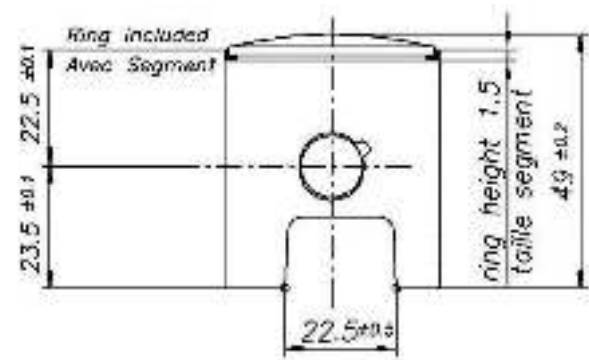
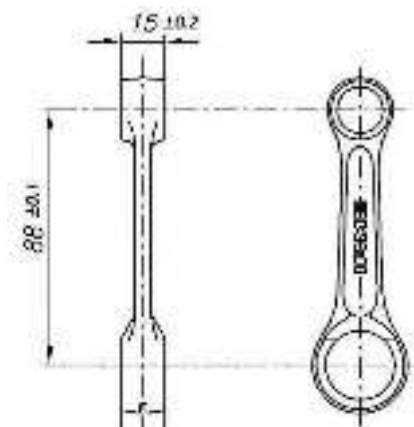
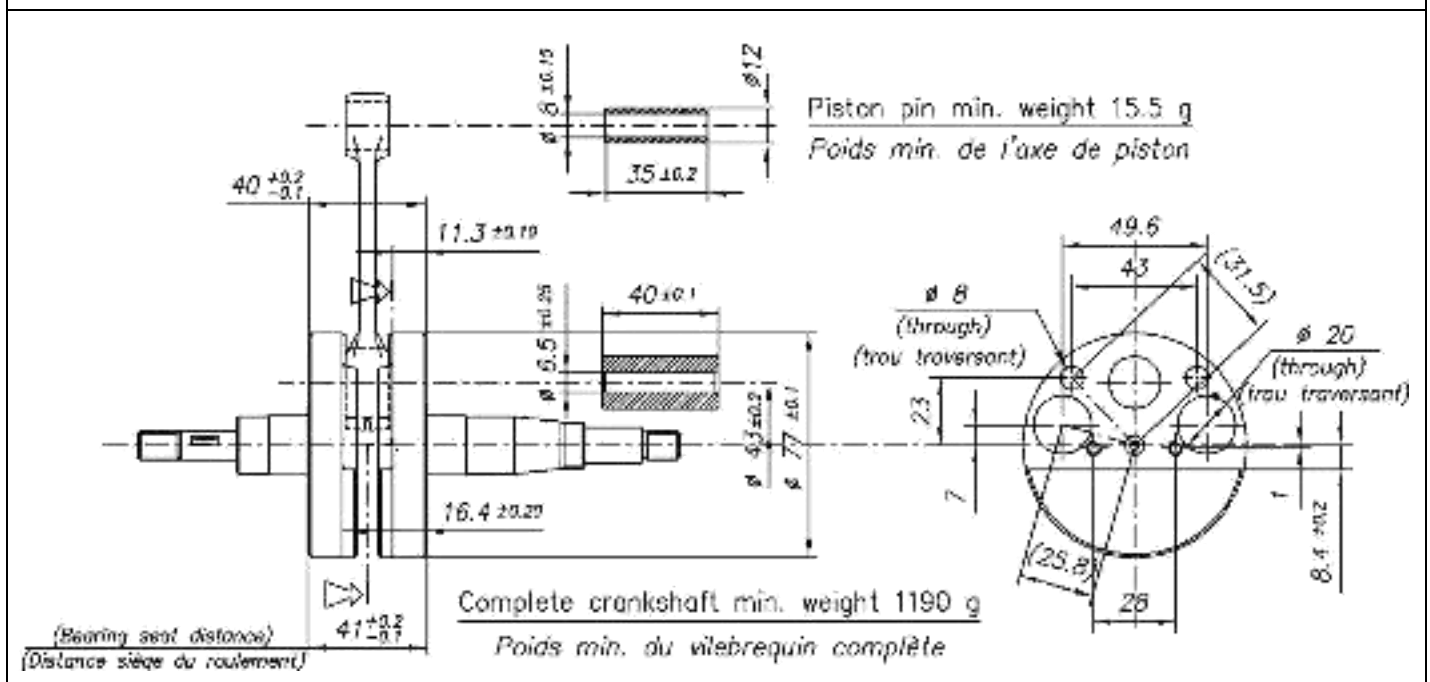


# 60cc Mini Swift “PROMOTIONAL” - TaG

		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)	Cylinder / crankcase transfers n° <i>N° de canaux cylinder / carter</i>	2 / 2
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

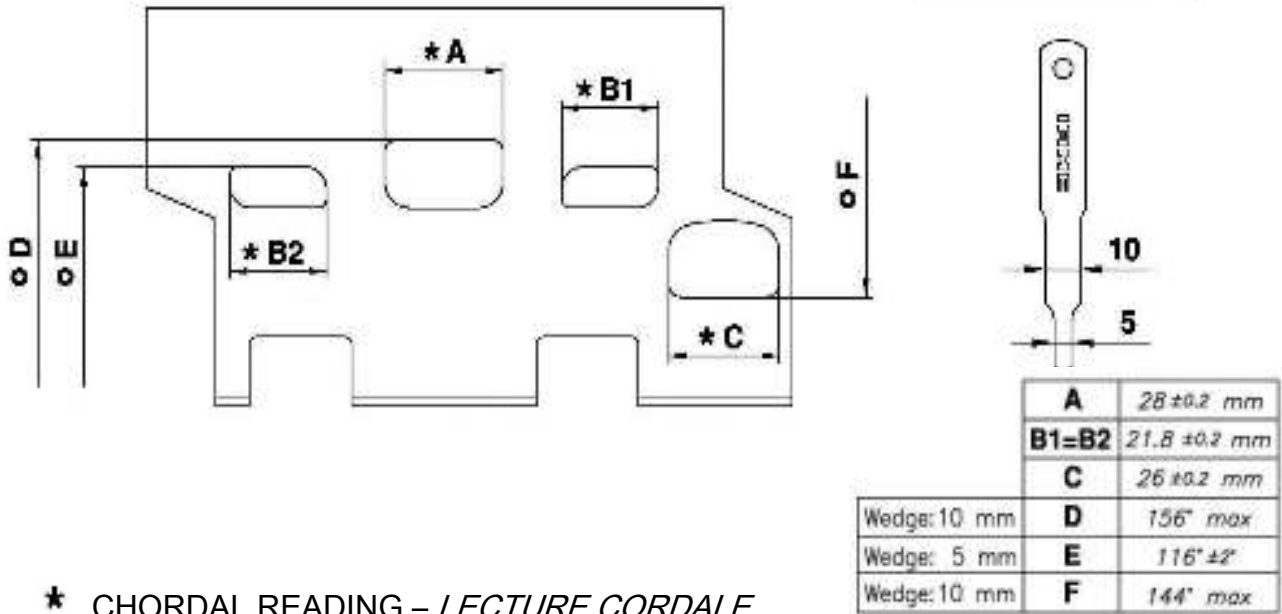
DESCRIPTION OF THE MATERIAL <i>DESCRIPTION DES MATERIAUX</i>		PISTON
Conrod material <i>Matériel de la bielle</i>	Steel <i>Acier</i>	 <p>Min Weight (ring included) 60g Poids min. (avec segment) 60 g</p>
Crankshaft material <i>Matériel du vilebrequin</i>	Steel <i>Acier</i>	
Head Material <i>Matériel de 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



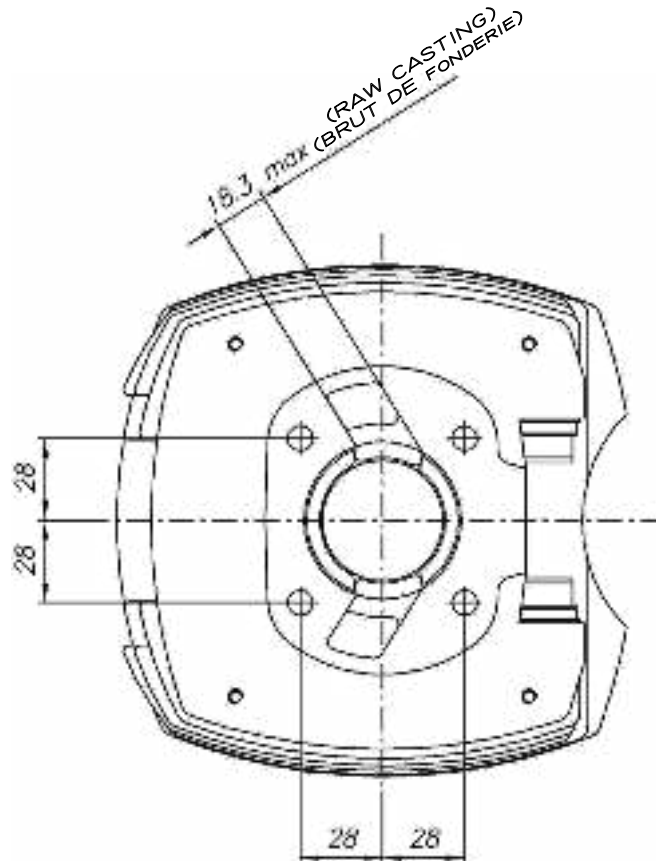
# CYLINDER DEVELOPMENT – DEVELOPPEMENT DU CYLINDRE

TOOL IAME Cod. 10194

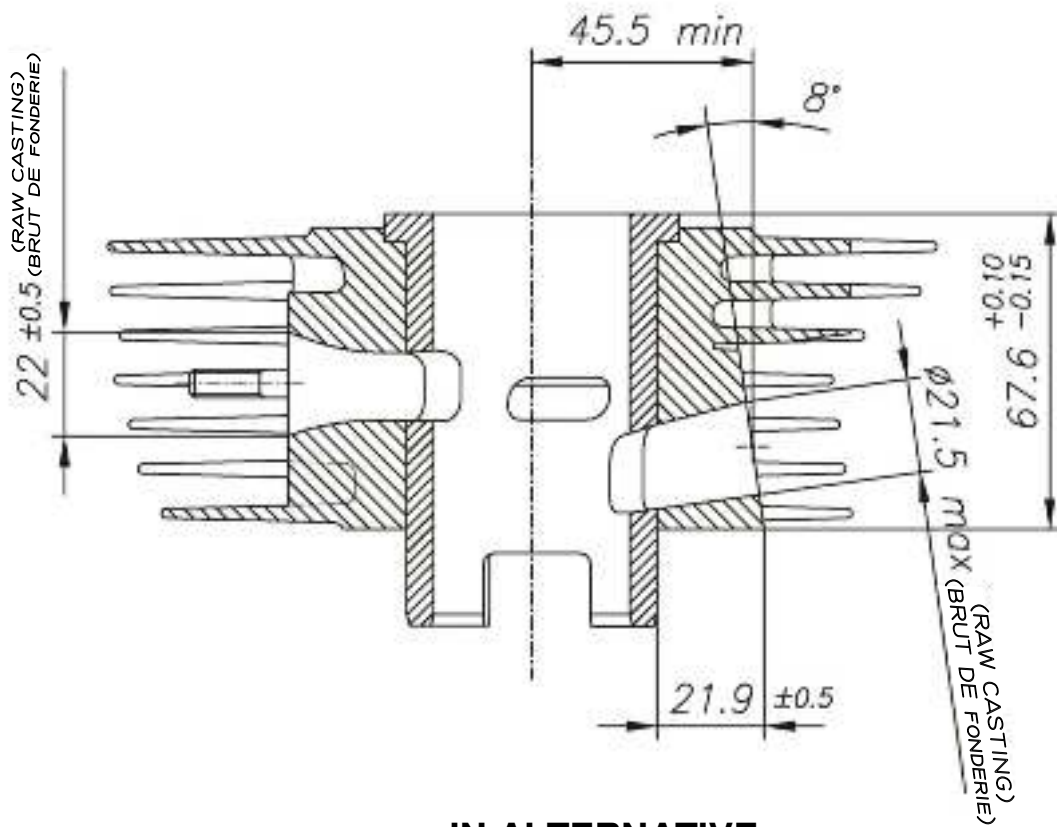


- \* CHORDAL READING – *LECTURE CORDALE*
  - o ANGULAR READING BY INSERT A 0.2 mm GAUGE -  
*LECTURE ANGULAIRE PAR INSERTION D'UNE CALE DE 0.2 mm*
- USING IAME TOOL Cod. 10194 – *UTILISER OUTIL*

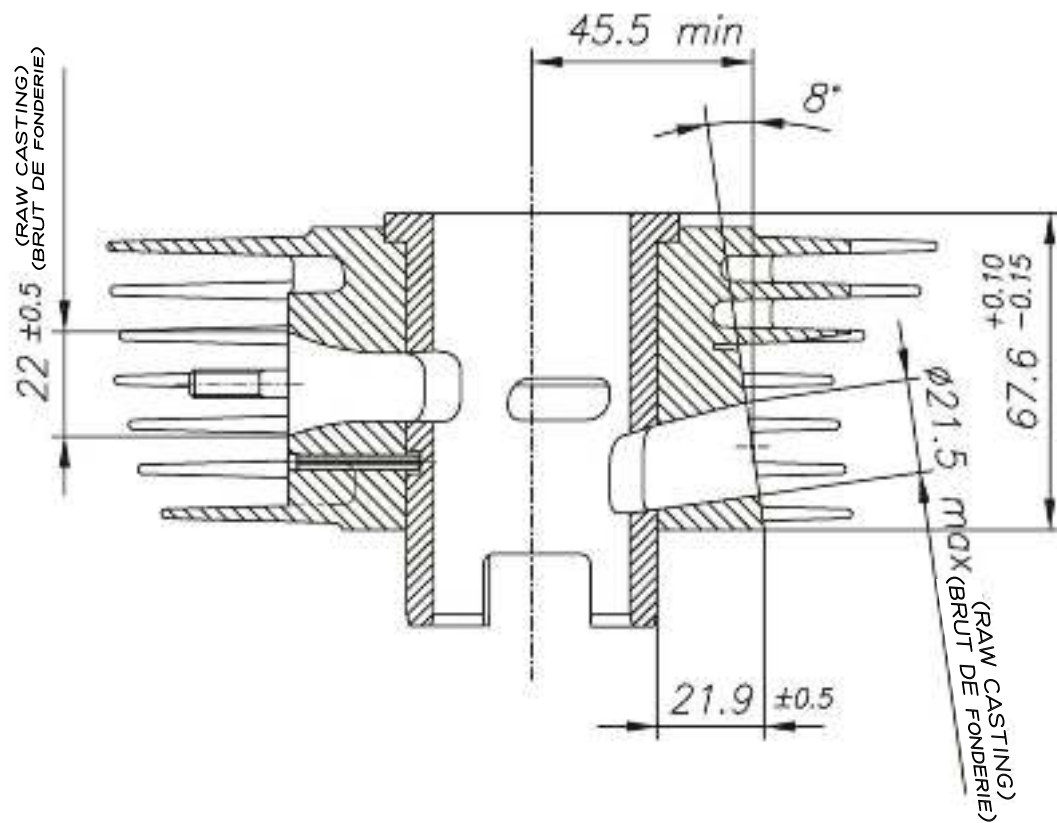
## CYLINDER BASE VIEW VUE DE LA BASE DU CYLINDRE



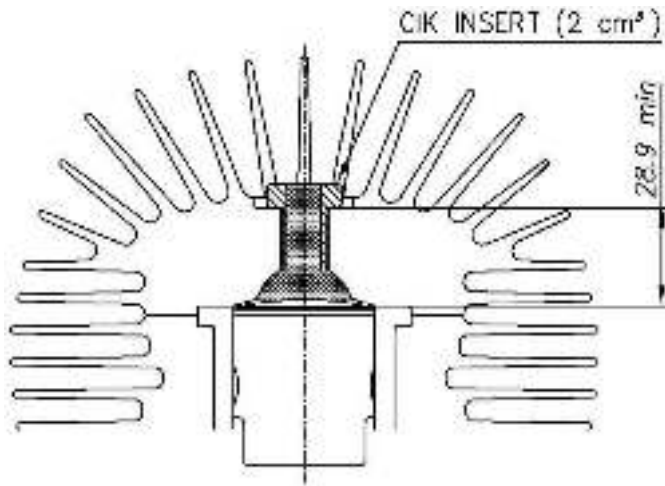
CYLINDER SECTION VIEW  
VUE EN SECTION DU CYLINDRE



IN ALTERNATIVE

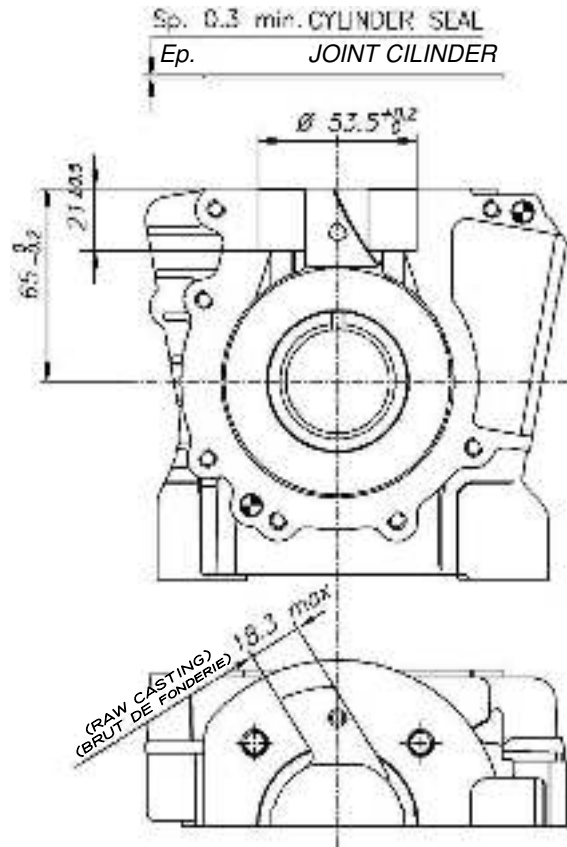


COMBUSTION CHAMBER VIEW  
VUE DE LA CHAMBRE DE COMPRESSION

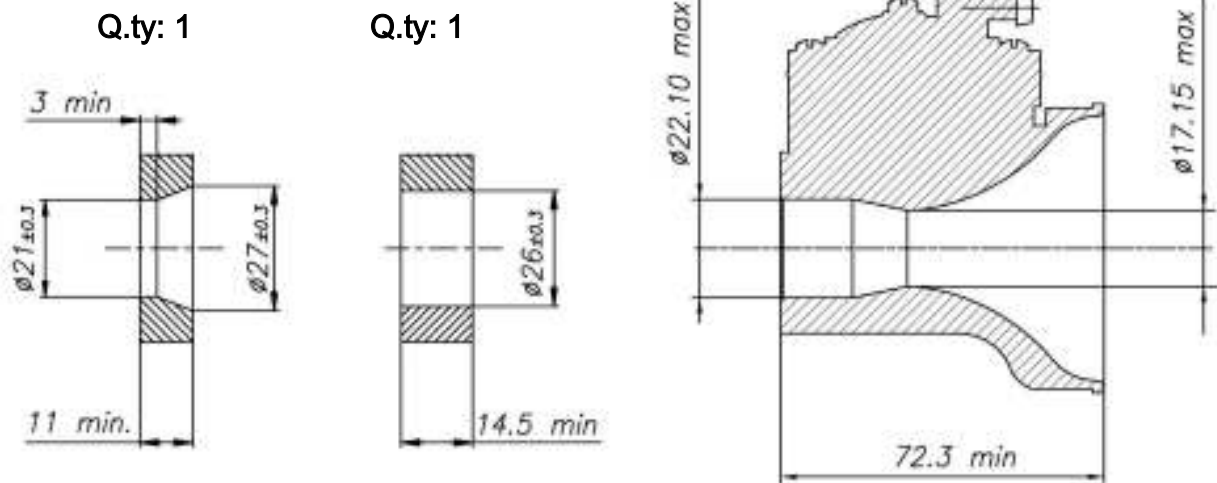


COMBUSTION CHAMBER VOLUME = 6.5 cm³ min.  
VOLUME CHAMBRE COMBUSTION

CRANKCASE INSIDE VIEW  
VUE A' L'INTERIEUR DU CARTER



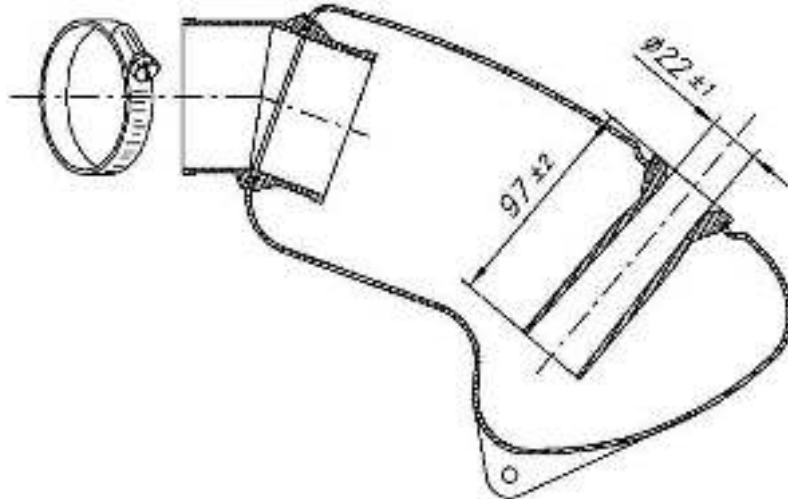
VENTURI CARB. DIMENSIONS and THERMAL SPACERS  
DIMENSIONS DU VENTURI DU CARBURATEUR ET ESPACEURS THERMIQUE



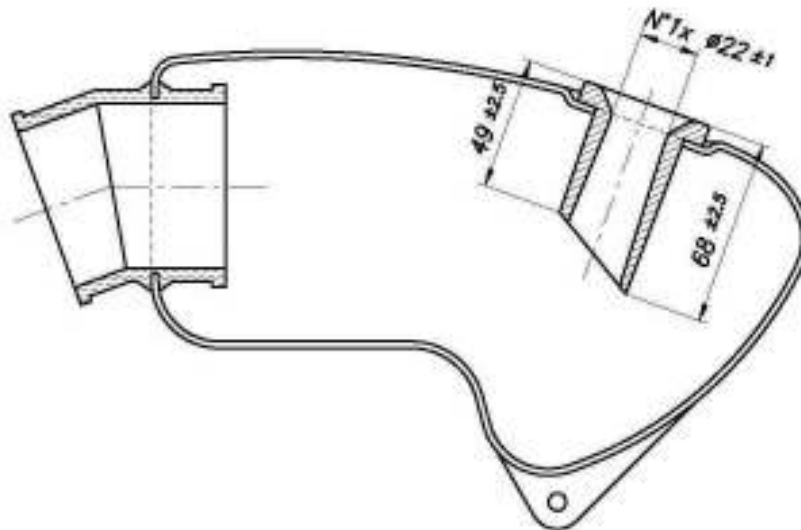
TILLOTSON MOD. HW-31A

INLET SILENCER  
SILENCIEUX D'ASPIRATION

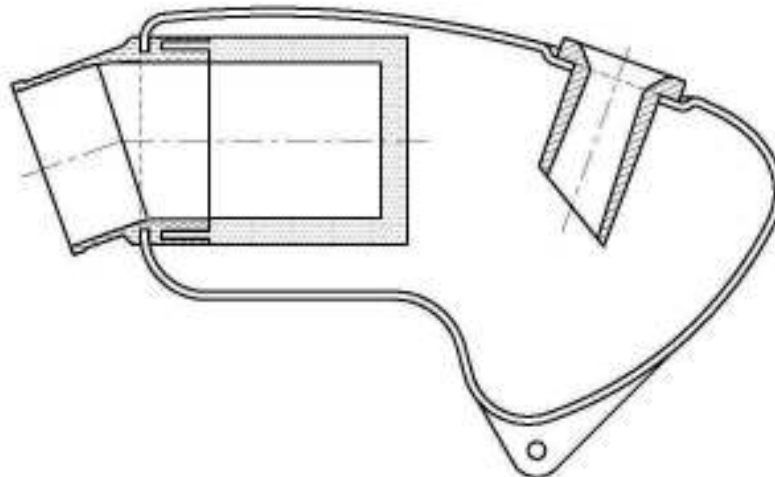
( CSAI OMOLOGATION N° 01/SA/14 )



ALTERNATIVE INLET SILENCER  
ALTERNATIVE SILENCIEUX D'ASPIRATION



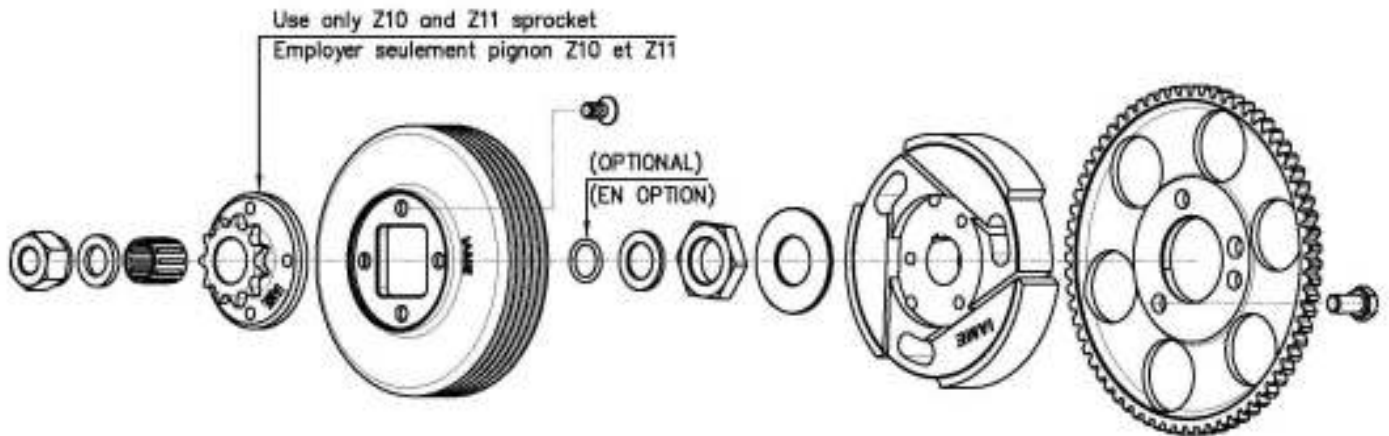
ASSEMBLY OF INLET SILENCER ALTERNATIVE MANIFOLD WITH FILTER  
ASSEMBLE DU ALTERNATIVE RACCORD AVEC FILTRE AU SILENCIEUX D'ASPIRATION





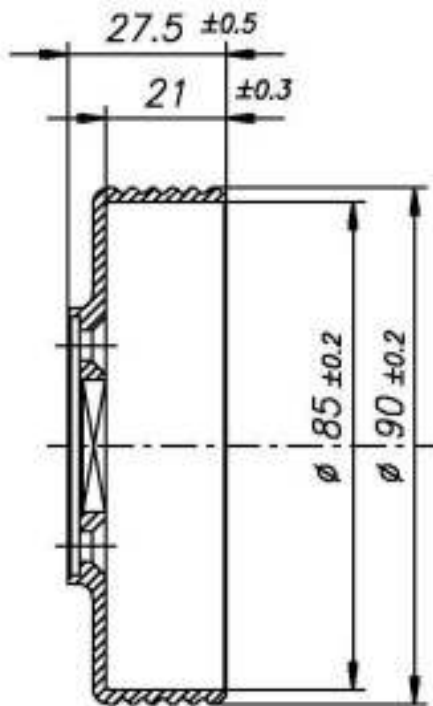


DESCRIPTION OF THE CLUTCH – DESCRIPTION DE L'EMBAYAGE

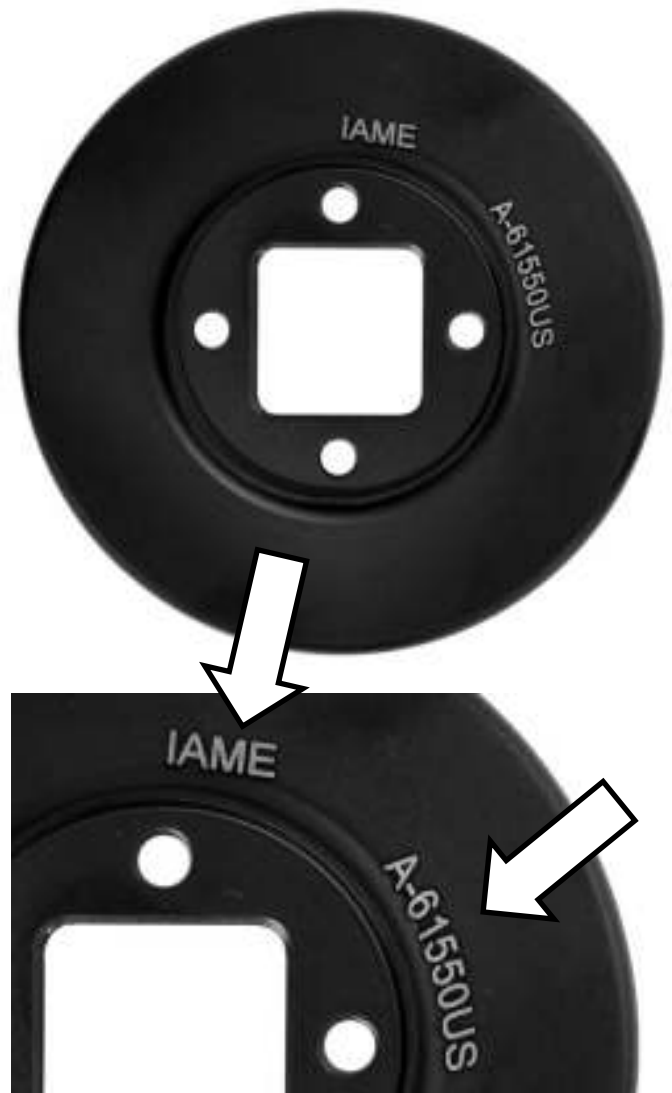


ALTERNATIVE CLUTCH DRUM DRAWING  
DESSIN DE LA CLOCHE D'EMBAYAGE  
ALTERNATIVE

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

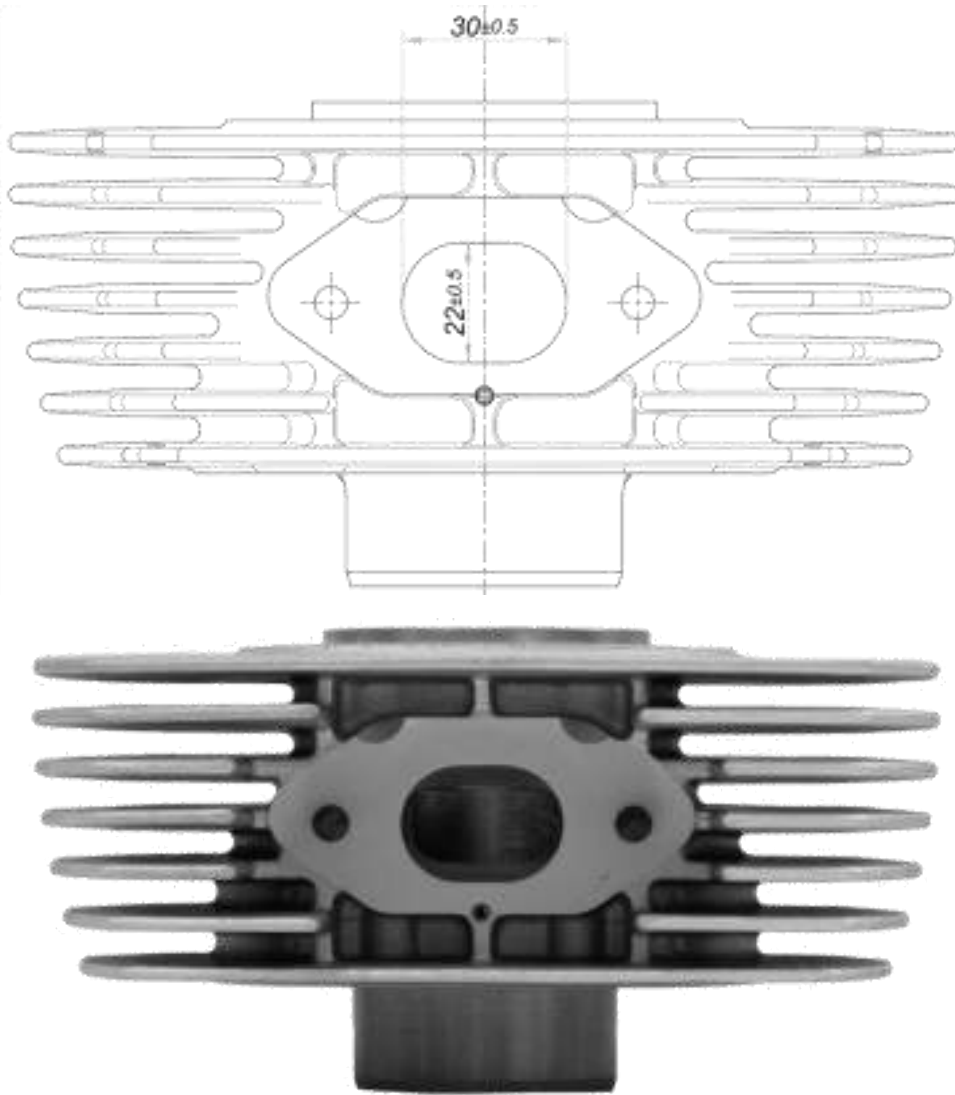


Min. weight 175 g  
Poids min. 175 g

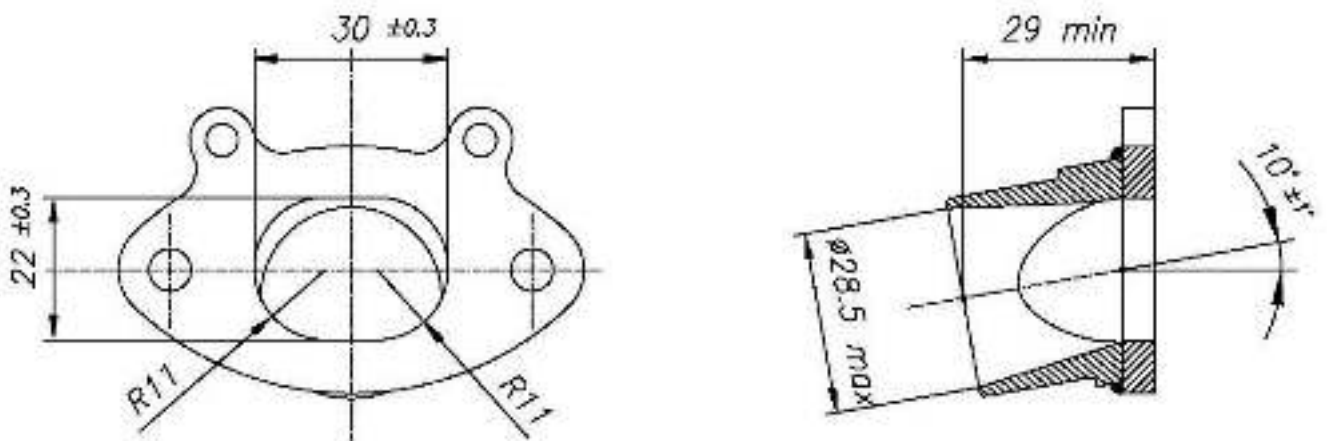




EXHAUST EXIT VIEW, DIMENSION AND PHOTO  
VEU, DIMENSIONS ET PHOTO DU SORTIE D'ÉCHAPPEMENT



EXHAUST FITTING  
RACCORD D'ÉCHAPPEMENT



WIRING DIAGRAM  
SCHEMA CIRCUIT ELECTRIQUE

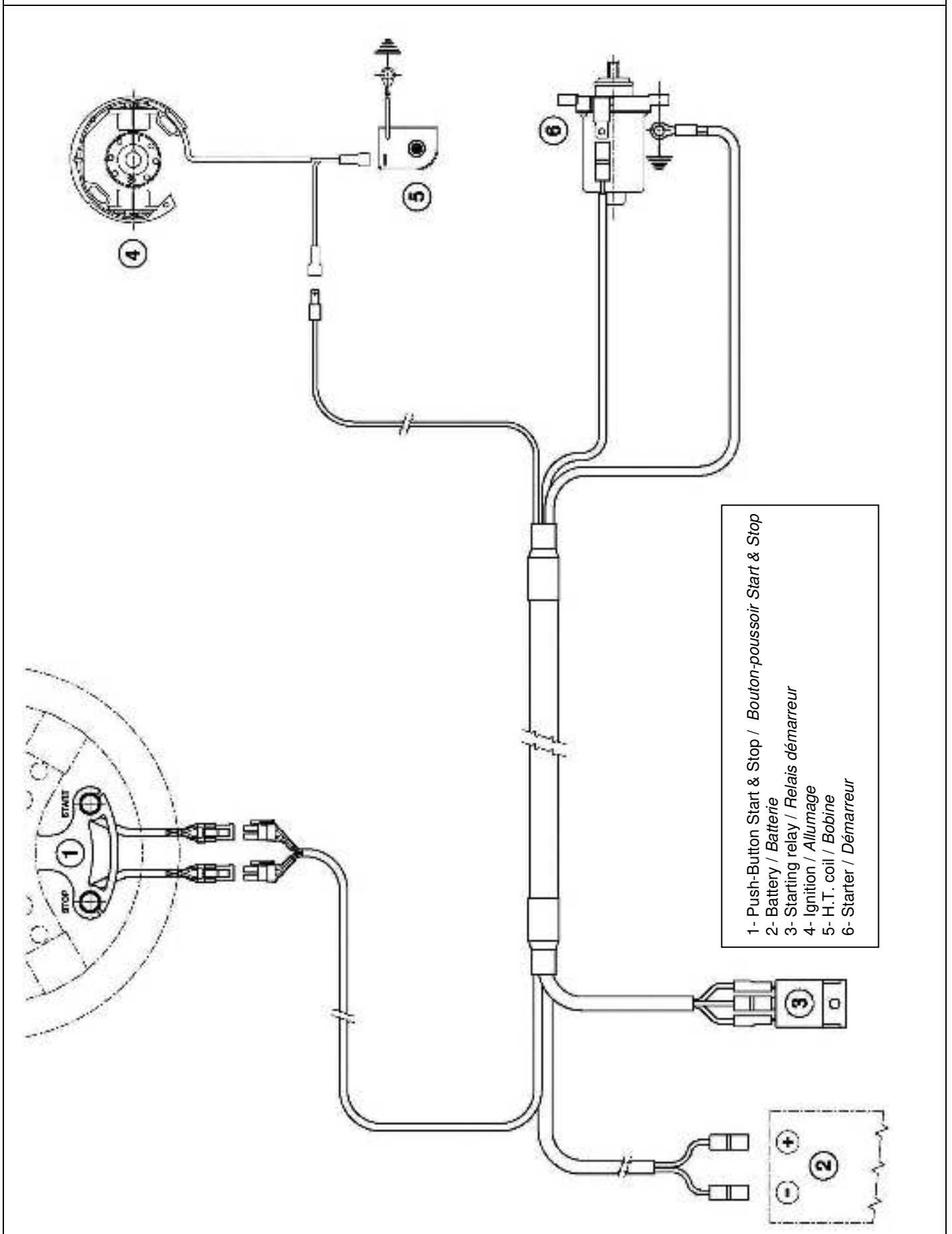


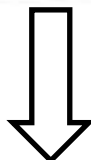
PHOTO COMPLETE WIRING  
PHOTO DU CÂBLAGE ÉLECTRIQUE COMPLÈTE



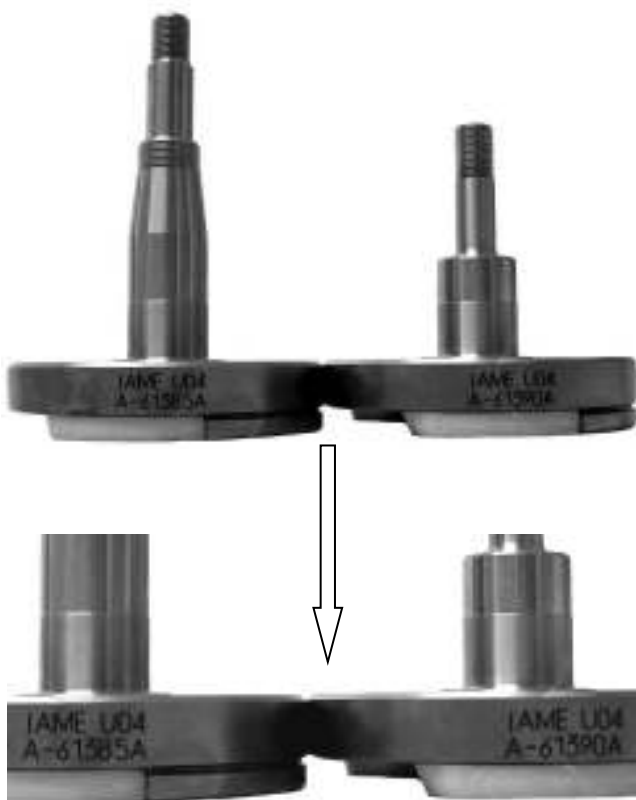
PHOTO OF IGNITION / PHOTO OF H.T. COIL ( SELETTRA ANALOGUE 2 POLES)  
PHOTO DU ALLUMAGE ET BOBINE



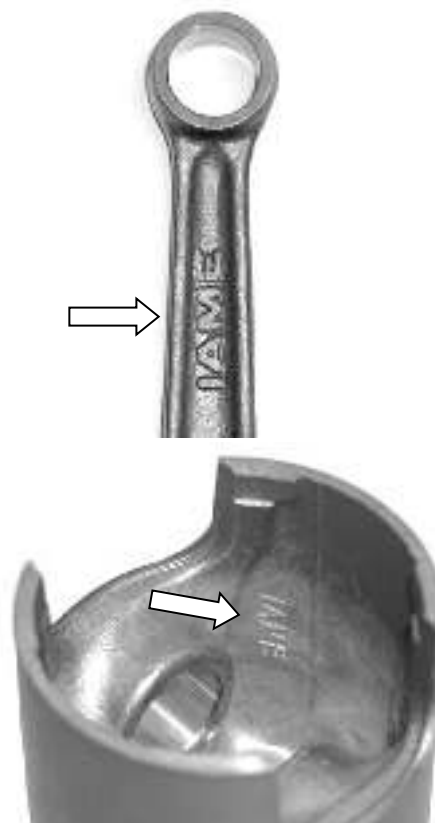
HEAD IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DE LA CULASSE



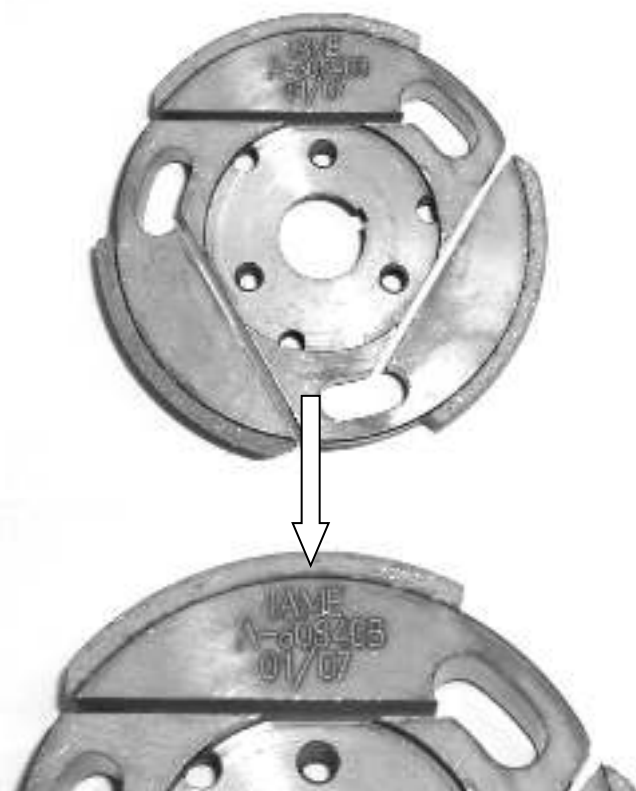
CRANKSHAFT IDENTIFICATION MARKINGS  
 MARQUAGE D'IDENTIFICATION DU  
 VILEBREQUIN



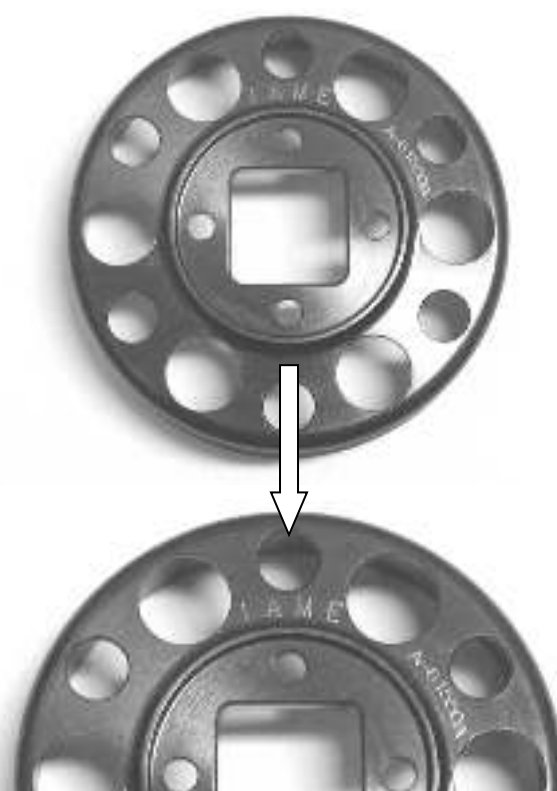
CONROD AND PISTON IDENTIFICATION MARKINGS  
 MARQUAGE D'IDENTIFICATION BIELLE  
 ET PISTON



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

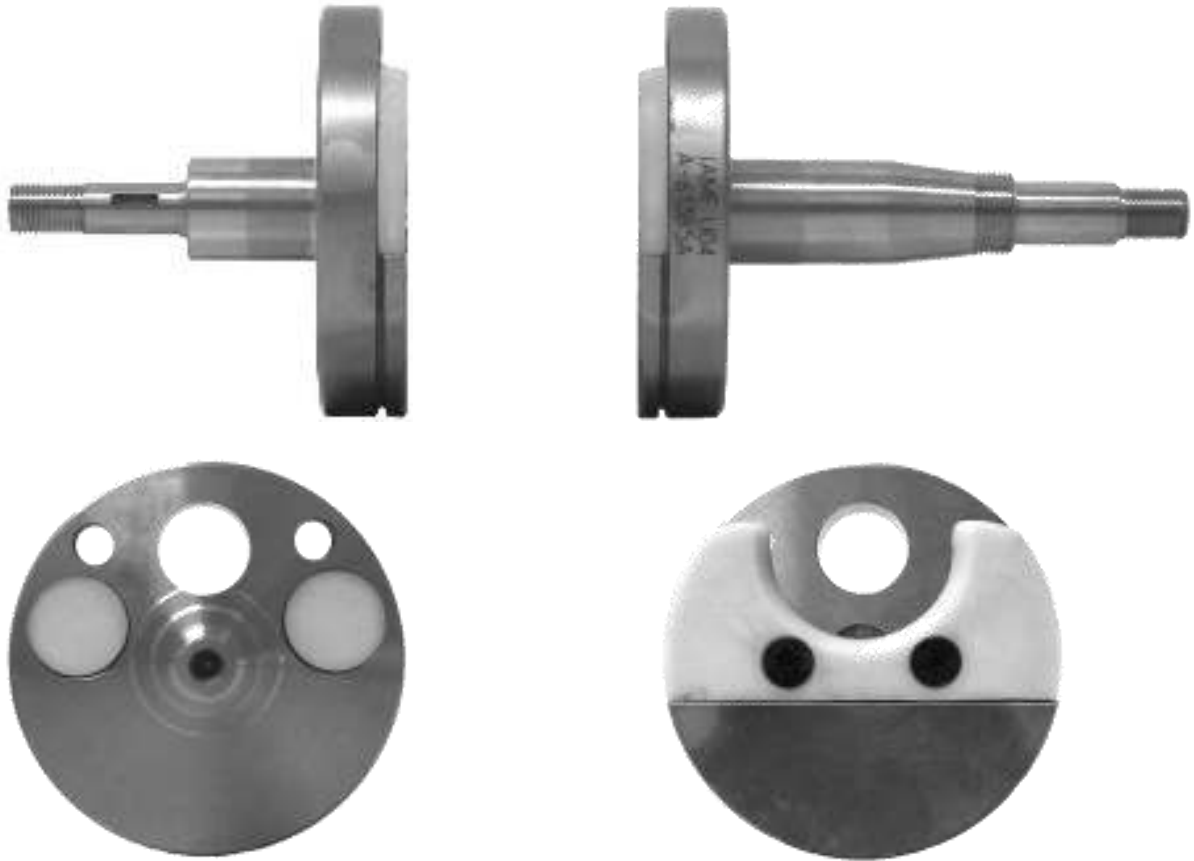


PHOTO OF COMPLETE CRANKSHAFT  
PHOTO DU VILEBREQUIN COMPLETE

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



PHOTO IDENTIFICATION OF CONROD – TYPES ALTERNATIVE  
*PHOTO D'IDENTIFICATION DE LA BIELLE – TYPES ALTERNATIFS*

TYPE 1



TYPE 2





PARTICULARS WITH ALTERNATIVE NEW LOGO "IAME"  
PARTICULARITÉS AVEC NOUVEAU LOGO ALTERNATIF "IAME"

CYLINDER HEAD  
CULASSE



**NEW / NOUVEAU LOGO**



SEMICARTER IGNITION SIDE  
SEMICARTER CÔTÉ ALLUMAGE



**NEW / NOUVEAU LOGO**



SEMICARTER TRANSMISSION SIDE  
SEMICARTER CÔTÉ PIGNON



**NEW / NOUVEAU LOGO**



PARTICULARS WITH ALTERNATIVE NEW LOGO "IAME"  
PARTICULARITÉS AVEC NOUVEAU LOGO ALTERNATIF "IAME"

IGNITION COVER  
COUVERCLE DU ALLUMAGE



NEW / NOUVEAU LOGO



CLUTCH COVER  
COUVERCLE D'EMBRAYAGE



NEW / NOUVEAU LOGO



INLET SILENCER  
SILENCIEUX D'ASPIRATION



NEW / NOUVEAU LOGO



EXHAUST  
ECHAPPEMENT



NEW / NOUVEAU LOGO



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

**LES AUTRES COMPOSANTS DU MOTEUR AVEC MARQUAGE (LASER OU POINÇONNEUSE) AUJOURD'HUI AVEC LE LOGO OU ÉCRIT «IAME»**

I A M E

*or*

**IAME**

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

**MAINTENANT POURRAIT EST MARQUAGE AVEC UN NOUVEAU LOGO "IAME"**

IAME

*or*



IAME

*or*

IAME

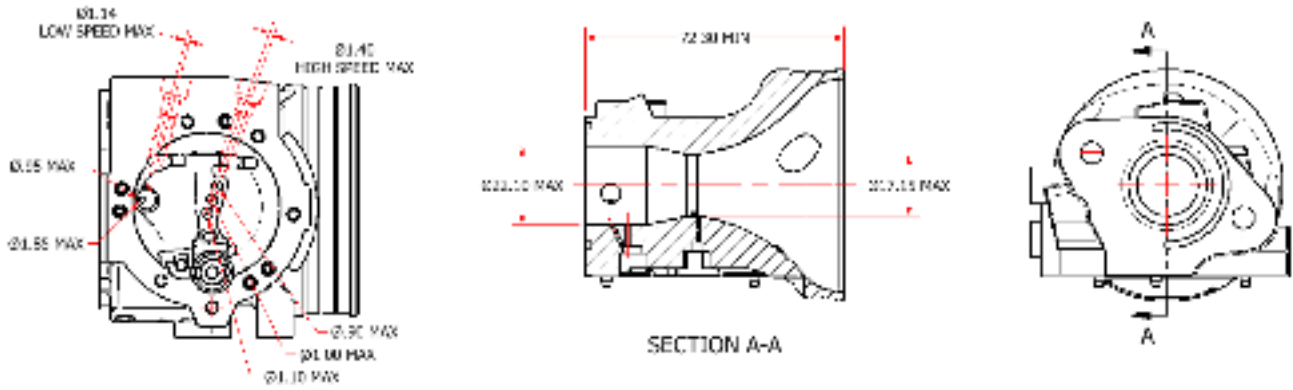


**CARBURETTOR / CARBURATEUR**  
**Tillotson HW-31A**

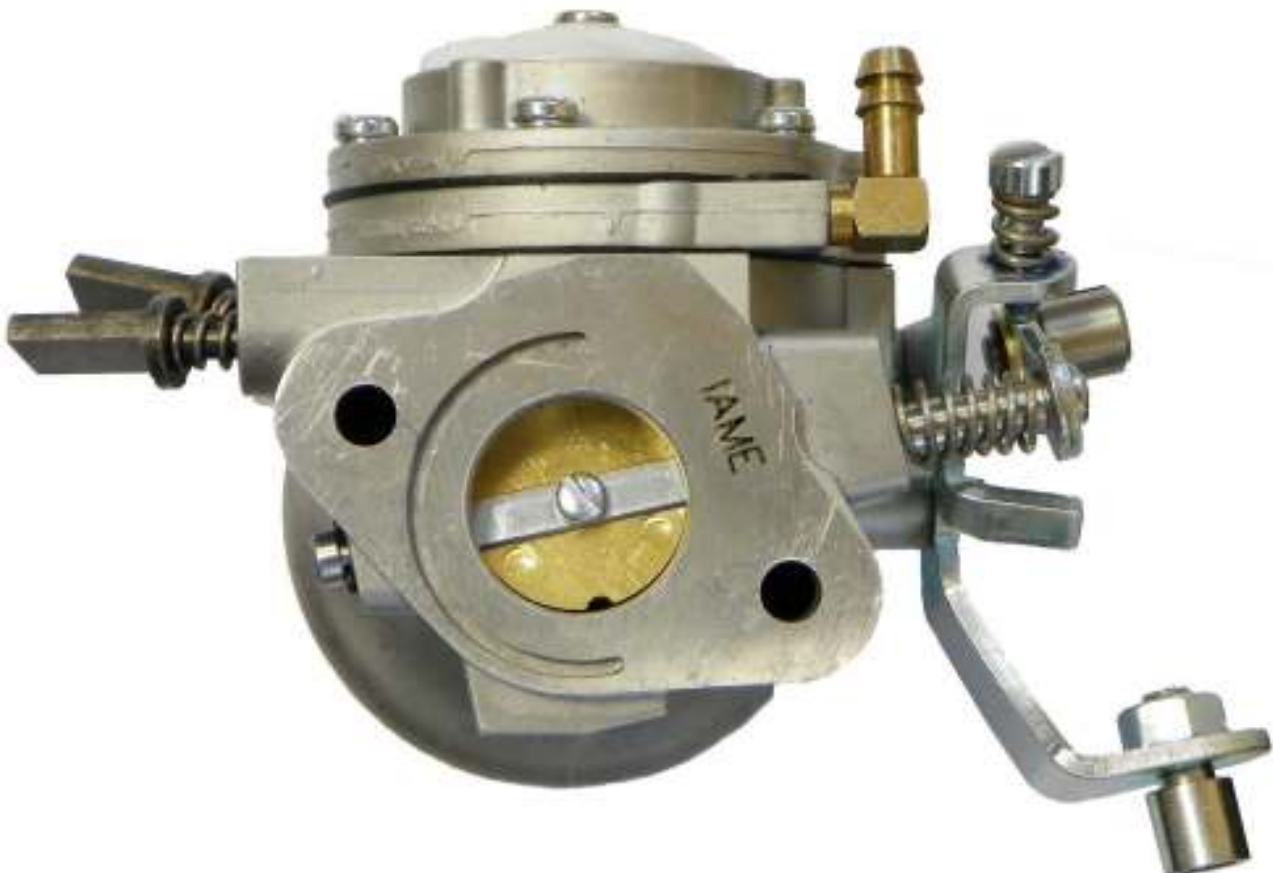
	
<p>PHOTO OF ADJUSTING SIDE          PHOTO CÔTÉ RÉGLAGE</p>	<p>PHOTO OF INLET SIDE          PHOTO CÔTÉ ASPIRATION</p>

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

SECTION VIEW – VUE DE SECTION AVEC DIMENSIONS



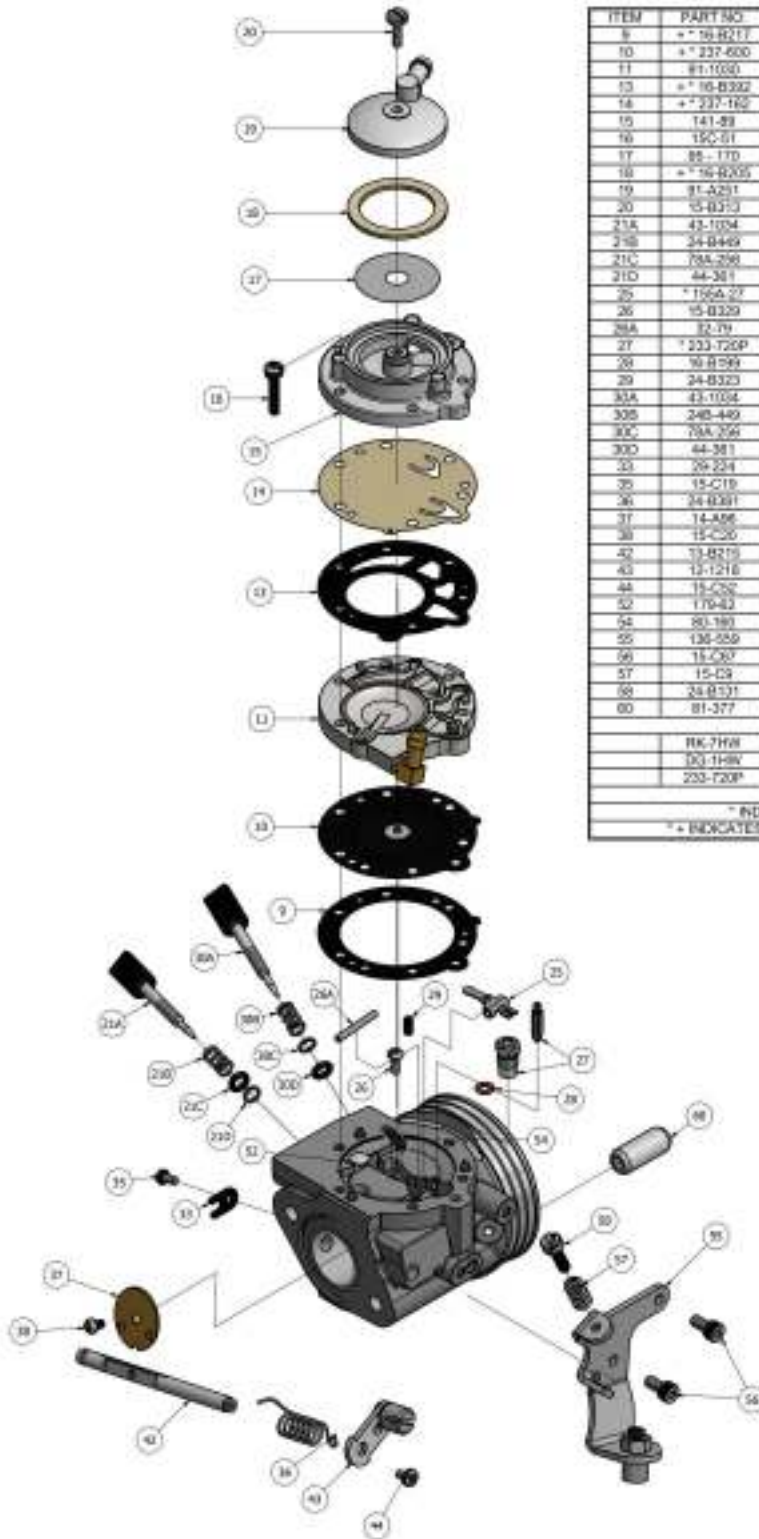
"IAME" MARKING – MARQUAGE "IAME"





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

**HW-31A**



ITEM	PART NO	DESCRIPTION	QTY
8	* 16-8217	DIAPHRAGM GASKET	1
10	* 237-600	DIAPHRAGM	1
11	81-1030	DIAPHRAGM COVER	1
13	* 16-8332	FUEL PUMP GASKET	1
14	* 237-162	FUEL PUMP/DIAPHRAGM	1
15	141-89	FUEL PUMP BODY	1
16	150-51	FUEL PUMP BODY SCREW	8
17	88-170	FUEL STRAINER SCREEN	1
18	* 16-8205	FUEL STRAINER COVER GASKET	1
19	91-4291	FUEL STRAINER COVER	1
20	15-8373	FUEL STRAINER COVER RETAINING SCREW	1
21A	43-1034	IDLE MIXTURE SCREW	1
21B	34-8449	IDLE MIXTURE SCREW SPRING	1
21C	79A-298	IDLE MIXTURE SCREW WASHER	1
21D	44-381	IDLE MIXTURE SCREW PACKING	1
25	* 156A-27	INLET CONTROL LEVER	1
26	15-8329	FILTRUM LEVER SCREW	1
26A	37-79	FILTRUM LEVER PIN	1
27	* 233-720P	INLET NEEDLE & SEAT SET	1
28	16-8299	INLET SEAT GASKET	1
29	34-8323	INLET TENSION SPRING	1
30A	43-1034	HIGH SPEED MIXTURE SCREW	1
30B	248-449	HIGH SPEED MIXTURE SCREW SPRING	1
30C	79A-298	HIGH SPEED MIXTURE SCREW WASHER	1
30D	44-381	HIGH SPEED MIXTURE SCREW PACKING	1
33	26-234	THROTTLE SHAFT CLIP	1
35	15-C19	THROTTLE SHAFT CLIP RETAINING SCREW	1
36	24-8381	THROTTLE RETURN SPRING	1
37	14-486	THROTTLE SHUTTER	1
38	15-C20	THROTTLE SHUTTER SCREW	1
42	73-8219	THROTTLE SHAFT	1
43	13-1216	THROTTLE LEVER ASSEMBLY	1
44	15-C22	THROTTLE LEVER RETAINING SCREW	1
52	179-83	WELD PLUG	1
54	80-180	MAIN PLUG	3
55	136-559	CABLE BRACKET	1
56	15-C27	CABLE BRACKET RETAINING SCREW	2
57	15-C9	LIMITER SCREW	2
58	24-8321	LIMITER SPRING	2
60	81-377	CARBURETTOR MOUNTING NUT	2
* INDICATES CONTENTS OF REPAIR KIT			
** INDICATES CONTENTS OF DIAPHRAGM & GASKET SET			
BK-7HW		REPAIR KIT	
DQ-1HW		DIAPHRAGM & GASKET (STANDARD)	
233-720P		INLET NEEDLE & SEAT SET	

**Tillotson**  
RACING

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

**IGME**

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

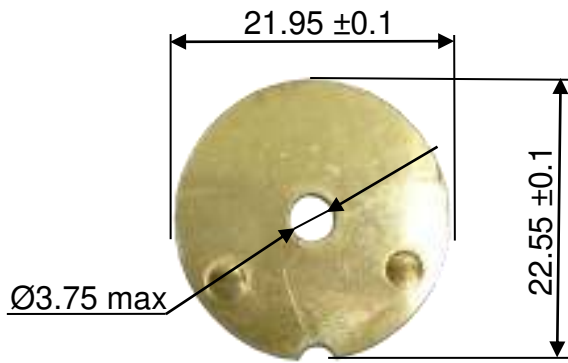
REF.15 - P. N° 141-89  
PUMP COVER  
CORPS DE POMPE A ESSENCE



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

