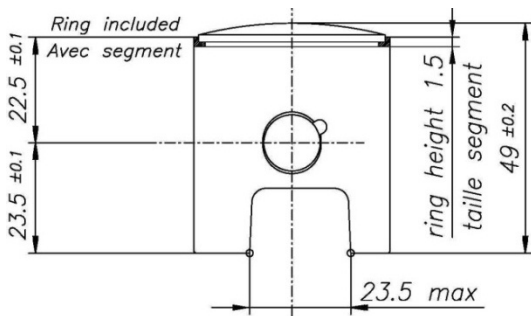
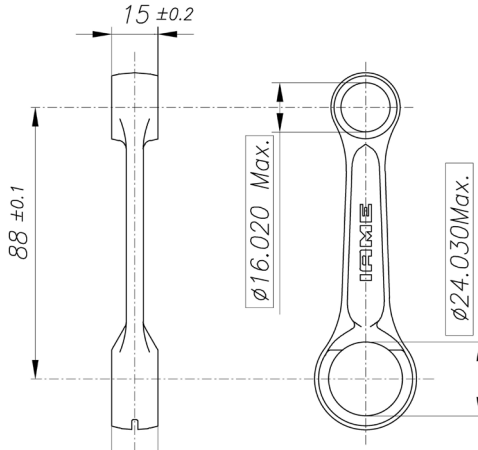
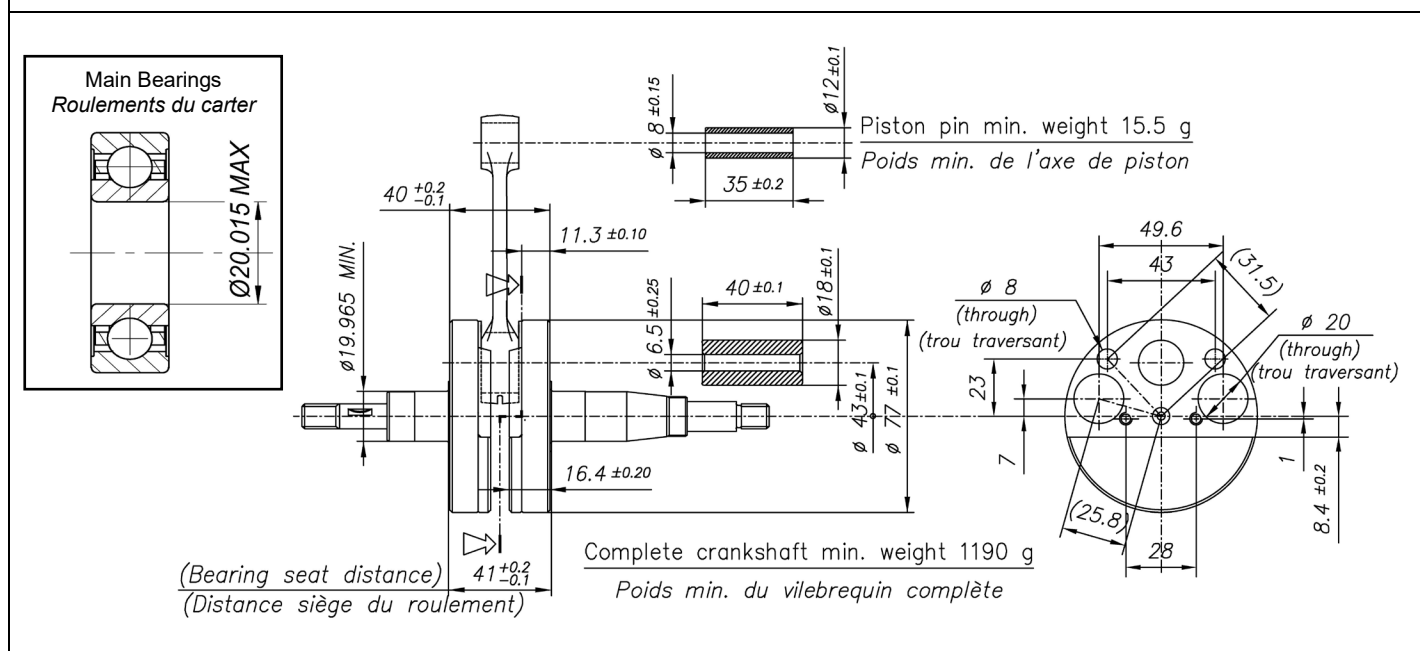


X30 WATERSWIFT 60CC TAG ENTRY LEVEL

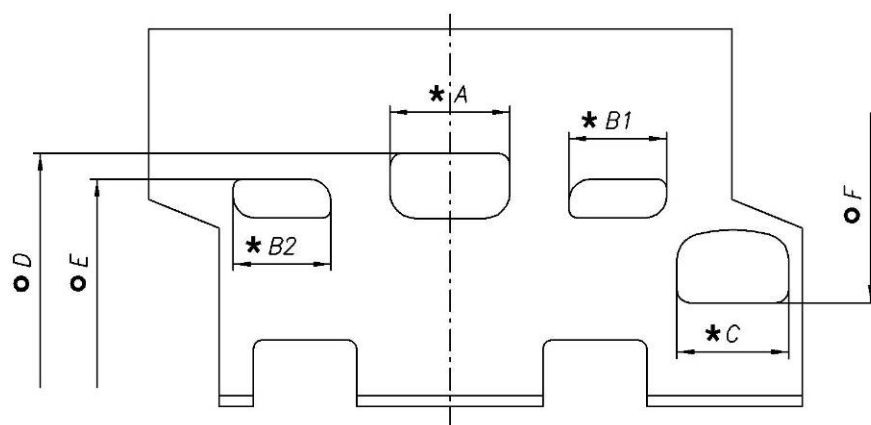
		FEATURES - CARACTERISTIQUES	
		Cylinder volume <i>Volume du cylindre</i>	59.17 cm ³ (60.00 cm ³ max)
		Bore <i>Alésage</i>	41.81 mm
		Max. bore <i>Alésage max.</i>	42.10 mm
		Stroke <i>Course</i>	43 mm
		Cooling system <i>Système de refroidissement</i>	Water <i>Eau</i>
		Inlet system <i>Système d'admission</i>	Piston valve <i>Jupe de piston</i>
		Number of carbs <i>Nombre de carburateurs</i>	1
Tillotson Carburettor <i>Carburateur Tillotson</i>	HW-47A (15 mm)	Cylinder / crankcase transfers n° <i>N° de canaux cylindre / carter</i>	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 bearing diam. <i>Diamètre palier tête de bielle</i>	18x24x15	Combustion chamber shape <i>Forme chambre de combustion</i>	Spherical <i>Sphérique</i>
Crankshaft ball-bearing diam. <i>Diamètre palier du vilebrequin</i>	20x47x14	Selettra ignition (adjustable) <i>Allumage Selettra (réglable)</i>	2 poles <i>2 pôles</i>
Small end conr. bearing diam. <i>Diamètre palier pied de bielle</i>	12x16x16	Distance between Conrod centres <i>Longueur (entre axe) de la bielle</i>	88 mm

DESCRIPTION OF THE MATERIAL DESCRIPTION DES MATERIAUX		PISTON
Conrod material <i>Matériel de la bielle</i>	Steel <i>Acier</i>	 Min. Weight Piston included ring = 60 g Poids Min. Piston avec segment = 60 g
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>	Cast Iron <i>Fonte</i>	DISTANCE BETWEEN CONROD CENTERS ENTRE AXE DE LA BIELLE
Crankcase material <i>Matériel du carter</i>	Aluminium	 Min. Weight 80 g Poids min.
Piston material <i>Matériel du piston</i>	Aluminium	
Piston rings material <i>Matériel des segments</i>	Cast 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



A	28±0.2 mm
B1 = B2	21.8±0.2 mm
C	26±0.2 mm
D	157° max
E	116° ±2°
F	145° max

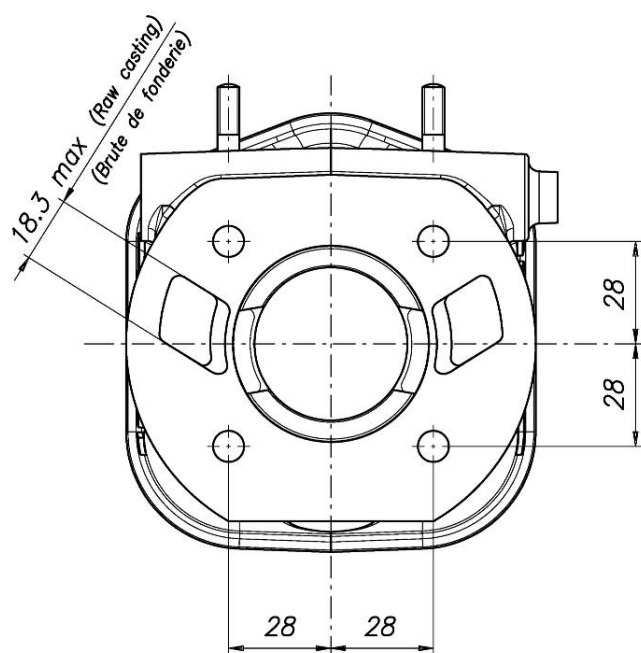
CHORDAL READING - *LECTURE CORDALE*

ANGULAR READING BY INSERT A 0.2 mm x 5 mm GAUGE -

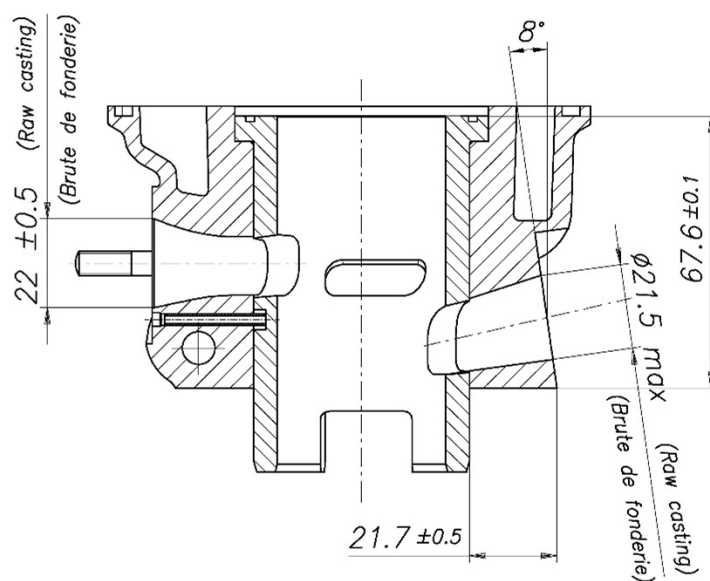
LECTURE ANGULAIRE PAR INSERTION D'UNE CALE DE 0.2 mm x 5 mm

USING IAME TOOL Cod. 10194 – *UTILISER OUTIL*

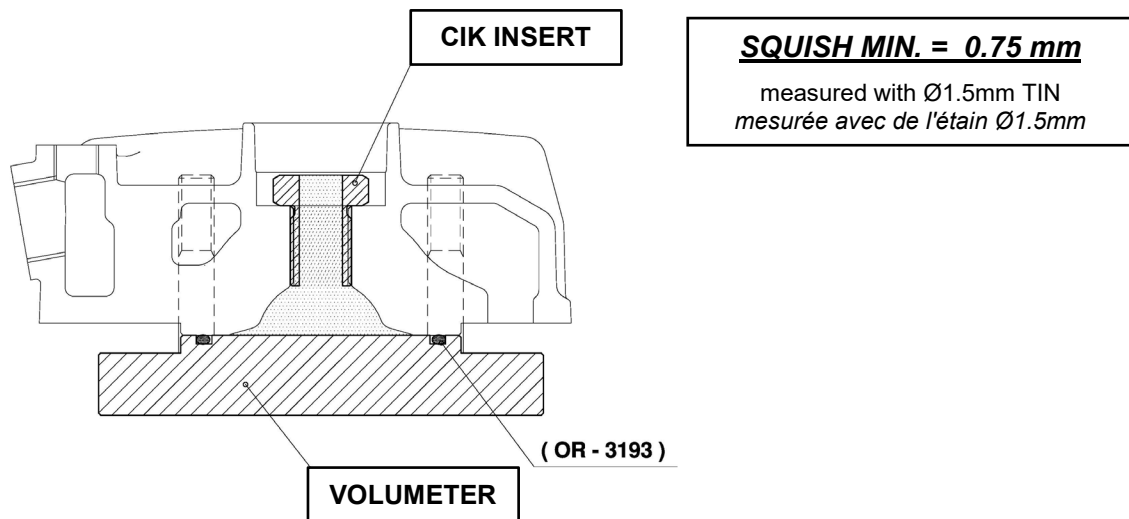
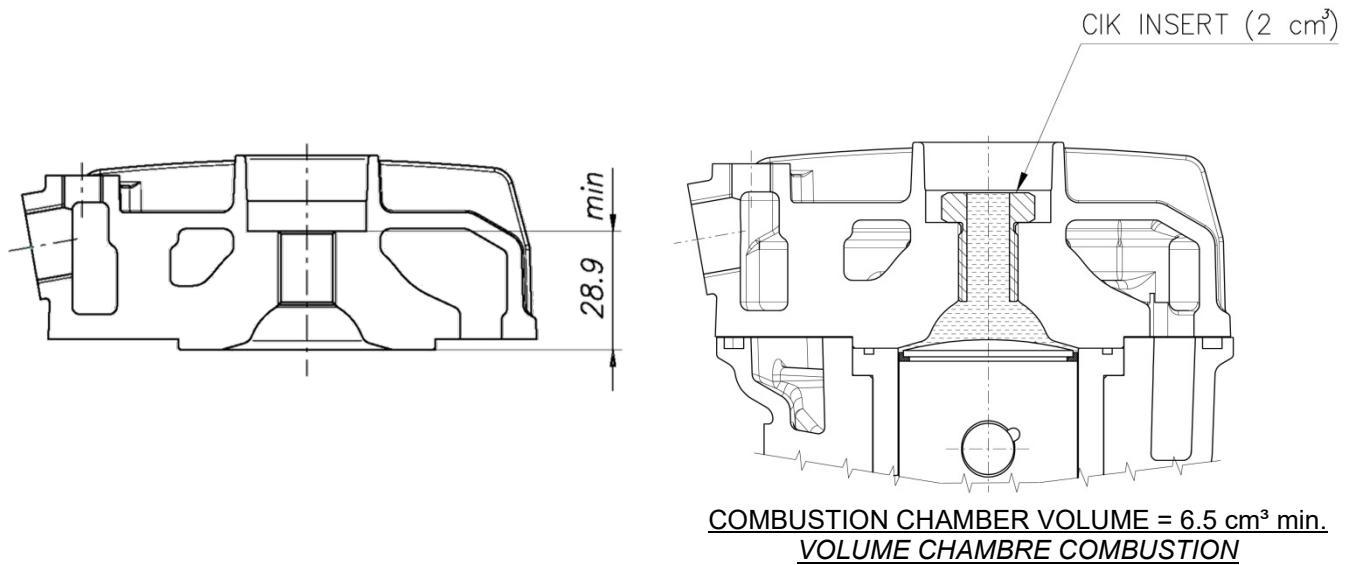
CYLINDER BASE VIEW *VUE DE LA BASE DU CYLINDRE*



CYLINDER SECTION VIEW *VUE EN SECTION DU CYLINDRE*

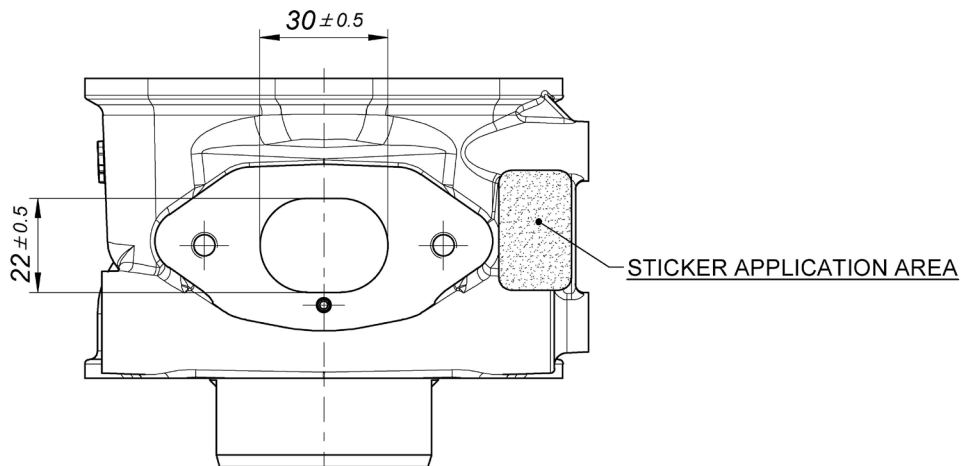


COMBUSTION CHAMBER VIEW VUE DE LA CHAMBRE DE COMBUSTION

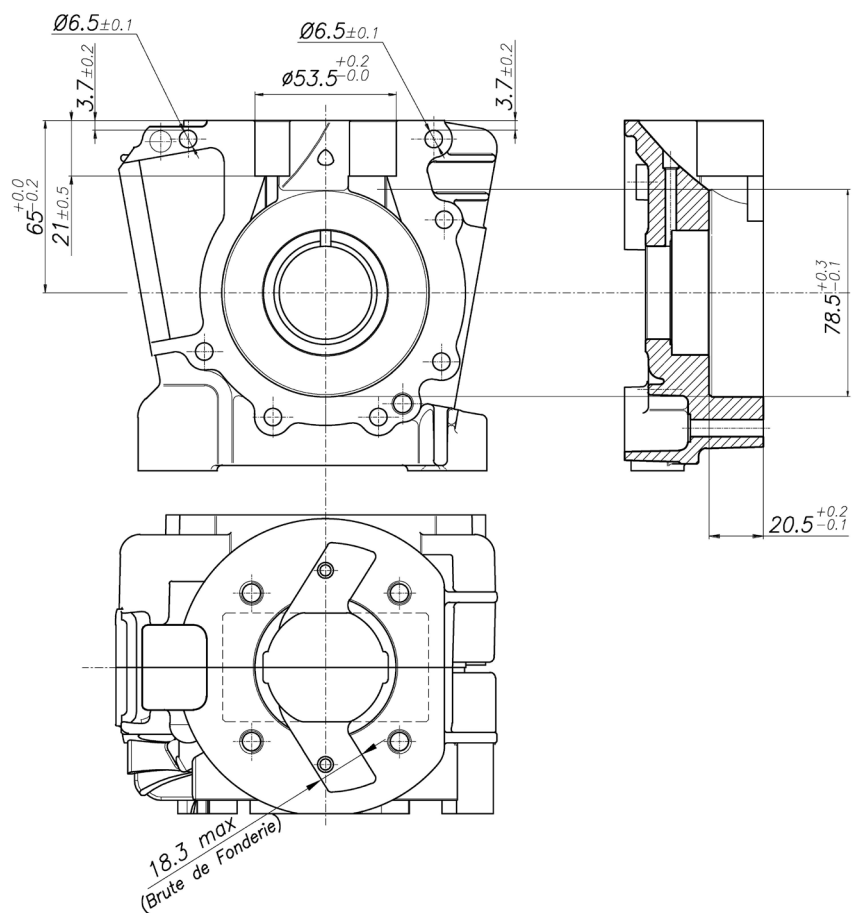


MIN. TOT. VOLUME OF CHAMBER IN THE CYLINDER HEAD = 7.4 cm³
VOLUME MIN. CHAMBRE DE COMBUSTION DANS LA CULASSE

REAR VIEW AND DIMENSION ARRIERE VUE ET DIMENSION

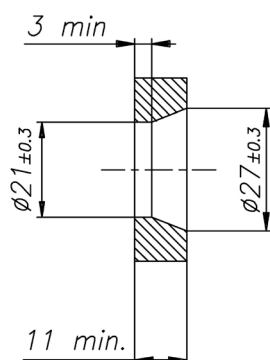


CRANKCASE INSIDE VIEW
VUE A' L'INTERIEUR DU CARTER

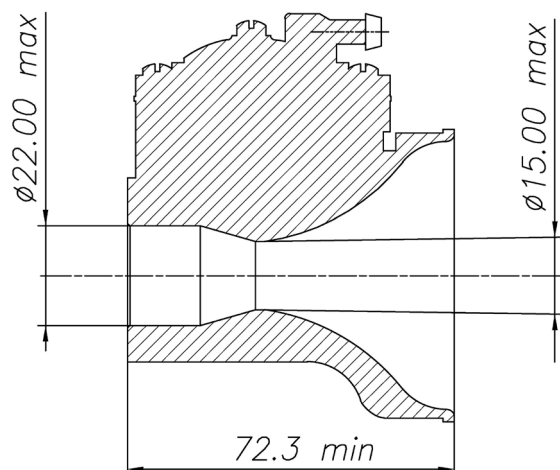
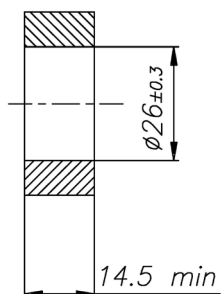


VENTURI CARB. DIMENSIONS and THERMAL SPACERS
CARBURATEUR ET SONS ENTRETOISES

Q.ty: 1

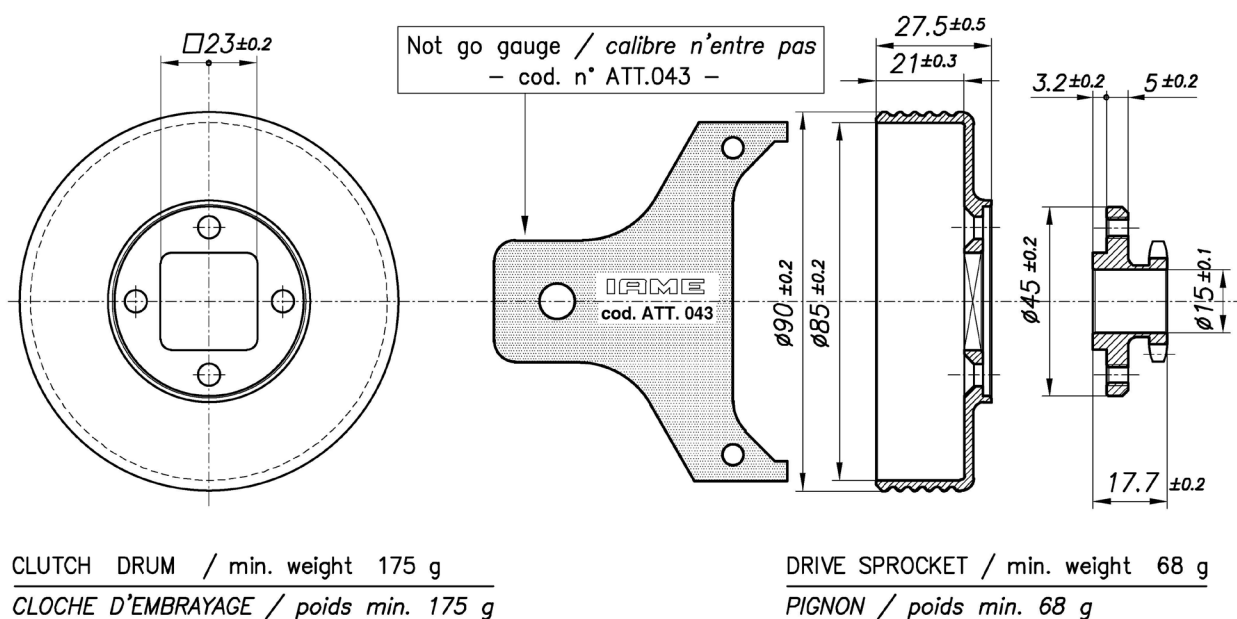
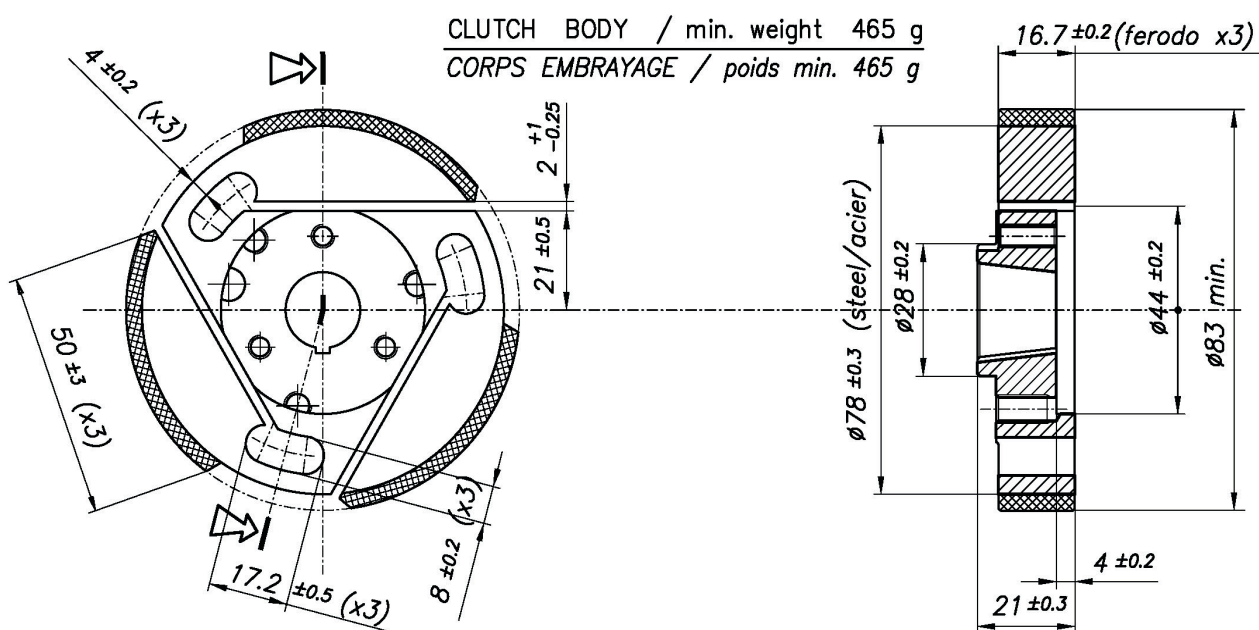
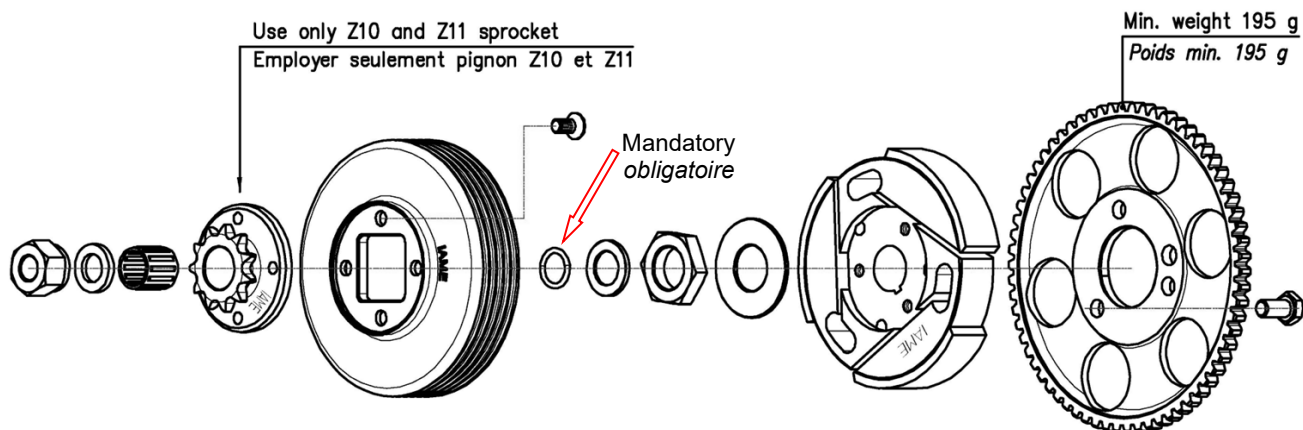


Q.ty: 1

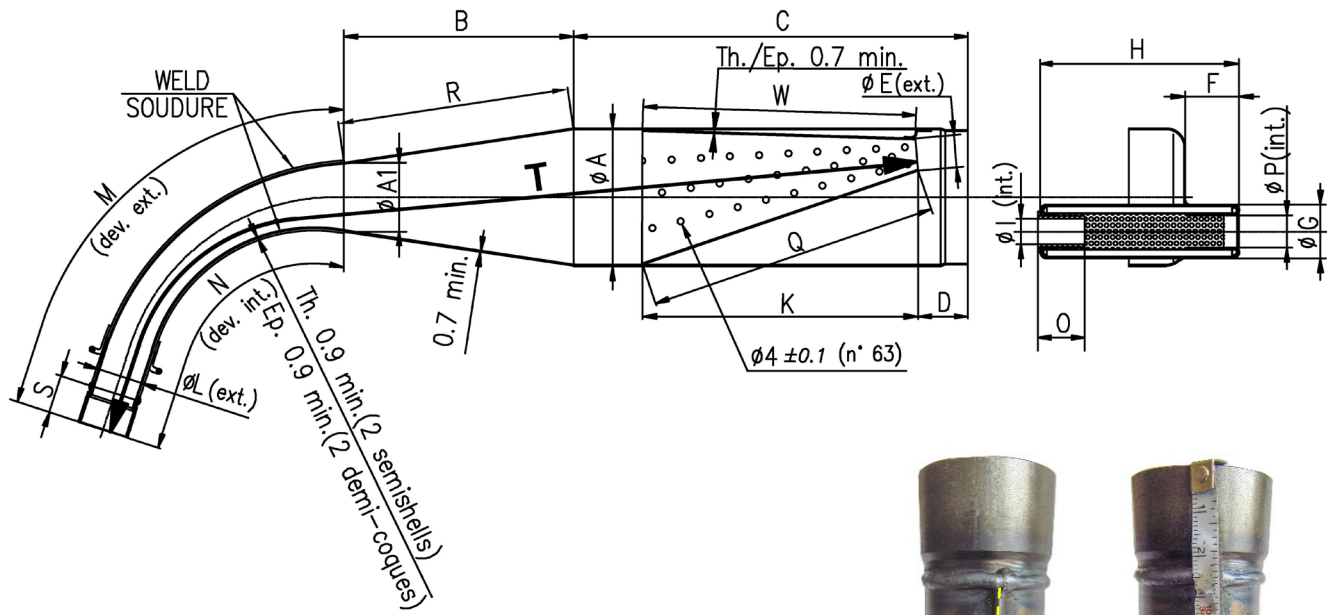


TILLOTSON MOD. HW-47A

DESCRIPTION OF THE CLUTCH – DESCRIPTION DE L'EMBRAYAGE

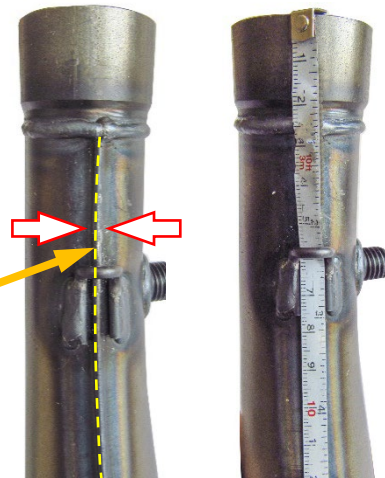


EXHAUST VIEW AND DIMENSIONS with and without embossed logo
VUE ET DIMENSIONS DE L'ÉCHAPPEMENT avec et sans logo en relief



The tape must follow the centerline of the weld at all points

Le ruban doit suivre l'axe de la soudure en tous points



Min. weight 1250 g
Poids min.

ØA: <u>90 ±1.5 Øext.</u>	D: <u>30 ±2</u>	H: <u>132 ±2</u>	M: <u>265 ±3</u>	R: <u>152 ±3</u>	T: <u>601 ±3</u>
ØA1: <u>45 ±1 Øext.</u>	ØE: <u>20 ±1 Øext.</u>	ØI: <u>17 max Øint.</u>	N: <u>215 ±3</u>	S: <u>25 ±1</u>	
B: <u>150 ±3</u>	F: <u>35 ±2</u>	K: <u>181 ±3</u>	O: <u>30 min.</u>	Q: <u>192 ±3</u>	
C: <u>260 ±3</u>	ØG: <u>35 ±1 Øext.</u>	ØL: <u>31 ±1.5 Øext.</u>	ØP: <u>21 ±1 Øint.</u>	W: <u>181 ±3</u>	

WARNING / ATTENTION:

The dimensions "**M**", "**N**" and "**T**" must be taken by steel tape measure 6mm wide.

Les dimensions « **M** », « **N** » et « **T** » doivent être à l'aide d'un ruban à mesurer en acier 6 mm de large.

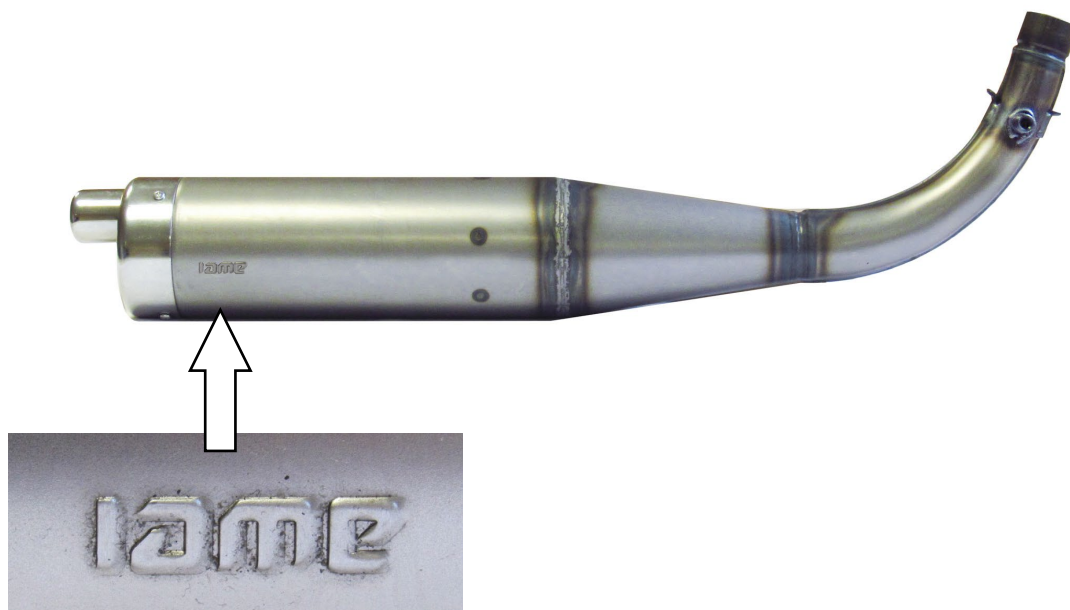
The dimensions "**M**" and "**N**" must be taken on the weld centerline.

Les dimensions « **M** », « **N** » doivent être prises sur l'axe de la soudure.

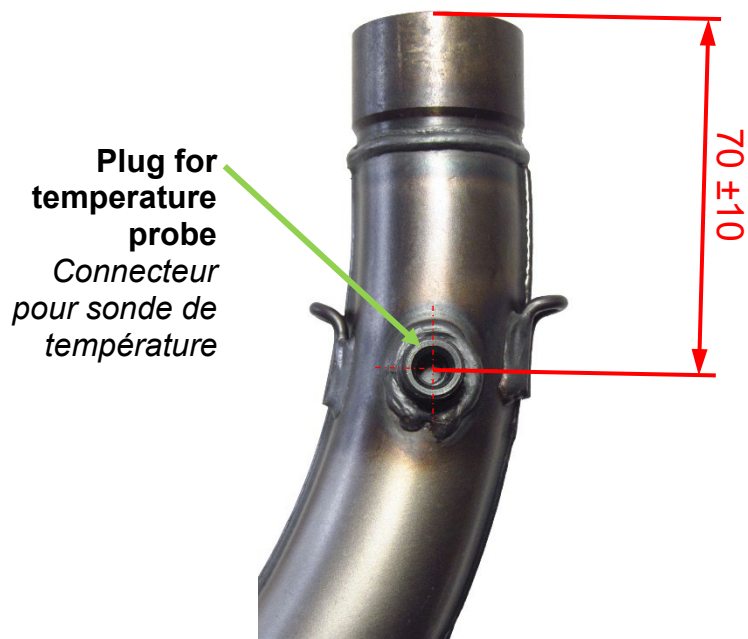
The dimensions "**Q**" and "**W**" must be taken by steel tape measure 12mm wide.

Les dimensions « **Q** » et « **W** » doivent être prises à l'aide d'un ruban à mesurer en acier 12 mm de large.

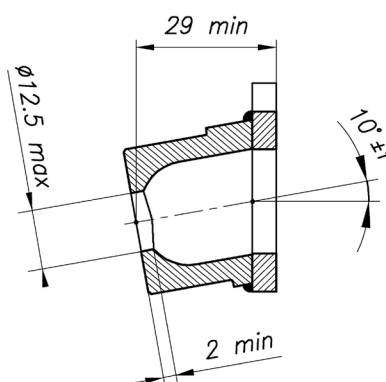
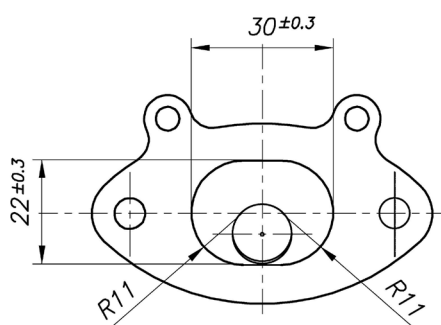
ALTERNATIVE EXHAUST MUFFLER with embossed logo
ECHAPPEMENT ALTERNATIVE avec logo en relief



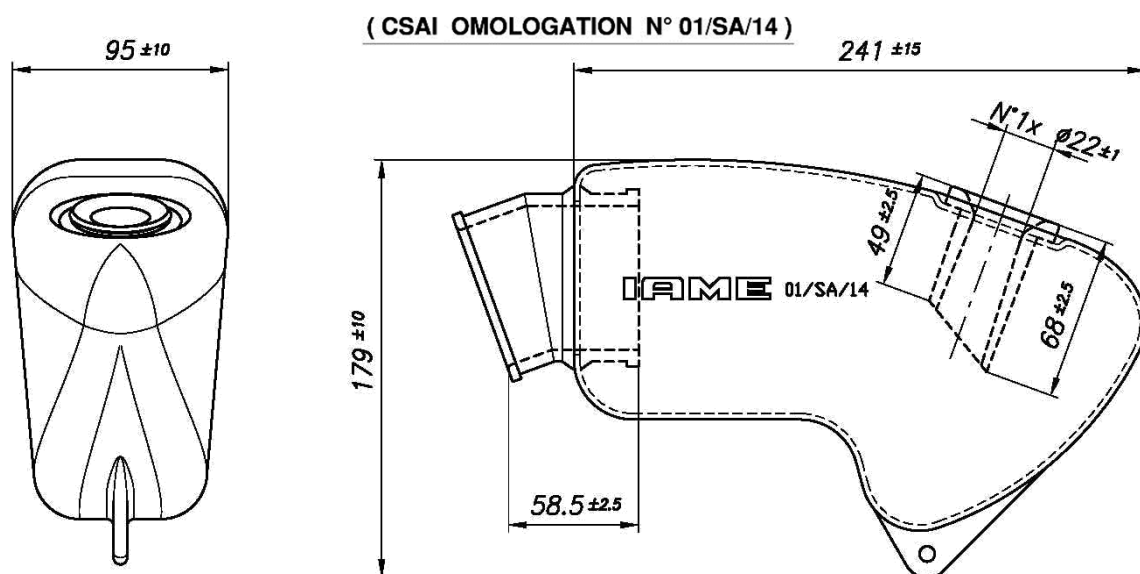
MARKING / MARQUAGE



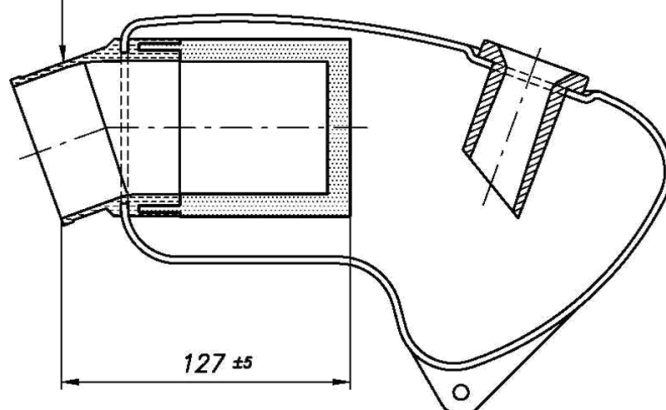
EXHAUST MANIFOLD
RACCORD D'ÉCHAPPEMENT



INLET SILENCER – *SILENCIEUX D'ASPIRATION*



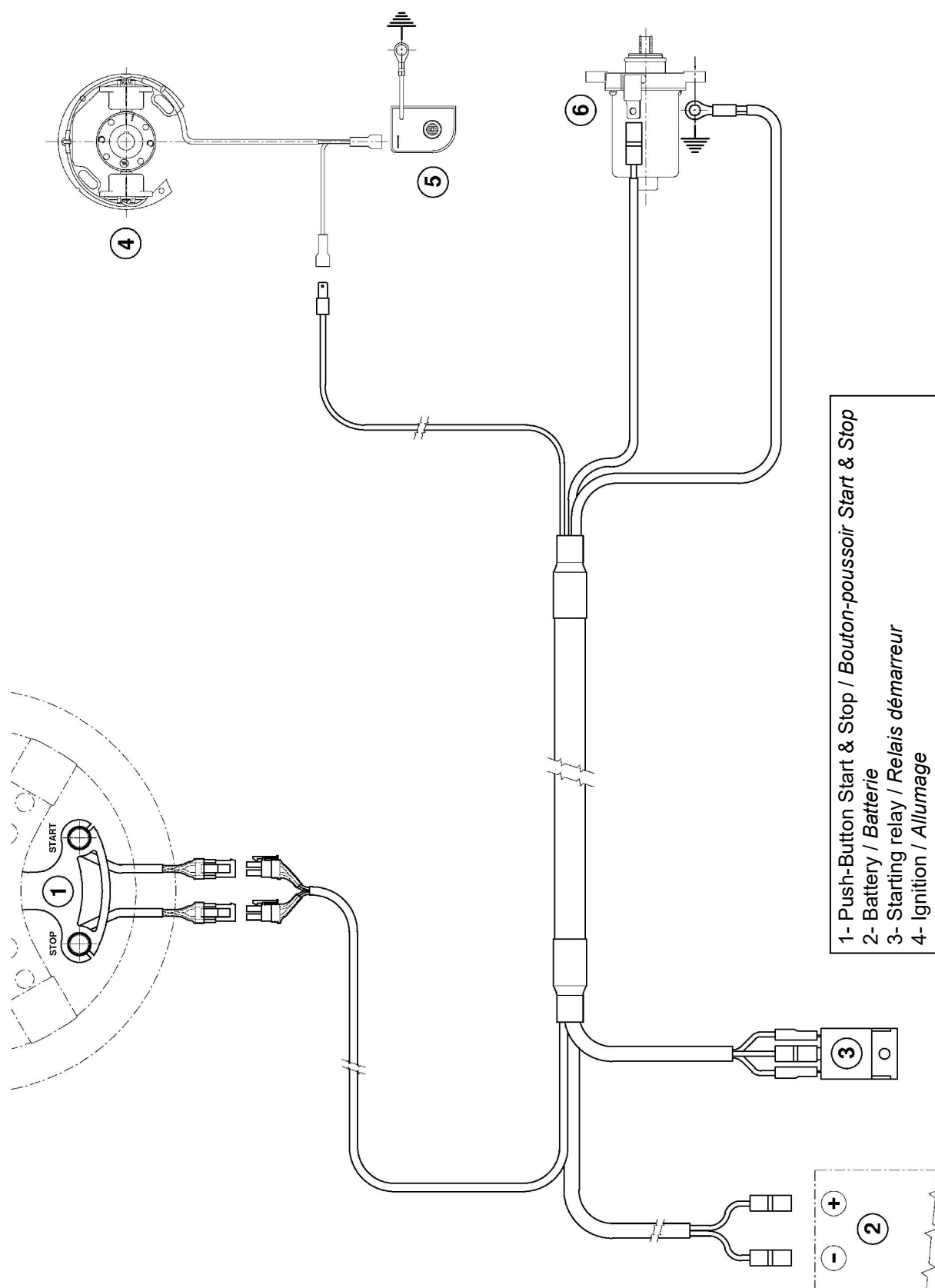
ALTERNATIVE
MANIFOLD WITH SPONGE FILTER
COLLECTEUR AVEC UNE EPONGE
FILTRE



INLET SILENCER - PHOTO *PHOTO - SILENCIEUX D'ASPIRATION*



WIRING DIAGRAM SCHEMA CIRCUIT ELECTRIQUE



- 1- Push-Button Start & Stop / Bouton-poussoir Start & Stop
- 2- Battery / Batterie
- 3- Starting relay / Relais démarreur
- 4- Ignition / Allumage
- 5- H.T. coil / Bobine
- 6- Starter / Démarreur

PHOTO COMPLETE WIRING
 PHOTO DU CÂBLAGE ÉLECTRIQUE COMPLÈTE

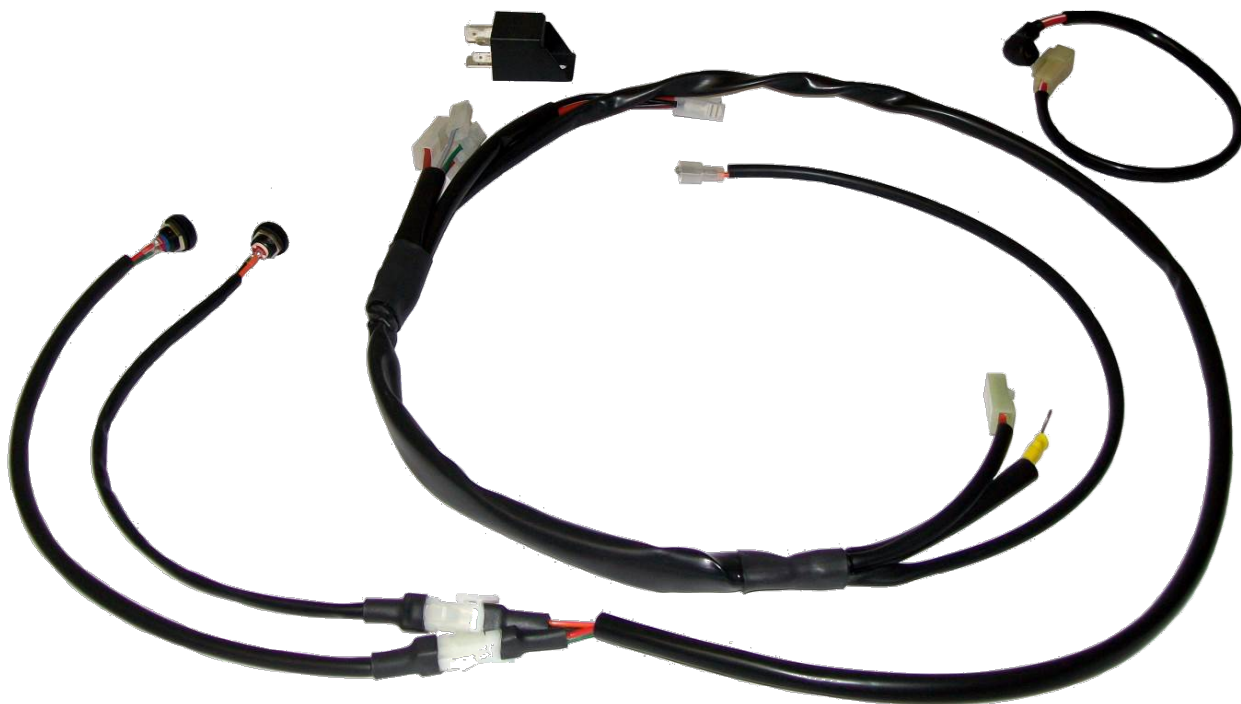
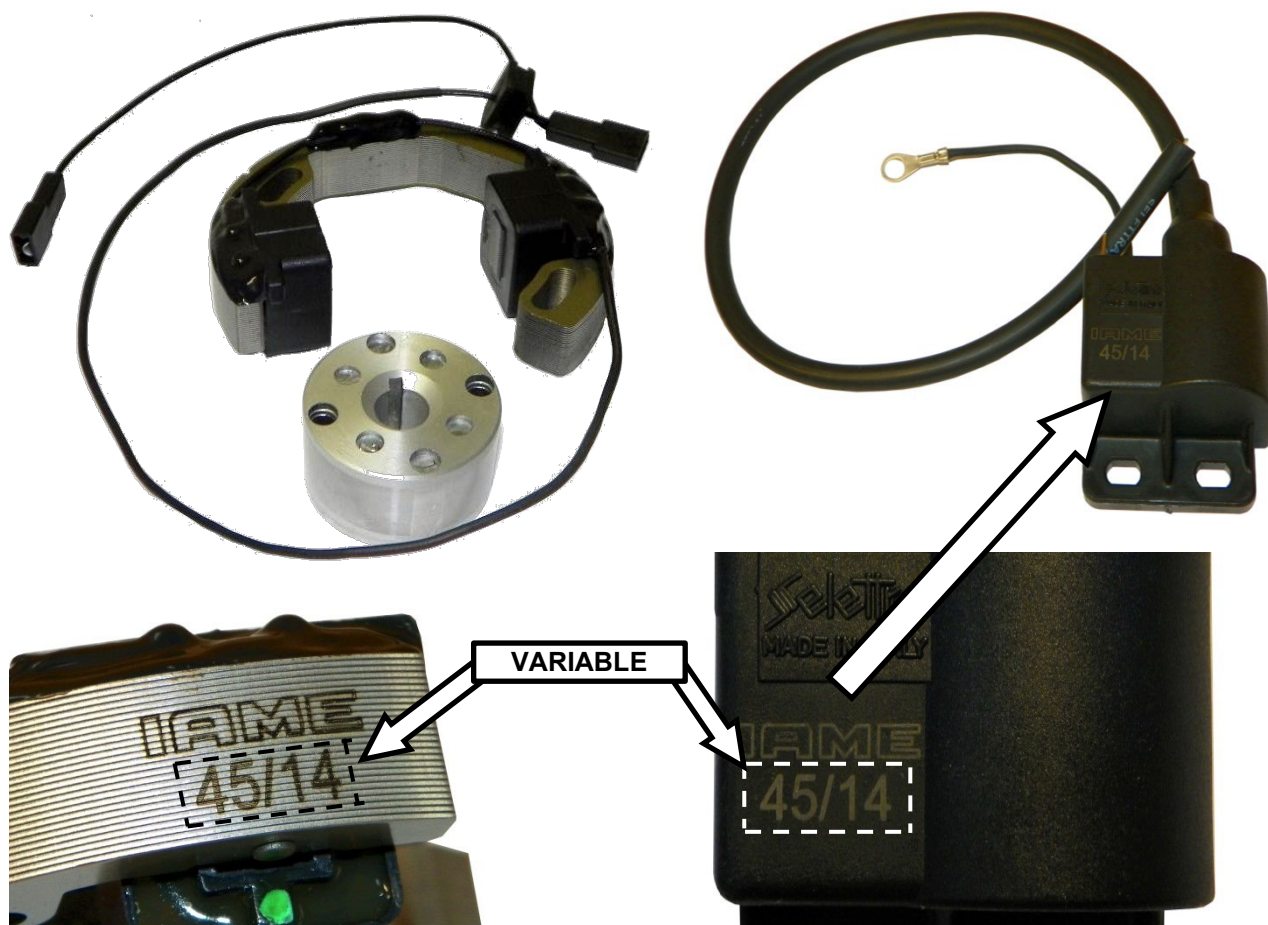


PHOTO IGNITION / PHOTO H.T. COIL (SELETTA ANALOGUE 2 POLES)
 PHOTO ALLUMAGE / PHOTO BOBINE (SELETTA ANALOGIQUE 2 POLES)



ALTERNATIVE WIRING LOOM DIAGRAM SCHÉMA CIRCUIT ÉLECTRIQUE ALTERNATIF

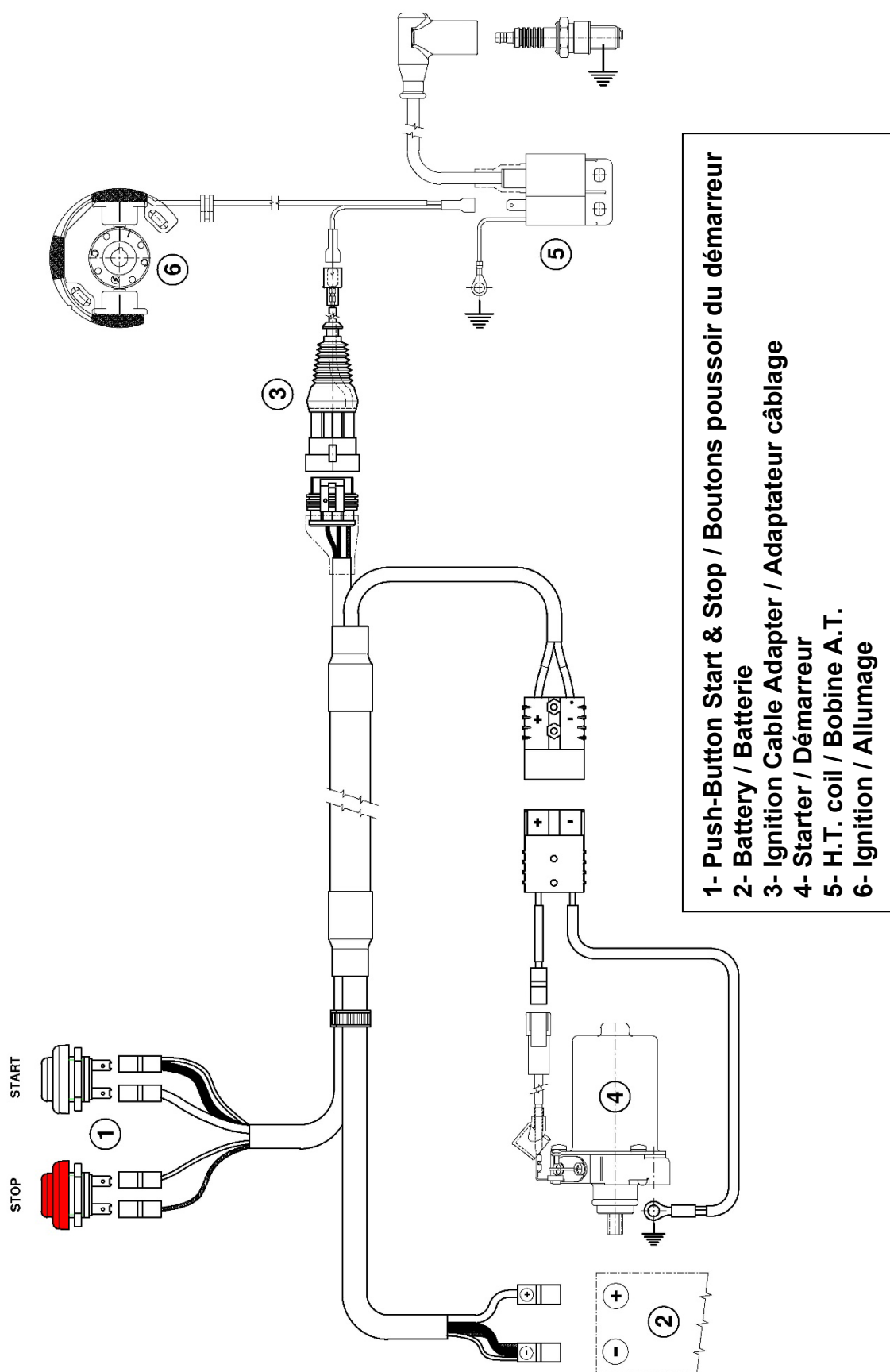
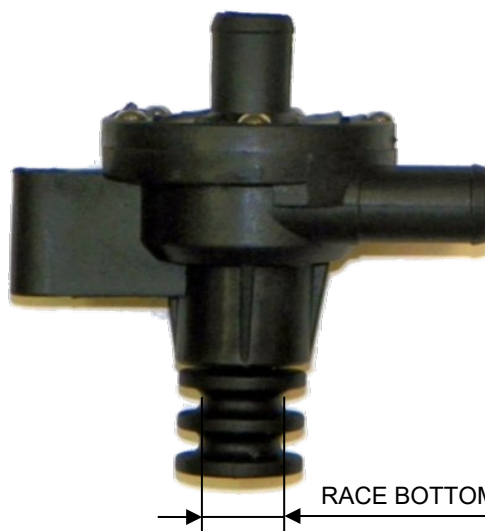
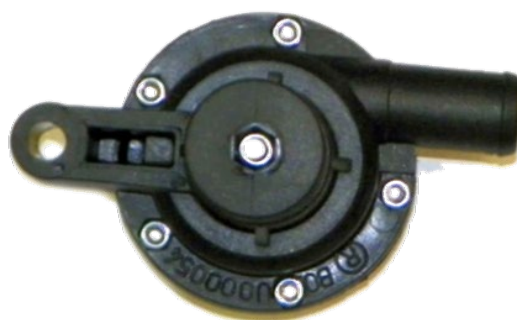


PHOTO OF ALTERNATIVE COMPLETE WIRING LOOM
PHOTO DU CÂBLAGE ÉLECTRIQUE COMPLÈTE ALTERNATIF

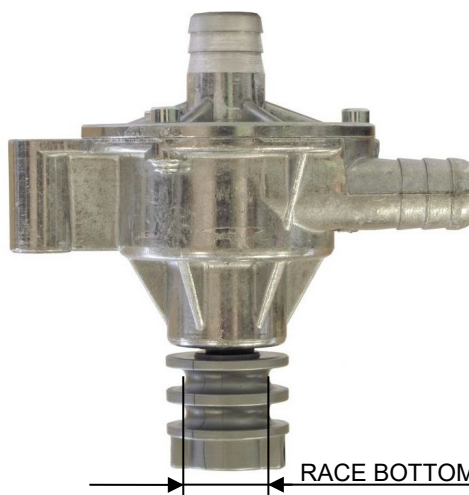


WATER PUMP ALTERNATIVES – ALTERNATIVES DU POMPE A' EAU

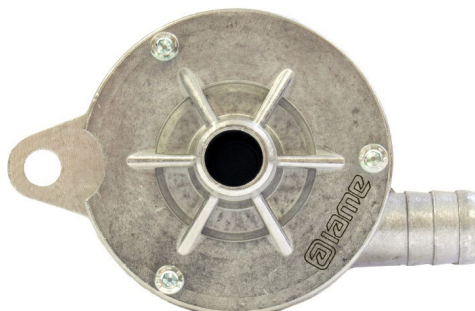


PLASTIC

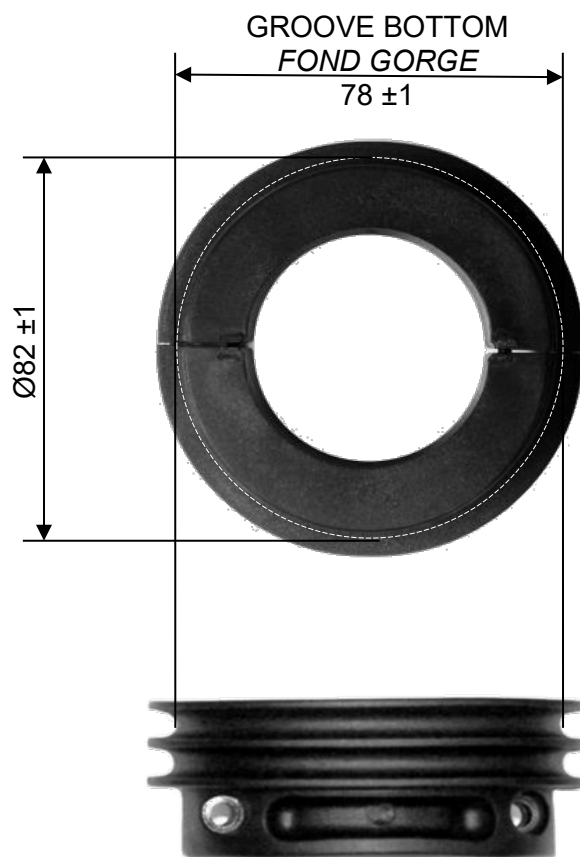
ALTERNATIVE



ALUMINUM



PULLEY ALTERNATIVE – ALTERNATIVE DU POULIE



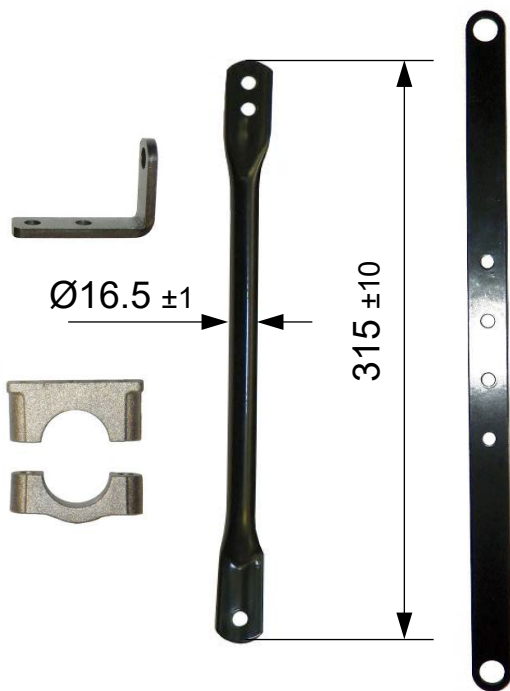
PLASTIC

ALTERNATIVE



ALUMINUM

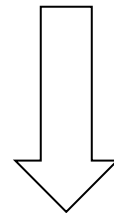
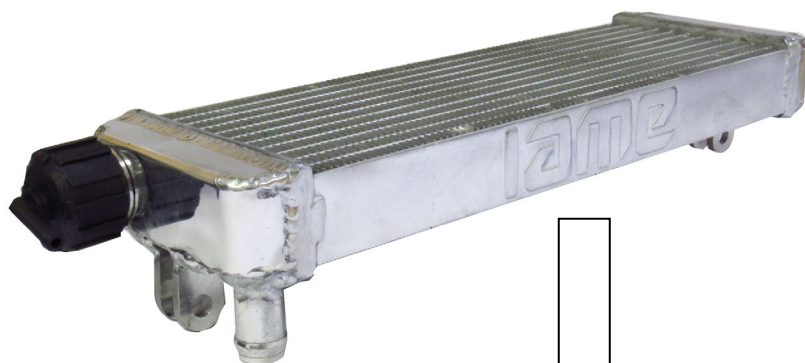
RADIATOR AND ITS SUPPORTS
RADIATEUR ET SES SUI TIEN



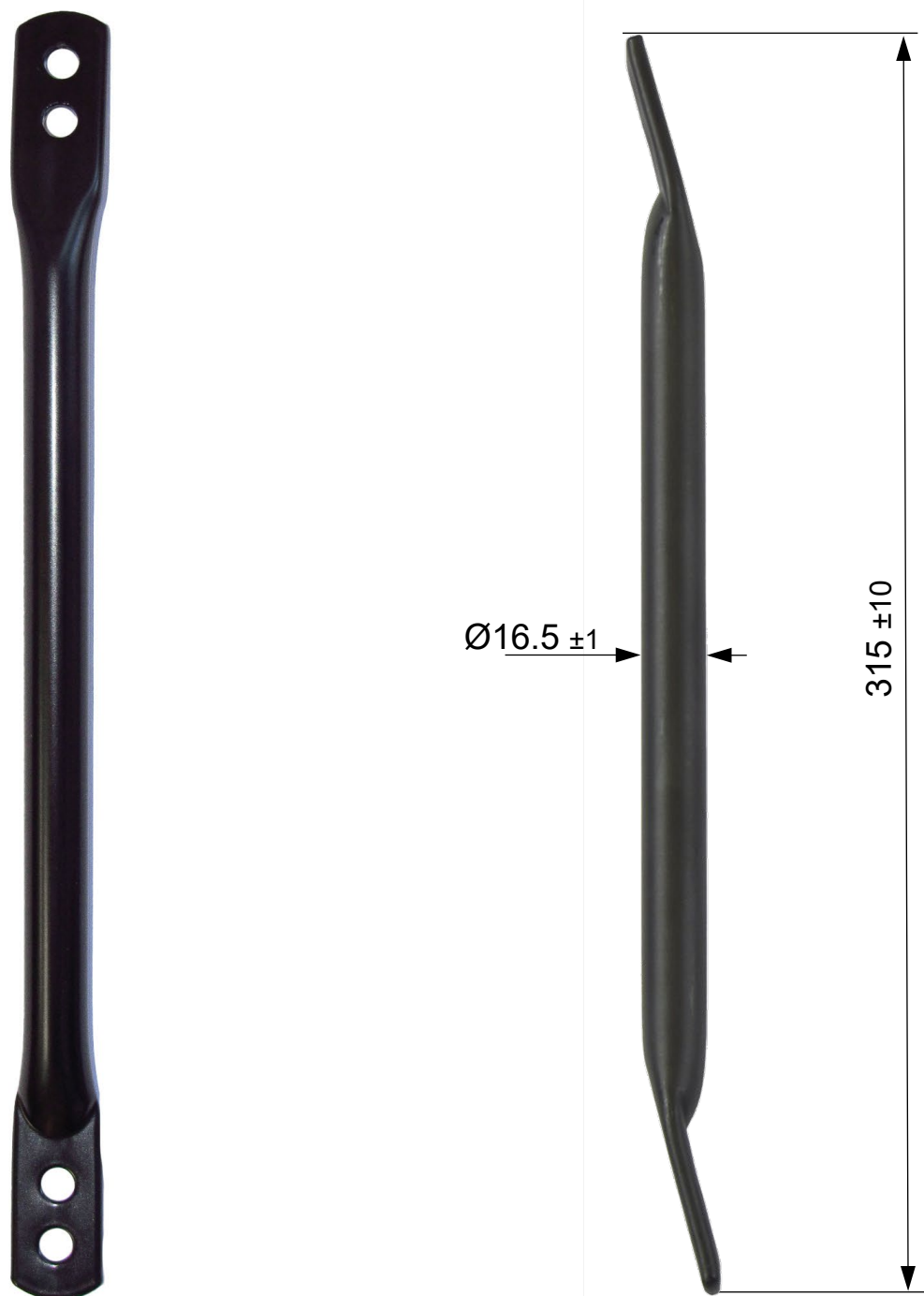
PAINTED AND NOT PAINTED
PEINT ET PAS PEINT



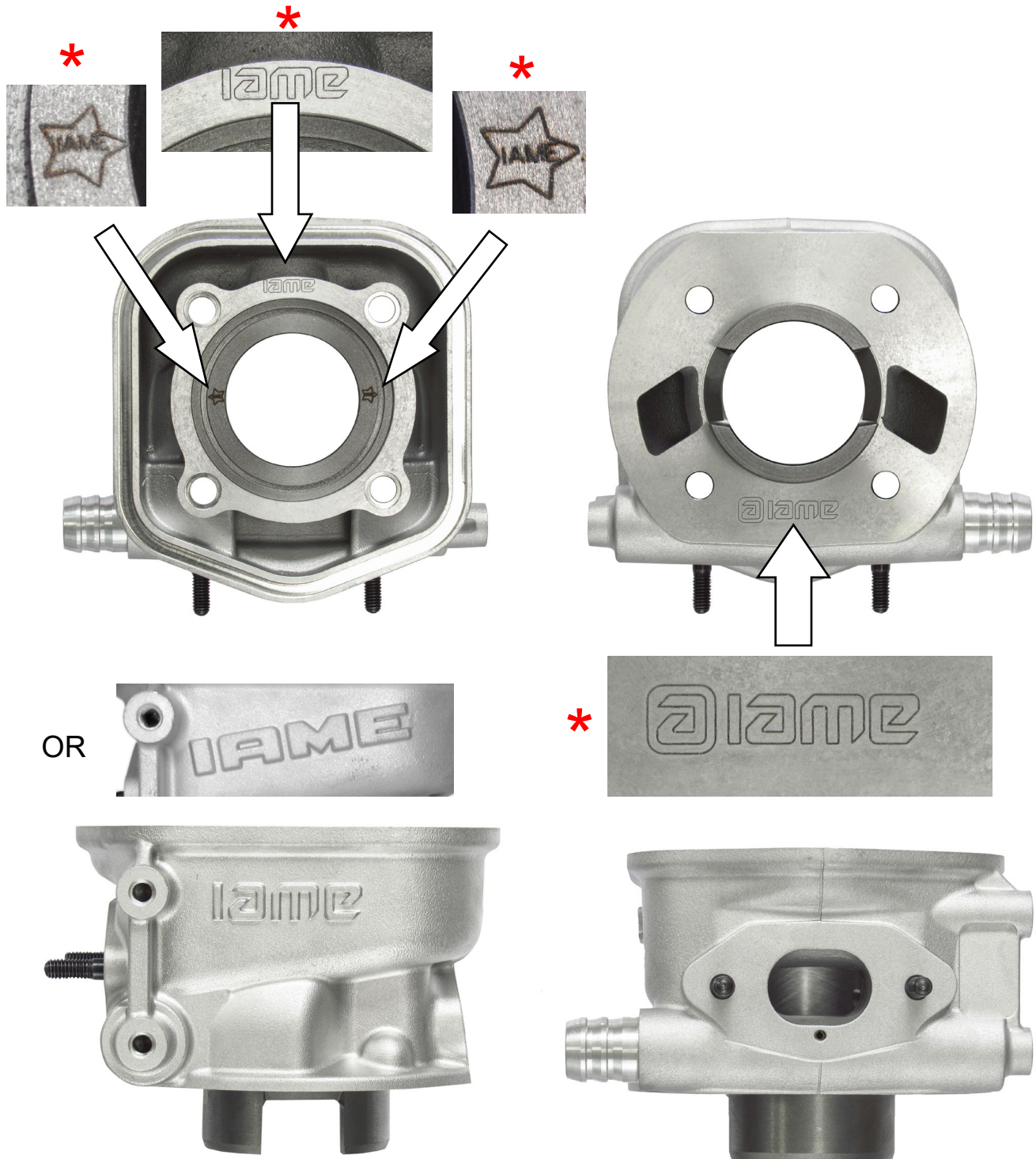
ALTERNATIVE RADIATOR
RADIATEUR ALTERNATIF



ALTERNATIVE RADIATOR SUPPORT
ALTERNATIVE SUI TIEN DU RADIATEUR

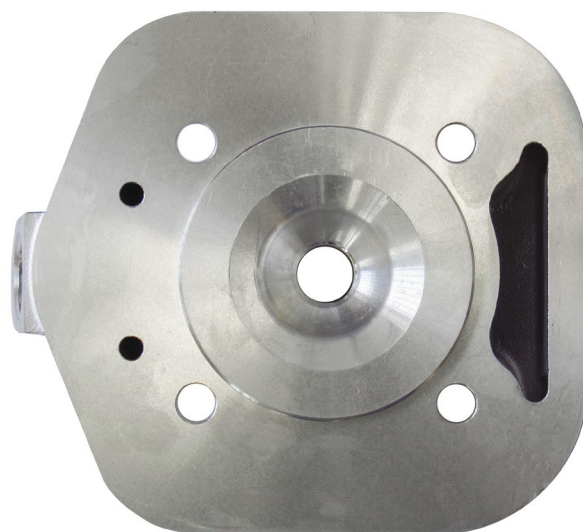
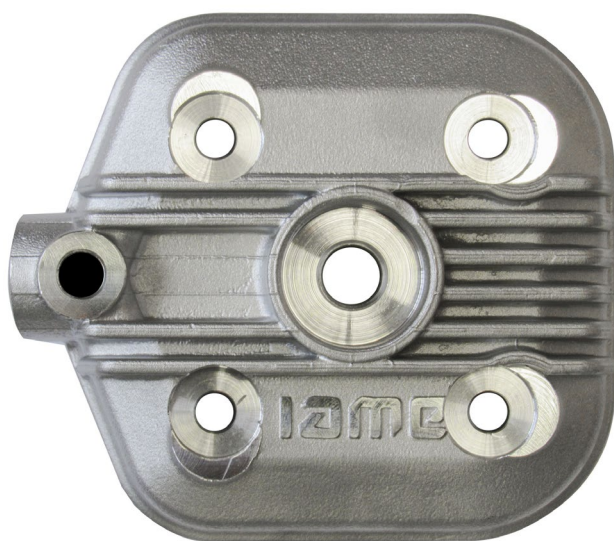


CYLINDER IDENTIFICATION MARKING
MARQUAGE D'IDENTIFICATION DU CYLINDRE



* Compulsory from engine n. 011150
Obligatoire à partir du moteur no. 011150

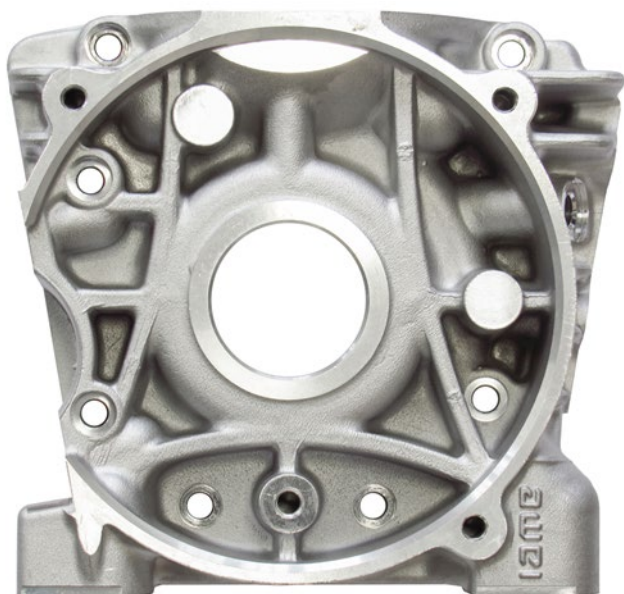
CYLINDER HEAD MARKING
MARQUAGE D'IDENTIFICATION DU CULASSE



OR



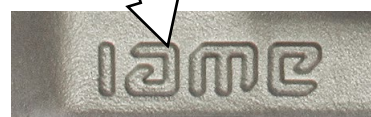
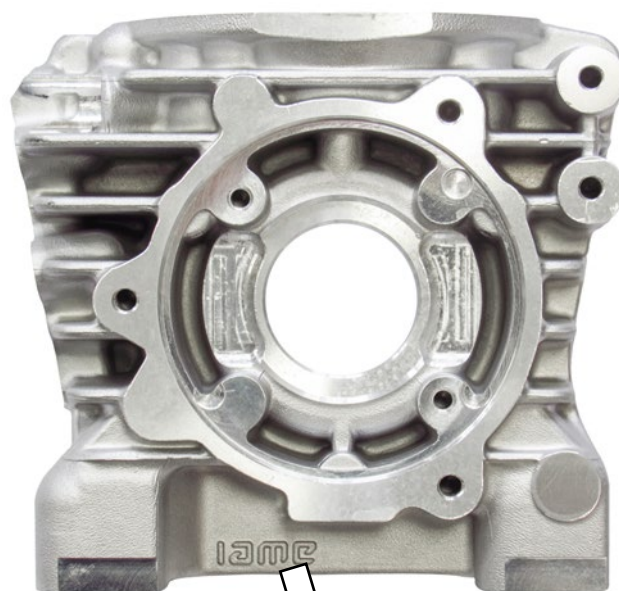
SEMICARTER TRANSMISSION SIDE
SEMICARTER CÔTÉ PIGNON



OR



SEMICARTER IGNITION SIDE
SEMICARTER CÔTÉ ALLUMAGE



OR



PISTON IDENTIFICATION MARKING
MARQUAGE D'IDENTIFICATION PISTON



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

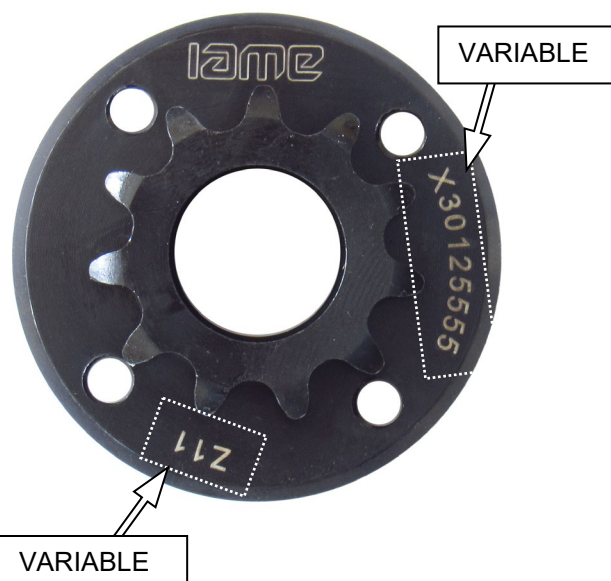
TYPE 1



TYPE 2



SPROCKET IDENTIFICATION MARKING
MARQUAGE D'IDENTIFICATION DU PIGNON



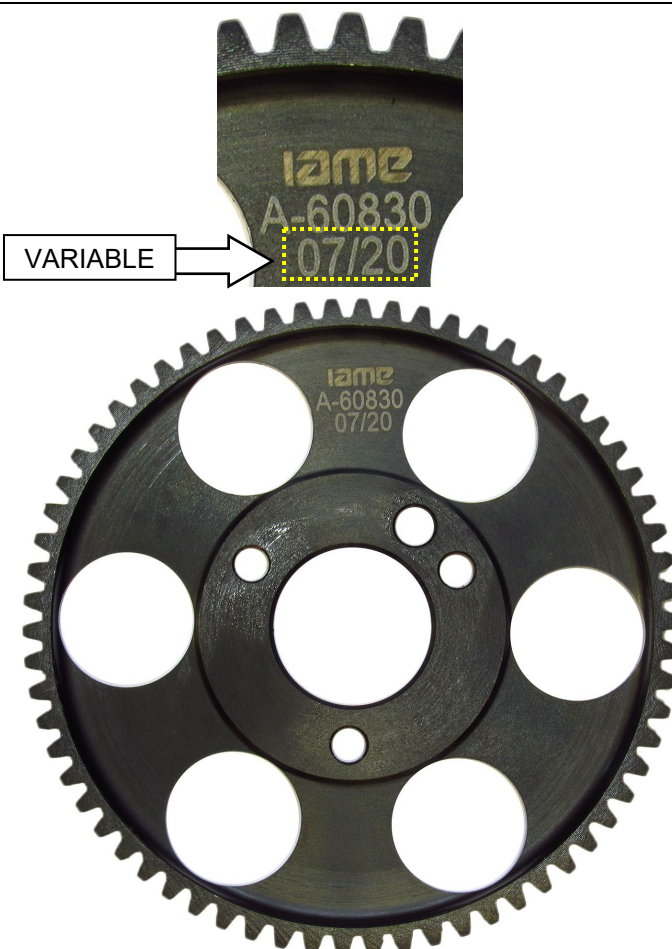
CLUTCH DRUM IDENTIFICATION MARKING
MARQUAGE D'IDENTIFICATION DE LA
CALOTTE



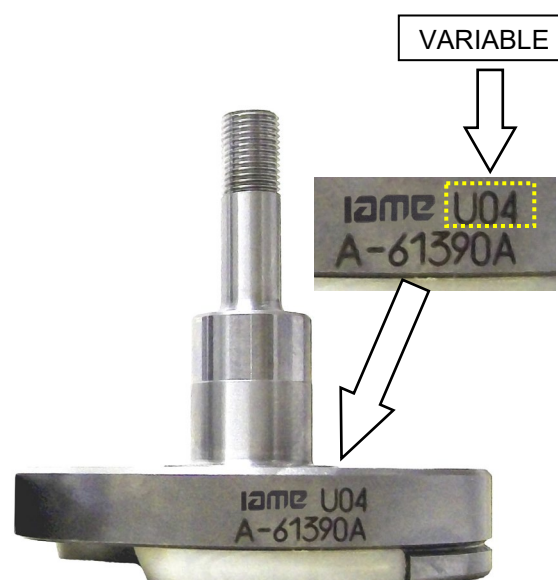
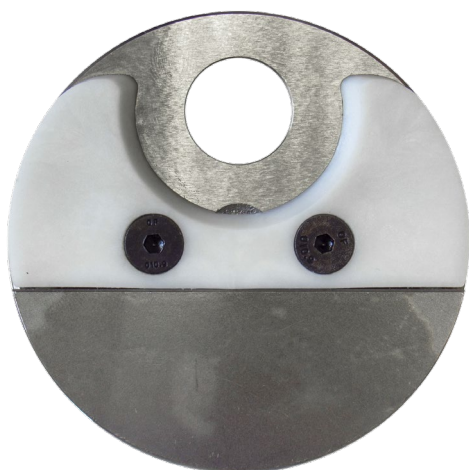
CLUTCH BODY IDENTIFICATION MARKING
MARQUAGE D'IDENTIFICATION DU CORPS
DE L'EMBRAYAGE



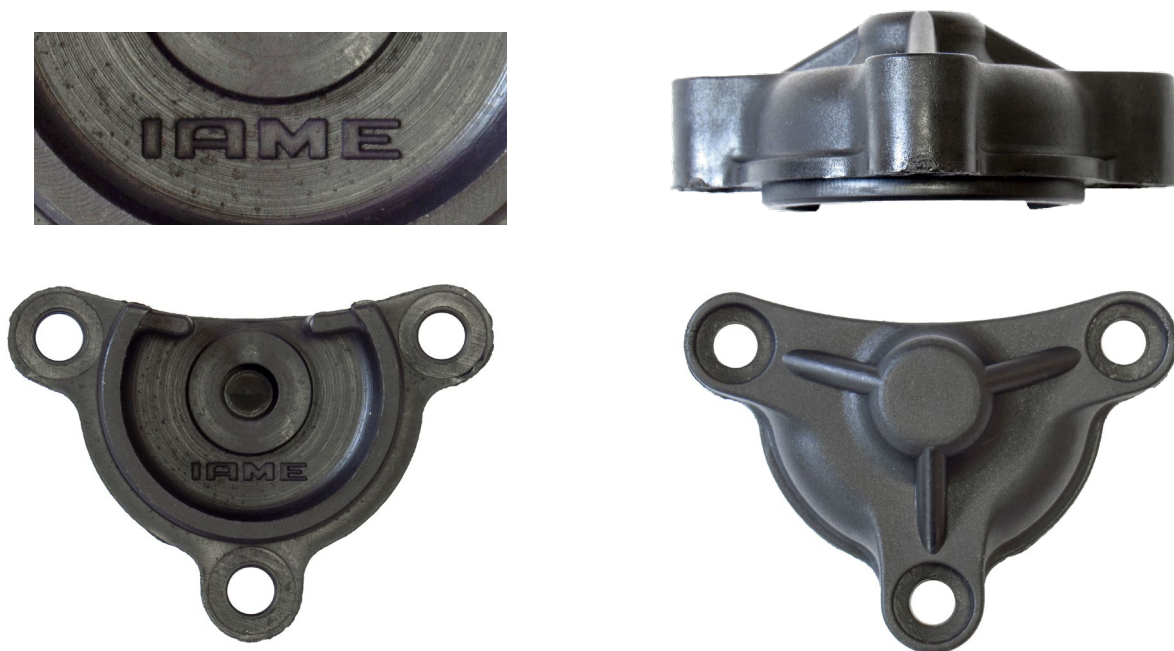
STARTER RING IDENTIFICATION MARKING
MARQUAGE D'IDENTIFICATION DE LA
COURONNE DE DEMARRAGE



CRANKSHAFT AND HIS COMPONENTS IDENTIFICATION MARKING
MARQUAGE D'IDENTIFICATION DU VILEBREQUIN ET SES COMPOSANTS



BENDIX COVER IDENTIFICATION MARKING
MARQUAGE D'IDENTIFICATION DU COUVERCLE
DU CONTRE-ARBRE DE DEMARRAGE



STARTER IDENTIFICATION MARKING
MARQUAGE D'IDENTIFICATION DU DEMARREUR

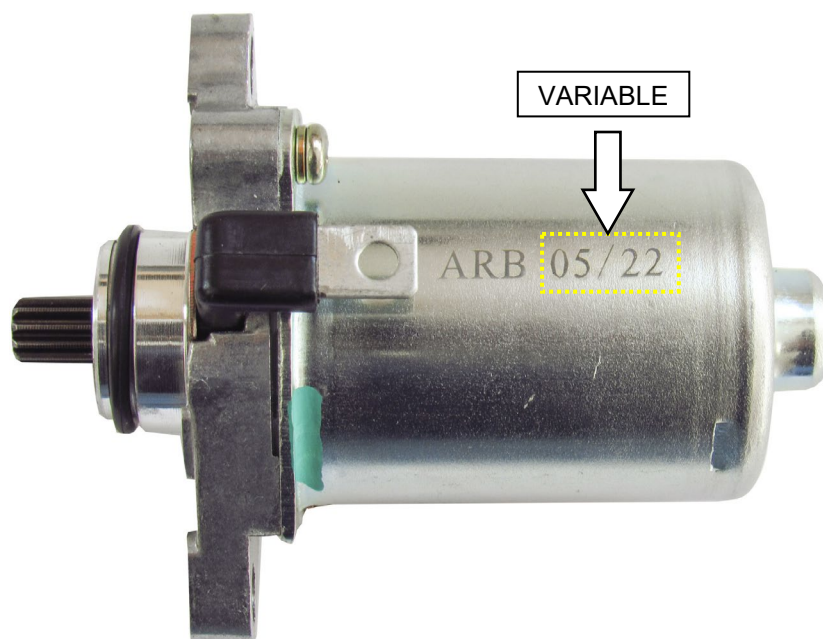
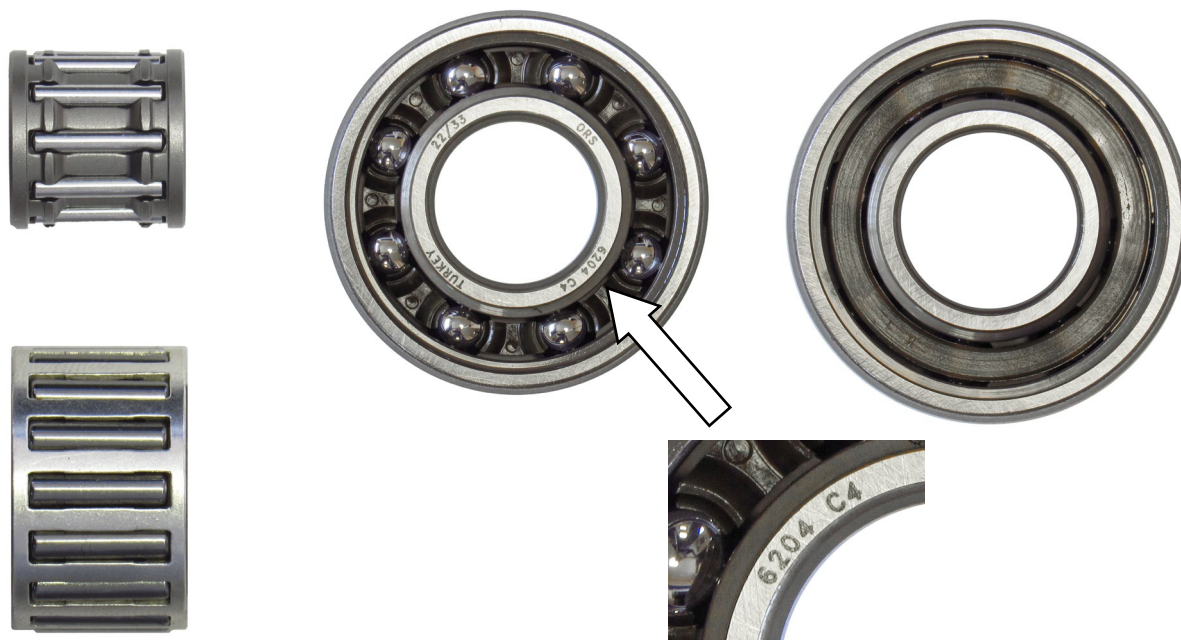


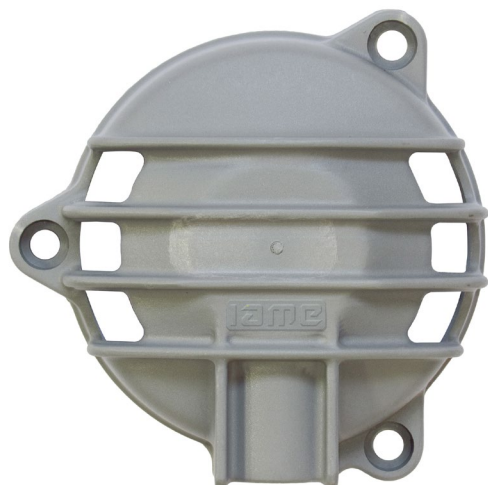
PHOTO IDENTIFICATION: SMALL & BIG END CONROD BEARING AND MAIN BEARING
 PHOTO D'IDENTIFICATION DU ROULEMENT PIED/TÊTE DE BIELLE ET PRINCIPAUX



EXHAUST IDENTIFICATION MARKING without embossed logo
 MARQUAGE D'IDENTIFICATION ECHAPPEMENT sans logo en relief



IGNITION COVER
COUVERCLE DU ALLUMAGE



OR



CLUTCH COVER
COUVERCLE D'EMBAYAGE



OR



INLET FILTER
SILENCIEUX D'ASPIRATION



OR



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"

I a m e

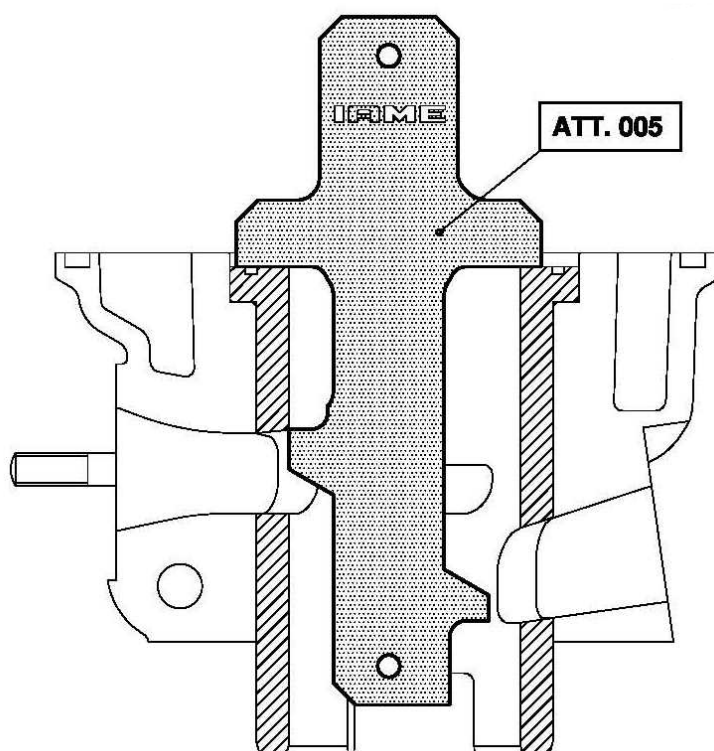
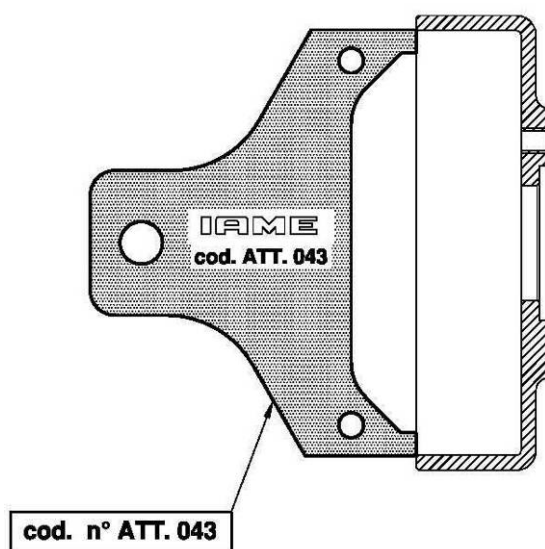
or

Q I a m e

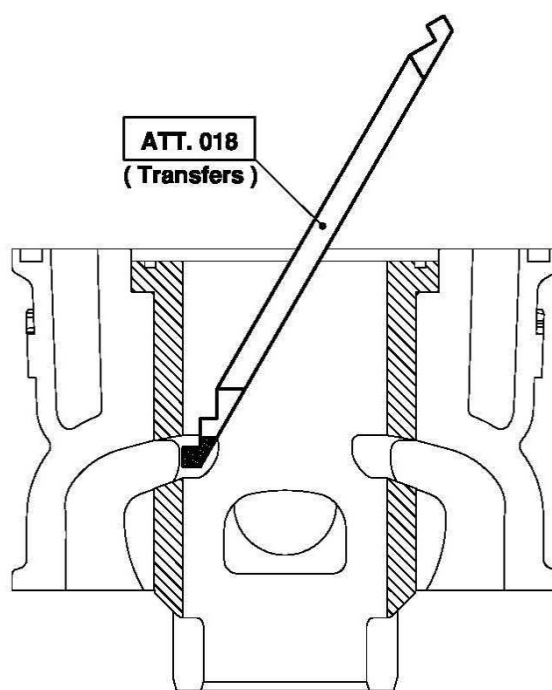
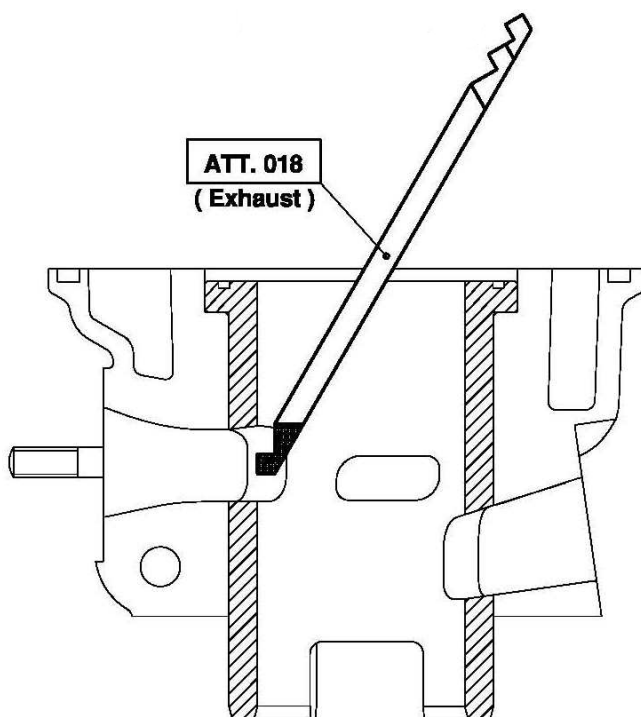
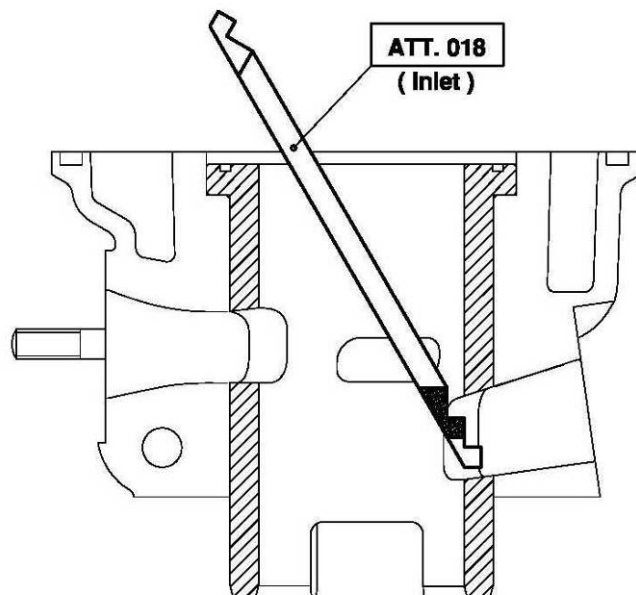
or



NO GO GAUGES
OUTILS N'ENTRE PAS DANS

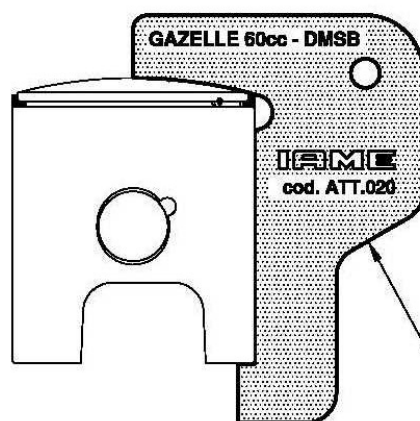
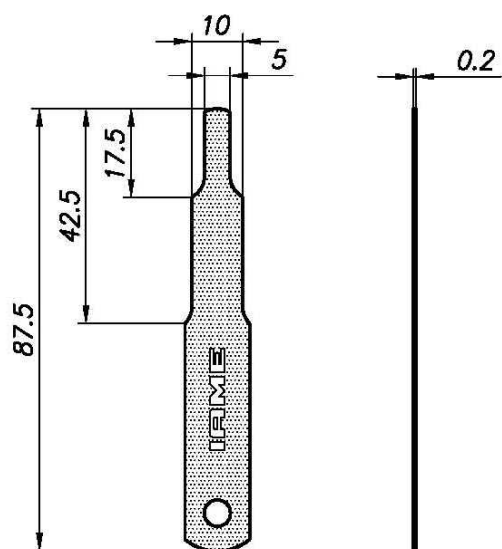


NO GO GAUGES
OUTILS N'ENTRE PAS DANS

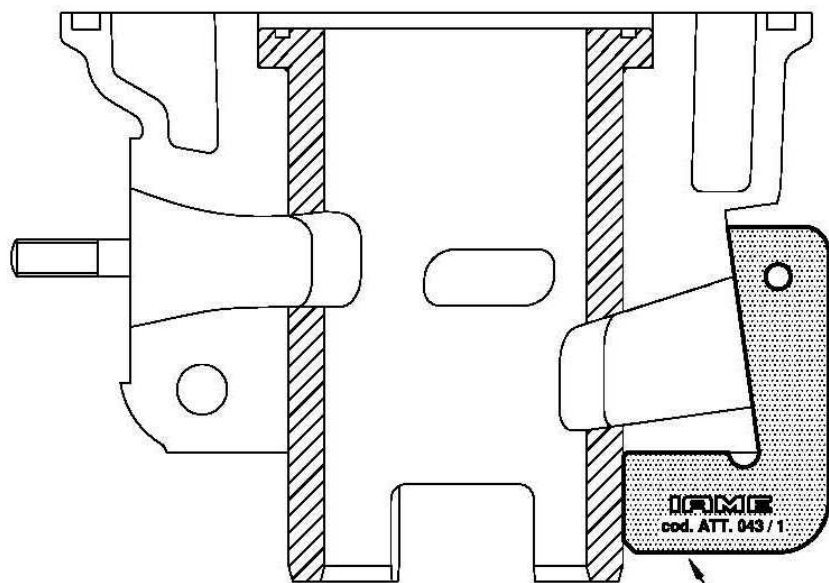


CONTROL GAUGES
OUTILS DE CONTROLL

TOOL IAME Cod. 10194

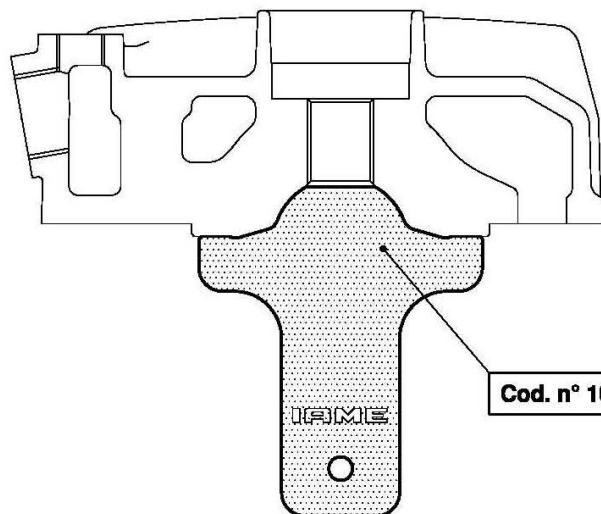


cod. n° ATT. 020

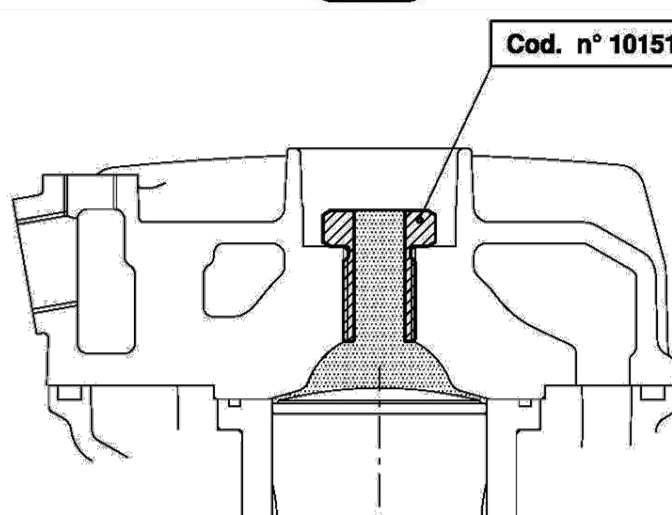


cod. n° ATT. 043 / 1

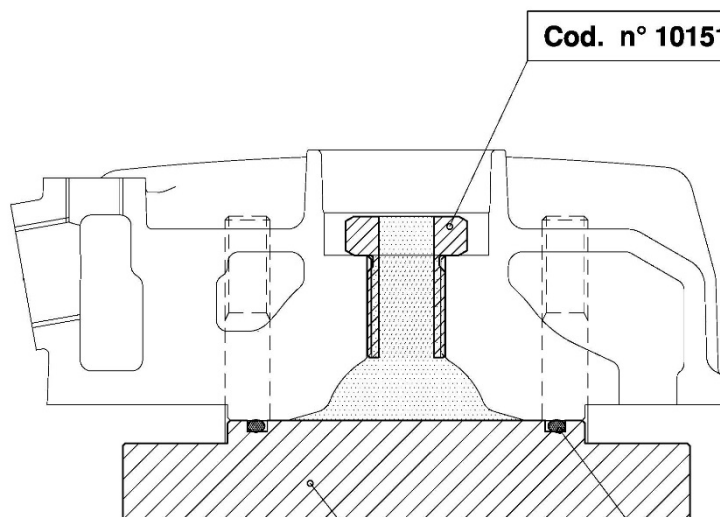
**CONTROL GAUGES
OUTILS DE CONTROLL**



Cod. n° 10215



Cod. n° 10151

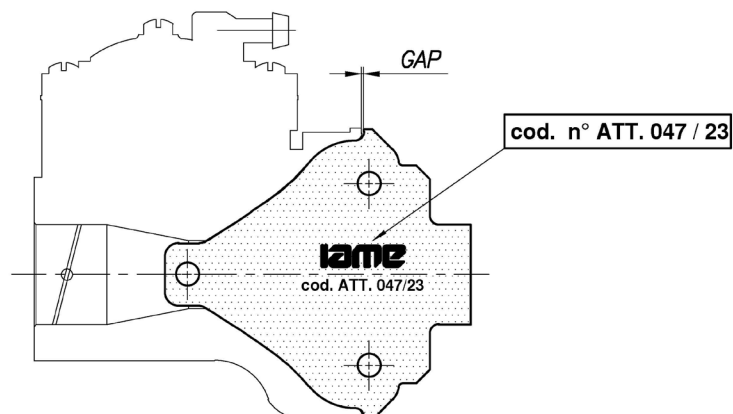


Cod. n° 10151

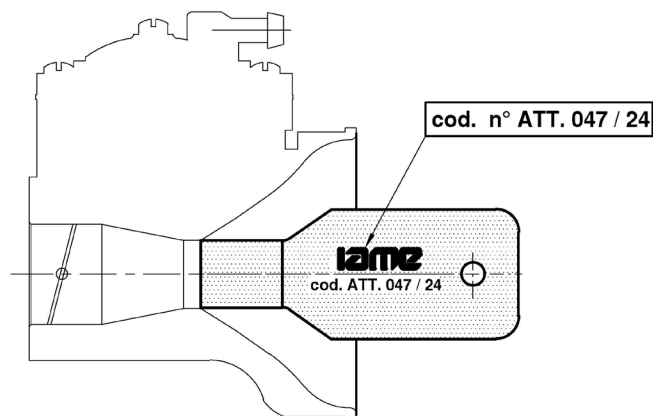
(OR - 3193)

Cod. n° 10276

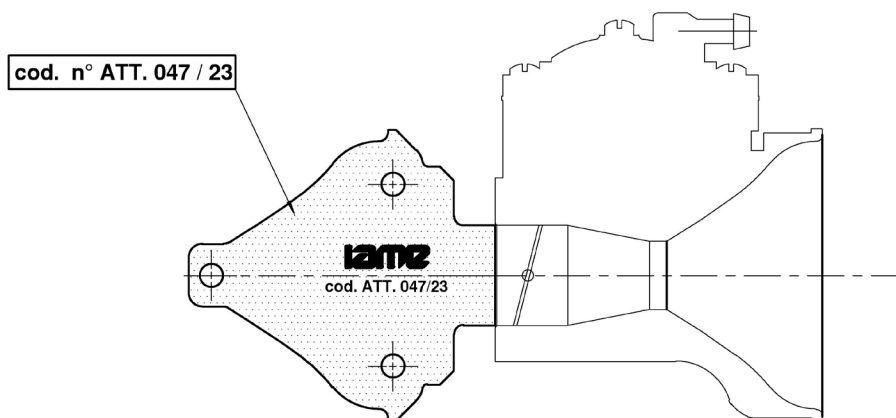
CONTROL GAUGES
OUTILS DE CONTROLL



Check that the tool must be the same shape of the inlet carburettor.
Vérifier que l'outil doit avoir la même forme que l'admission du carburateur.

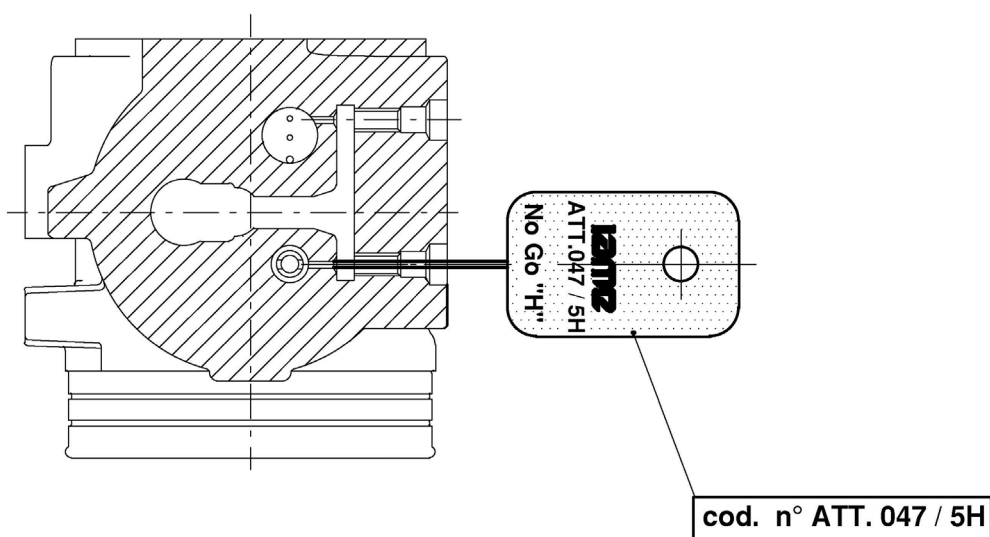
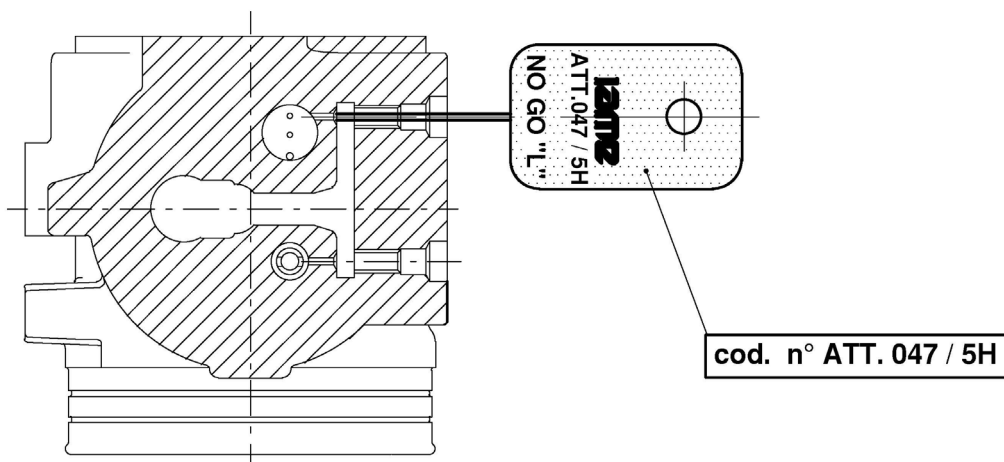


Check that the tool does not enter into the venturi duct inlet of carburettor.
Vérifier que l'outil n'entre pas dans l'entrée du conduit Venturi du carburateur.



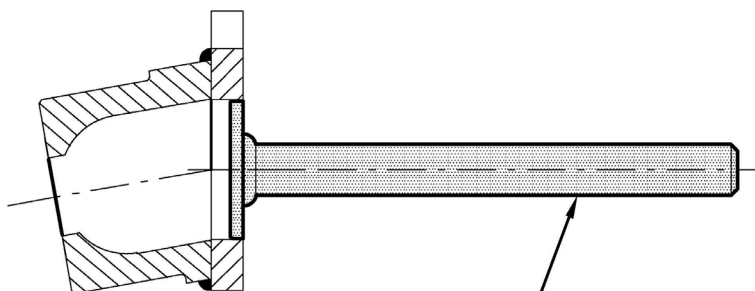
Check that the tool does not enter into the venturi duct outlet of carburettor.
Vérifier que l'outil n'entre pas dans la sortie du conduit Venturi du carburateur.

**CONTROL GAUGES
OUTILS DE CONTROLL**

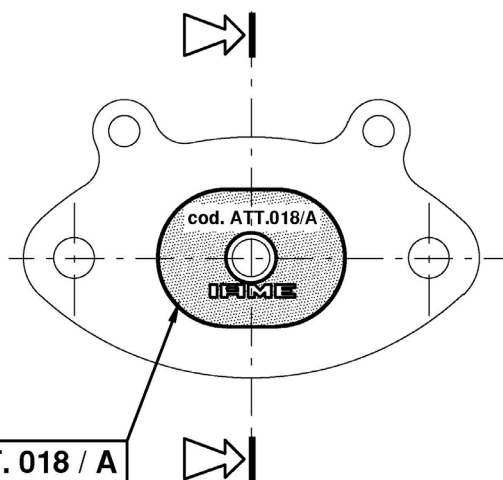


Check that the spikes does not enter into the holes.
Vérifiez que les pointes n'entrent pas dans les trous.

**CONTROL GAUGES
OUTILS DE CONTROLL**



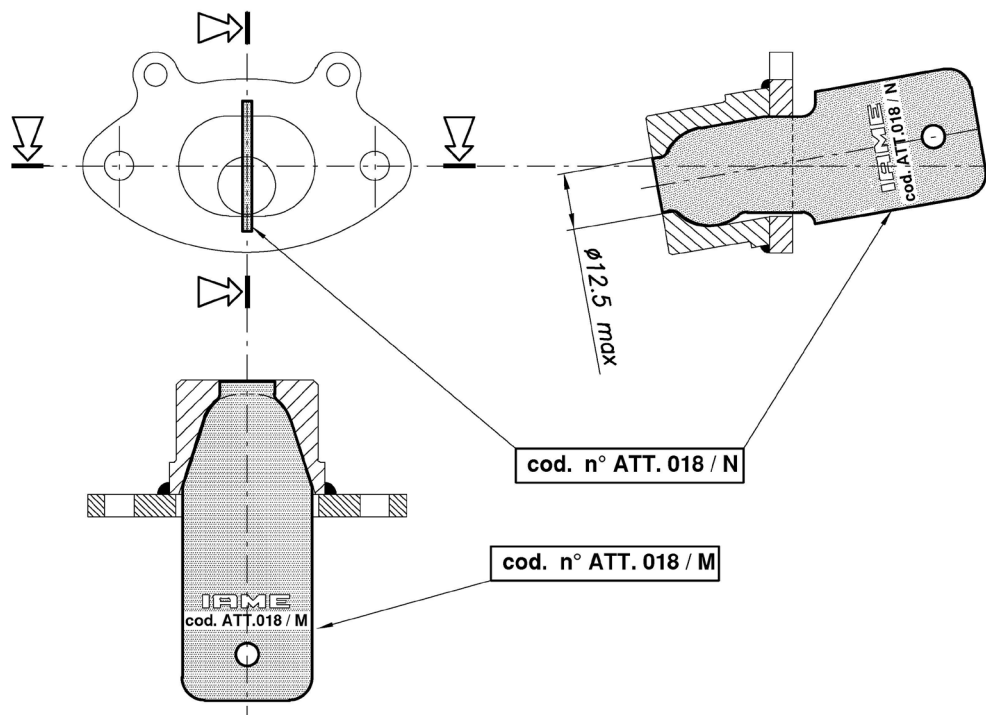
cod. n° ATT. 018 / A



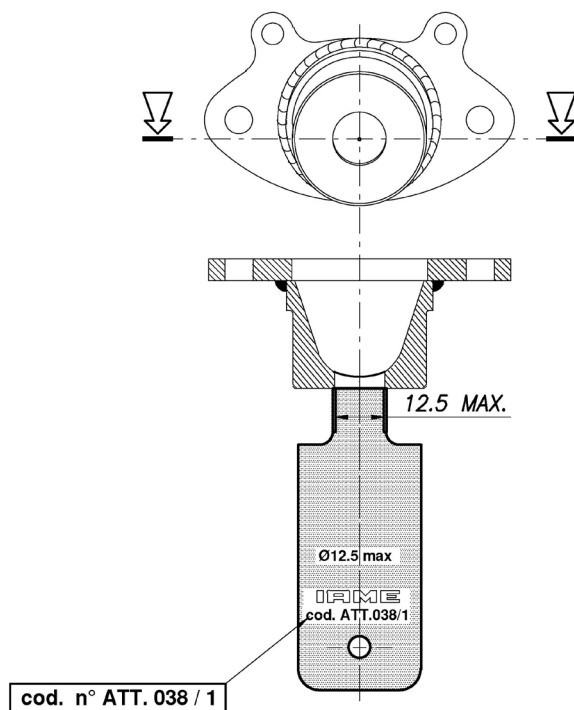
cod. n° ATT. 018 / A

Check that the tool must be the same shape of the exhaust manifold.
Vérifiez que l'outil doit être de la même forme du collecteur d'échappement

CONTROL GUGES
OUTILS DE CONTROLL



Check that the tool must be the same shape of the inlet carburettor.
Vérifier que l'outil doit avoir la même forme que l'admission du carburateur.



Check that the tool does not enter into the exhaust restrictor.
Vérifier que l'outil n'entre pas dans le restricteur d'échappement



CARBURETTOR / CARBURATEUR

Tillotson HW-47A



PHOTO OF ADJUSTING SIDE
PHOTO CÔTÉ RÉGLAGE

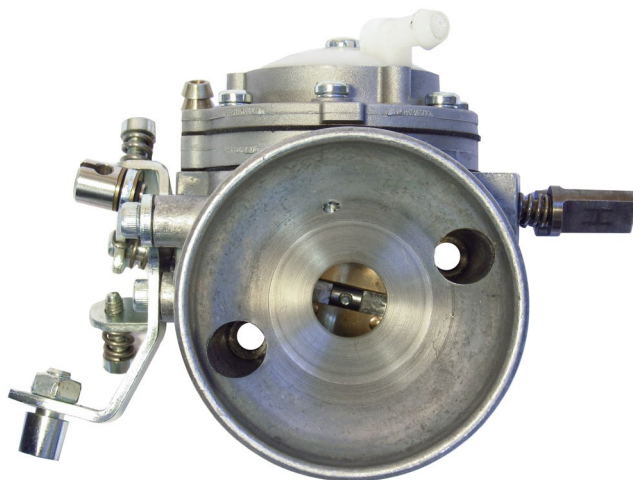
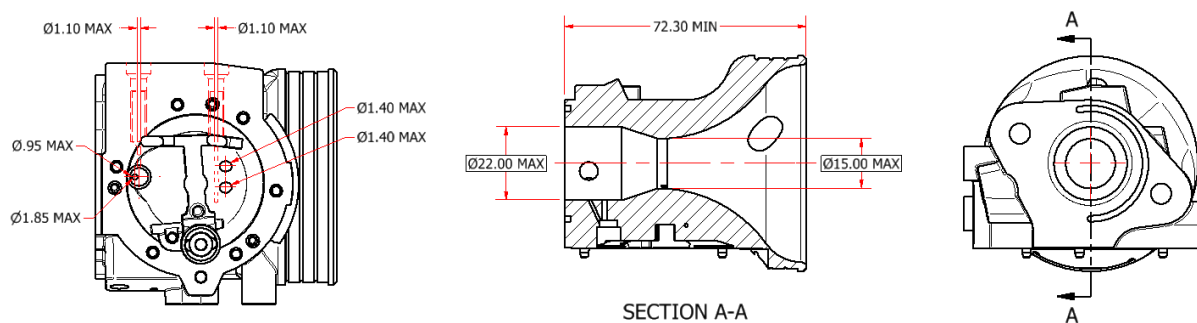


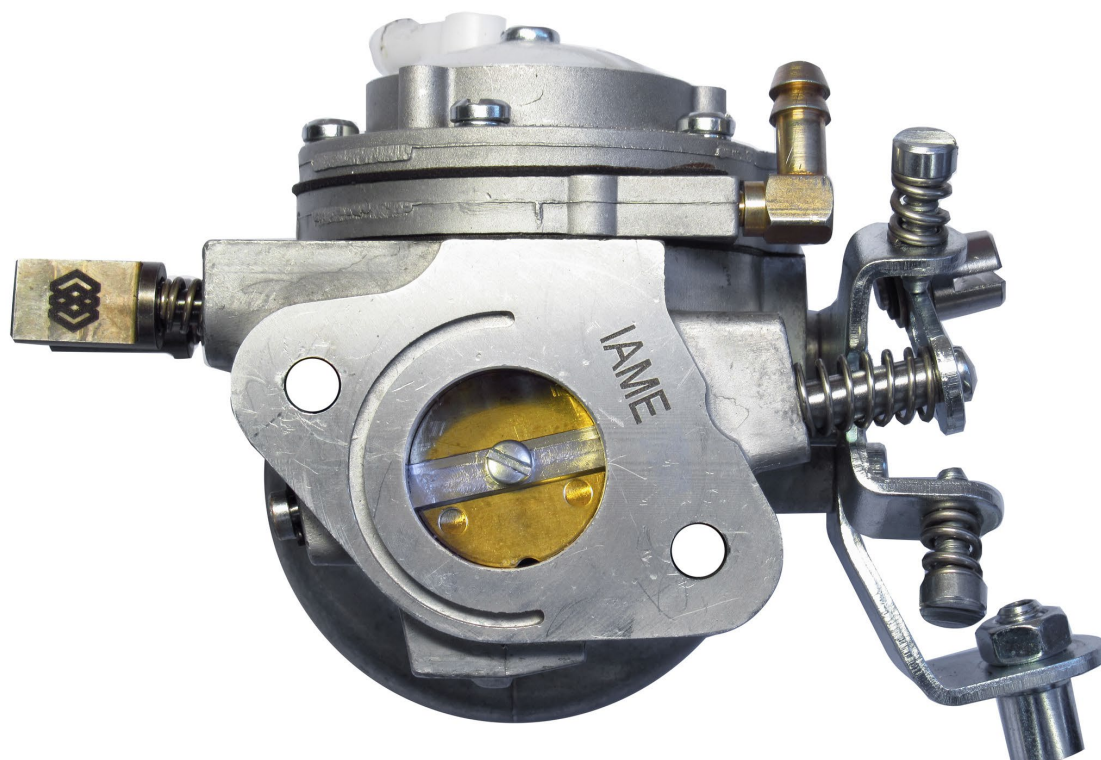
PHOTO OF INLET SIDE
PHOTO CÔTÉ ASPIRATION

Manufacturer - <i>Constructeur</i>	TILLOTSON LTD.
Make - <i>Marque</i>	TILLOTSON
Model - <i>Modèle</i>	HW-47A

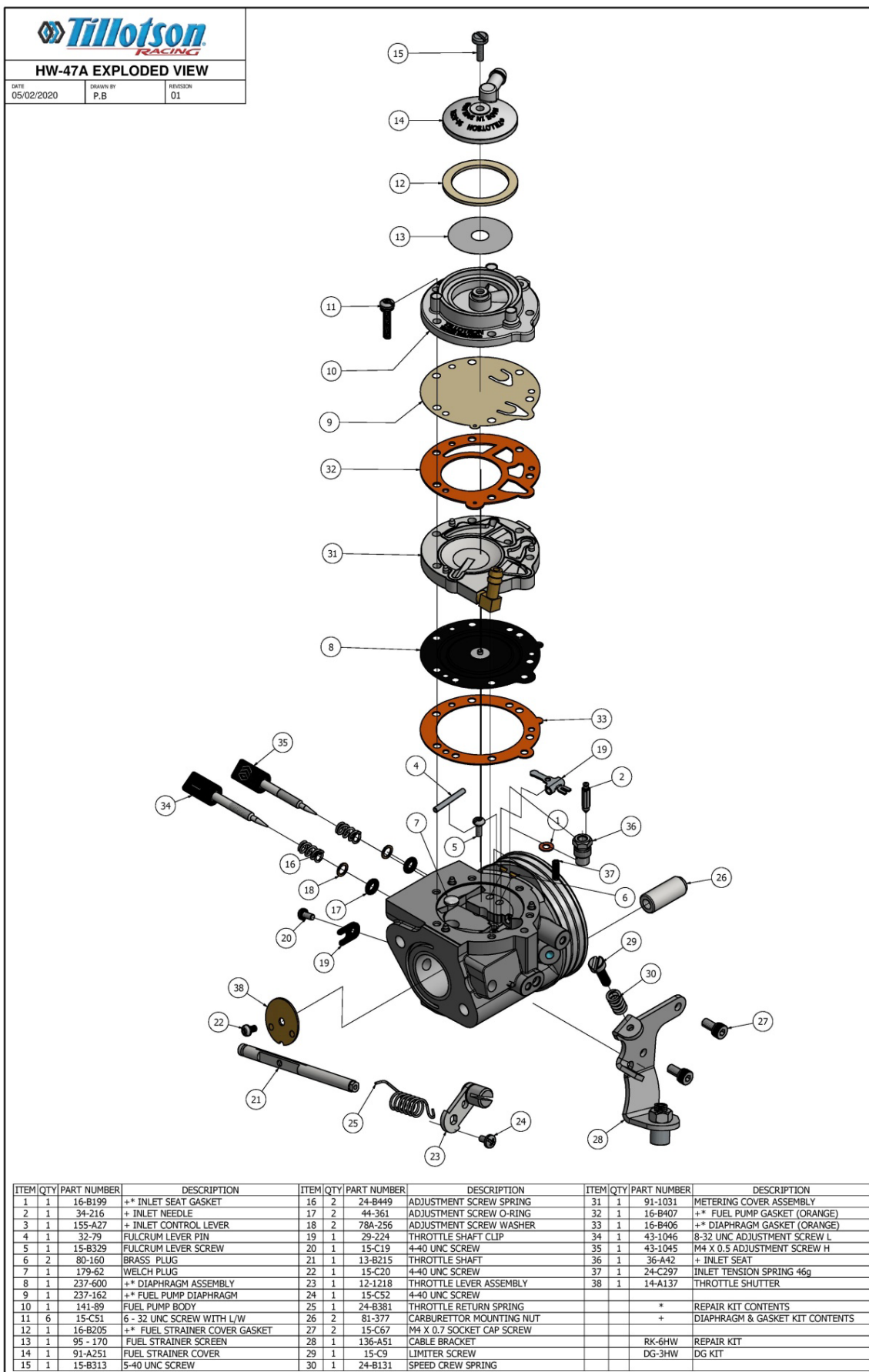
SECTION VIEW – VUE DE SECTION AVEC DIMENSIONS



"IAME" MARKING – MARQUAGE "IAME"



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



PARTS OF CARBURETTOR

REF.33 - P. N°16-B406
DIAPHRAGM GASKET (ORANGE COLOR)
JOINT DE DIAPHRAGME (COULEUR ORANGE)



Thickness / *Epaisseur* = 0.5 ± 0.1 mm

REF.32 - P. N° 16-B407
PUMP DIAPHRAGM GASKET (ORANGE COLOR)
JOINT DE POMPE A ESSENCE (COULEUR ORANGE)



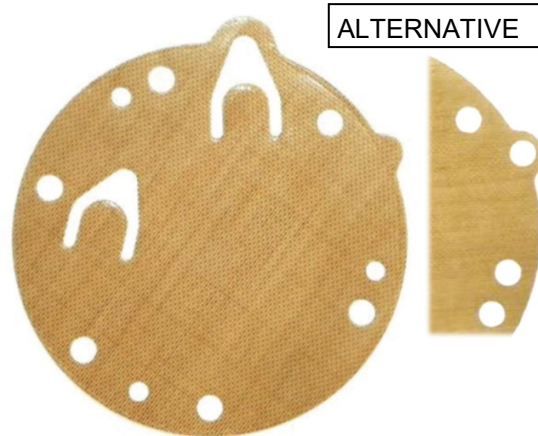
Thickness / *Epaisseur* = 0.8 ± 0.1 mm

REF.8 - P. N°237-600
DIAPHRAGM
DIAPHRAGME ASSEMBLE



Thickness / *Epaisseur* = 0.13 ± 0.07 mm

REF.9 - P. N°237-162
PUMP DIAPHRAGM
MEMBRANE DE POMPE A ESSENCE



Thickness / *Epaisseur* = 0.10 ± 0.063 mm

REF.31 - P. N° 91-1031
DIAPHRAGM COVER
COUVERCLE DE DIAPHRAGME

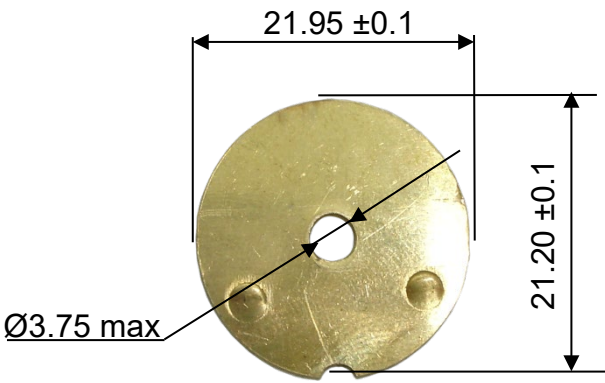
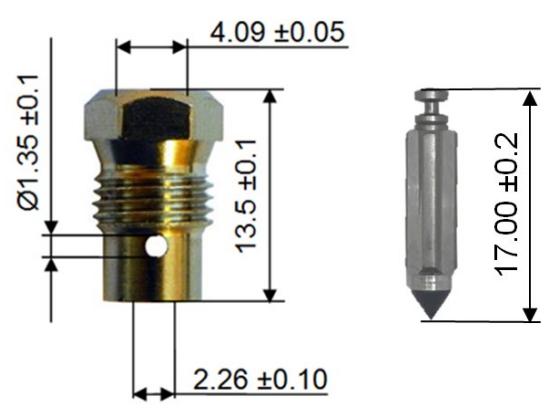
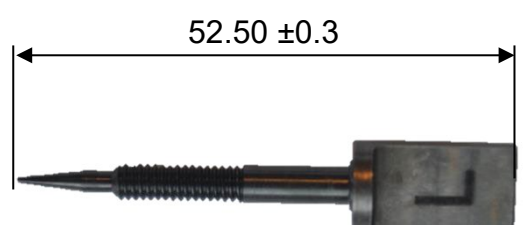
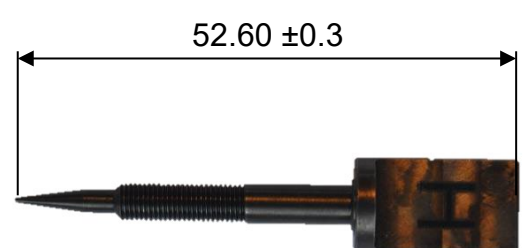
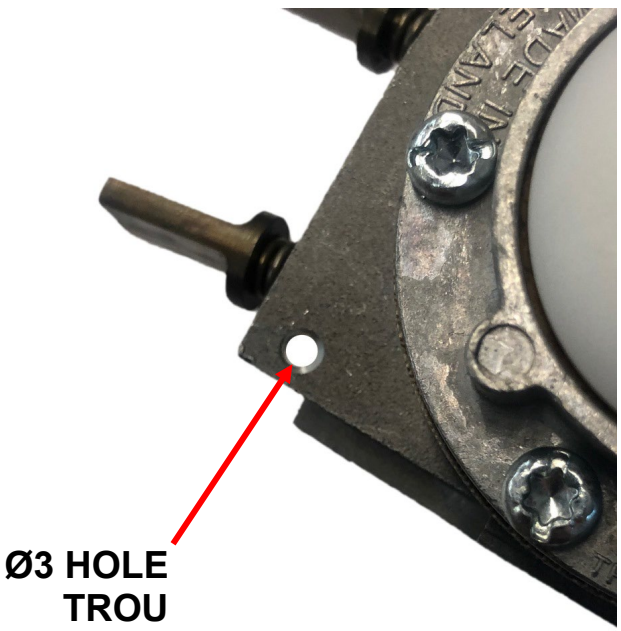


Thickness / *Epaisseur* = 6.75 ± 0.15 mm

REF.10 - P. N° 141-89
PUMP COVER
CORPS DE POMPE A ESSENCE



Thickness / *Epaisseur* = 12.5 ± 0.15 mm

REF.33 - P. N° 14-A96 THROTTLE SHUTTER PAPILLON  Thickness / <i>Epaisseur</i> = 0.81 ± 0.1 mm	REF.36 / 2 - P. N° 36-A42 / 34-216 SEAT + NEEDLE SIEGE + POINTEAU 
REF.34 - P. N° 43-1046 NEEDLE LOW SPEED VIS DE RAGLAGE BAS-REGIME 	REF.35 - P. N° 43-1045 NEEDLE HIGH SPEED VIS DE RAGLAGE HAUT-REGIME 
THE CARBURETTOR CAN HAVE THIS HOLE FOR SEALING. LE CARBURATEUR PEUT AVOIR CE TROU POUR LE PLOMBAGE  Ø3 HOLE TROU	