

# S125 RL - C TAG



## FEATURES - CARACTERISTIQUES

Cylinder volume <i>Volume du cylindre</i>	124.08 cm <sup>3</sup>
Bore <i>Alésage</i>	53.89 mm
Max. bore <i>Alésage max.</i>	54.08 mm
Stroke <i>Course</i>	54.4 mm
Cooling system <i>Système de refroidissement</i>	Water <i>À Eau</i>
Inlet system <i>Système d'admission</i>	Reed valve <i>À clapets</i>
Cylinder / crankcase transfers n° <i>N° de canaux cylindre / carter</i>	5 / 3

Carburettor Tillotson  
*Carburateur Tillotson*

HW-50A  
(Ø24 Venturi)

Inlet / exhaust ports number  
*N° lumières admiss. / échapp.*

5 / 3

Number of piston rings  
*Nombre de segments*

1

Combustion chamber shape  
*Forme chambre de combustion*

Spherical  
*Sphérique*

Big end conr. bearing diam.  
*Diamètre roulement tête de bielle*

22x28x15

Ignition  
*Allumage*

Digital

Crankshaft bearing diam.  
*Diamètre roulement du vilebrequin*

25x52x15

Distance between conrod centers  
*Longueur (entraxe) de la bielle*

104 mm

Small end conr. bearing diam.  
*Diamètre roulement pied de bielle*

15x19x20

RPM limiter  
*Limiteur de régime*

Yes  
*Oui*

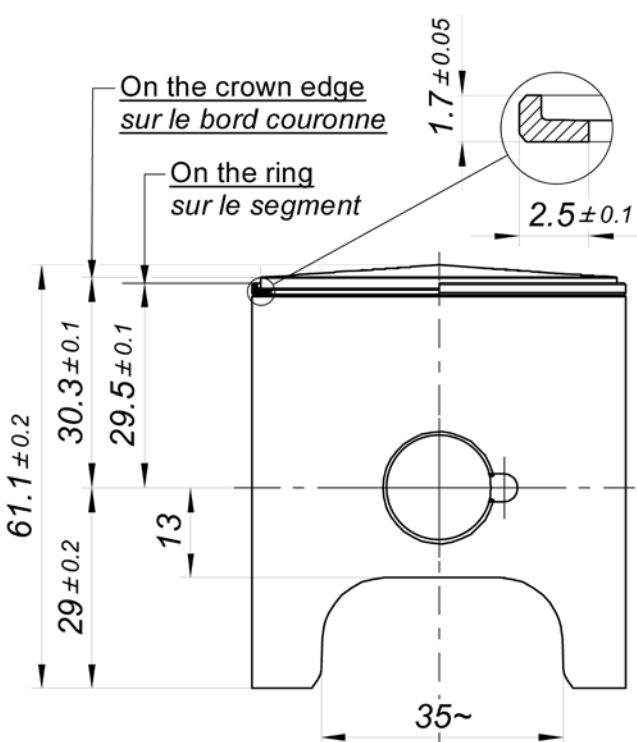
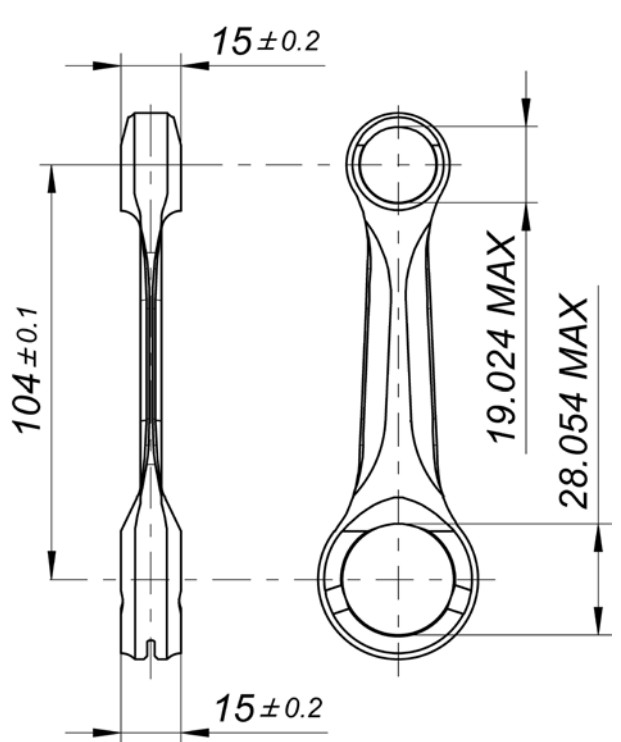
Balancing shaft  
*Arbre d'équilibrage*

Yes  
*Oui*

Electric starter  
*Démarrreur électrique*

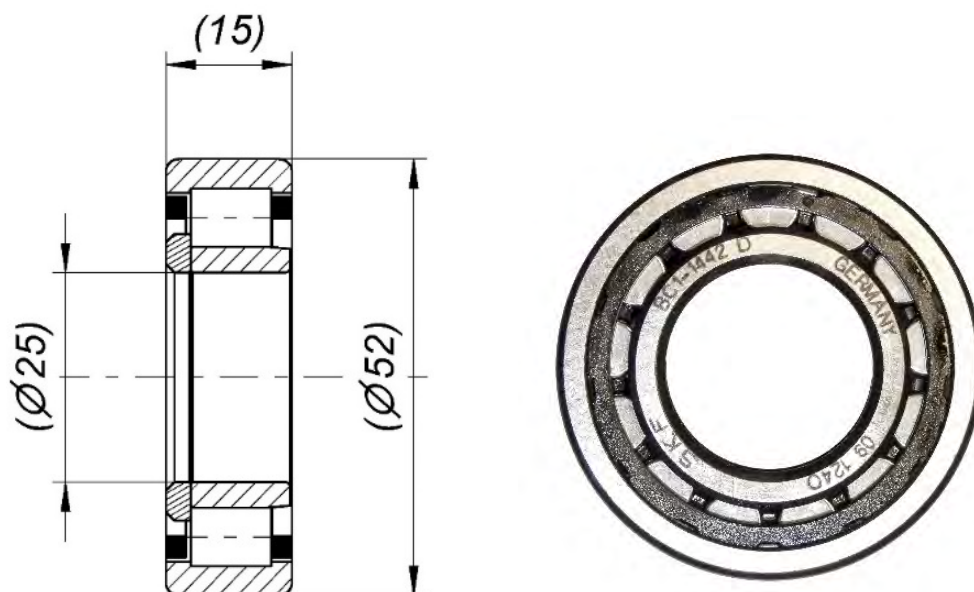
Yes  
*Oui*

DESCRIPTION OF THE MATERIAL - DESCRIPTION DES MATERIAUX			
Conrod material <i>Matériau de la bielle</i>	Steel <i>Acier</i>	Liner material <i>Matériau de la chemise</i>	Iron <i>Fonte</i>
Crankshaft material <i>Matériau du vilebrequin</i>	Steel <i>Acier</i>	Crankcase material <i>Matériau du carter</i>	Aluminium
Balancing shaft material <i>Matériau de l'arbre d'équilibrage</i>	Steel <i>Acier</i>	Piston material <i>Matériau du piston</i>	Aluminium
Gears material <i>Matériau des engrenages</i>	Steel <i>Acier</i>	Piston rings material <i>Matériau des segments</i>	Iron <i>Fonte</i>
Starter ring material <i>Matériau de la couronne démarreur</i>	Steel <i>Acier</i>	Exhaust muffler material <i>Matériau du pot d'échappement</i>	Sheet-steel <i>Tôle acier</i>
Head material <i>Matériau de la culasse</i>	Aluminium	Roller bearings <i>Roulements à rouleaux</i>	BC1-1442D
Cylinder material <i>Matériau du cylindre</i>	Aluminium		

PISTON	CONROD BIELLE
 <p>On the crown edge <i>sur le bord couronne</i></p> <p>On the ring <i>sur le segment</i></p> <p>1.7 ± 0.05</p> <p>2.5 ± 0.1</p> <p>61.1 ± 0.2</p> <p>30.3 ± 0.1</p> <p>29.5 ± 0.1</p> <p>29 ± 0.2</p> <p>13</p> <p>35~</p> <p>Min. weight 108 g (ring included) <i>Poids min. 108 g (avec segment)</i></p>	 <p>15 ± 0.2</p> <p>104 ± 0.1</p> <p>19.024 MAX</p> <p>28.054 MAX</p> <p>15 ± 0.2</p> <p>Min. weight 121 g <i>Poids min. 121 g</i></p>

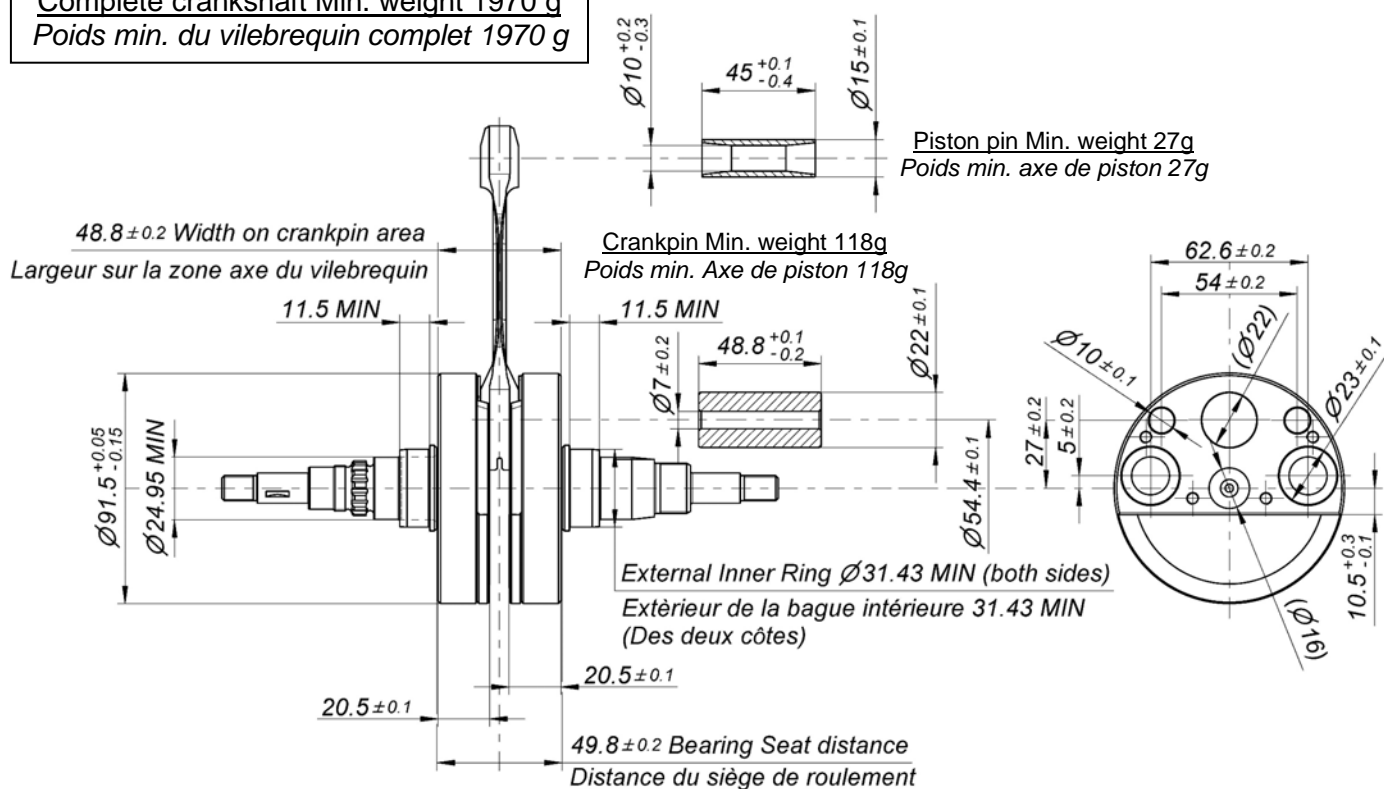
VOIDS AND REPLACES THE FORM n° 409/B OF 15/11/24  
ANNULE ET REMPLACE LA FICHE n° 409/B DU 15/11/25

# CRANKSHAFT ROLLER BEARINGS - ROULEMENTS À ROULEAUX DU VILEBREQUIN

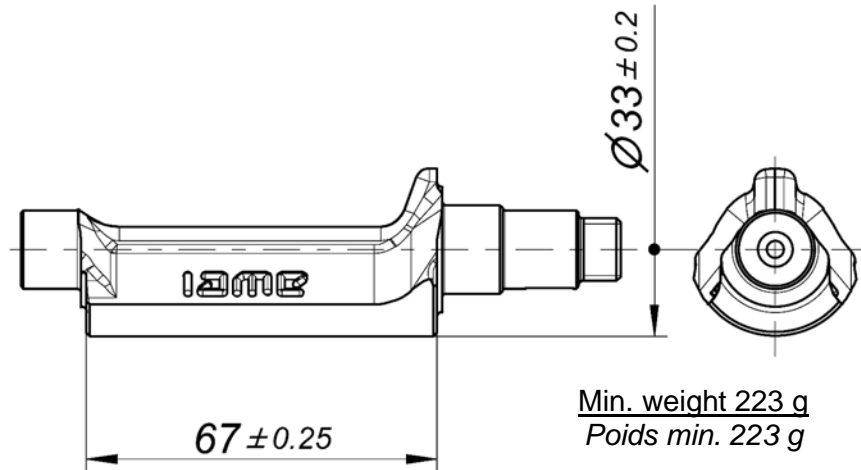


## DIMENSIONS OF CRANKSHAFT DIMENSIONS DU VILEBREQUIN

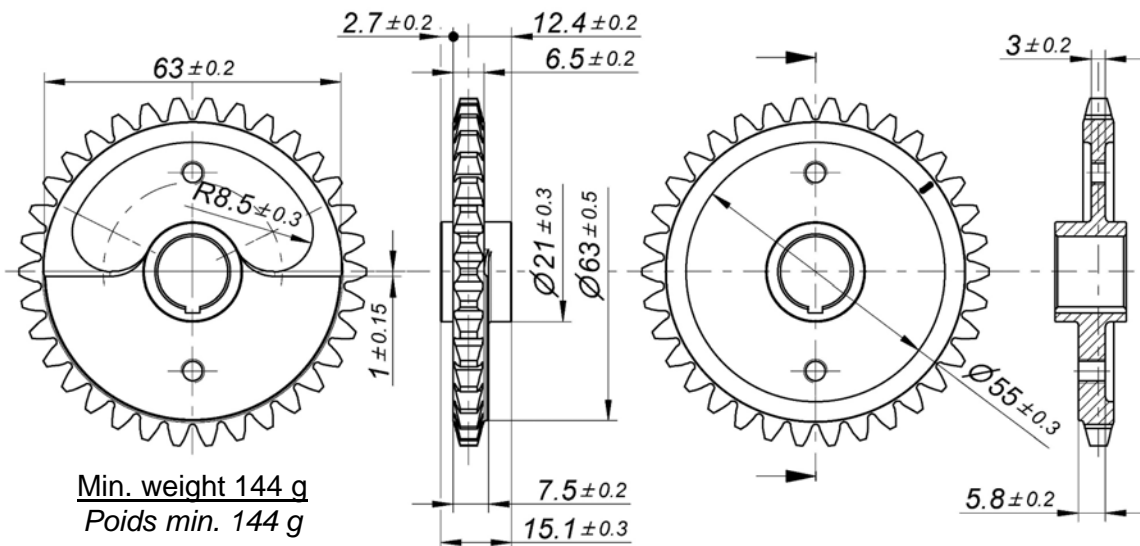
Complete crankshaft Min. weight 1970 g  
Poids min. du vilebrequin complet 1970 g



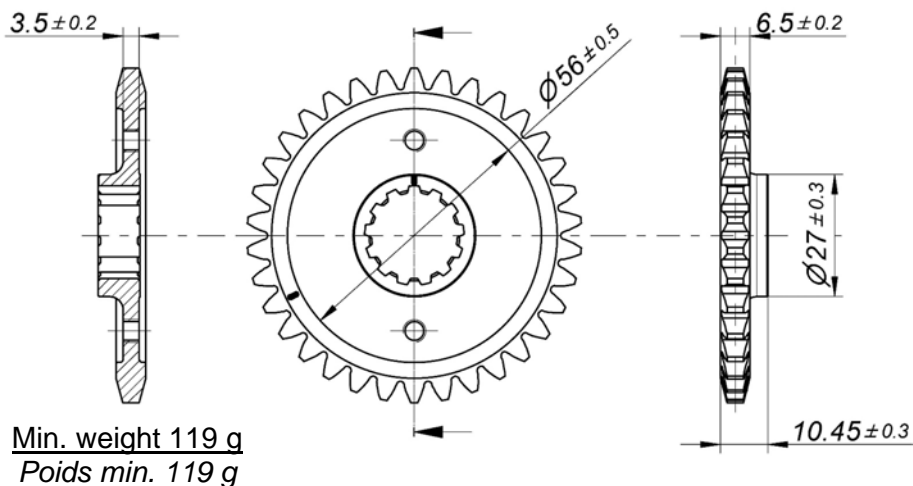
## BALANCER SHAFT - ARBRE D'EQUILIBRAGE



## BALANCER SHAFT GEAR - ENGRENAGE ARBRE D'EQUILIBRAGE

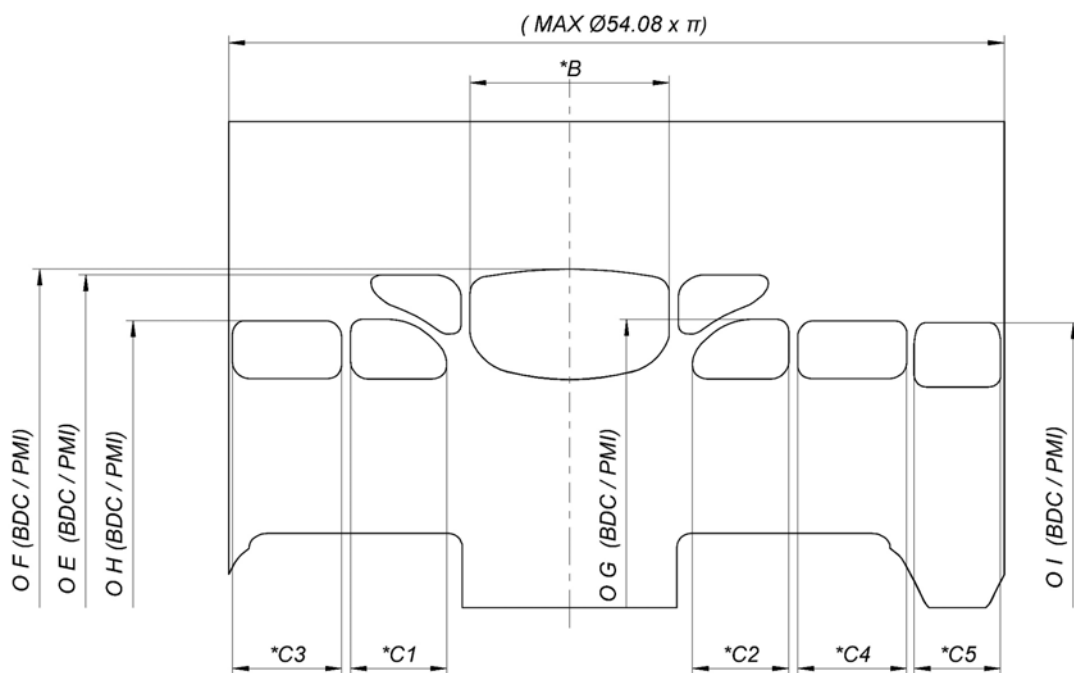


## CRANKSHAFT GEAR - ENGRENAGE DU VILEBREQUIN





# CYLINDER DEVELOPMENT - DEVELOPPEMENT DU CYLINDRE

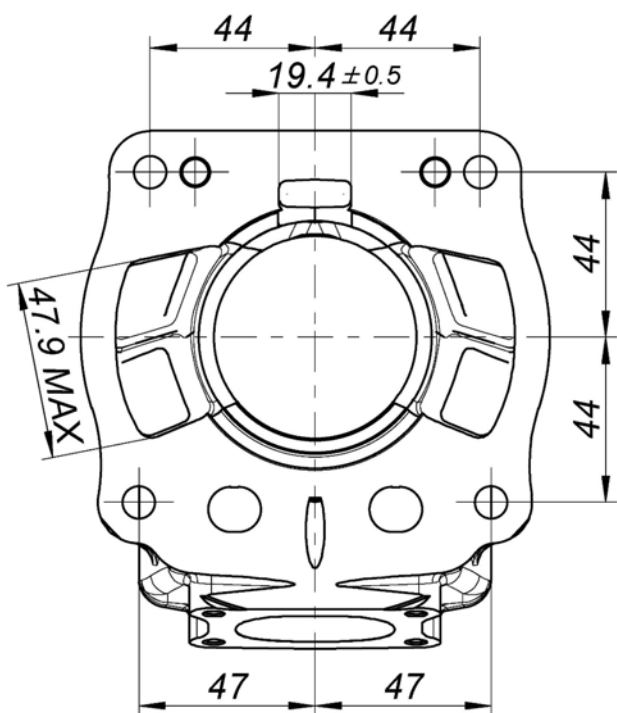


<b>B</b>	$\leq 38.5 \text{ mm}$
<b>C1 = C2</b>	$\leq 21.0 \text{ mm}$
<b>C3 = C4</b>	$\leq 23.7 \text{ mm}$
<b>C5</b>	$\leq 19.0 \text{ mm}$
<b>E</b>	$174.0^\circ \pm 1.5^\circ$
<b>F</b>	$179.5^\circ \pm 1.5^\circ$
<b>G</b>	$129.0^\circ \pm 1.5^\circ$
<b>H</b>	$127.5^\circ \pm 1.5^\circ$
<b>I</b>	$125.0^\circ \pm 1.5^\circ$

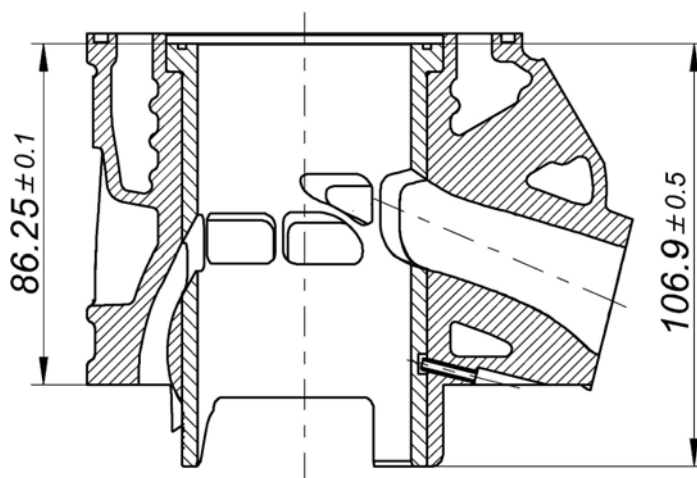
\* CHORDAL READING - LECTURE CORDALE

○ ANGULAR READING BY INSERTING A 0.2x5 mm GAUGE  
LECTURE ANGULAIRE PAR INSERTION D'UNE CALE DE 0.2x5 mm

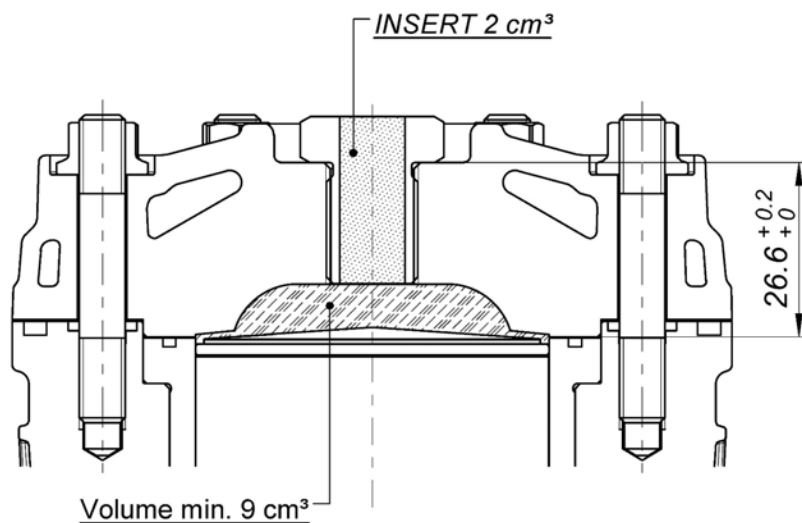
CYLINDER BASE VIEW  
VUE DE LA BASE DU CYLINDRE



CYLINDER CROSS SECTION VIEW  
VUE EN SECTION DU CYLINDRE



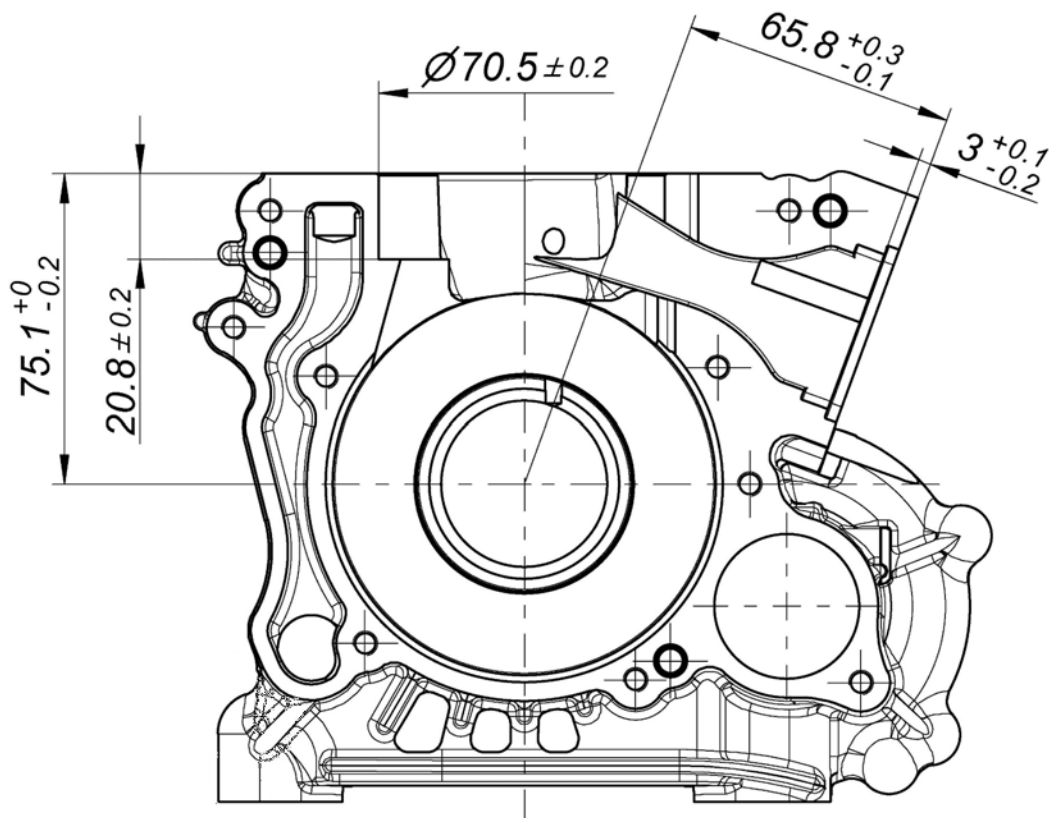
COMBUSTION CHAMBER SECTION  
SECTION DE LA CHAMBRE DE COMBUSTION



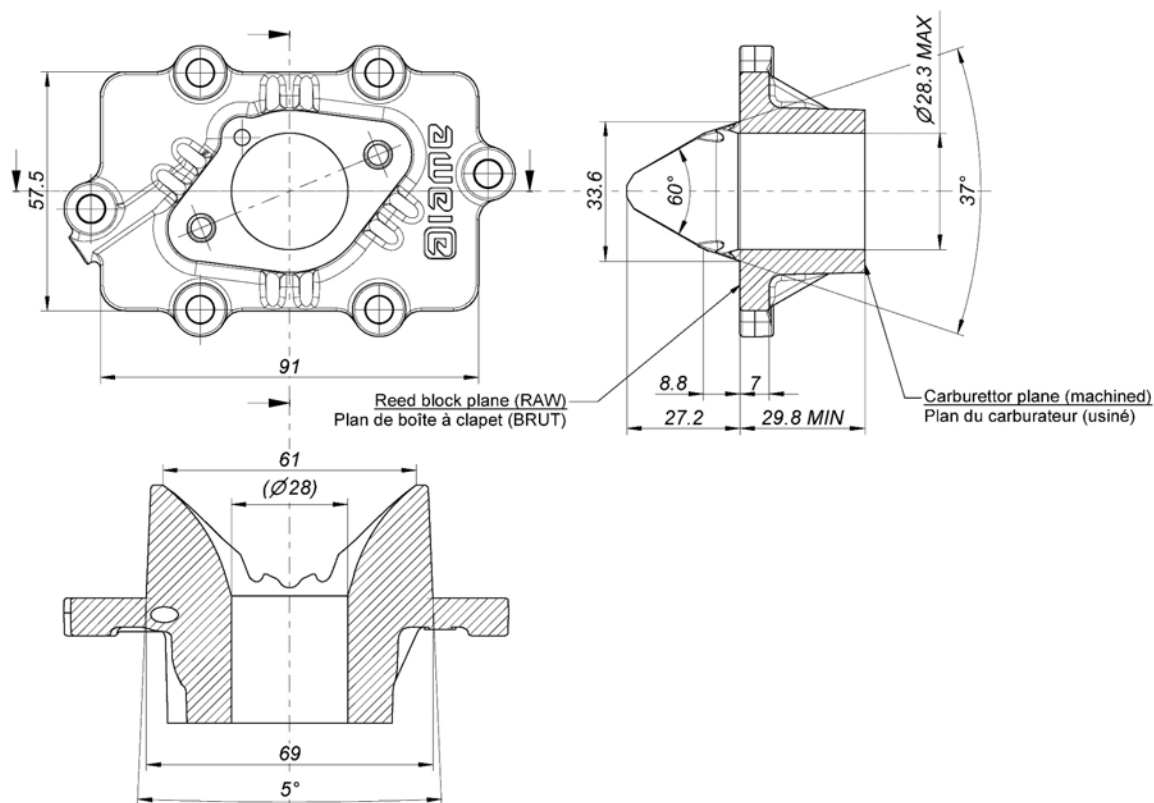
COMBUSTION CHAMBER VOLUME TOT. = 11.0 cm<sup>3</sup> min.  
VOLUME CHAMBRE COMBUSTION TOT. = 11.0 cm<sup>3</sup> min.

ATT. : SQUISH MIN. = 0.85 mm  
(measured with Ø1.5-1.6 mm TIN - mesurée avec de l'étain Ø1.5-1.6 mm)

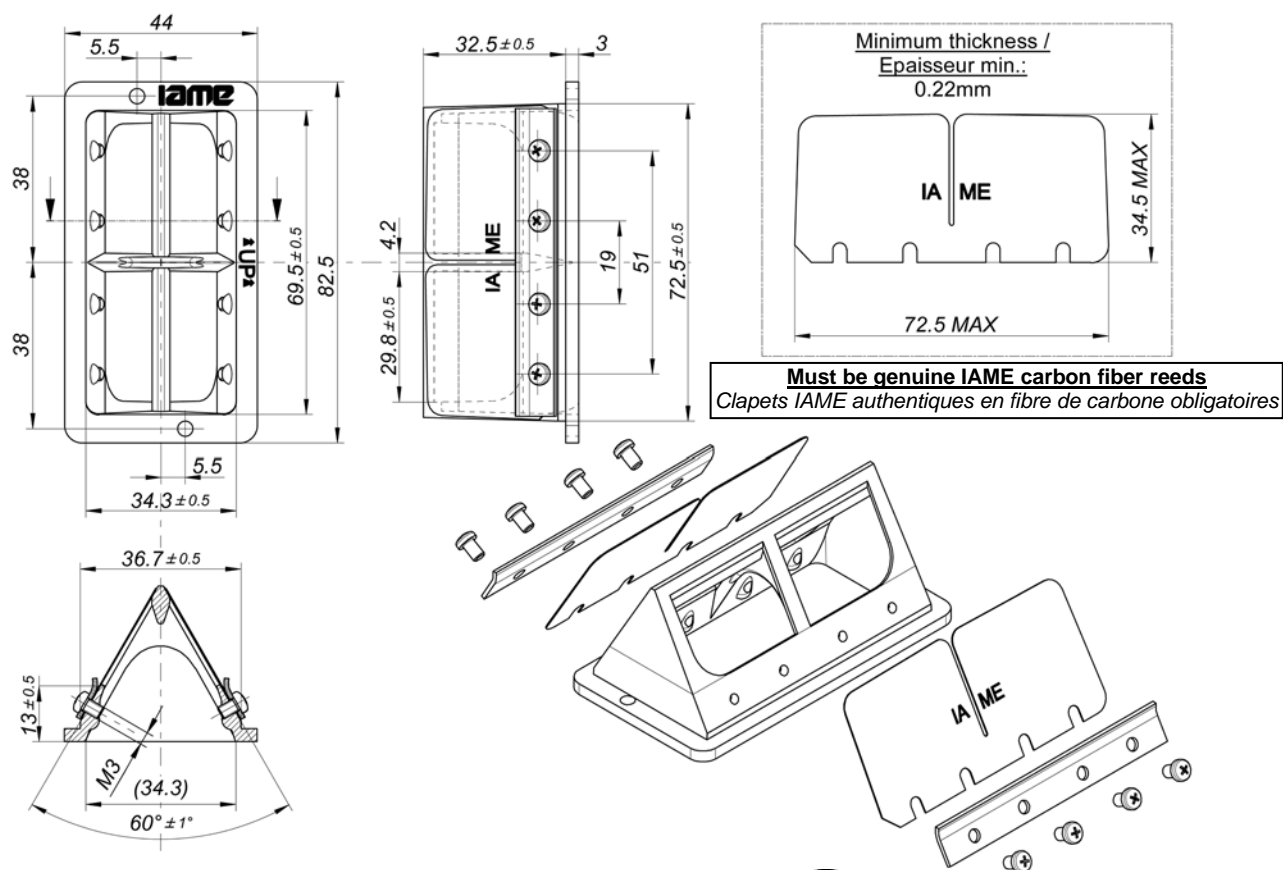
CRANKCASE INSIDE VIEW  
VUE A' L'INTERIEUR DU CARTER



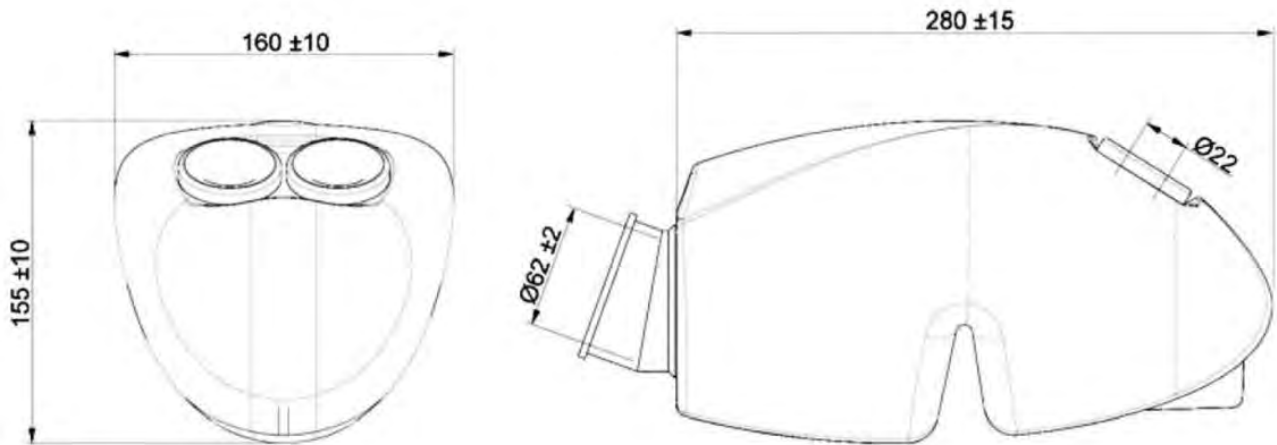
## INLET CONVEYOR - DIMENSIONS AND MARKING CONVOYEUR D'ADMISSION - DIMENSIONS ET MARQUAGE



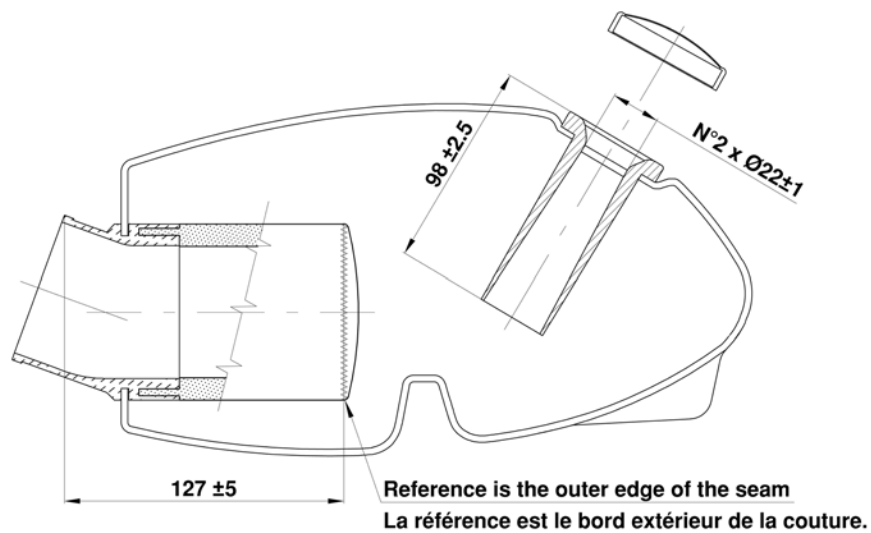
## REED VALVE - DIMENSIONS AND MARKING BOÎTE À CLAPETS - DIMENSIONS ET MARQUAGE



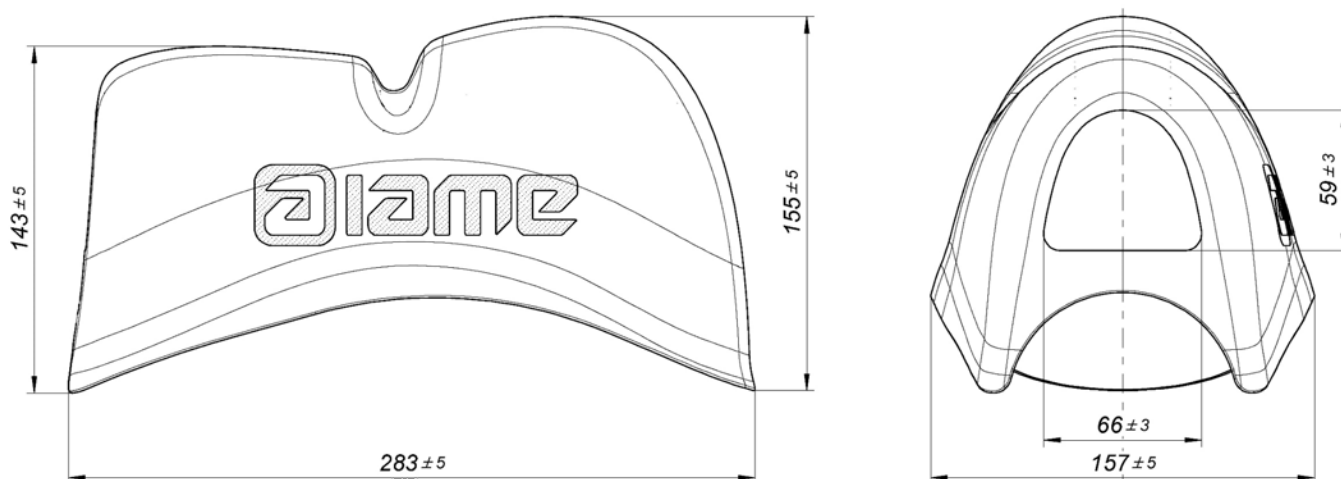
INTAKE SILENCER – DIMENSIONS AND PHOTO  
 DESSIN ET PHOTO DU SILENCIEUX D'ADMISSION



WITH SPONGE AIR FILTER  
AVEC MANCHON COMPLET ET FILTRE À AIR



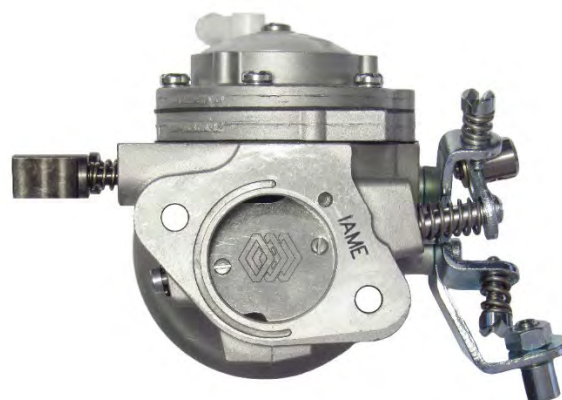
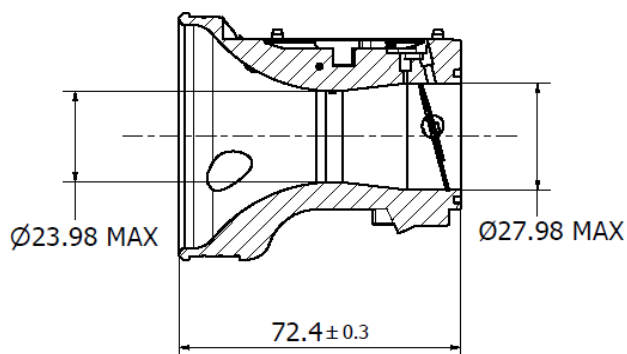
RAIN COVER FOR INTAKE SILENCER – DRAWING  
 DESSIN DU COUVERCLE « PLUIE » DU SILENCIEUX D'ADMISSION



RAIN COVER FOR INTAKE SILENCER – PHOTO  
 PHOTO – COUVERCLE « PLUIE » DU SILENCIEUX D'ADMISSION

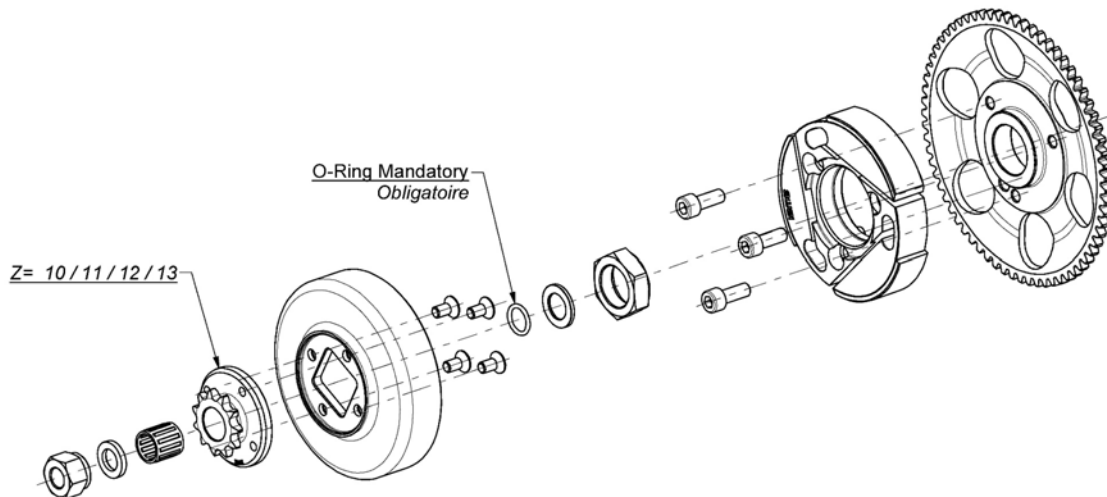


**TILLOTSON HW-50A CARBURETTOR - VENTURI DIMENSIONS**  
 DIMENSIONS DU VENTURI DU CARBURATEUR **TILLOTSON HW-50A**

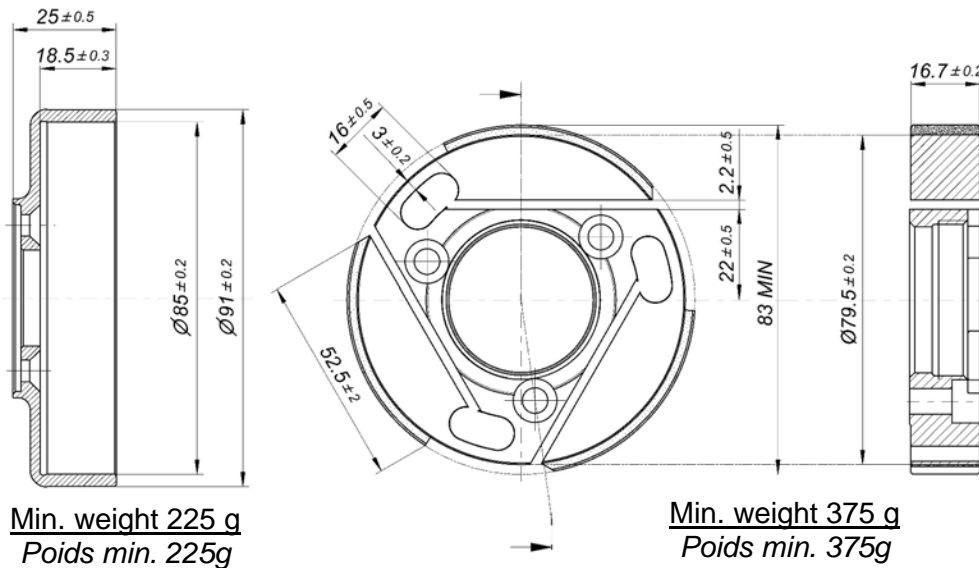


**Tillotson HW-50A**

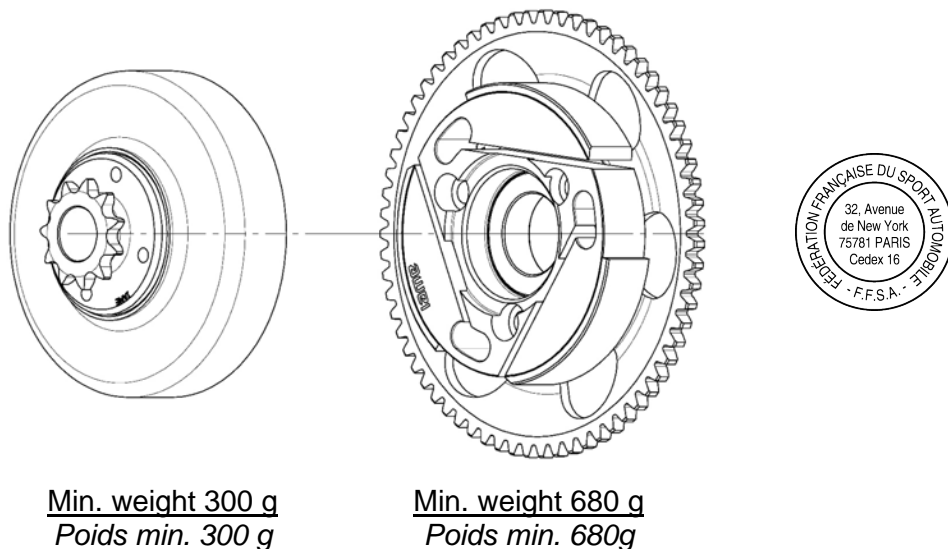
## CLUTCH ASSEMBLY - GROUPE EMBRAYAGE



## COMPONENTS OF THE CLUTCH – COMPOSANTS DE L'EMBAYAGE



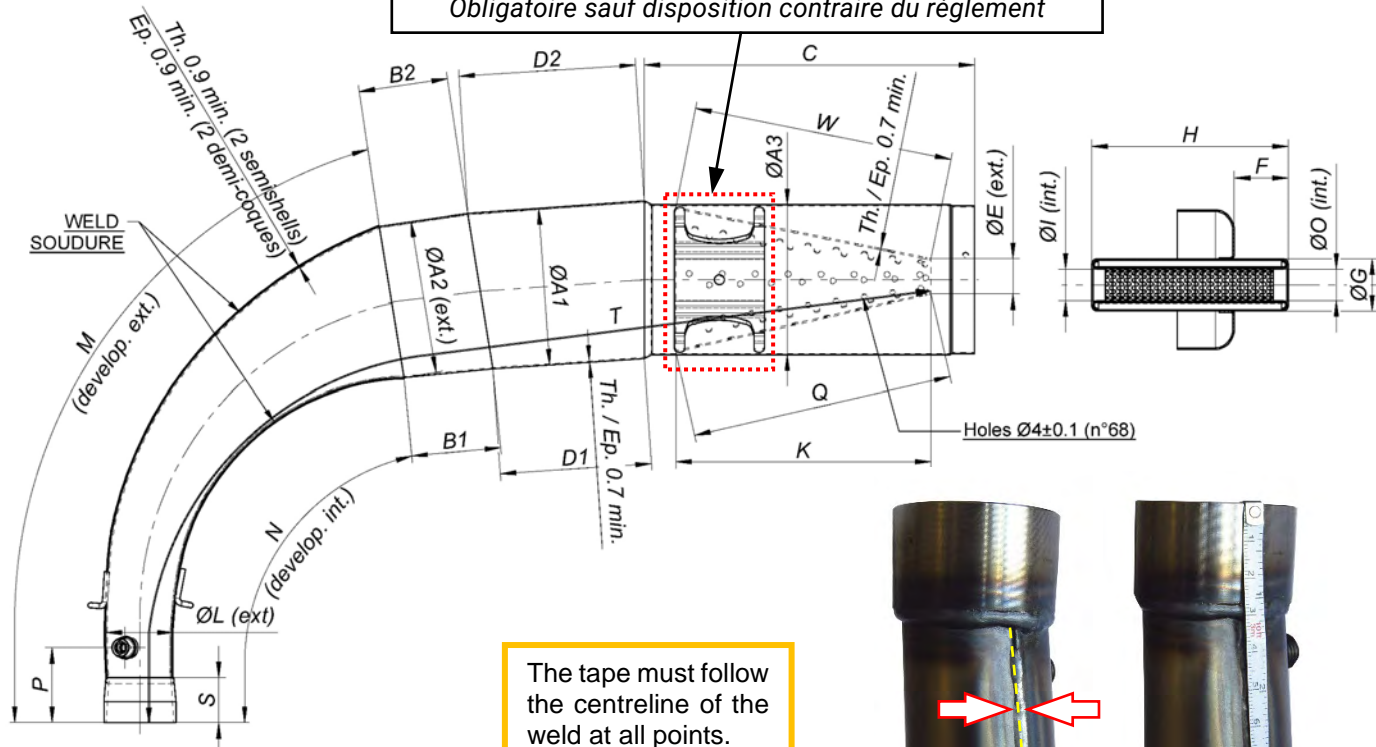
## MINIMUM WEIGHT OF THE CLUTCH – POIDS MIN. DE L'EMBAYAGE





# EXHAUST DRAWING AND DIMENSIONS DESSIN ET DIMENSIONS DE L'ÉCHAPPEMENT

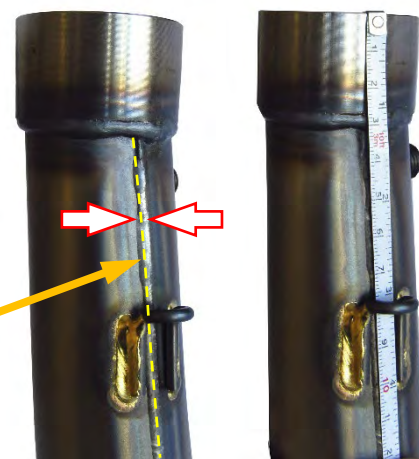
**Mandatory unless otherwise prescribed by the regulation**  
**Obligatoire sauf disposition contraire du règlement**



**Min. Weight 1.820 g**  
**Poids min. 1.820 g**

The tape must follow the centreline of the weld at all points.

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



<b>ØA1:</b> <u>105 ±1.5 Øext.</u>	<b>B2:</b> <u>59.5 ±3</u>	<b>ØE:</b> <u>23.5 ±2 Øext.</u>	<b>ØI:</b> <u>21 ±1 Øint.</u>	<b>N:</b> <u>316 ±3</u>	<b>T:</b> <u>675 ±3</u>
<b>ØA2:</b> <u>102 ±1.5 Øext.</u>	<b>C:</b> <u>220 ±3</u>	<b>F:</b> <u>36 ±2</u>	<b>K:</b> <u>170 ±3</u>	<b>ØO:</b> <u>21 ±1 Øint.</u>	<b>W:</b> <u>170 ±3</u>
<b>ØA3:</b> <u>100 ±1.5 Øext.</u>	<b>D1:</b> <u>101 ±3</u>	<b>ØG:</b> <u>35 ±1 Øext.</u>	<b>ØL:</b> <u>44 ±1.5 Øext.</u>	<b>P:</b> <u>50 ±10</u>	<b>Q:</b> <u>182 ±3</u>
<b>B1:</b> <u>59.5 ±3</u>	<b>D2:</b> <u>118 ±3</u>	<b>H:</b> <u>131 ±3</u>	<b>M:</b> <u>411 ±3</u>	<b>S:</b> <u>30 ±1.5</u>	

## ATTENTION:

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

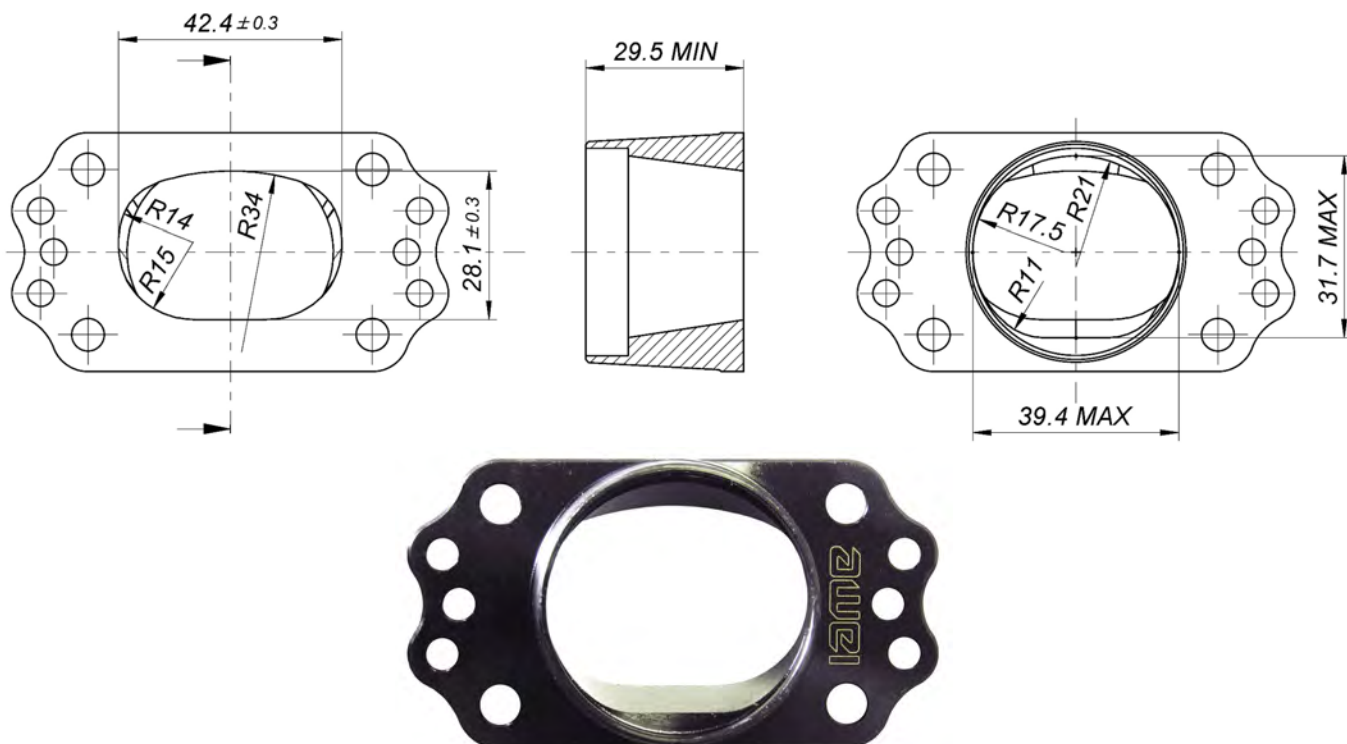
Les dimensions « **M** », « **N** » et « **T** » doivent être à prises à l'aide d'un ruban à mesurer en acier 6 mm de large.

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

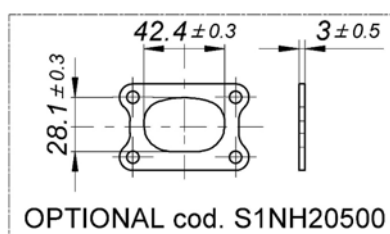
The dimensions "**Q**" and "**W**" must be taken by steel tape measure 12mm wide.

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

# EXHAUST HEADER (Senior) - DIMENSIONS AND MARKING COLLECTEUR D'ÉCHAPPEMENT (Senior) – DIMENSIONS ET MARQUAGE



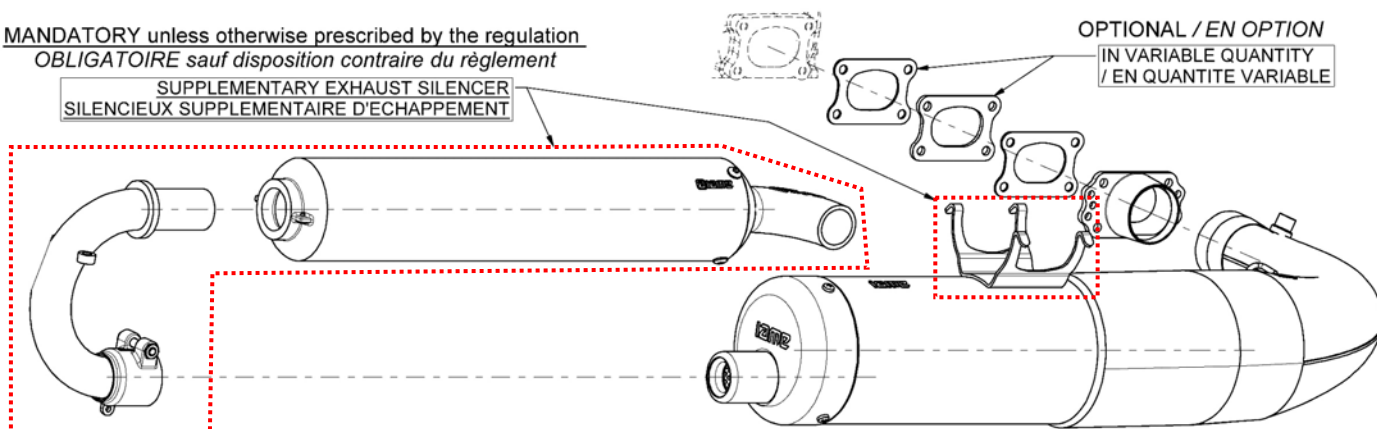
## EXHAUST INSTALLATION INSTALLATION DE L'ÉCHAPPEMENT



**MANDATORY** unless otherwise prescribed by the regulation  
**OBLIGATOIRE** sauf disposition contraire du règlement

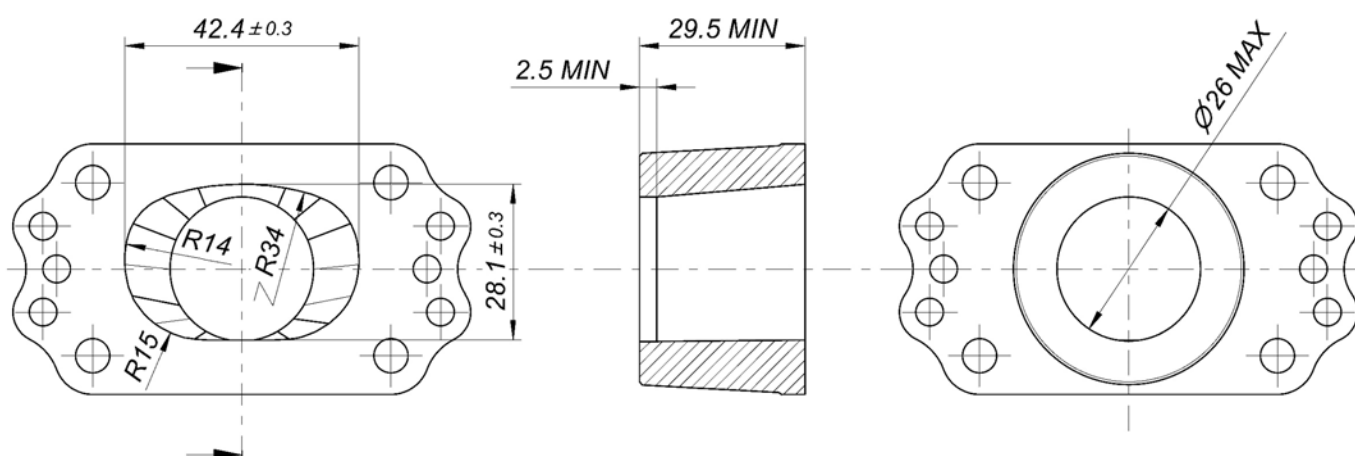
**SUPPLEMENTARY EXHAUST SILENCER**  
**SILENCIEUX SUPPLÉMENTAIRE D'ÉCHAPPEMENT**

**OPTIONAL / EN OPTION**  
**IN VARIABLE QUANTITY**  
**/ EN QUANTITÉ VARIABLE**

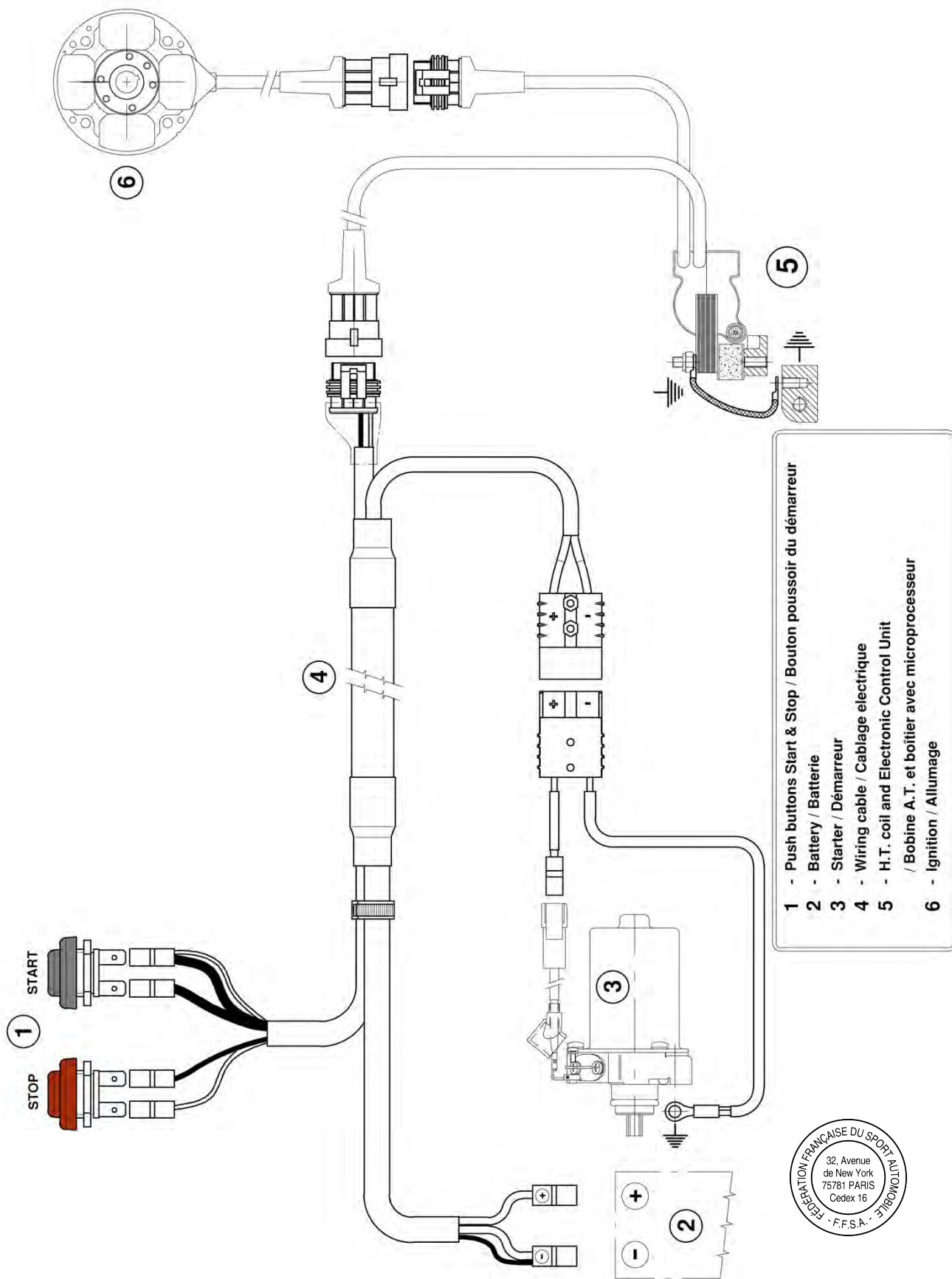


EXHAUST HEADER (Junior) - DIMENSIONS AND MARKING  
COLLECTEUR D'ÉCHAPPEMENT (Junior) – DIMENSIONS ET MARQUAGE

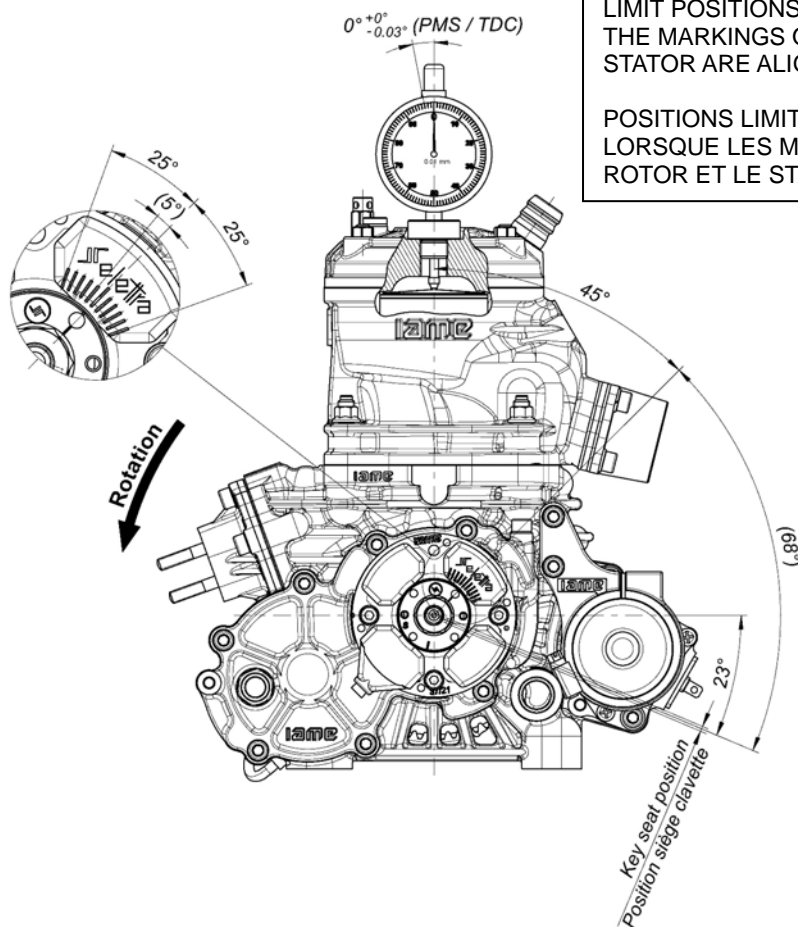
Restrictor / Restricteur Ø26 mm



WIRING DIAGRAM (SELETTRA DIGITAL "S" IGNITION)  
SCHEMA DU CIRCUIT ELECTRIQUE (ALLUMAGE SELETTRA DIGITAL "S")



# SCHEME FOR ADVANCE CHECKING SCHEMA POUR LE CONTROLE DE L'AVANCE

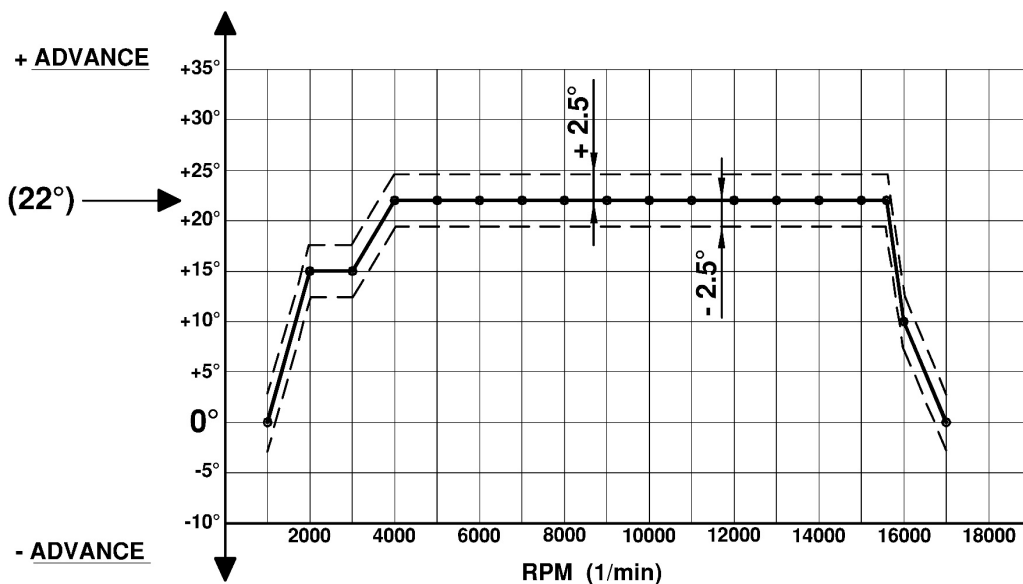


LIMIT POSITIONS OF THE PISTON WHEN  
THE MARKINGS ON ROTOR AND  
STATOR ARE ALIGNED

POSITIONS LIMITE DU PISTON  
LORSQUE LES MARQUAGES SUR LE  
ROTOR ET LE STATOR SONT ALIGNÉS



## ADVANCE CURVE GRAPHS / DIAGRAMME DE L'AVANCE



## "C" MAPPING / MAPPAGE

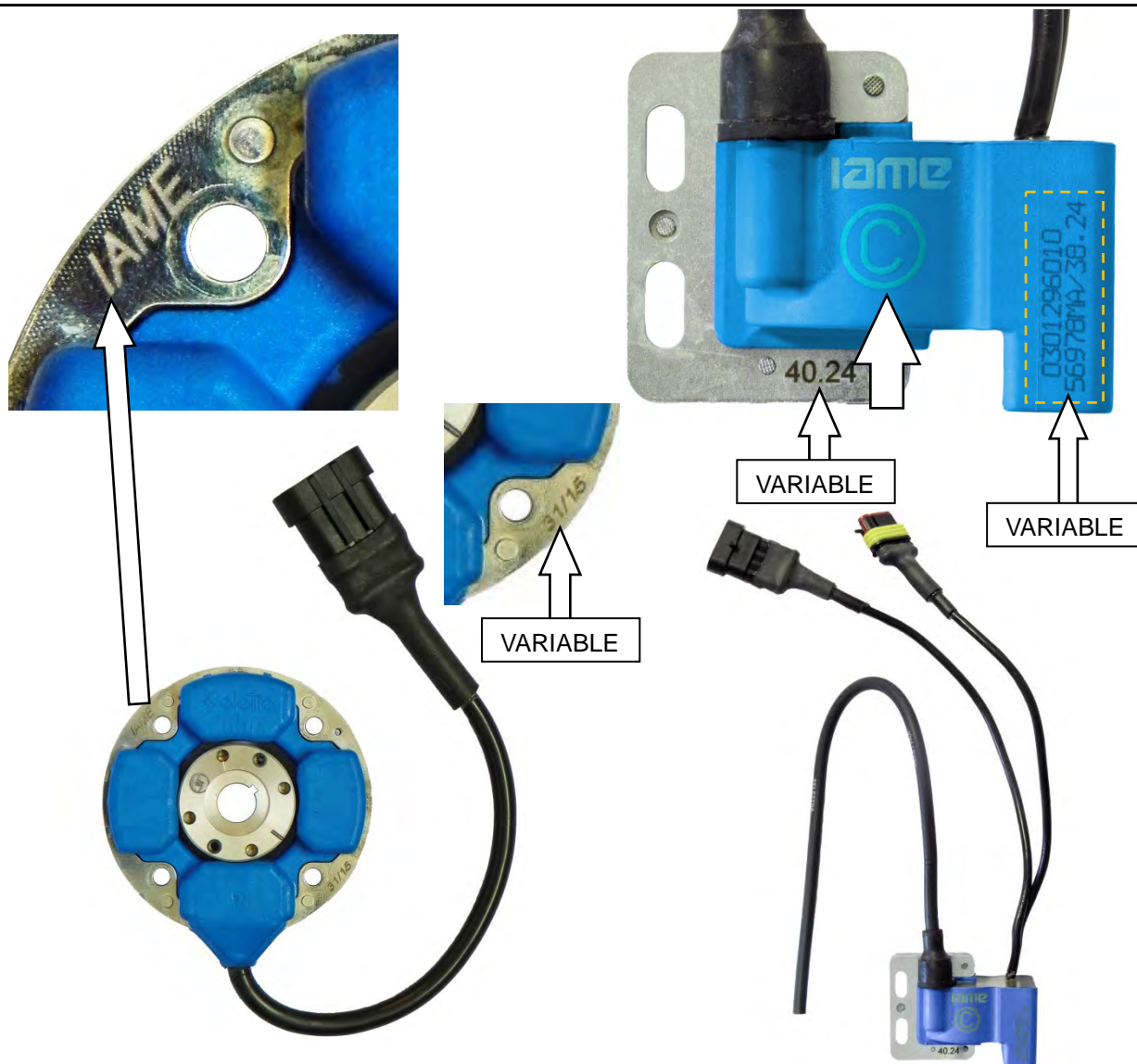
Tr/ min	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000	15500	16000	17000
°adv	0°	15°	15°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	10°	0°



PHOTO OF THE WIRING LOOM – PHOTO DU CABLAGE ELECTRIQUE

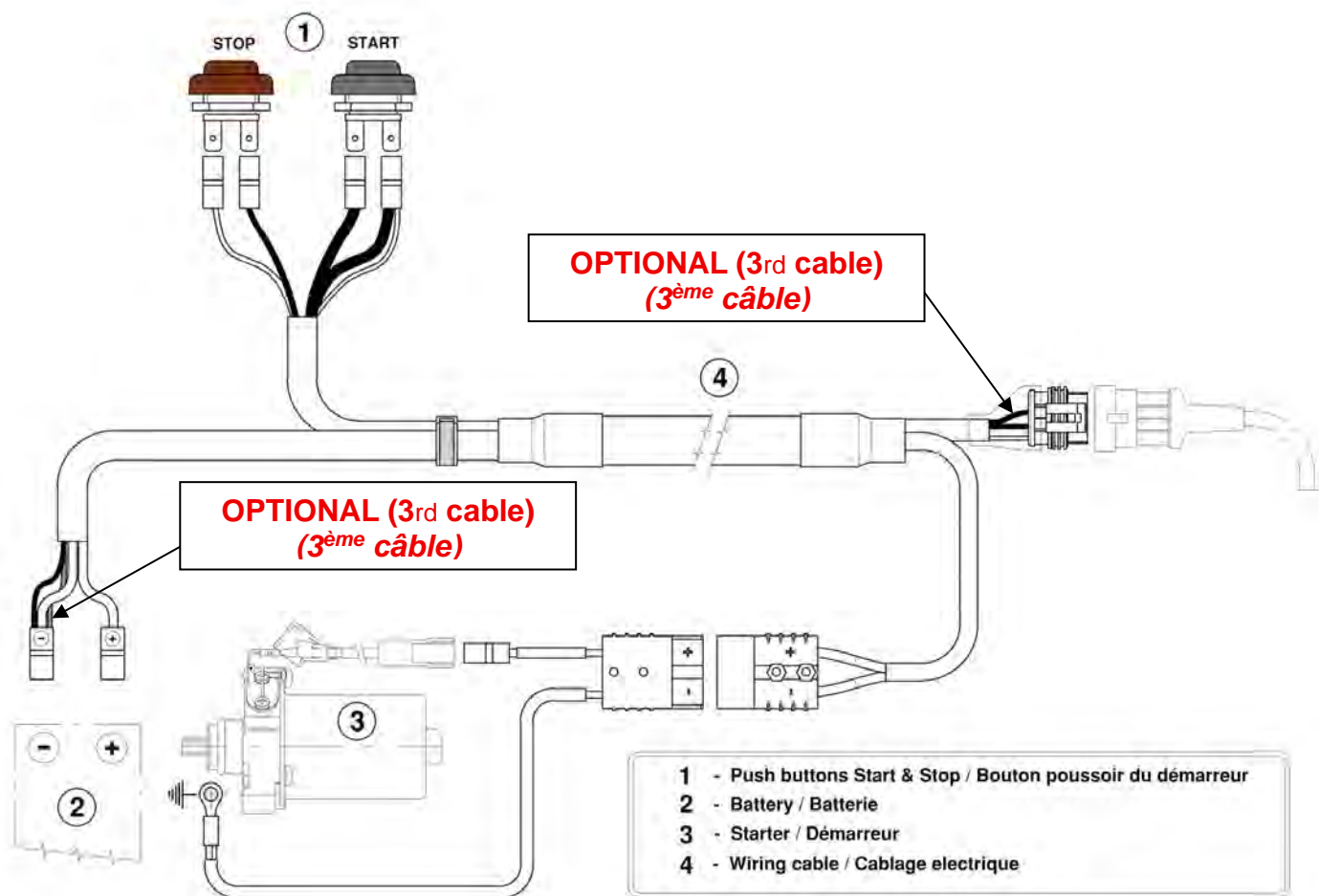


PHOTO OF SELETTA DIGITAL “S” IGNITION WITH “IAME” MARKING  
PHOTO DE L’ALLUMAGE SELETTA DIGITAL “S” AVEC MARQUAGE “IAME”

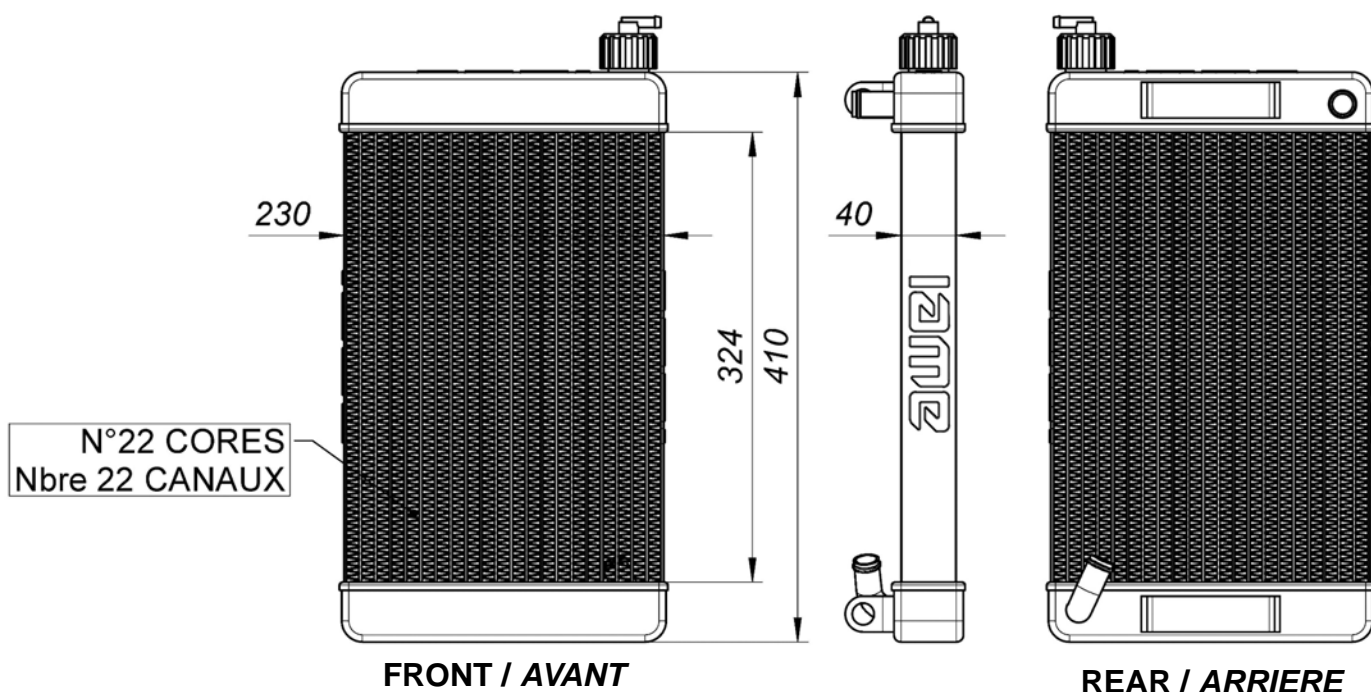




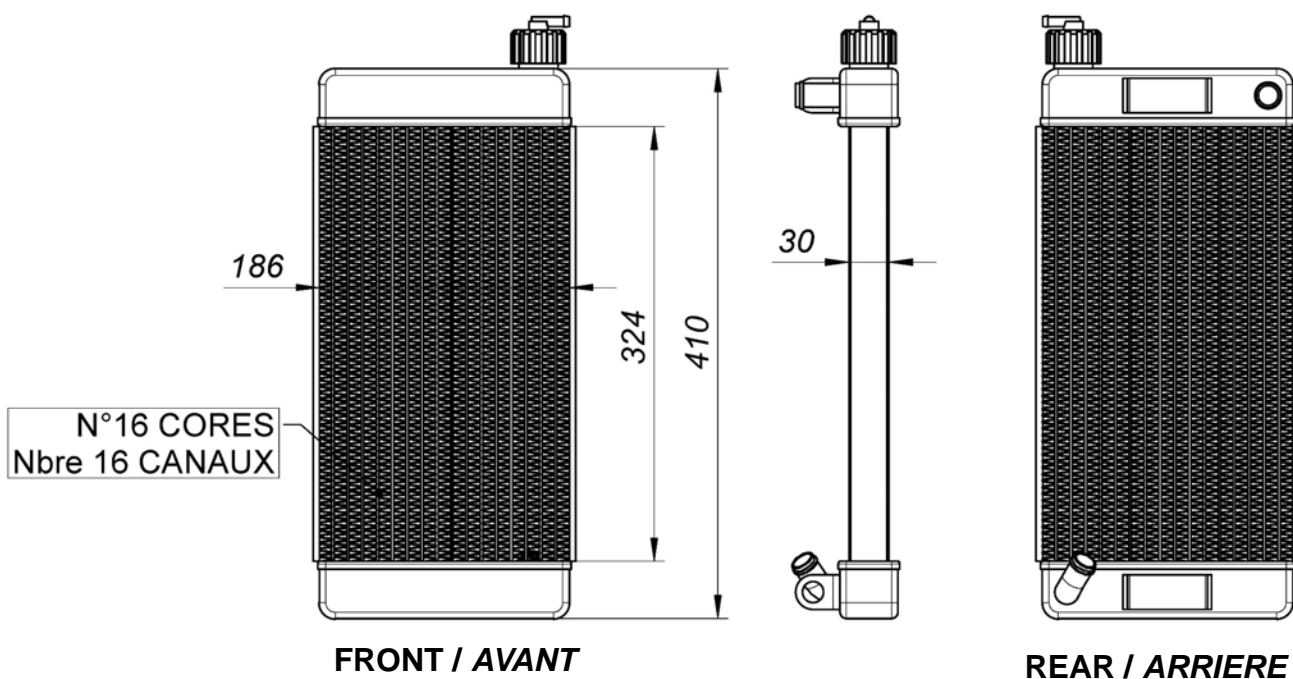
## ALTERNATIVE WIRING LOOM – ALTERNATIF CABLAGE ELECTRIQUE



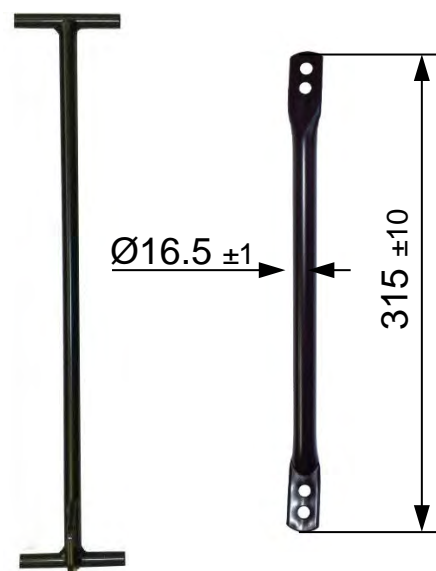
RADIATOR AND SUPPORTS – TYPE 1  
RADIATEUR ET SES SUPPORTS – TYPE 1



ALTERNATIVE RADIATOR AND SUPPORTS – TYPE 2  
 RADIATEUR ALTERNATIF ET SES SUPPORTS – TYPE 2

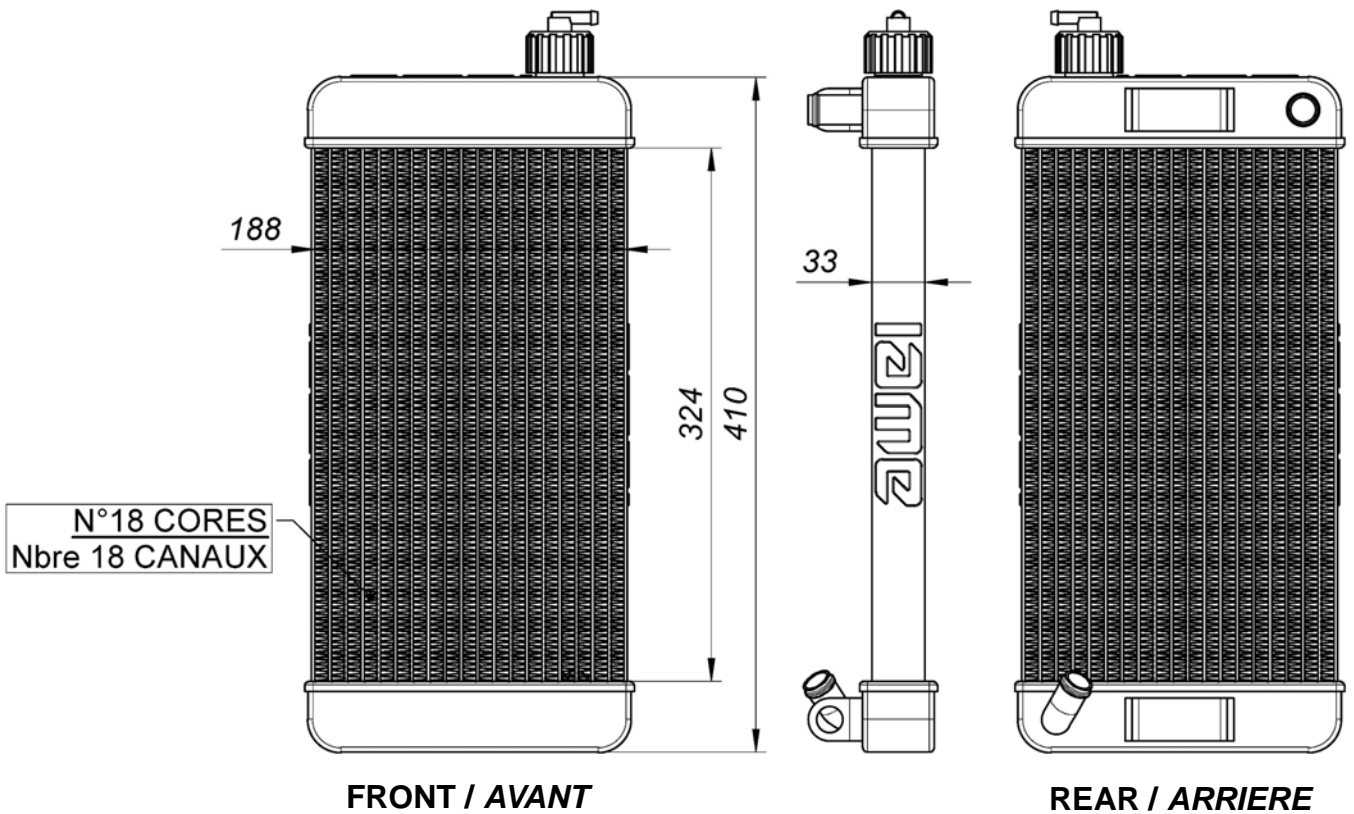


PAINTED AND NOT PAINTED  
 PEINT ET PAS PEINT

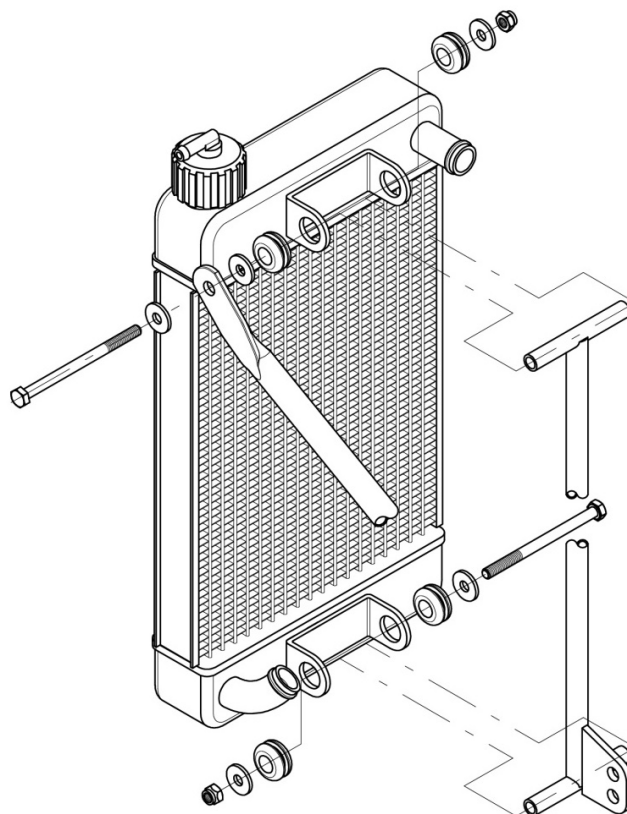




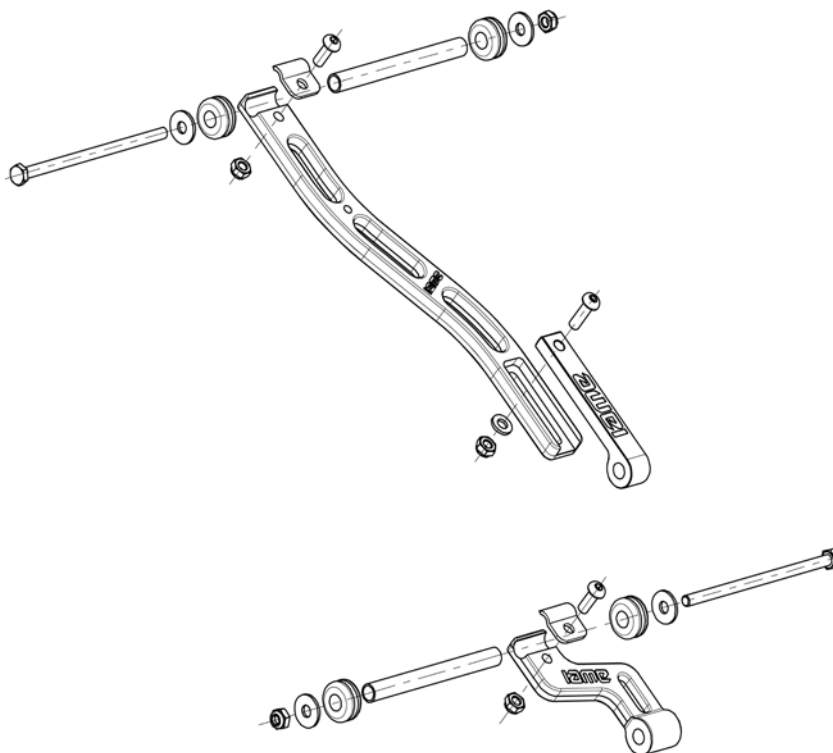
ALTERNATIVE RADIATOR AND SUPPORTS – TYPE 3  
RADIATEUR ALTERNATIF ET SES SUPPORTS – TYPE 3



RADIATOR ASSY WITH SUPPORTS  
GROUPE RADIATEUR AVEC SES SUPPORTS



ALTERNATIVE SUPPORTS  
SUPPORTS ALTERNATIF



THERMOSTAT  
THERMOSTAT

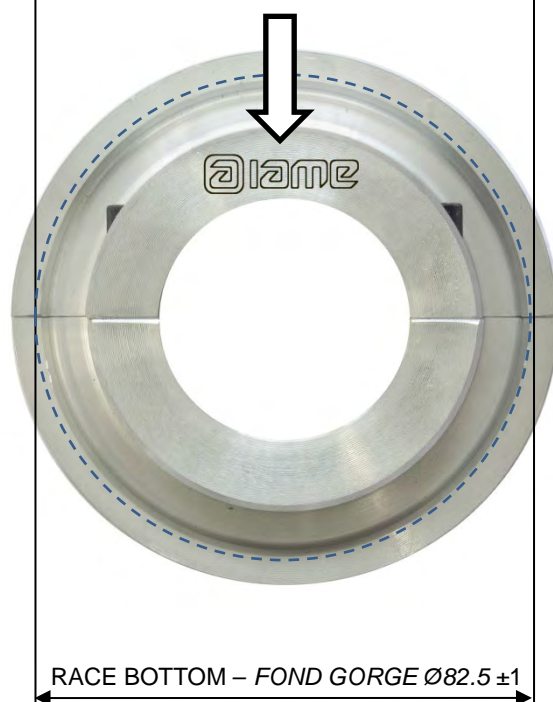
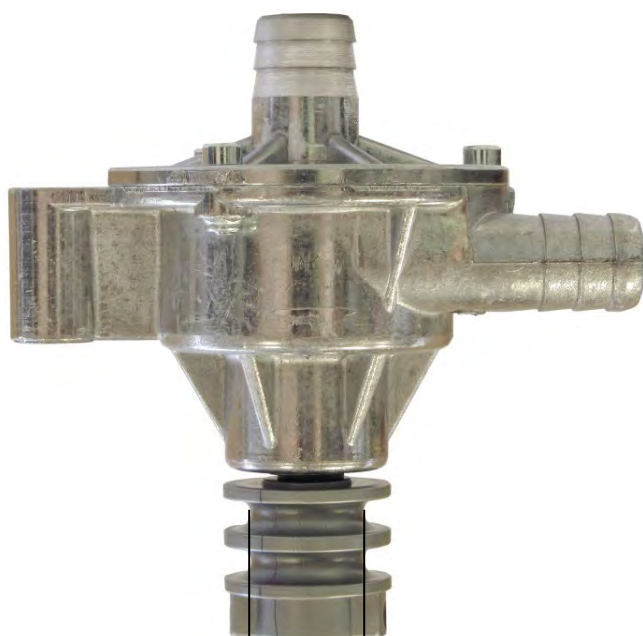


ALTERNATIVE  
ALTERNATIF

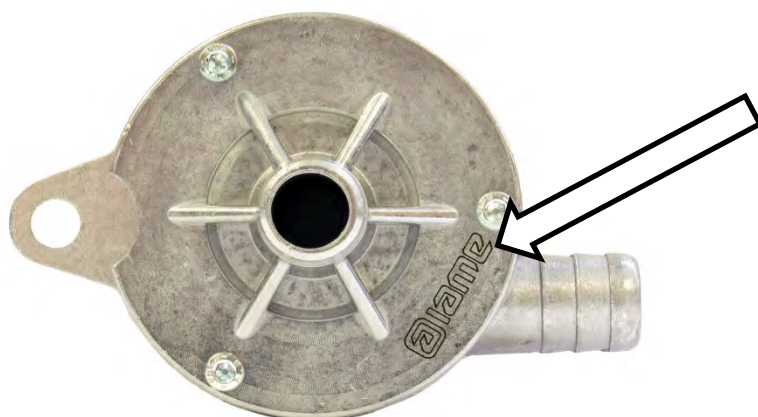




WATER PUMP & PULLEY  
GROUPE POMPE À EAU ET POULIE



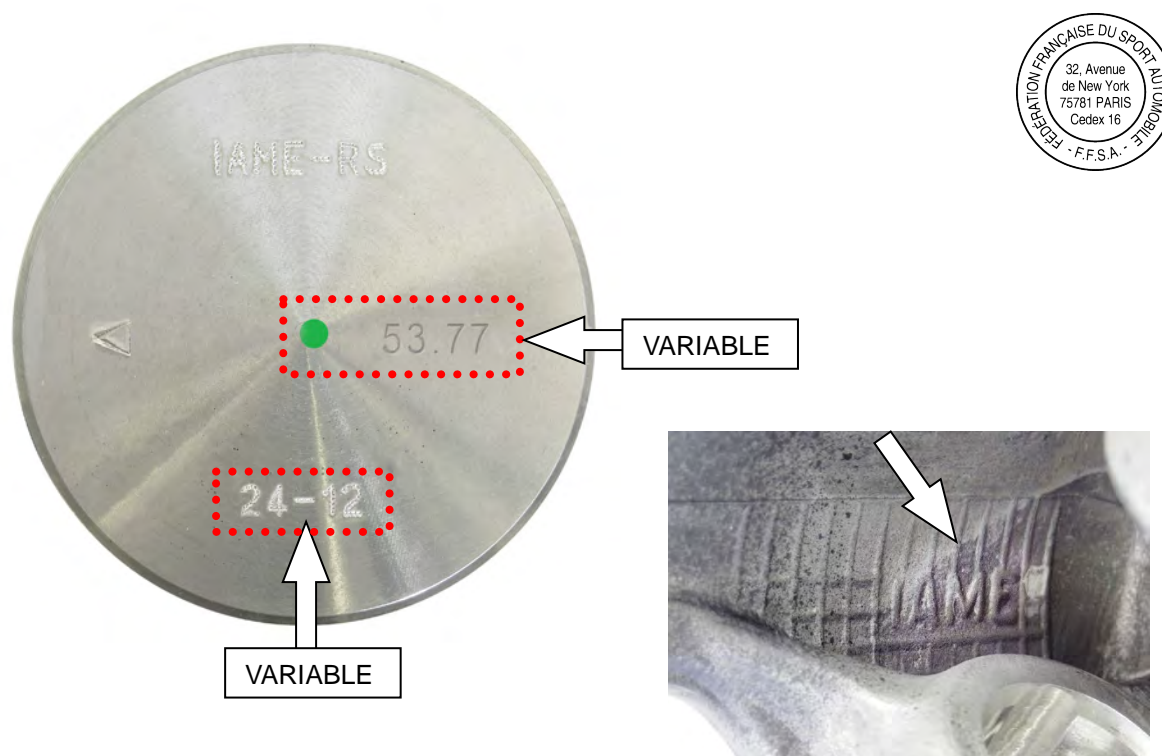
RACE BOTTOM - FOND GORGE  
Ø20 ±1



PISTON IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU PISTON



PISTON IDENTIFICATION ALTERNATIVE MARKING  
MARQUAGE ALTERNATIF D'IDENTIFICATION DU PISTON



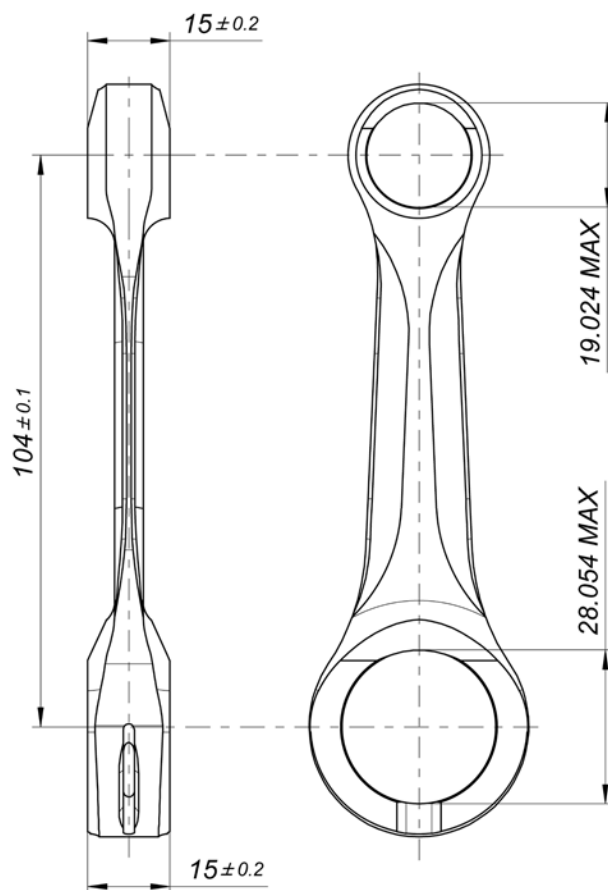
CONROD IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DE LA BIELLE



VARIABLE



ALTERNATIVE CONROD  
 BIELLE ALTERNATIVE



Min. weight 121 g  
 Poids min. 121 g

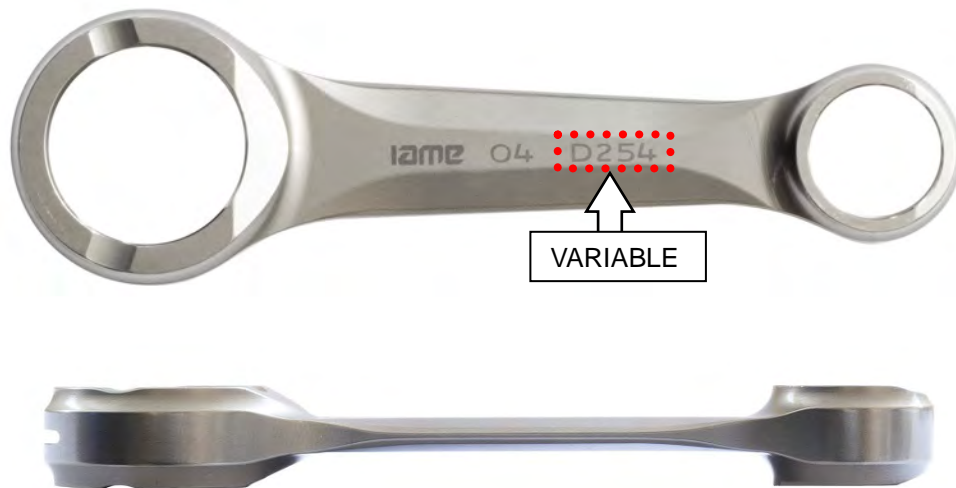
PHOTO OF THE CONROD BOTH SIDES – ALTERNATIVE  
 PHOTO DES DEUX COTES DE LA BIELLE – ALTERNATIVE



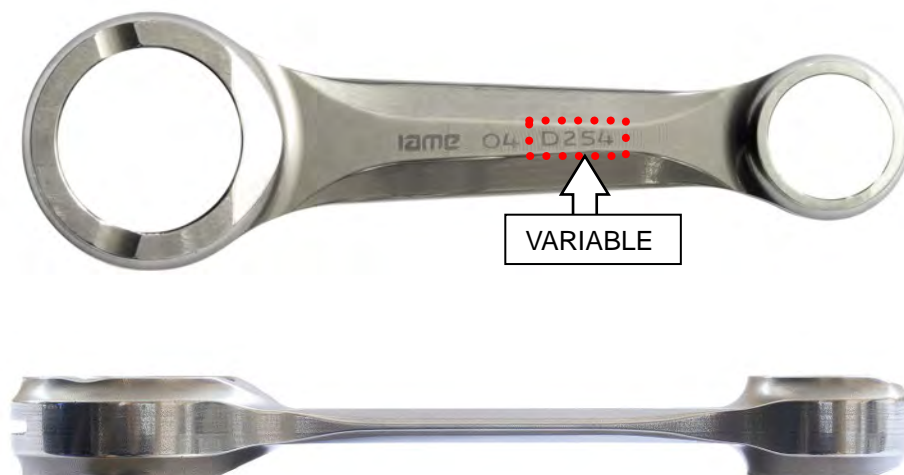


CONROD - DIFFERENT FINISH  
BIELLE - DIFFÉRENT FINITION

STANDARD FINISH  
FINITION STANDARD

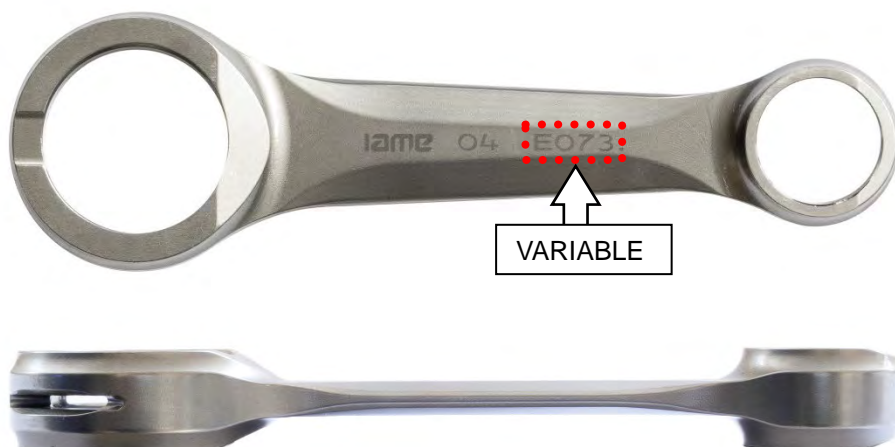


GLOSSY FINISH  
FINITION BRILLANTE

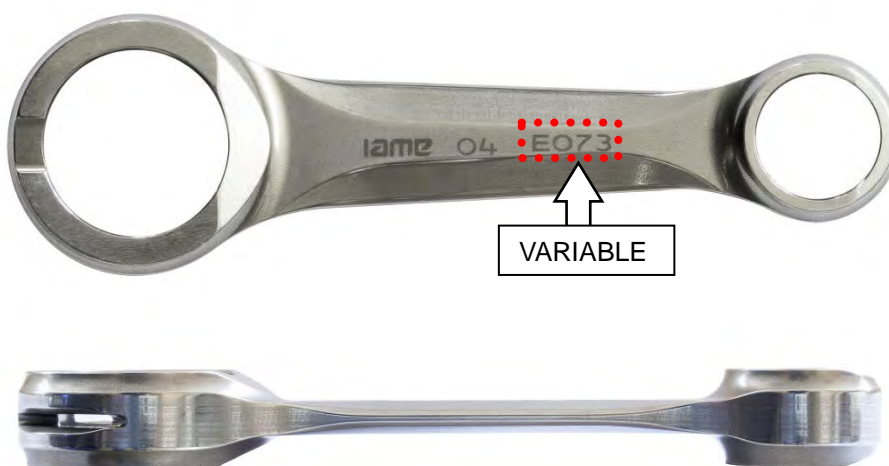


ALTERNATIVE CONROD - DIFFERENT FINISH  
*BIELLE ALTERNATIF - DIFFÉRENT FINITION*

STANDARD FINISH  
*FINITION STANDARD*

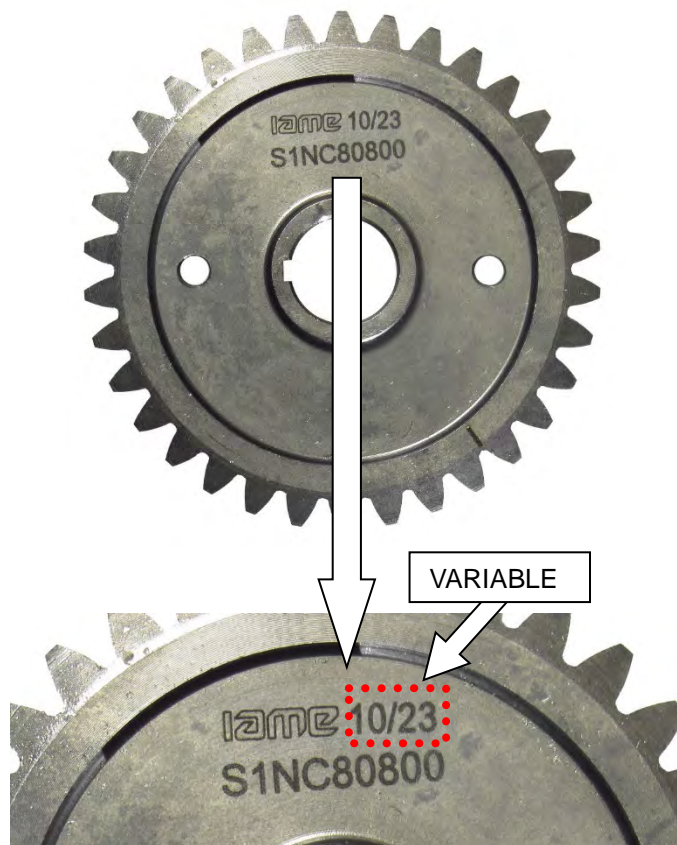


GLOSSY FINISH  
*FINITION BRILLANTE*

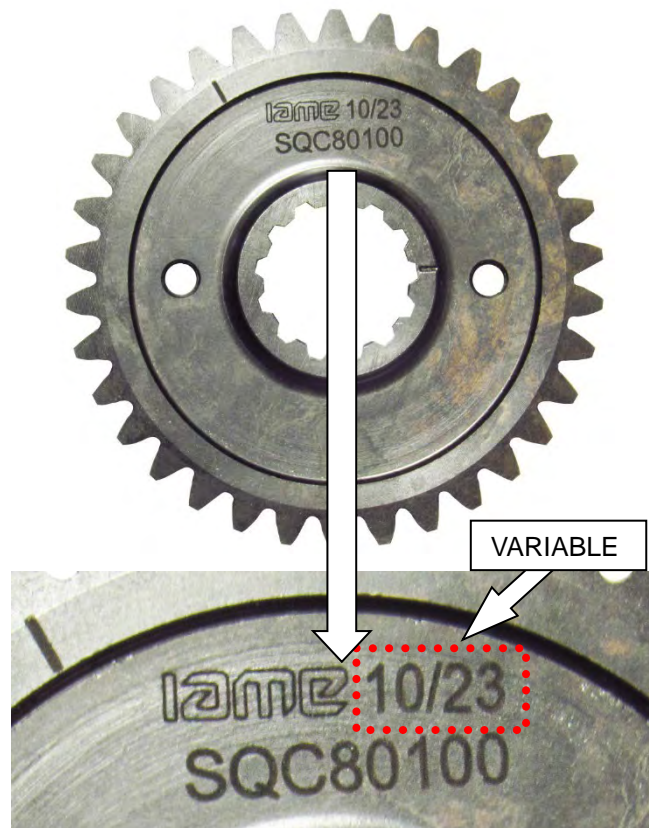




BALANCER SHAFT GEAR IDENTIFICATION  
MARKING  
MARQUAGE D'IDENTIFICATION  
ENGRENAGE D'ARBRE D'EQUILIBRAGE



CRANKSHAFT GEAR IDENTIFICATION  
MARKING  
MARQUAGE D'IDENTIFICATION  
ENGRENAGE VILEBREQUIN



BALANCER SHAFT IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION ARBRE D'EQUILIBRAGE



CRANKSHAFT IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU VILEBREQUIN



SPROCKET IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU PIGNON

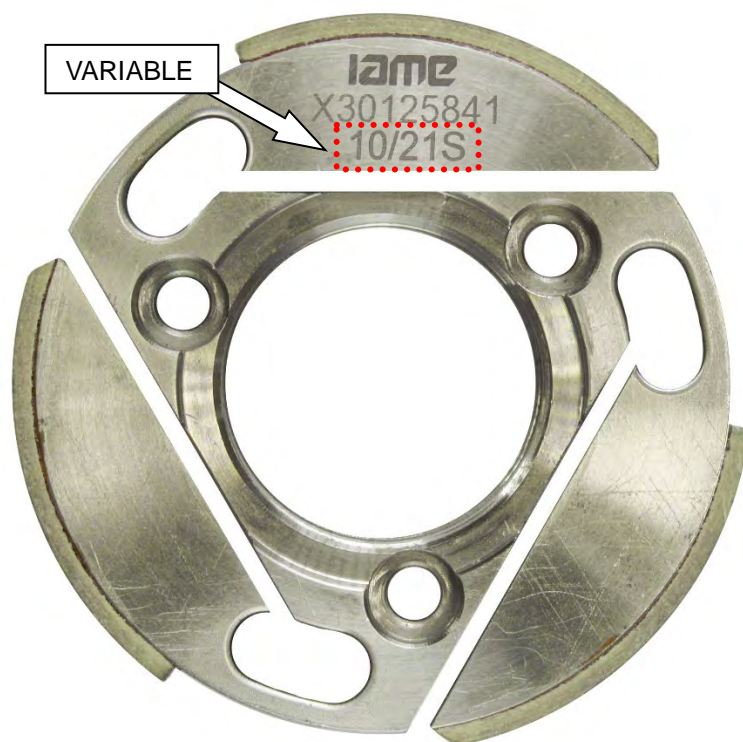


CLUTCH DRUM IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DE LA CALOTTE





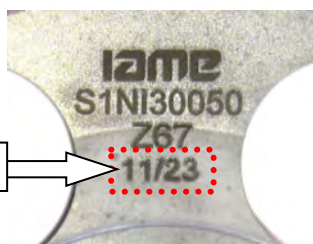
CLUTCH HUB IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU MOYEU D'EMBRAYAGE



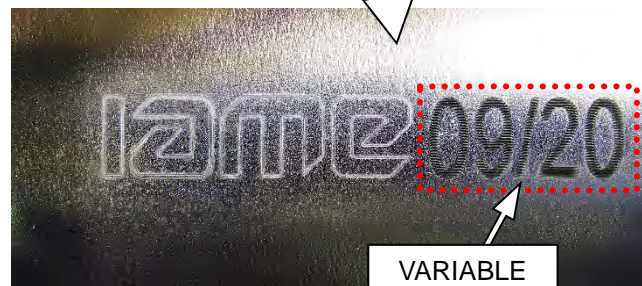
ALTERNATIVE  
FRICTION MATERIAL  
MATERIAU DE  
FRICTION  
ALTERNATIVE



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

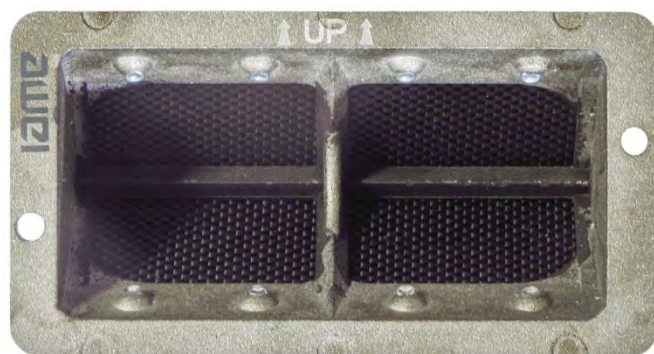


STARTER IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU  
DEMARREUR





REED GROUP & PETALS IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DE LA BOÎTE À CLAPETS ET DES CLAPETS



**MATERIAL: CARBON FIBER**  
Thickness / Epaisseur  
minimum: 0.22 mm

INLET CONVEYOR  
PHOTO IDENTIFICATION  
MARQUAGE D'IDENTIFICATION DU  
COLLECTEUR D'ADMISSION

CLUTCH COVER IDENTIFICATION MARKING  
MARQUAGE DU COUVERCLE  
D'EMBRAYAGE



PHOTO OF THE INSIDE OF THE RIGHT CRANKCASE  
*PHOTO INTÉRIEUR DU CARTER DROIT*

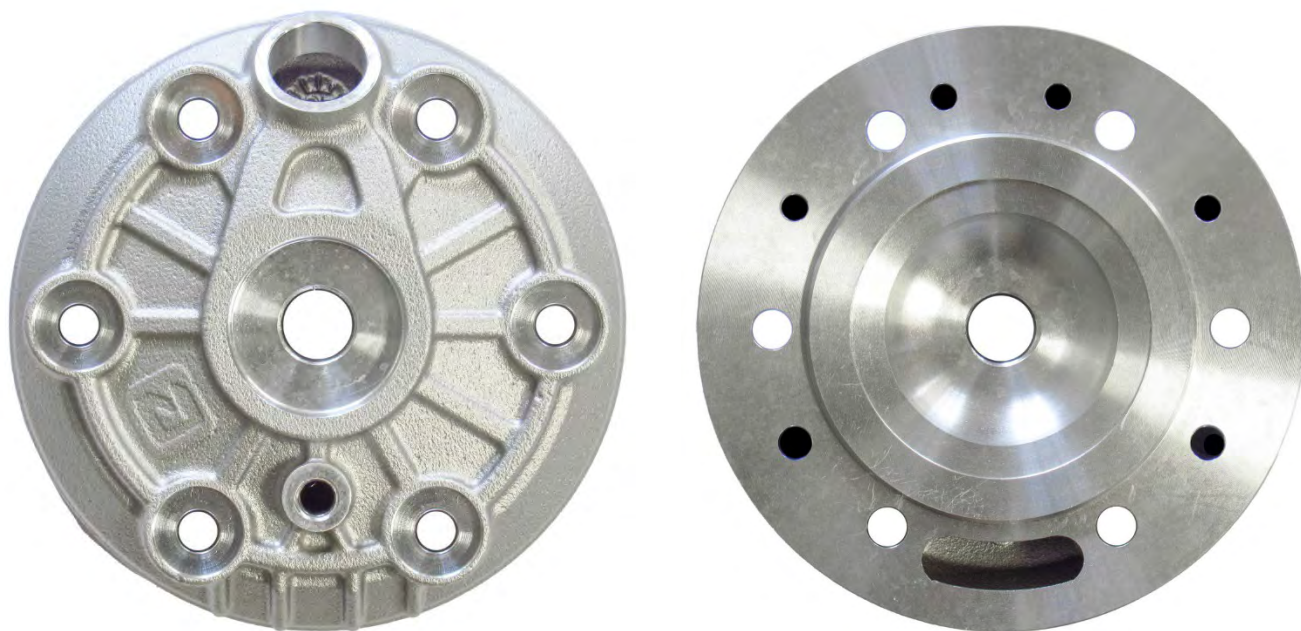


PHOTO OF THE INSIDE OF THE LEFT CRANKCASE  
*PHOTO INTÉRIEUR DU CARTER GAUCHE*

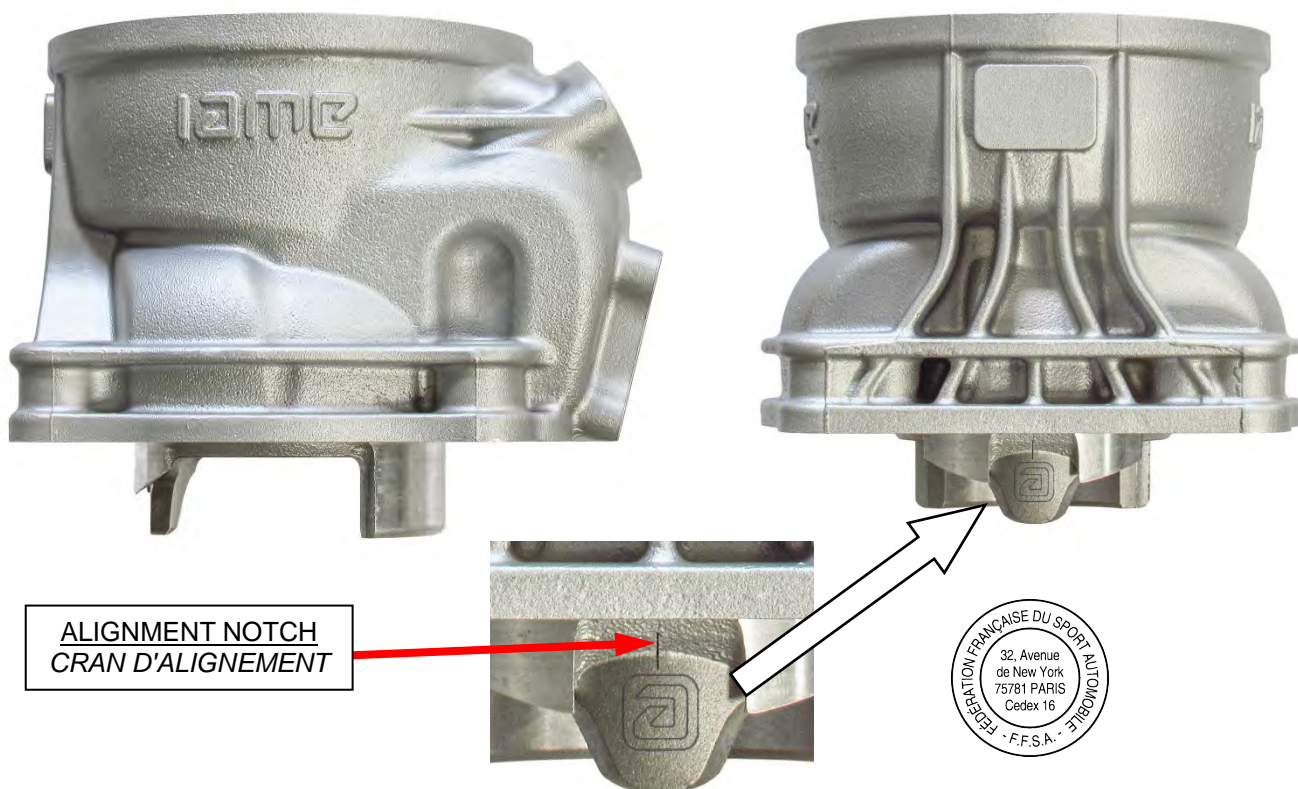




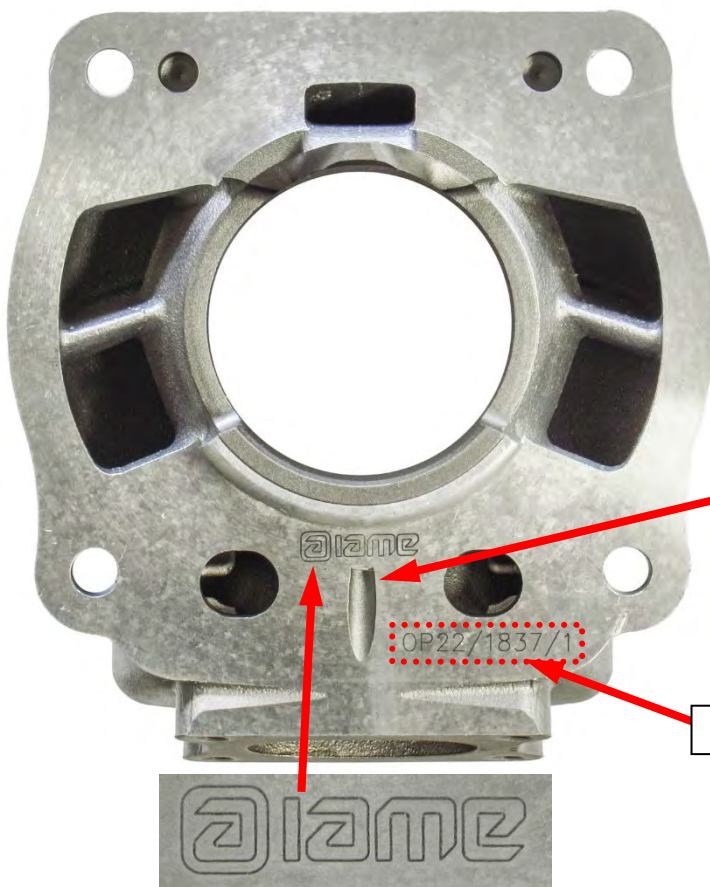
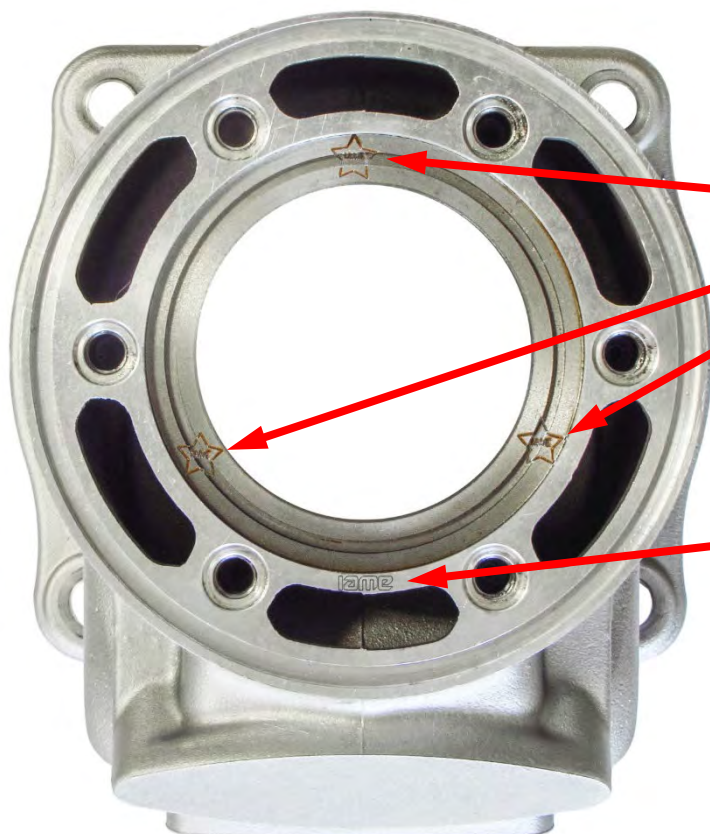
PHOTO IDENTIFICATION CYLINDER HEAD  
 PHOTO D'IDENTIFICATION DE LA CULASSE DU CILINDRE



CYLINDER IDENTIFICATION MARKING  
 MARQUAGE D'IDENTIFICATION DU CYLINDRE



CYLINDER IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU CYLINDRE



**MANDATORY LINER LOCKING PIN**  
**GOUPILLE OBLIGATOIRE DE BLOCAGE DE LA**  
**CHEMISE**

VARIABLE

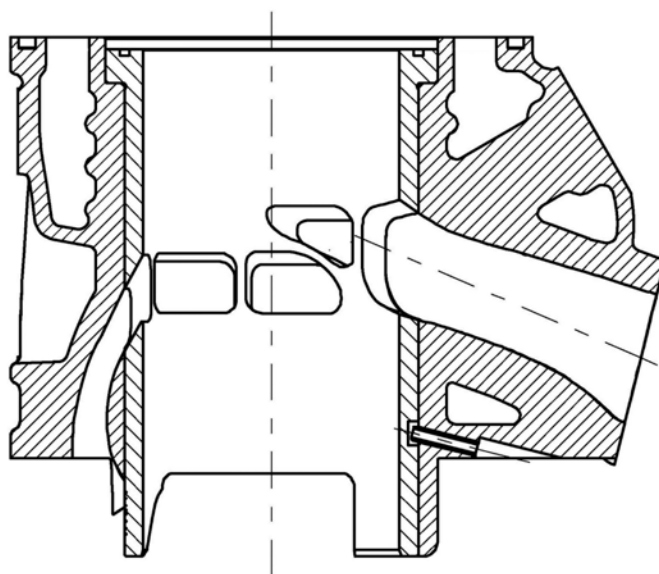




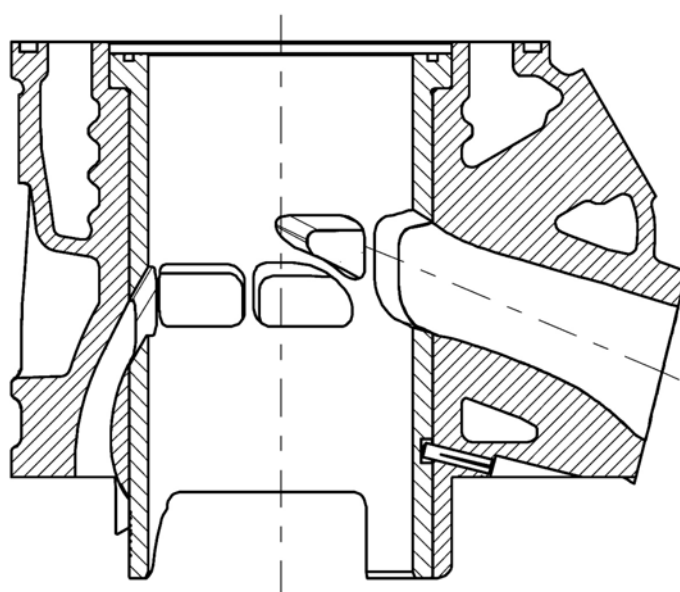
## FROM 2025 ON - A PARTIR DE 2025

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

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



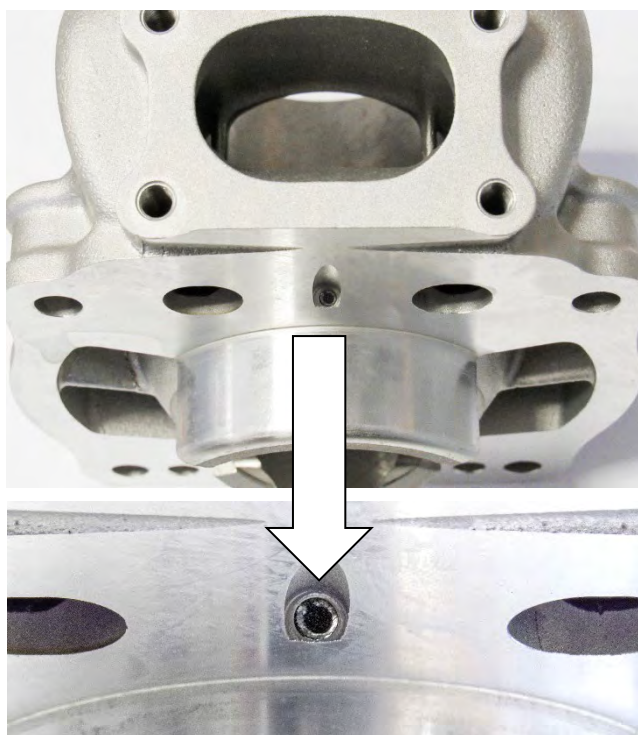
ALTERNATIVE PIN (GROOVED PIN)  
*GOUPILLE ALTERNATIF - (GOUPILLE CANNELÉE)*



## FROM 2025 ON - A PARTIR DE 2025

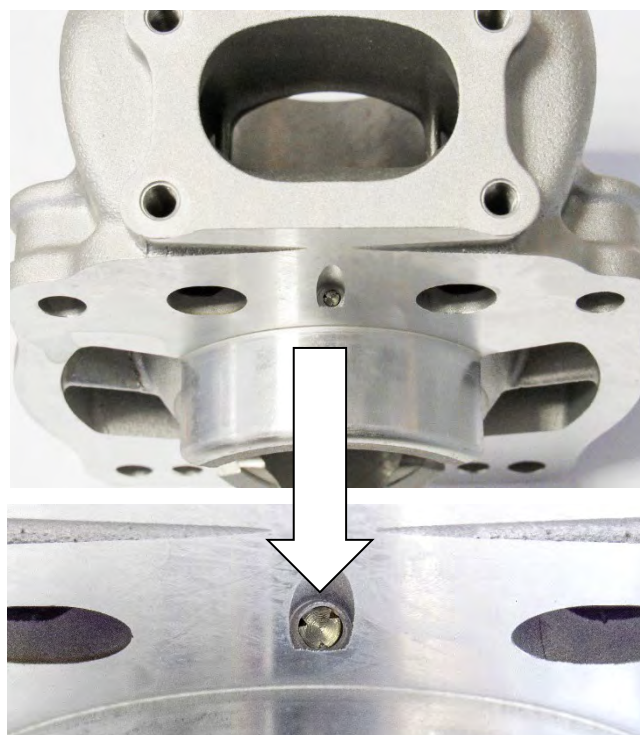
CYLINDER IDENTIFICATION – ALTERNATIVE CYLINDER LINER LOCK PIN  
*IDENTIFICATION DU CYLINDRE – GOUPILLE DE BLOCAGE DE LA ACHEMISE ALTERNATIF*

CURRENT PIN  
*GOUPILLE COURANTE*



SPRING PIN  
*GOUPILLE À RESORT*

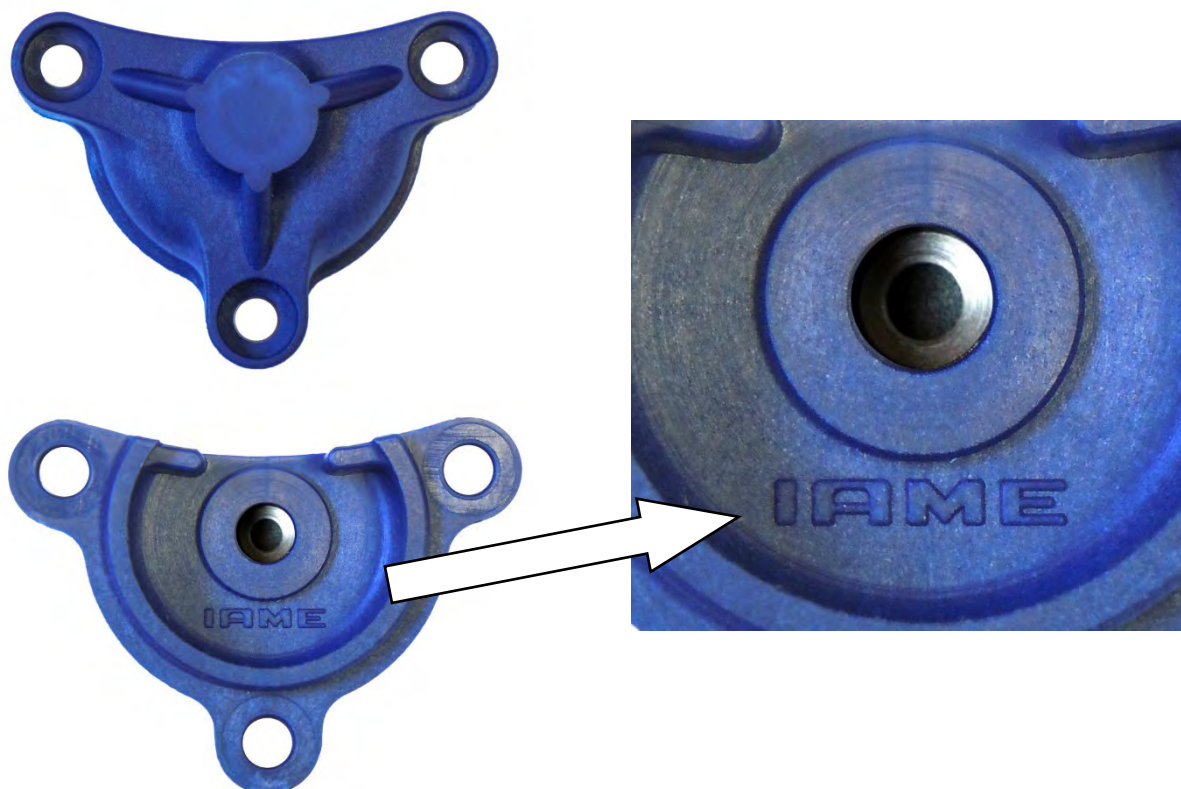
ALTERNATIVE PIN  
*GOUPILLE ALTERNATIF*



GROOVED PIN  
*GOUPILLE CANNELÉE*



BENDIX COVER IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU COUVERCLE  
DU BENDIX



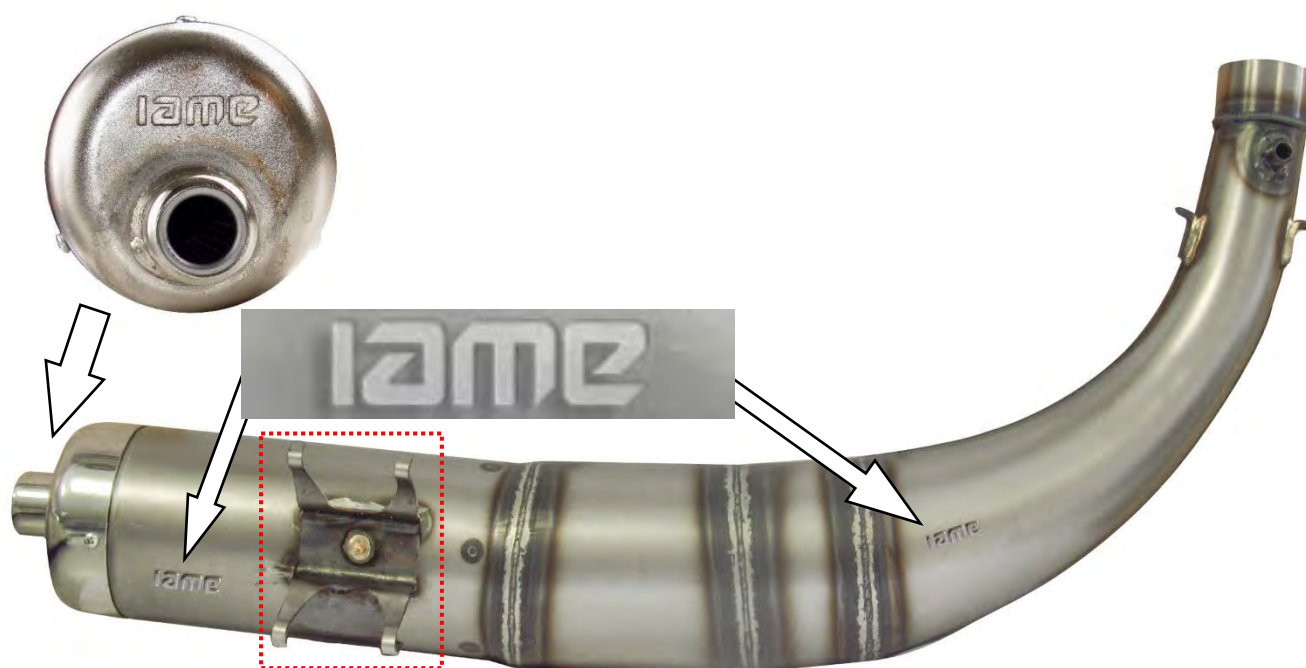
GEARS COVER IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU COUVERCLE ENGRENAGES



STARTER SUPPORT IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION DU SUPPORT DEMARREUR



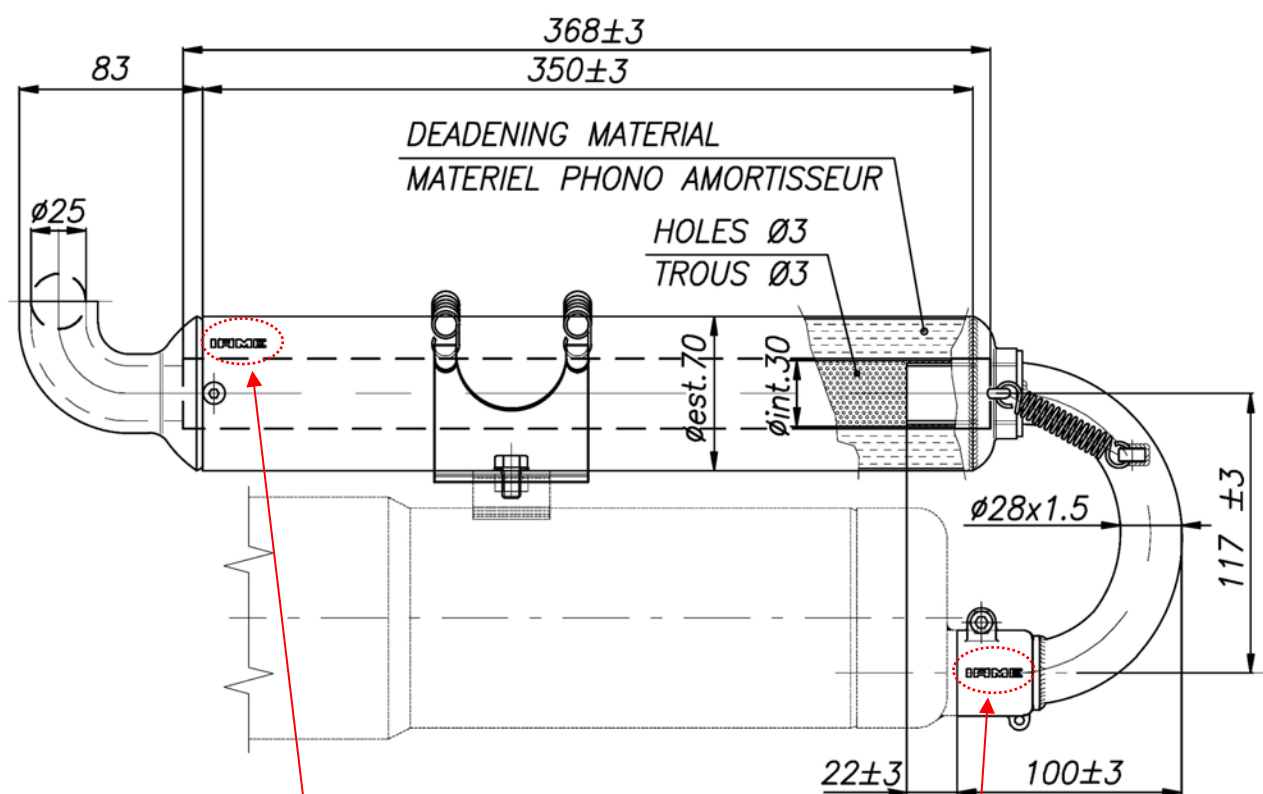
EXHAUST IDENTIFICATION MARKING  
MARQUAGE D'IDENTIFICATION D'ÉCHAPPEMENT



Mandatory unless otherwise prescribed by the regulation  
Obligatoire sauf disposition contraire du règlement



**EXHAUST SILENCER (Mandatory unless otherwise prescribed by the regulation)**  
**SILENCIEUX D'ÉCHAPPEMENT (Obligatoire sauf disposition contraire du règlement)**



OR / OU



OR / OU



**IAME MARKING / MARQUAGE IAME**





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

**LES AUTRES COMPOSANTS DU MOTEUR AVEC COMME MARQUAGE (LASER OU POINÇONNEUSE) L'ANCIEN LOGO OU ÉCRIT «IAME»**

IAME

**or**

IAME

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

**POURRAIENT MAINTENANT ETRE MARQUES AVEC LE NOUVEAU LOGO "IAME"**

iame

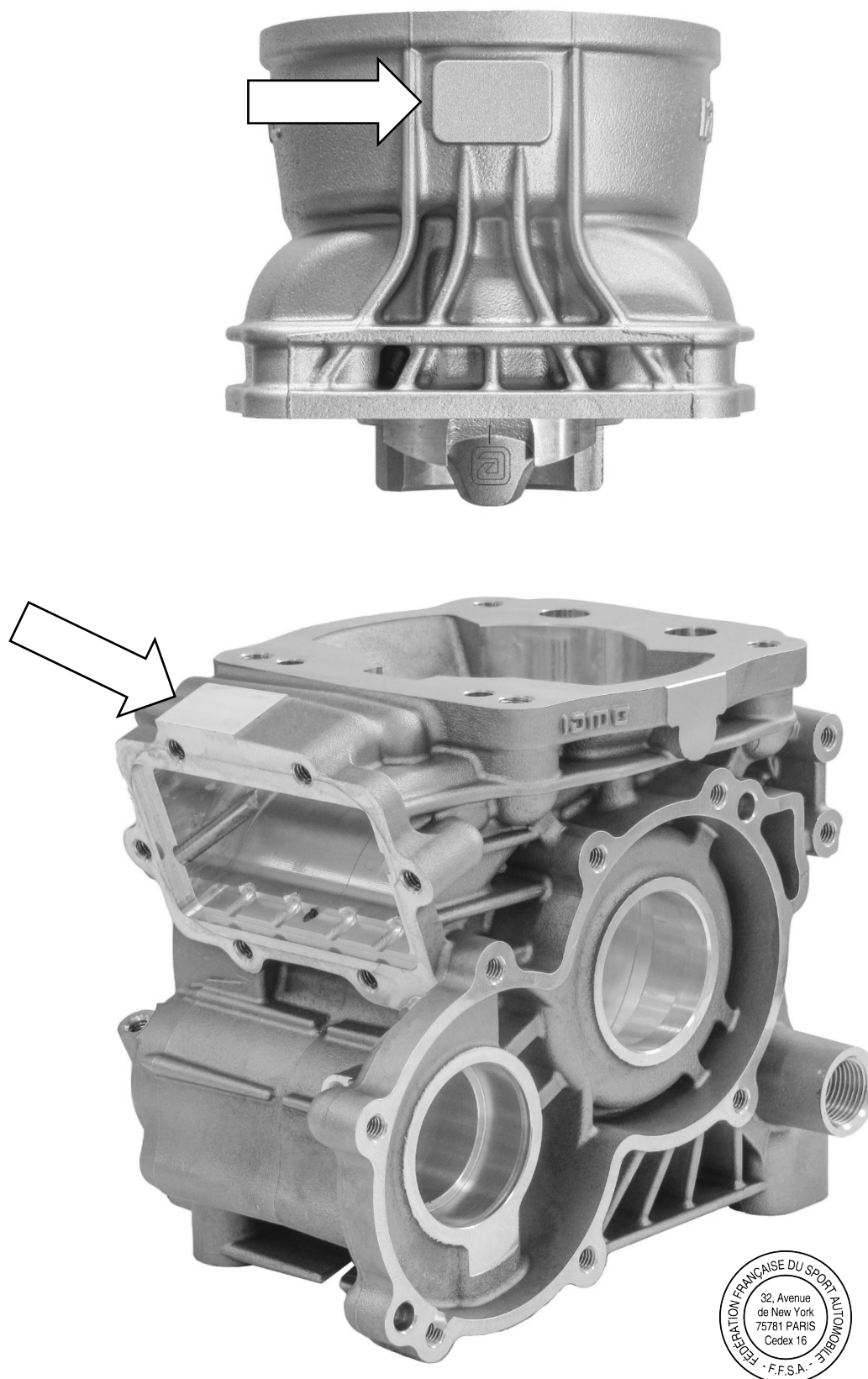
**or**

@iame

**or**

@







# CARBURETTOR / CARBURATEUR TILLOTSON HW-50A



PHOTO OF ADJUSTING SIDE  
PHOTO CÔTÉ RÉGLAGE



PHOTO OF INLET SIDE  
PHOTO CÔTÉ D'ADMISSION

Manufacturer - Constructeur

**TILLOTSON LTD.**

Make - Marque

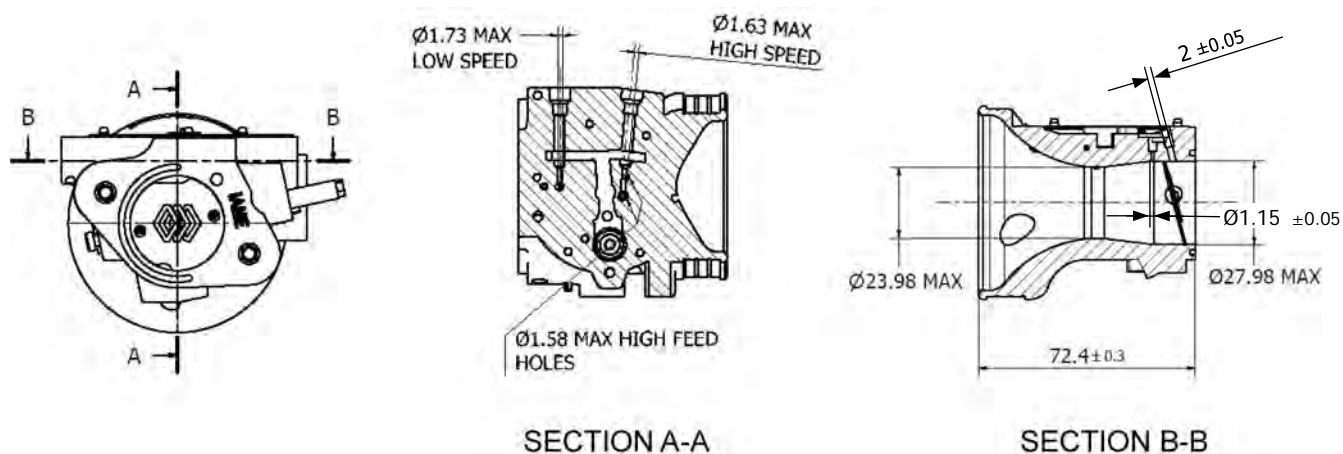
**TILLOTSON**

Model - Modèle

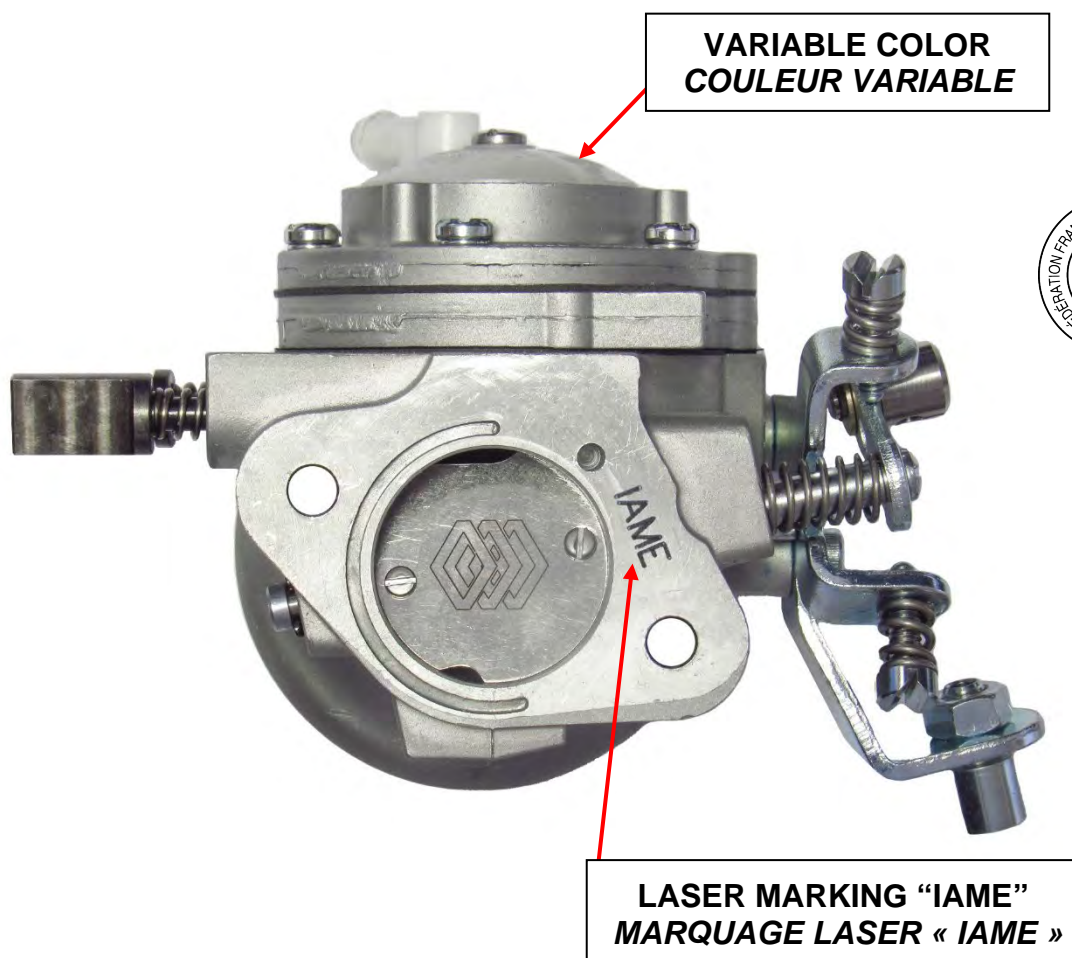
**HW-50A**



## SECTION VIEW – VUE DE SECTION AVEC DIMENSIONS



## MARKING « IAME » – MARQUAGE « IAME »





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

HW-50A EXPLODED VIEW

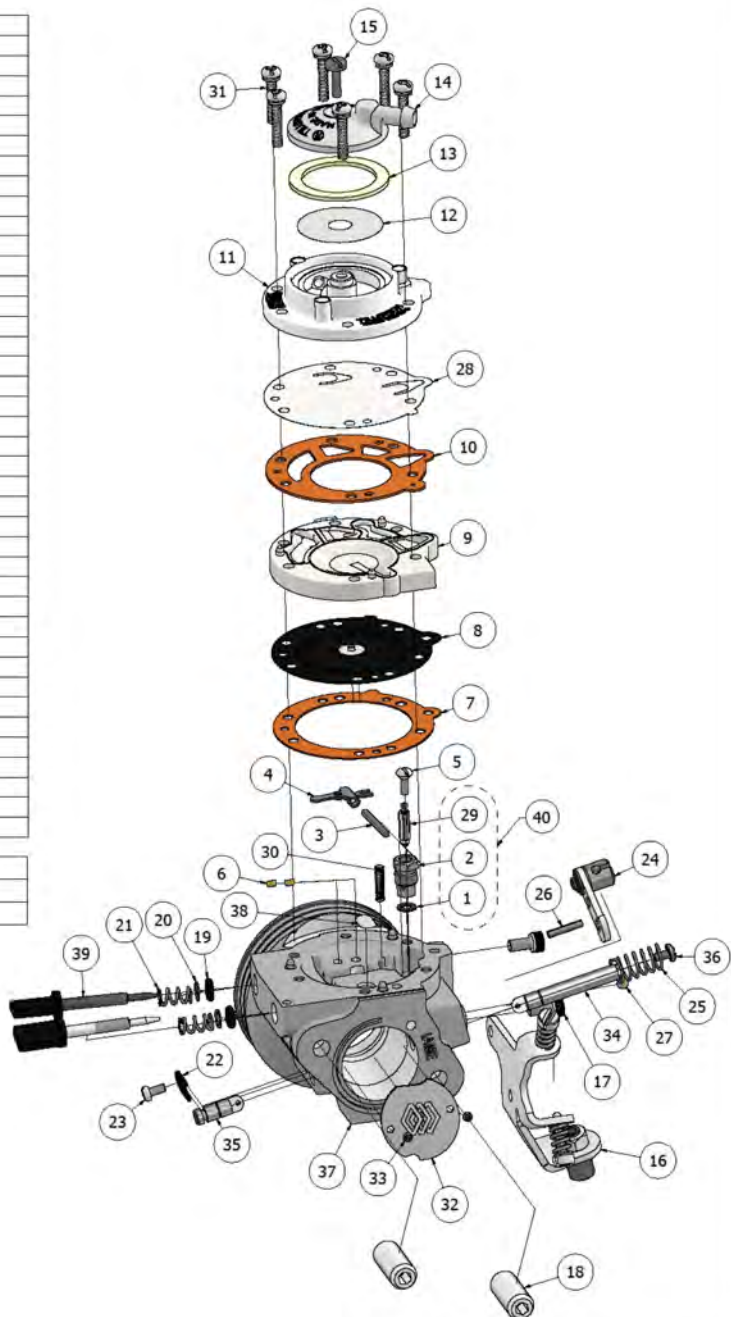
PARTS LIST				
ITEM	QTY	PART NUMBER	DESCRIPTION	
1	1	16-B199	* COPPER GASKET, INLET SEAT	
2	1	36-A42	* INLET SEAT	
3	1	32-79	FULCRUM LEVER PIN	
4	1	155-A27	* INLET VALVE CONTROL LEVER	
5	1	15-B329	FULCRUM LEVER SCREW	
6	2	80-160	BRASS PLUG	
7	1	16-B406	*+ DIAPHRAGM GASKET (ORANGE)	
8	1	237-600	*+ DIAPHRAGM ASSEMBLY	
9	1	91-A275	DIAPHRAGM COVER	
10	1	16-B407	*+ FUEL PUMP GASKET (ORANGE)	
11	1	141-89	PUMP COVER	
12	1	95-170	* FUEL STRAINER SCREEN	
13	1	16-B205	*+ STRAINER GASKET	
14	1	91-A251	WHITE STRAINER COVER	
15	1	15-B313	COVER SCREW	
16	1	136-562	CABLE BRACKET ASSEMBLY	
17	2	15-C67	M4 X 0.7 SOCKET CAP SCREW	
18	2	81-377	CARBURETTOR MOUNTING NUT	
19	2	44-361	ADJUSTMENT SCREW O-RING	
20	2	78-A256	ADJUSTMENT SCREW WASHER	
21	2	24-B449	ADJUSTMENT SCREW SPRING	
22	1	29-224	THROTTLE SHAFT CLIP	
23	1	15-C19	4-40 UNC SCREW	
24	1	12-1220	THROTTLE LEVER ASSEMBLY	
25	1	24-B381	THROTTLE RETURN SPRING	
26	1	62-A92	PIN	
27	1	206-135	4MM BRASS BALL	
28	1	237-223	*+ FUEL PUMP DIAPHRAGM	
29	1	34-216	* INLET NEEDLE	
30	1	24-C298	INLET TENSION SPRING 42g	
31	6	15-C51	6 - 32 UNC SCREW	
32	1	14-A140	THROTTLE SHUTTER	
33	2	15-C105	M2 X .4 SCREW	
34	1	13-B220B	SPLIT THROTTLE SHAFT LONG	
35	1	13-B220A	SPLIT THROTTLE SHAFT SHORT	
36	1	15-C52	LEVER SCREW	
37	1	219-D333TL	HW MACHINED BODY	
38	1	179-69	WELCH PLUG	
39	2	43-1035	IDLE MIXTURE SCREW	

40	1	233-721P	INLET SEAT & NEEDLE ASSEMBLY PACK
	1	DG-10HW	DIAPHRAGM& GASKEY KIT
	1	RK-14HW	REPAIR KIT

NOTES:

\* INDICATES CONTENTS OF REPAIR KIT

\*+ INDICATES CONTENTS OF DIAPHRAGM & GASKET KIT



**Tillotson**  
RACING



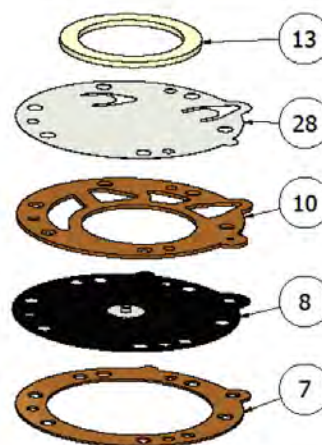
**IAME**



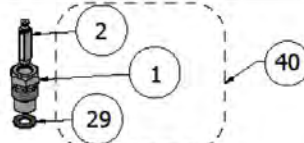
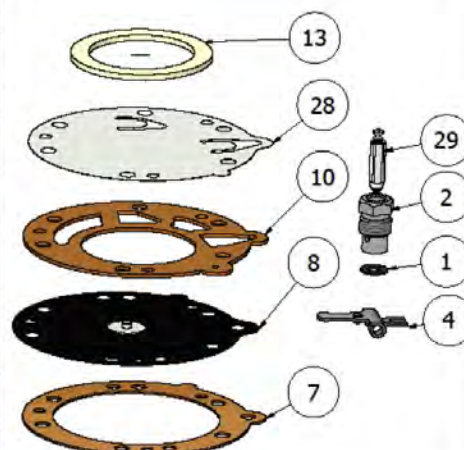
# CARBURETTOR DESCRIPTION AND SKETCH OF PARTS CARBURATEUR - DESCRIPTION ET DESSIN DES PIÈCES

## HW-50A REPAIR KIT EXPLODED VIEW

DIAPHRAGM & GASKET KIT [DG-10HW]			
ITEM	QTY	PART NUMBER	DESCRIPTION
7	1	16-B406	*+ DIAPHRAGM GASKET (ORANGE)
8	1	237-600	*+ DIAPHRAGM ASSEMBLY
10	1	16-B407	*+ FUEL PUMP GASKET (ORANGE)
13	1	16-B205	*+ STRAINER GASKET
28	1	237-223	*+ FUEL PUMP DIAPHRAGM



REPAIR KIT [RK-14HW]			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	16-B199	* COPPER GASKET, INLET SEAT
2	1	36-A42	* INLET SEAT
4	1	155-A27	* INLET VALVE CONTROL LEVER
7	1	16-B406	*+ DIAPHRAGM GASKET (ORANGE)
8	1	237-600	*+ DIAPHRAGM ASSEMBLY
10	1	16-B407	*+ FUEL PUMP GASKET (ORANGE)
13	1	16-B205	*+ STRAINER GASKET
28	1	237-223	*+ FUEL PUMP DIAPHRAGM
29	1	34-216	* INLET NEEDLE



40 -INLET SEAT AND NEEDLE ASSEMBLY PACK [233-721P]			
ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	36-A42	* INLET SEAT
2	1	34-216	* INLET NEEDLE
29	1	16-B199	* COPPER GASKET, INLET SEAT



# PARTS OF CARBURETTOR - *PIÈCES DU CARBURATEUR*

REF.7 - P. N°16-B406  
DIAPHRAGM GASKET (ORANGE COLOR)  
*JOINT DE DIAPHRAGME (COULEUR ORANGE)*



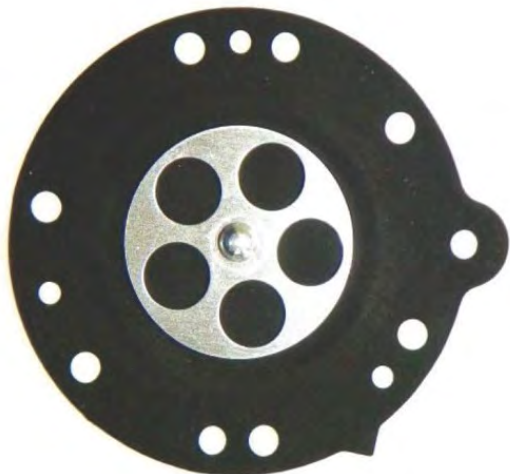
Thickness / *Épaisseur* =  $0.5 \pm 0.1$  mm

REF.10 - P. N° 16-B407  
PUMP DIAPHRAGM GASKET (ORANGE COLOR)  
*JOINT DE POMPE À ESSENCE (COULEUR ORANGE)*



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

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



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

REF.28 - P. N°237-223  
PUMP DIAPHRAGM (TRASPARENT)  
*MEMBRANE DE POMPE À ESSENCE*



Thickness / *Épaisseur* =  $0.07 \pm 0.0127$  mm

REF.9 - P. N° 91-A275  
DIAPHRAGM COVER / *COUVERCLE DE DIAPHRAGME*



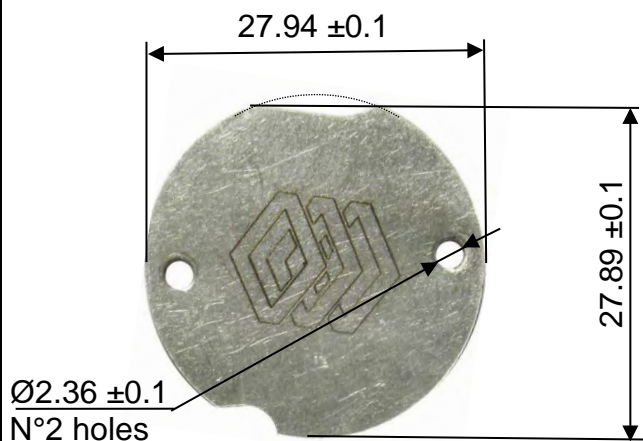
Thickness / *Épaisseur* =  $6.75 \pm 0.15$  mm

REF.11 - P. N° 141-89  
PUMP COVER / *CORPS DE POMPE À ESSENCE*



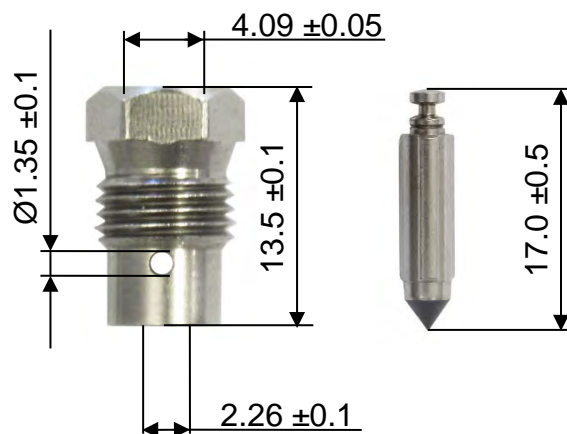
Thickness / *Épaisseur* =  $12.5 \pm 0.15$  mm

REF.32 - P. N° 14-A140  
THROTTLE SHUTTER  
PAPILLON



Thickness / Épaisseur =  $0.81 \pm 0.1$  mm

REF. 1,2 and 29 (KIT REF. 40) - P. N° 233-721P  
SEAT + NEEDLE  
SIEGE + POINTEAU



REF.39 - P. N° 43-1035  
NEEDLE LOW SPEED  
VIS DE RÉGLAGE BAS-REGIME

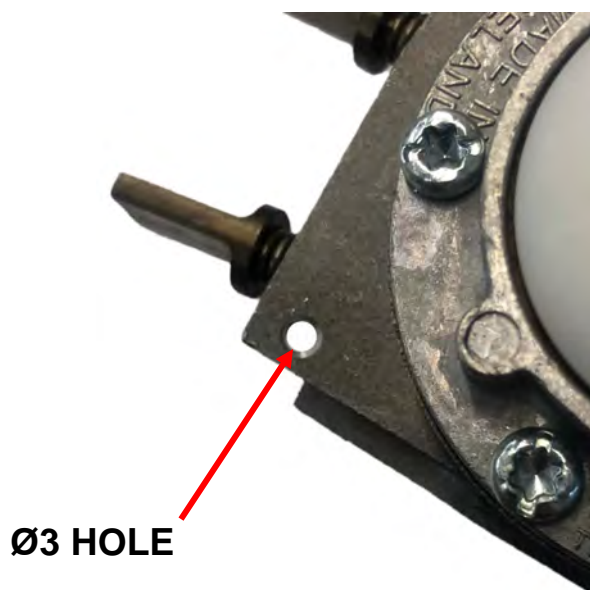


REF.39 - P. N° 43-1035  
NEEDLE HIGH SPEED  
VIS DE RÉGLAGE HAUT-REGIME



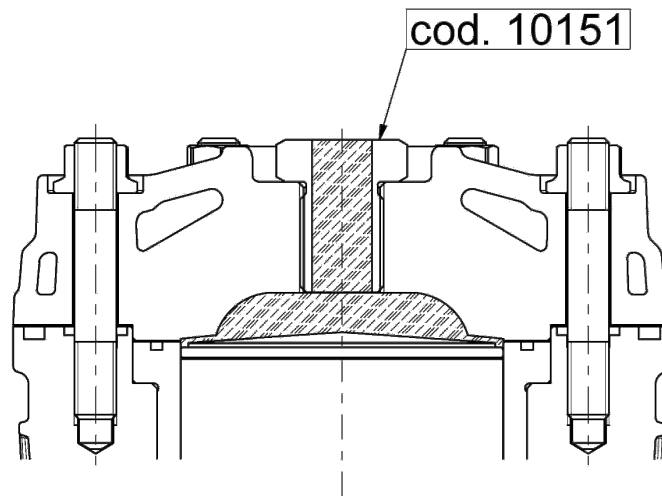
### HOLE FOR CARBURETTOR SEALING TROU POUR LE PLOMBAGE

The carburettor can have this hole for sealing.  
*Le carburateur peut avoir ce trou pour le plombage.*

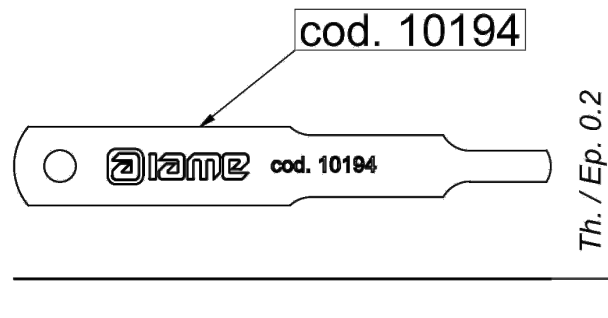


## CHECKING TOOLS - OUTILS DE CONTROLE

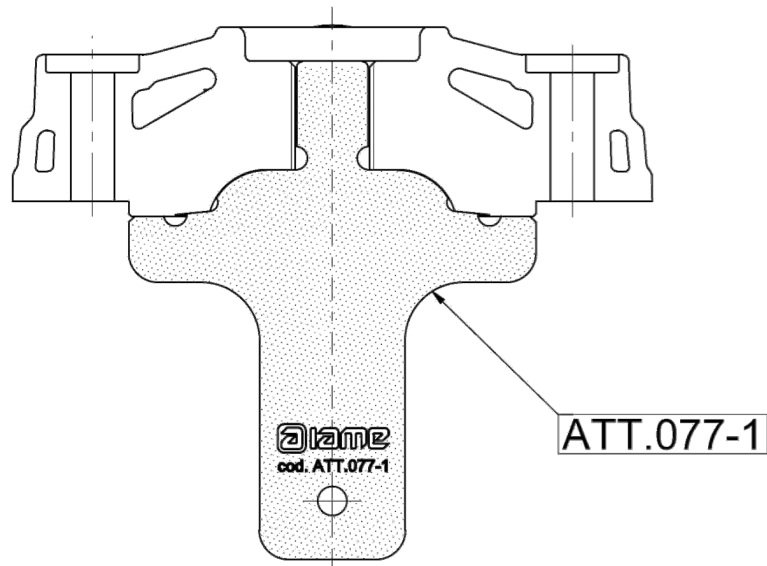
### INSERT FOR COMBUSTION CHAMBER VOLUME *INSERT POUR LE VOLUME DE LA CHAMBRE DE COMBUSTION*



### WEDGE FOR PORT TIMING *CALE POUR LECTURE DES ANGLES DE DISTRIBUTION*

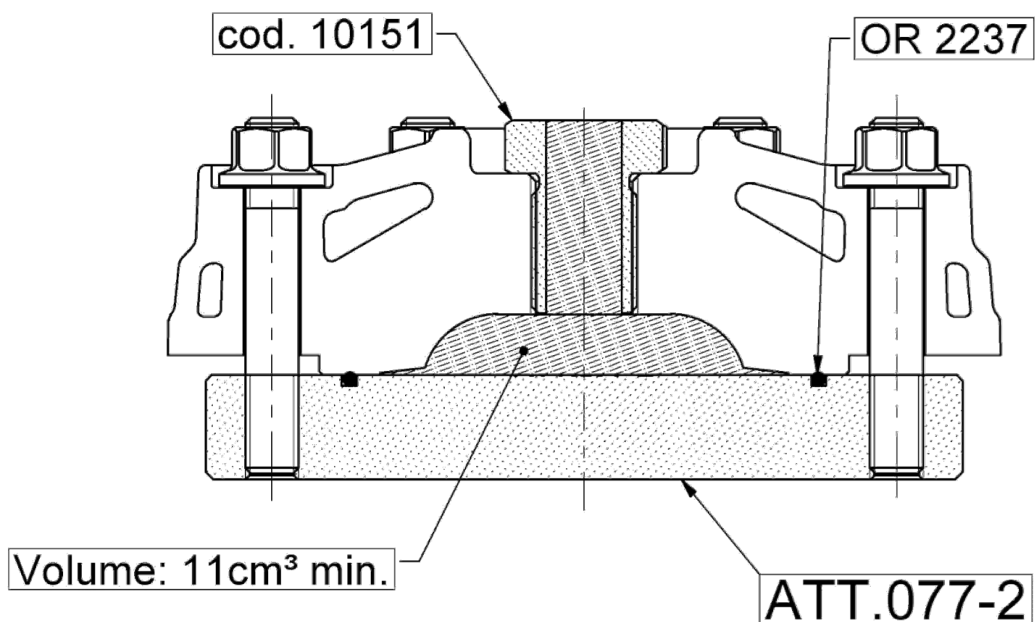


### TEMPLATE FOR COMBUSTION CHAMBER SHAPE *GABARIT POUR LA FORME DE LA CHAMBRE DE COMBUSTION*

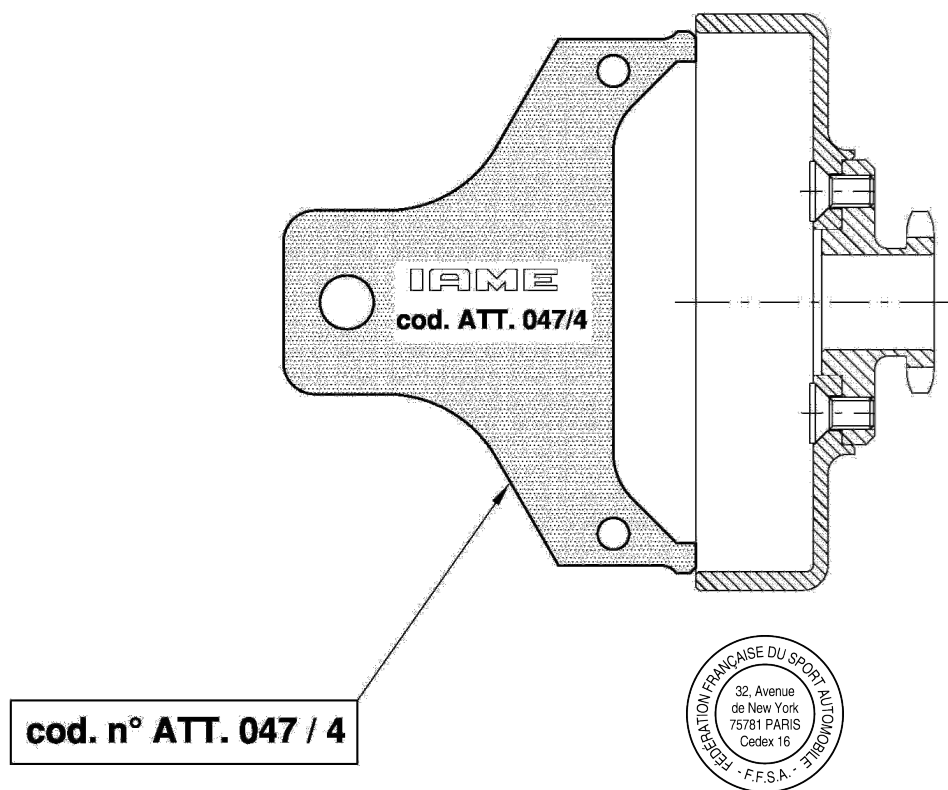




TOOL FOR THE VOLUME IN THE CYLINDER HEAD  
OUTIL POUR LE VOLUME DANS LA CULASSE

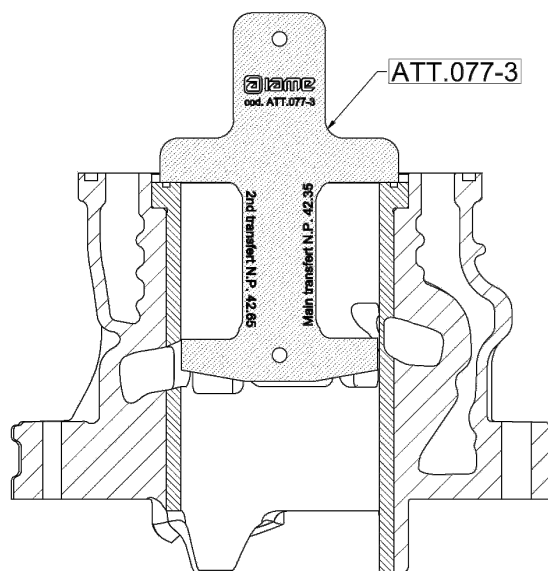
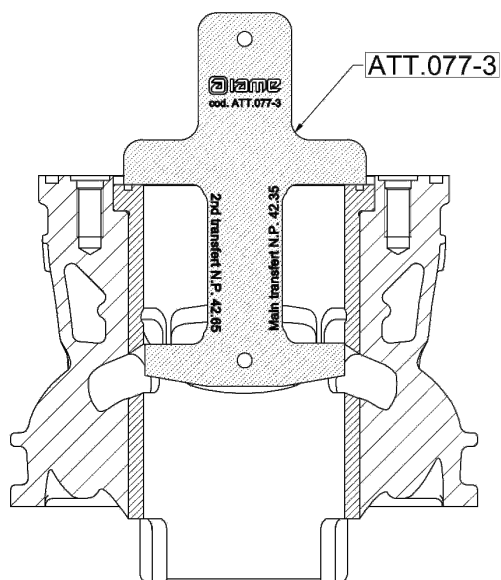


NO-GO GAUGE FOR CLUTCH DRUM  
GABARIT POUR LA CLOCHE D'EMBRAYAGE

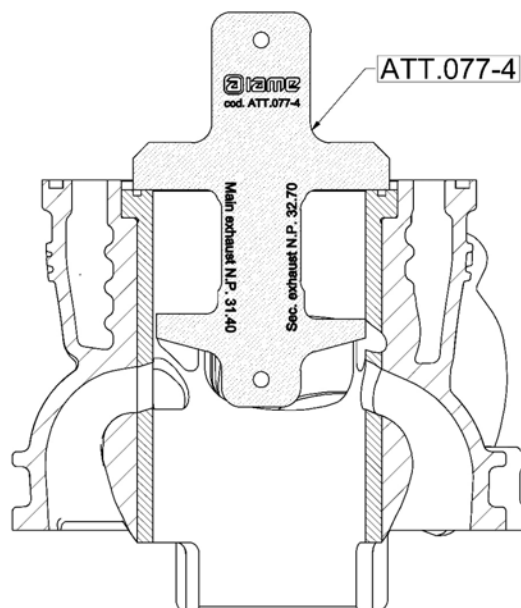
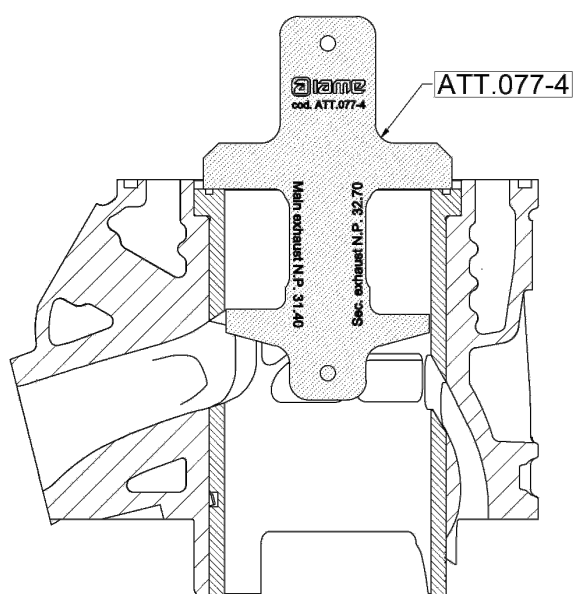




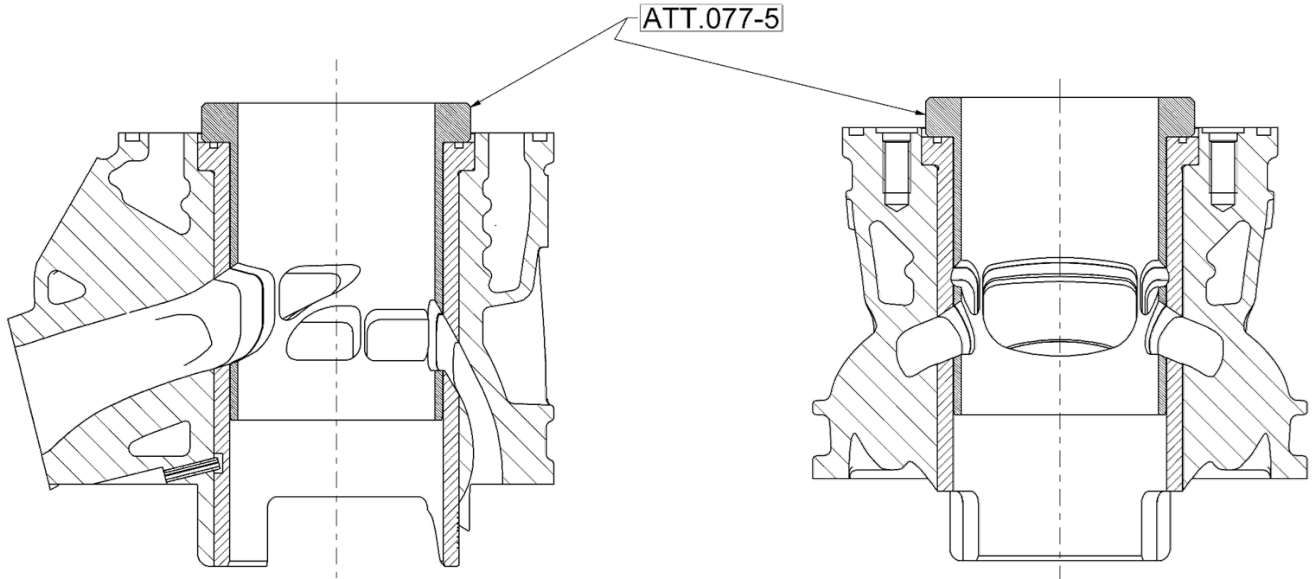
**NO GO GAUGE FOR THE HEIGHT OF MAIN AND SECONDARY TRANSFERS**  
**GABARIT POUR LA HAUTEUR DES TRANSFERTS PRINCIPAUX ET SECONDAIRES**



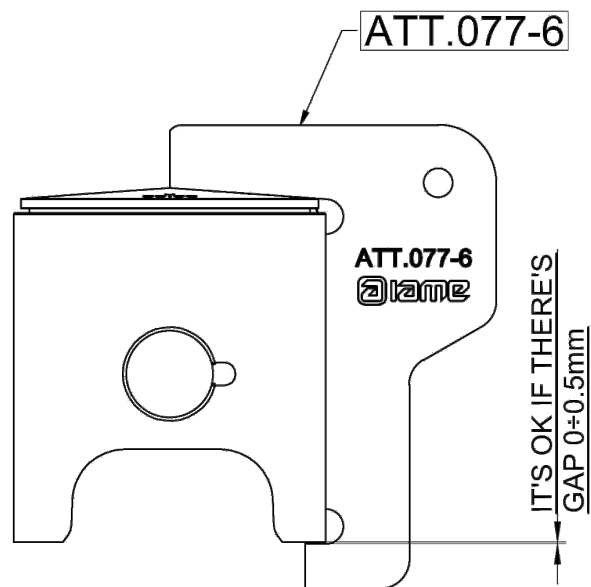
**NO GO GAUGE FOR EXHAUST MAIN DUCT AND BOOSTERS**  
**GABARIT POUR LA HAUTEUR DE LA LUMIERE D'ECHAPPEMENT ET DES BOOSTERS**



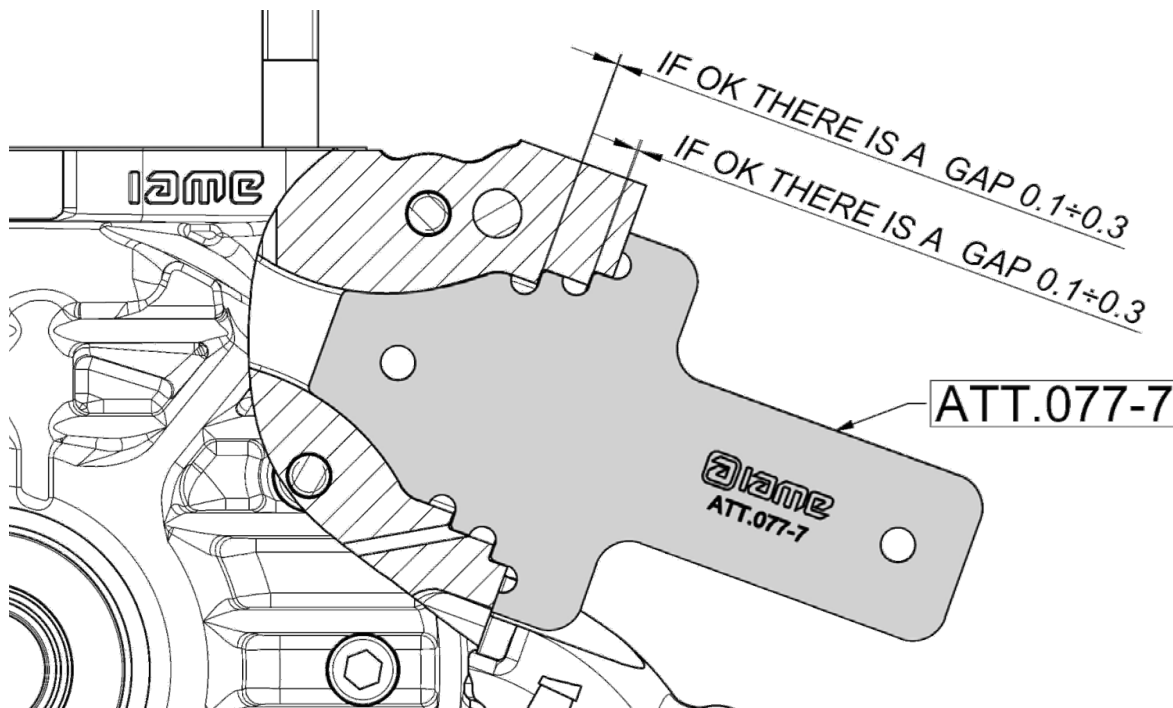
DUMMY LINER FOR PORTS CHECKING  
FAUSSE-CHEMISE POUR LA VÉRIFICATION DES LUMIÈRES



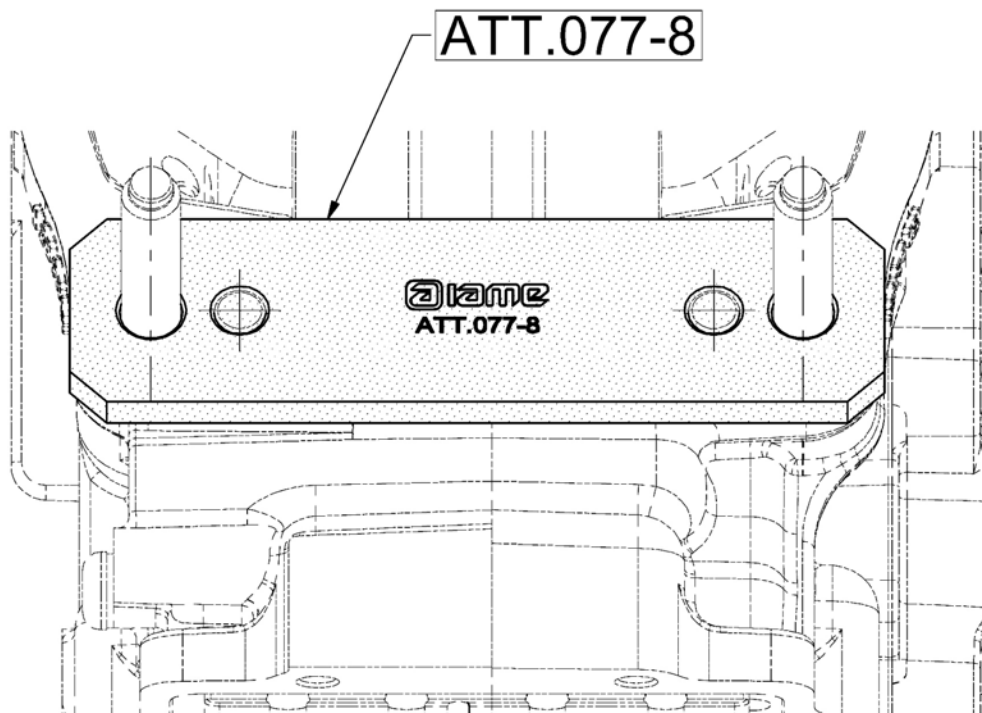
TEMPLATE FOR PISTON DOME AND HEIGHT  
GABARIT POUR LE DOME ET LA HAUTEUR DU PISTON



TEMPLATE FOR REED VALVE SEAT AND PLANE  
GABARIT POUR LE PLAN ET LOGEMENT DE LA BÔÎTE À CLAPETS



TEMPLATE FOR THE CILYNDER PINS INTERAXLE  
GABARIT POUR L'ENTRAXE DES PIONS DE CENTRAGE DU CYLINDRE



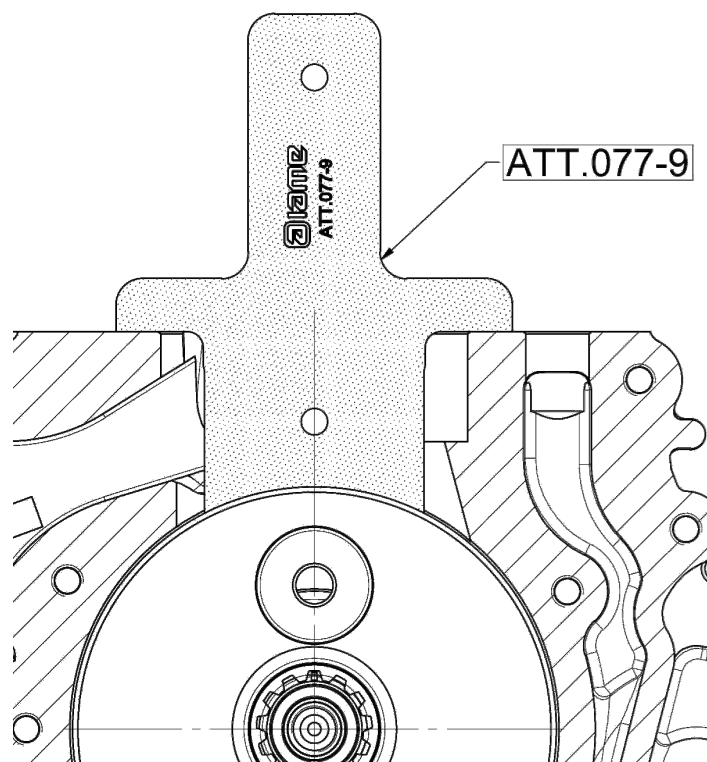
## CHECKING TOOLS - OUTILS DE CONTROLE

### GAUGE FOR THE CYLINDER PLANE ON THE CRANKCASE

It must touch the plane before touching the crankshaft

**GABARIT POUR LA HAUTEUR DU PLAN CYLINDRE SUR LE CARTER**

*il doit toucher le plan avant de toucher le vilebrequin*

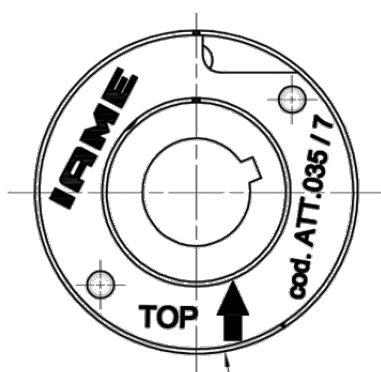


### TEMPLATE FOR THE MARKING POSITION ON SELETTA DIGITAL "S" ROTOR

OK when the marking is hidden by the template

**GABARIT POUR LE MARQUAGE DE PHASE SUR LE ROTOR SELETTA DIGITAL "S"**

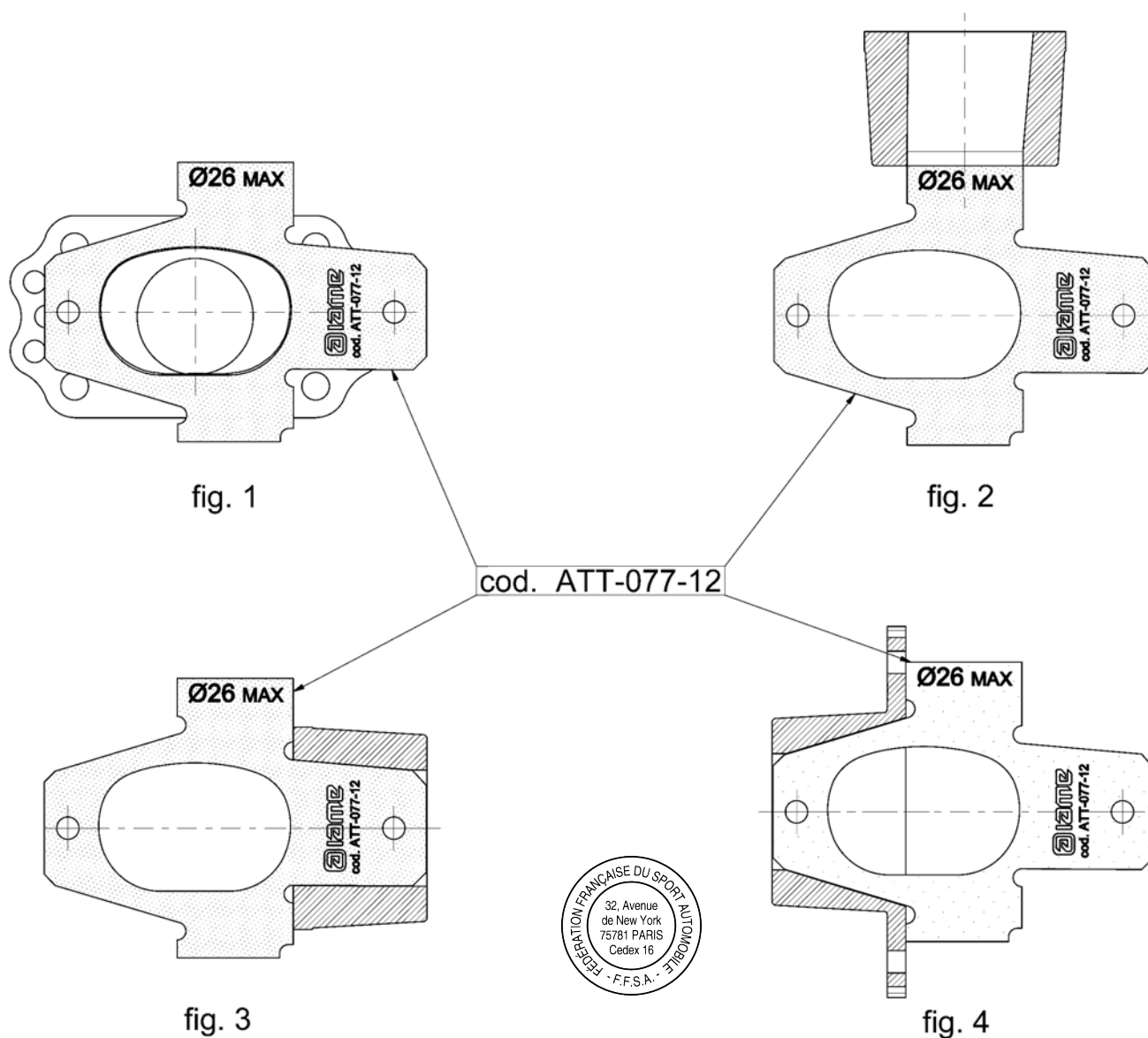
*OK si le marquage est couvert par le gabarit*



**cod. n° ATT. 035 / 7**



EXHAUST MANIFOLD CHECKING TOOL - CONTRÔLE DU RACCORD D'ÉCHAPPEMENT



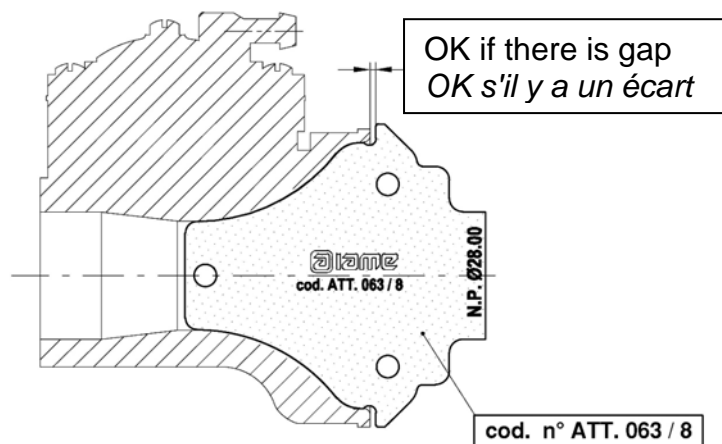
THE NO-GO GAUGE MUST NOT ENTER INTO THE EXHAUST RESTRICTOR, (FIG.2);  
VERIFIEZ QUE LE CALIBRE N'ENTRE PAS DANS LE TROU DU RESTRICTEUR D'ÉCHAPPEMENT.

CHECK THAT THE TOOL MATCHES THE SHAPE OF THE EXHAUST MANIFOLD, (FIG.1,3 AND 4).  
VERIFIEZ QUE LA FORME DU RESTRICTEUR D'ÉCHAPPEMENT EST LA MEME QUE L'OUTIL

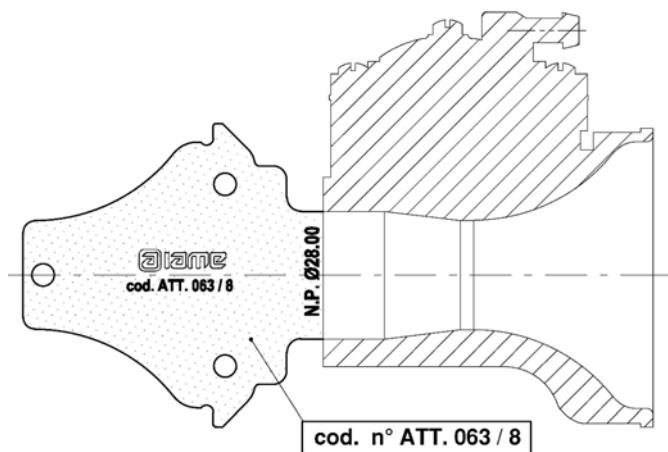


## CHECKING TOOLS - OUTILS DE CONTROLE

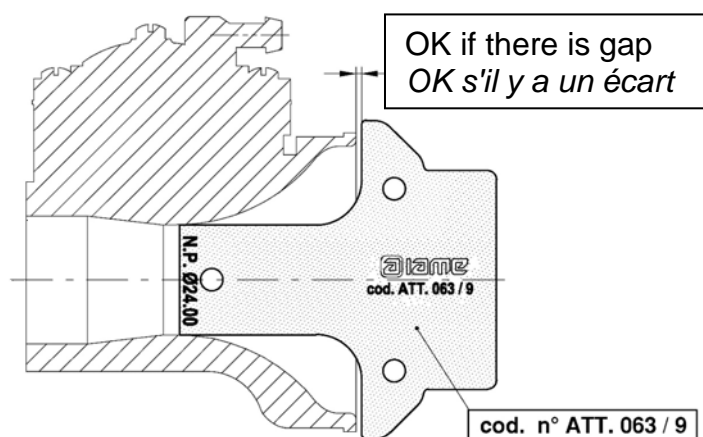
### TEMPLATES FOR TILLOTSON HW-50A GABARITS POUR LE CARBURATEUR TILLOTSON HW-50A



THE CARBURETTOR DUCT MUST HAVE THE SAME SHAPE AS THE TEMPLATE  
LE VENTURI DU CARBURATEUR DOIT COMPLETEMENT EPOUSER LA FORME DU GABARIT

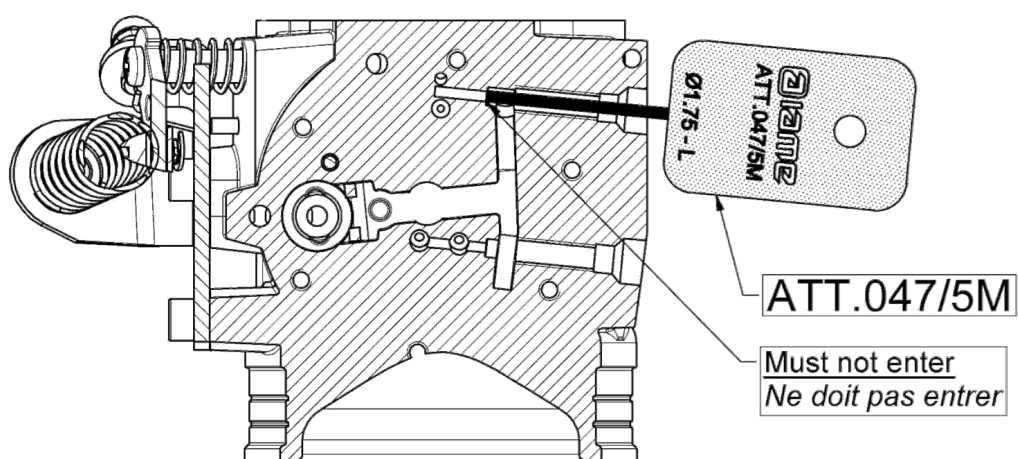


THE GAUGE MUST NOT ENTER THE THROTTLE BORE  
LE GABARIT NE DOIT PAS ENTRER DANS L'ALEPAGE DU PAPILLON

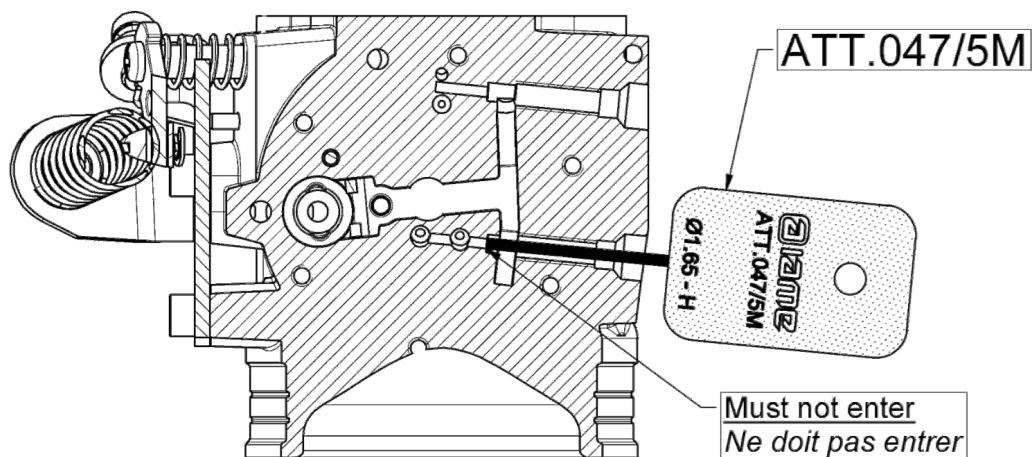


THE GAUGE MUST NOT ENTER INTO THE VENTURI  
LE GABARIT NE DOIT PAS ENTRER DANS LE VENTURI

HOLES JET SCREWS "NO-GO" CHECKING TOOL  
OUTIL POUR LE CONTRÔLE DES TROUS DE VIS



CHECK THAT THE SPIKES DO NOT ENTER INTO THE HOLES.  
VERIFIEZ QUE LES POINTES N'ENTRE PAS DANS LES TROUS



ATOMIZER HOLES CHECKING TOOL  
OUTIL POUR LE CONTRÔLE DES TROUS DU PULVERISATEUR

