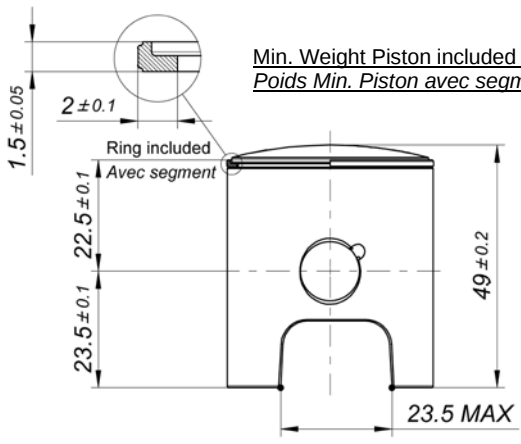
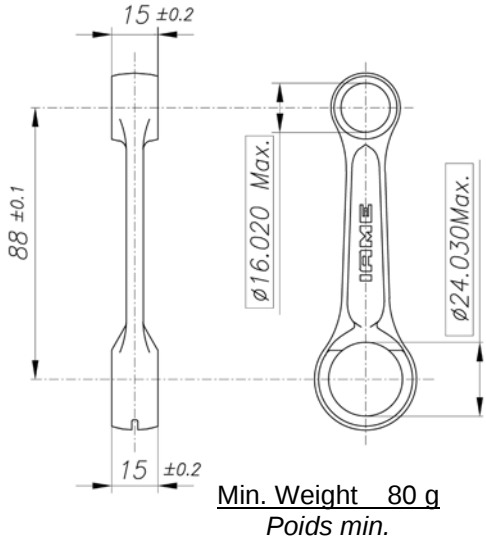
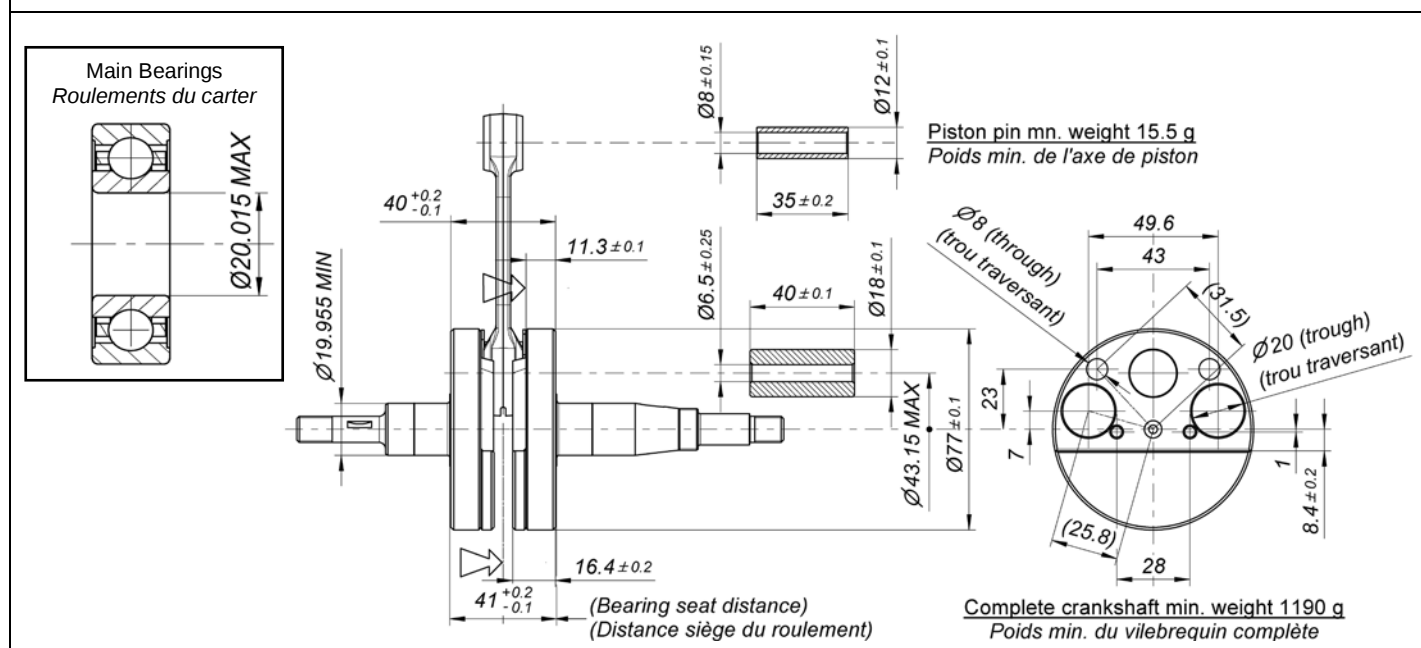


# X30 WATERSWIFT 60cc TAG ENTRY LEVEL

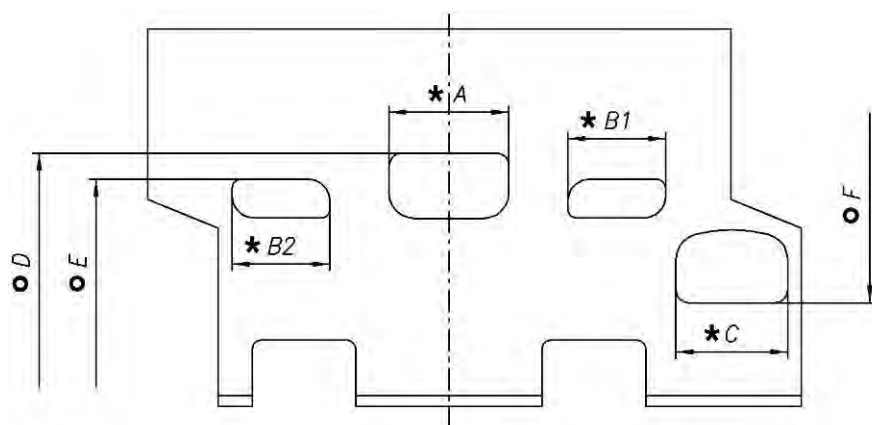
|  |                         | FEATURES - CARACTERISTIQUES                                                 |                                                      |
|------------------------------------------------------------------------------------|-------------------------|-----------------------------------------------------------------------------|------------------------------------------------------|
|                                                                                    |                         | Cylinder volume<br><i>Volume du cylindre</i>                                | 59.17 cm <sup>3</sup><br>(60.00 cm <sup>3</sup> max) |
|                                                                                    |                         | Bore<br><i>Alésage</i>                                                      | 41.81 mm                                             |
|                                                                                    |                         | Max. bore<br><i>Alésage max.</i>                                            | 42.10 mm                                             |
|                                                                                    |                         | Max. Stroke<br><i>Course max.</i>                                           | 43.15 mm                                             |
|                                                                                    |                         | Cooling system<br><i>Système de refroidissement</i>                         | Water<br><i>Eau</i>                                  |
|                                                                                    |                         | Inlet system<br><i>Système d'admission</i>                                  | Piston valve<br><i>Jupe de piston</i>                |
|                                                                                    |                         | Number of carbs<br><i>Nombre de carburateurs</i>                            | 1                                                    |
| Tillotson Carburettor<br><i>Carburateur Tillotson</i>                              | HW-47A<br>(Venturi Ø15) | Cylinder / crankcase transfers n°<br><i>N° de canaux cylindre / carter</i>  | 2                                                    |
| Number of piston rings<br><i>Nombre de segments</i>                                | 1                       | Inlet / exhaust ports number<br><i>N° lumières admiss / échapp.</i>         | 1 / 1                                                |
| Big end conrod bearing diam.<br><i>Diamètre palier tête de bielle</i>              | 18x24x15                | Combustion chamber shape<br><i>Forme chambre de combustion</i>              | Spherical<br><i>Sphérique</i>                        |
| Crankshaft ball-bearing diam.<br><i>Diamètre palier du vilebrequin</i>             | 20x47x14                | Selettra ignition (adjustable)<br><i>Allumage Selettra (réglable)</i>       | 2 poles<br><i>2 pôles</i>                            |
| Small end conr. bearing diam.<br><i>Diamètre palier pied de bielle</i>             | 12x16x16                | Distance between Conrod centres<br><i>Longueur (entre axe) de la bielle</i> | 88 mm                                                |

| DESCRIPTION OF THE MATERIAL<br>DESCRIPTION DES MATERIAUX         |                                  | PISTON                                                                              |
|------------------------------------------------------------------|----------------------------------|-------------------------------------------------------------------------------------|
| Conrod material<br><i>Matériel de la bielle</i>                  | Steel<br><i>Acier</i>            |   |
| Crankshaft material<br><i>Matériel du vilebrequin</i>            | Steel<br><i>Acier</i>            |                                                                                     |
| Head Material<br><i>Matériel de la culasse</i>                   | Aluminium                        |                                                                                     |
| Cylinder Material<br><i>Matériel du cylindre</i>                 | Aluminium                        |                                                                                     |
| Liner material<br><i>Matériel de la chemise</i>                  | Cast Iron<br><i>Fonte</i>        | DISTANCE BETWEEN CONROD CENTERS<br><i>ENTRE AXE DE LA BIELLE</i>                    |
| Crankcase material<br><i>Matériel du carter</i>                  | Aluminium                        |  |
| Piston material<br><i>Matériel du piston</i>                     | Aluminium                        |                                                                                     |
| Piston rings material<br><i>Matériel des segments</i>            | Cast Iron<br><i>Fonte</i>        |                                                                                     |
| Exhaust muffler material<br><i>Matériel du pot d'échappement</i> | Sheet-steel<br><i>Tôle acier</i> |                                                                                     |
| Ball-bearings<br><i>Roulements</i>                               | 6204 type                        |                                                                                     |

## CRANKSHAFT - VILEBREQUIN



# CYLINDER DEVELOPMENT – DEVELOPPEMENT DU CYLINDRE



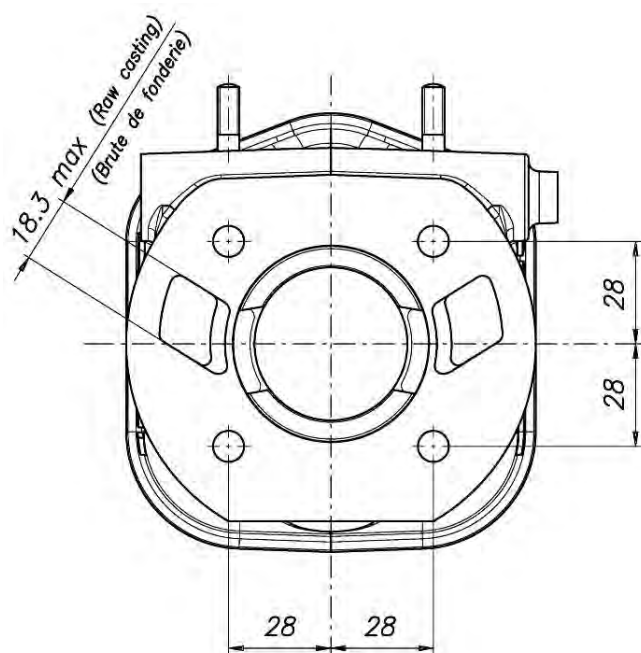
|         |             |
|---------|-------------|
| A       | 28±0.2 mm   |
| B1 = B2 | 21.8±0.2 mm |
| C       | 26±0.2 mm   |
| D       | 157° max    |
| E       | 116° ±2°    |
| F       | 145° max    |

## CHORDAL READING – LECTURE CORDALE

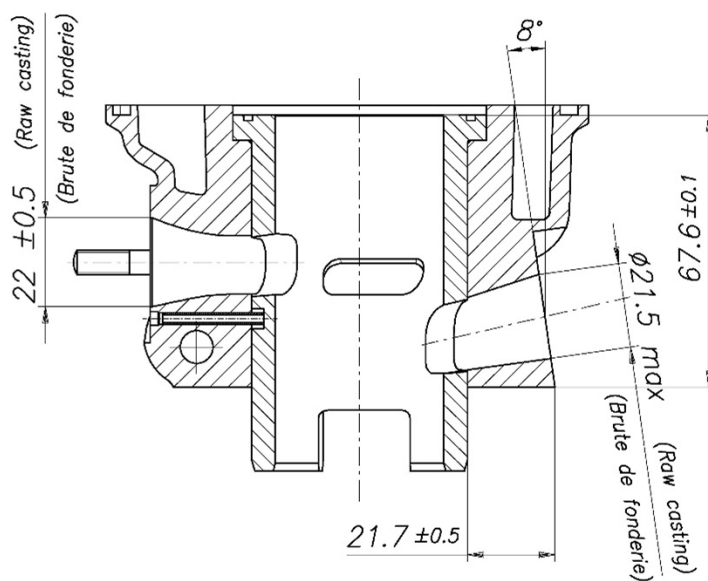
ANGULAR READING BY INSERT A 0.2 mm x 5 mm GAUGE –  
LECTURE ANGULAIRE PAR INSERTION D'UNE CALE DE 0.2 mm x 5 mm

USING IAME TOOL Cod. 10194 – UTILISER OUTIL

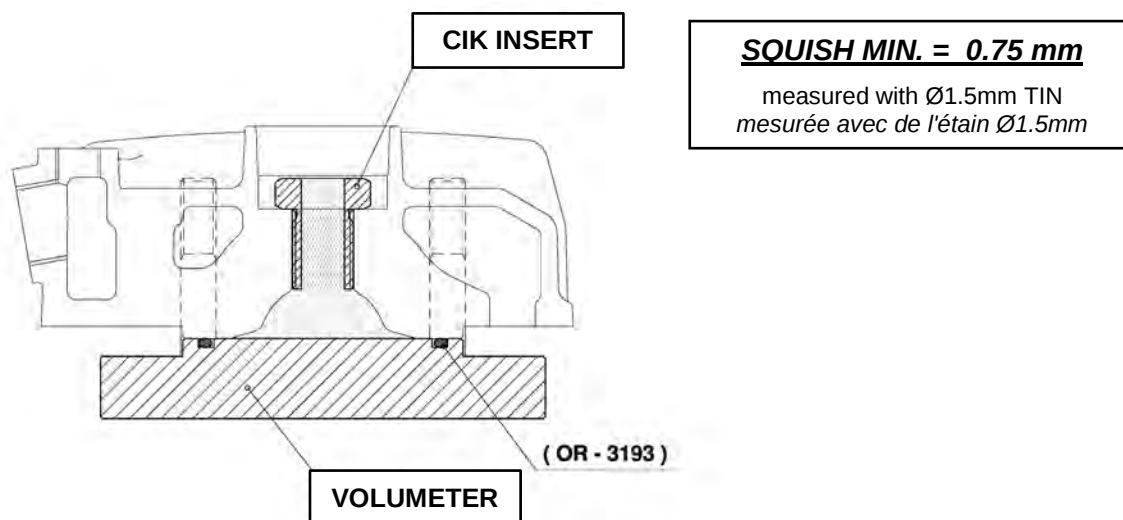
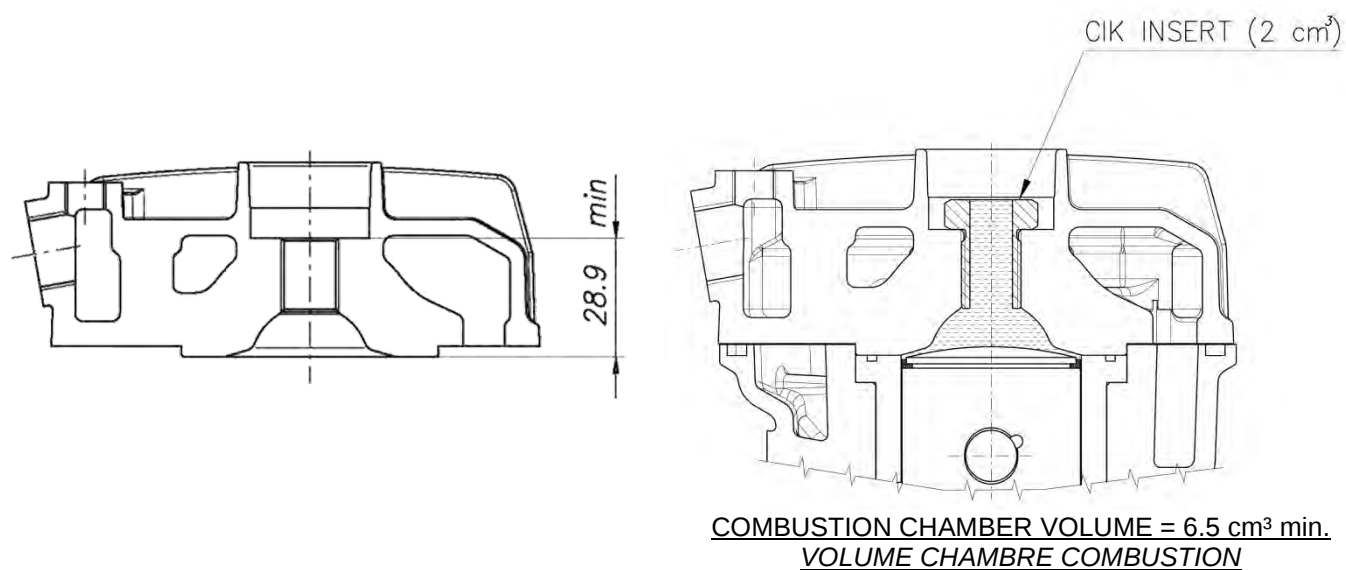
### CYLINDER BASE VIEW VUE DE LA BASE DU CYLINDRE



### CYLINDER SECTION VIEW VUE EN SECTION DU CYLINDRE

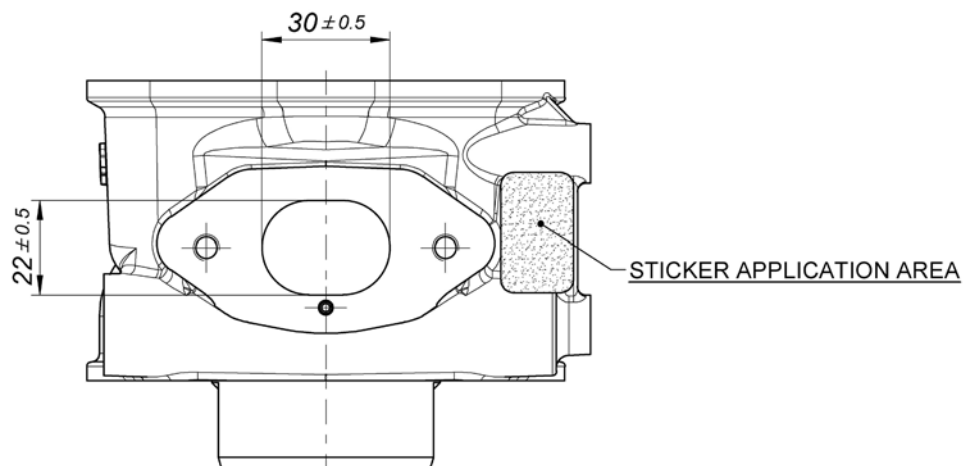


COMBUSTION CHAMBER VIEW  
VUE DE LA CHAMBRE DE COMBUSTION

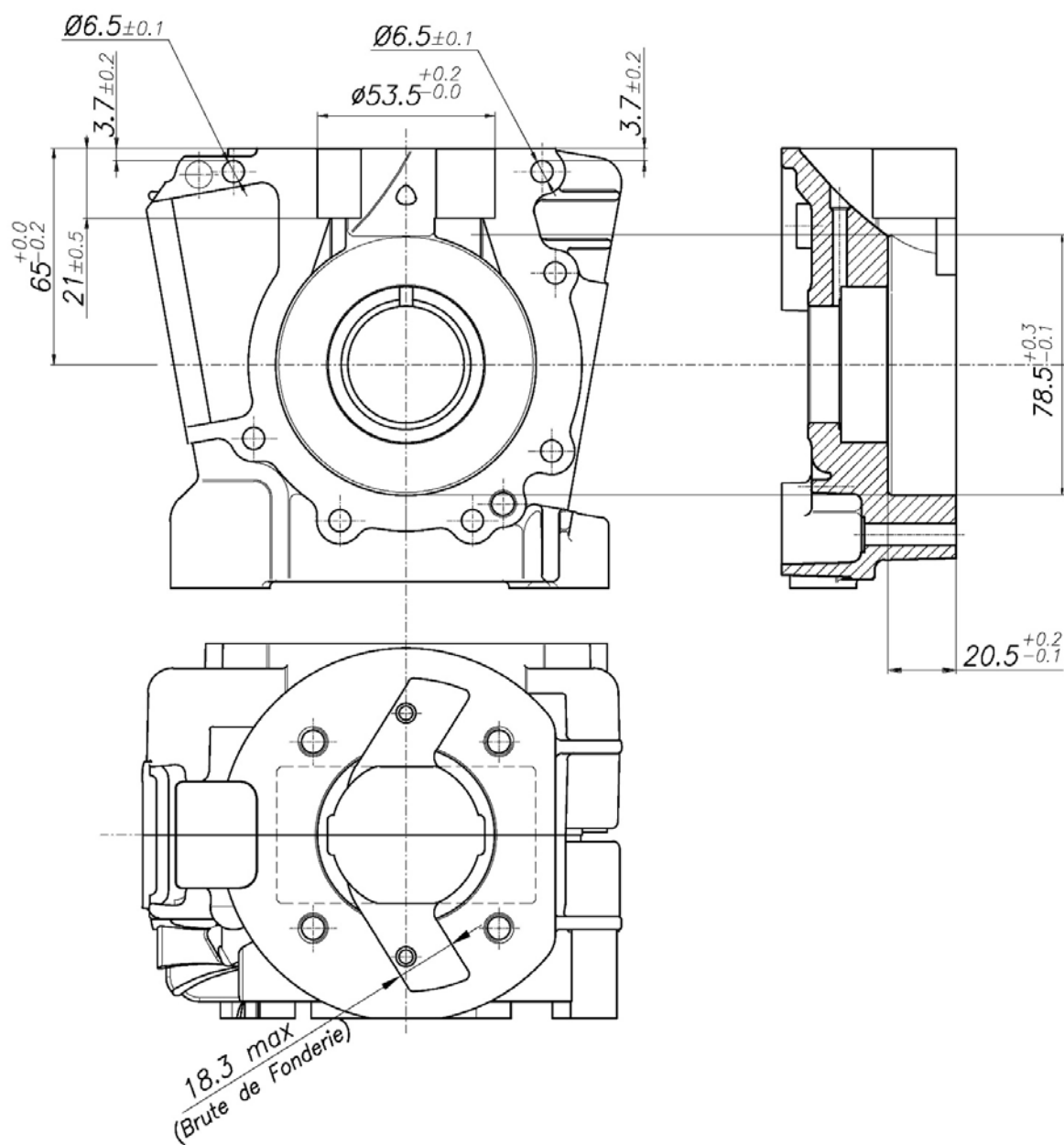


MIN. TOT. VOLUME OF CHAMBER IN THE CYLINDER HEAD = 7.4 cm<sup>3</sup>  
VOLUME MIN. CHAMBRE DE COMBUSTION DANS LA CULASSE

REAR VIEW AND DIMENSION  
ARRIERE VUE ET DIMENSION

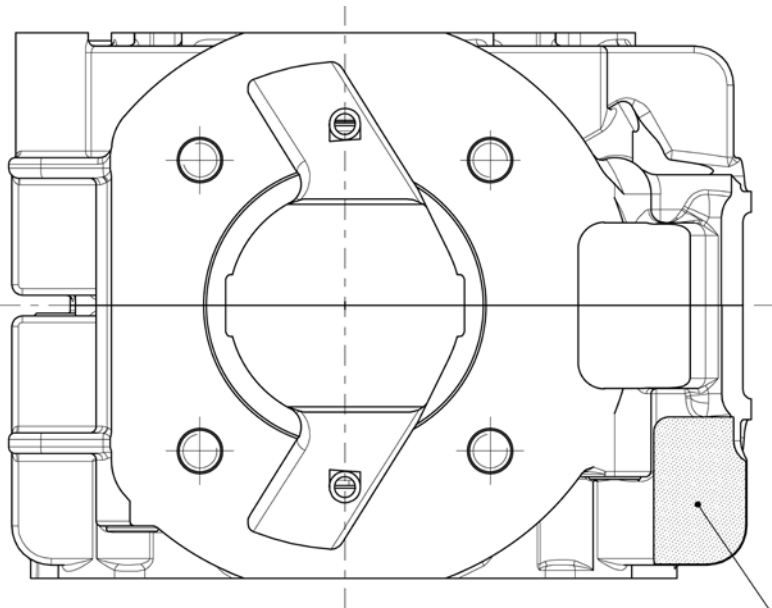


CRANKCASE INSIDE VIEW  
VUE A' L'INTERIEUR DU CARTER



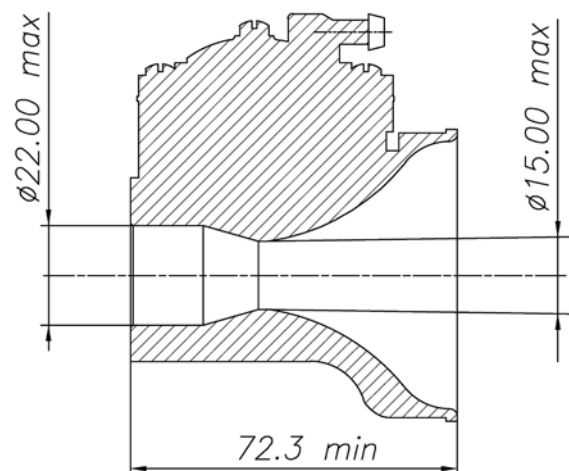
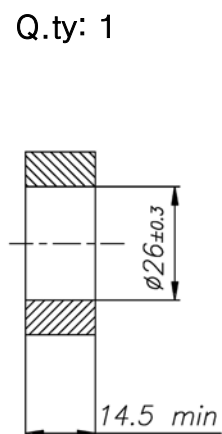
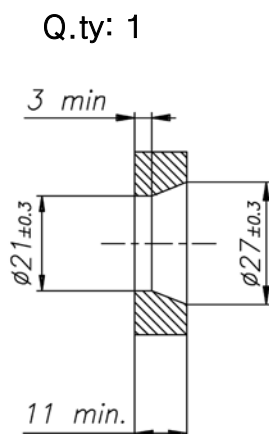
## FROM 2026 ON - A PARTIR DE 2026

CRANKCASE UPPER VIEW – STICKER APPLICATION AREA  
CARTER – ZONE D'APPLICATION DE ADHÉSIF



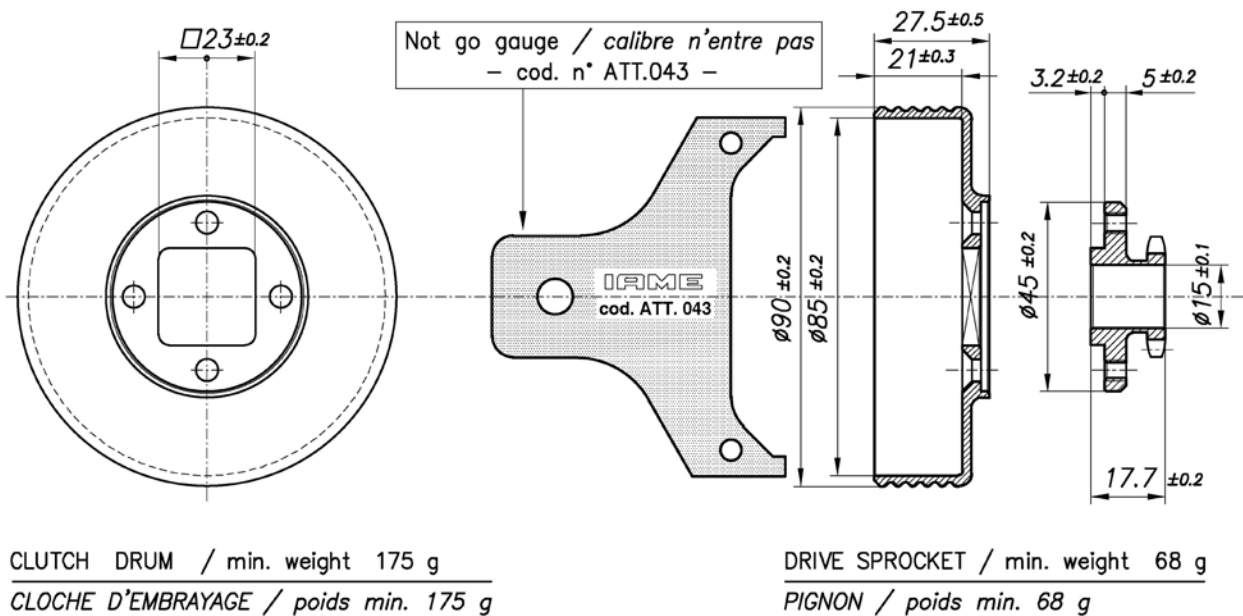
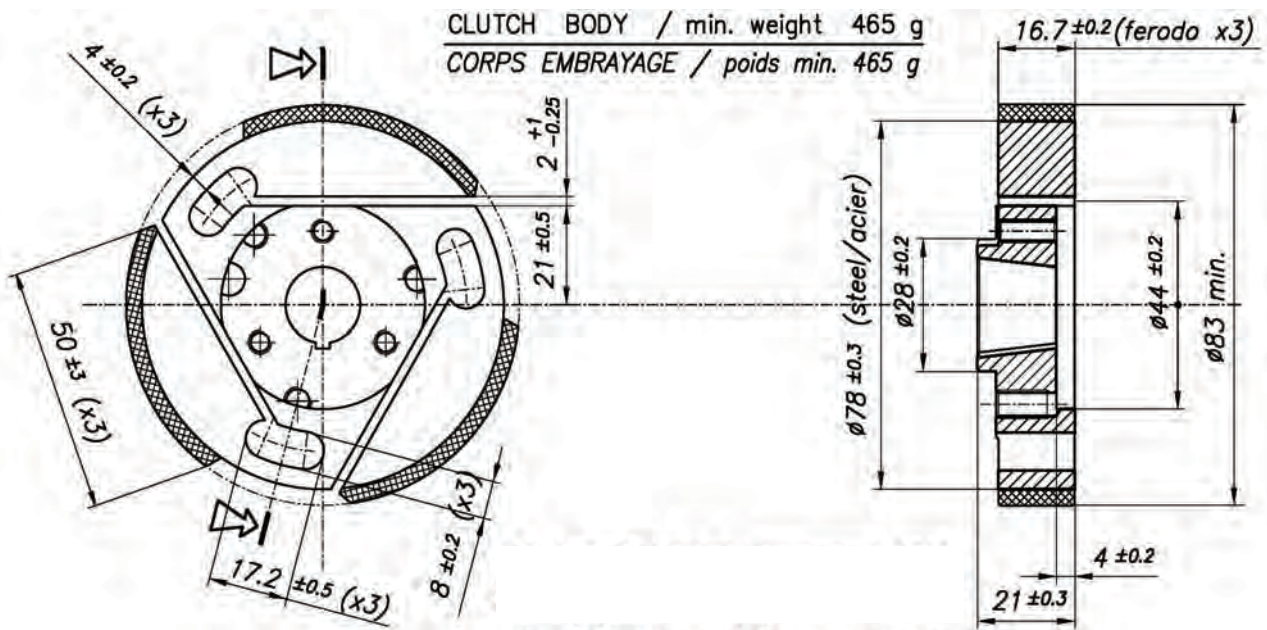
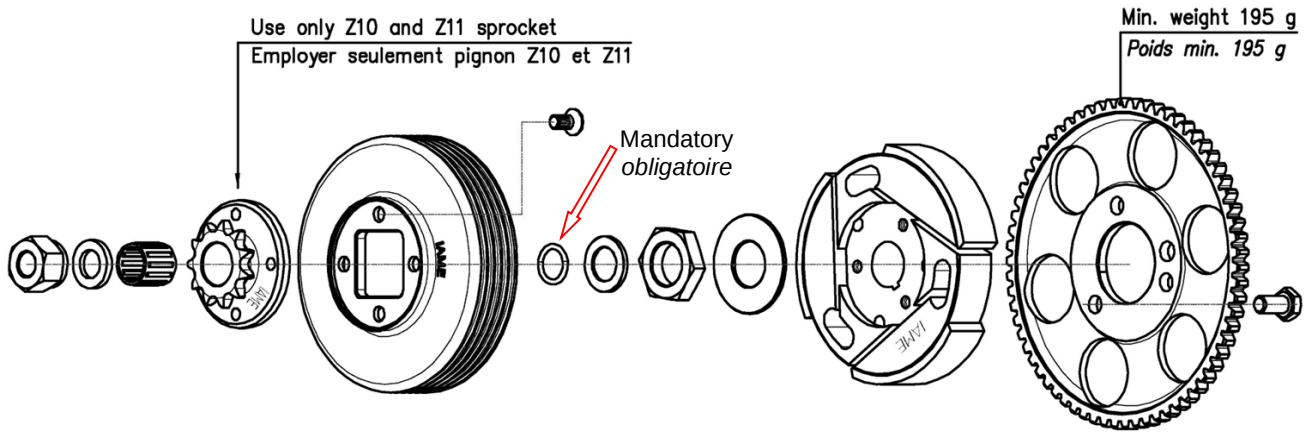
STICKER APPLICATION AREA  
ZONE D'APPLICATION DE ADHÉSIF

VENTURI CARB. DIMENSIONS and THERMAL SPACERS  
CARBURATEUR ET SONS ENTRETOISES

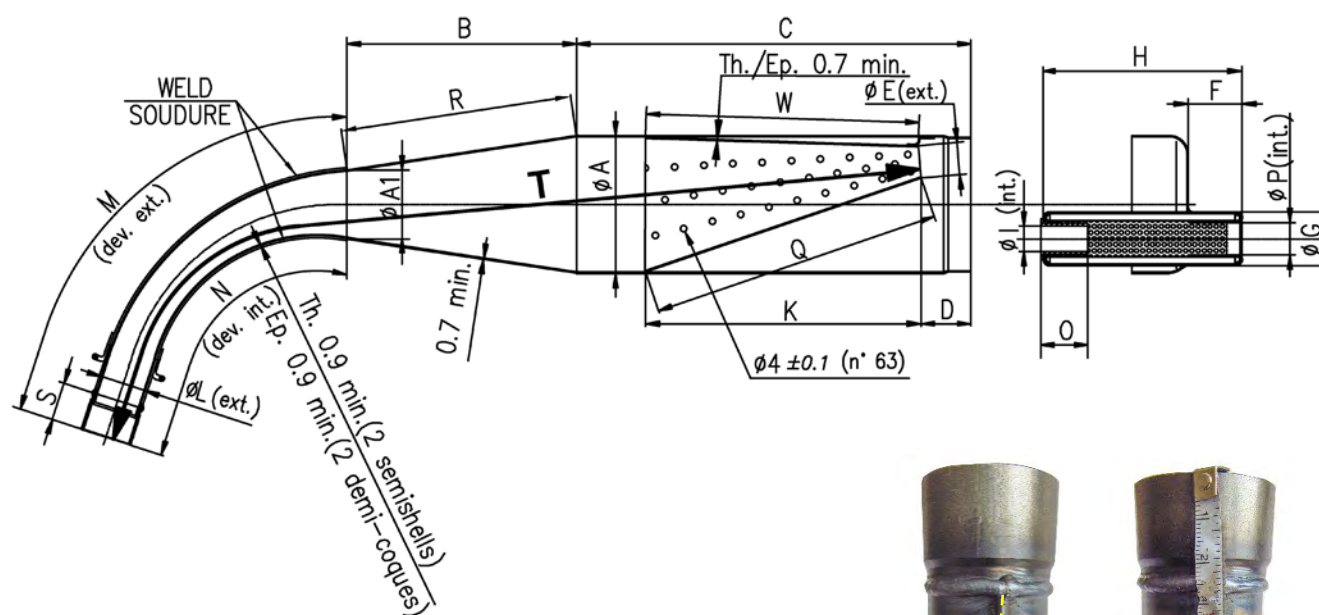


TILLOTSON MOD. HW-47A

# DESCRIPTION OF THE CLUTCH – DESCRIPTION DE L'EMBRAYAGE

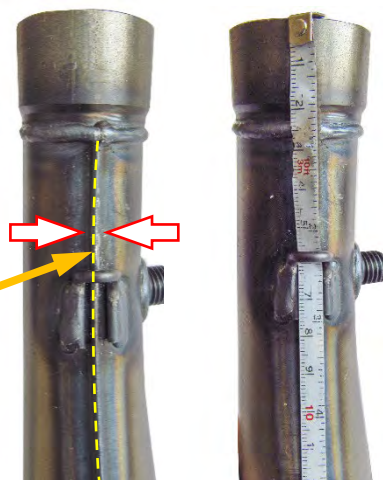


EXHAUST VIEW AND DIMENSIONS with and without embossed logo  
VUE ET DIMENSIONS DE L'ÉCHAPPEMENT avec et sans logo en relief



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.

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

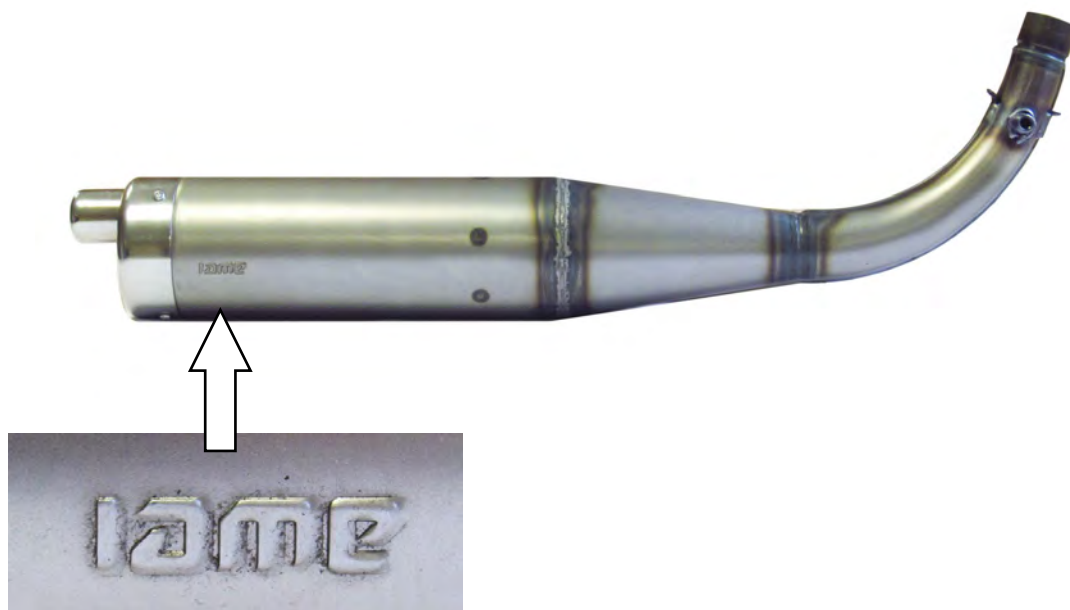
**WARNING / ATTENTION:**

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.

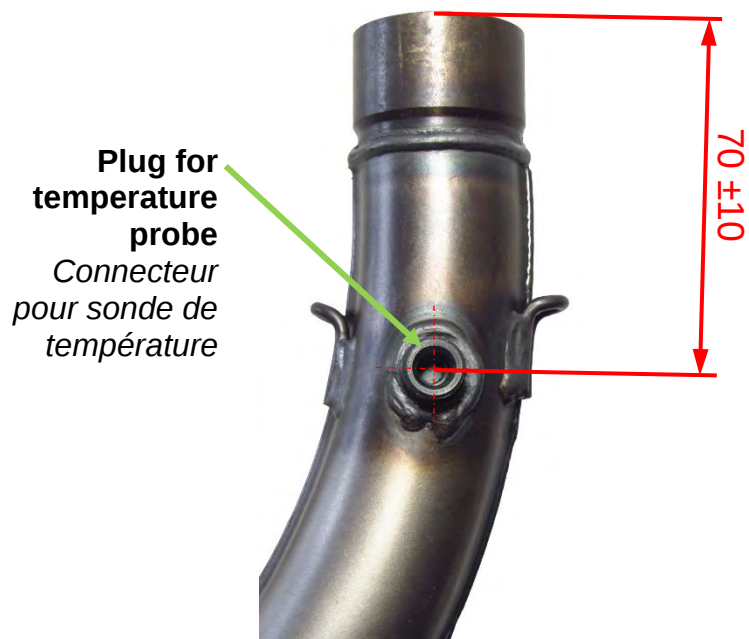
The dimensions "**M**" and "**N**" must be taken on the weld centerline.  
Les dimensions « **M** », « **N** » doivent être prises sur l'axe de la soudure.

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.

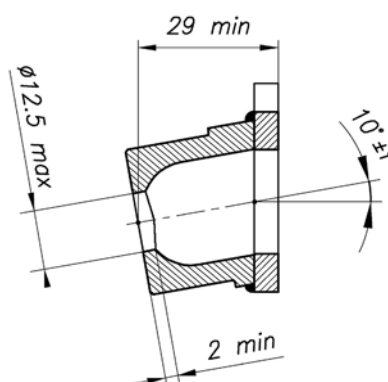
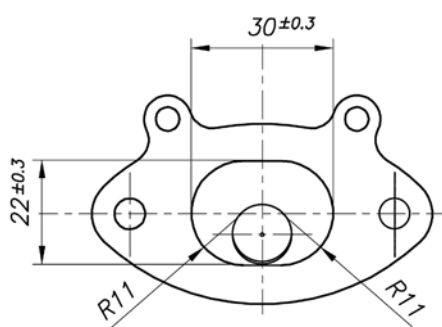
ALTERNATIVE EXHAUST MUFFLER with embossed logo  
ECHAPPEMENT ALTERNATIVE avec logo en relief



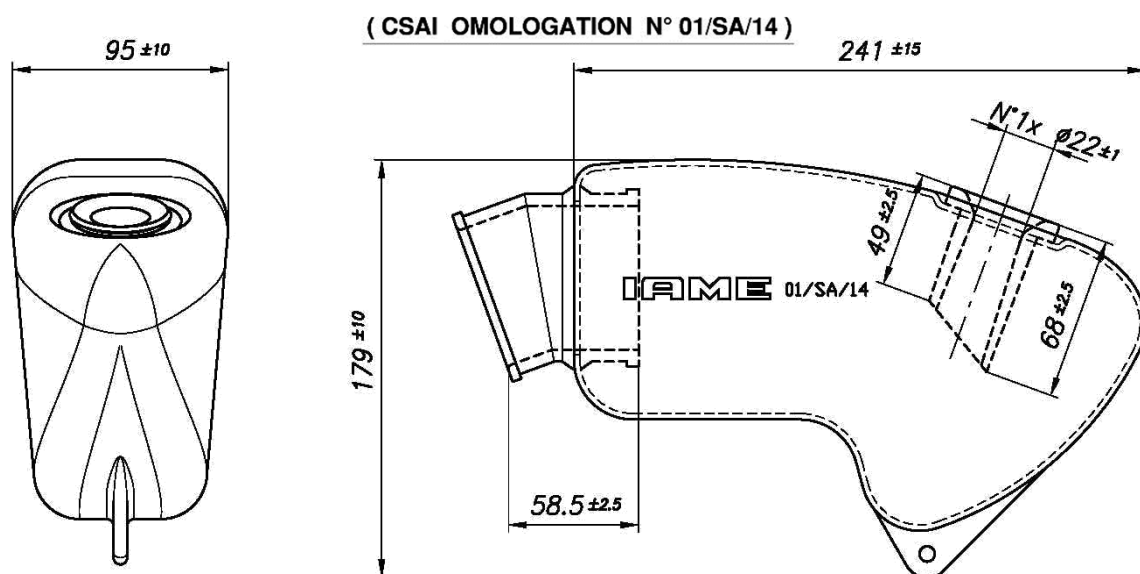
MARKING / MARQUAGE



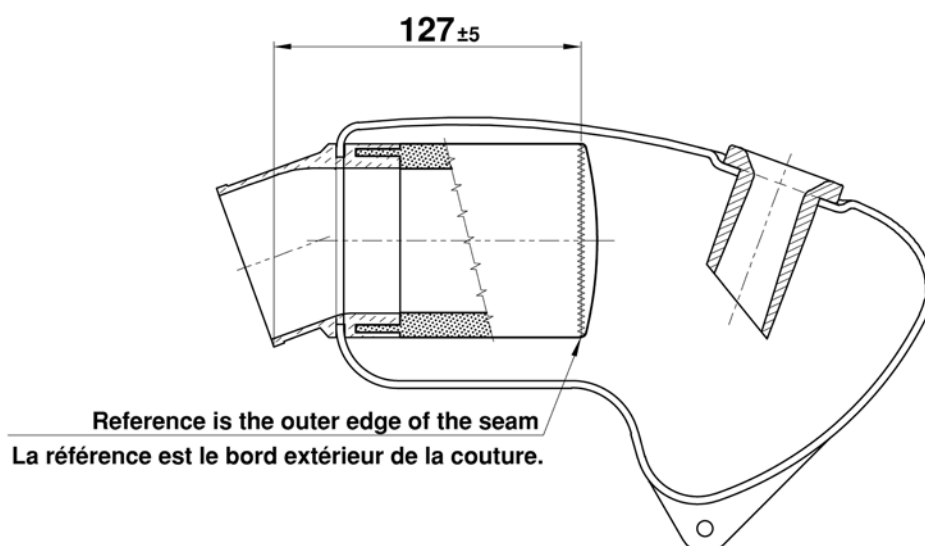
EXHAUST MANIFOLD  
RACCORD D'ÉCHAPPEMENT



## INLET SILENCER – SILENCIEUX D'ASPIRATION



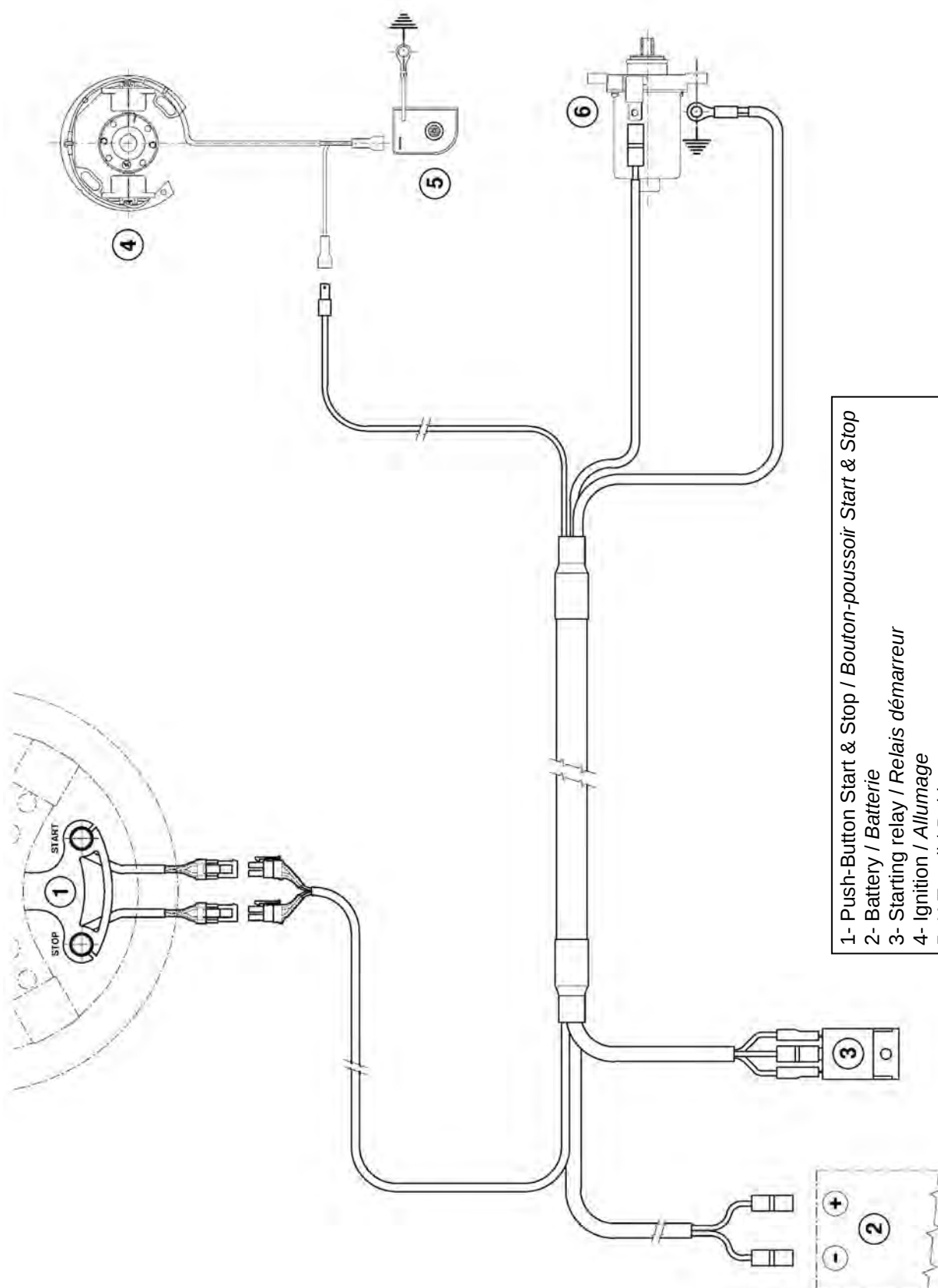
### ALTERNATIVE MANIFOLD WITH SPONGE FILTER / COLLECTEUR AVEC UNA EPONGE FILTRE



### 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

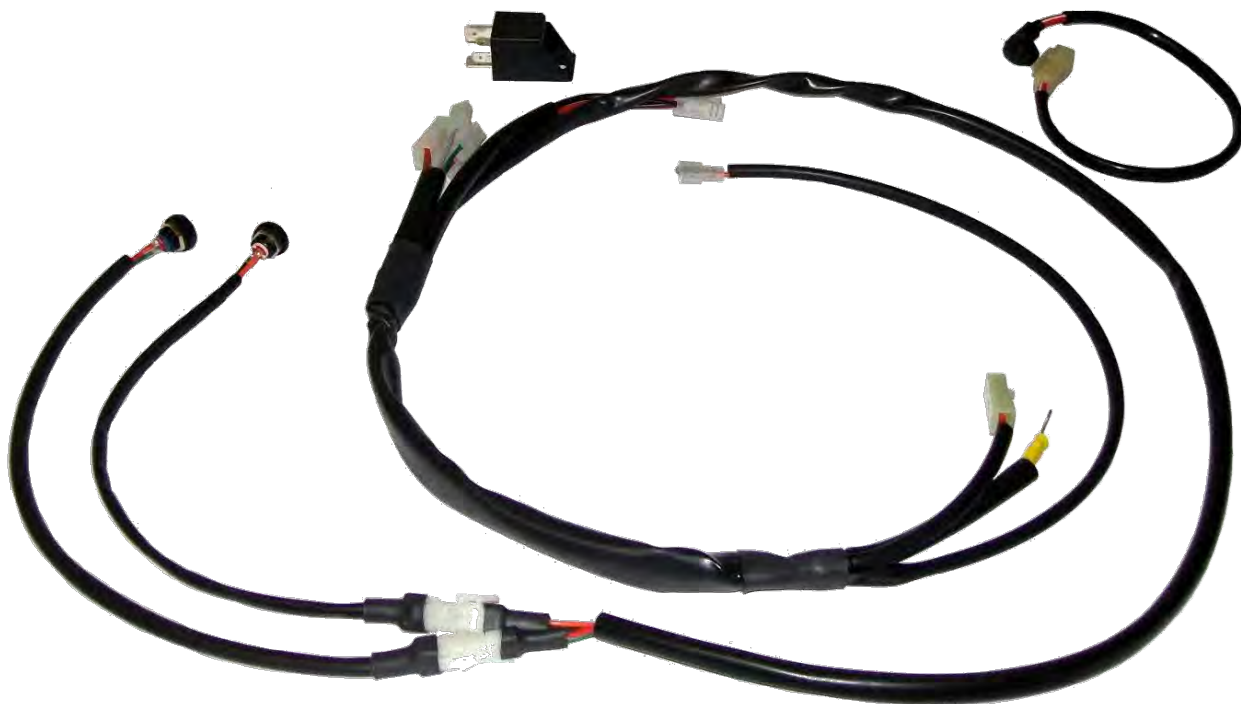
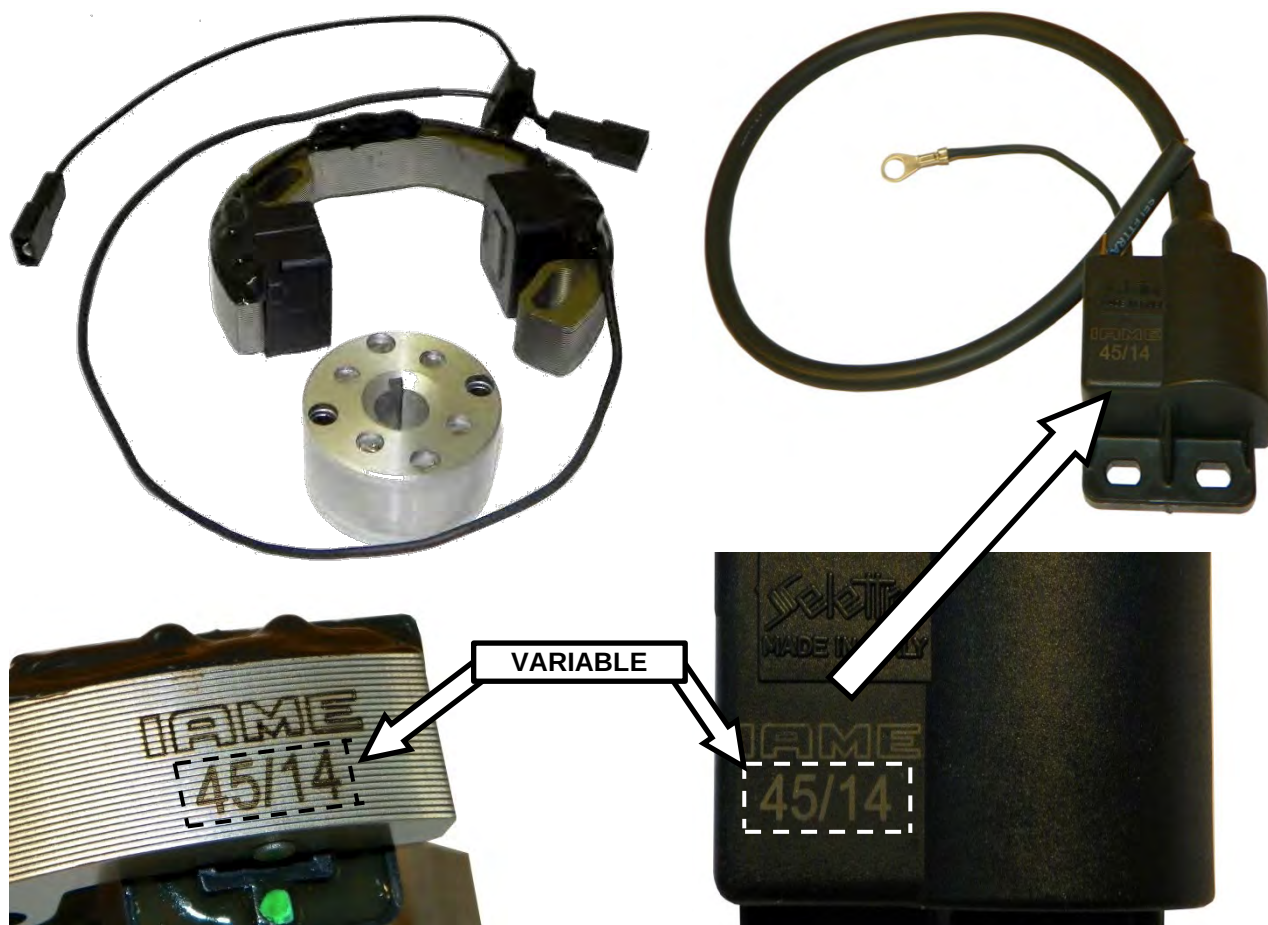


PHOTO IGNITION / PHOTO H.T. COIL (SELETTA ANALOGUE 2 POLES)  
 PHOTO ALLUMAGE / PHOTO BOBINE (SELETTA ANALOGIQUE 2 POLES)



# ALTERNATIVE WIRING LOOM DIAGRAM SCHÉMA CIRCUIT ÉLECTRIQUE ALTERNATIF

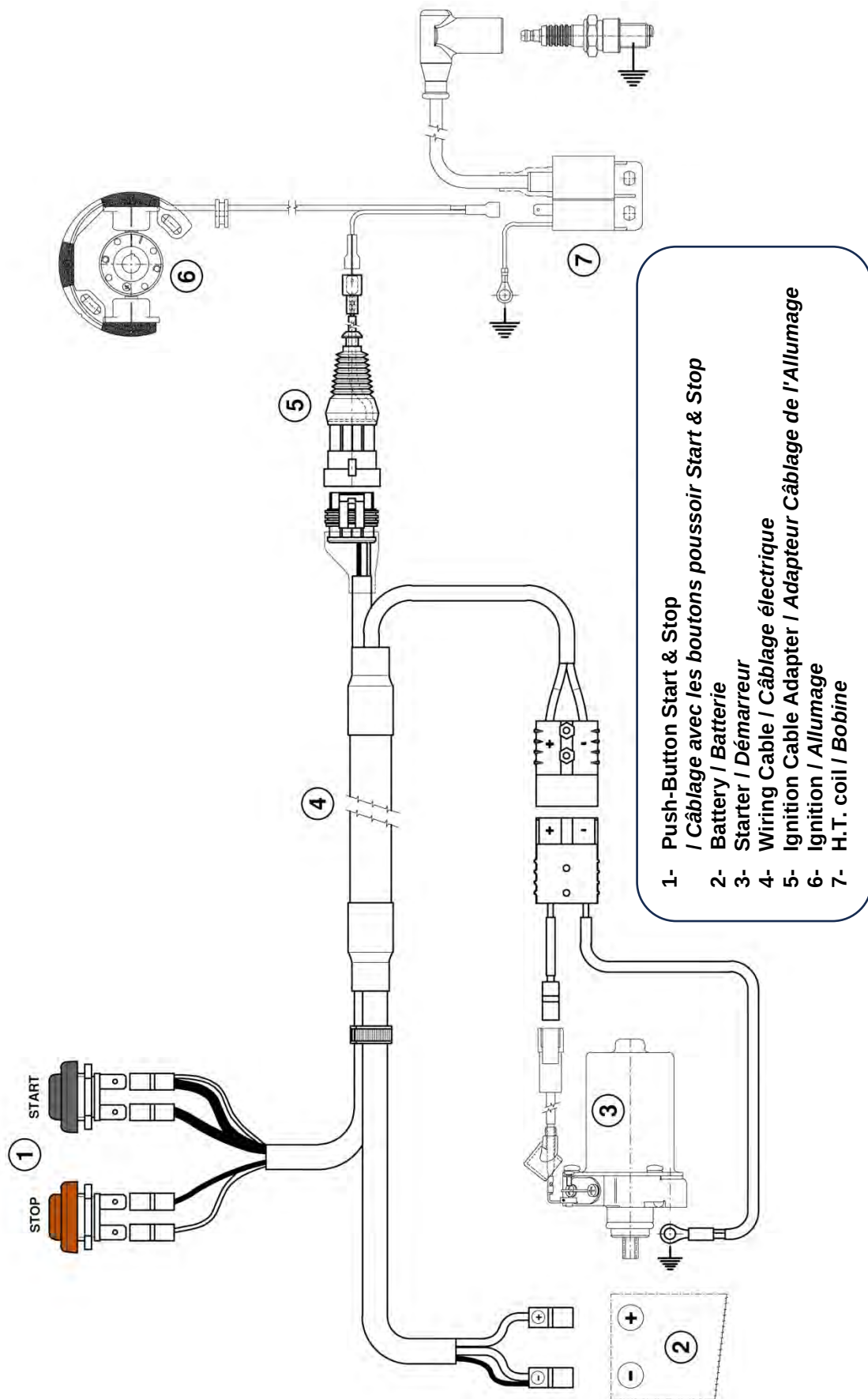
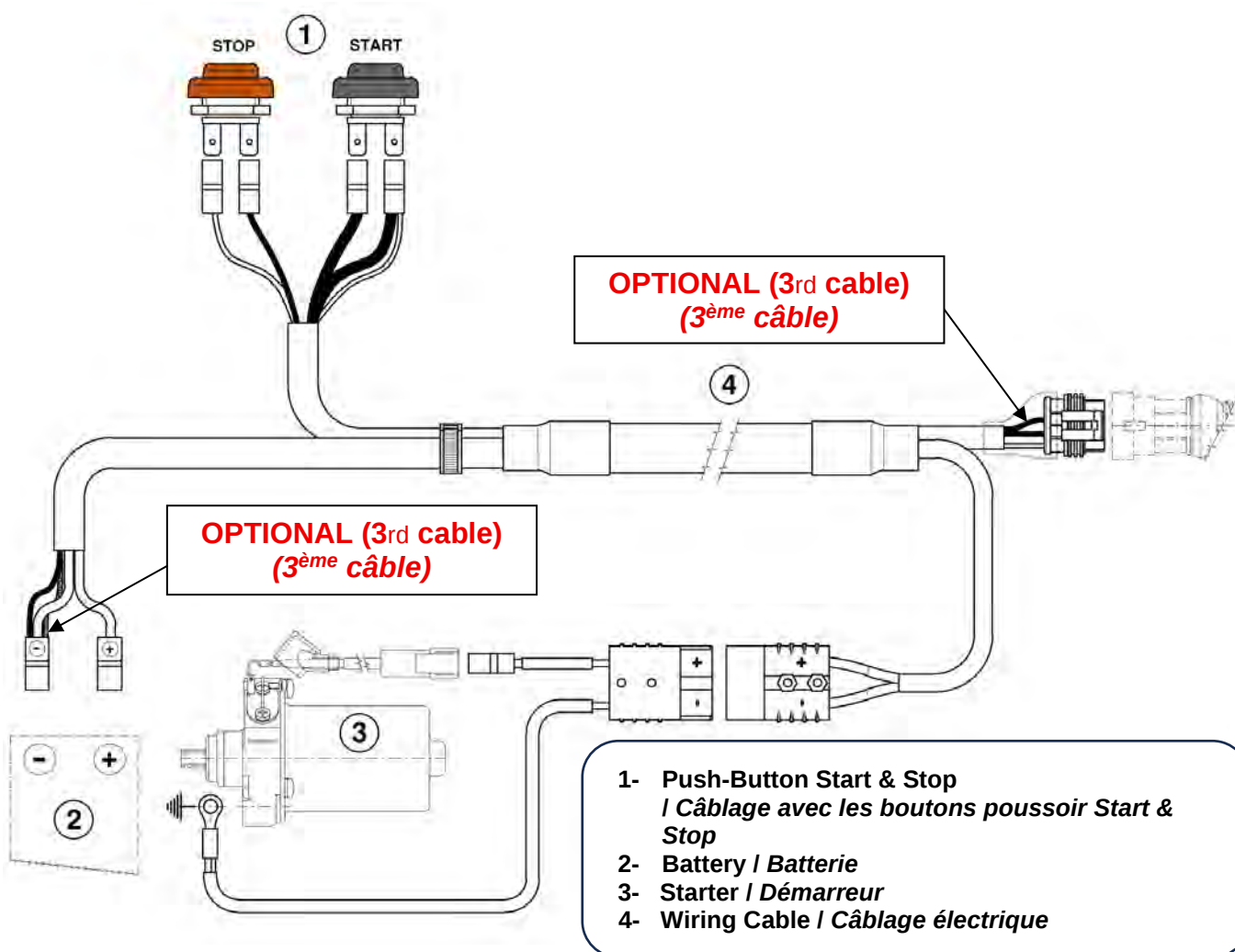


PHOTO OF ALTERNATIVE COMPLETE WIRING LOOM  
PHOTO DU CÂBLAGE ÉLECTRIQUE COMPLÈTE ALTERNATIF



ALTERNATIVE WIRING LOOM DIAGRAM  
CÂBLAGE ÉLECTRIQUE ALTERNATIF

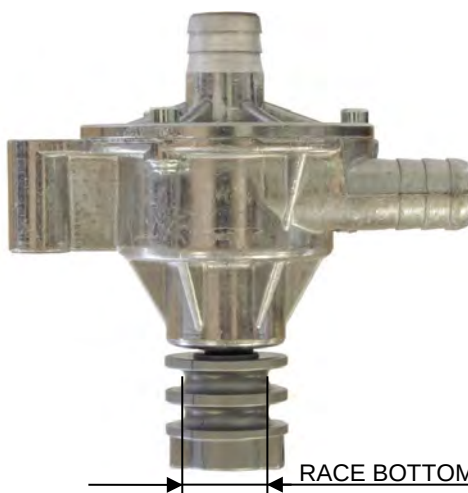




**PLASTIC**

RACE BOTTOM FOND GORGE  $\varnothing 19 \pm 1$

**ALTERNATIVE**

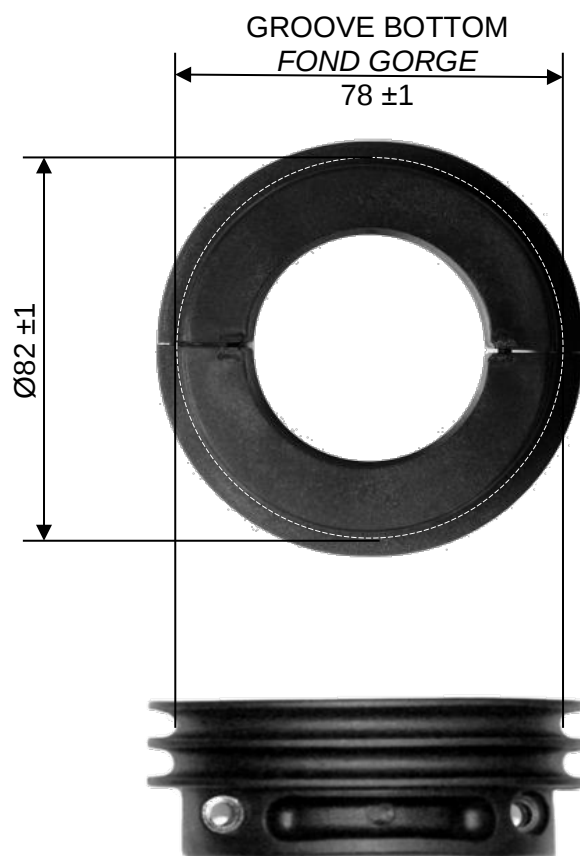


**ALUMINUM**

RACE BOTTOM - FOND GORGE  $\varnothing 20 \pm 1$



# PULLEY ALTERNATIVE – ALTERNATIVE DU POULIE



**PLASTIC**

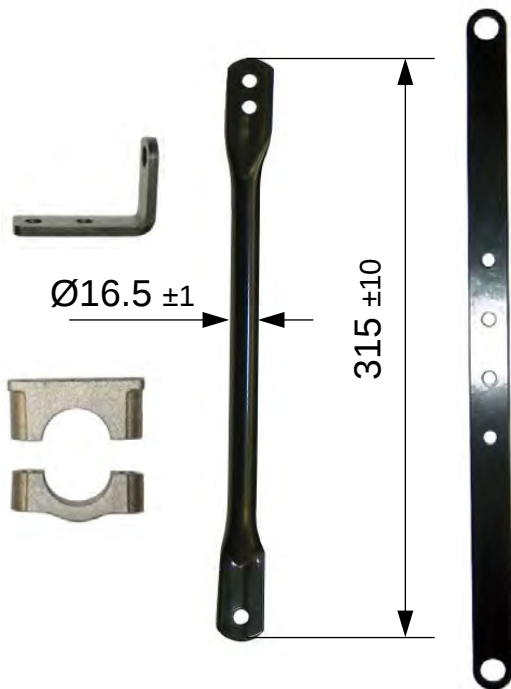
**ALTERNATIVE**



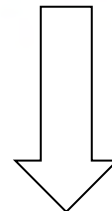
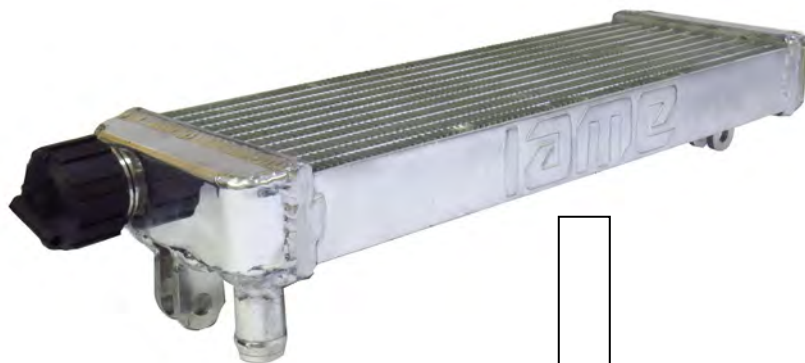
**ALUMINUM**

RADIATOR AND ITS SUPPORTS  
RADIATEUR ET SES SUI TIEN

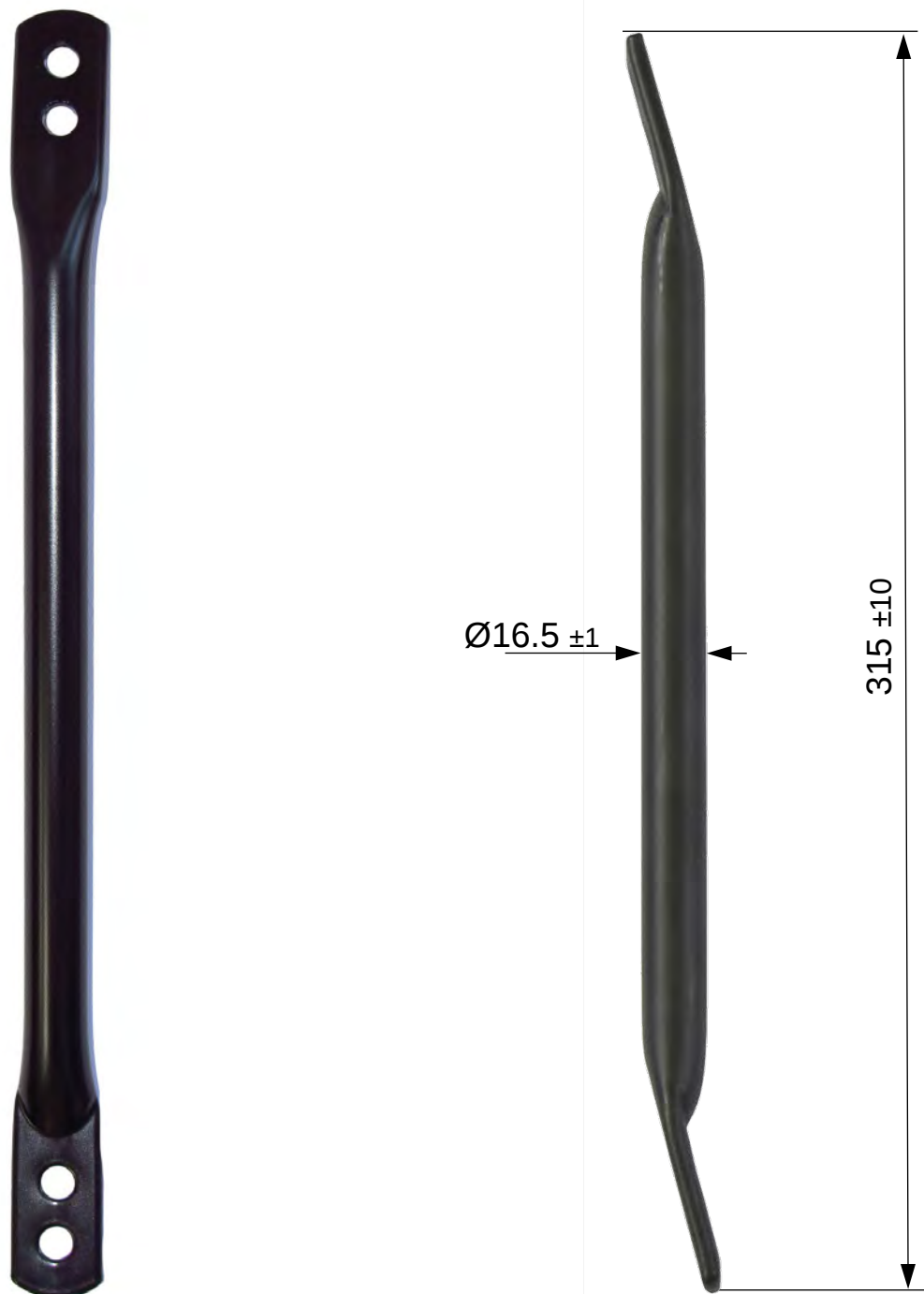
PAINTED AND NOT PAINTED  
PEINT ET PAS PEINT



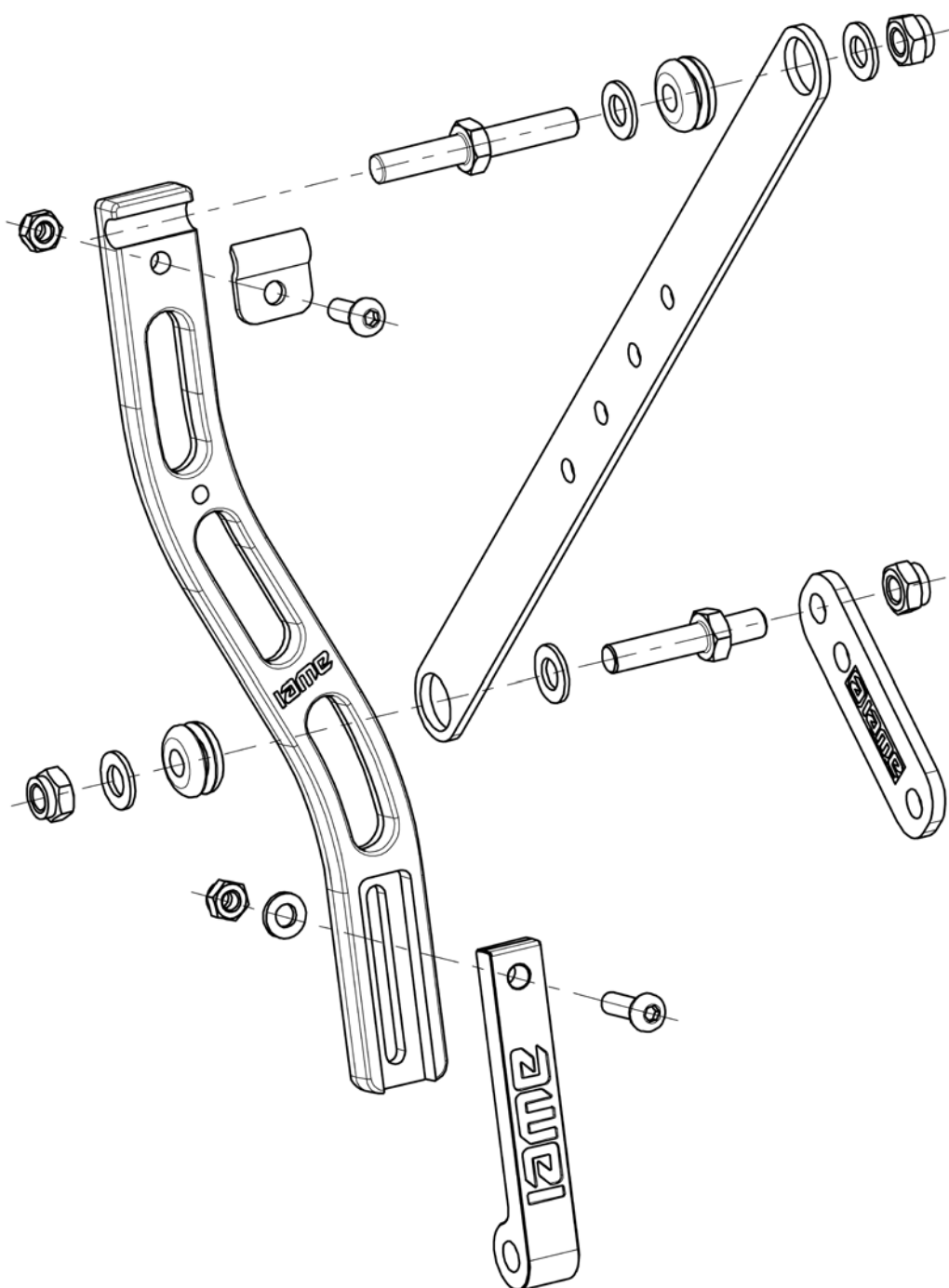
ALTERNATIVE RADIATOR  
RADIATEUR ALTERNATIF



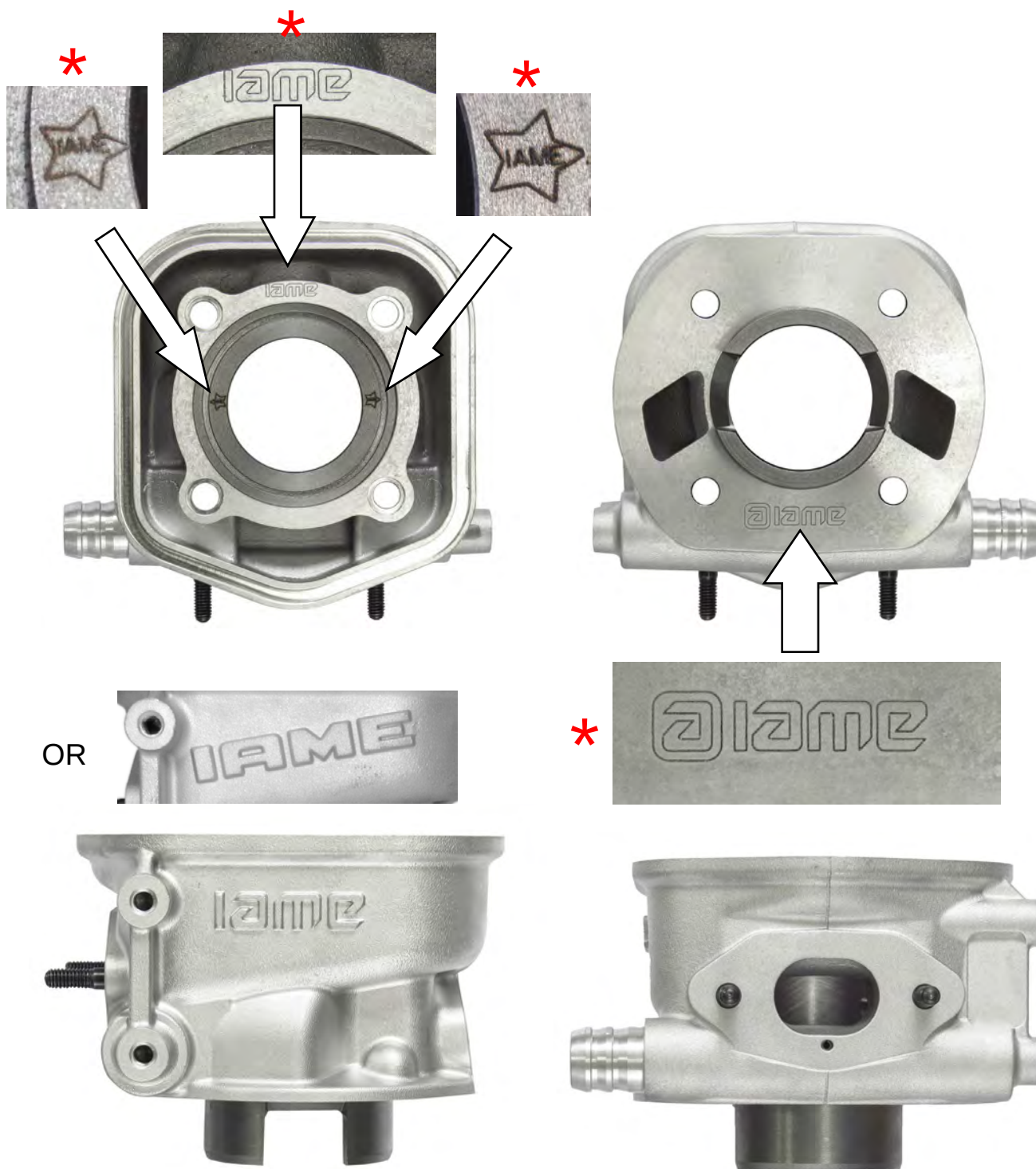
ALTERNATIVE RADIATOR SUPPORT  
ALTERNATIVE SUI TIEN DU RADIATEUR



ALTERNATIVE COMPLETE RADIATOR SUPPORTS  
ENSEMBLE DE SUPPORTS RADIATEUR ALTERNATIF



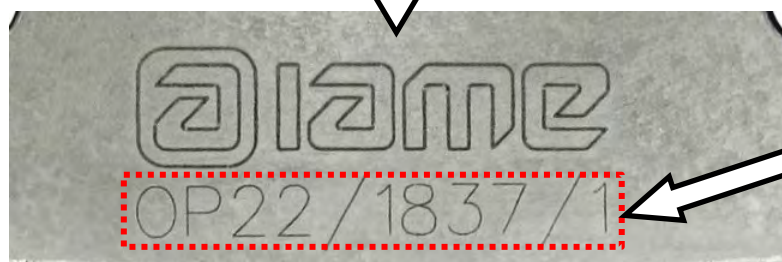
CYLINDER IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU CYLINDRE



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

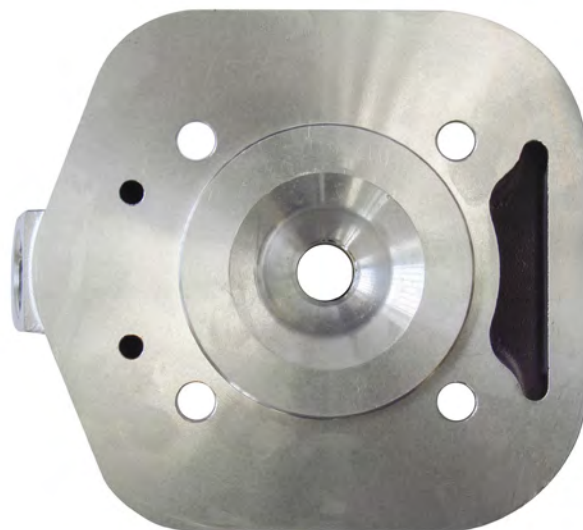
CYLINDER BASE ALTERNATIVE MARKING  
MARQUAGE ALTERNATIF DU LA BASE CYLINDRE

ALTERNATIVE



VARIABLE

CYLINDER HEAD MARKING  
MARQUAGE D'IDENTIFICATION DU CULASSE



OR



SEMICARTER TRANSMISSION SIDE  
SEMICARTER CÔTÉ PIGNON



OR



SEMICARTER IGNITION SIDE  
SEMICARTER CÔTÉ ALLUMAGE



OR



TYPE 1



TYPE 2



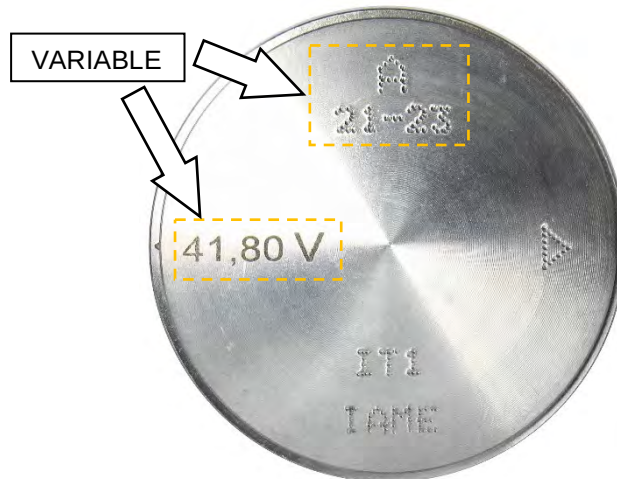
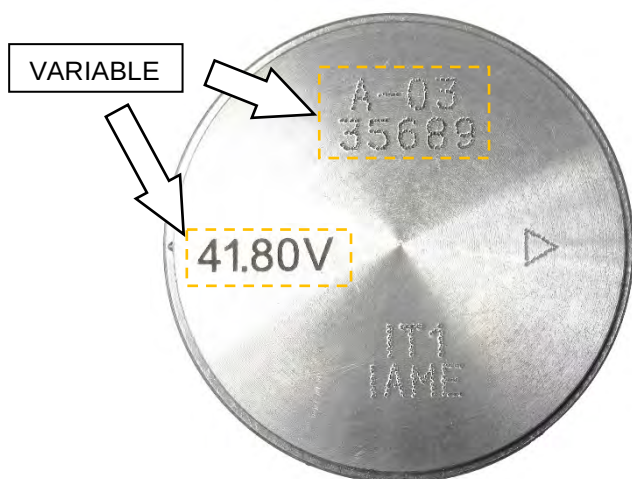
TYPE 3



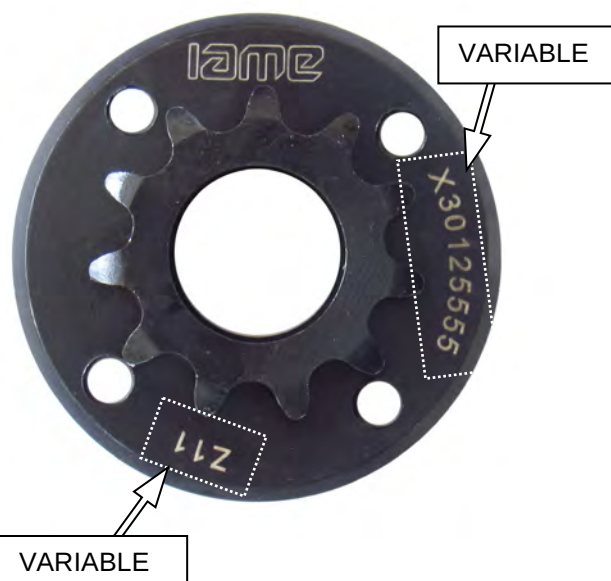
**PISTON IT1 TYPES IDENTIFICATION**  
**IDENTIFICATION DES TYPES DU PISTON IT1**  
(dimensions and weight are the same for both types /  
les dimensions et le poids sont les mêmes pour les deux types)

**CURRENT / COURANT**

**ALTERNATIVE / ALTERNATIF**



SPROCKET IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU PIGNON



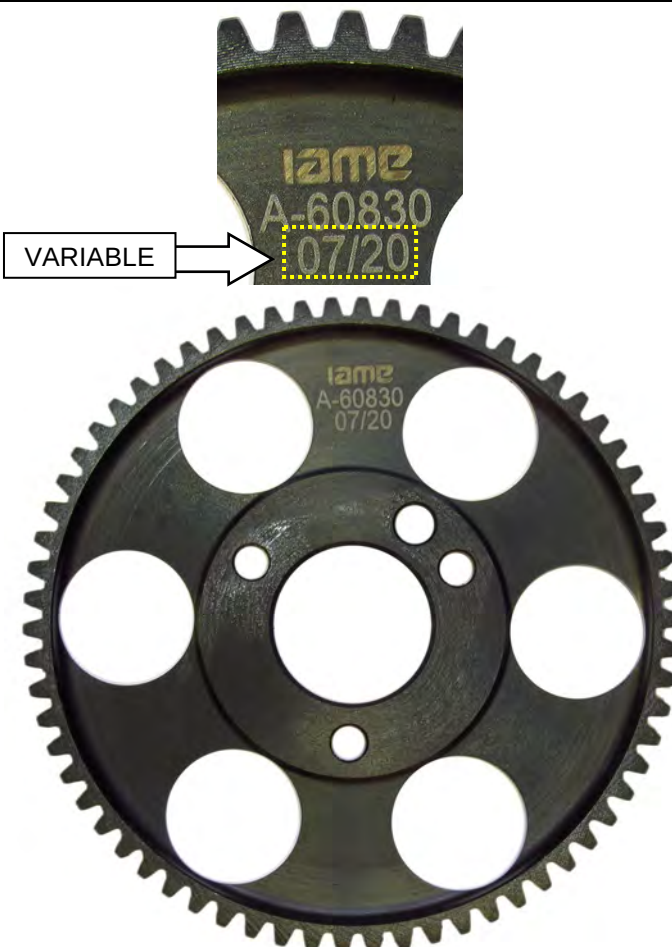
CLUTCH DRUM IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DE LA  
CALOTTE



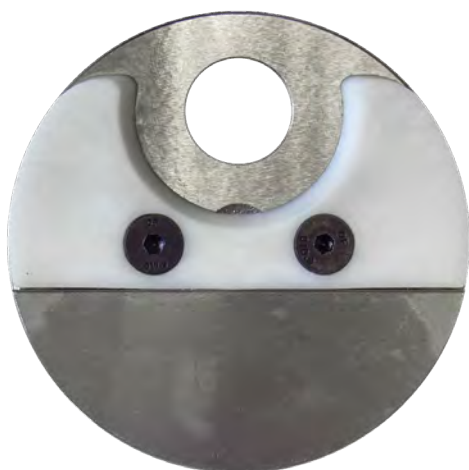
CLUTCH BODY IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU CORPS  
DE L'EMBRAYAGE



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

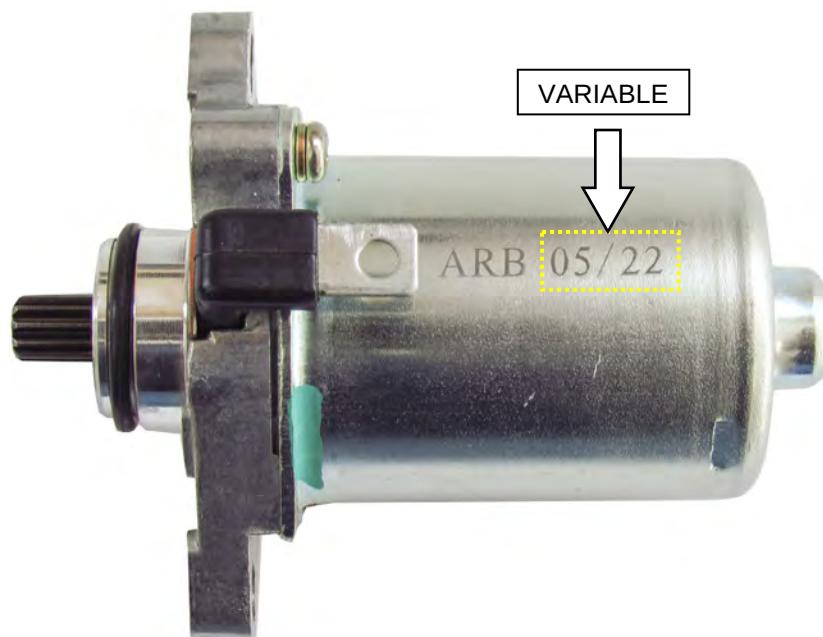
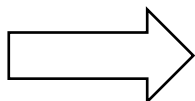


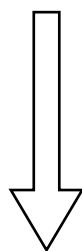
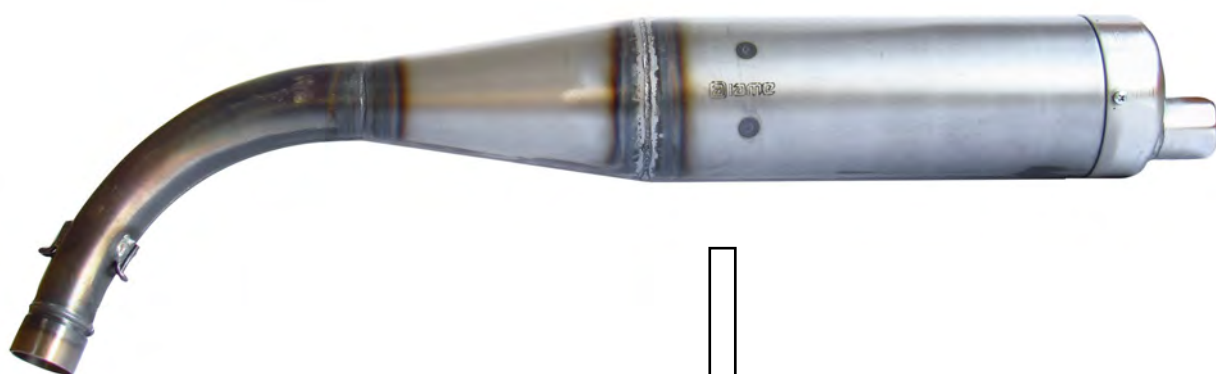
PHOTO IDENTIFICATION: SMALL & BIG END CONROD BEARING AND MAIN BEARING  
 PHOTO D'IDENTIFICATION DU ROULEMENT PIED/TÊTE DE BIELLE ET PRINCIPAUX



ALTERNATIVE



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



IGNITION COVER  
COUVERCLE DU ALLUMAGE



OR



CLUTCH COVER  
COUVERCLE D'EMBRAYAGE



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

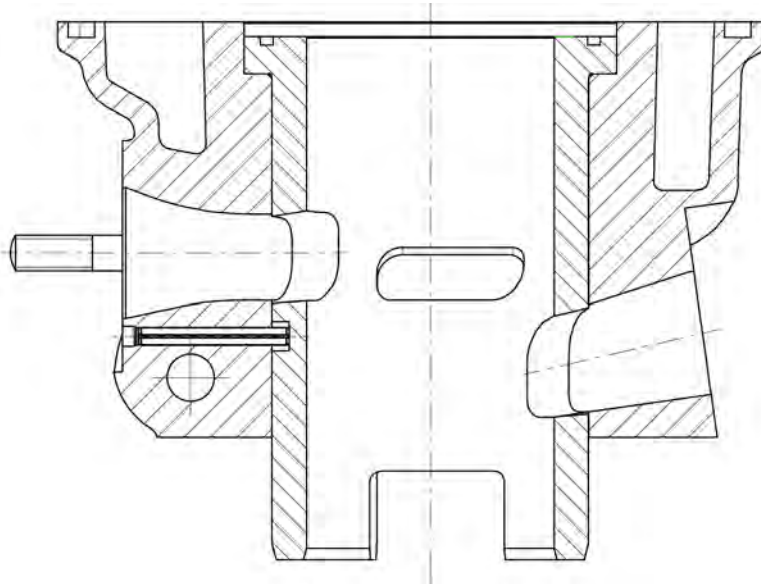
**or**



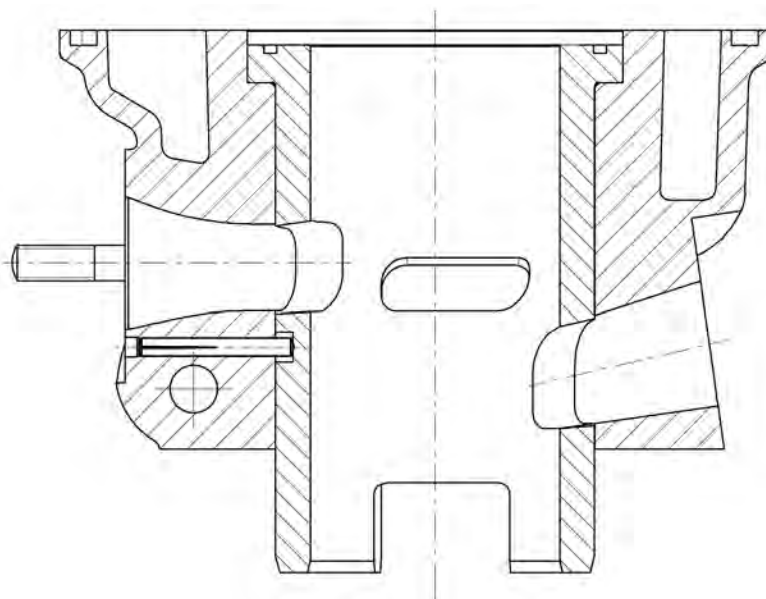
## FROM 2025 ON - A PARTIR DE 2025

CYLINDER IDENTIFICATION – ALTERNATIVE CYLINDER LINER LOCK PIN  
*IDENTIFICATION DU CYLINDRE – GOUPILLE DE BLOCAGE DE LA CHEMISE ALTERNATIF*

CURRENT PIN (SPRING PIN)  
*GOUPILLE COURANTE (GOUPILLE À RESORT)*



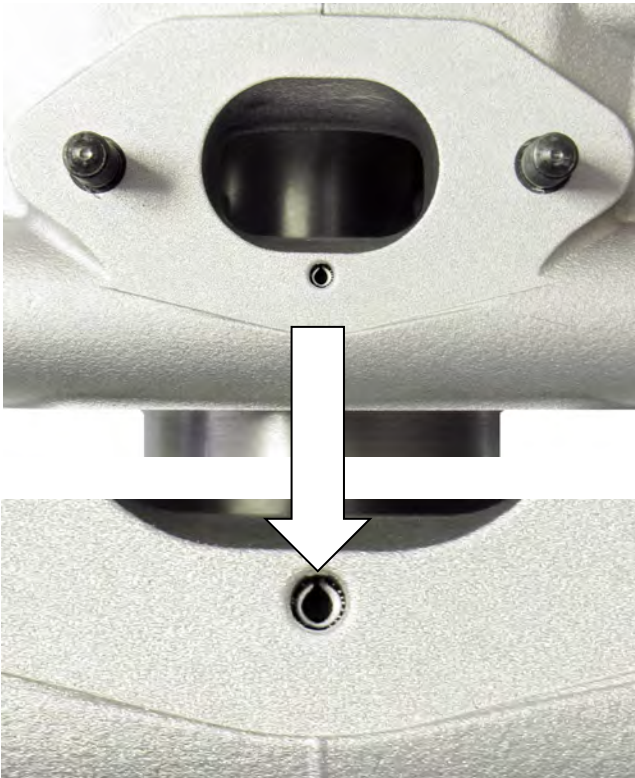
ALTERNATIVE PIN (GROOVED PIN)  
*GOUPILLE ALTERNATIF - (GOUPILLE CANNELÉE)*



## FROM 2025 ON - A PARTIR DE 2025

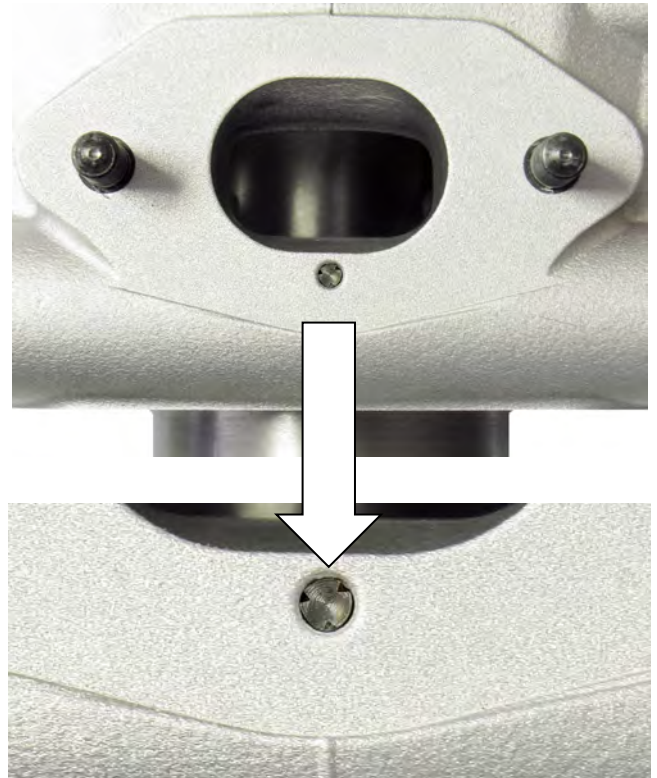
CYLINDER IDENTIFICATION – ALTERNATIVE CYLINDER LINER LOCK PIN  
*IDENTIFICATION DU CYLINDRE – GOUPILLE DE BLOCAGE DE LA ACHEMISE ALTERNATIF*

CURRENT PIN  
*GOUPILLE COURANTE*



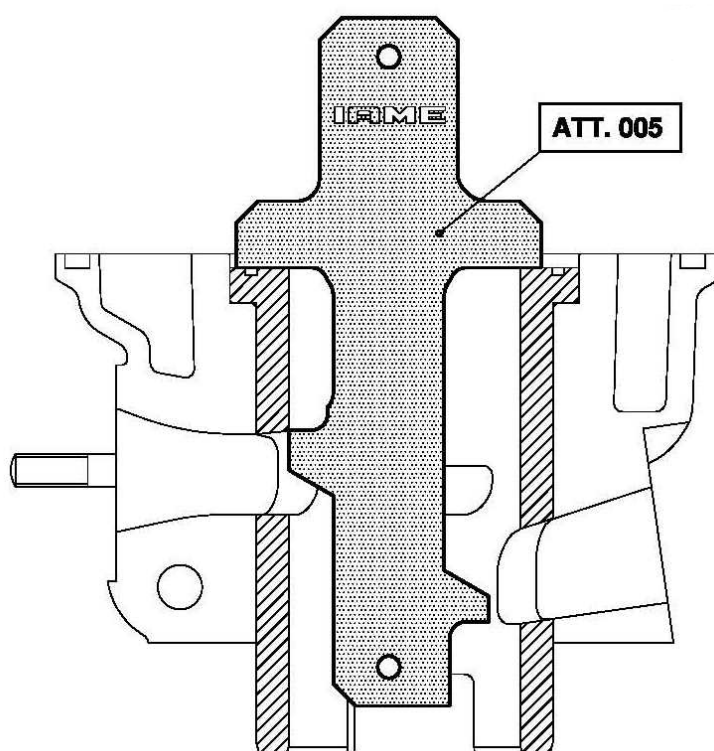
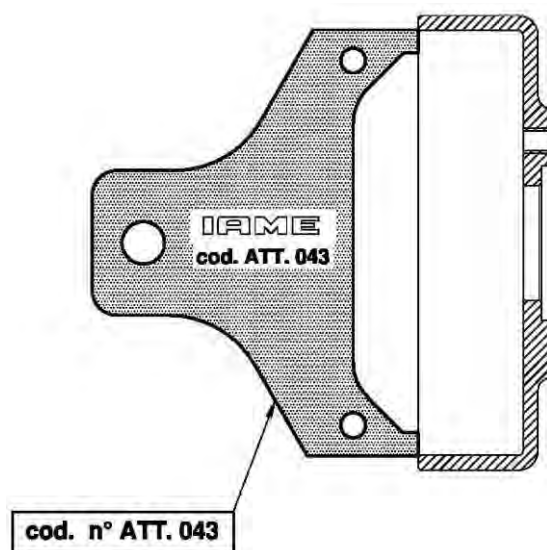
SPRING PIN  
*GOUPILLE À RESORT*

ALTERNATIVE PIN  
*GOUPILLE ALTERNATIF*

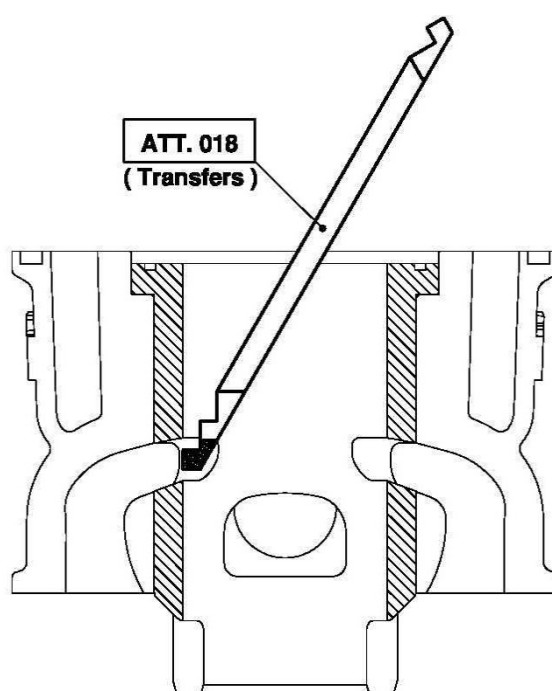
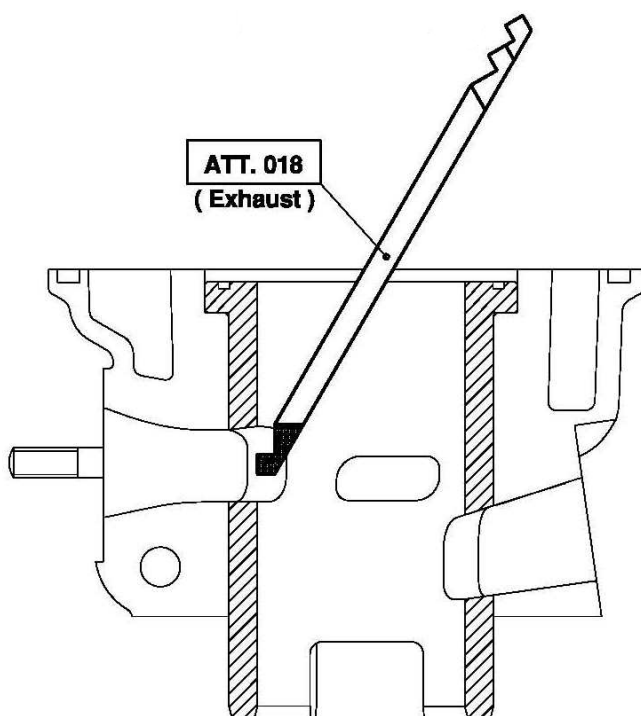
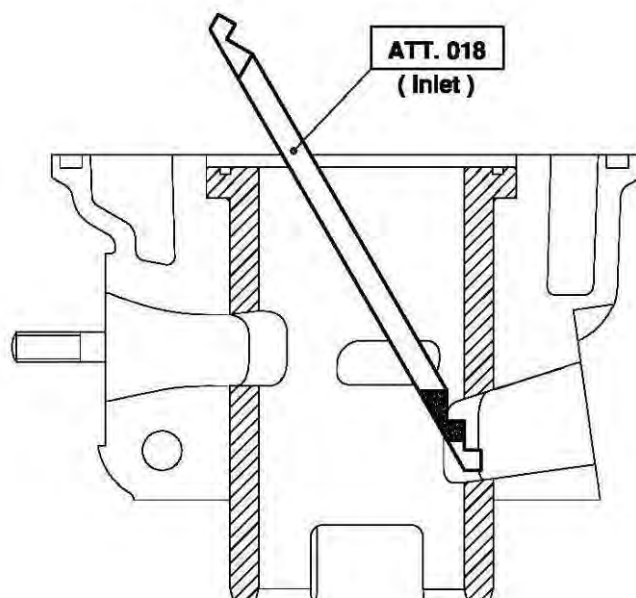


GROOVED PIN  
*GOUPILLE CANNELÉE*

**NO GO GAUGES**  
**OUTILS N'ENTRE PAS DANS**

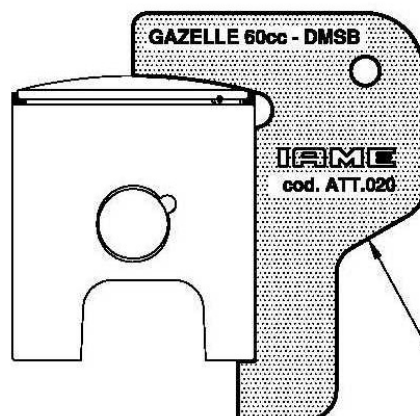
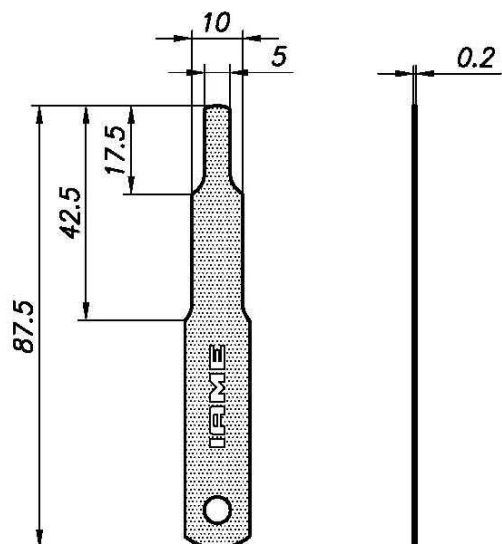


**NO GO GAUGES**  
**OUTILS N'ENTRE PAS DANS**

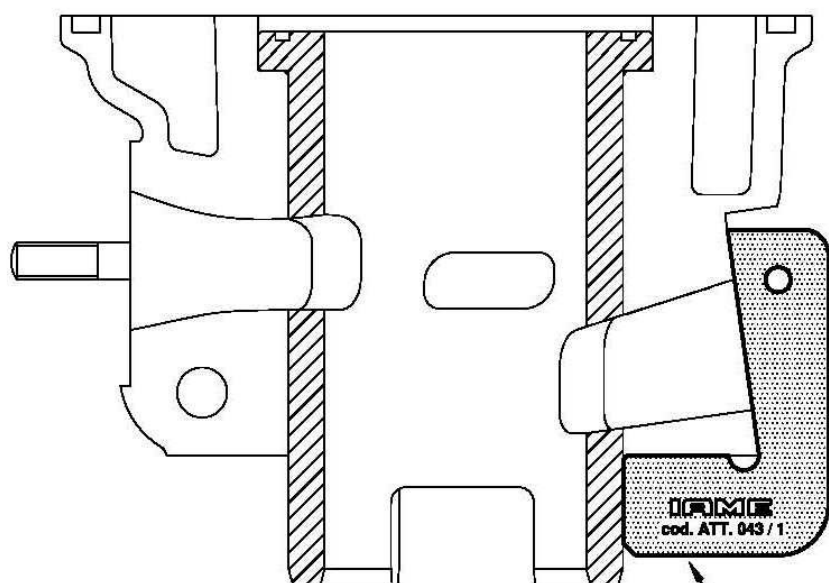


**CONTROL GAUGES  
OUTILS DE CONTROLL**

**TOOL IAME Cod. 10194**

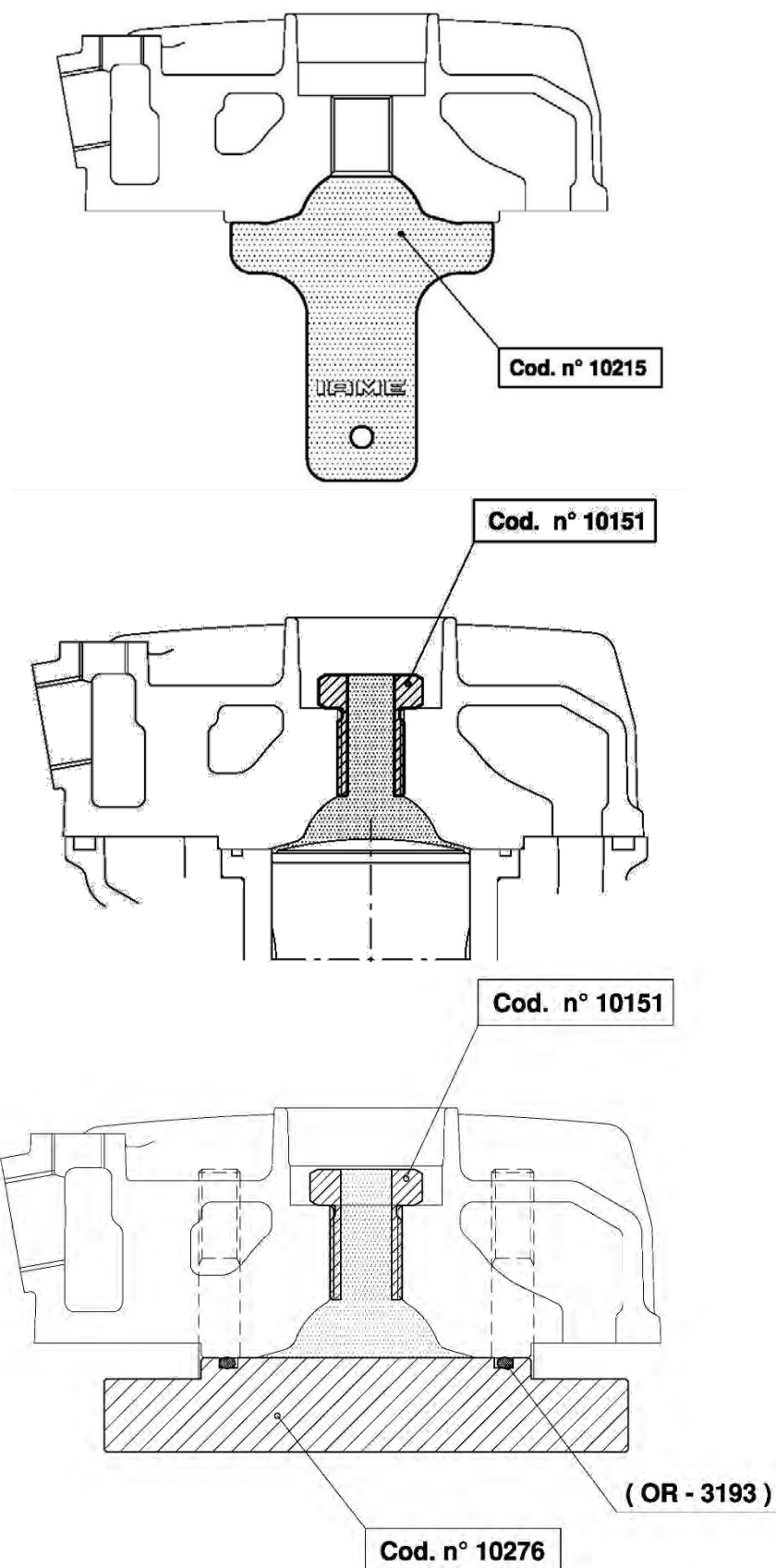


**cod. n° ATT. 020**

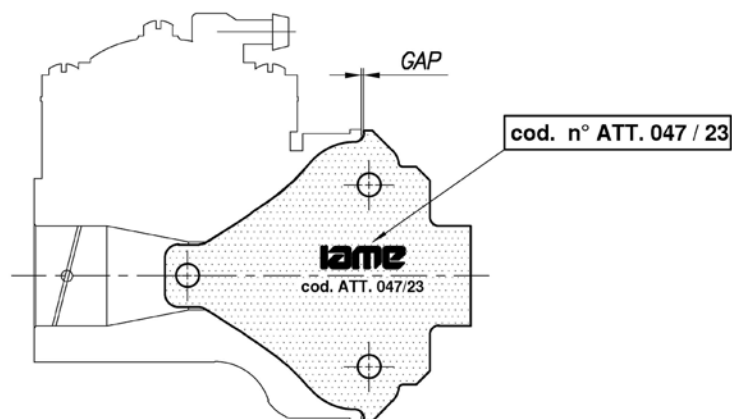


**cod. n° ATT. 043 / 1**

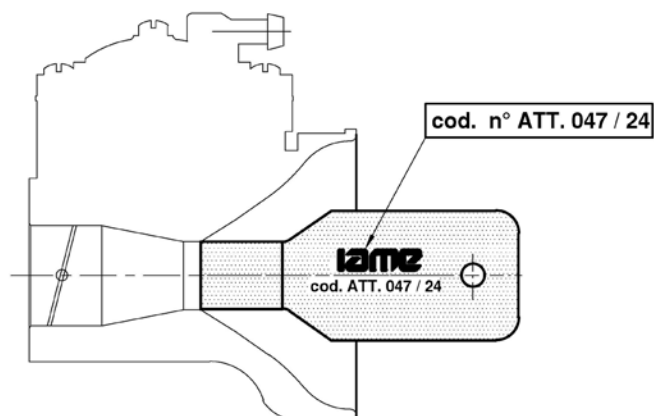
**CONTROL GAUGES**  
**OUTILS DE CONTROLL**



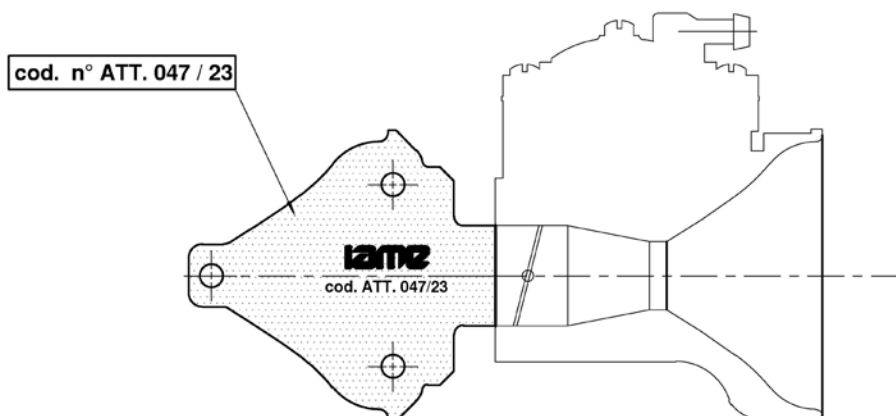
**CONTROL GAUGES  
OUTILS DE CONTROLL**



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.*

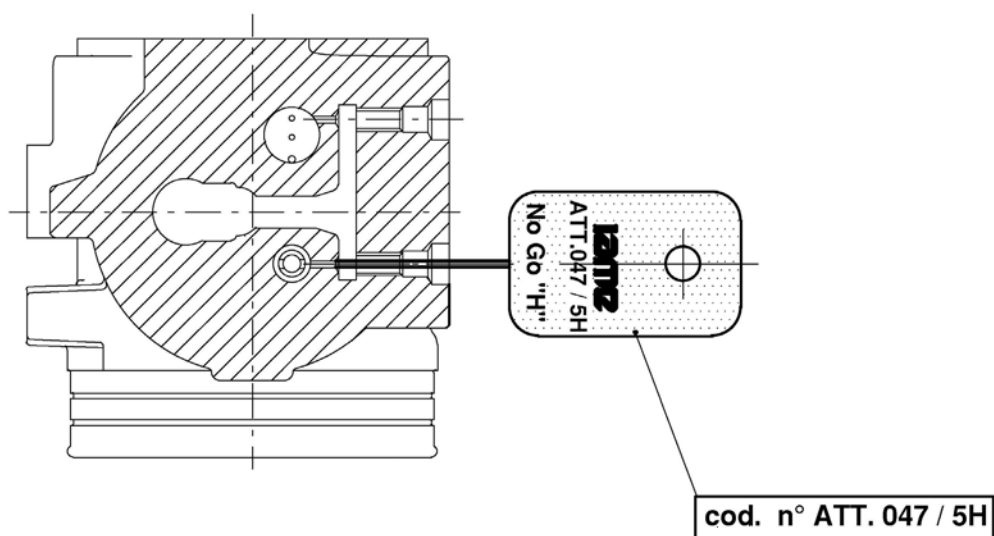
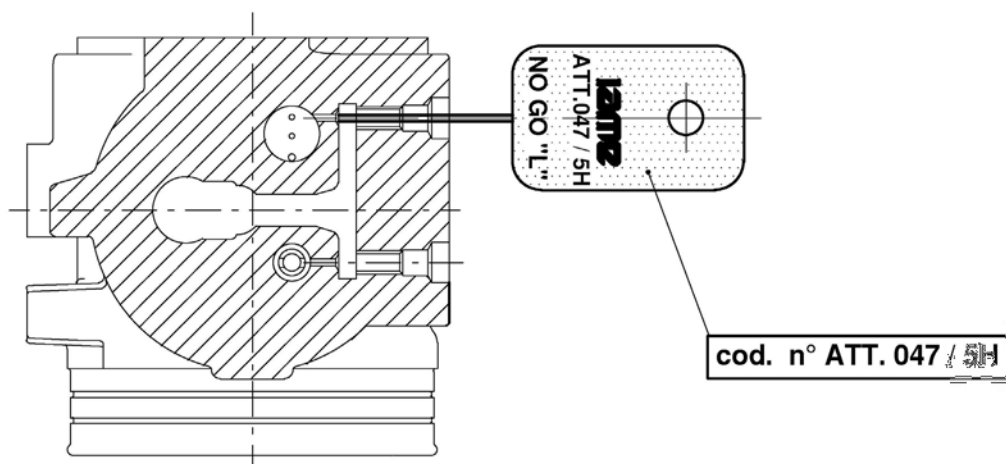


Check that the tool does not enter into the venturi duct inlet of carburettor.  
*Vérifier que l'outil n'entre pas dans l'entrée du conduit Venturi du carburateur.*



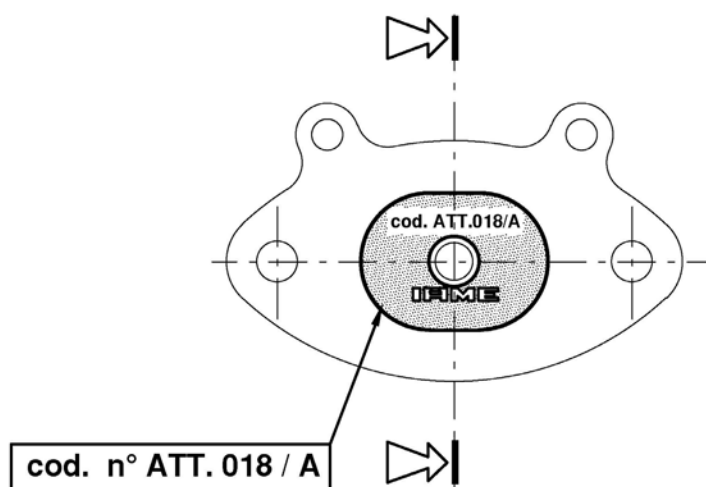
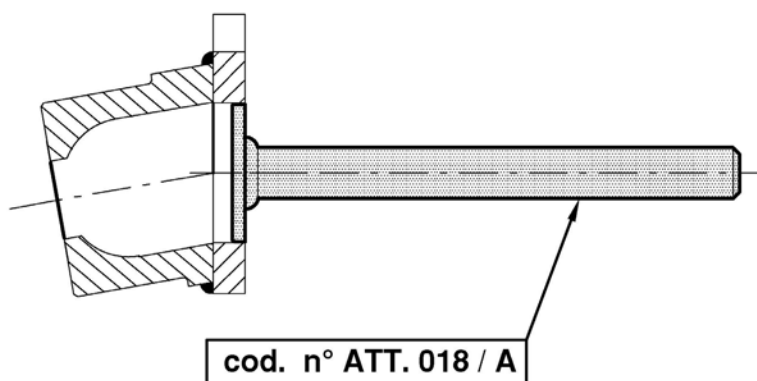
Check that the tool does not enter into the venturi duct outlet of carburettor.  
*Vérifier que l'outil n'entre pas dans la sortie du conduit Venturi du carburateur.*

**CONTROL GAUGES**  
**OUTILS DE CONTROL**



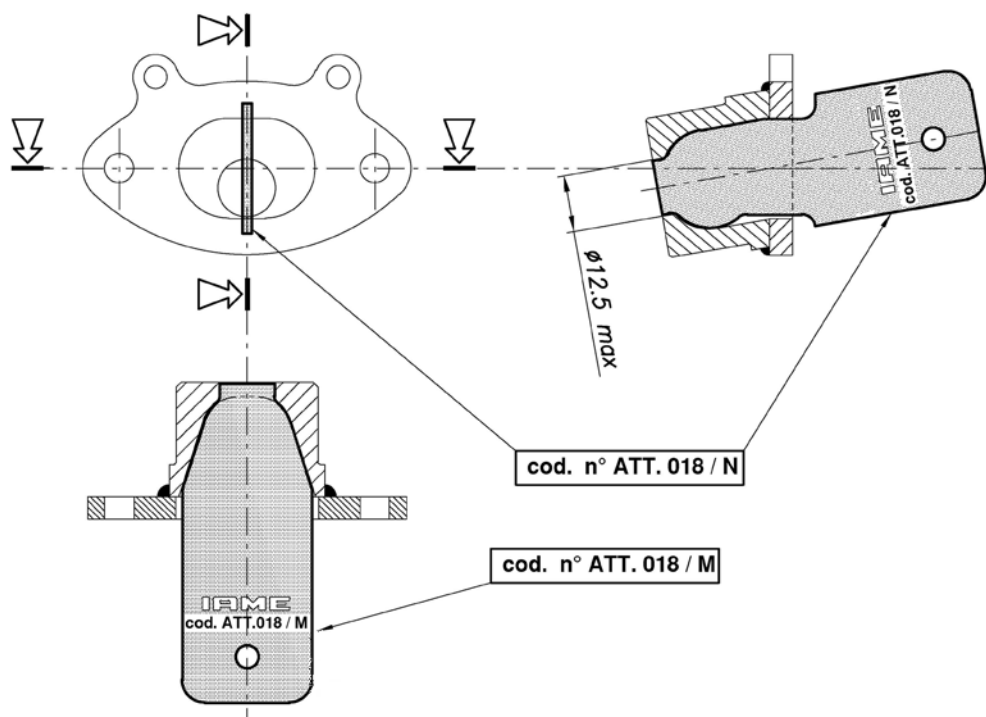
Check that the spikes does not enter into the holes.  
Vérifiez que les pointes n'entrent pas dans les trous.

**CONTROL GAUGES**  
**OUTILS DE CONTROLL**

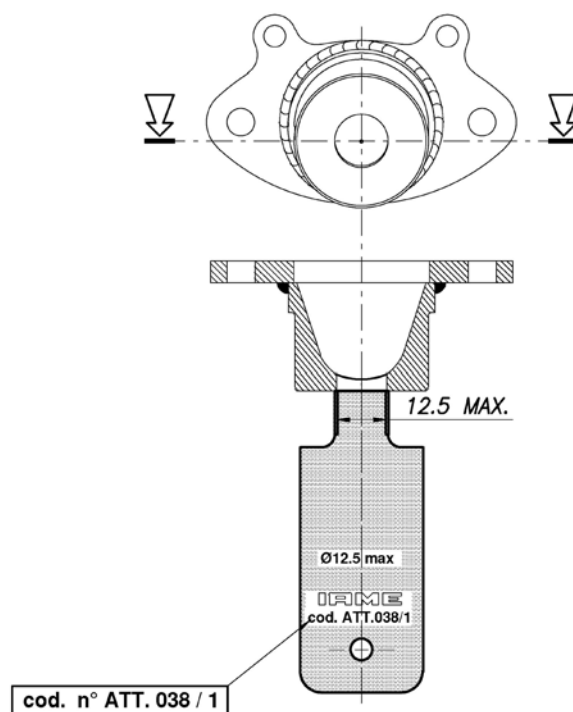


Check that the tool must be the same shape of the exhaust manifold.  
*Vérifiez que l'outil doit être de la même forme du collecteur d'échappement*

**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



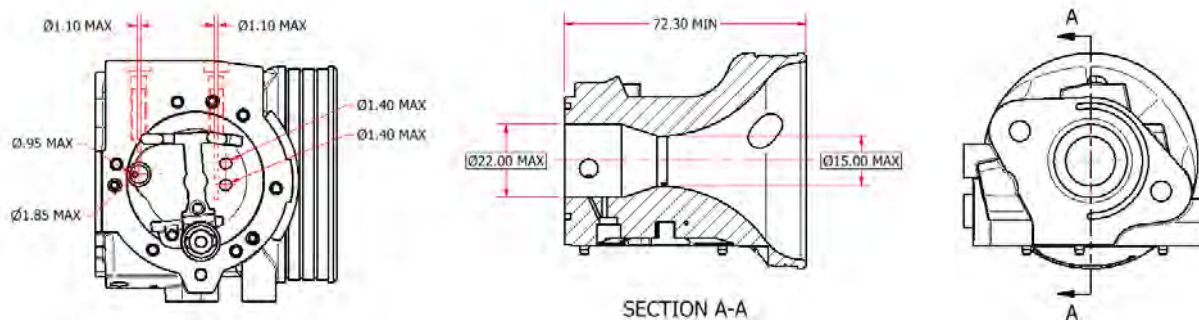
PHOTO OF ADJUSTING SIDE  
PHOTO CÔTÉ RÉGLAGE



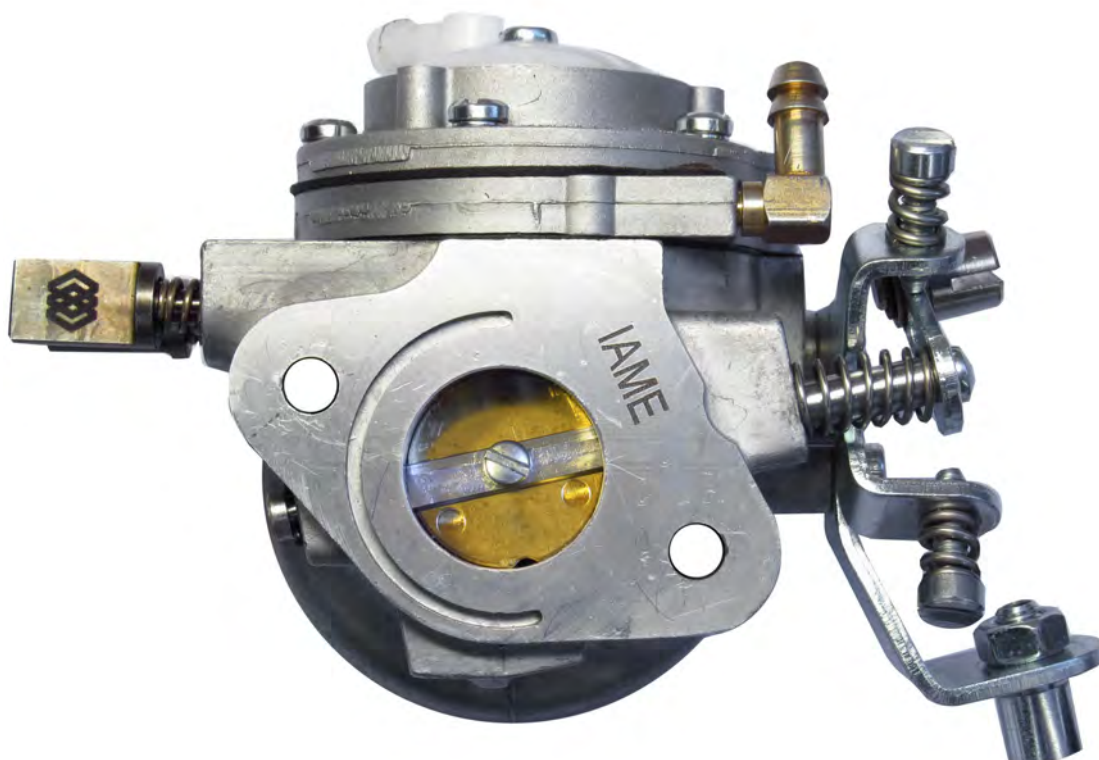
PHOTO OF INLET SIDE  
PHOTO CÔTÉ ASPIRATION

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

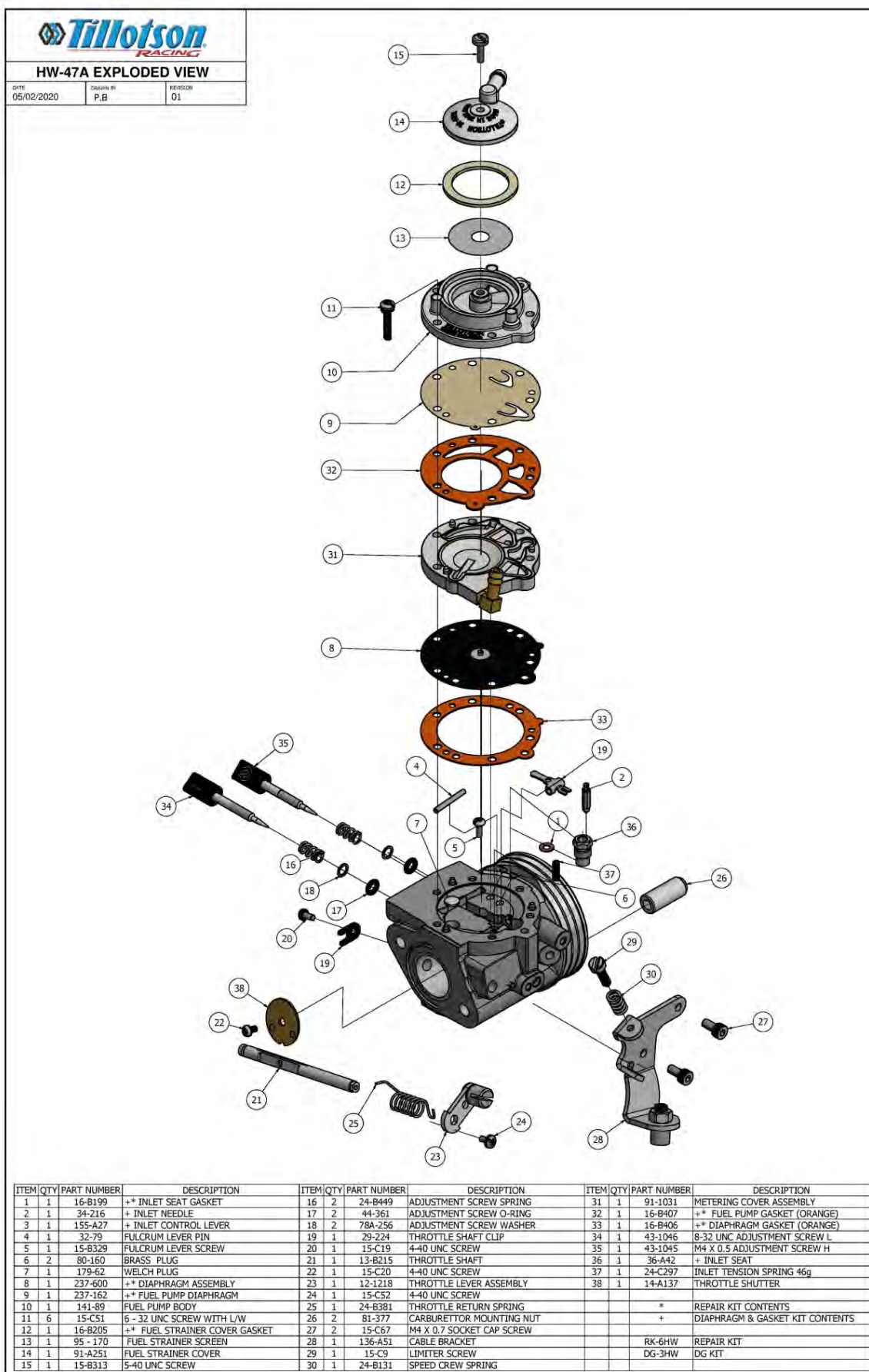
## SECTION VIEW – VUE DE SECTION AVEC DIMENSIONS



## "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* =  $0.5 \pm 0.1$  mm

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



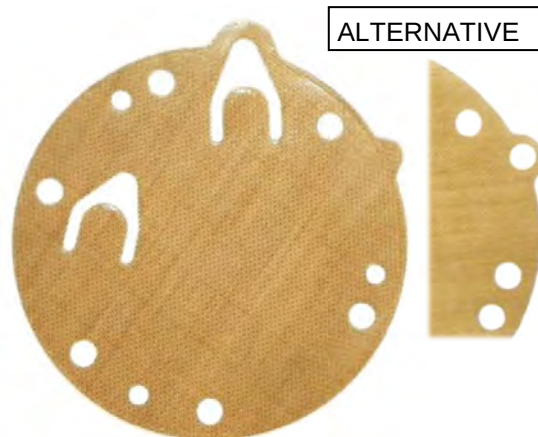
Thickness / *Epaisseur* =  $0.8 \pm 0.1$  mm

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



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

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



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

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



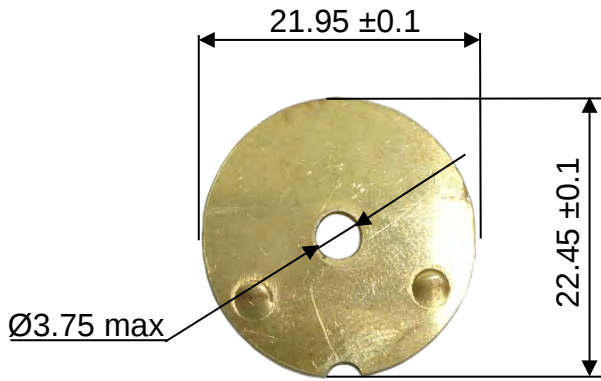
Thickness / *Epaisseur* =  $6.75 \pm 0.15$  mm

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



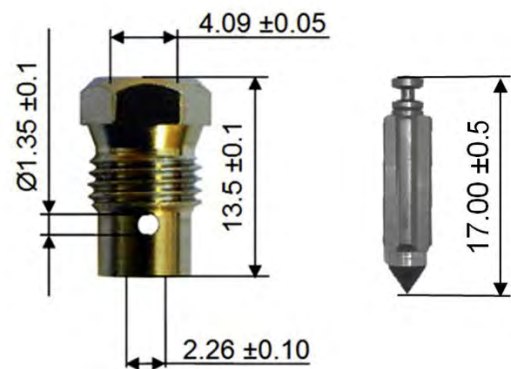
Thickness / *Epaisseur* =  $12.5 \pm 0.15$  mm

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



Thickness / Epaisseur =  $0.81 \pm 0.1$  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**

