Homologation Nº

118H

NATIONAL HOMOLOGATION FORM

KARTING ENGINE

X30 SUPER - TaG

Manufacturer	IAME S.P.A - ZINGONIA
Make	IAME
Model	X30 SUPER - TAG
Validity of the homologation	6 years
Number of pages	70
Most Recent Update	**14 December 2021**

This Homologation Form reproduces descriptions, illustrations and dimensions of the engine at the time that Karting Australia conducted the homologation. The height of the complete engine on all photographs must be as a minimum 7 cm.

PHOTO OF DRIVE SIDE OF ENGINE

PHOTO OF OPPOSITE SIDE OF ENGINE

Signature and stamp of Karting Australia

Updated
20 October 2020
14 December 2021

First Homologated
15 December 2017

Ashley Woolner
National Technical Commissioner

PHOTO OF DRIVE SIDE OF THE COMPLETE ENGINE

PHOTO OF OPPOSITE DRIVE SIDE OF THE COMPLETE ENGINE

PHOTO OF THE REAR OF THE COMPLETE ENGINE

PHOTO OF THE FRONT OF THE COMPLETE ENGINE

PHOTO OF THE COMPLETE ENGINE TAKEN FROM ABOVE

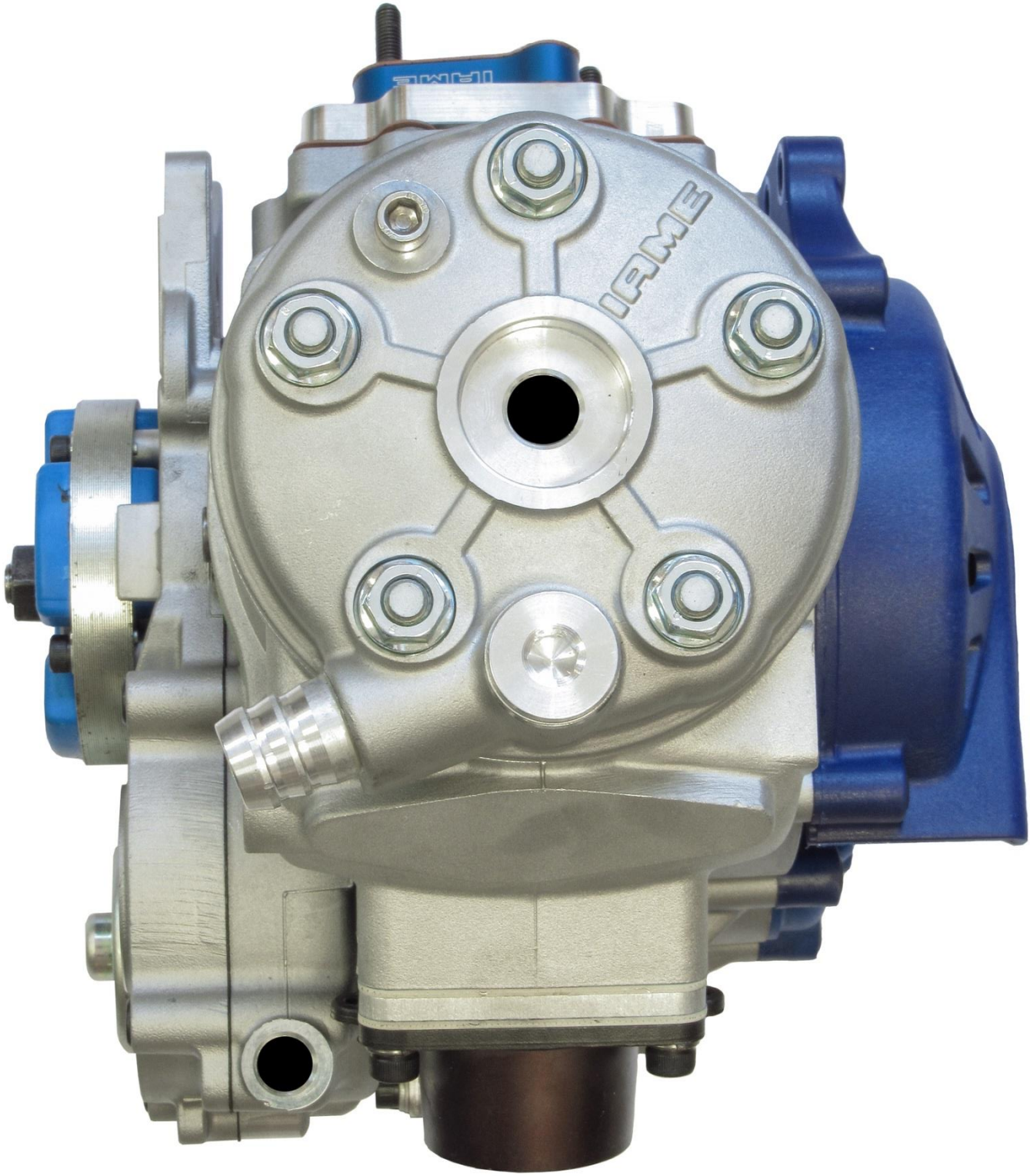
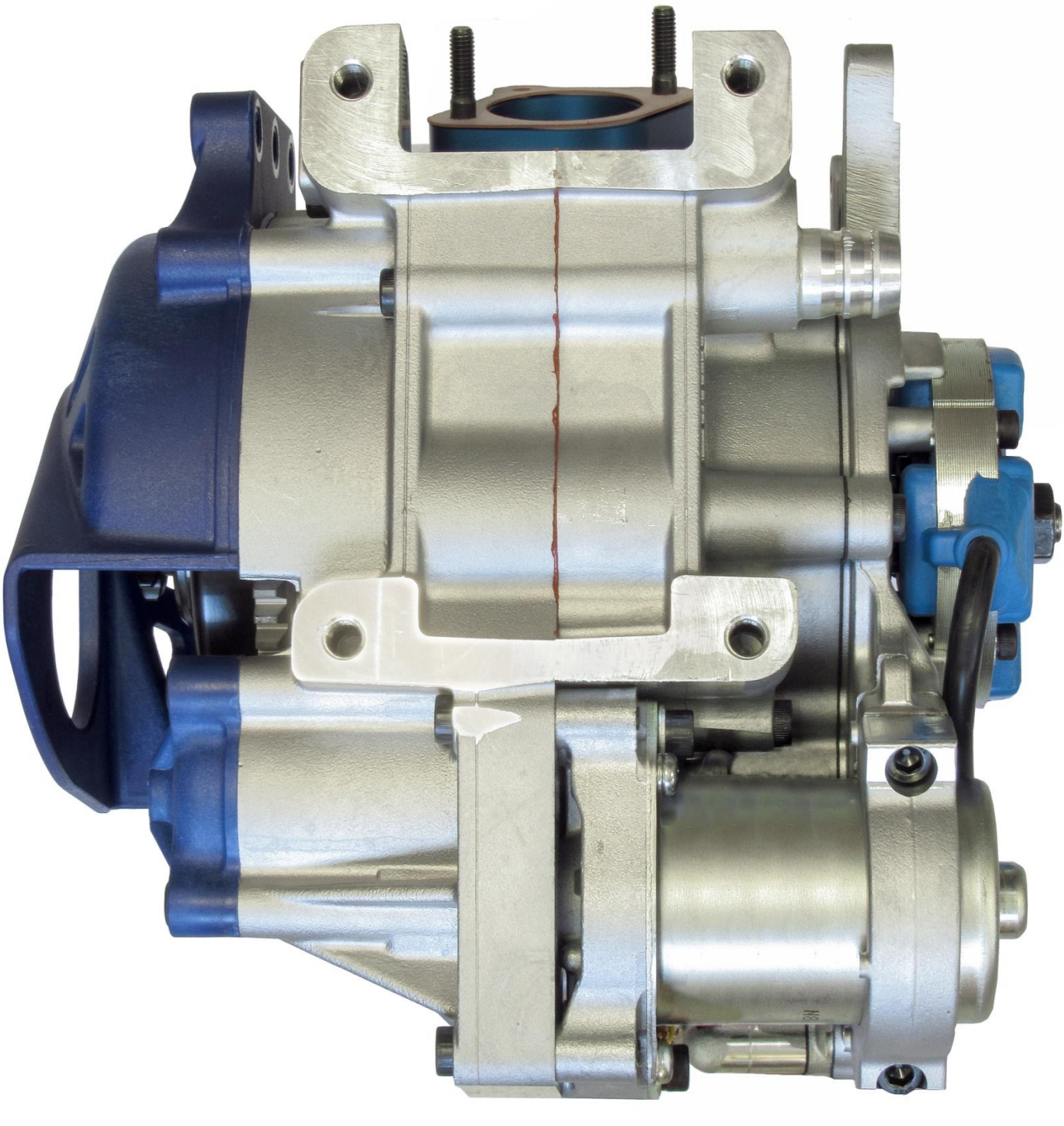


PHOTO OF THE COMPLETE ENGINE TAKEN FROM BELOW



TECHNICAL INFORMATION

A	*CHARACTERISTICS*

The number of decimal places must be 2 or comply with the relevant tolerance.		*Tolerances & remarks*
Cylinder		
Volume of cylinder	174.46 cm³	<u>≤176.60 cm³</u>
Original bore	63.90 mm	--
Theoritical maximum bore	64.26 mm	--
Original Stroke	54.40 mm	--
Number of transfer ducts, cylinder/sump	5 / 3	--
Number of exhaust ports / ducts	3 / 3	--
Volume of the combustion chamber	14.2 cm³	minimum
Volume of the combustion chamber in the cylinder head	14.6 cm³	minimum
Crankshaft		
Number of bearings	2	--
Diameter of bearings	30 mm	±0.1mm
Minimum weight of crankshaft	2045 g	minimum
All parts represented on page 16 photo		
Balance shaft		
Minimum weight of balance shaft (Type 1 / Type 2)	332 g / 320 g	minimum
Percentage of balancing	25 %	minimum
Connecting rod		
Connecting rod centreline	104 mm	±0.2mm
Diameter of big end	26 mm	±0.05mm
Diameter of small end	19 mm	±0.05mm
Min. weight of the connecting rod	117 g	minimum

Piston		
Number of piston rings	1	
Min. weight of the bare piston	155 g	minimum
Gudgeon pin		
Diameter	15 mm	±0.05mm
Length	49 mm	±0.15mm
Minimum weight	34.0 g	Minimum
Clutch		
Minimum weight	980 g	minimum
Of all the parts represented on the page 21 technical drawing		

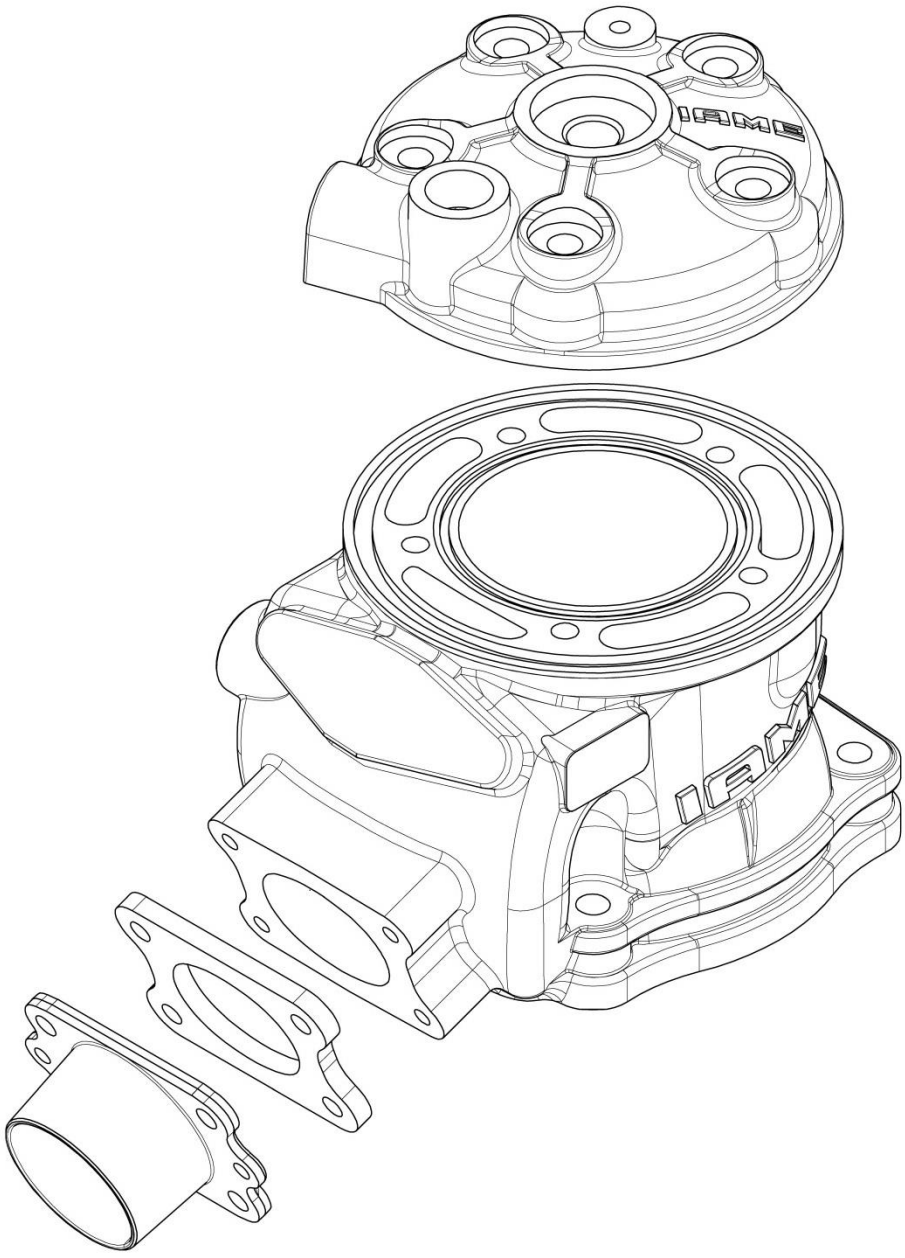
B	*OPENING ANGLES*	
Of the inlet (main transfer ports)	125°	**±2°**
Of the inlet (secondary transfer ports, for 5 transfer ducts engine)	128°	**±2°**
Of the inlet (5th transfer duct engine)	124.5°	**±3°**
Of the exhaust	186°	**±2°**
Of the boosters	182°	**±2°**

C	*MATERIAL*
Cylinder head	ALUMINIUM
Cylinder	ALUMINIUM
Cylinder wall	CAST IRON
Sump	ALUMINIUM
Crankshaft	STEEL
Connecting rod	STEEL
Piston	ALUMINIUM

D	*PHOTOS, DRAWINGS & GRAPHS*

D.1 *CYLINDER UNIT*

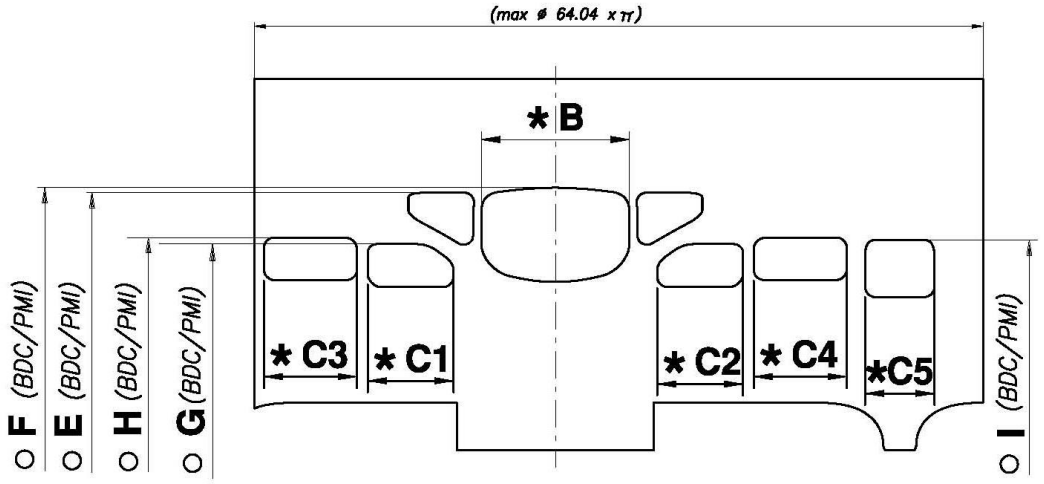
EXPLODED DRAWING OF THE CYLINDER, CYLINDER HEAD AND EXHAUST MANIFOLD UNIT



Without screws or gaskets.	***The aim of the exploded drawings is to identify the principles, the functioning and the whole mechanical unit***

... Section D.1

DRAWING OF THE CYLINDER DEVELOPMENT



B	≤ 40.5 mm
C1 = C2	≤ 25 mm
C3 = C4	≤ 27 mm
C5	≤ 20.5 mm
E	182.0° ±2°
F	186.0° ±2°
G	125° ±2°
H	128° ±2°
I	124.5° ±2°

* *CHORDAL READING*

O *ANGULAR READING BY INSERTING A 0.2x5 mm GAUGE*

Indicate on the drawing:
B1/B2 = minimum thickness of the inlet (transferts) ribs.
A1/A2/A… = maximum inlet width measured at the chord.
E1/E2 = minimum thickness of the exhaust rib (if existing).
C1/C2/C… = maximum exhaust width measured at the chord.

DRAWING OF THE CYLINDER BASE without dimensions

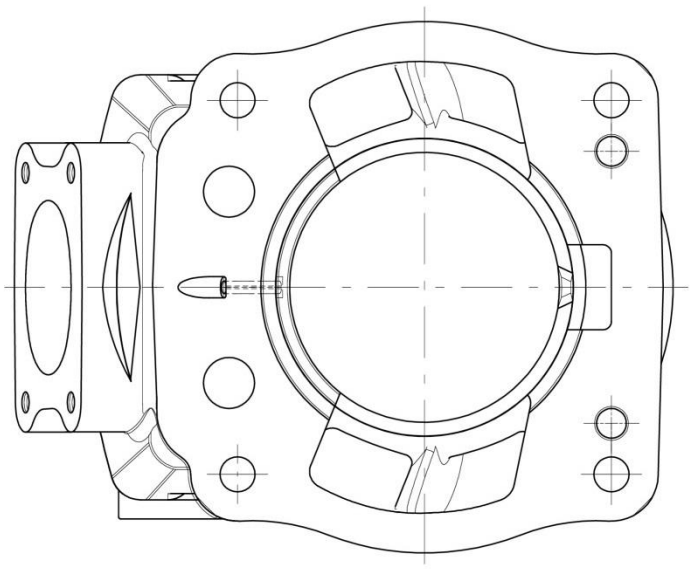
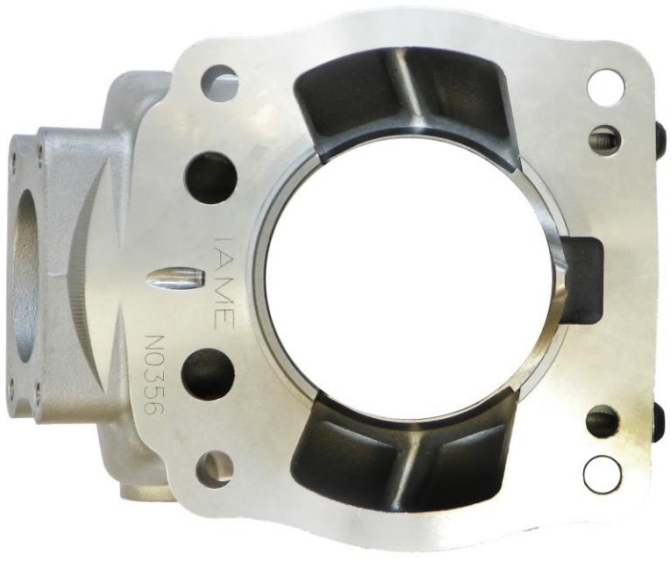
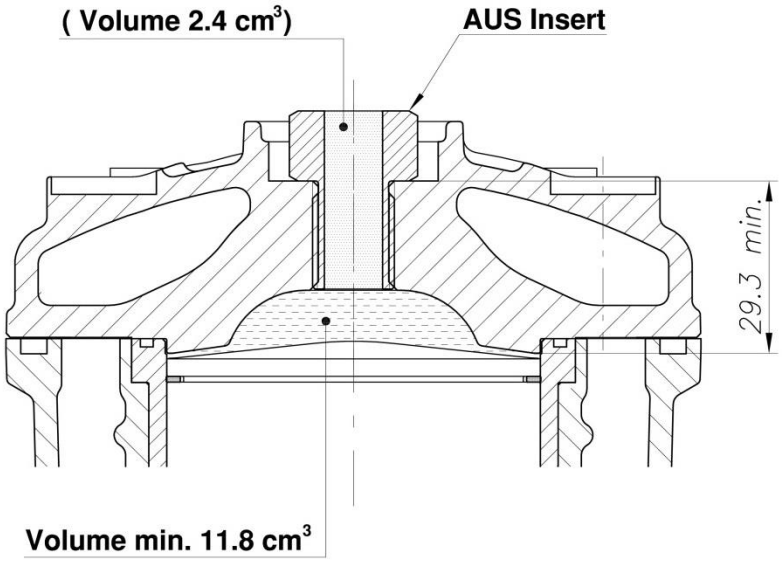


PHOTO OF THE CYLINDER BASE



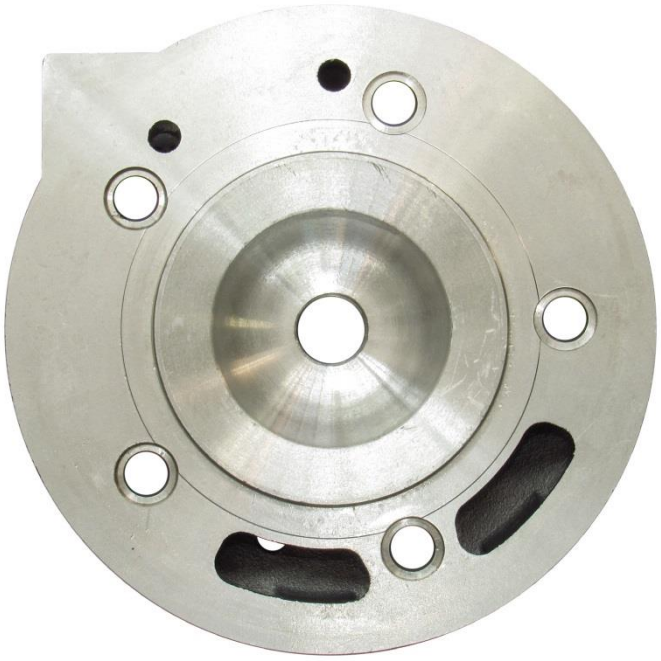
... Section D.1

DRAWING OF THE CYLINDER HEAD AND OF THE COMBUSTION CHAMBER without dimensions



COMBUSTION CHAMBER VOLUME TOT. = 14.2 cm³ min.

ATT.: SQUISH MIN. = 0.85 mm
(measured with Ø2.0mm TIN)

PHOTO OF THE CYLINDER HEAD	*PHOTO OF THE COMBUSTION CHAMBER IN THE CYLINDER HEAD*
	

... Section D.1

VERTICAL CROSS SECTION VIEW OF CYLINDER WITH LINER, without dimensions

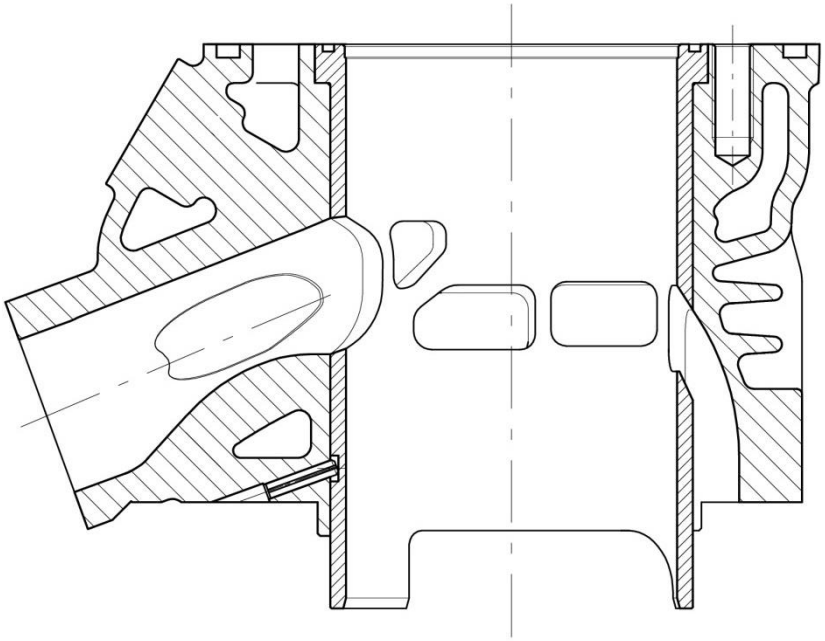


PHOTO OF THE CYLINDER FROM ABOVE

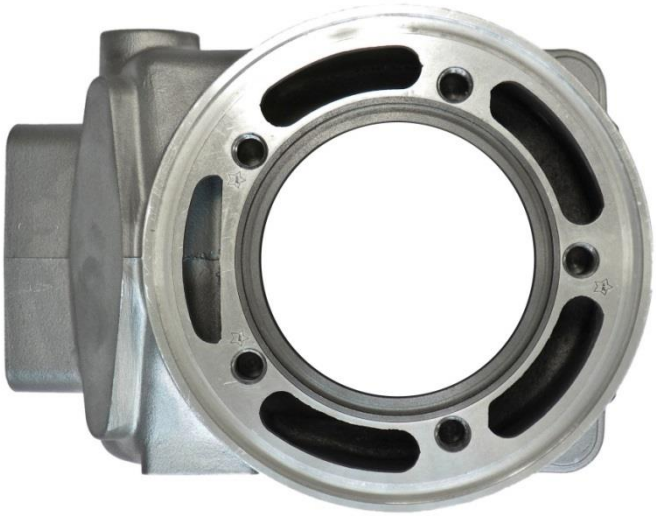
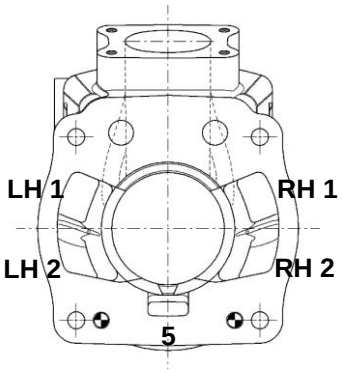
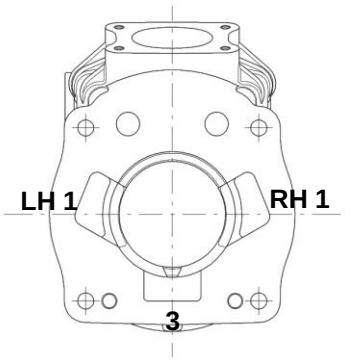
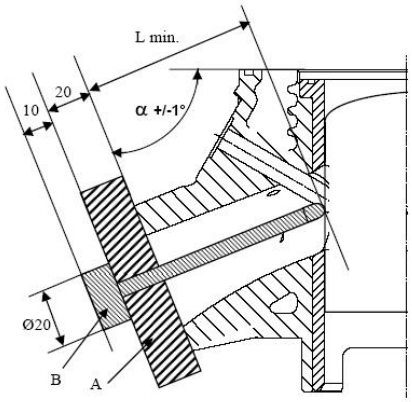


PHOTO OF THE CYLINDER FROM RH SIDE

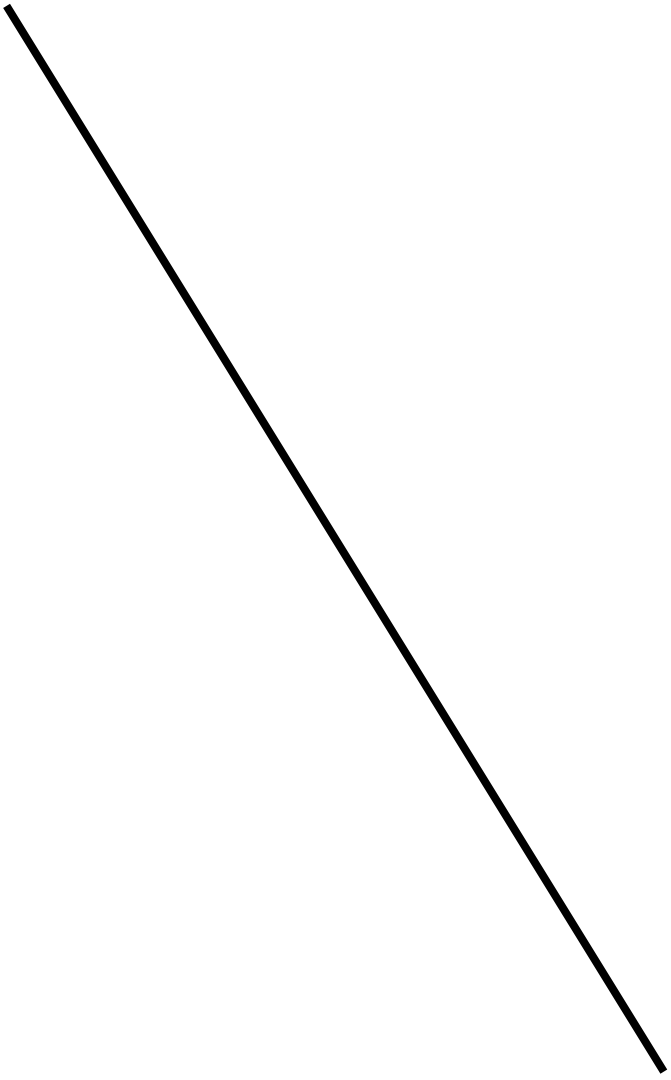
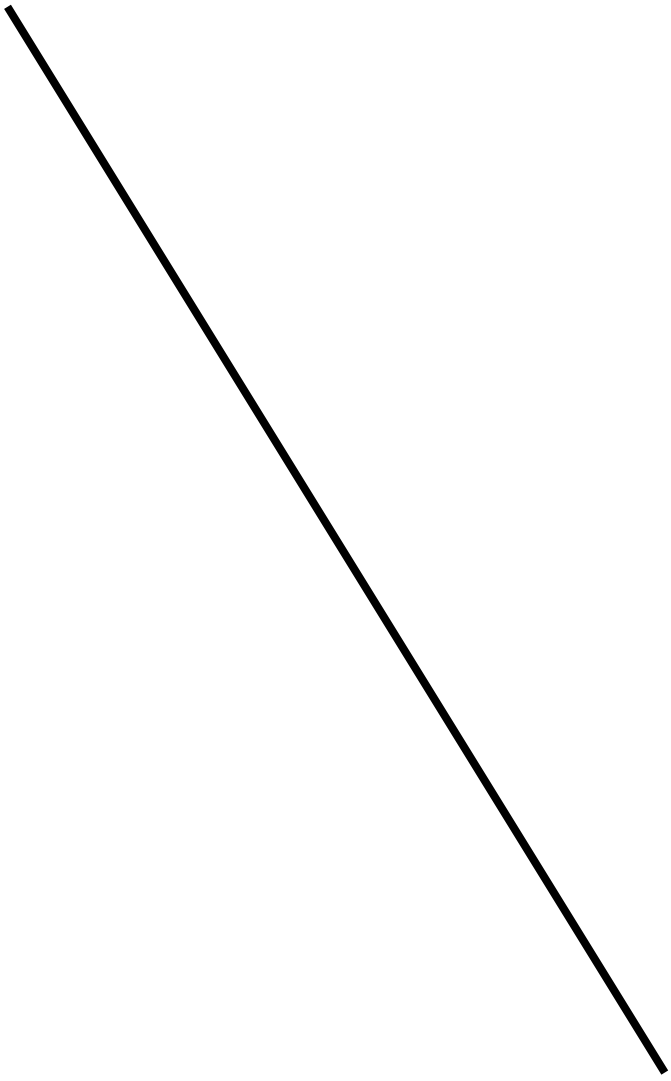
... Section D.1

TRANSFER DUCTS VOLUME			
Transfer position on 5-transfer cylinder	*Transfer position on 3-transfer cylinder*	*TRANSFER No.*	*VOLUME in cm³*
		*Transfer No. 1 LH*	*--.-- +/- 5 %*
		Transfer No. 2 LH	*--.-- +/- 5 %*
		Transfer No. 3 or 5	*--.-- +/- 8 %*
		Transfer No. 2 RH	*--.-- +/- 5 %*
		Transfer No. 1 RH	*--.-- +/- 5 %*

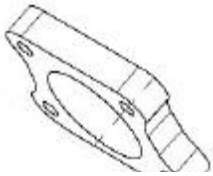
EXHAUST DUCT LENGTH		
	ANGLE α *in* °	**Minimum *in* mm**
	--° +/-1°	-- mm
The L min. dimension will be the result of the value taken on the reference engine minus 5 mm.		
Technical Drawing No.13		
		

- *A: Centring guide centred in relation to the exhaust duct by the exhaust manifold fixation screws, with a total thickness of 20 +/- 0.05 mm and being drilled in its centre by a hole with a 5 mm diameter, H7 bore.*
- *B: Control gauge composed of a shaft with a 5g6 diameter having a 2.5 mm radius at its end and a length = L min + 20+10.*

INTERNAL PROFILE OF THE EXHAUST DUCT
Templates of the internal dimensions of the exhaust duct: gasket plane of the manifold.

FRONT VIEW DRAWING – with dimensions	
Minimum template	*Maximum template*
	

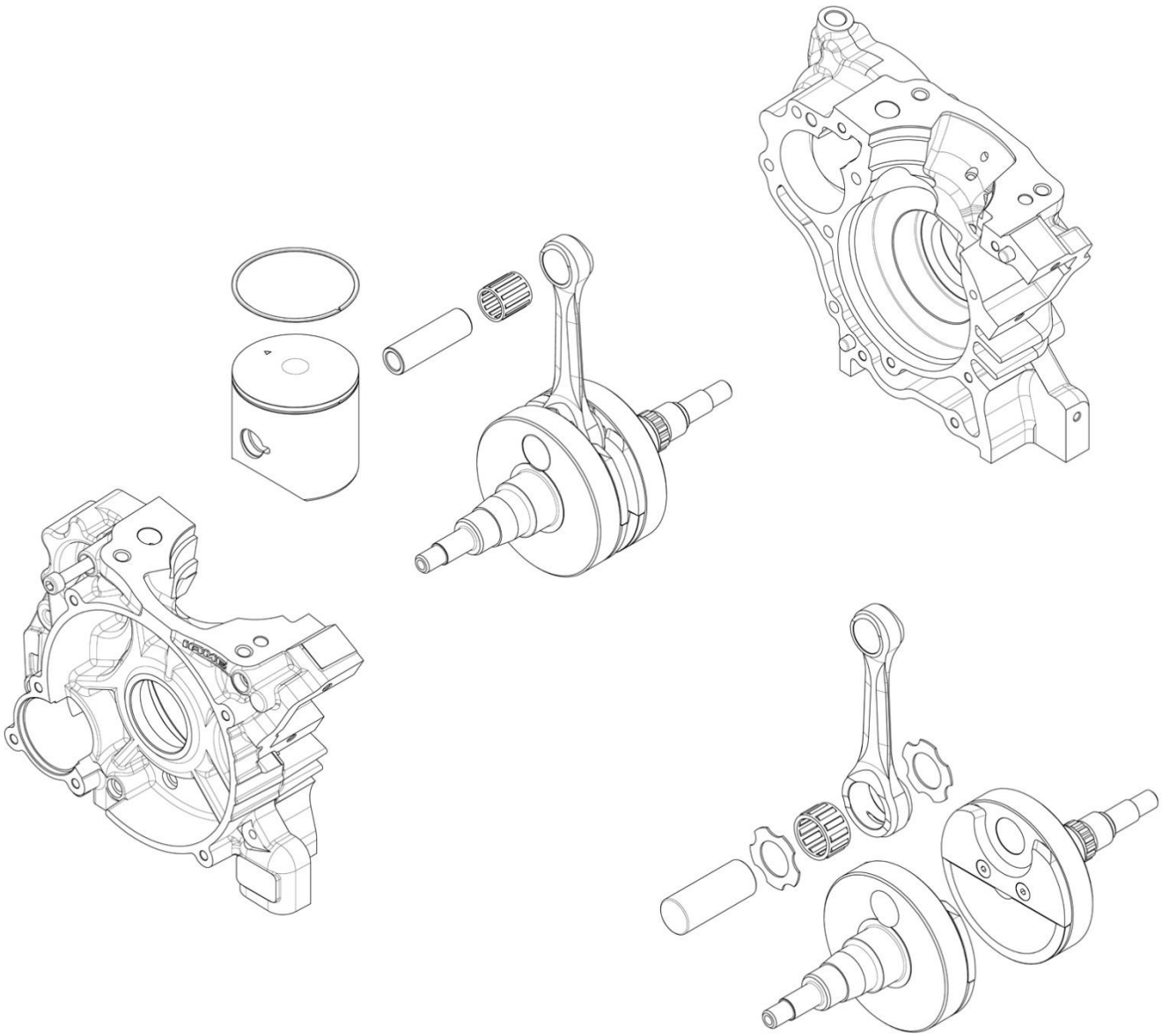
- *Maximum template: internal profile of the gasket plane of the manifold of the original cylinder plus 1 mm*
- *Minimum template: internal profile of the gasket plane of the manifold of the original cylinder minus 1 mm*
- *Thickness*: 5 +/- 0,05 mm



Technical Drawing No.13 bis

D.2 *CONROD, CRANKCASE, CRANKSHAFT & PISTON*

EXPLODED DRAWING OF THE PISTON, CRANKSHAFT, CONNECTING ROD AND CRANKCASES UNIT (exploded crankshaft)

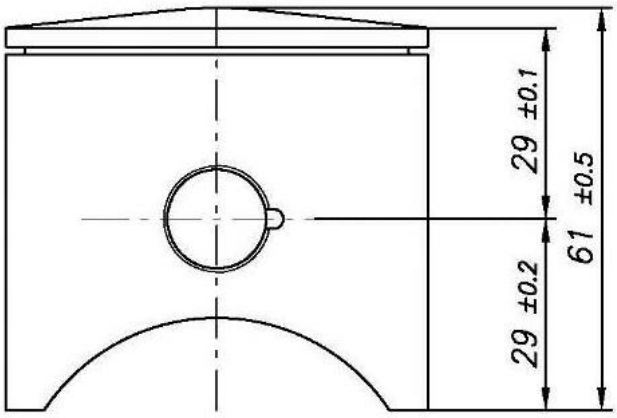


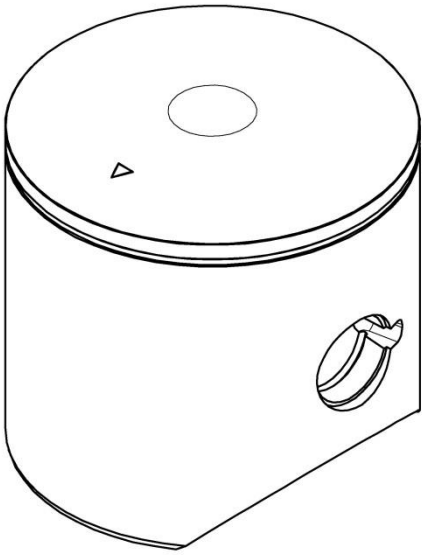
Without screws or gaskets.	***The aim of the exploded drawings is to identify the principles, the functioning and the whole mechanical unit***

...Section D.2

PHOTO OF THE CRANKSHAFT & CONROD	*PHOTO OF THE CONROD*
	

DRAWING OF THE PISTON (MAIN DIMENSIONS incl. tolerances)





...Section D.2

PHOTO IDENTIFICATION OF SILVER CONROD WASHER – TYPES ALTERNATIVE

TYPE 1

TYPE 2

DRAWING OF THE CRANKSHAFT - CON ROD UNIT (DIMENSIONS incl. tolerances, big & small ends thickness, crank mass thickness & diameter)

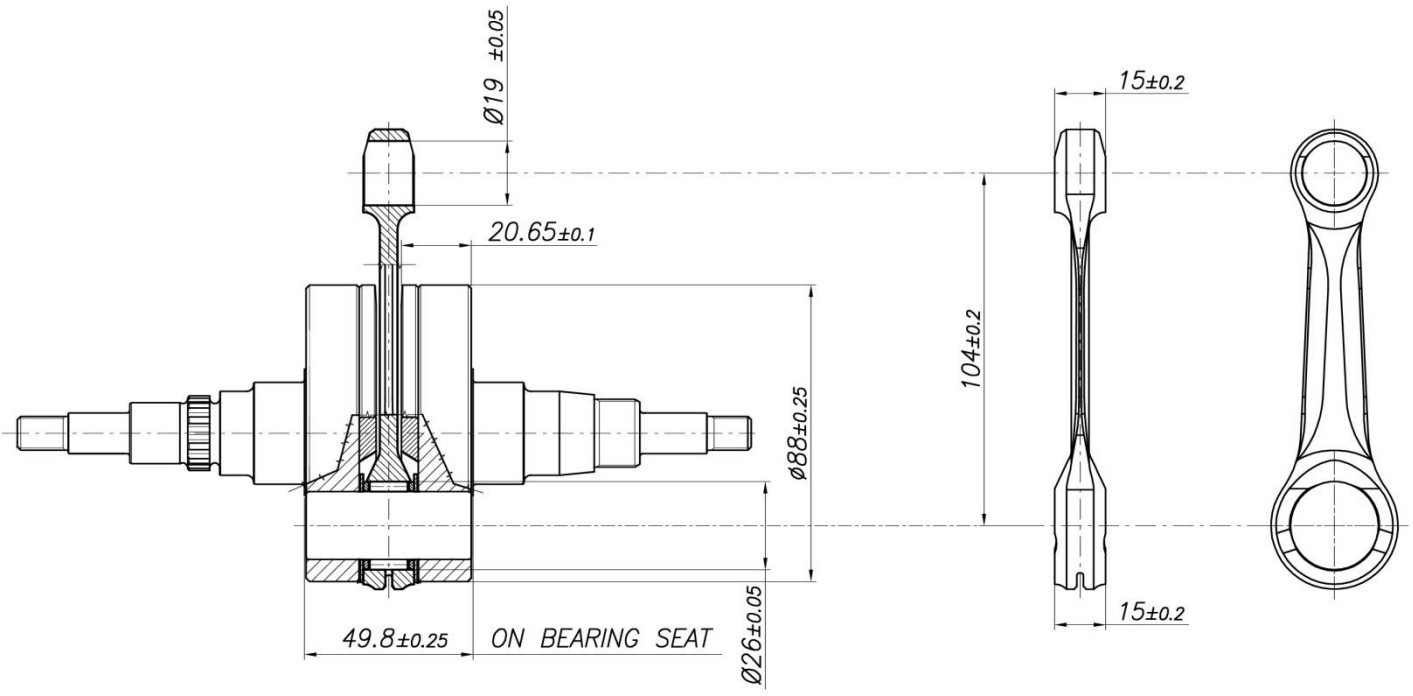
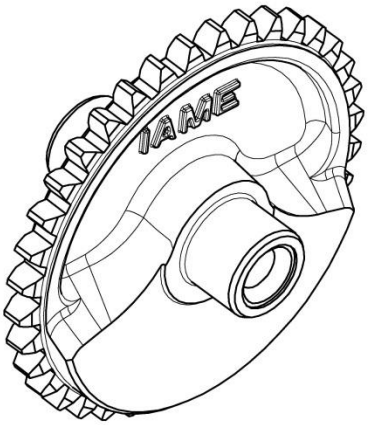


PHOTO OF THE INSIDE OF THE RH CRANKCASE

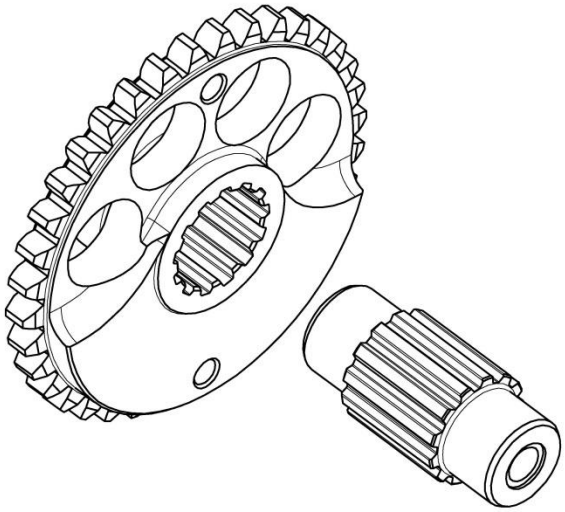
PHOTO OF THE INSIDE OF THE LH CRANKCASE

D.3 *BALANCE SHAFT*

EXPLODED DRAWING OF THE BALANCE SHAFT



TYPE 2

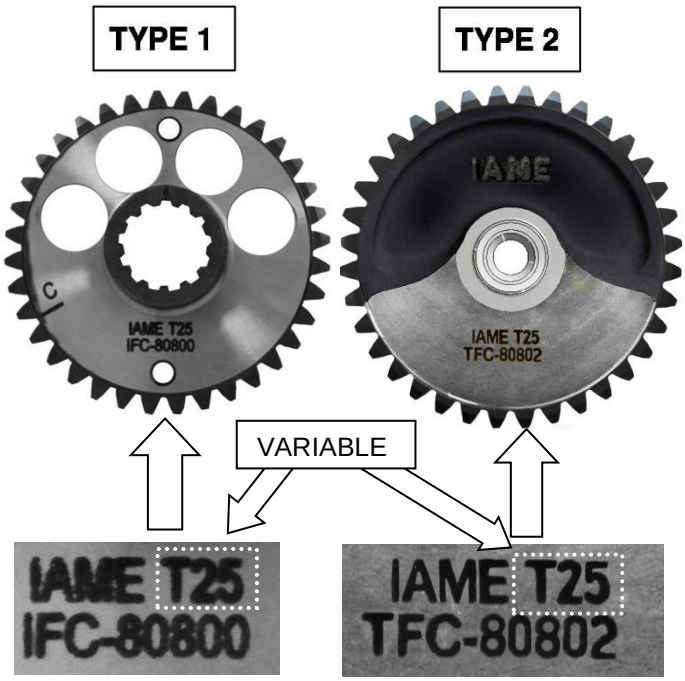


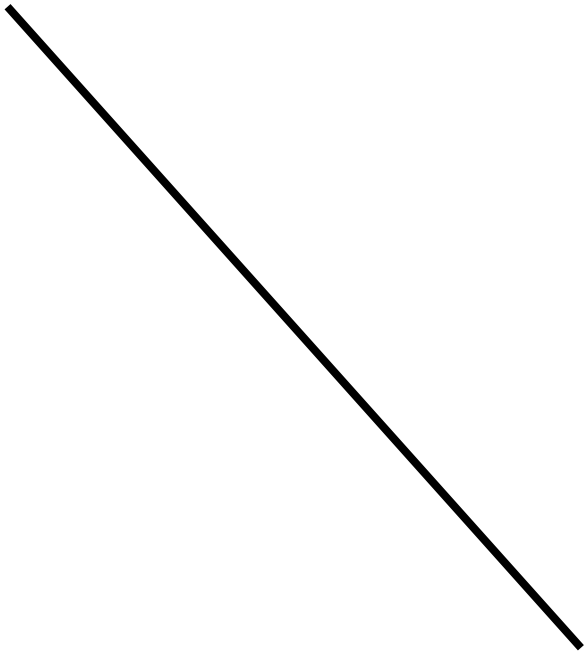
TYPE 1

Without screws or gaskets.	***The aim of the exploded drawings is to identify the principles, the functioning and the whole mechanical unit***

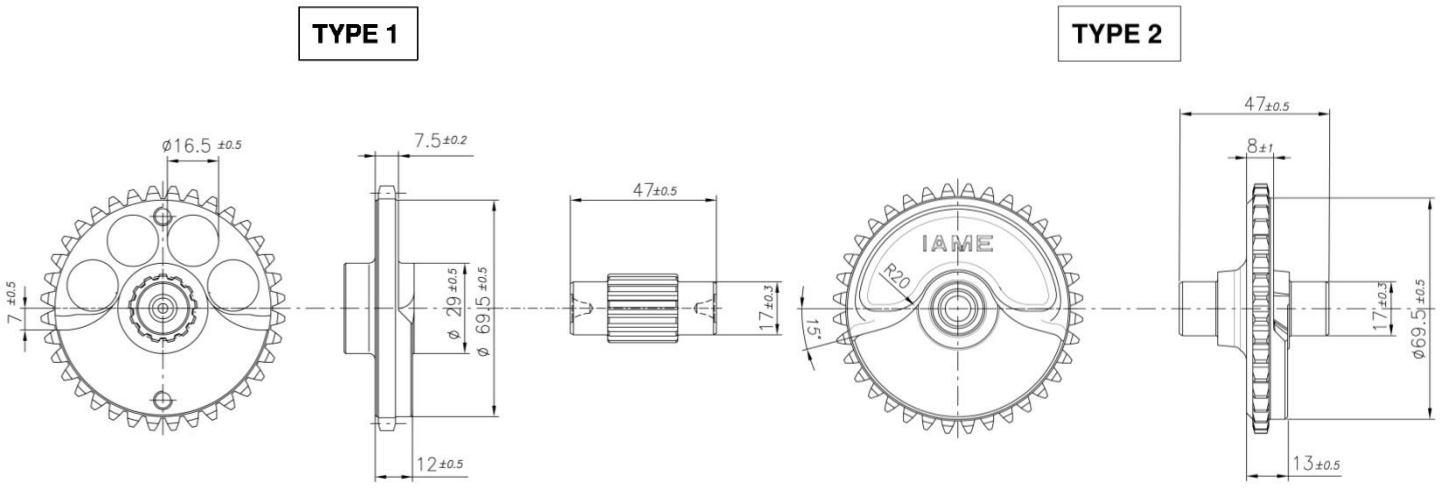
...Section D.3

PHOTO OF THE BALANCE SHAFT	*PHOTO OF THE WATER PUMP IMPELLER*





DRAWING OF THE BALANCE SHAFT
(DIMENSIONS incl. tolerances)

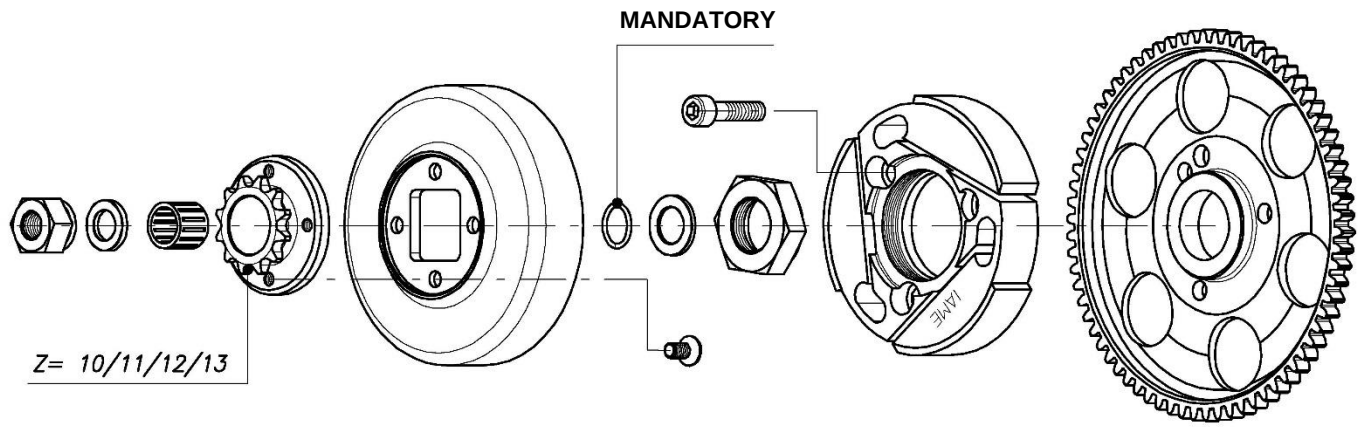


Tot. Min. weight 332 g
Poids min. tot. 332 g

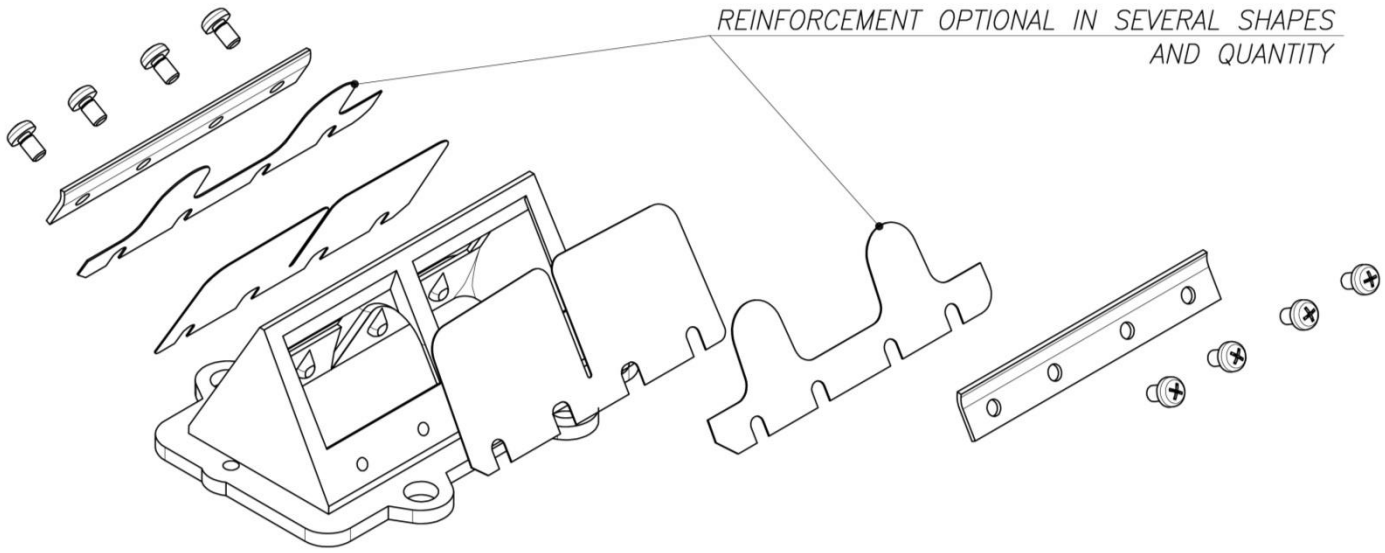
Tot. Min. weight 320 g
Poids min. tot. 320 g

D.4 *REED VALVE & CLUTCH*

TECHNICAL DRAWING (exploded view) OF THE CLUTCH ASSEMBLY



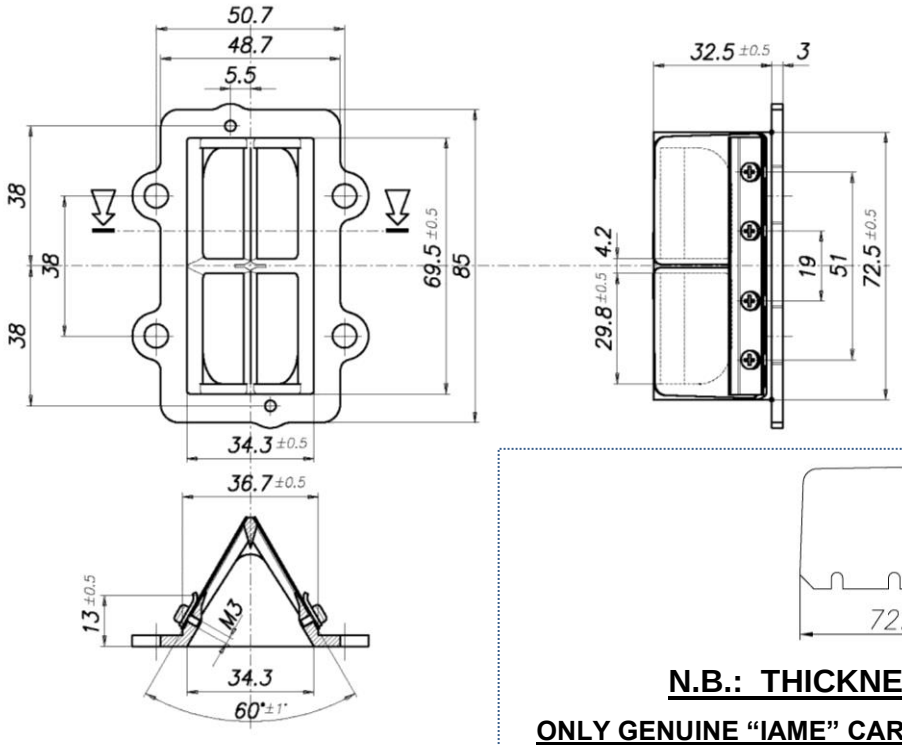
TECHNICAL DRAWING (exploded view) OF THE REED VALVE

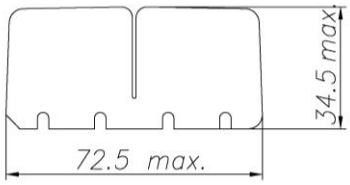


The aim of the exploded drawings is to identify the principles, the functioning and the whole mechanical unit

... Section D.4

DRAWING OF THE REED VALVE
*(DIMENSIONS incl. **tolerances**)*

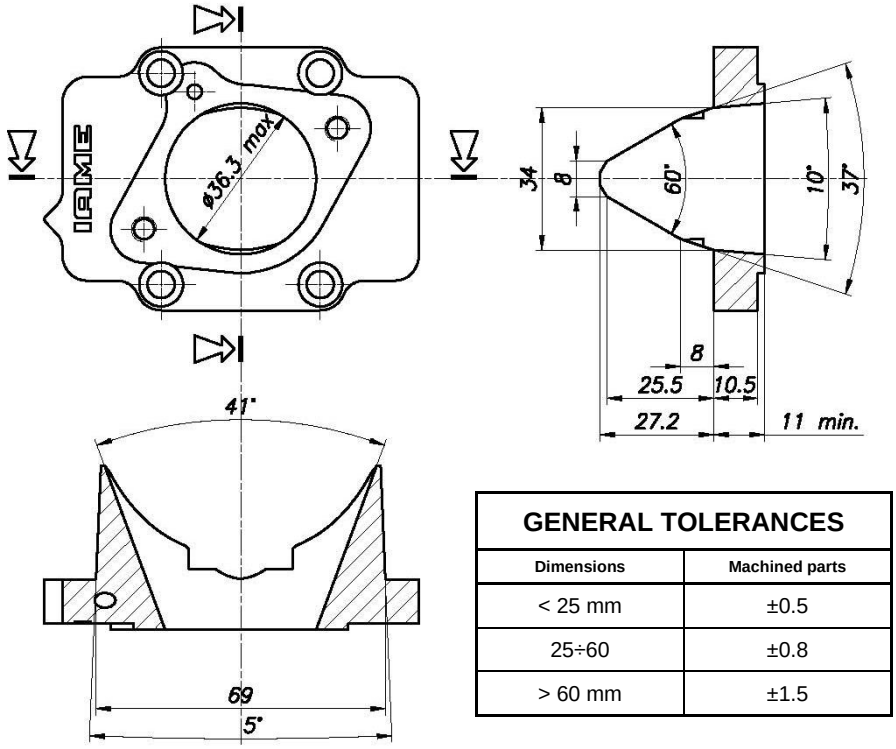




N.B.: THICKNESS 0.24 mm MINIMUM.

ONLY GENUINE "IAME" CARBON FIBRE REEDS ARE PERMITTED

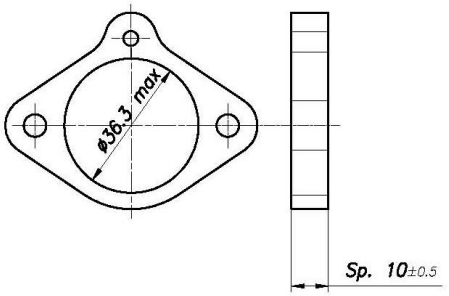
DRAWING OF THE REED VALVE COVER – TYPE 1
(only basic engine with Tillotson HB-10A)



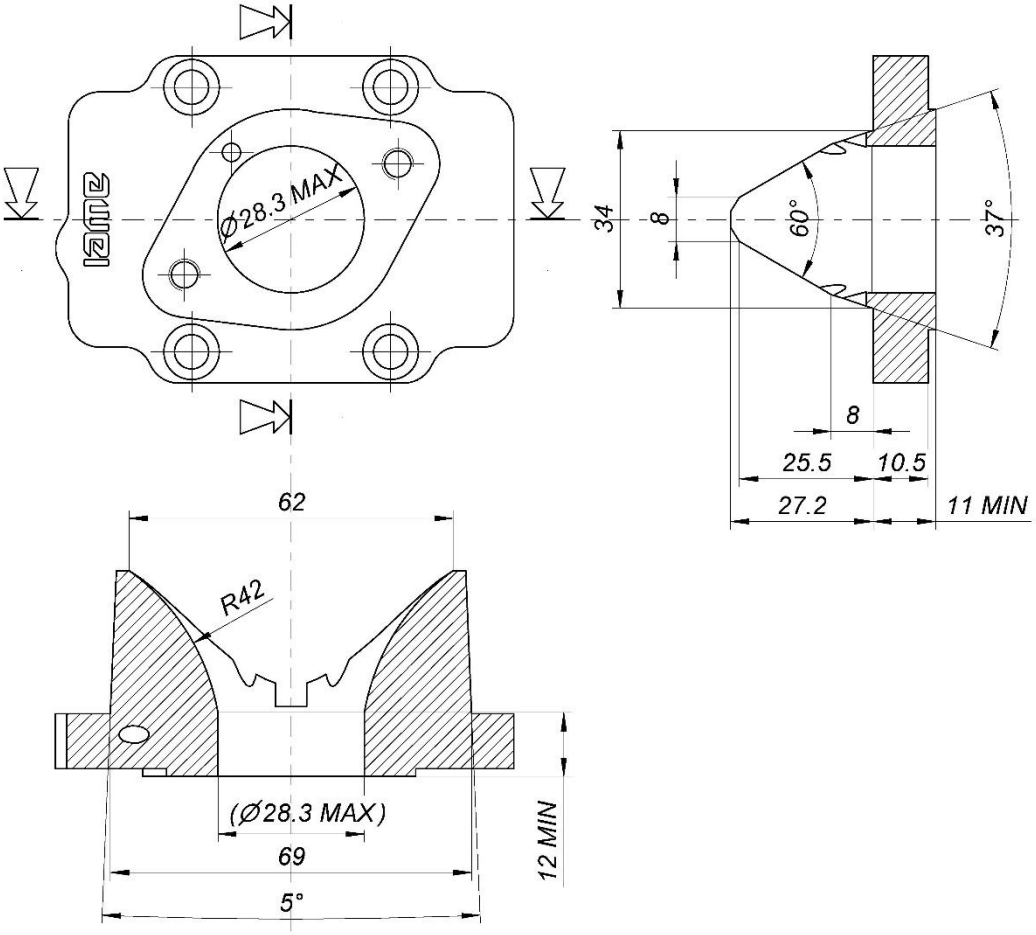
GENERAL TOLERANCES	
Dimensions	**Machined parts**
< 25 mm	±0.5
25÷60	±0.8
> 60 mm	±1.5

INLET SPACER – TYPE 1
(OPTIONAL)

PART N° cod. TFB-41900



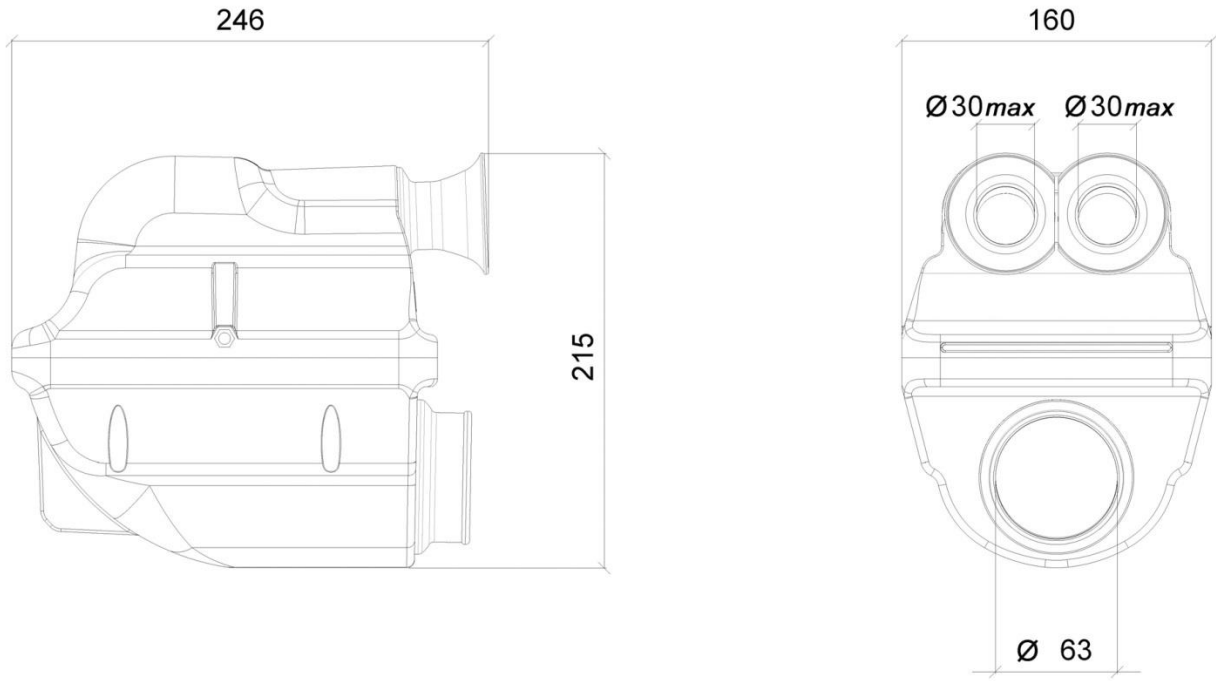
DRAWING OF THE REED VALVE COVER – TYPE 2
(Only basic engine with Tillotson HW-22B)



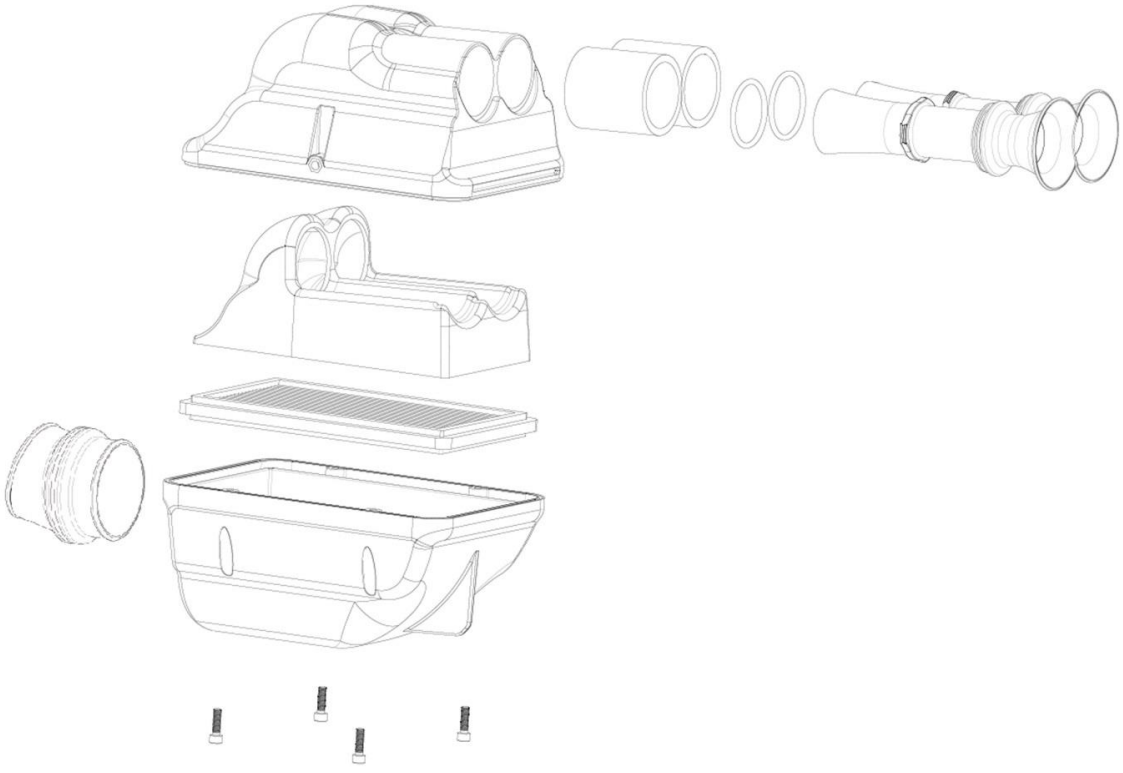
GENERAL TOLERANCES	
Dimensions	**Machined parts**
< 25 mm	±0.5
25÷60	±0.8
> 60 mm	±1.5

... Section D.4

DRAWING OF AIR BOX – KG NITRO 30

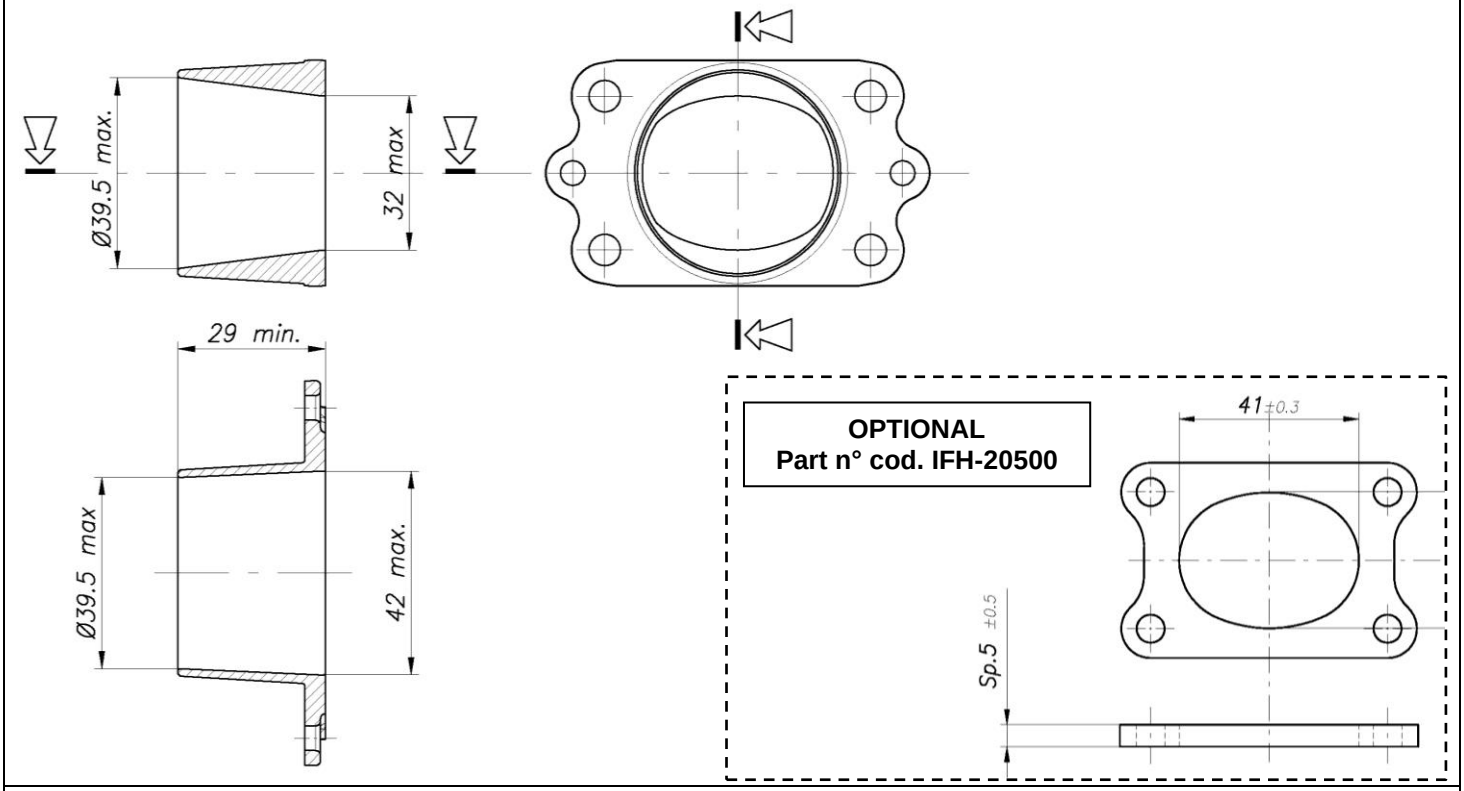


EXPLODED VIEW OF AIR BOX – KG NITRO 30

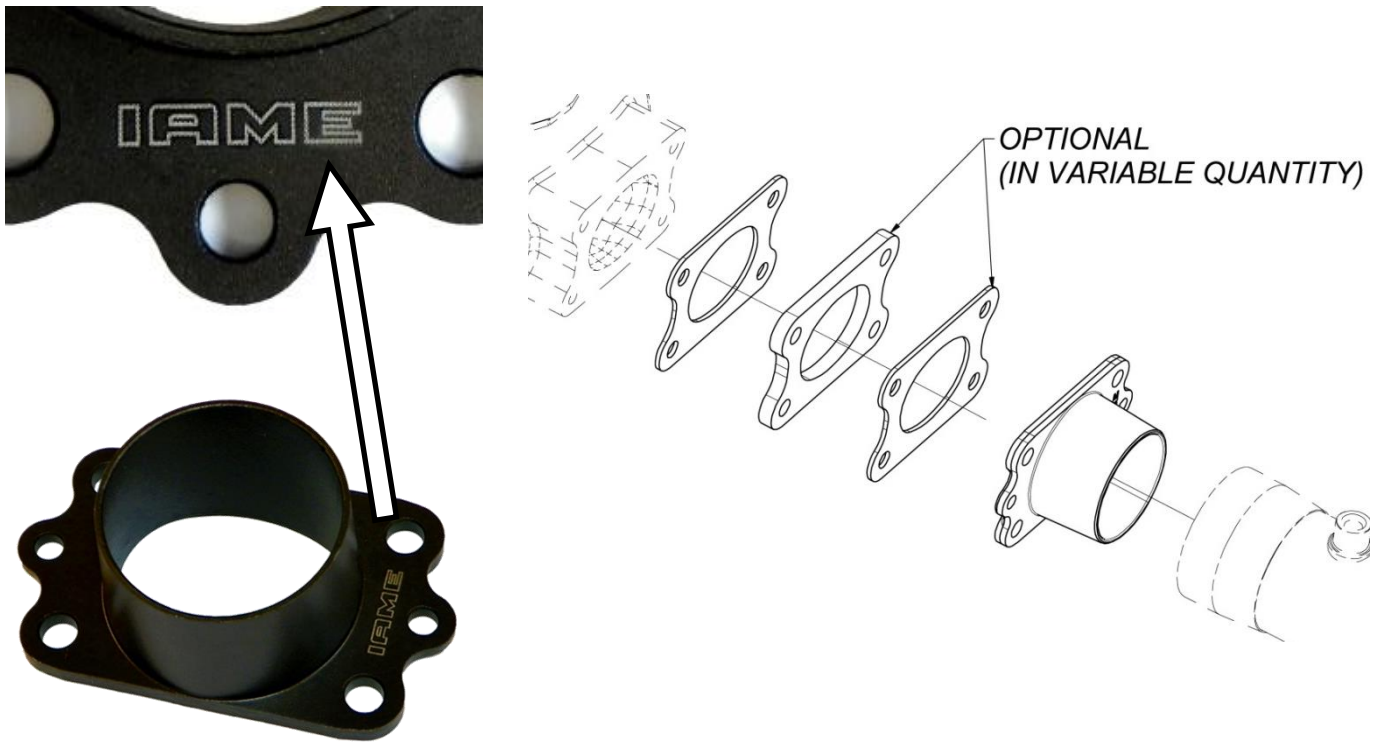


D.5 *EXHAUST SYSTEM*

EXHAUST MANIFOLD DRAWING



THE EXHAUST MANIFOLD ASSEMBLY AND MARKING



D.5 *EXHAUST SYSTEM*

PHOTO OF THE EXHAUST – TYPE 1

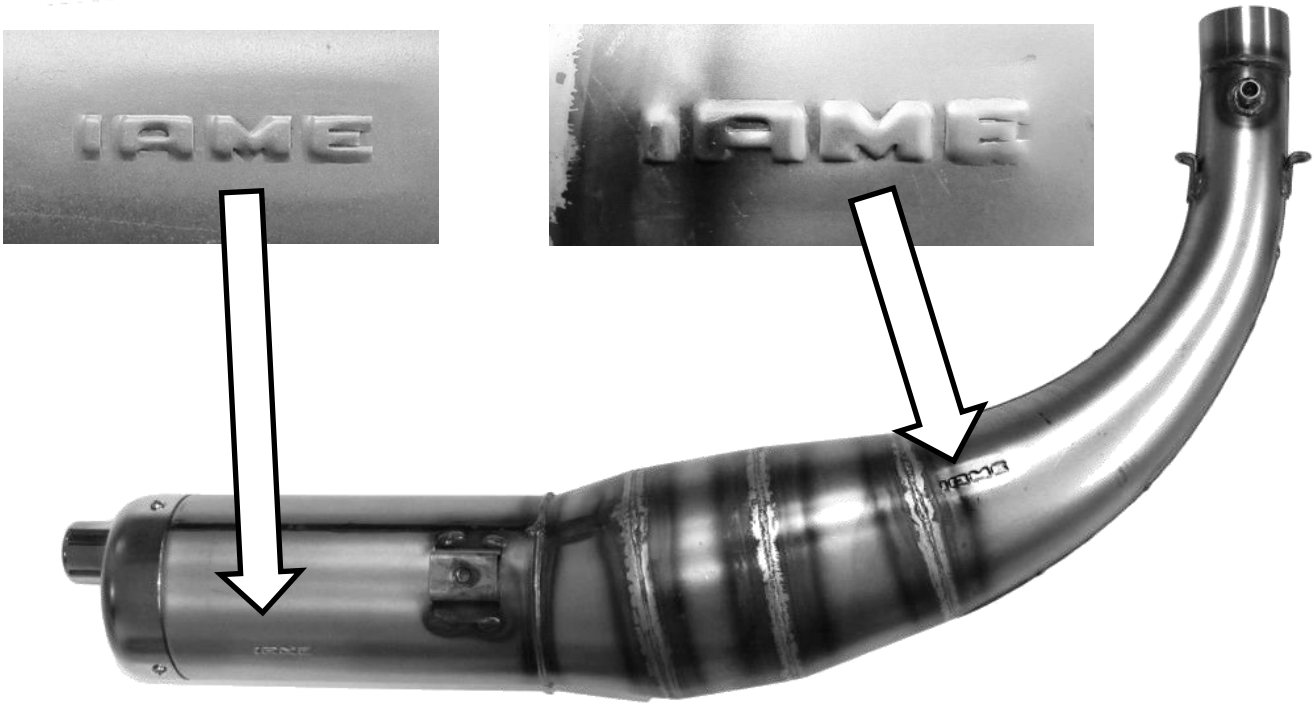
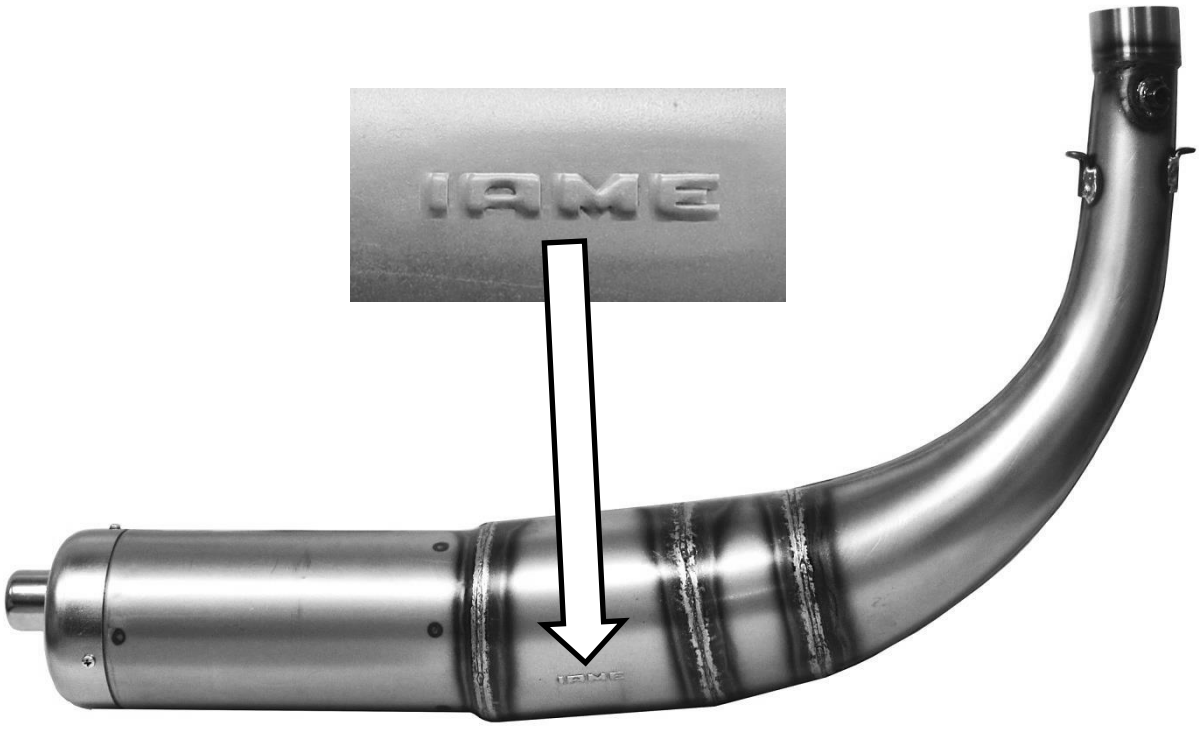


PHOTO OF THE EXHAUST – TYPE 2

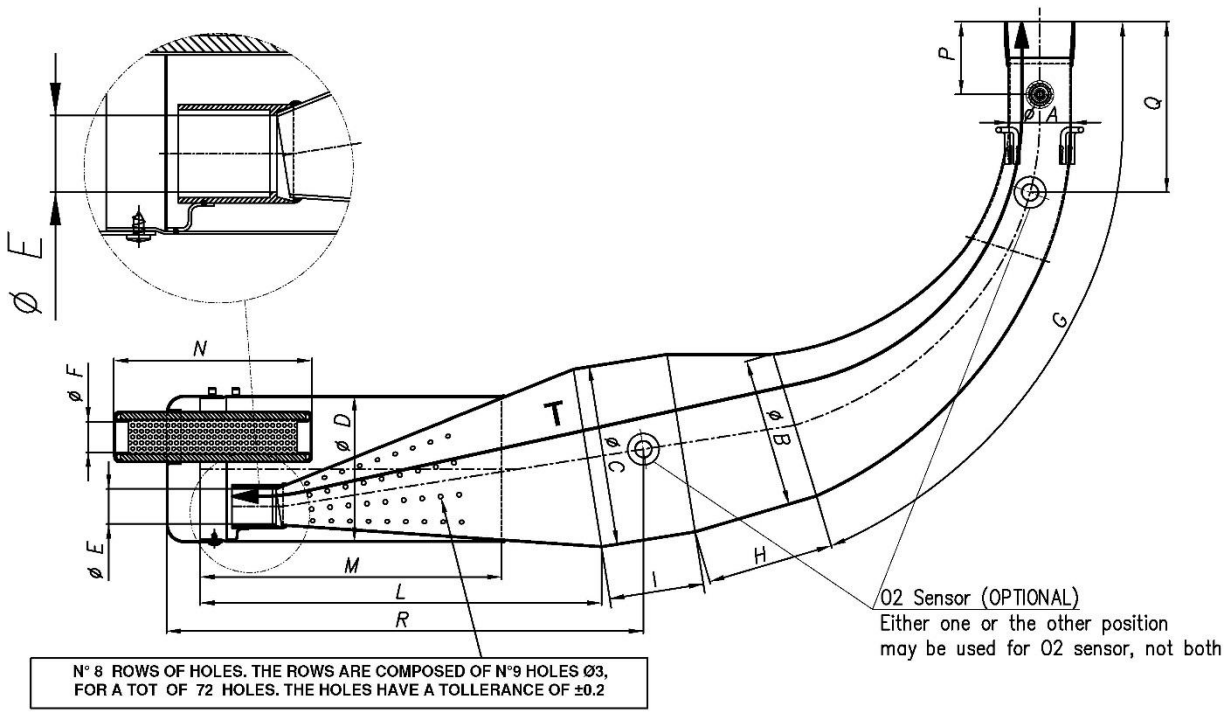


... Section D.5

TECHNICAL DESCRIPTIONS OF THE EXHAUST (Art. 8.9.3 of HR) – TYPE 1		
Weight in g	**2070**	*Minimum*
Volume in cc	**4770**	*+/-5 %*

TECHNICAL DRAWING – TYPE 1

It must include all the information necessary to build this exhaust.



ØA: 44,0 ±1 ext.	**ØD:** 100 ±1 ext.	**G:** 397 ±5	**L:** 275 ±5	**P:** 50 ±10	**T:** 700 ±5
ØB: 102,0 ±1 ext.	**ØE:** 24,5 ±1 int.	**H:** 87 ±3	**M:** 208 ±3	**Q:** 120 ±10	
ØC: 124,0 ±1 ext.	**ØF:** 21 ±1 int.	**I:** 65 ±3	**N:** 132 ±3	**R:** 320 ±10	

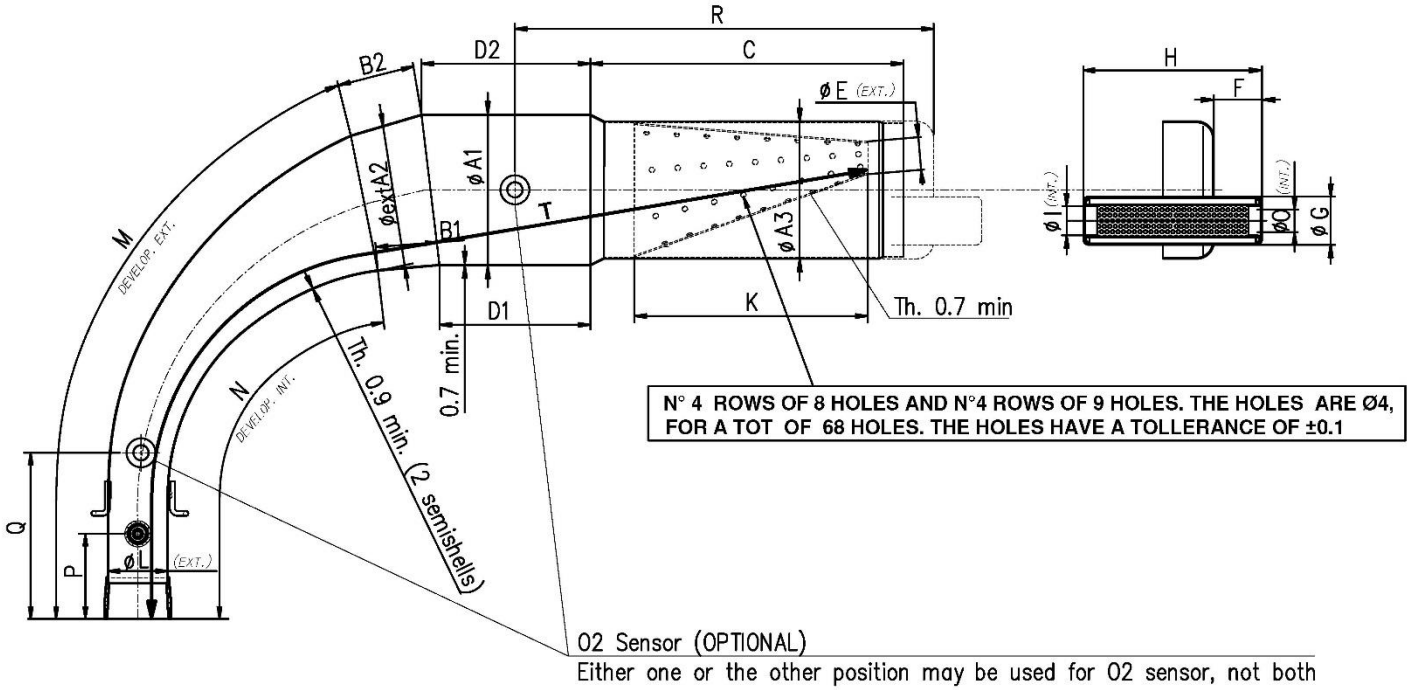
Sheet steel thickness 0,9mm minimum

... Section D.5

TECHNICAL DESCRIPTIONS OF THE EXHAUST (Art. 8.9.3 of HR) – TYPE 2		
Weight in g	**1775**	*Minimum*
Volume in cc	**4460**	*+/-5 %*

TECHNICAL DRAWING – TYPE 2

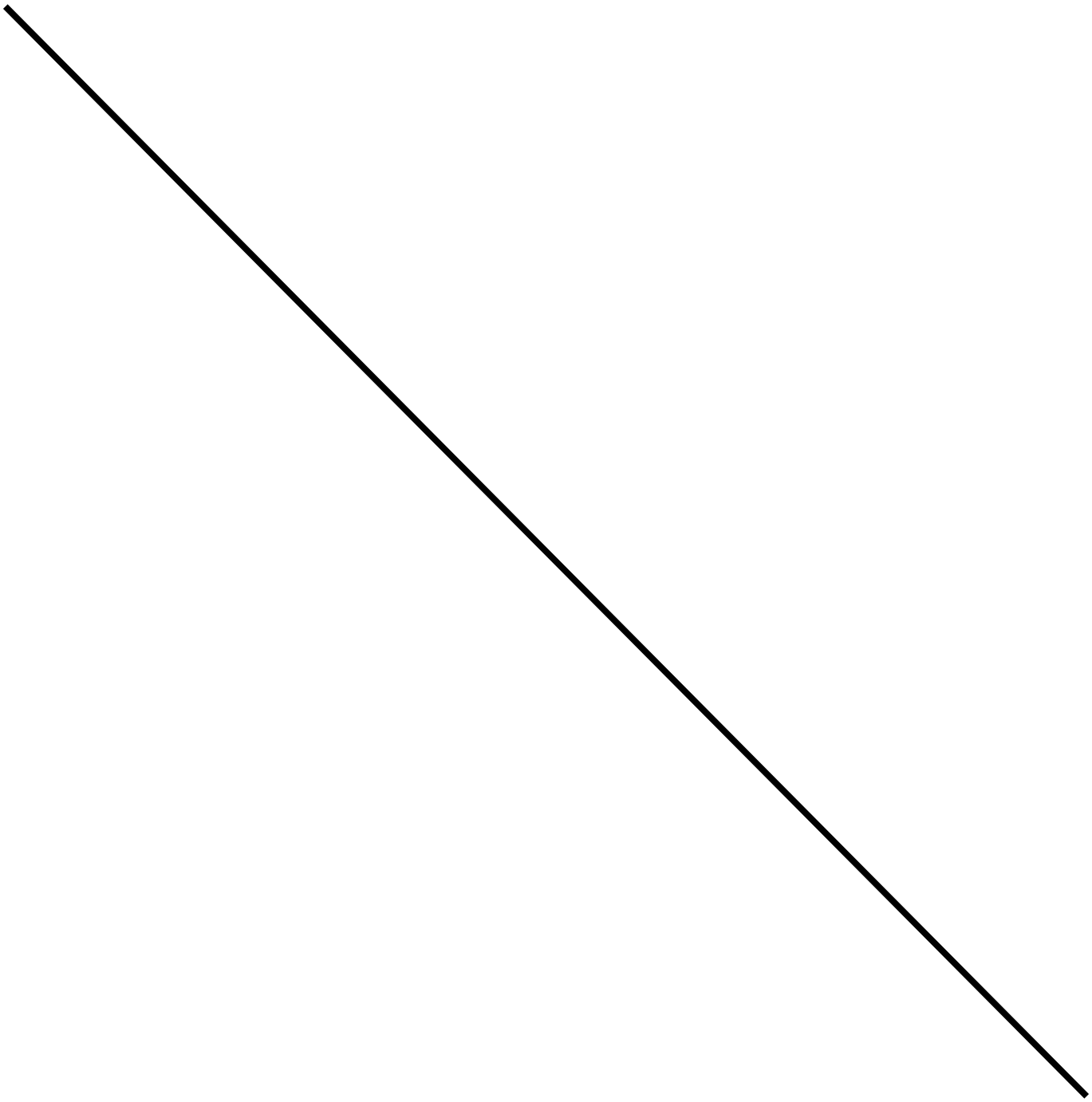
It must include all the information necessary to build this exhaust.



A1: 110 ±1.5	**B1:** 59 ±3	**D1:** 105 ±3	**F:** 36 ±2	**I:** 21 ±1	**M:** 435 ±3	**P:** 50 ±10	**T:** 705 ±5
A2: 102 ±1.5	**B2:** 59 ±3	**D2:** 125 ±3	**G:** 35 ±1	**K:** 170 ±3	**N:** 340 ±3	**Q:** 120 ±10	
A3: 100 ±1.5	**C:** 219 ±3	**E:** 23 ±2	**H:** 132 ±2	**L:** 42.5 ±1.5	**O:** 21 ±1	**R:** 300 ±10	

... Section D.5

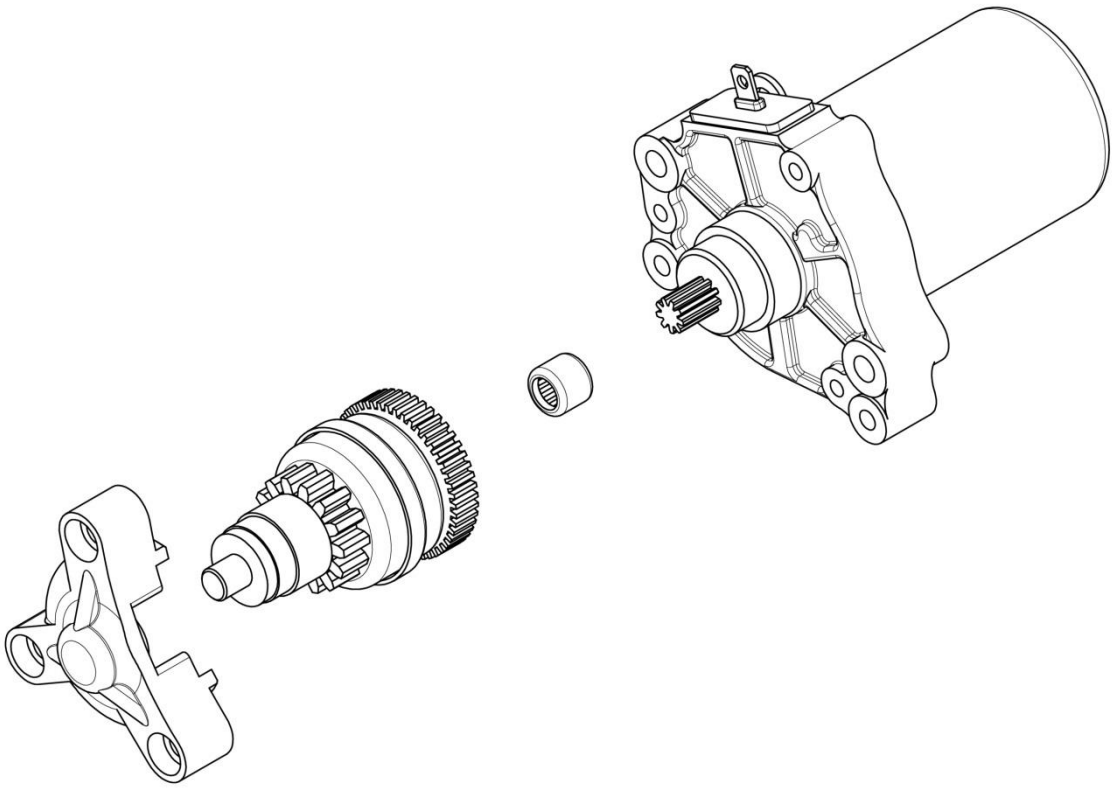
EXPLODED DRAWING AND DESIGNATION OF THE POWER VALVE COMPONENTS



The aim of the exploded drawings is to identify the principles, the functioning and the whole mechanical unit

D.6 *STARTER*

EXPLODED DRAWING OF THE STARTING UNIT AND OF ITS HOUSING

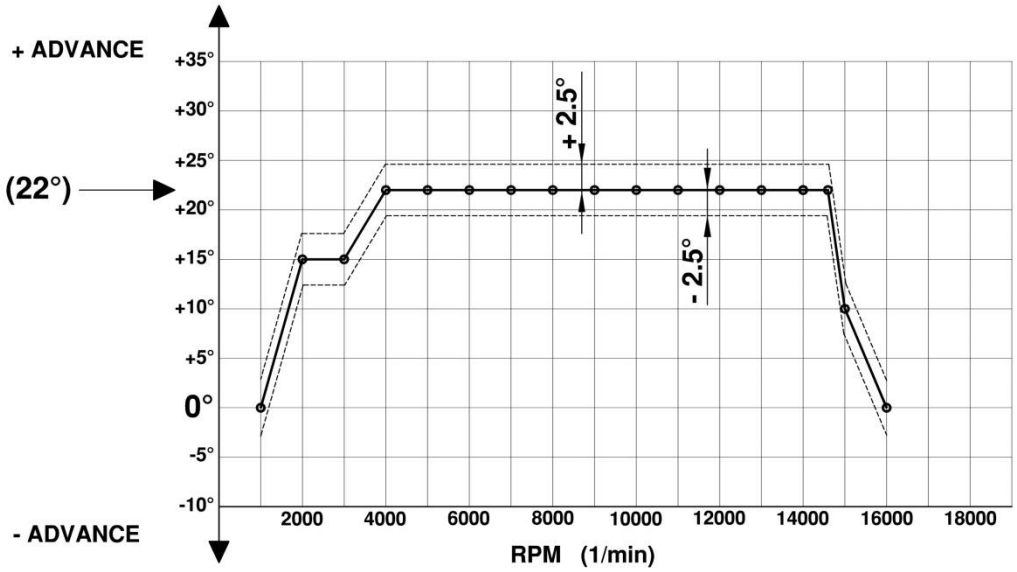


Without screws or gaskets.	***The aim of the exploded drawings is to identify the principles, the functioning and the whole mechanical unit***

D.8 *ELECTRICAL SYSTEM*

IGNITION SYSTEM

ADVANCE CURVE GRAPHS

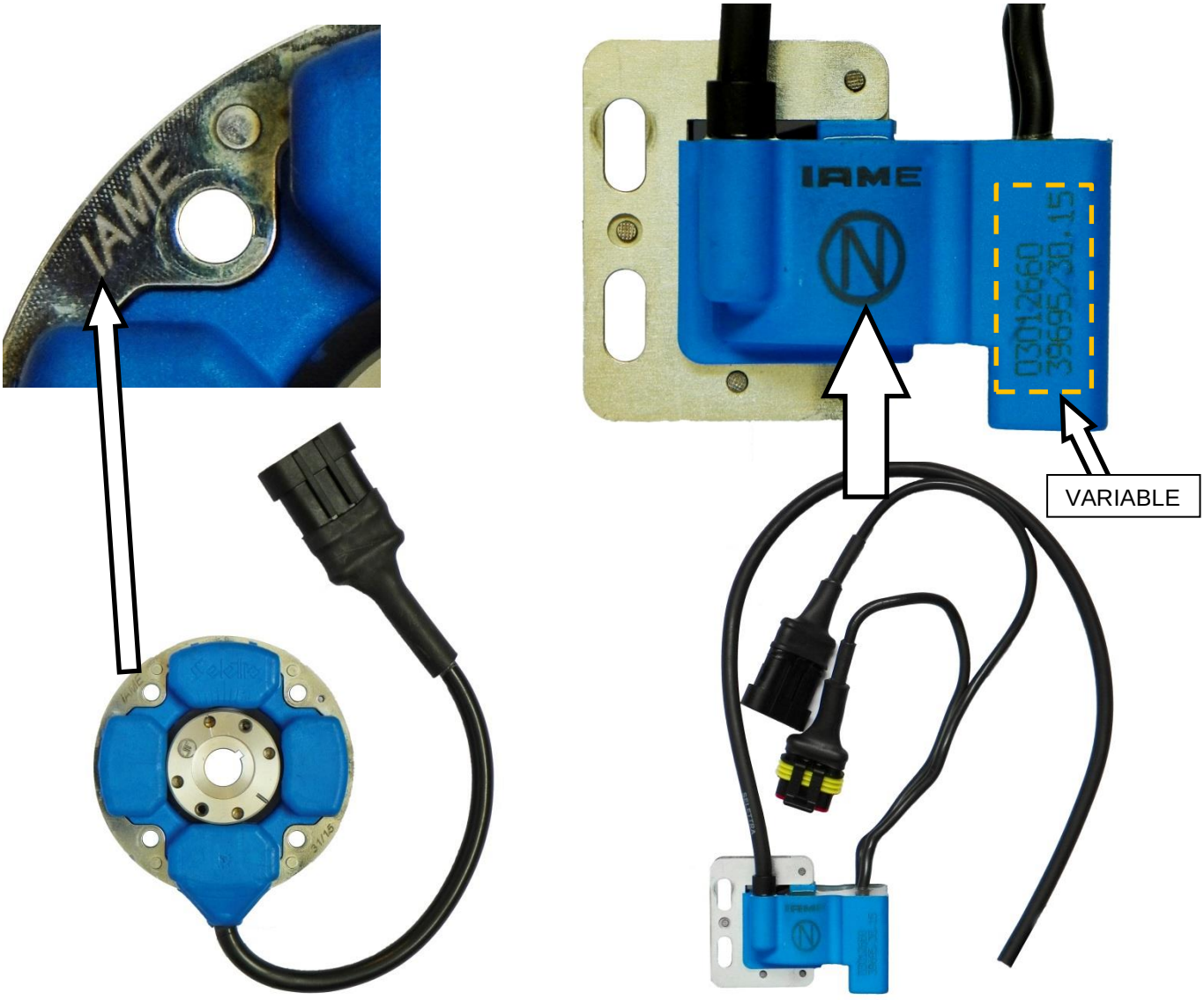


Ignition homologation No.	-	
Ignition homologation No.	-	
Ignition homologation No.	-	
Ignition homologation No.	-	
Code	***SELETTRA (Rotor+Stator) : X30125953***	*Blue*
Code	***SELETTRA (H.T. Coil with ECU) : X30125933N***	*Blue*

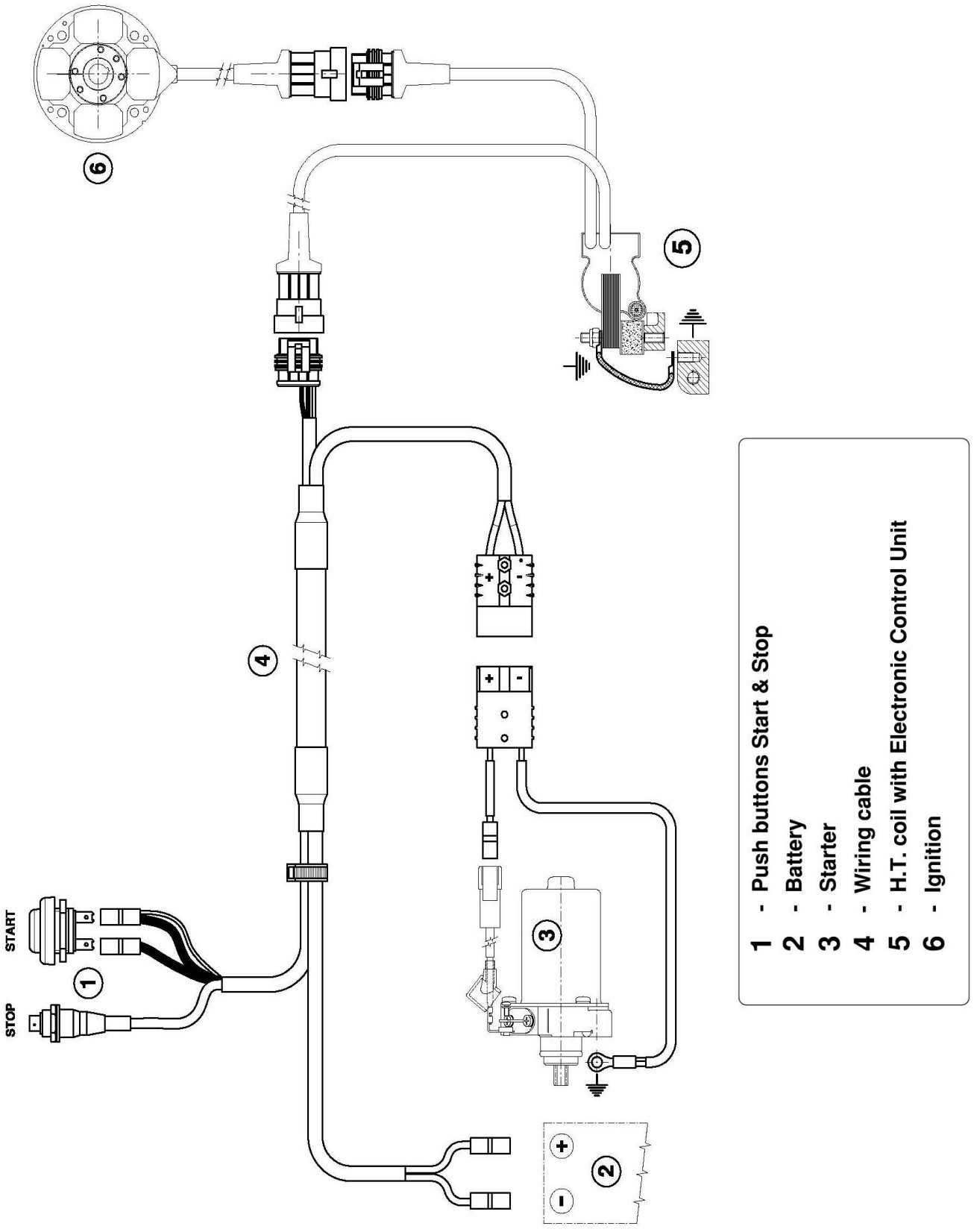
Tr/mln	*1000*	*2000*	*3000*	*4000*	*5000*	*6000*	*7000*	*8000*	*9000*	*10000*	*11000*	*12000*	*13000*	*14000*	*15000*	*16000*
° adv	*0°*	*15°*	*15°*	*22°*	*22°*	*22°*	*22°*	*22°*	*22°*	*22°*	*22°*	*22°*	*22°*	*22°*	*10°*	*0°*

PHOTO COMPLETE WIRING LOOM

PHOTO OF SELETTRA DIGITAL “S” IGNITION WITH “IAME” MARKING



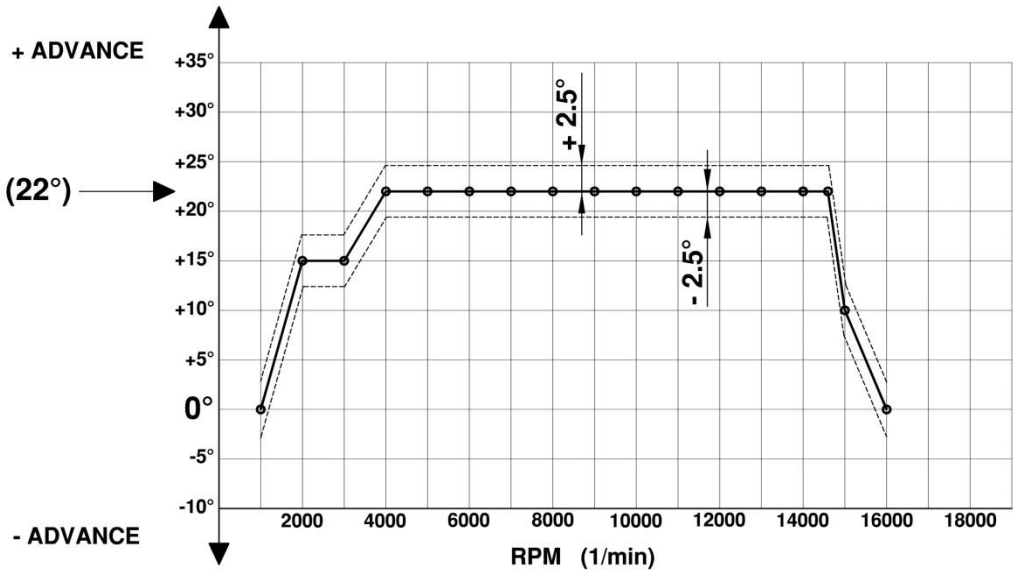
WIRING DIAGRAM - SELETTRA DIGITAL ‘’S’’ IGNITION



ELECTRICAL SYSTEM

ALTERNATIVE IGNITION SYSTEM

ADVANCE CURVE GRAPHS

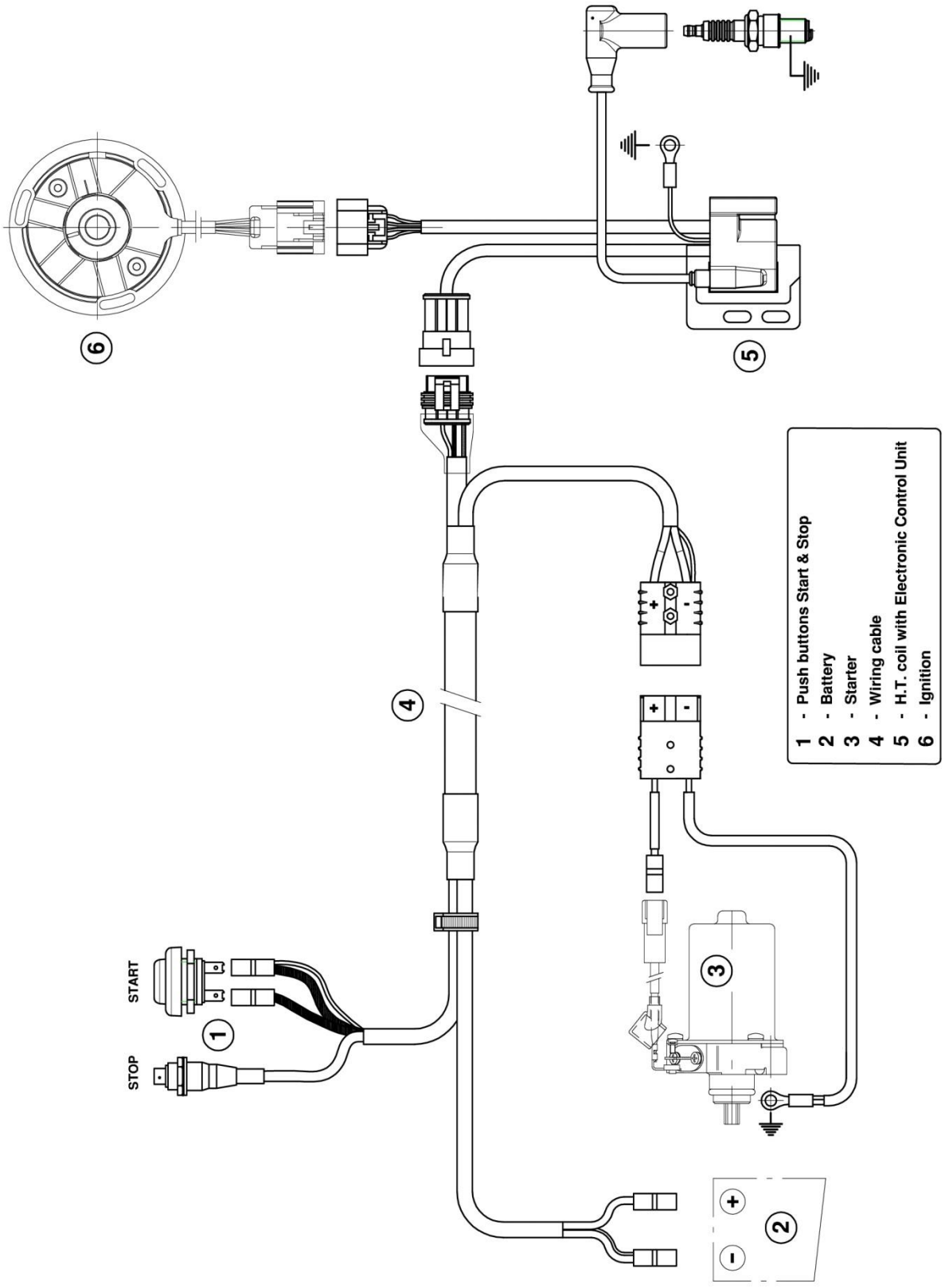


Ignition homologation No.	-	
Ignition homologation No.	-	
Ignition homologation No.	-	
Ignition homologation No.	-	
Code	**PVL (Stator+Rotor) : 690 600 (684 810 + 690 900)**	Black
Code	**PVL (H.T. Coil with ECU) : 690 100N**	Blue

Tr/mln	1000	2000	3000	4000	5000	6000	7000	8000	9000	10000	11000	12000	13000	14000	15000	16000
° adv	0°	15°	15°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	22°	10°	0°

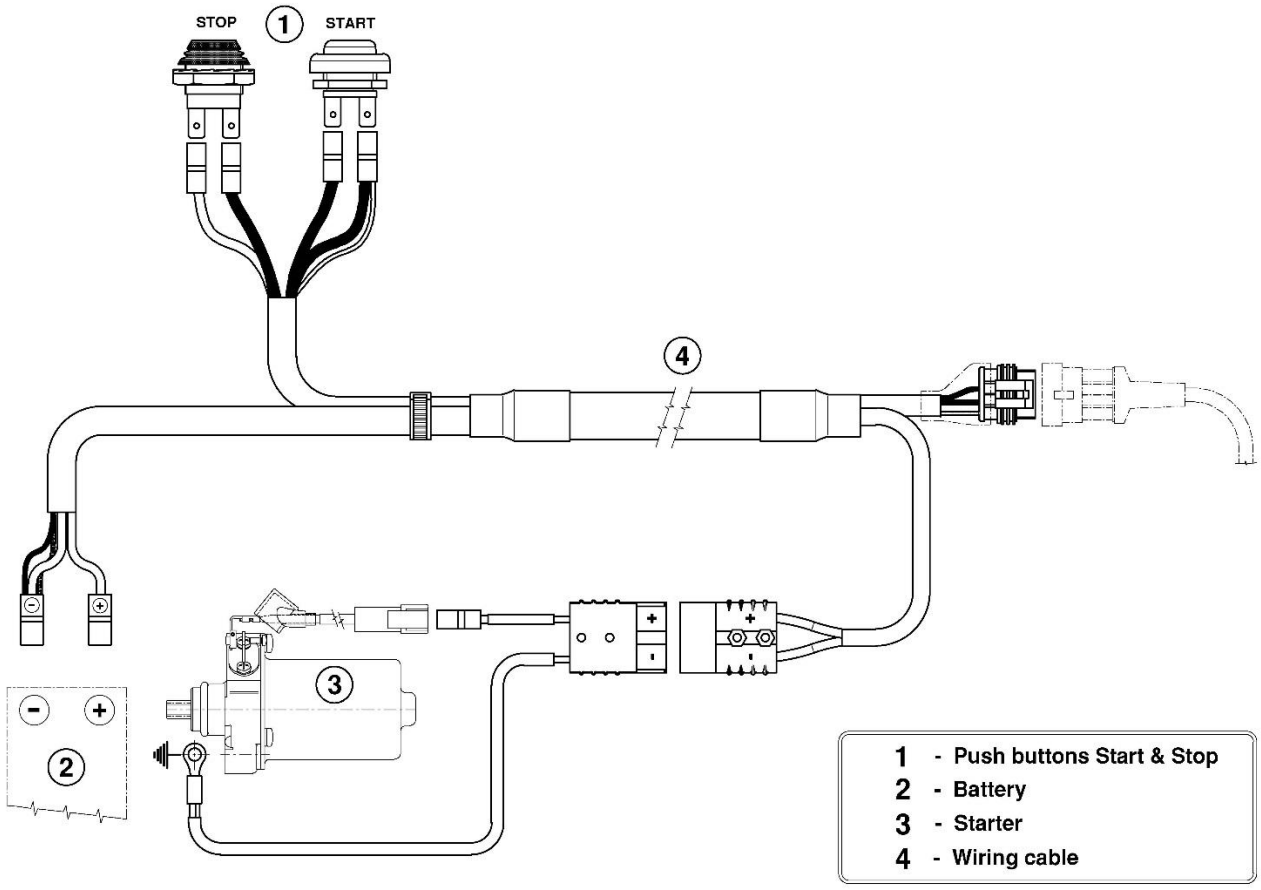
PHOTO OF ALTERNATIVE DIGITAL IGNITION PVL 690, WITH IAME MARKING

ALTERNATIVE WIRING DIAGRAM – PVL 690 DIGITAL IGNITION

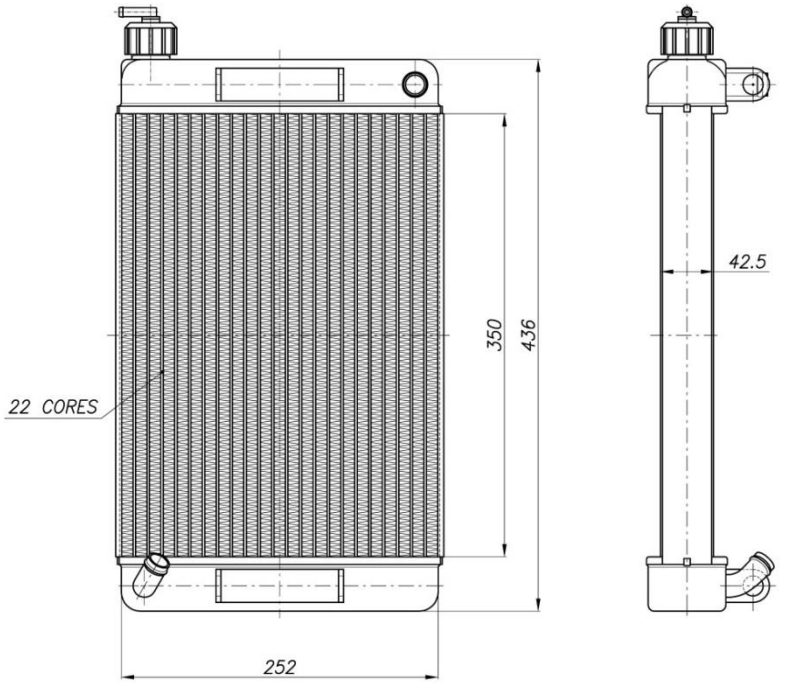


ALTERNATIVE WIRING LOOM

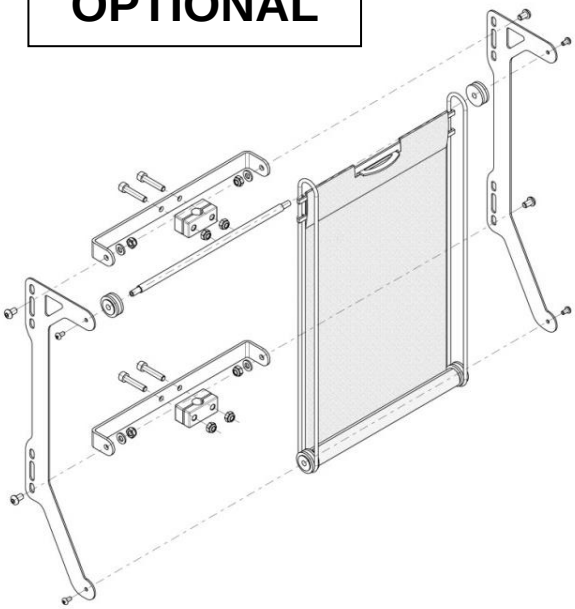
ALTERNATIVE WIRING LOOM DIAGRAM



RADIATOR DRAWING AND DIMENSIONS – TYPE 1

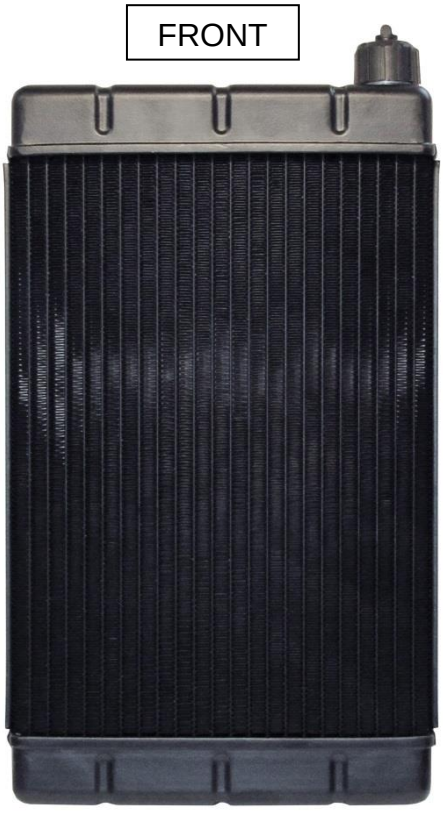


OPTIONAL

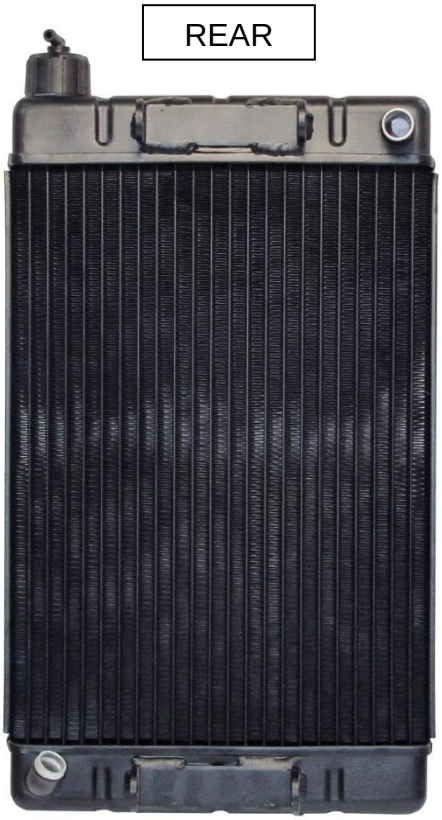


RADIATOR

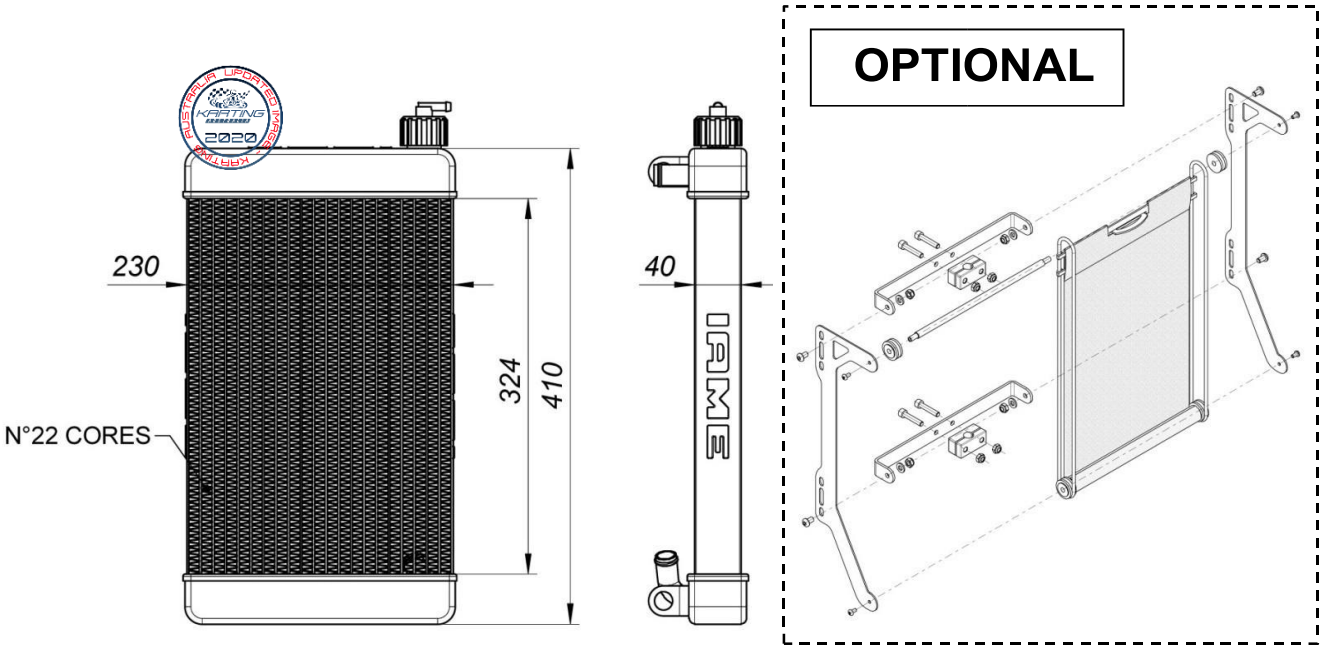
FRONT



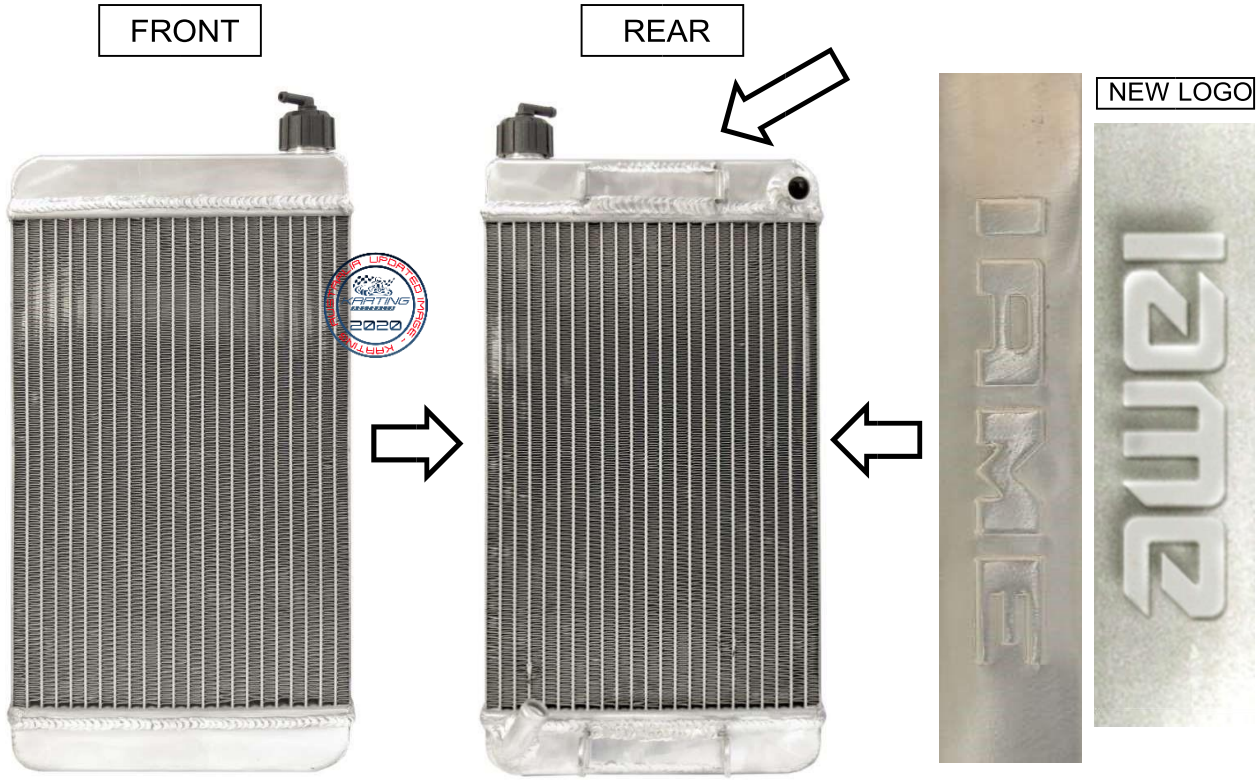
REAR



RADIATOR DRAWING AND DIMENSIONS – TYPE 2



RADIATOR – TYPE 2

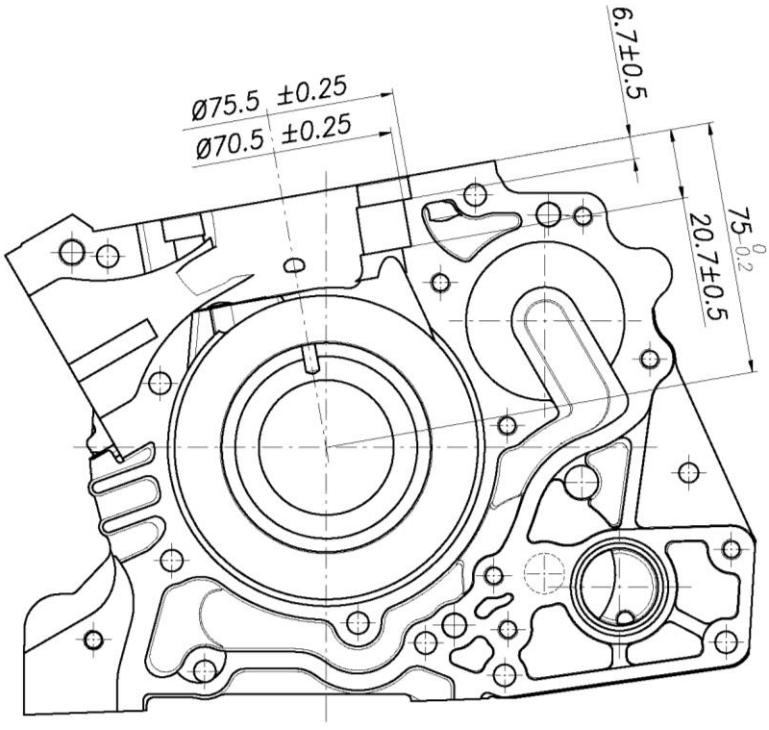


ADDITIONAL INFORMATION, DRAWING AND PHOTO IDENTIFICATION

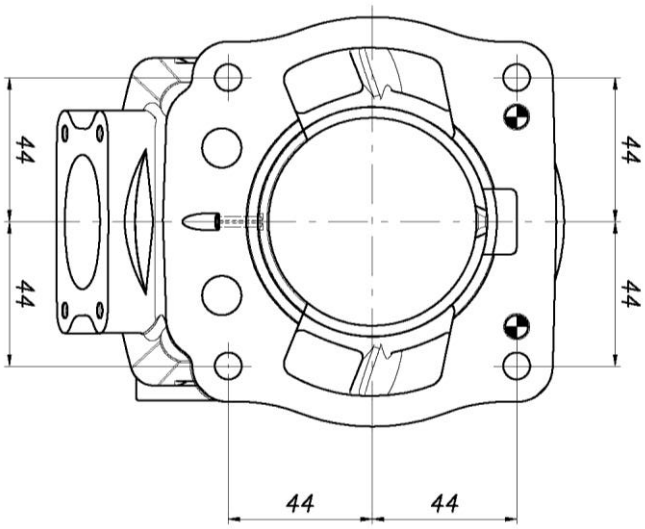
ADDITIONAL TECHNICAL INFORMATION

DESCRIPTION	QUANTITY	MATERIAL	NOTES / DIMENSIONS
Piston Rings	1	Iron	-
Balancing shaft	1	Steel	-
Exhaust muffler	1	Sheet-steel	-
Gears	-	Steel	-
Starter Ring	1	Steel	-
Big end conrod bearing diameters	1	-	20x26x15
Crankshaft bearing diameters	2	-	30x62x16
Small end conrod bearing diameters	1	-	15x19x20
Cooling System	-	-	Water
Inlet System	-	-	Reed Valve
Combustion chamber shape	-	-	Spherical
Centrifugal Clutch	-	-	Yes
Electric Starter	-	-	Yes

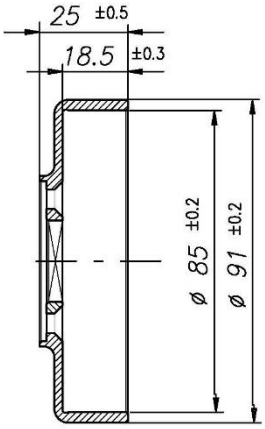
CRANKCASE INSIDE VIEW



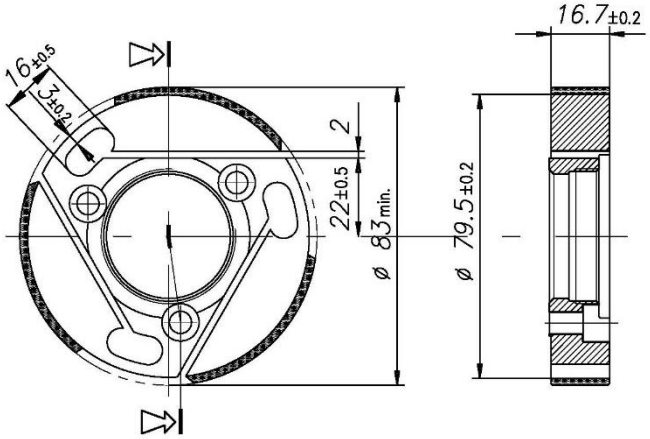
CYLINDER BASE HOLES



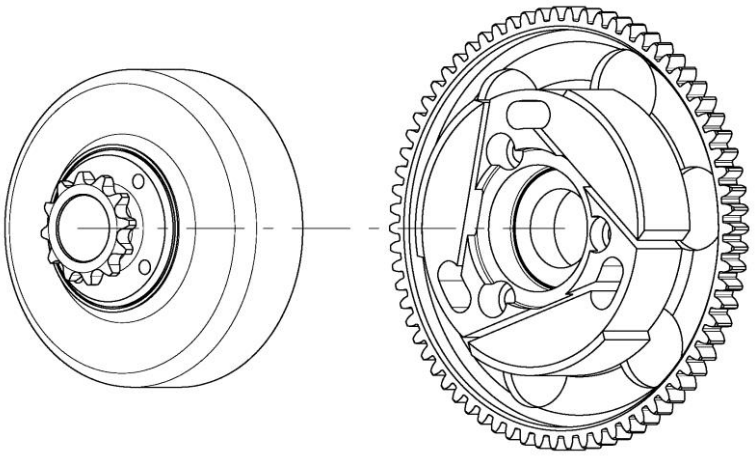
CLUTCH GROUP DRAWING AND ASSEMBLY



Min. weight 225 g



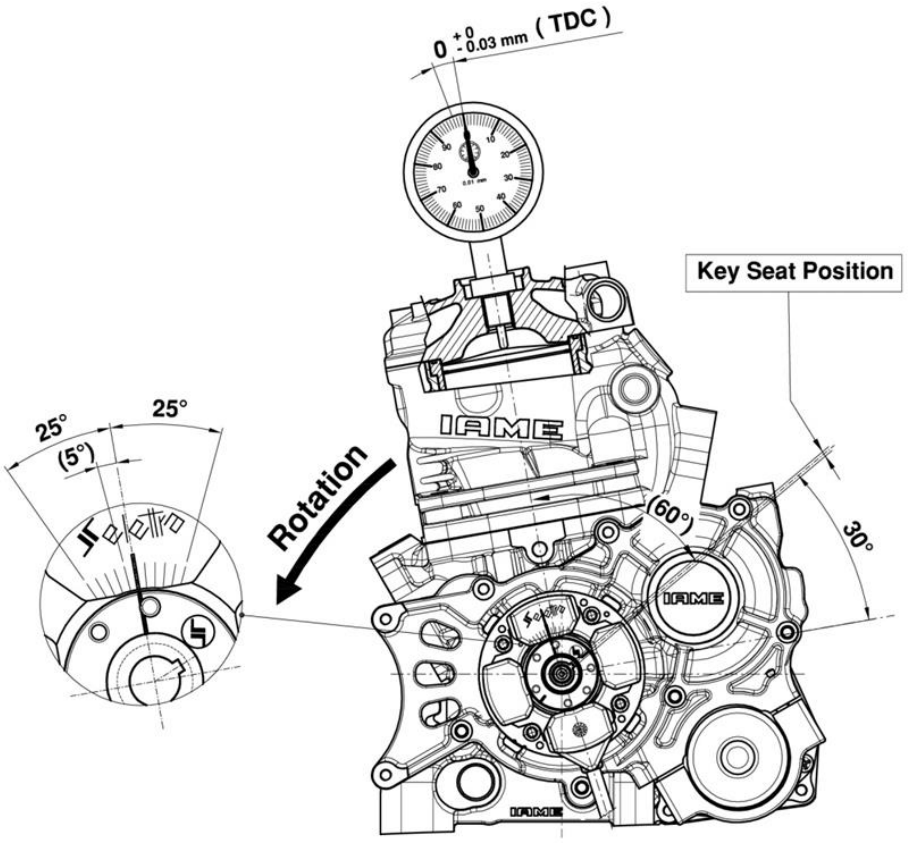
Min. weight 375 g

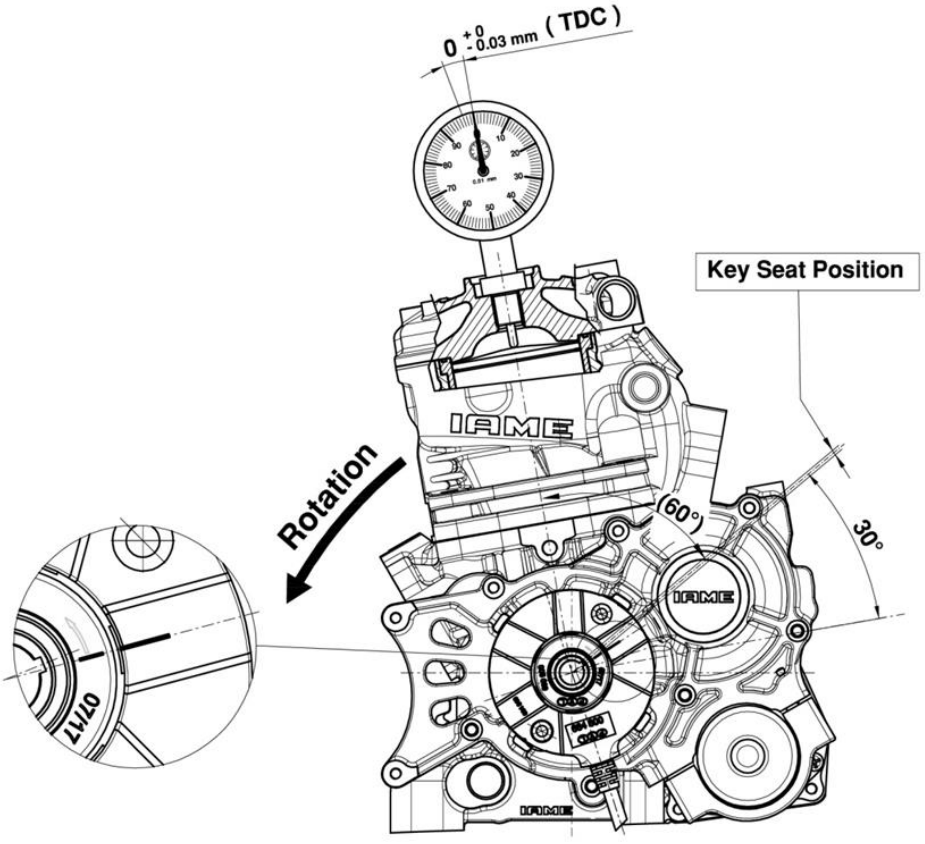


Min. weight 300 g

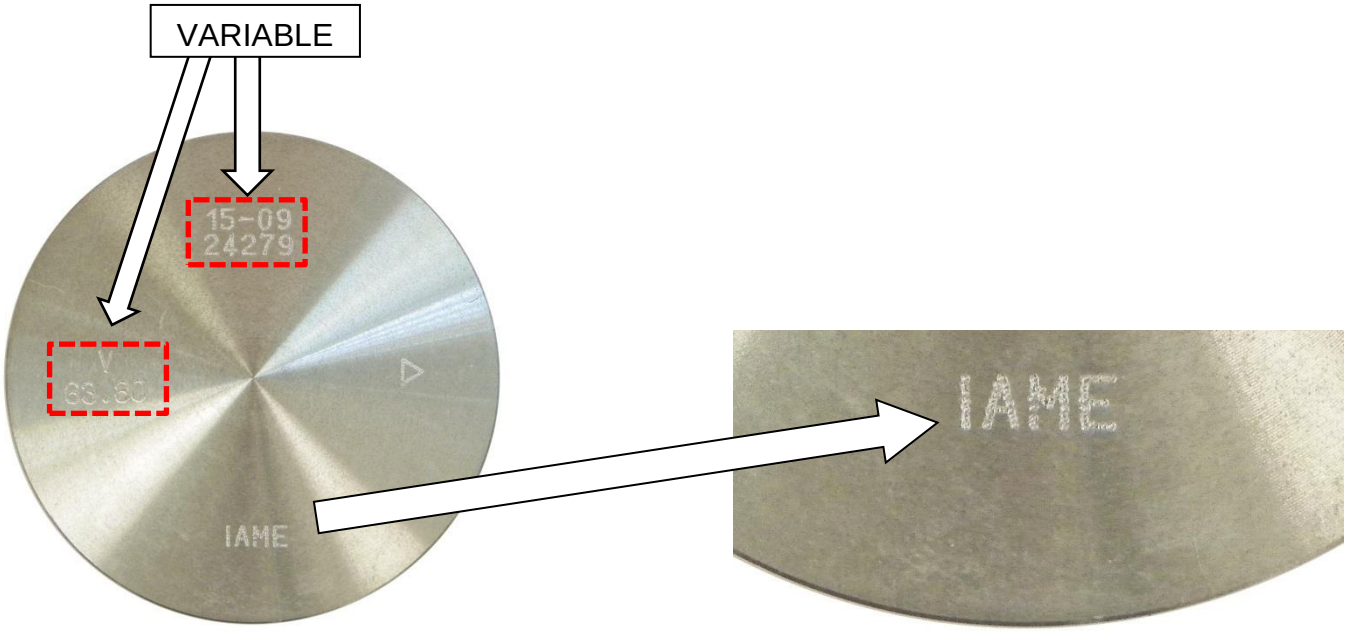
Min. weight 680 g

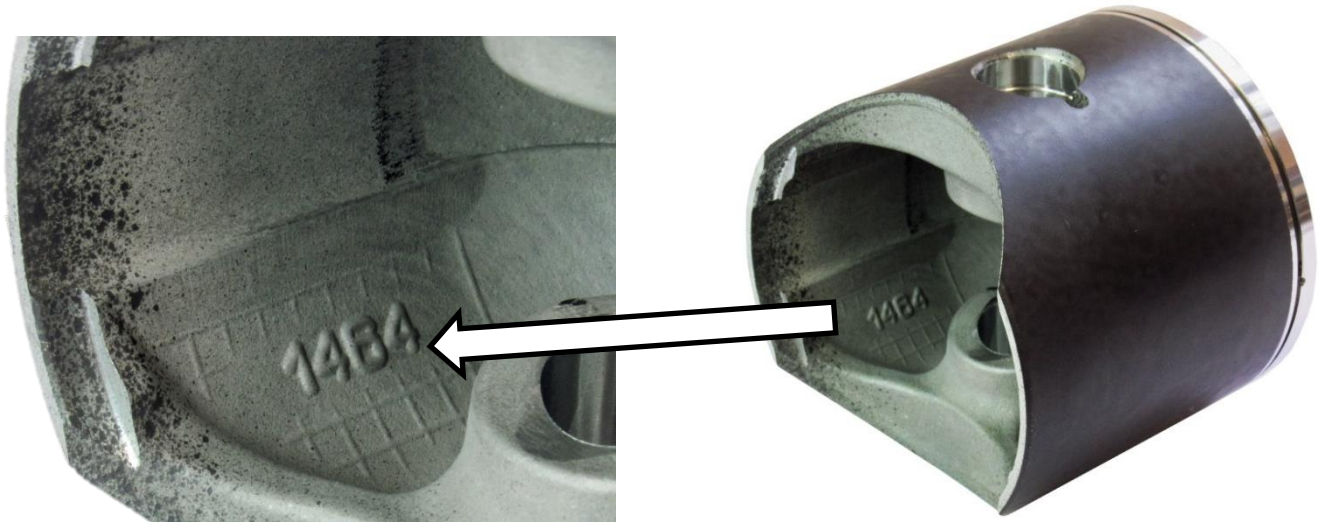
SCHEME FOR ADVANCE CONTROL



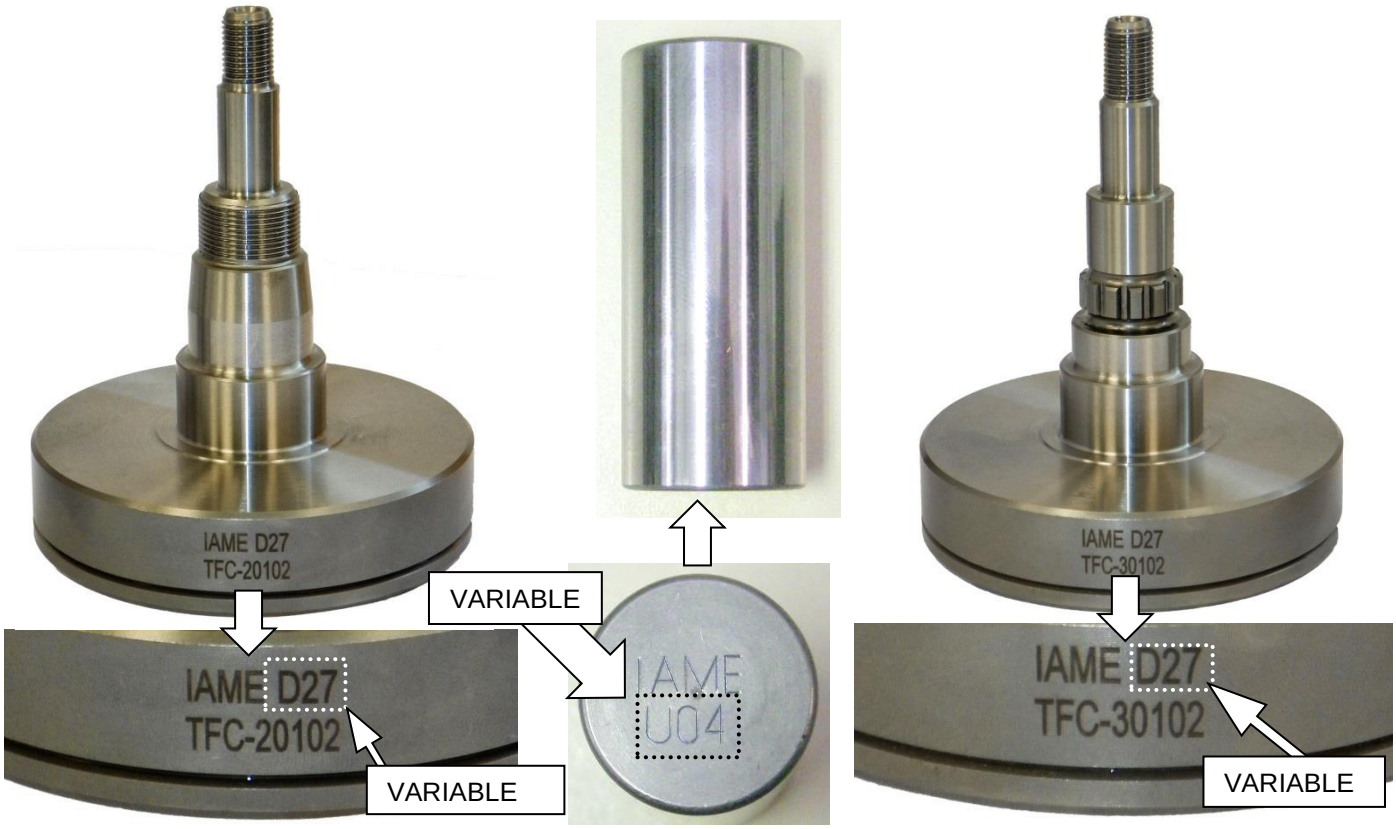


PISTON IDENTIFICATION MARKING

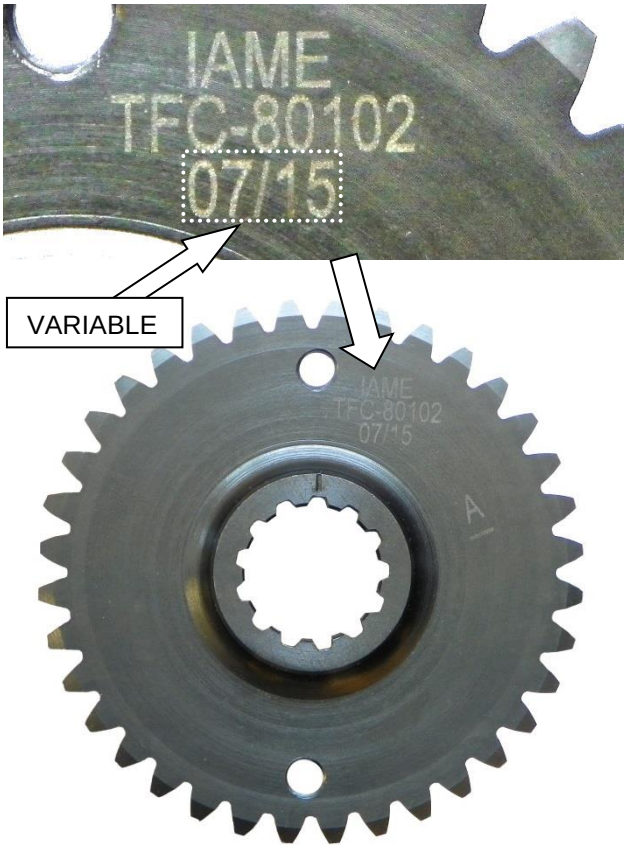




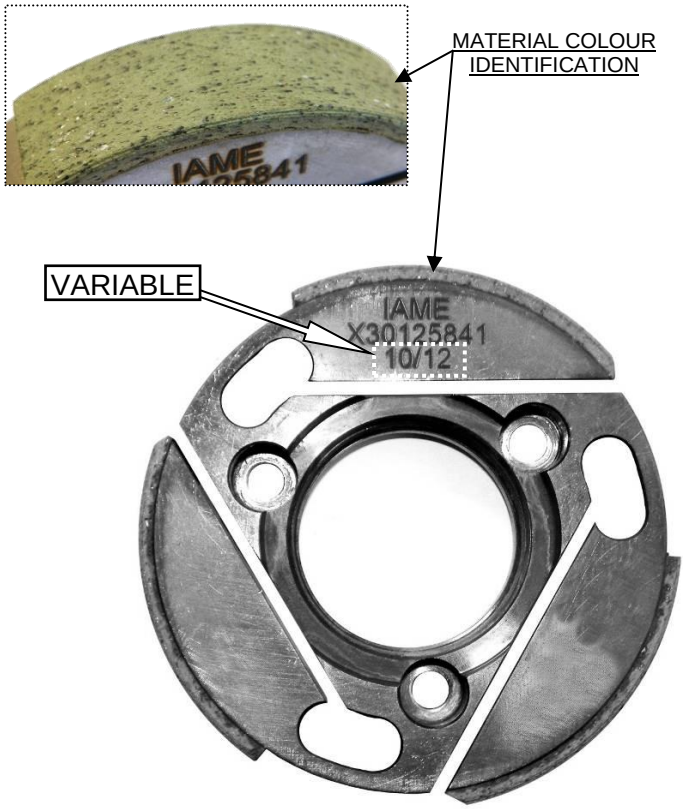
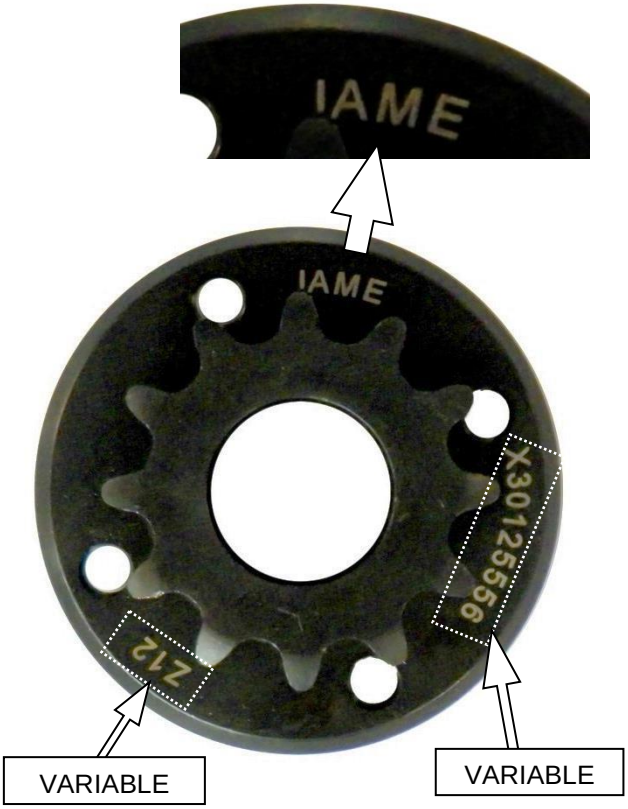
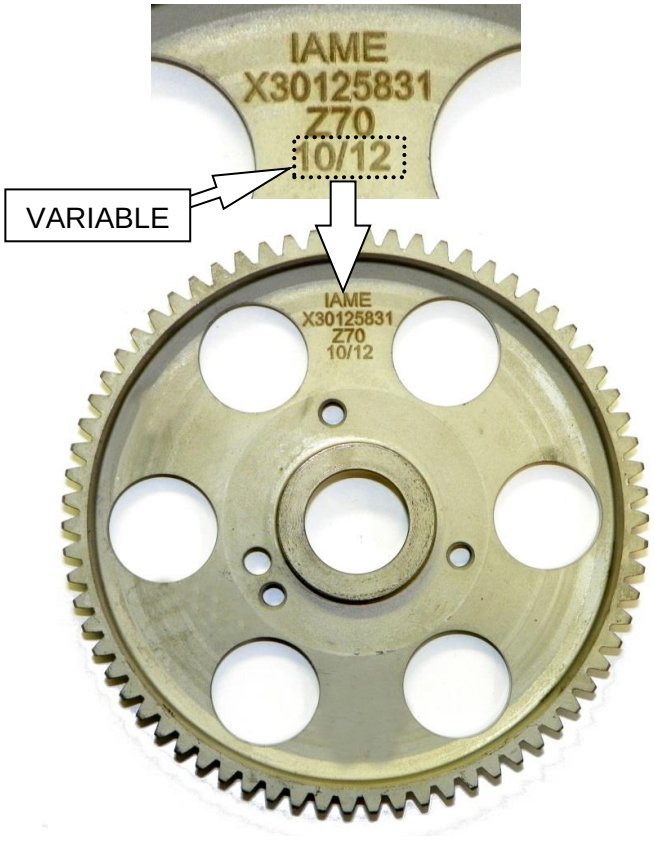
CRANKSHAFT IDENTIFICATION MARKING



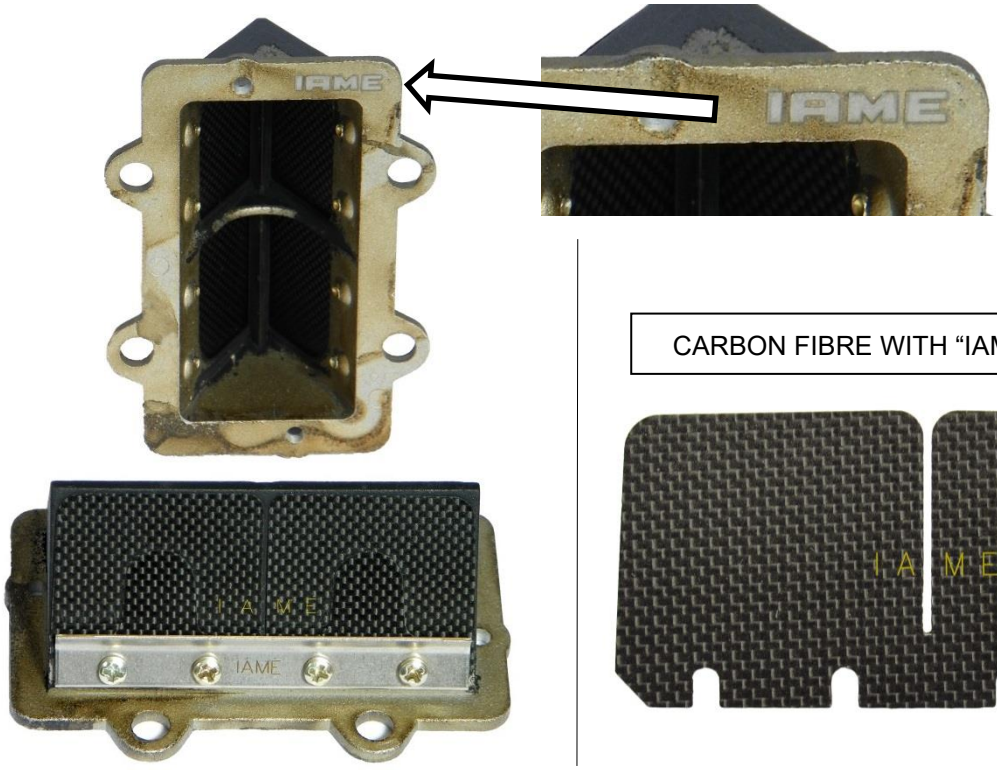
DRIVE GEAR FOR BALANCE SHAFT IDENTIFICATION MARKING



STARTER IDENTIFICATION MARKING

CLUTCH HUB IDENTIFICATION MARKING	SPROCKET IDENTIFICATION MARKING
	
STARTER RING IDENTIFICATION MARKING	**CLUTCH DRUM IDENTIFICATION MARKING**
	

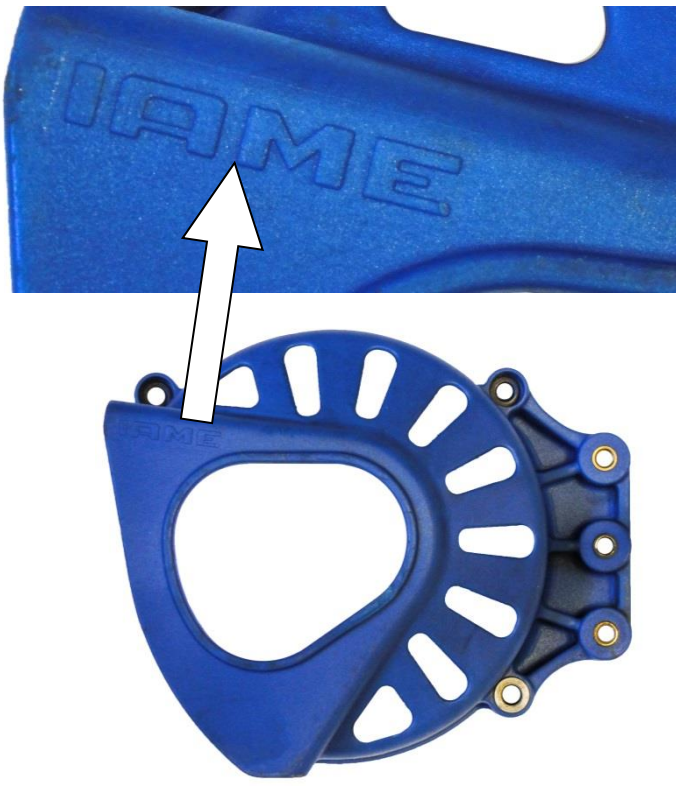
REED GROUP & PETALS IDENTIFICATION PHOTO



CARBON FIBRE WITH “IAME” MARKING

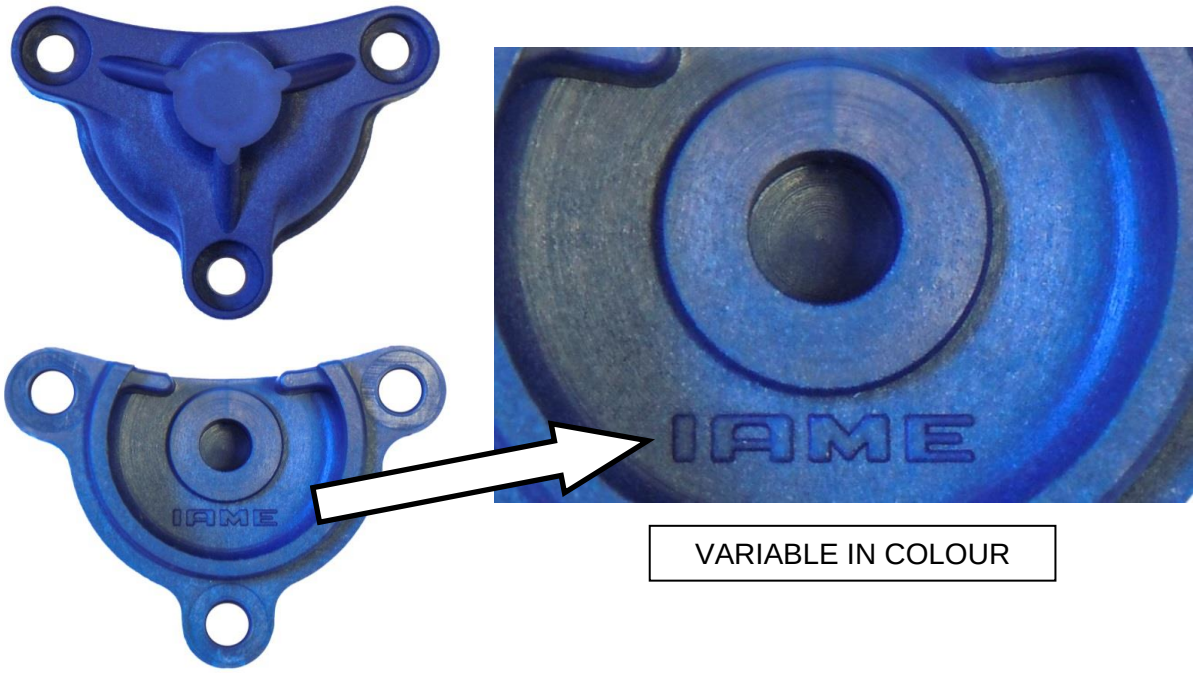
INLET CONVERYOR AND SPACER IDENTIFICATION MARKING

CLUTCH COVER IDENTIFICATION MARKING



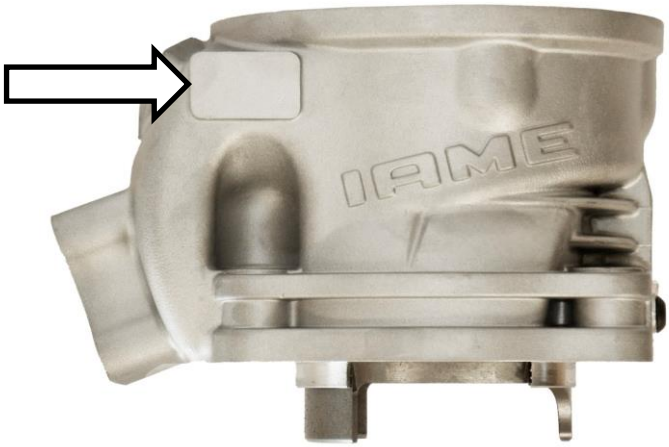
VARIABLE IN COLOUR

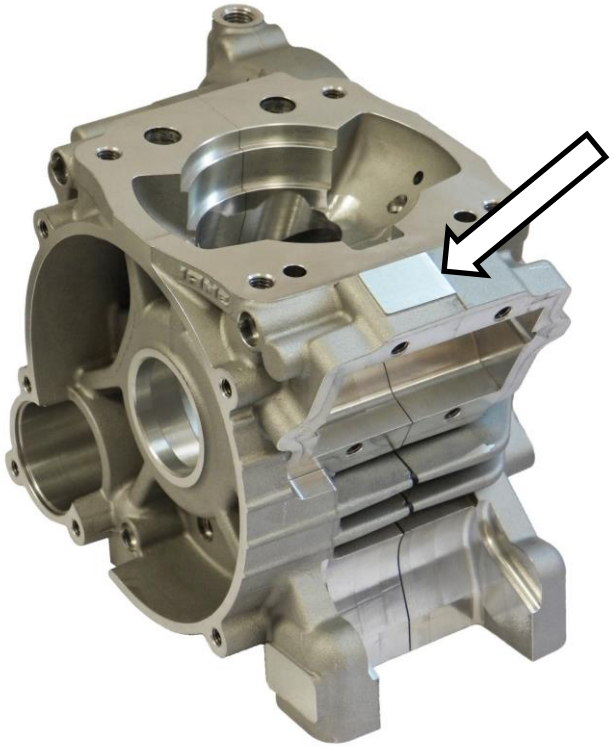
BENDIX COVER IDENTIFICATION MARKING



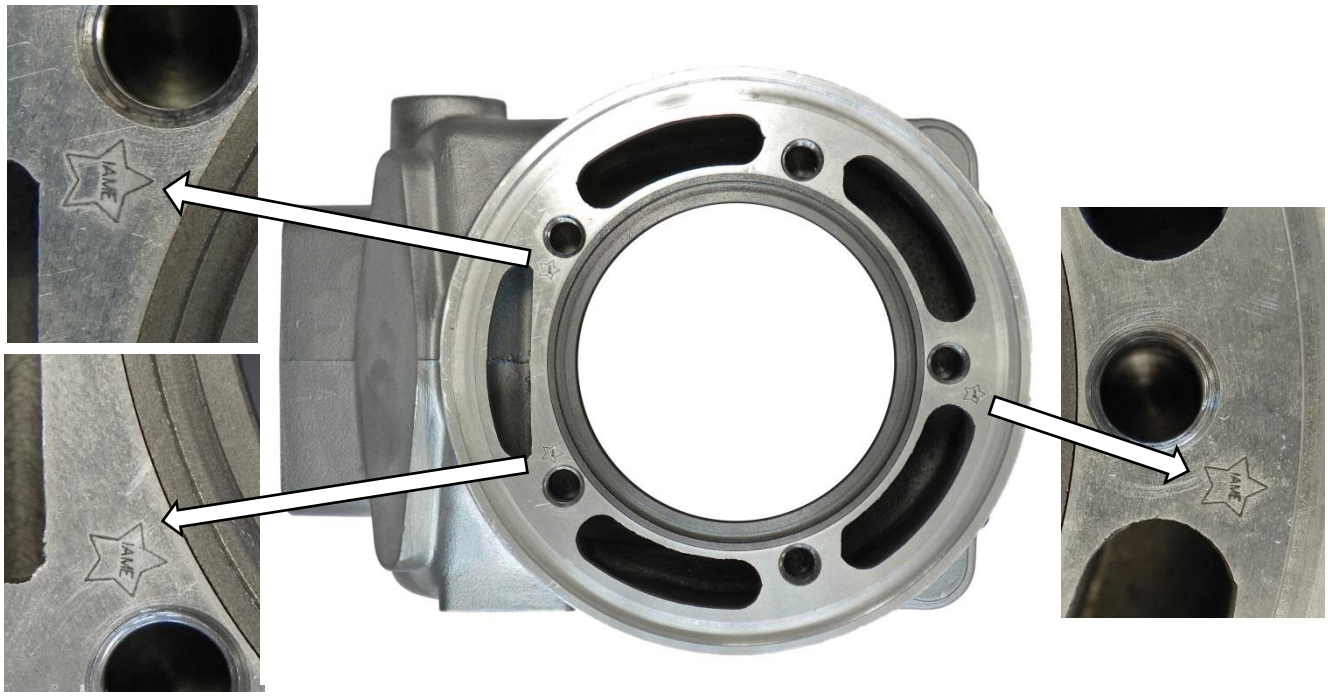
VARIABLE IN COLOUR

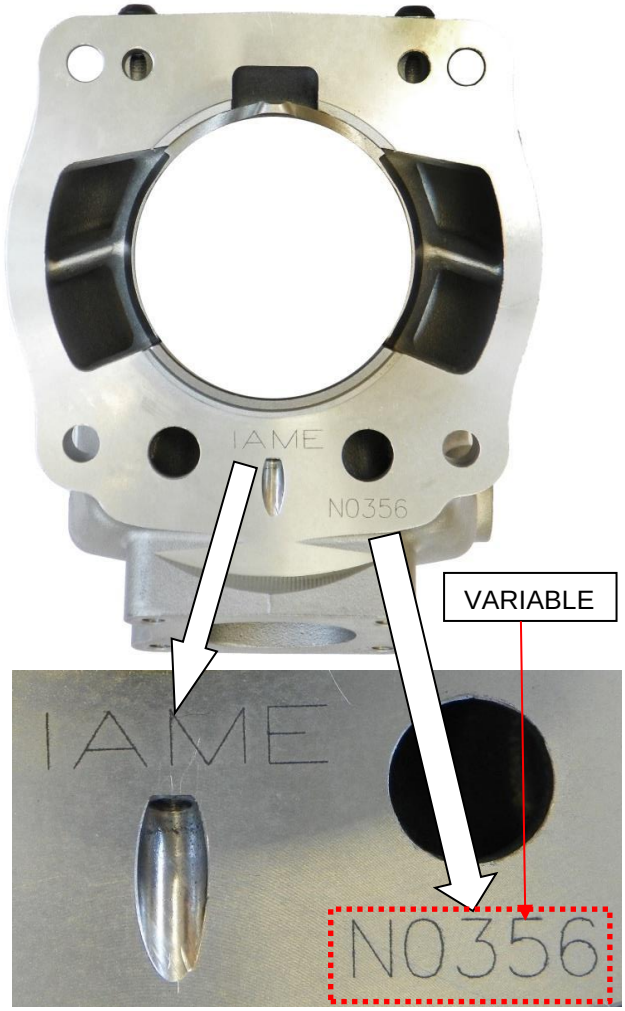
STICKER APPLICATION AREA

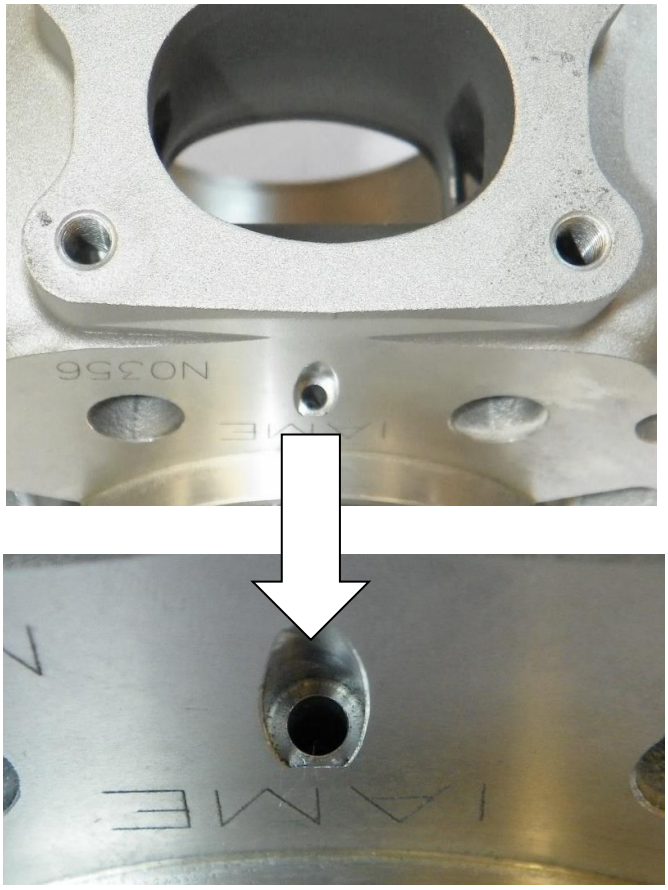




CYLINDER IDENTIFICATION MARKING

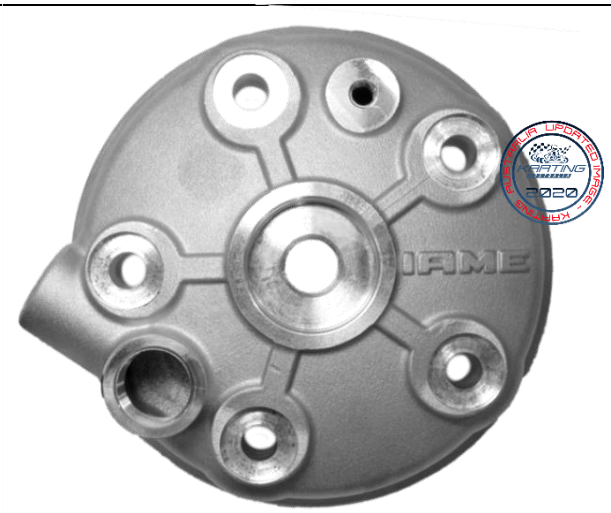






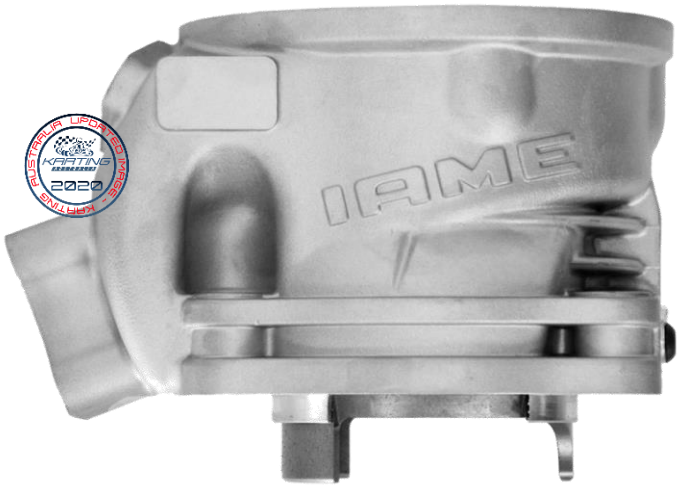
COMPONENTS WITH ALTERNATIVE NEW LOGO "IAME"

CYLINDER HEAD



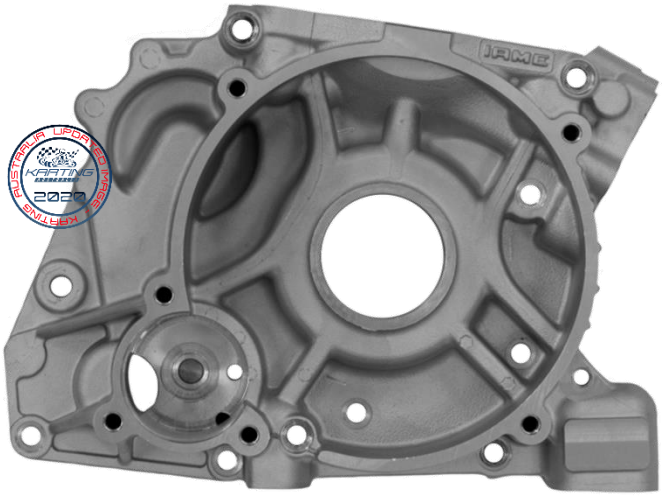
NEW LOGO

CYLINDER



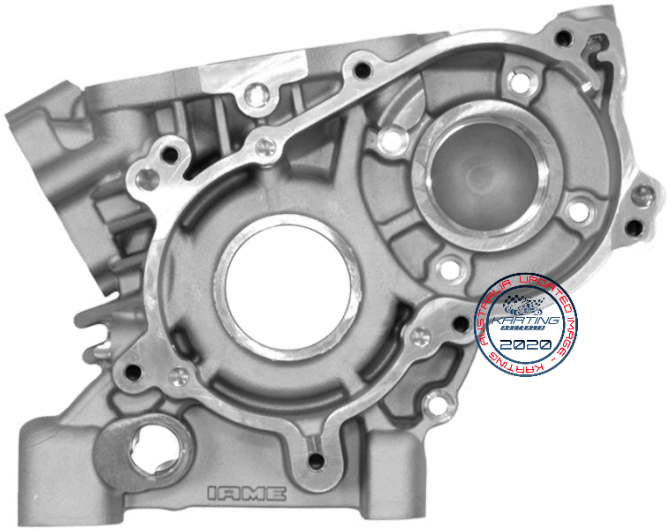
NEW LOGO

CRANKCASE TRANSMISSION SIDE

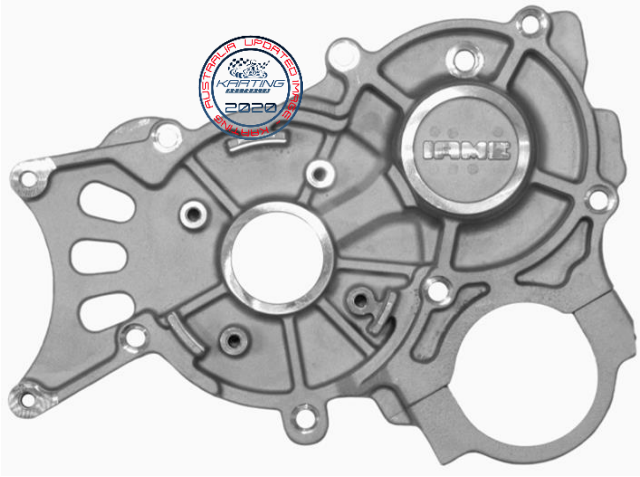
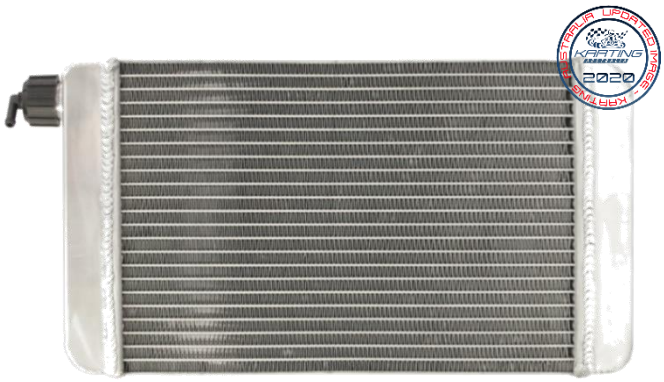


NEW LOGO

CRANKCASE IGNITION SIDE



NEW LOGO

COMPONENTS WITH ALTERNATIVE NEW LOGO "IAME"	
IGNITION COVER	CLUTCH COVER
 **NEW LOGO** 	 **NEW LOGO** 
RADIATOR	EXHAUST SILENCER
 **NEW LOGO** 	 **NEW LOGO** 

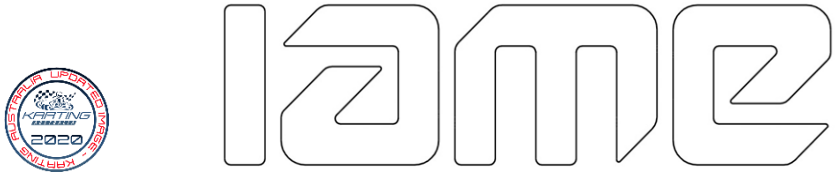
COMPONENTS WITH ALTERNATIVE NEW LOGO "IAME"

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

or

IAME

NOW COULD BE MARKED WITH NEW LOGO "IAME"



or

or

CARBURETTOR
Tillotson HB-10A

PHOTO OF ADJUSTING SIDE

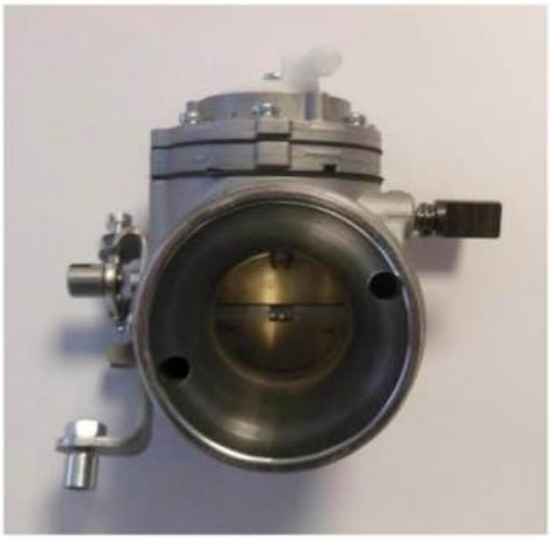
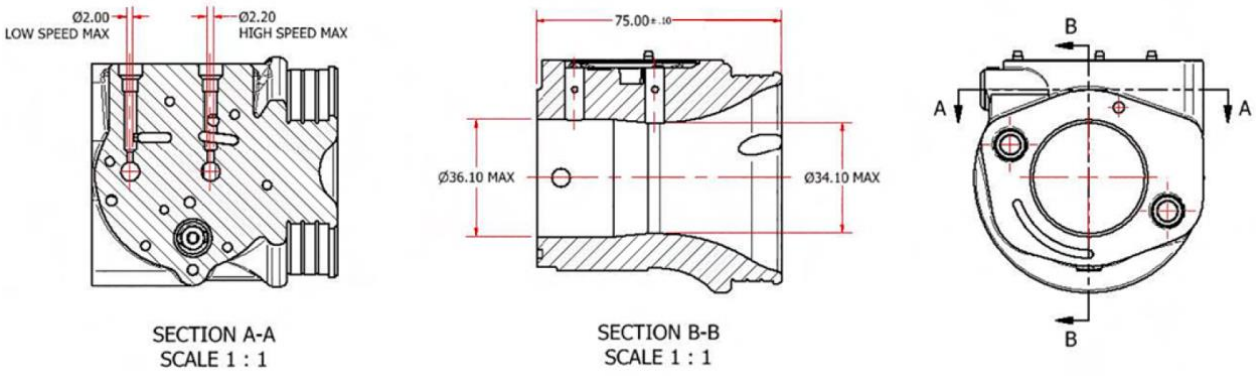


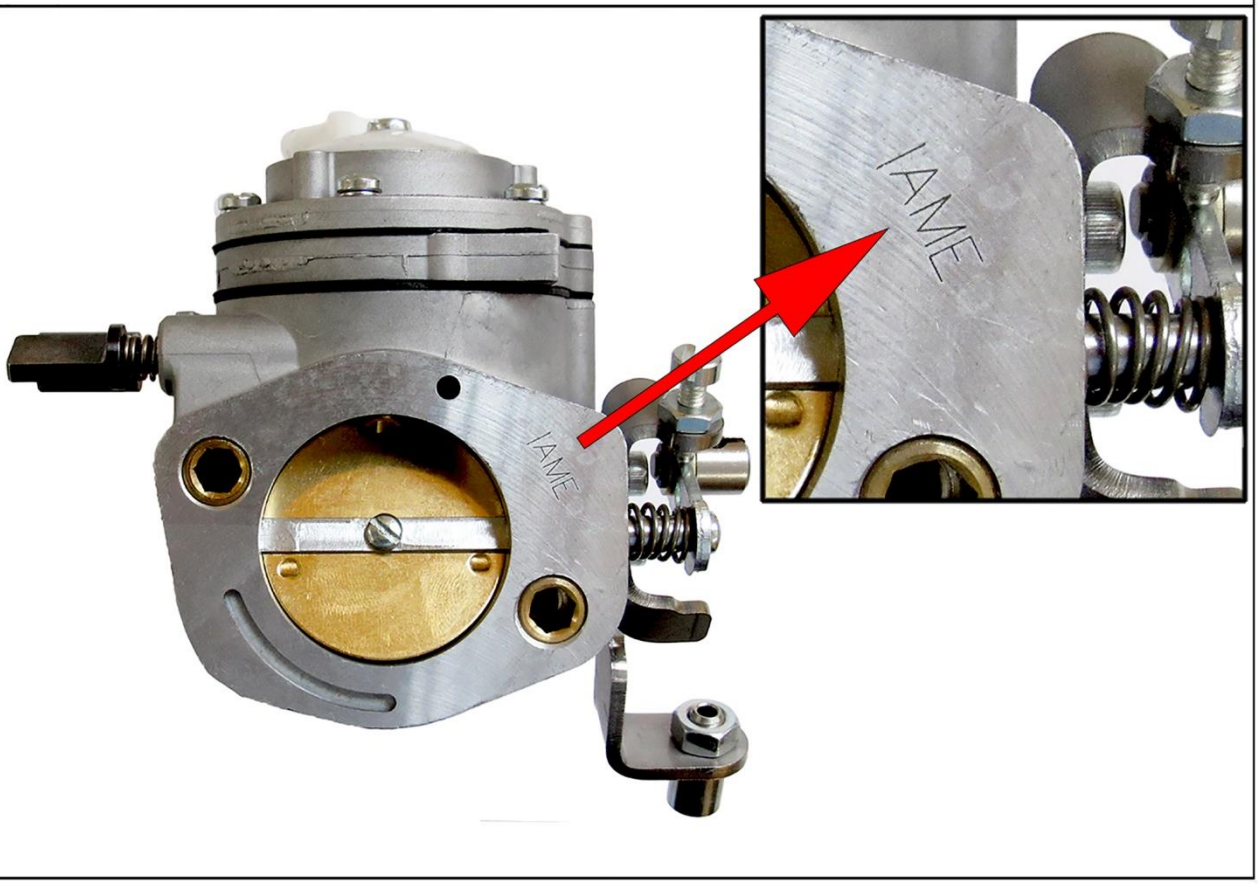
PHOTO OF INLET SIDE

Manufacturer	**TILLOTSON LTD.**
Make	**TILLOTSON**
Model	**HB-10A**

SECTION VIEW

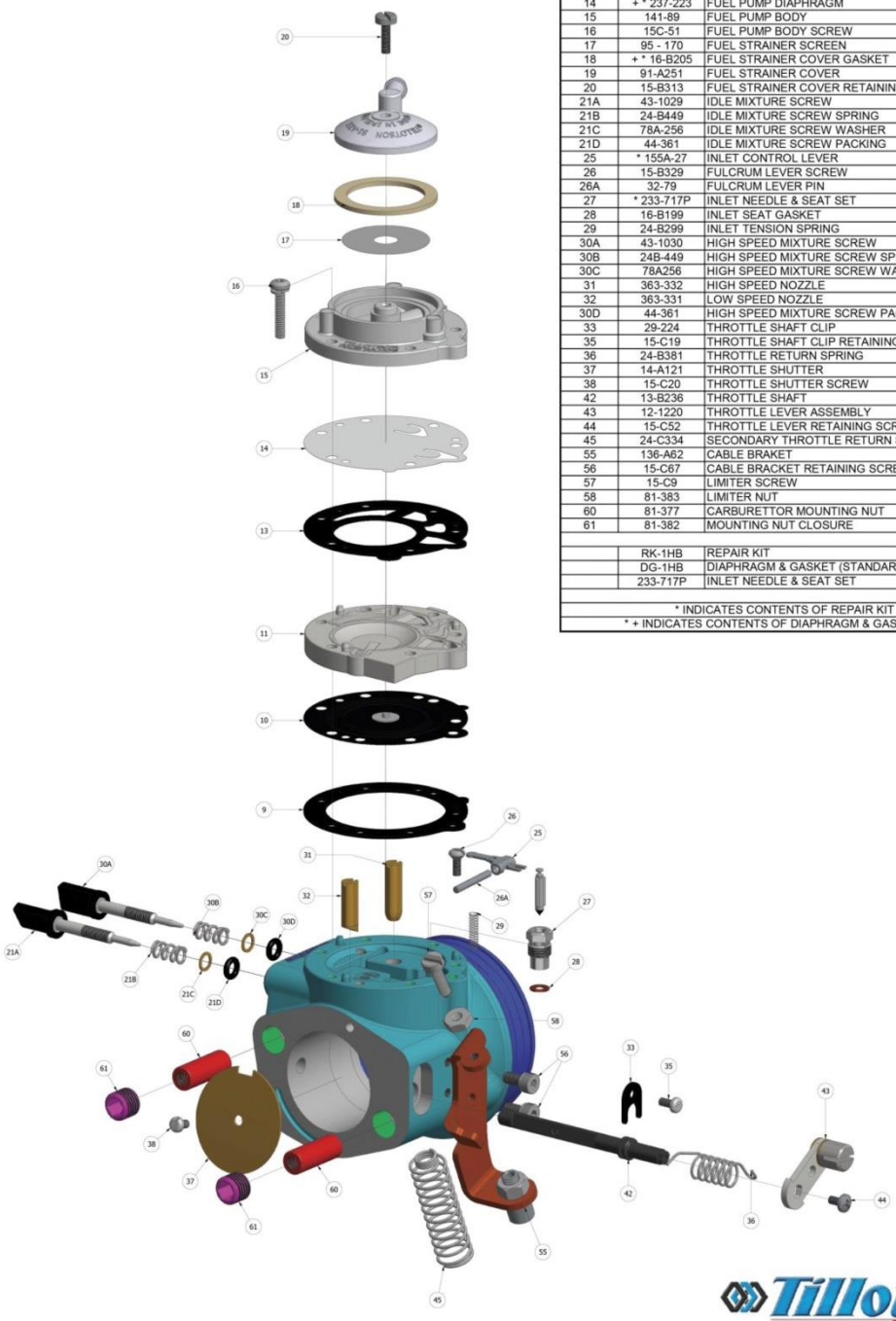


FLANGE SIDE



CARBURETTOR DESCRIPTION AND SKETCH OF PARTS

HB-10A



ITEM	PART NO:	DESCRIPTION	QTY
9	+ * 16-B408	DIAPHRAGM GASKET	1
10	+ * 237-698	DIAPHRAGM	1
11	91A-275	DIAPHRAGM COVER	1
13	+ * 16-B392	FUEL PUMP GASKET	1
14	+ * 237-223	FUEL PUMP DIAPHRAGM	1
15	141-89	FUEL PUMP BODY	1
16	15C-51	FUEL PUMP BODY SCREW	6
17	95 - 170	FUEL STRAINER SCREEN	1
18	+ * 16-B205	FUEL STRAINER COVER GASKET	1
19	91-A251	FUEL STRAINER COVER	1
20	15-B313	FUEL STRAINER COVER RETAINING SCREW	1
21A	43-1029	IDLE MIXTURE SCREW	1
21B	24-B449	IDLE MIXTURE SCREW SPRING	1
21C	78A-256	IDLE MIXTURE SCREW WASHER	1
21D	44-361	IDLE MIXTURE SCREW PACKING	1
25	* 155A-27	INLET CONTROL LEVER	1
26	15-B329	FULCRUM LEVER SCREW	1
26A	32-79	FULCRUM LEVER PIN	1
27	* 233-717P	INLET NEEDLE & SEAT SET	1
28	16-B199	INLET SEAT GASKET	1
29	24-B299	INLET TENSION SPRING	1
30A	43-1030	HIGH SPEED MIXTURE SCREW	1
30B	24B-449	HIGH SPEED MIXTURE SCREW SPRING	1
30C	78A256	HIGH SPEED MIXTURE SCREW WASHER	1
31	363-332	HIGH SPEED NOZZLE	1
32	363-331	LOW SPEED NOZZLE	1
30D	44-361	HIGH SPEED MIXTURE SCREW PACKING	1
33	29-224	THROTTLE SHAFT CLIP	1
35	15-C19	THROTTLE SHAFT CLIP RETAINING SCREW	1
36	24-B381	THROTTLE RETURN SPRING	1
37	14-A121	THROTTLE SHUTTER	1
38	15-C20	THROTTLE SHUTTER SCREW	1
42	13-B236	THROTTLE SHAFT	1
43	12-1220	THROTTLE LEVER ASSEMBLY	1
44	15-C52	THROTTLE LEVER RETAINING SCREW	1
45	24-C334	SECONDARY THROTTLE RETURN SPRING	1
55	136-A62	CABLE BRAKET	1
56	15-C67	CABLE BRACKET RETAINING SCREW	2
57	15-C9	LIMITER SCREW	2
58	81-383	LIMITER NUT	2
60	81-377	CARBURETTOR MOUNTING NUT	2
61	81-382	MOUNTING NUT CLOSURE	2
	RK-1HB	REPAIR KIT	
	DG-1HB	DIAPHRAGM & GASKET (STANDARD)	
	233-717P	INLET NEEDLE & SEAT SET	
* INDICATES CONTENTS OF REPAIR KIT			
* + INDICATES CONTENTS OF DIAPHRAGM & GASKET SET			

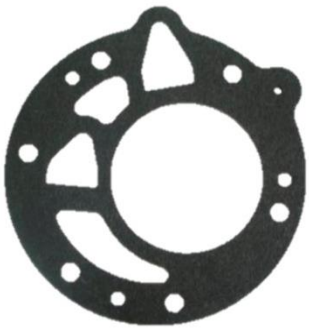
Tillotson RACING
Clash Industrial Estate - Tralee - Ireland
www.tillotson-racing.com

PARTS OF CARBURETTOR

REF.9 - P. N°16-B408

Thickness = 1.00 ±0.1 mm

PUMP DIAPHRAGM GASKET
REF.13 - P. N° 16-B392



Thickness = 0.8 ±0.1 mm

REF.10 - P. N°237-698
DIAPHRAGM

Thickness = 0.13 ±0.07 mm

REF.14 - P. N°237-223
PUMP DIAPHRAGM

Thickness = 0.075 ±0.07 mm

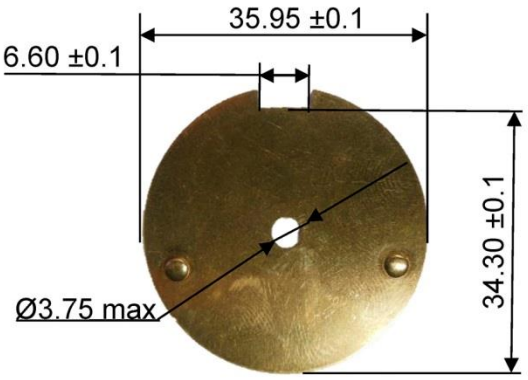
REF.11 - P. N° 91-1031
DIAPHRAGM COVER

Thickness = 6.75 ±0.15 mm

REF.15 - P. N° 141-89
PUMP COVER

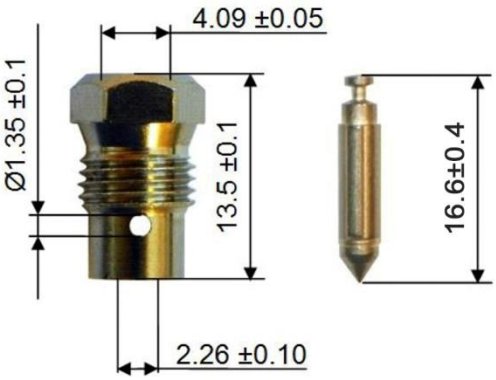
Thickness = 12.5 ±0.15 mm

REF.37 - P. N° 14-A121
THROTTLE SHUTTER



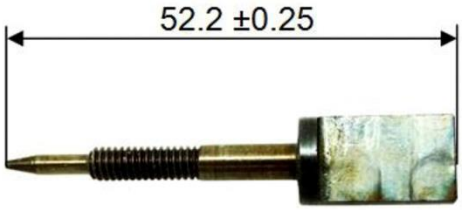
Thickness = 0.81 ±0.1 mm

REF.27 - P. N° 233-717P
SEAT + NEEDLE



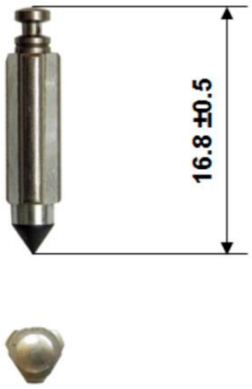
REF.21A - P. N° 43-1029
NEEDLE LOW SPEED

REF.30A - P. N° 43-1030
NEEDLE HIGH SPEED



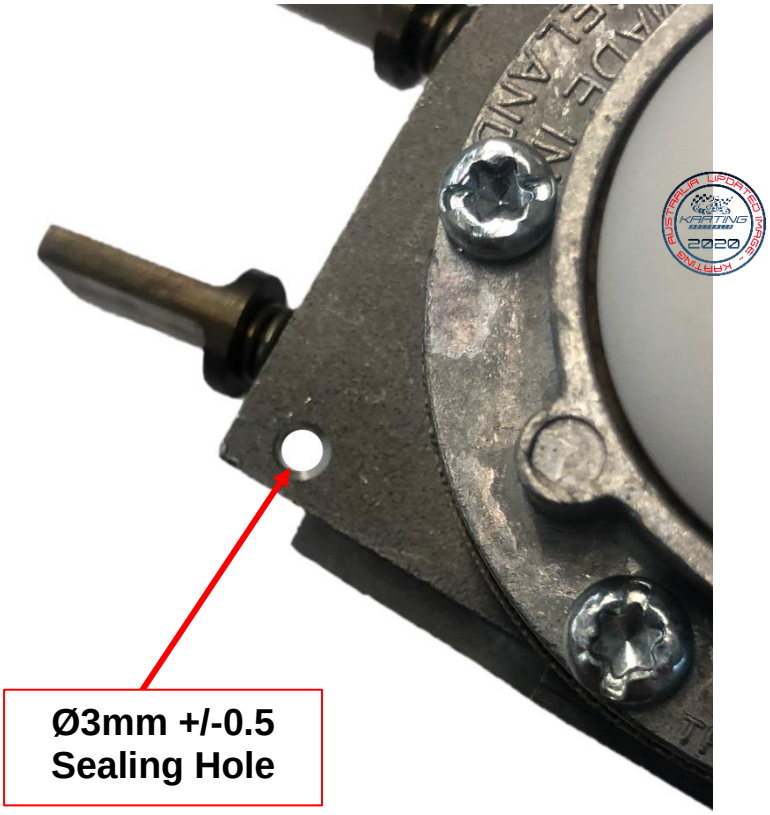
ALTERNATIVE THROTTLE SHUTTER

ALTERNATIVE FUEL NEEDLE



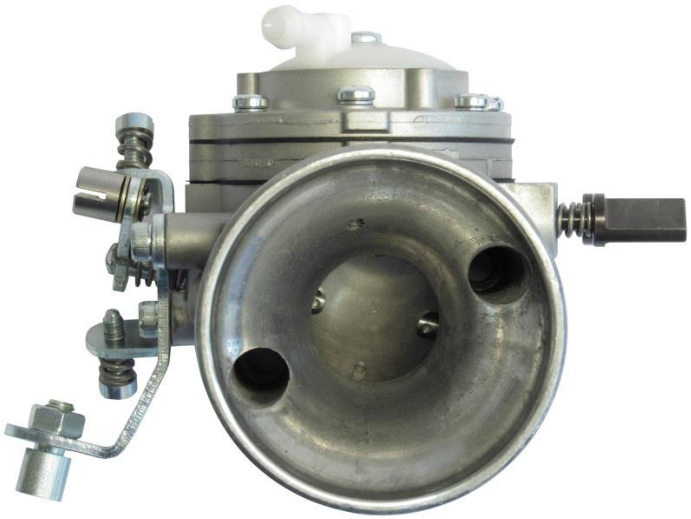
HOLE FOR CARBURETTOR SEALING

The carburettor may have this hole for sealing.



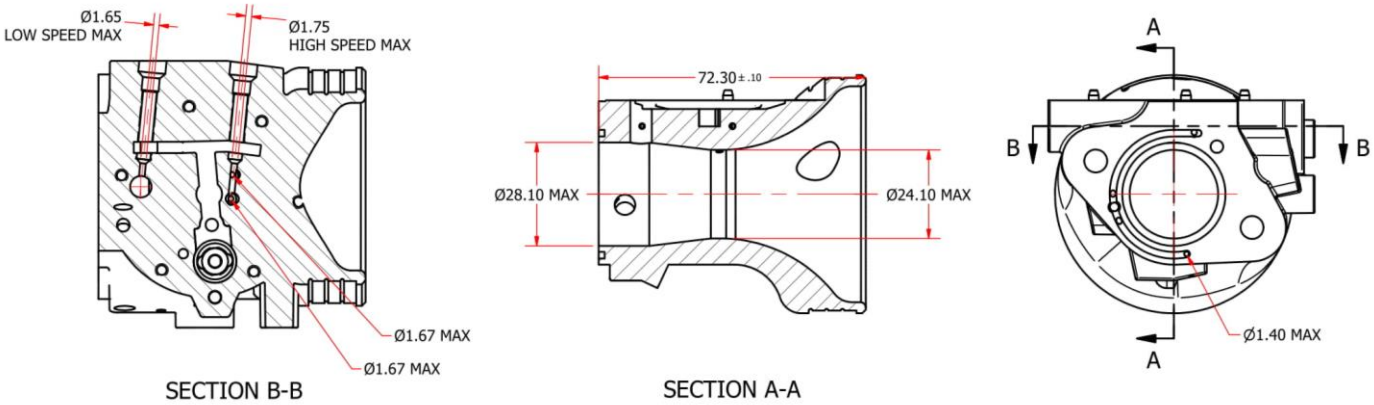
CARBURETTOR

Tillotson HW-22B

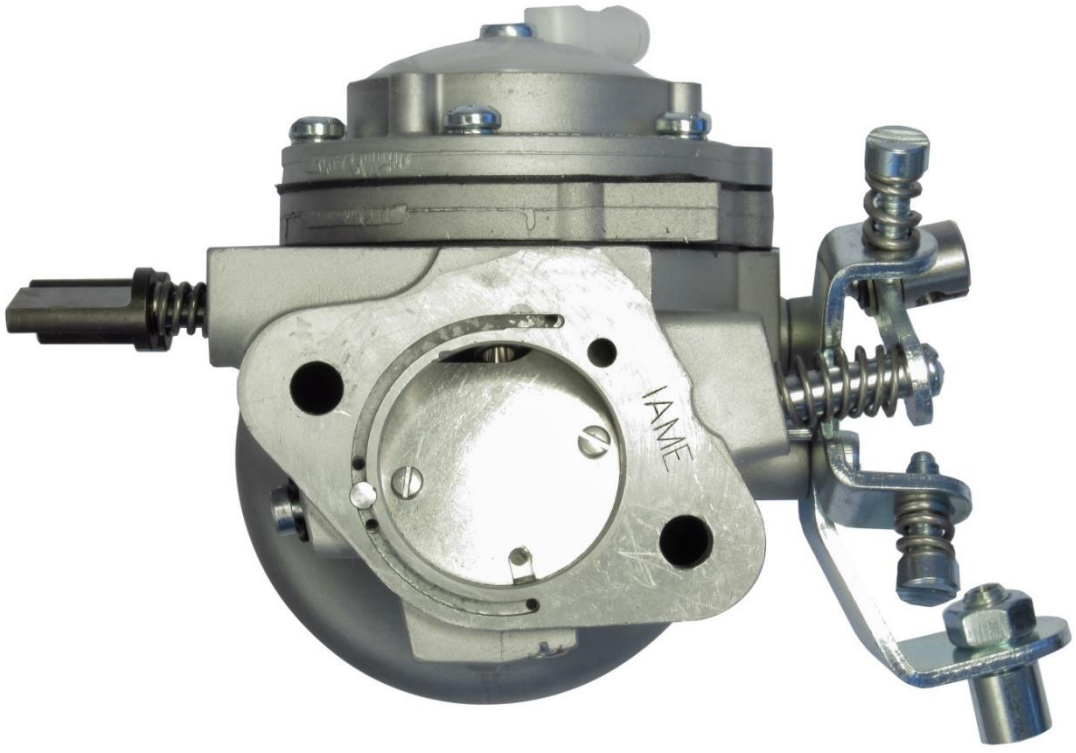
	
PHOTO OF ADJUSTING SIDE	PHOTO OF INLET SIDE

Manufacturer	**TILLOTSON LTD.**
Make	**TILLOTSON**
Model	**HW-22B**

SECTION VIEW



MARKING

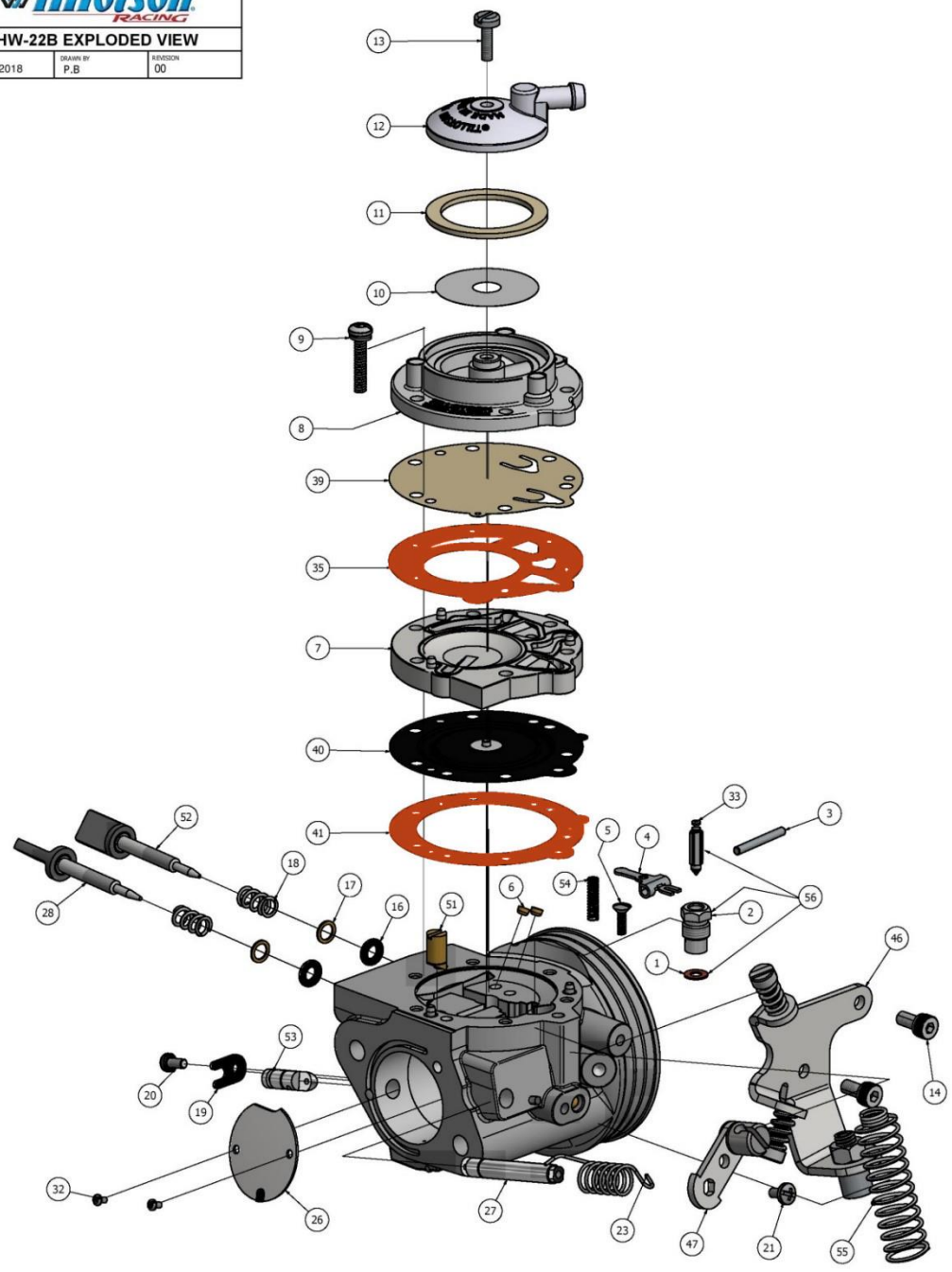


CARBURETTOR DESCRIPTION AND SKETCH OF PARTS

Tillotson RACING

HW-22B EXPLODED VIEW

DATE	DRAWN BY	REVISION
23/05/2018	P.B	00



ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	16-B199	+* INLET SEAT GASKET	19	1	29-224	THROTTLE SHAFT CLIP	47	1	12-1220	THROTTLE LEVER ASSEMBLY
2	1	36-A42	+ INLET SEAT	20	1	15-C19	4-40 UNC SCREW	51	1	363-318	IDLE NOZZLE
3	1	32-79	FULCRUM LEVER PIN	21	1	15-C52	4-40 UNC SCREW	52	1	43-1036	MAIN MIXTURE SCREW
4	1	155-A27	+ INLET CONTROL LEVER	23	1	24-B381	THROTTLE RETURN SPRING	53	1	13-B220C	SPLIT THROTTLE SHAFT SHORT
5	1	15-B329	FULCRUM PIN SCREW	26	1	14-A109	THROTTLE SHUTTER	54	1	24-C296	INLET TENSION SPRING
6	2	80-160	BRASS PLUG	27	1	13-B220B	SPLIT THROTTLE SHAFT LONG	55	1	24-C334	CABLE RETURN SPRING
7	1	91-A275	FUEL PUMP BODY	28	1	43-1035	IDLE MIXTURE SCREW				
8	1	141-89	FUEL PUMP BODY	32	2	15-C105	M2 X 0.4 SCREW			*	REPAIR KIT CONTENTS
9	6	15-C51	6 - 32 UNC SCREW WITH L/W	33	1	34-229	+ INLET NEEDLE			+	DIAPHRAGM & GASKET KIT CONTENTS
10	1	95 - 170	FUEL STRAINER SCREEN	35	1	16-B407	+* PUMP GASKET				
11	1	16-B205	+* FUEL STRAINER COVER GASKET	39	1	237-162	+* FUEL PUMP DIAPHRAGM			RK-6HW	REPAIR KIT
12	1	91-A251	FUEL STRAINER COVER	40	1	237-600	+* DIAPHRAGM ASSEMBLY			DG-3HW	DG KIT
13	1	15-B313	5-40 UNC SCREW	41	1	16-B406	+* METERING GASKET	56		233-717P	NEEDLE & SEAT KIT
14	2	15-C67	M4 X 0.7 SOCKET CAP SCREW	42	2	15-C9	LIMITER SCREW				
15	2	81-377	CARBURETTOR MOUNTING NUT	43	2	24-B131	SPEED CREW SPRING				
16	2	44-361	ADJUSTMENT SCREW O-RING	44	1	15-C68	M6 X 1 CABLE HOUSING SCREW				
17	2	78A-256	ADJUSTMENT SCREW WASHER	45	1	81-378	M6 X 1 NUT				
18	2	24-B449	ADJUSTMENT SCREW SPRING	46	1	136-A55	CABLE BRACKET				

PARTS OF CARBURETTOR

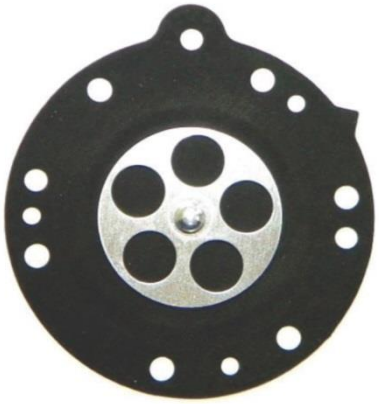
REF. 41- P. N°16-B406
DIAPHRAGM GASKET (ORANGE COLOR)

Thickness = 0.5 ±0.1 mm

REF.35 - P. N° 16-B407
PUMP DIAPHRAGM GASKET (ORANGE COLOR)

Thickness = 0.8 ±0.1 mm

REF.40 - P. N°237-600
DIAPHRAGM



Thickness = 0.13 ±0.07 mm

REF.39 - P. N°237-162
PUMP DIAPHRAGM

ALTERNATIVE

Thickness = 0.10 ±0.063 mm

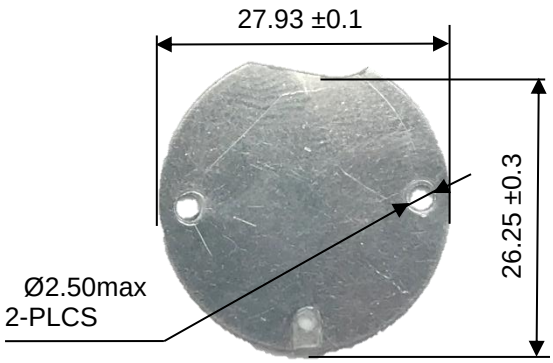
REF.7 - P. N° 91-A275
DIAPHRAGM COVER

Thickness = 6.75 ±0.15 mm

REF.8 - P. N° 141-89
PUMP COVER

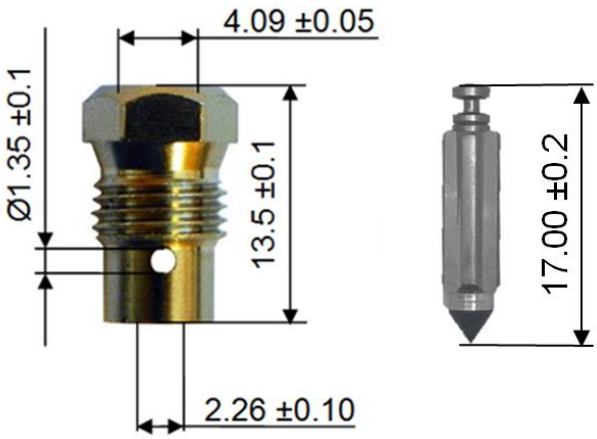
Thickness = 12.5 ±0.15 mm

REF.26 - P. N° 14-A109
THROTTLE SHUTTER

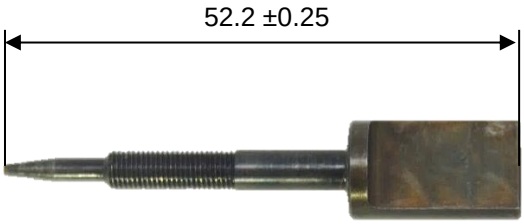


Thickness = 0.84 ±0.1 mm

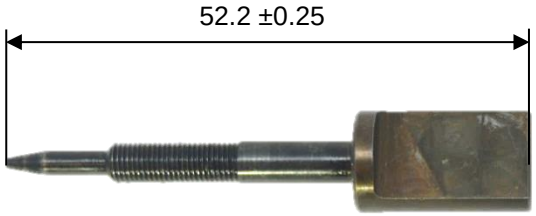
P. N° 56 - 233-717P
SEAT + NEEDLE



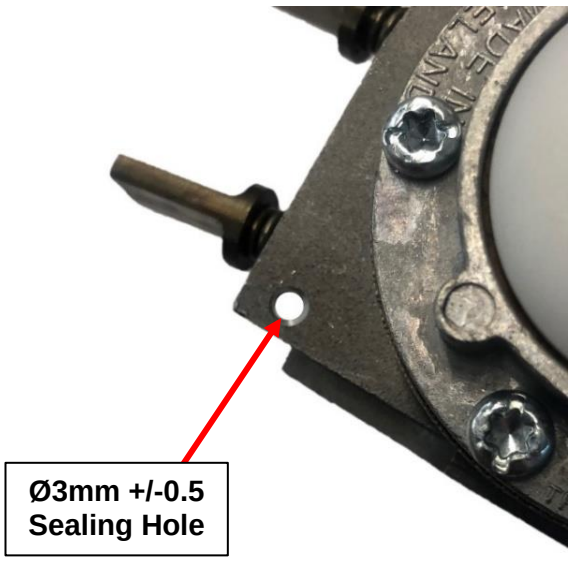
REF.28 - P. N° 43-1035
NEEDLE LOW SPEED



REF.52 - P. N° 43-1036
NEEDLE HIGH SPEED



OPTIONAL HOLE FOR SEALING TAG



ALTERNATIVE FUEL NEEDLE

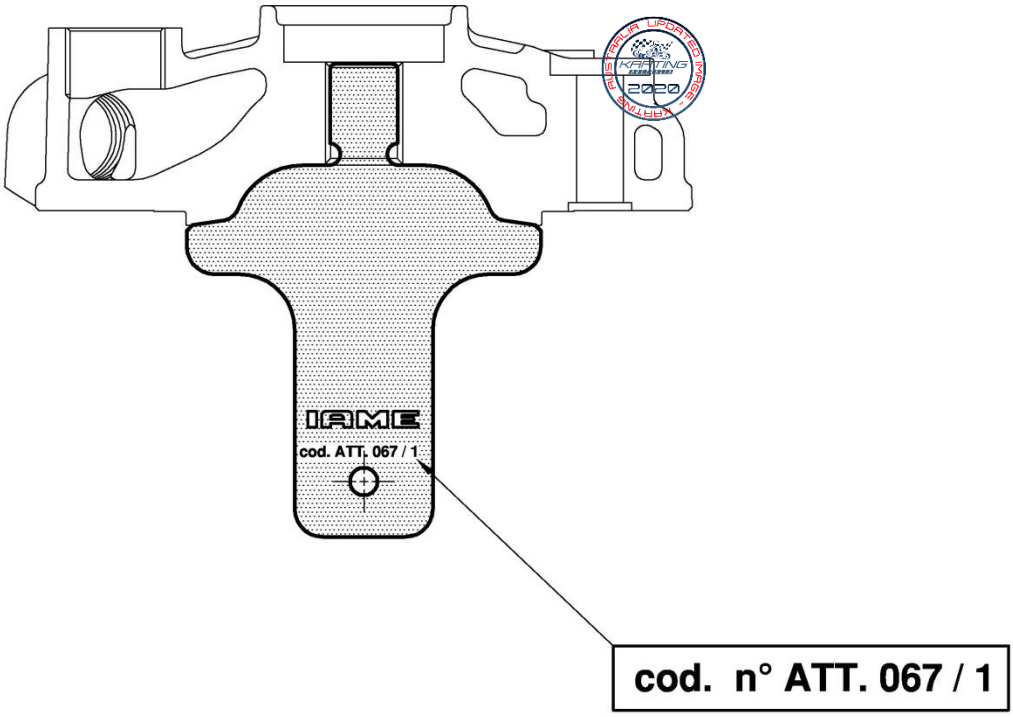
UPDATE LOG

Date	Section	Page
20 October 2020	Mandatory Clutch Oring	22
20 October 2020	Type 2 Radiator	40
20 October 2020	New IAME Logo	50-52
20 October 2020	Carburettor Hole – For sealing/tagging	58
20 October 2020	List of Checking Tools	65-70
14 December 2021	Alternative Conrod Thrust Washers	18
14 December 2021	Type 2 Reed valve cover for carburettor Tillotson HW-22B	24
14 December 2021	Alternative Carburettor Tillotson HW-22B	59-63
14 December 2021	Checking tools for carburettor Tillotson HW-22B	70

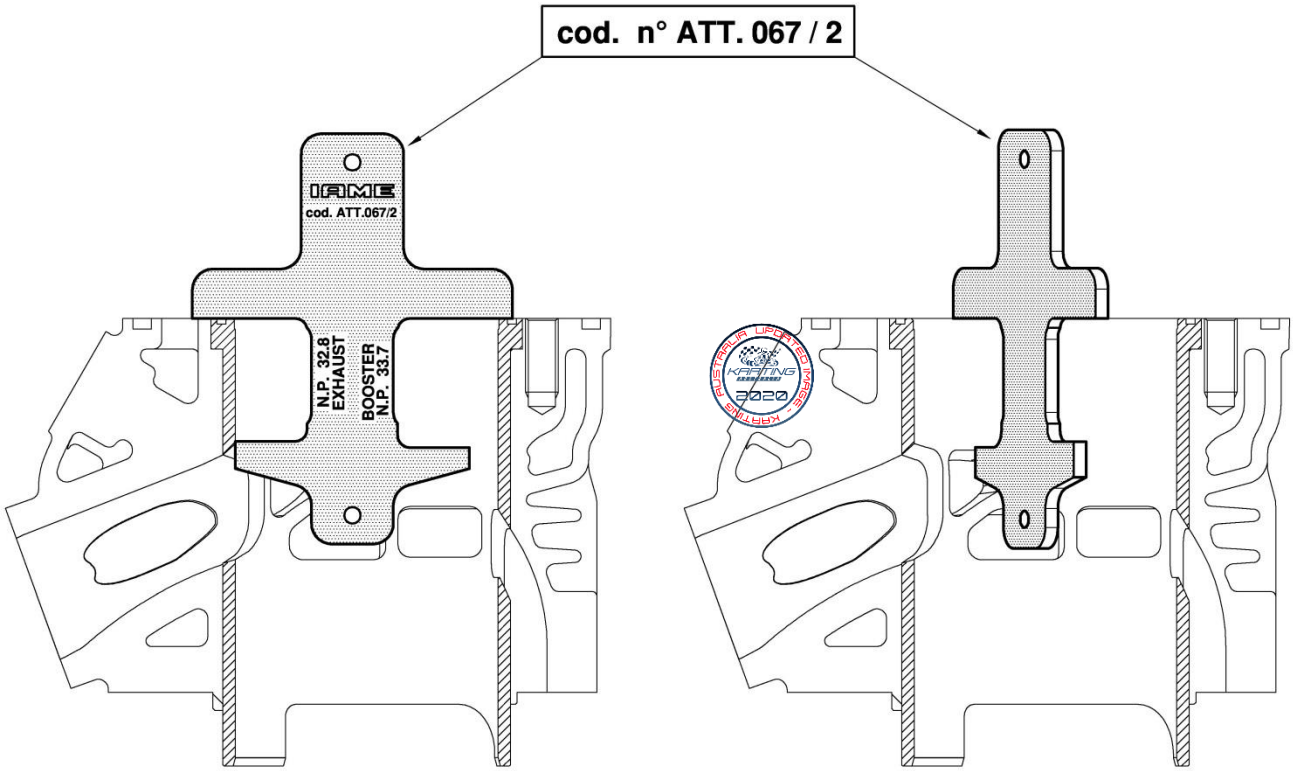
AVAILABLE CHECKING TOOLS

TOOL DESCRIPTION	CODE
HEAD DOME SHAPE CONTROL TOOL	ATT.067 / 1
"NO GO" GAUGE EXHAUST & BOOSTER HEIGHT	ATT.067 / 2
"NO GO" GAUGE MAIN & SECONDARY TRASFERTS HEIGHT	ATT.061 / 3
0.20mm THICKNESS GAUGE FOR PORT TIMING CHECKING	10194
"NO GO" GAUGE FOR CLUTCH DRUM INNER DIAMETER	ATT.047 / 4
CARBURETTOR INLET PROFILE AND "NO GO" GAUGE HB-10A	ATT.067 / 4
"NO GO" GAUGE FOR VENTURI DIAMETER HB-10A	ATT.067 / 5
CARBURETTOR INLET PROFILE AND "NO GO" GAUGE HW-22B	ATT.067 / 8
"NO GO" GAUGE FOR VENTURI DIAMETER HW-22B	ATT.067 / 9

HEAD DOME SHAPE CONTROL TOOL

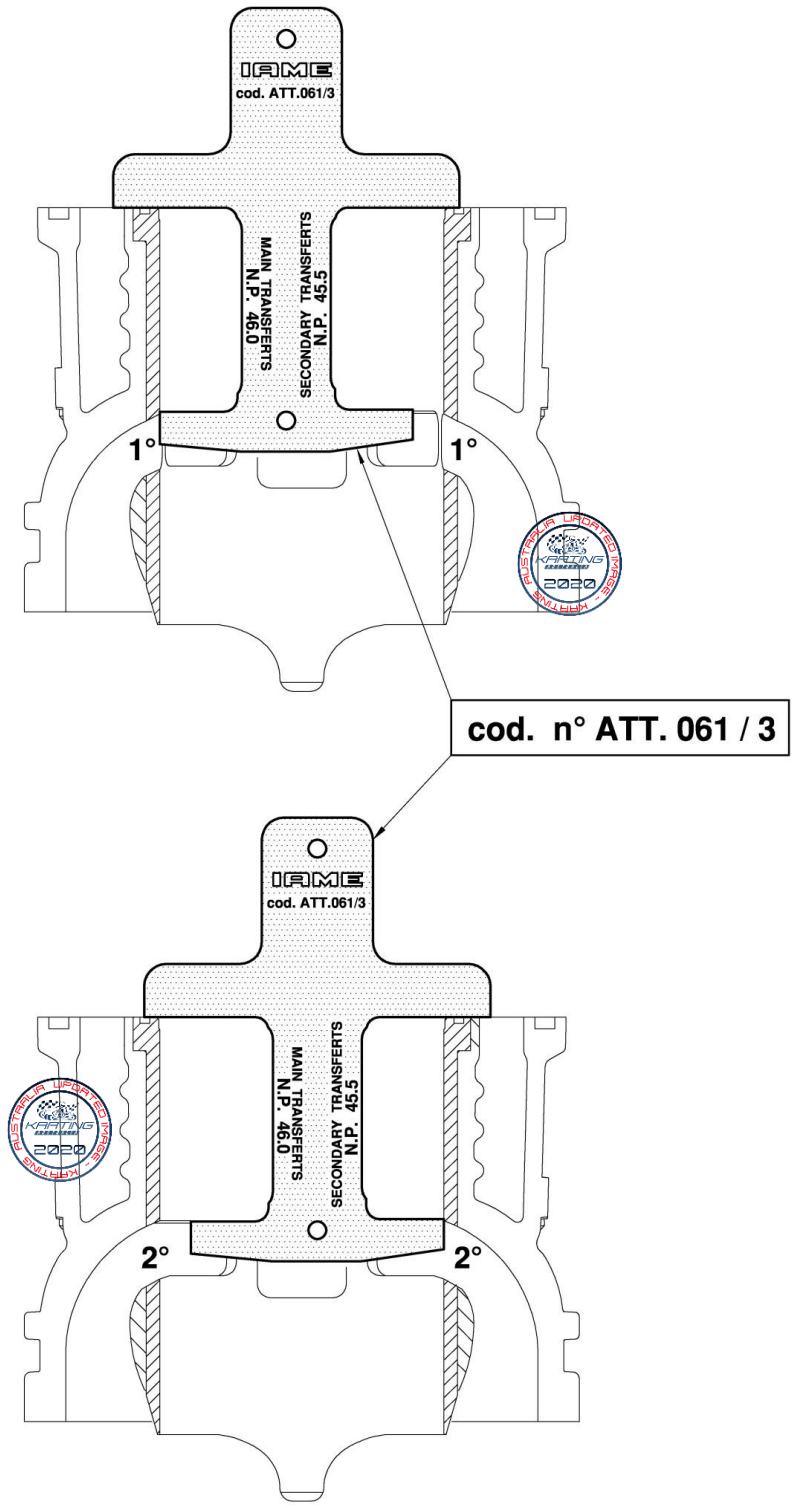


"NO GO" GAUGE EXHAUST & BOOSTER HEIGHT



The tool must not enter into the and exhaust and booster ports

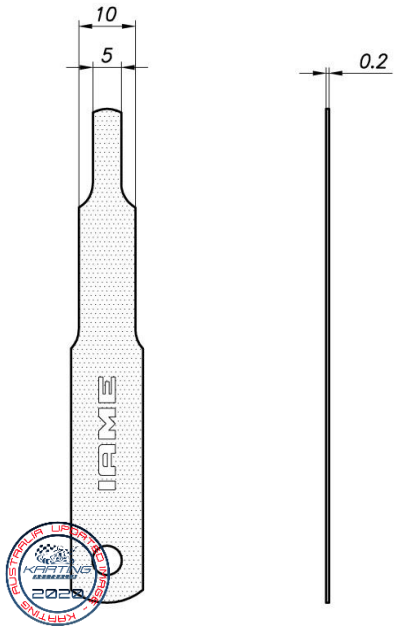
"NO GO" GAUGE MAIN & SECONDARY TRASFERTS HEIGHT



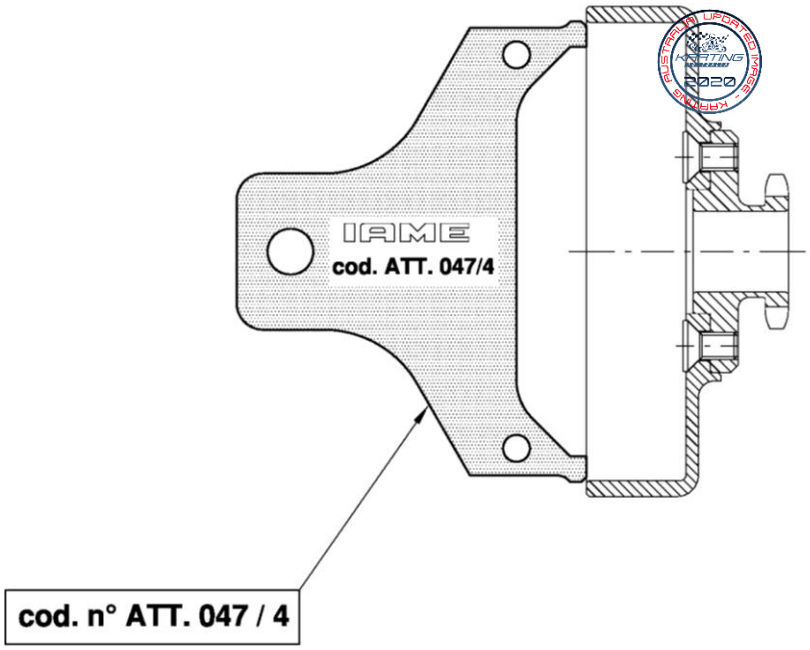
The tool must not enter into the main and secondary transfert ports

PORT TIMING GAUGE

TOOL IAME Cod. 10194

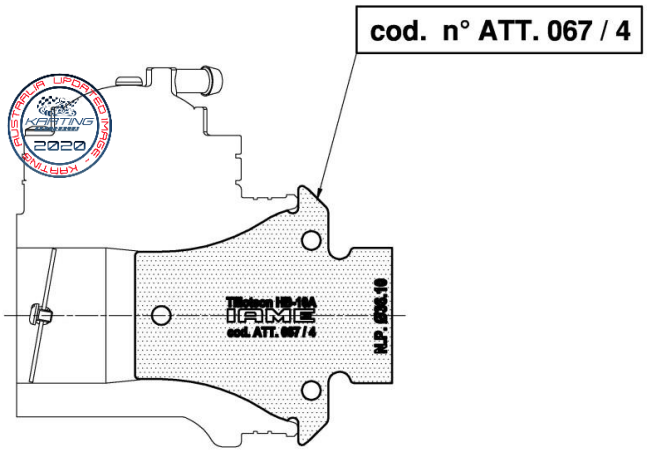


"NO GO" GAUGE FOR CLUTCH DRUM INNER DIAMETER

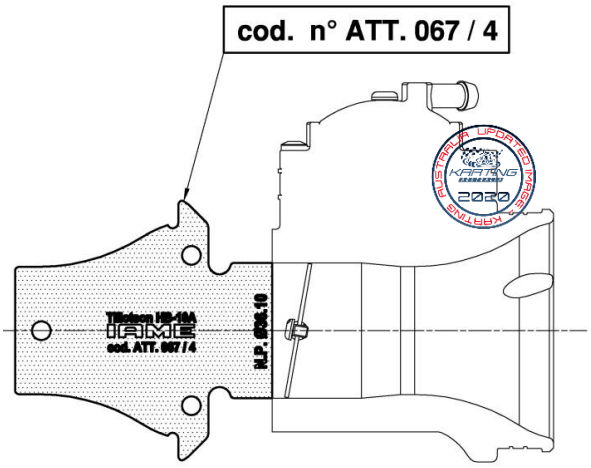


<u>The tool must not enter into the clutch drum in perpendicular position vs. the clutch drum axis.</u>

CARBURETTOR TILLOTSON HB-10A
INLET PROFILE AND "NO GO" GAUGE

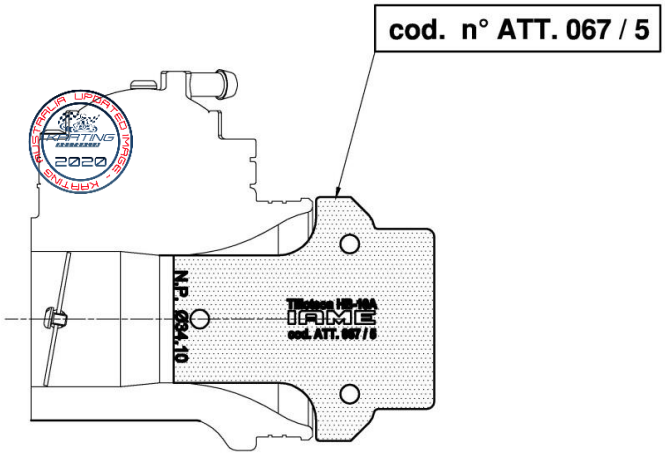


The carburettor inlet must have the same shape of the tool



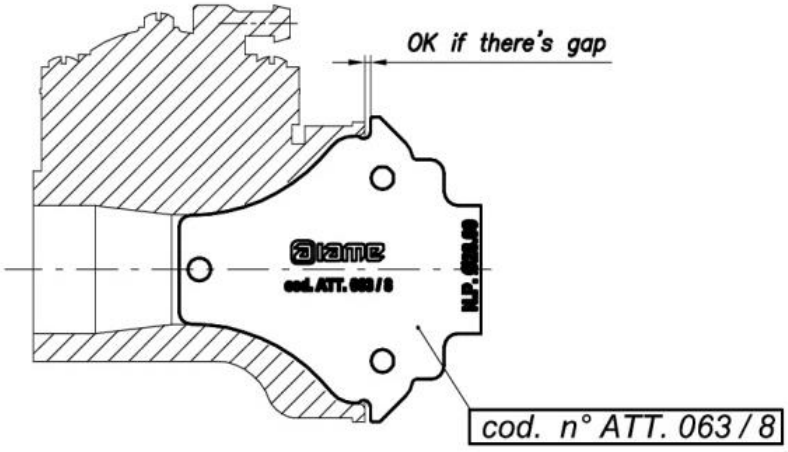
The tool must not enter into the rear duct of the carburettor.

"NO GO" GAUGE FOR VENTURI DIAMETER

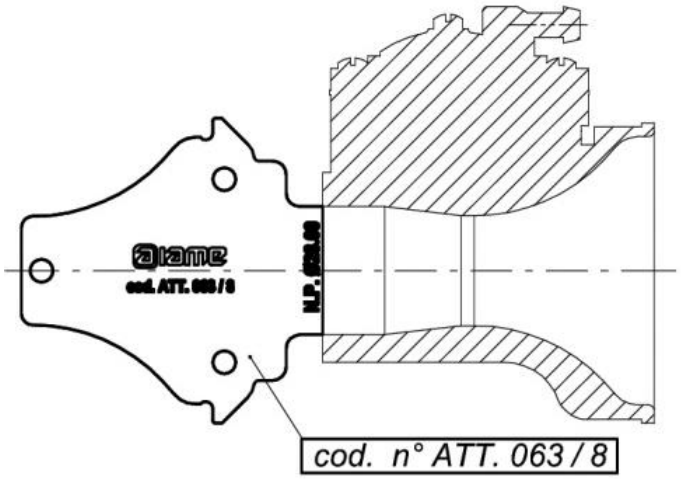


The tool must not enter into the venturi of the carburettor.
The tool must not touch the carburettor's front flange.

CARBURETTOR TILLOTSON HW-22B
INLET PROFILE AND "NO GO" GAUGE

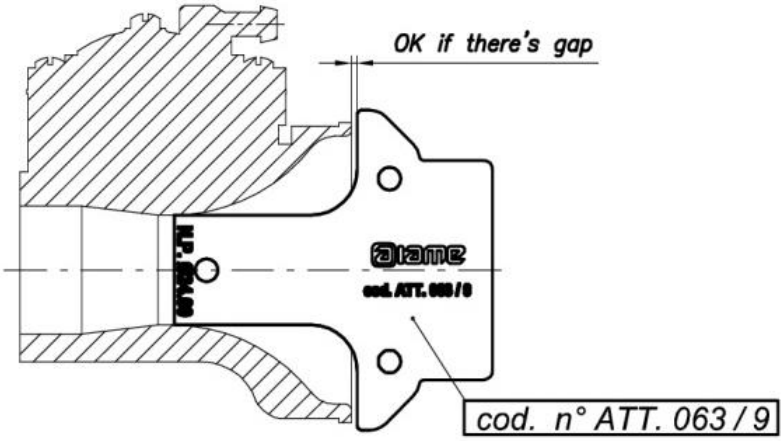


The carburettor inlet must have the same shape of the tool



The tool must not enter into the rear duct of the carburettor.

"NO GO" GAUGE FOR VENTURI DIAMETER



The tool must not enter into the venturi of the carburettor.
The tool must not touch the carburettor's front flange.