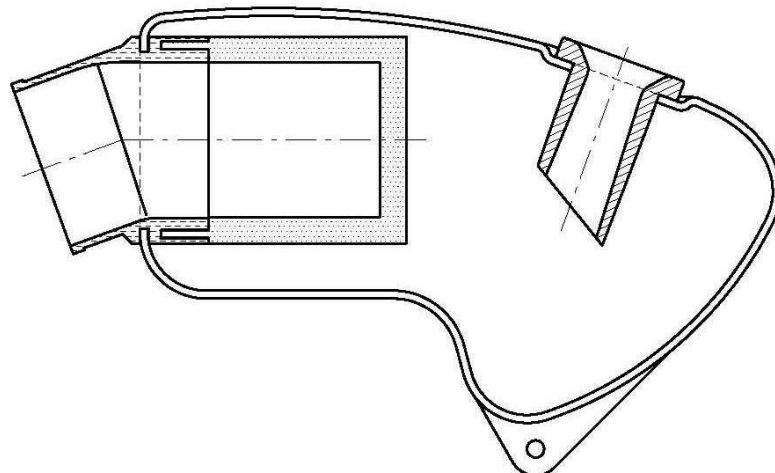
(CSAI OMOLOGATION N° 01/SA/14)



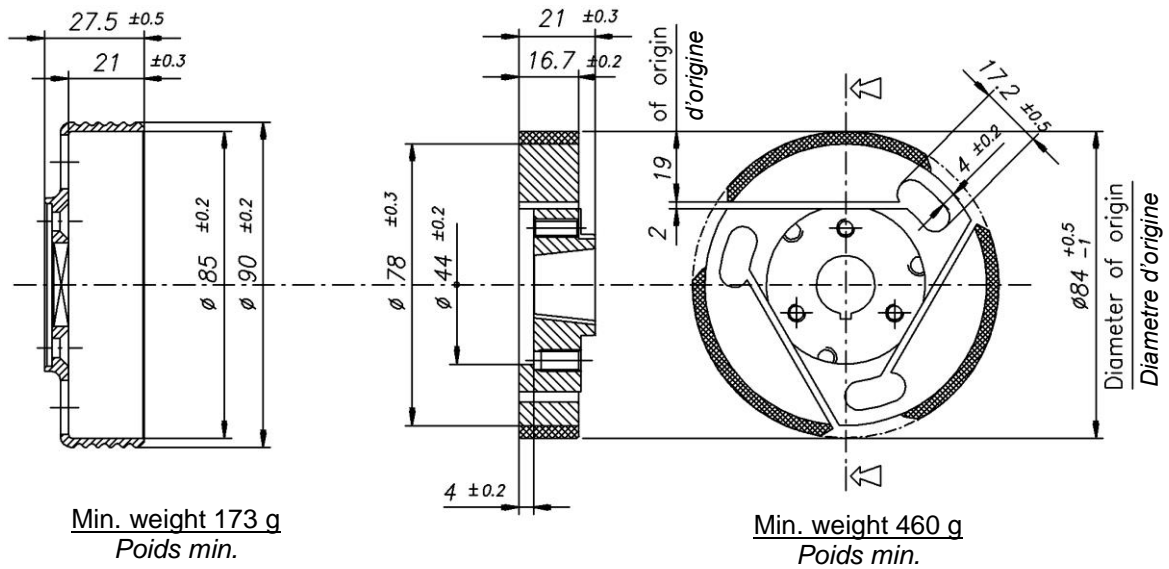
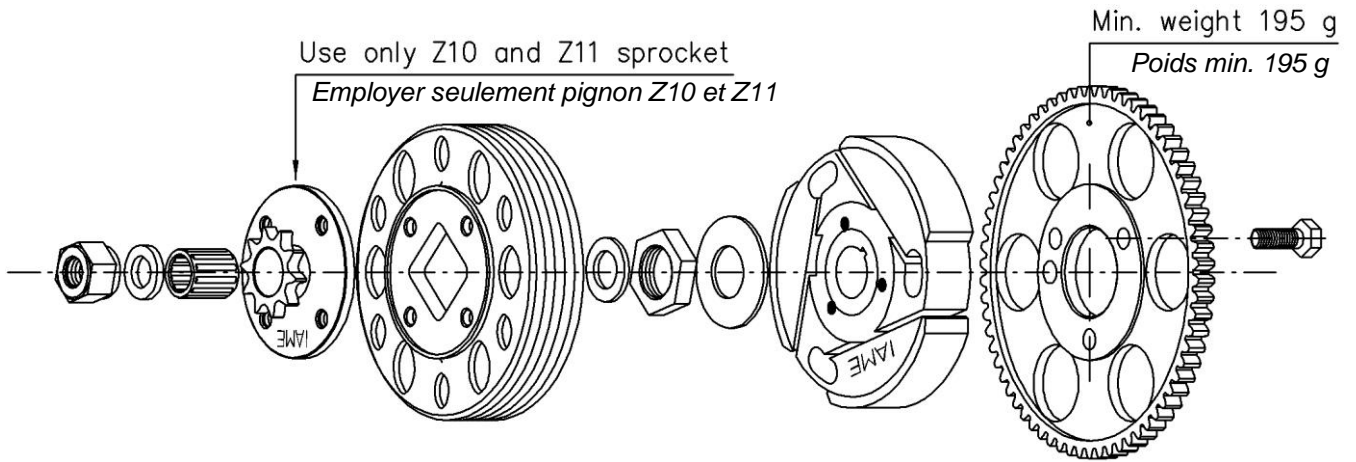
ALTERNATIVE INLET SILENCER  
ALTERNATIVE SILENCIEUX D'ASPIRATION



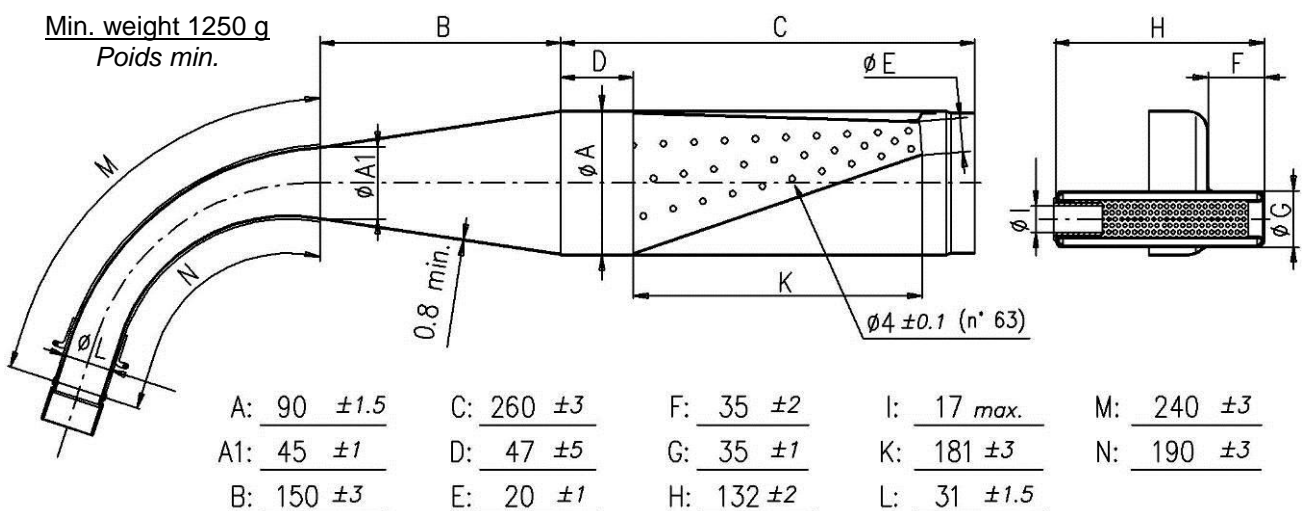
ASSEMBLY OF INLET SILENCER ALTERNATIVE MANIFOLD WITH FILTER  
ASSEMBLE DU ALTERNATIVE RACCORD AVEC FILTRE AU SILENCIEUX D'ASPIRATION



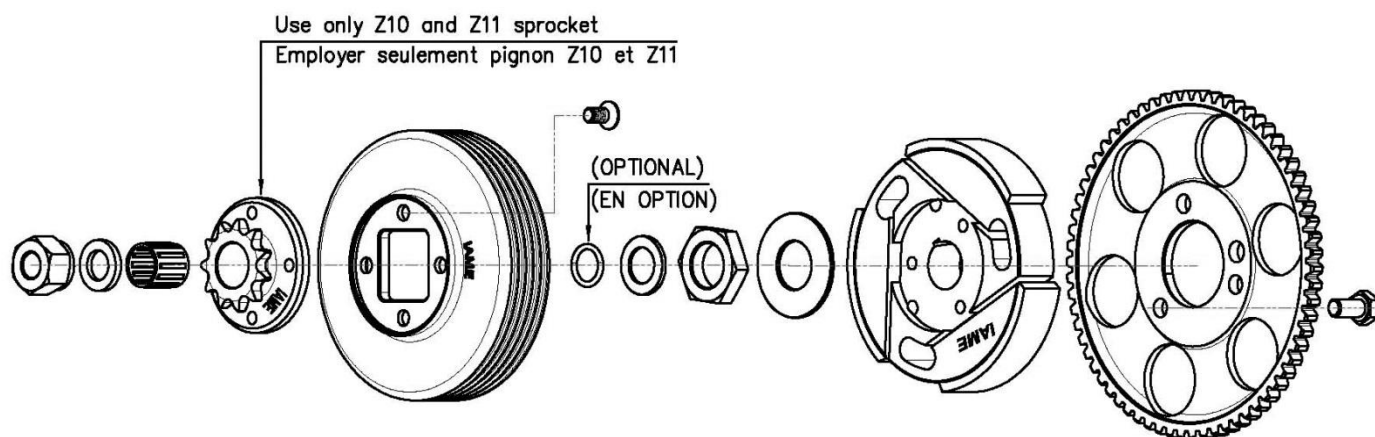
## DESCRIPTION OF THE CLUTCH – DESCRIPTION DE L'EMBRAYAGE



## EXHAUST MUFFLER VIEW AND DIMENSIONS VUE ET DIMENSIONS DU SILENCIEUX D'ÉCHAPPEMENT

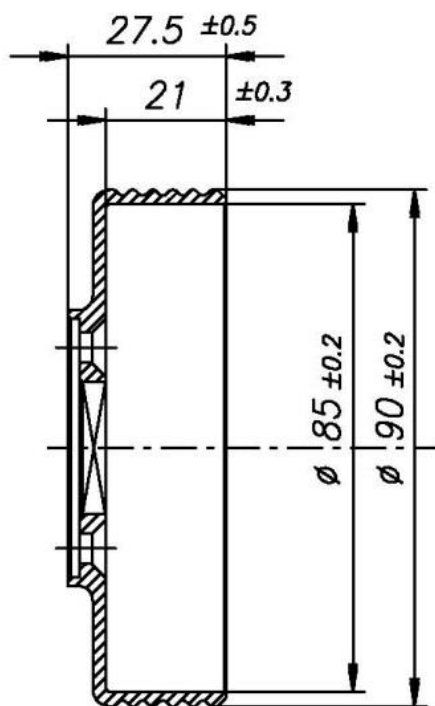


DESCRIPTION OF THE CLUTCH – DESCRIPTION DE L'EMBAYAGE

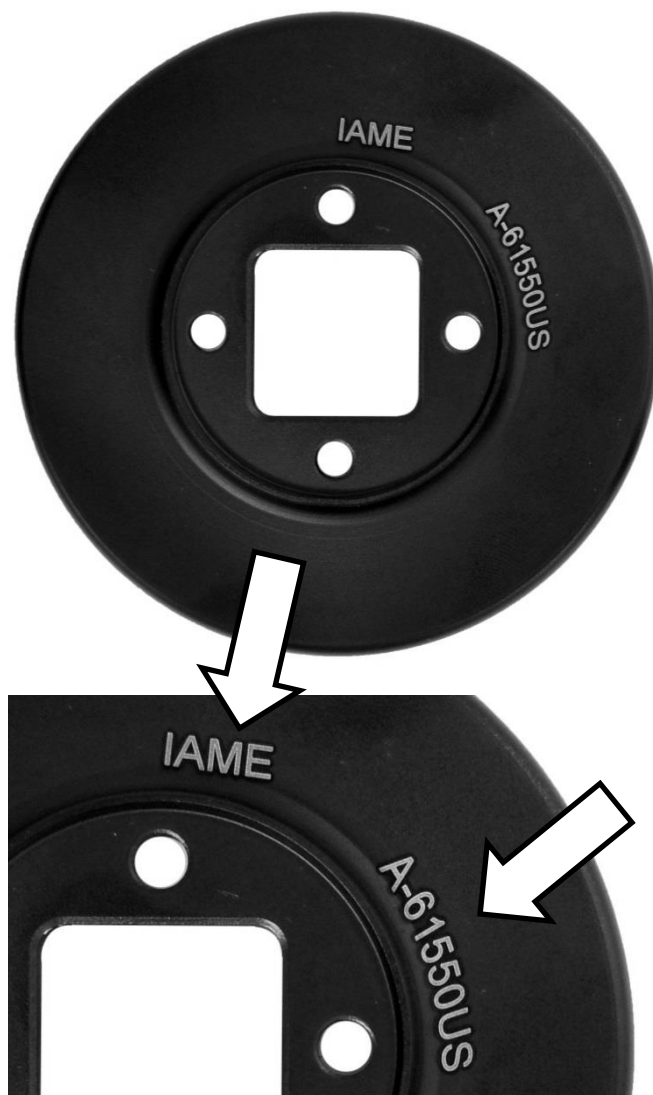


ALTERNATIVE CLUTCH DRUM DRAWING  
DESSIN DE LA CLOCHE D'EMBAYAGE  
ALTERNATIVE

ALTERNATIVE CLUTCH DRUM  
IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DE LA  
CALOTTE D'EMBAYAGE ALTERNATIVE

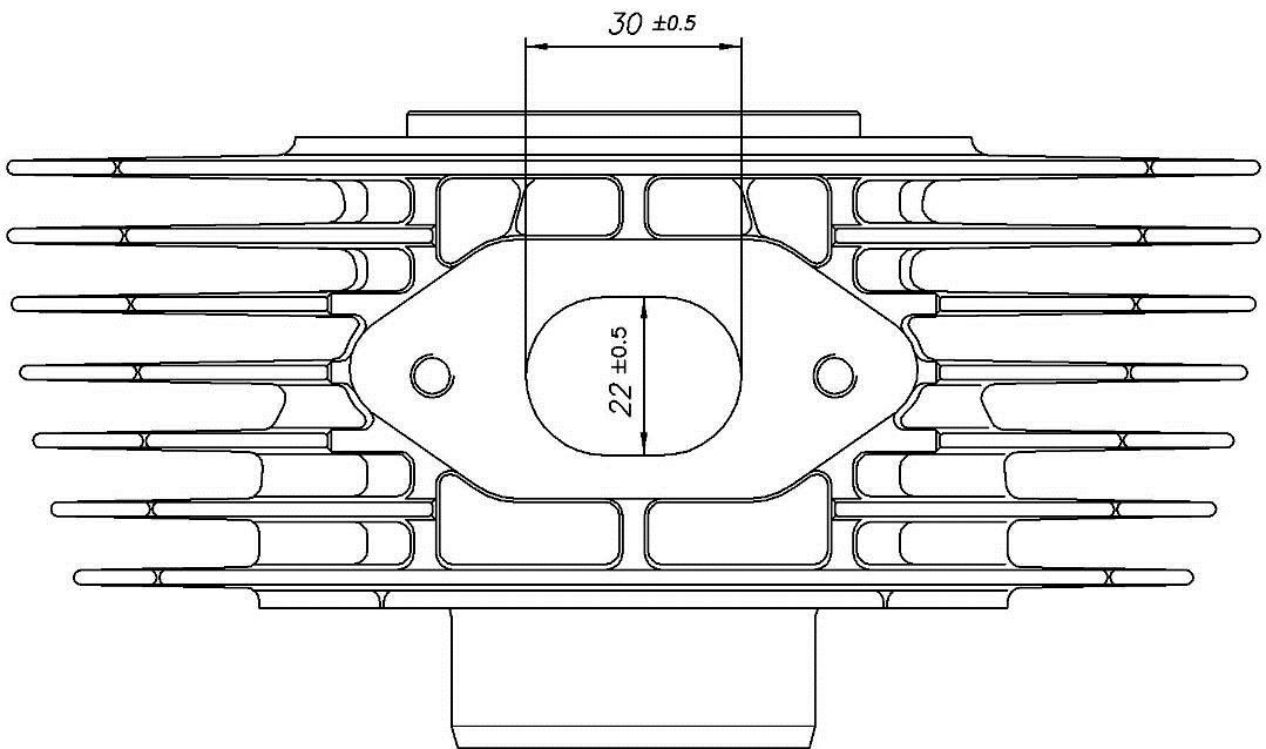


Min. weight 175 g  
Poids min. 175 g

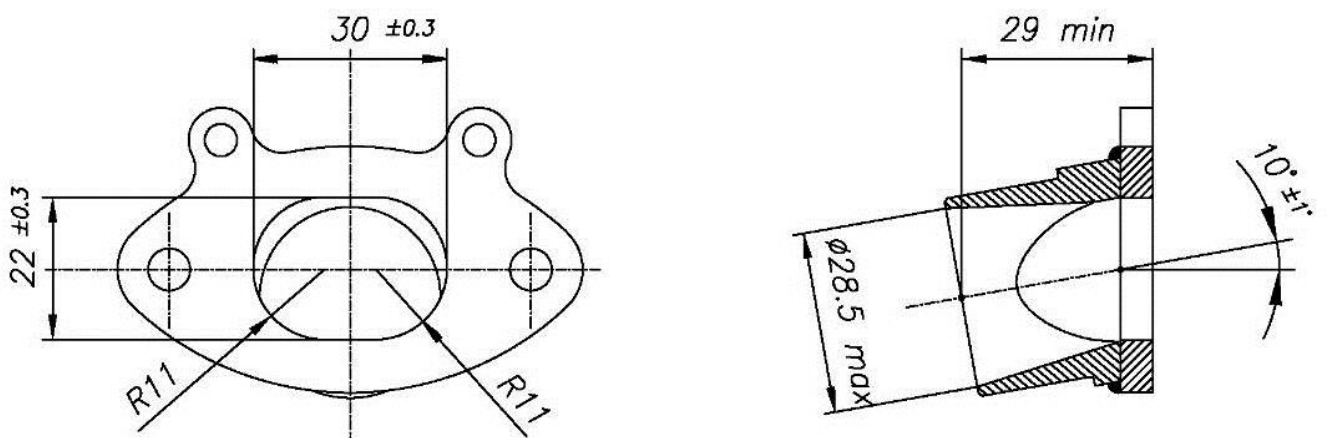




EXHAUST EXIT VIEW AND DIMENSION  
VEU ET DIMENSIONS DU SORTIE D'ÉCHAPPEMENT



EXHAUST FITTING  
RACCORD D'ÉCHAPPEMENT



WIRING DIAGRAM  
SCHEMA CIRCUIT ELECTRIQUE

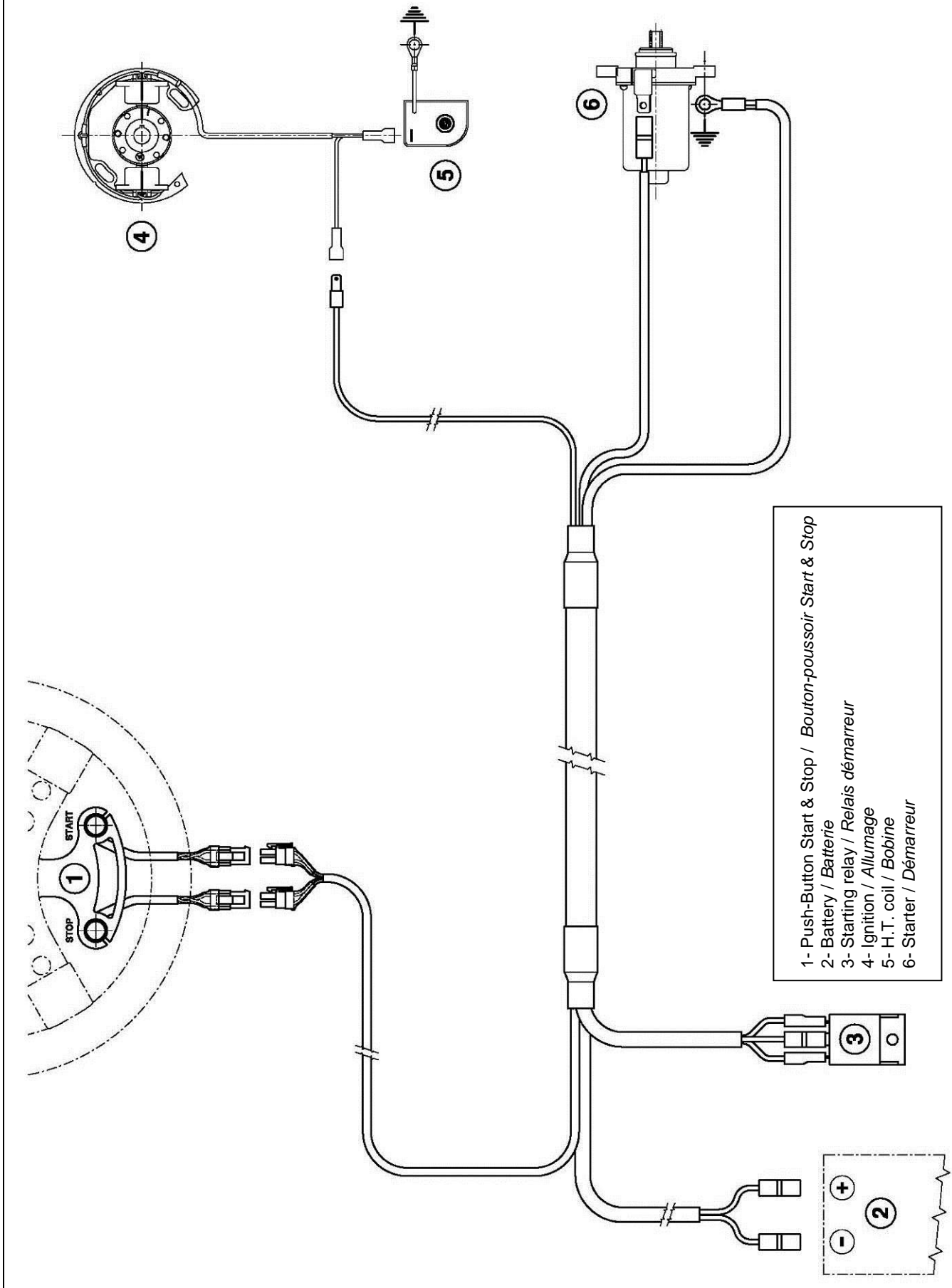
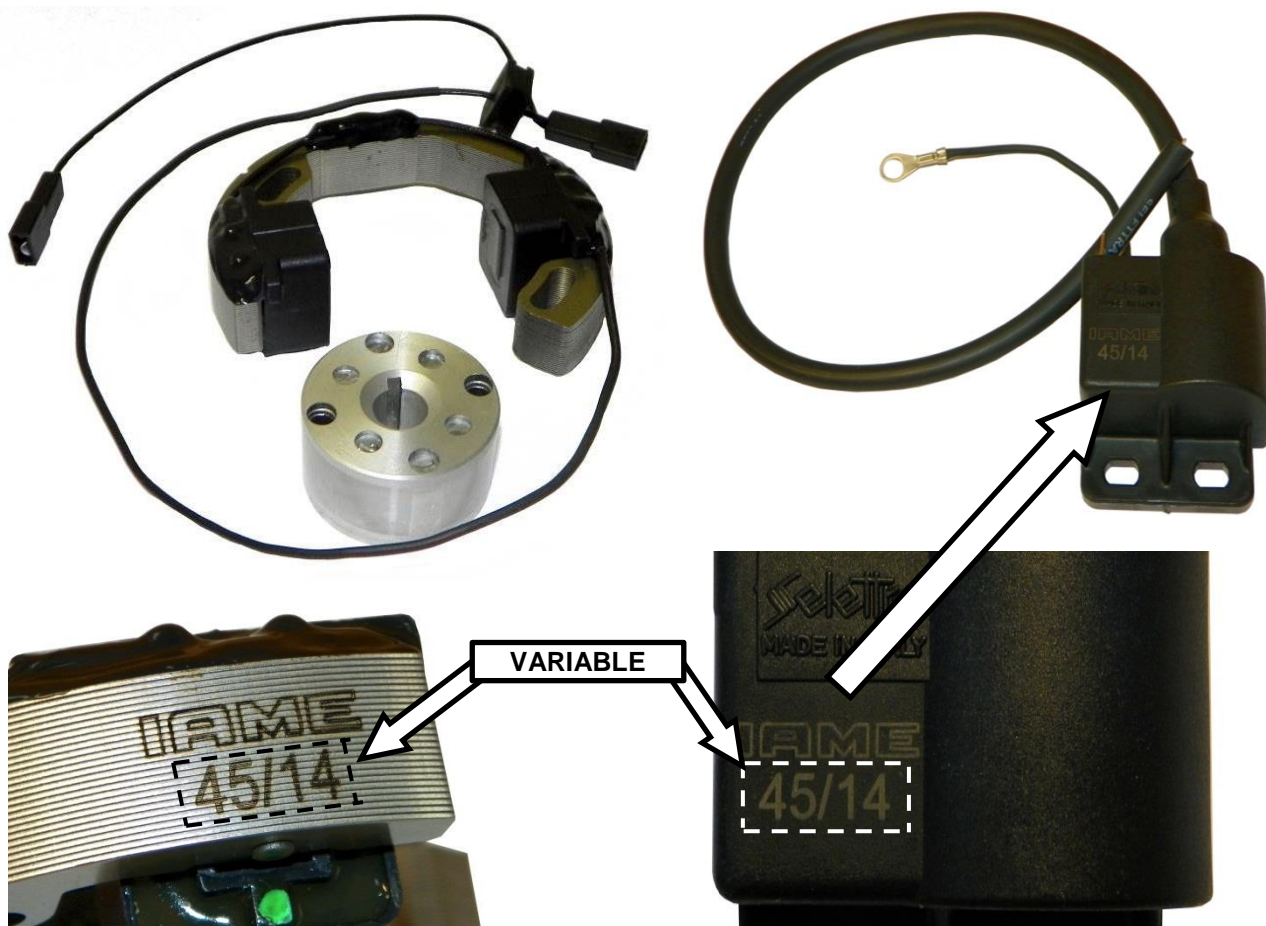


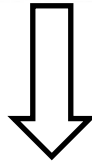
PHOTO COMPLETE WIRING  
PHOTO DU CÂBLAGE ÉLECTRIQUE COMPLÈTE



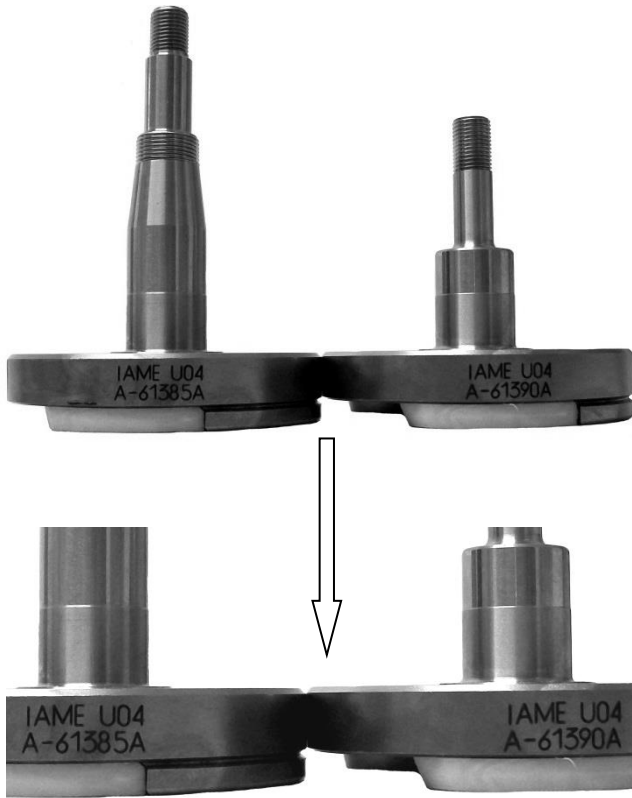
PHOTO OF IGNITION / PHOTO OF H.T. COIL ( SELETTA ANALOGUE 2 POLES)  
PHOTO DU ALLUMAGE ET BOBINE



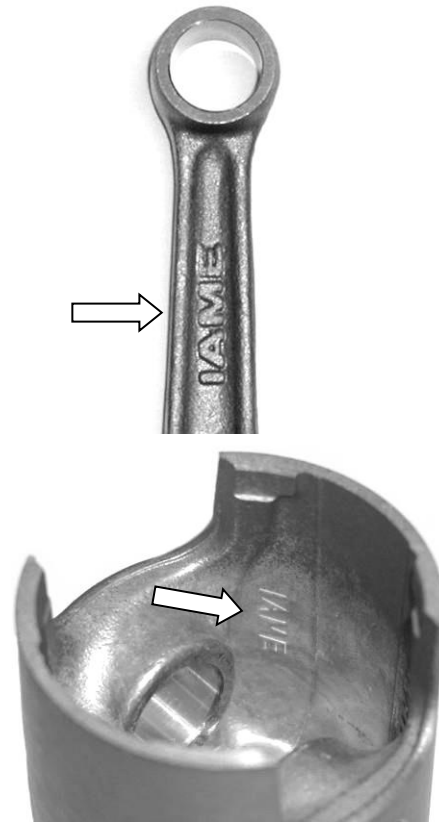
HEAD IDENTIFICATION MARKING  
*MARQUAGE D'IDENTIFICATION DE LA CULASSE*



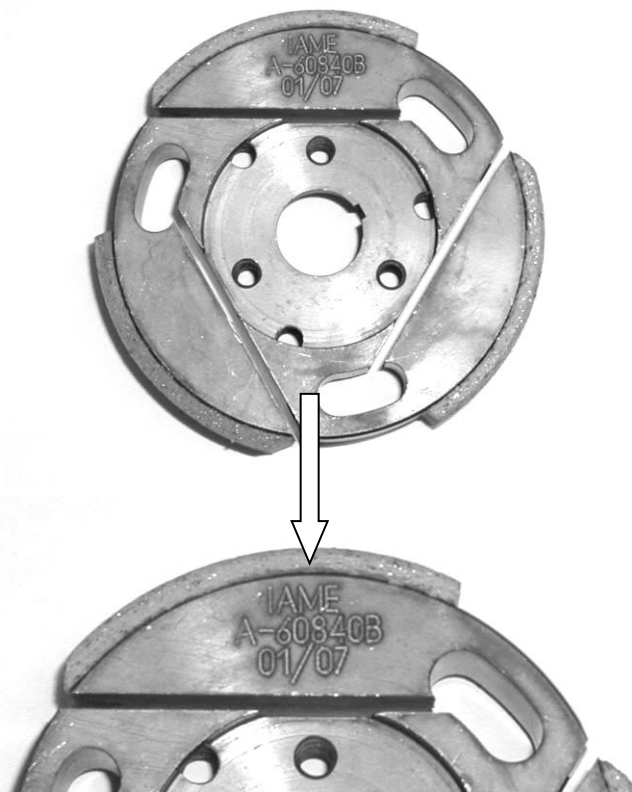
**CRANKSHAFT IDENTIFICATION MARKINGS**  
*MARQUAGE D'IDENTIFICATION DU VILEBREQUIN*



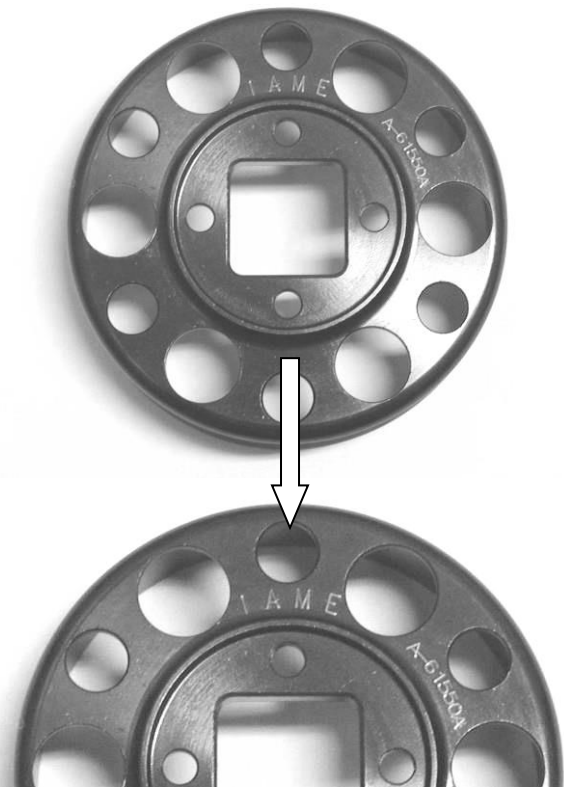
**CONROD AND PISTON IDENTIFICATION MARKINGS**  
*MARQUAGE D'IDENTIFICATION BIELLE ET PISTON*



**CLUTCH HUB IDENTIFICATION MARKING**  
*MARQUAGE D'IDENTIFICATION CORPS DE EMBRAYAGE*



**CLUTCH DRUM IDENTIFICATION MARKING**  
*MARQUAGE D'IDENTIFICATION DE LA CALOTTE*



CRANKSHAFT PHOTOS  
PHOTO D'IDENTIFICATION DU VILEBREQUIN

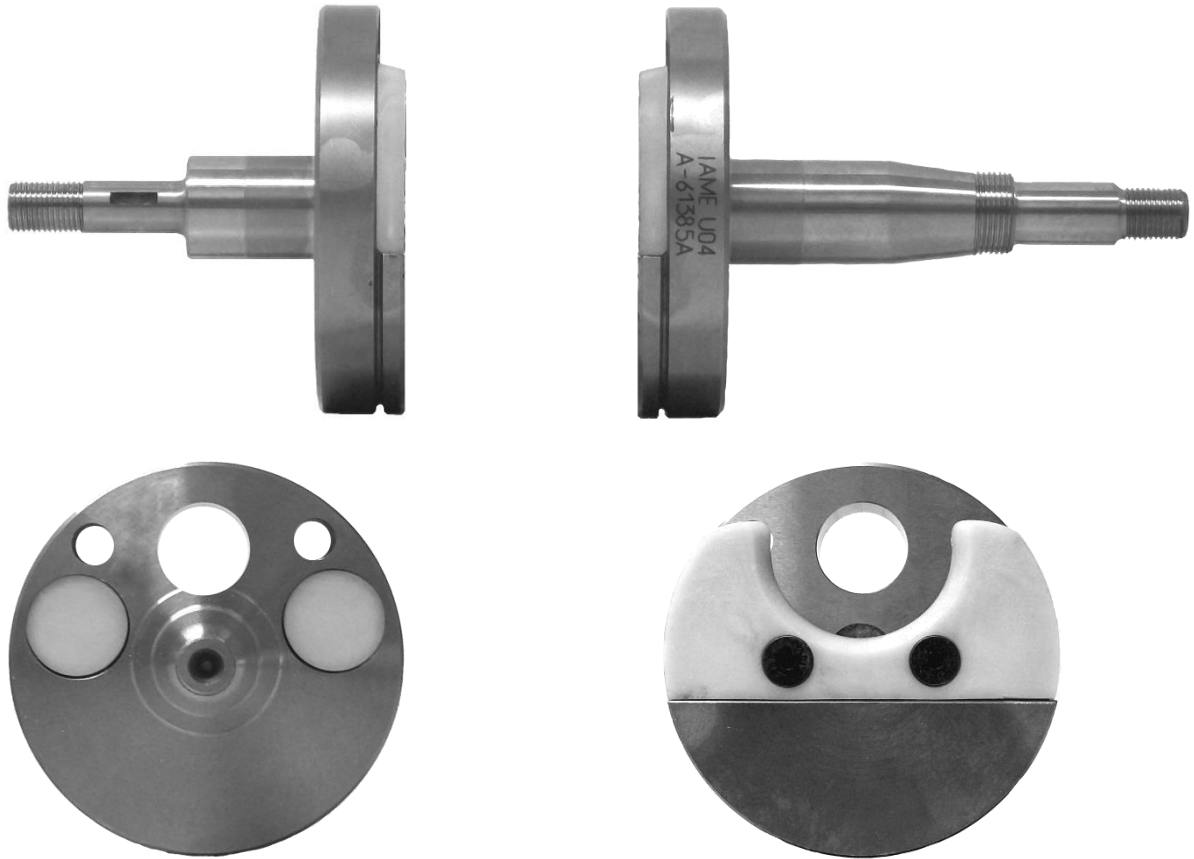


PHOTO OF COMPLETE CRANKSHAFT  
PHOTO DU VILEBREQUIN COMPLETE

EXHAUST IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU  
SILENCIEUX D'ECHAPPEMENT





**CARBURETTOR / CARBURATEUR**  
**Tillotson HW-31A**



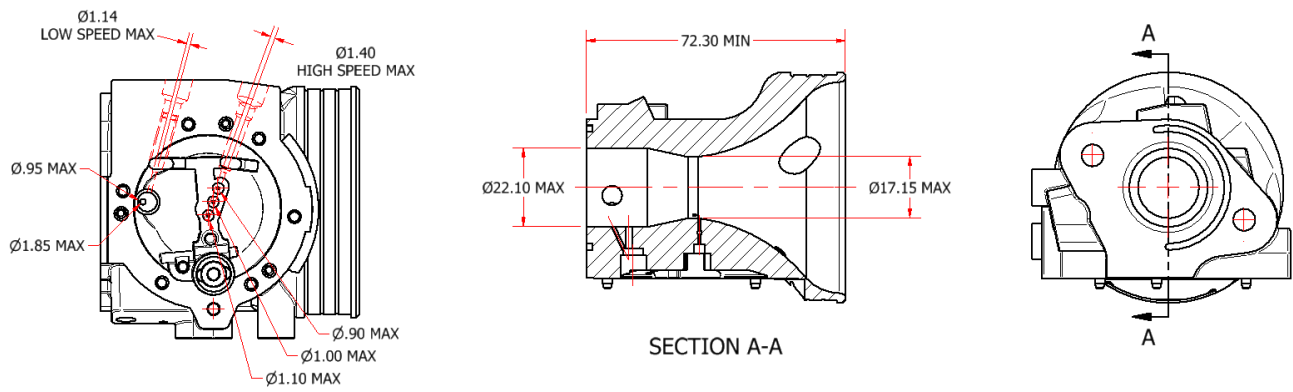
PHOTO OF ADJUSTING SIDE  
 PHOTO CÔTÉ RÉGLAGE



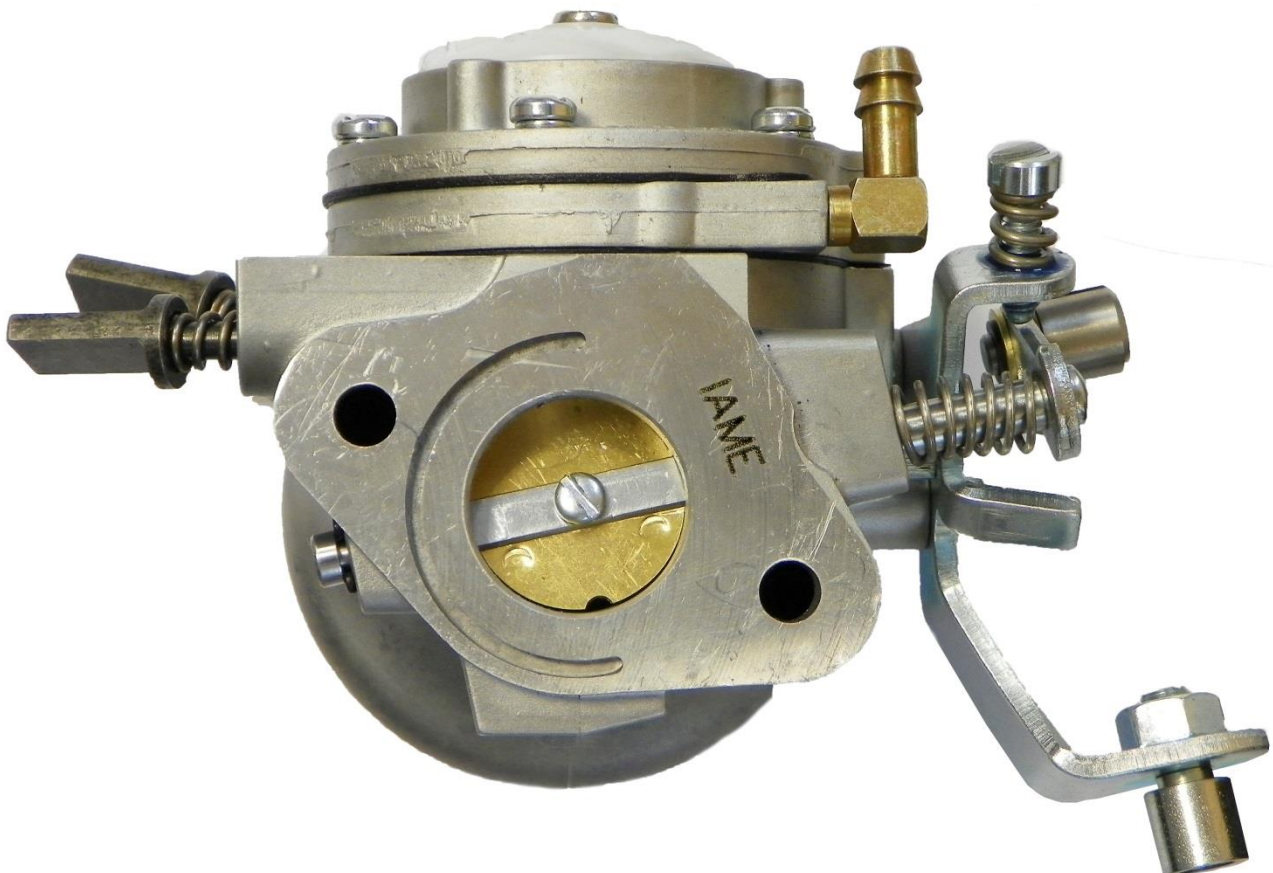
PHOTO OF INLET SIDE  
 PHOTO CÔTÉ ASPIRATION

Manufacturer - <i>Manufacteur</i>	<b>TILLOTSON LTD.</b>
Make - <i>Marque</i>	<b>TILLOTSON</b>
Model - <i>Modèle</i>	<b>HW-31A</b>

# SECTION VIEW – VUE DE SECTION AVEC DIMENSIONS



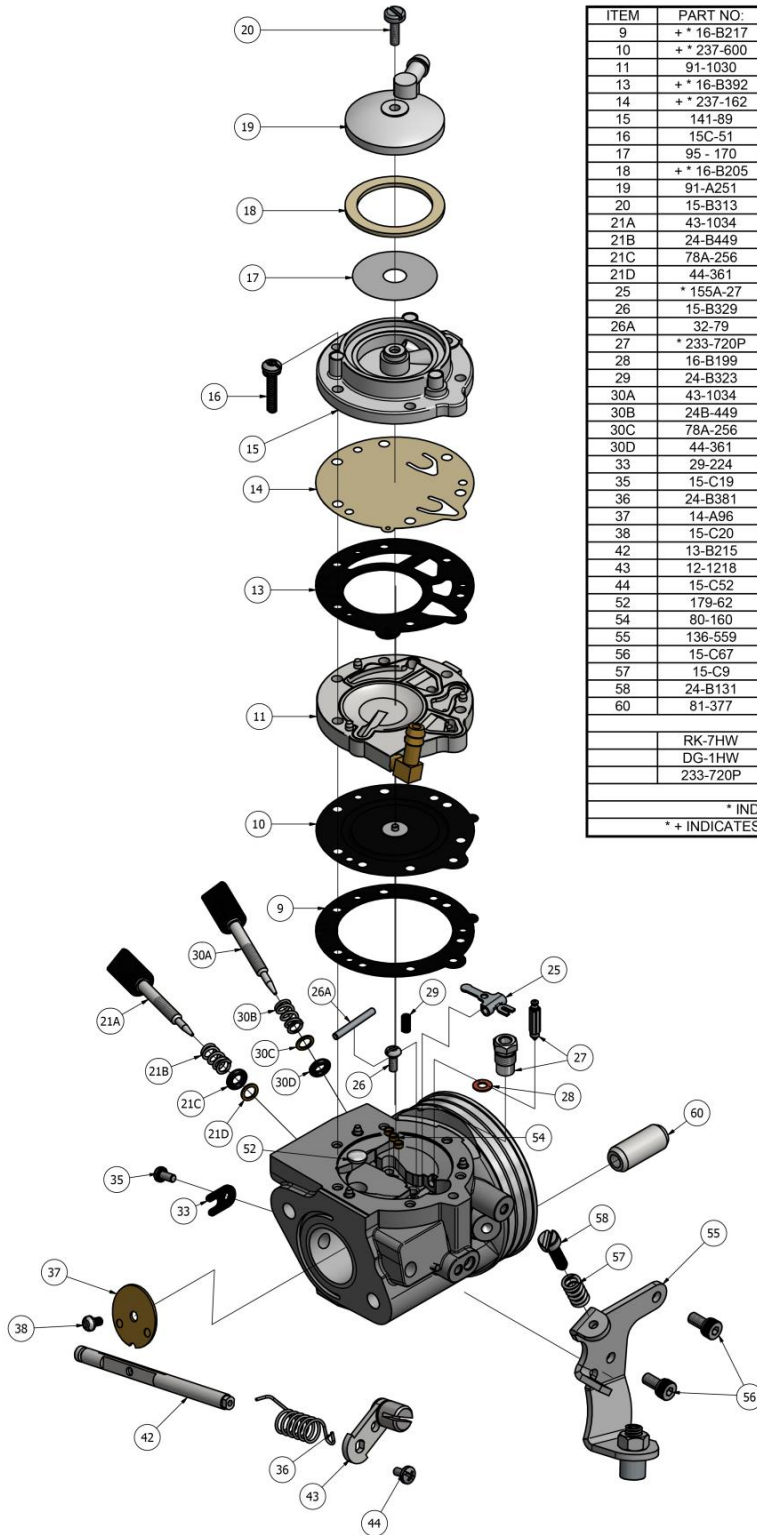
# “IAME” MARKING – MARQUAGE “IAME”





# CARBURETTOR - DESCRIPTION AND SKETCH OF PARTS CARBURATEUR - DESCRIPTION ET DESSIN DES PIÈCES

**HW-31A**



ITEM	PART NO:	DESCRIPTION	QTY
9	+ * 16-B217	DIAPHRAGM GASKET	1
10	+ * 237-600	DIAPHRAGM	1
11	91-1030	DIAPHRAGM COVER	1
13	+ * 16-B392	FUEL PUMP GASKET	1
14	+ * 237-162	FUEL PUMP DIAPHRAGM	1
15	141-89	FUEL PUMP BODY	1
16	15C-51	FUEL PUMP BODY SCREW	6
17	95 - 170	FUEL STRAINER SCREEN	1
18	+ * 16-B205	FUEL STRAINER COVER GASKET	1
19	91-A251	FUEL STRAINER COVER	1
20	15-B313	FUEL STRAINER COVER RETAINING SCREW	1
21A	43-1034	IDLE MIXTURE SCREW	1
21B	24-B449	IDLE MIXTURE SCREW SPRING	1
21C	78A-256	IDLE MIXTURE SCREW WASHER	1
21D	44-361	IDLE MIXTURE SCREW PACKING	1
25	* 155A-27	INLET CONTROL LEVER	1
26	15-B329	FULCRUM LEVER SCREW	1
26A	32-79	FULCRUM LEVER PIN	1
27	* 233-720P	INLET NEEDLE & SEAT SET	1
28	16-B199	INLET SEAT GASKET	1
29	24-B323	INLET TENSION SPRING	1
30A	43-1034	HIGH SPEED MIXTURE SCREW	1
30B	24B-449	HIGH SPEED MIXTURE SCREW SPRING	1
30C	78A-256	HIGH SPEED MIXTURE SCREW WASHER	1
30D	44-361	HIGH SPEED MIXTURE SCREW PACKING	1
33	29-224	THROTTLE SHAFT CLIP	1
35	15-C19	THROTTLE SHAFT CLIP RETAINING SCREW	1
36	24-B381	THROTTLE RETURN SPRING	1
37	14-A96	THROTTLE SHUTTER	1
38	15-C20	THROTTLE SHUTTER SCREW	1
42	13-B215	THROTTLE SHAFT	1
43	12-1218	THROTTLE LEVER ASSEMBLY	1
44	15-C52	THROTTLE LEVER RETAINING SCREW	1
52	179-62	WELCH PLUG	1
54	80-160	MAIN PLUG	3
55	136-559	CABLE BRACKET	1
56	15-C67	CABLE BRACKET RETAINING SCREW	2
57	15-C9	LIMITER SCREW	2
58	24-B131	LIMITER SPRING	2
60	81-377	CARBURETTOR MOUNTING NUT	2
	RK-7HW	REPAIR KIT	
	DG-1HW	DIAPHRAGM & GASKET (STANDARD)	
	233-720P	INLET NEEDLE & SEAT SET	
* INDICATES CONTENTS OF REPAIR KIT			
* + INDICATES CONTENTS OF DIAPHRAGM & GASKET SET			

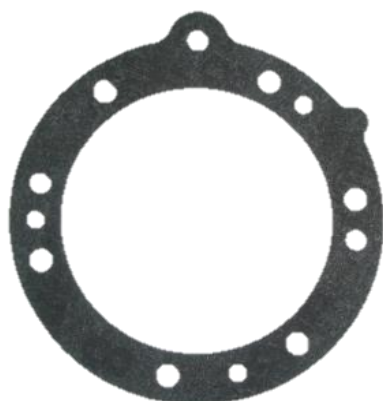


Clash Industrial Estate - Tralee - Ireland  
www.tillotson-racing.com



PARTS OF CARBURETTOR – PIÈCES DU CARBURATEUR

REF.9 - P. N°16-B217  
DIAPHRAGM GASKET  
JOINT DE DIAPHRAGME



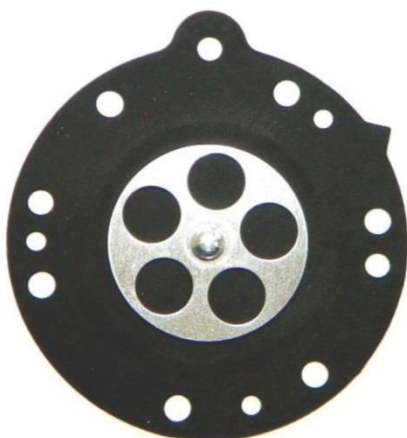
Thickness / *Epaisseur* =  $0.5 \pm 0.1$  mm

REF.13 - P. N° 16-B392  
PUMP DIAPHRAGM GASKET  
JOINT DE POMPE A ESSENCE



Thickness / *Epaisseur* =  $0.8 \pm 0.1$  mm

REF.10 - P. N°237-600  
DIAPHRAGM  
DIAPHRAGME ASSEMBLE



Thickness / *Epaisseur* =  $0.13 \pm 0.07$  mm

REF.14 - P. N°237-162  
PUMP DIAPHRAGM  
MEMBRANE DE POMPE A ESSENCE



Thickness / *Epaisseur* =  $0.10 \pm 0.063$  mm

REF.11 - P. N° 91-1031  
DIAPHRAGM COVER  
COUVERCLE DE DIAPHRAGME



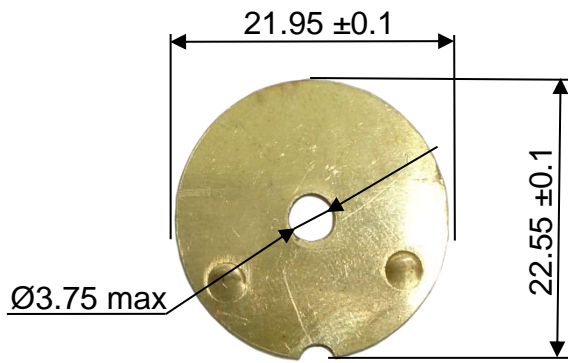
Thickness / *Epaisseur* =  $6.75 \pm 0.15$  mm

REF.15 - P. N° 141-89  
PUMP COVER  
CORPS DE POMPE A ESSENCE



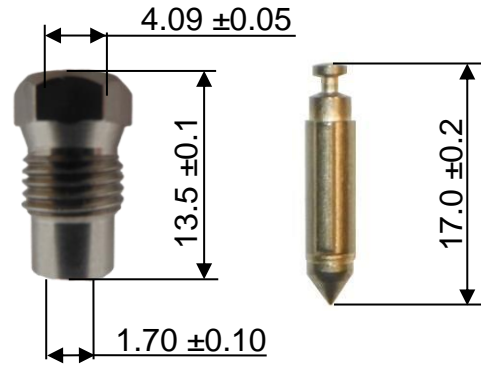
Thickness / *Epaisseur* =  $12.5 \pm 0.15$  mm

REF.37 - P. N° 14-A96  
THROTTLE SHUTTER  
PAPILLON

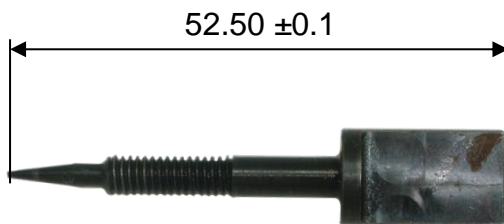


Thickness / *Epaisseur* = 0.81 ±0.1 mm

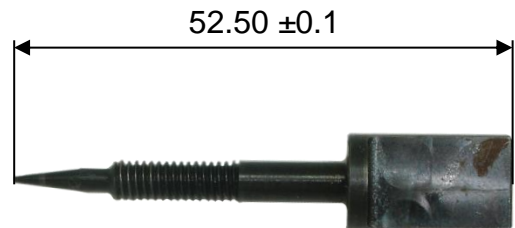
REF.27 - P. N° 233-720P  
SEAT + NEEDLE  
SIEGE + POINTEAU



REF.21A - P. N° 43-1034  
NEEDLE LOW SPEED  
VIS DE RAGLAGE BAS-REGIME



REF.30A - P. N° 43-1034  
NEEDLE HIGH SPEED  
VIS DE RAGLAGE HAUT-REGIME



NEEDLE FUEL ALTERNATIVE – POINTEAU ALTERNATIVE

REF.27 - P. N° 233-720P

