

## HOMOLOGATION OF KART ENGINE

Category	IAME X30 JUNIOR & SENIOR
Manufacturer	IAME
Model	X30 125cc RL TaG - UK
Valid From	01 January 2014
Number of pages	20

*This Homologation Form reproduces descriptions, illustrations and dimensions of the engine at the moment of the MSA Homologation. This document may be supplemented by official amendment. This document must be read in conjunction with the appropriate Class Regulations.*



Photo of drive side of engine



Photo of opposite side of engine

### SIGNATURE AND STAMP OF THE MSA

Date: **18 December 2013**Signed by: **Joe Hickerton**Position: **MSA Technical Administrator**

*Any reproduction must be authorised by the MSA*

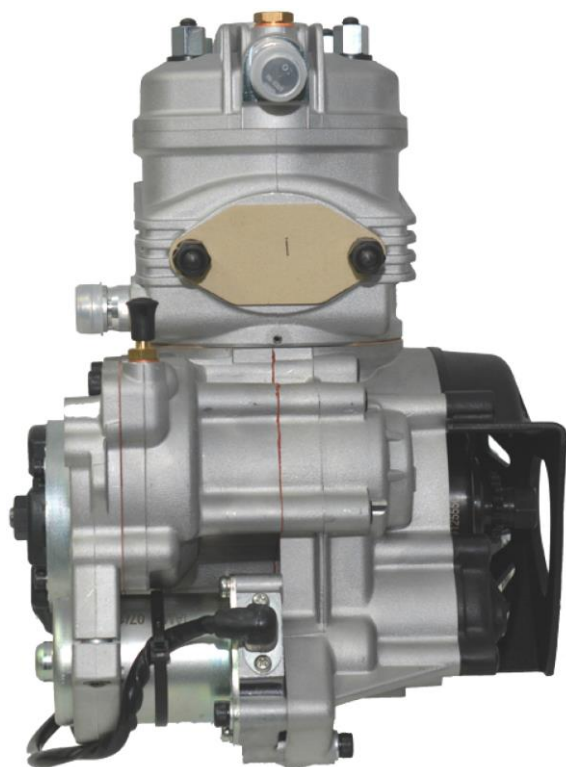


Photo of rear of engine



Photo of front of engine

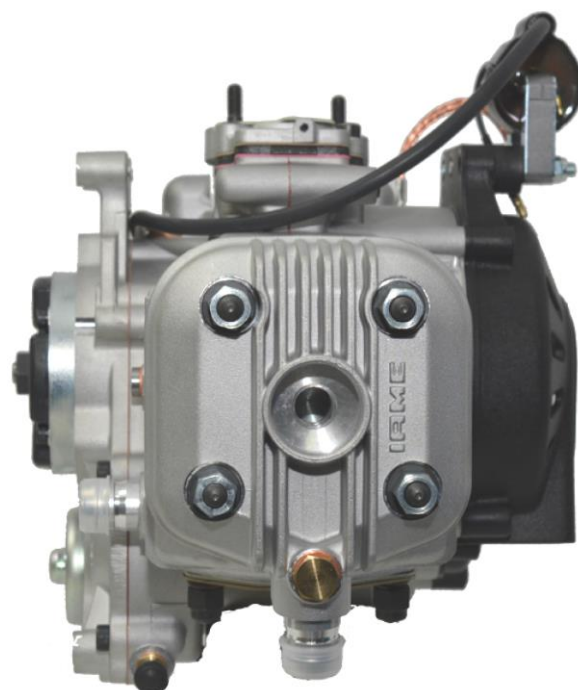


Photo of top of engine

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<a href="#">2</a>	Supplement	Carburettor	23	18 December 2013
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<a href="#">5</a>	Variant	Alternative piston markings	31	24 September 2015
<a href="#">6</a>	Variant	Alternative reed valve markings	32	24 September 2015
<a href="#">7</a>	Variant	Alternative ignition & wiring loom	33	24 September 2015
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<a href="#">19</a>	Amendment	Low and high speed needle correction – Sen. & Jun.	51	01 January 2018
<a href="#">20</a>	Amendment	Mandatory exhaust & restrictor – Junior	52	01 January 2019
<a href="#">21</a>	Variant	Alternative inlet silencer / air box	54	01 January 2019
<a href="#">22</a>	Additional info.	Balance shaft / gear timing diagram	55	01 January 2019
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<a href="#">32</a>	Amendment	Alternative wiring loom details	70	01 January 2021
<a href="#">33</a>	Variant	New logo markings	72	01 January 2021
<a href="#">34</a>	Amendment	Crankshaft dimensions with alternative roller main bearings	73	01 January 2021
<a href="#">35</a>	Amendment	New mandatory exhaust silencer	74	01 January 2021

Last updated: 01 January 2021

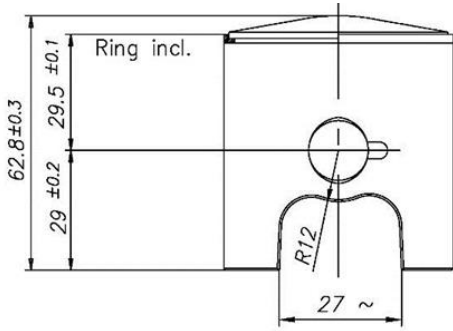
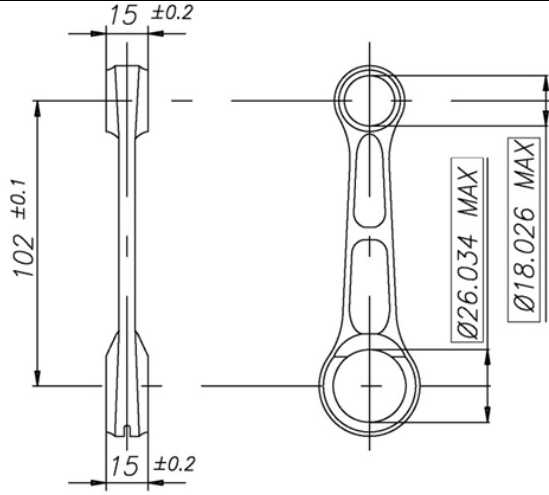
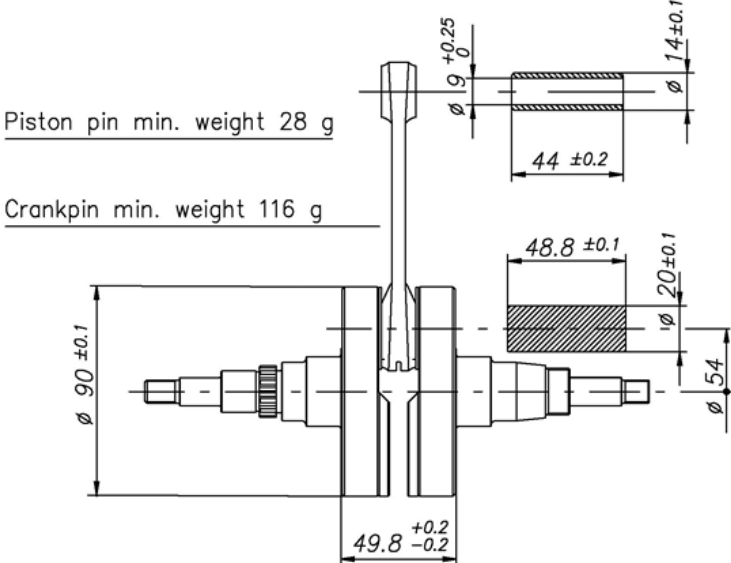
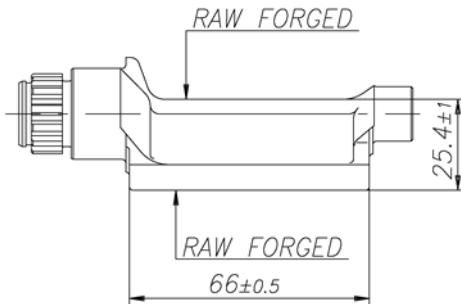


# 125cc RL TaG - UK

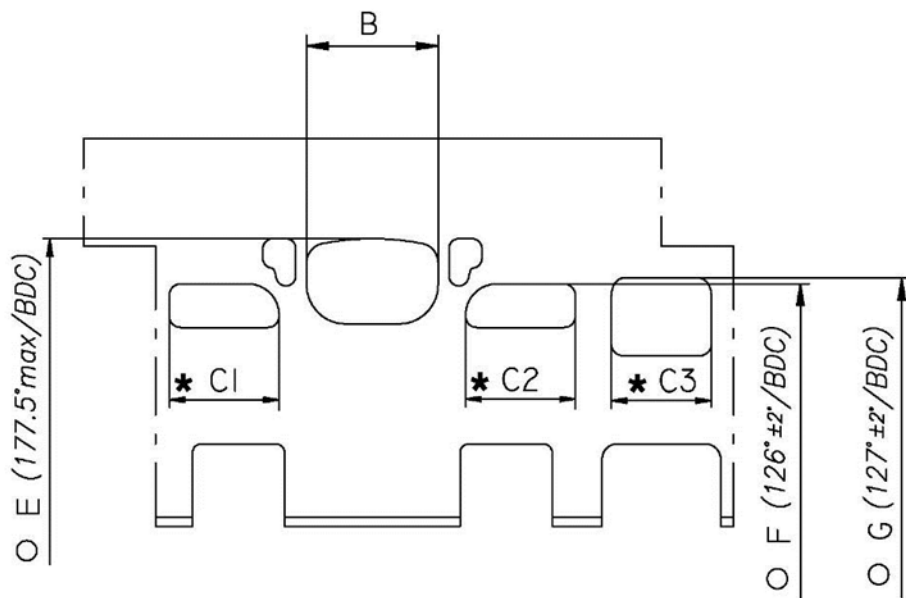
## 1.0 FEATURES

Cylinder volume	123.67 cm <sup>3</sup>	Bore	54 mm
Max. theoretical bore	54.28 mm	Stroke	54 mm max.
Cooling system	Water	Inlet system	Reed valve
Tillotson Carburettor	HW-27A Ø27mm	Number of piston rings	1
Cylinder/crankcase transfers	3	Inlet/exhaust ports	3
Combustion chamber shape	Spherical	Distance between Conrod centers	102 mm
Small end conrod ball-bearing diameter	14x18x17.5	Big end conrod ball-bearing diameter	20x26x15
Crankshaft ball-bearing diameter	30x62x16	Selettra ignition	Digital
RPM limiter	Yes	Generator for battery charging	Yes
Balancing shaft	Yes	Electric starter	Yes



2.0 MATERIAL		3.0 PISTON
Conrod material	Steel	 <p>Piston min. weight (ring incl.) 128 g</p>
Crankshaft material	Steel	
Balancing shaft material	Steel	
Gears material	Steel	
Starter ring material	Steel	
Head material	Aluminium	3.1 DISTANCE BETWEEN CONROD CENTERS
Cylinder material	Aluminium	 <p>Min. weight 110 g</p>
Liner material	Iron	
Crankcase material	Aluminium	
Piston material	Aluminium	
Piston rings material	Iron	
Exhaust muffler material	Sheet-steel	
Ball-bearings	6206 type	
3.2 CRANKSHAFT	see Appendix 29	3.3 BALANCING SHAFT
 <p>Piston pin min. weight 28 g</p> <p>Crankpin min. weight 116 g</p> <p>Complete crankshaft min. weight 2150 g</p>		 <p>RAW FORGED</p> <p>RAW FORGED</p> <p>Min. weight 315 g</p>

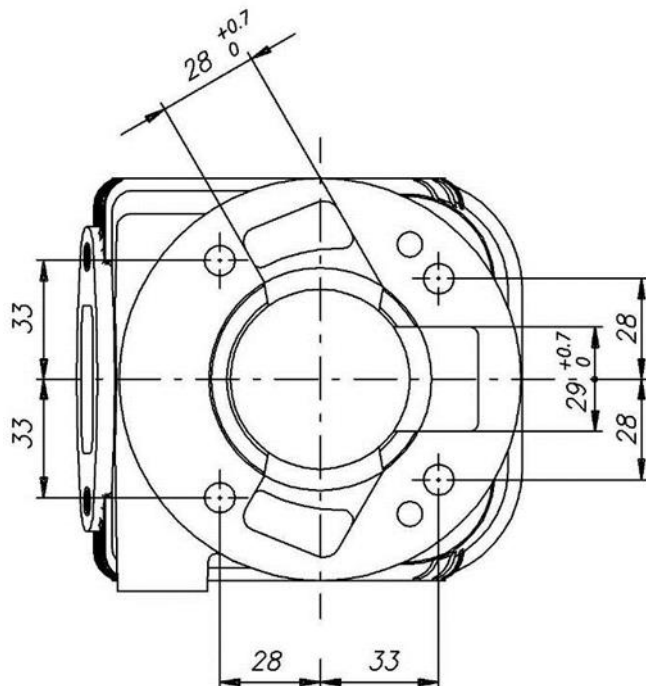
## 4.0 CYLINDER DEVELOPMENT



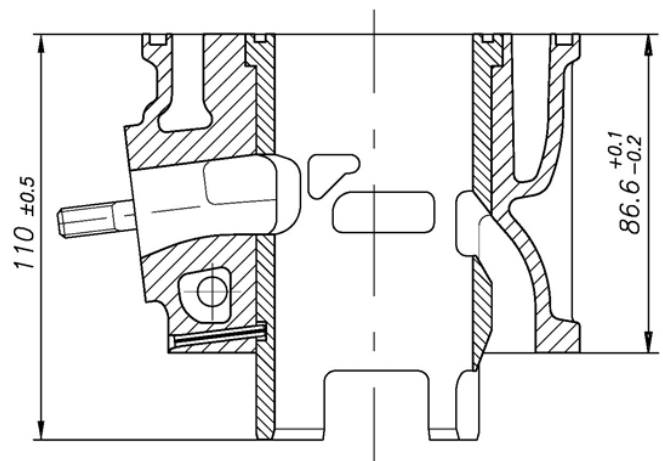
B	$\leq 36.5 \text{ mm}$
$C1 = C2$	$\leq 30 \text{ mm}$
C3	$\leq 28.5 \text{ mm}$
E	$177.5^\circ \text{ max}$
F	$126^\circ \pm 2^\circ$
G	$127^\circ \pm 2^\circ$

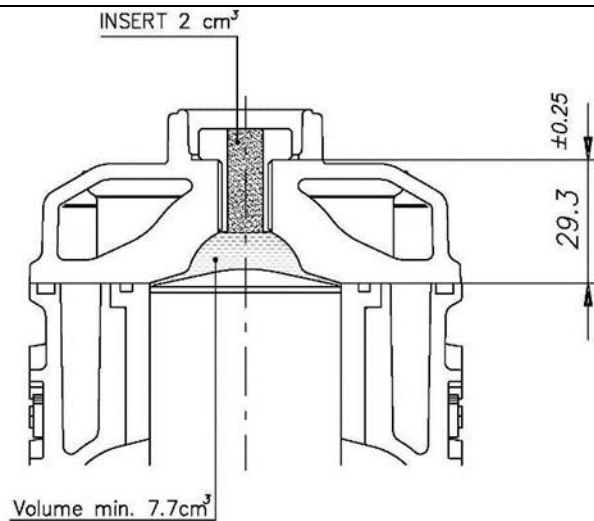
\* CHORDAL READING $\bigcirc$  ANGULAR READING BY INSERTING A 0.2X5 mm GAUGE

## 4.1 CYLINDER BASE VIEW



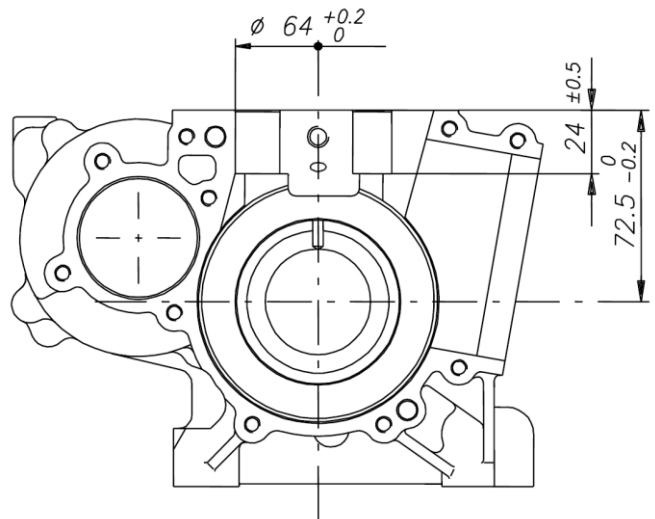
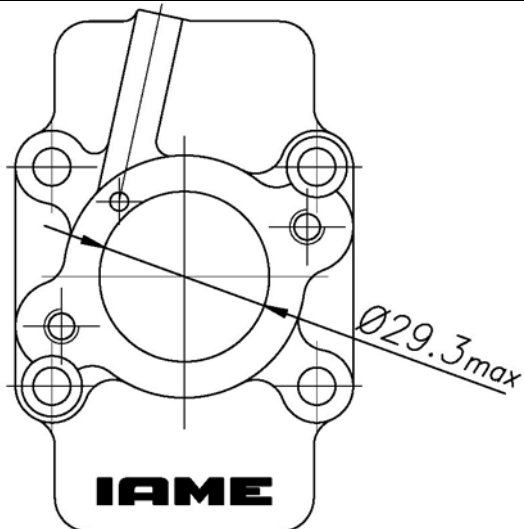
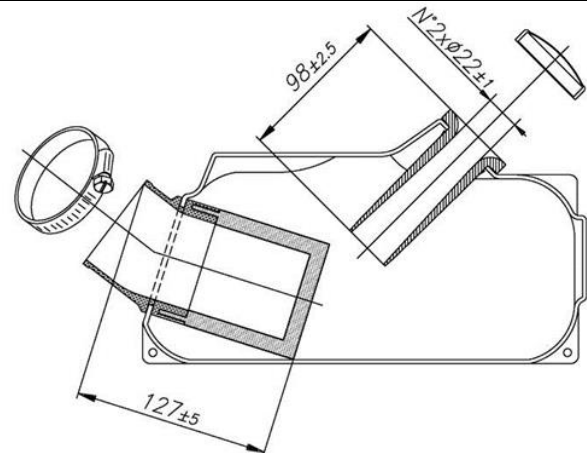
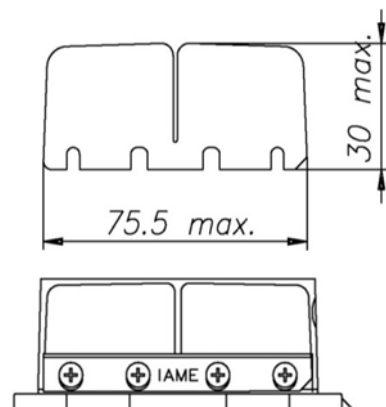
## 4.2 CYLINDER CROSS-SECTION VIEW

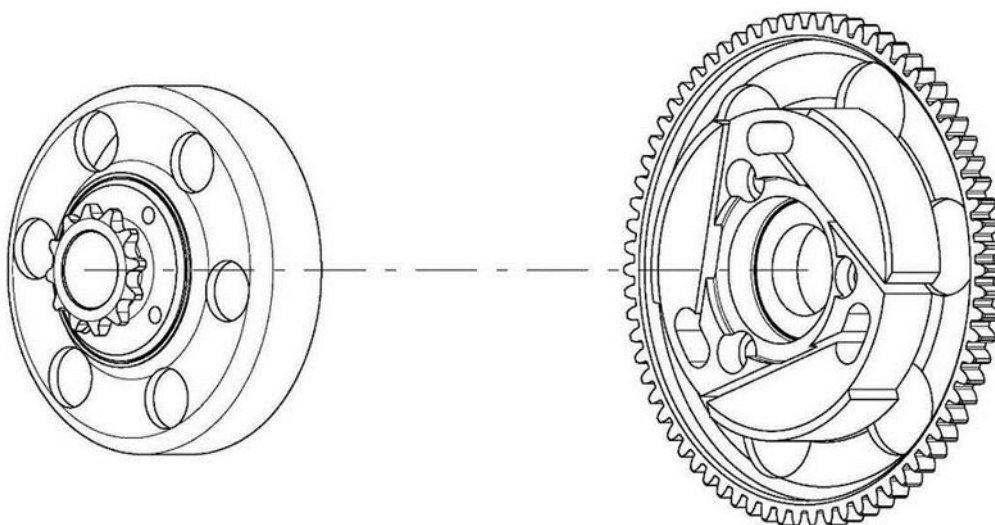
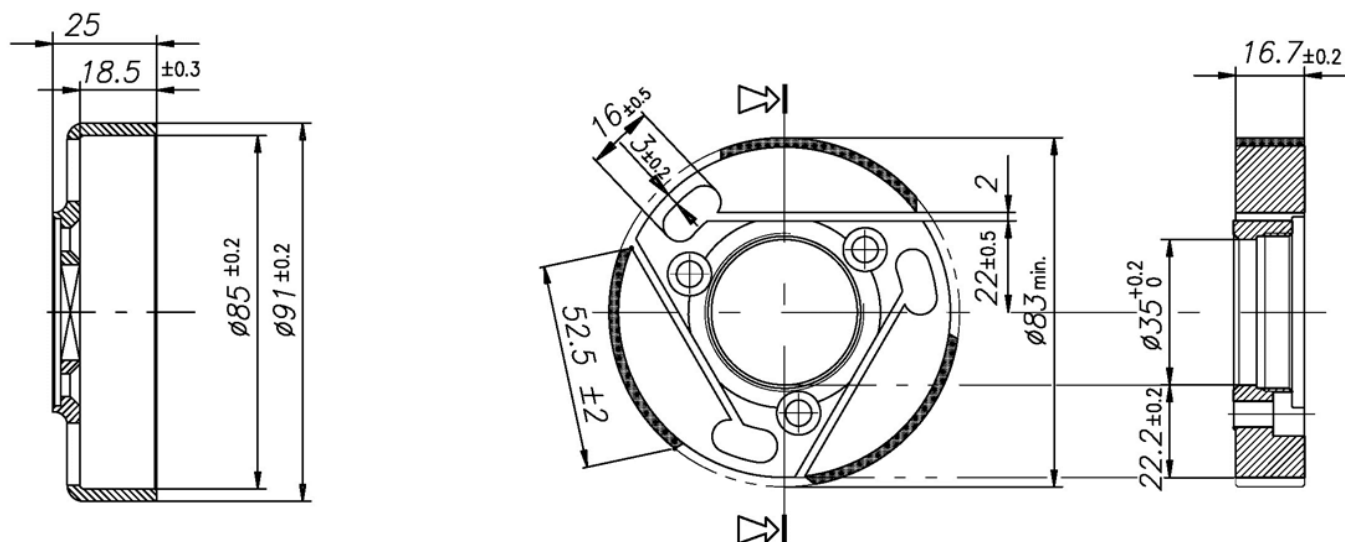


**5.0 COMBUSTION CHAMBER VIEW**

COMBUSTION CHAMBER VOLUME TOT. = 9.7 cm<sup>3</sup> min.

**SQUISH MIN. = 0.90 mm (measured with Ø1.6mm TIN)**

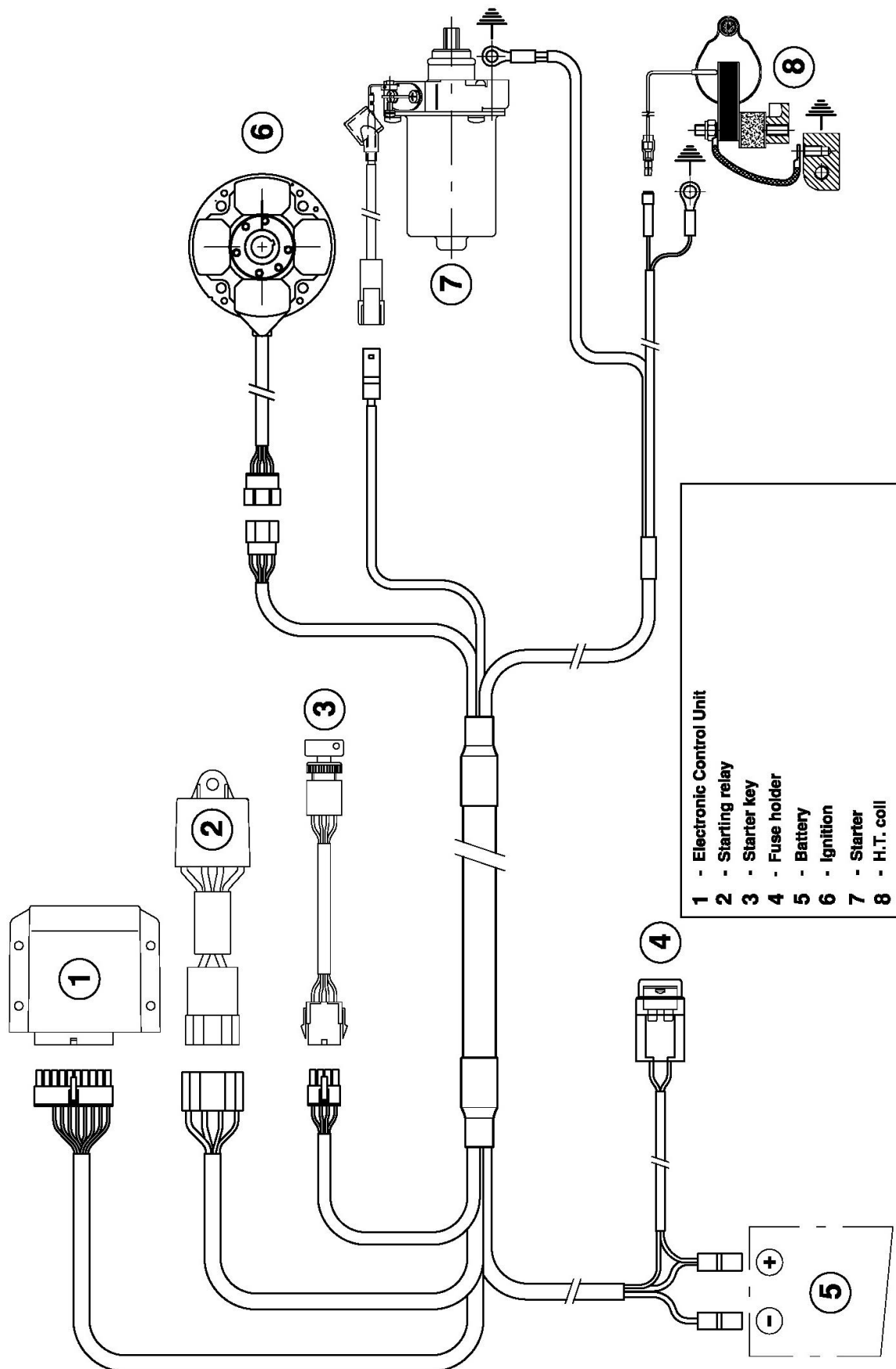
**6.0 CRANKCASE INSIDE VIEW****7.0 INLET CONVEYOR DIMENSIONS & IDENTIFICATION MARKING****7.1 INLET SILENCER****7.2 REED DIMENSIONS**



Min. weight 300 g

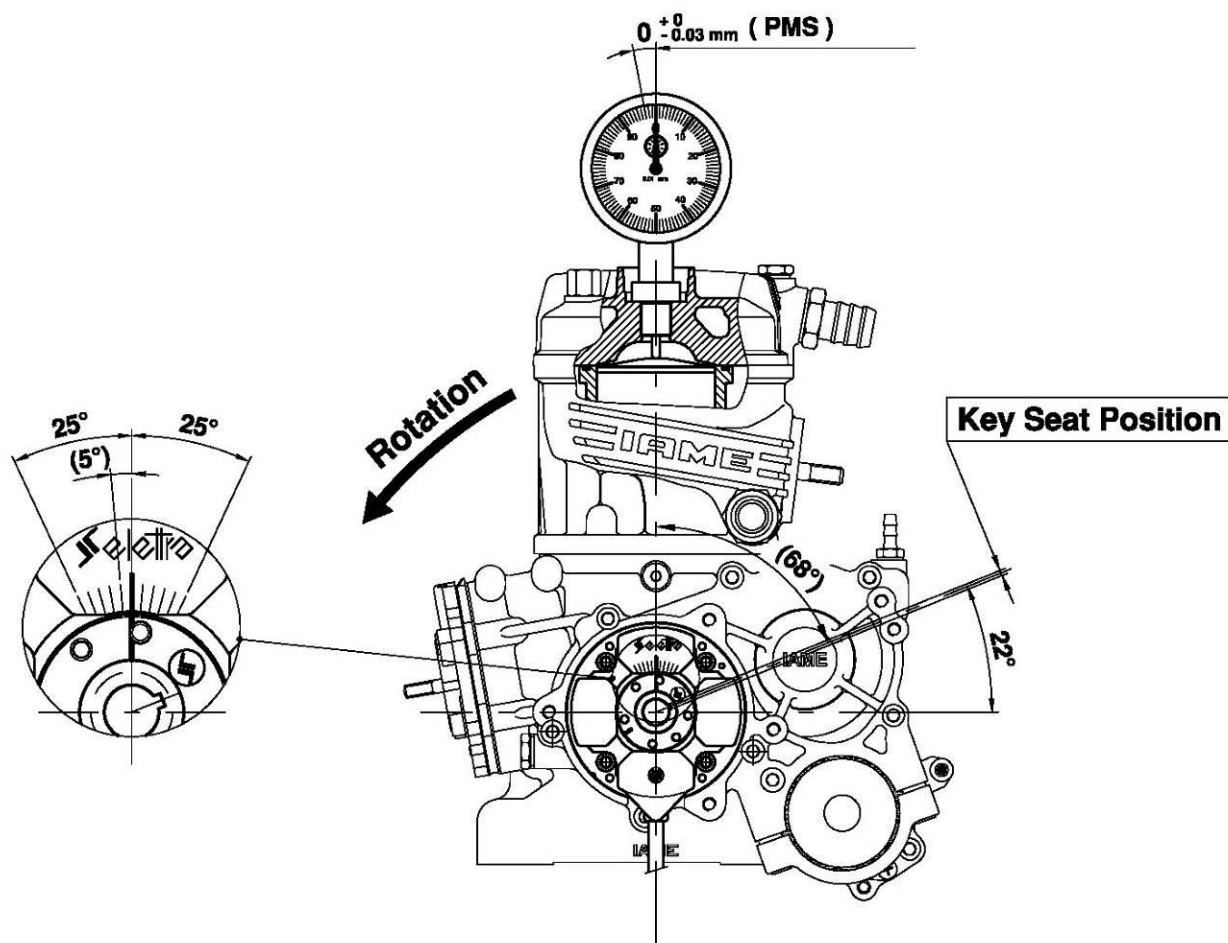
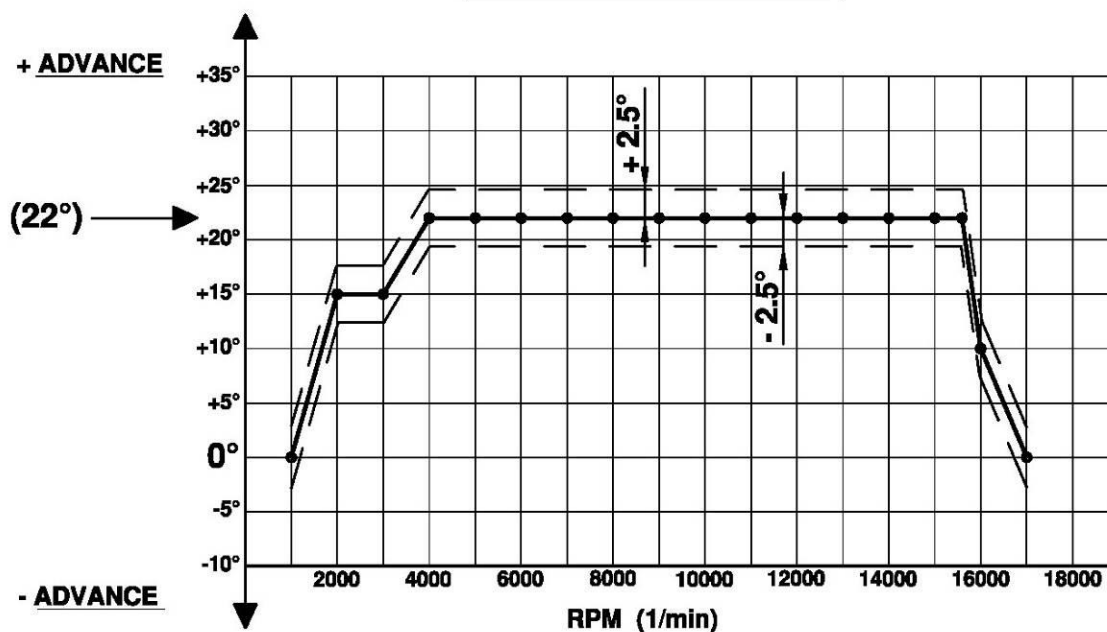
Min. weight 680 g

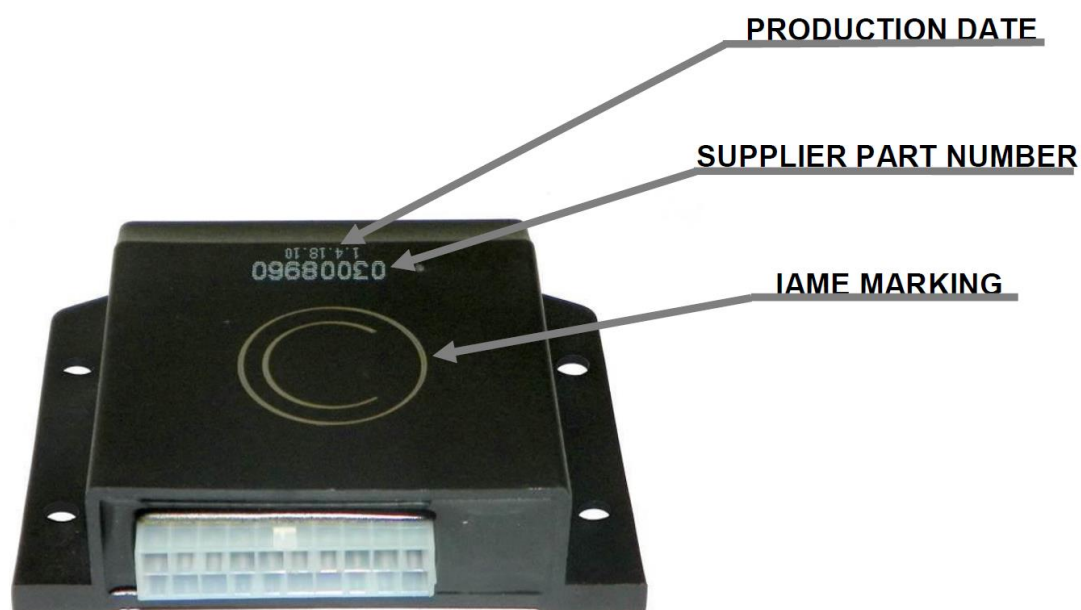
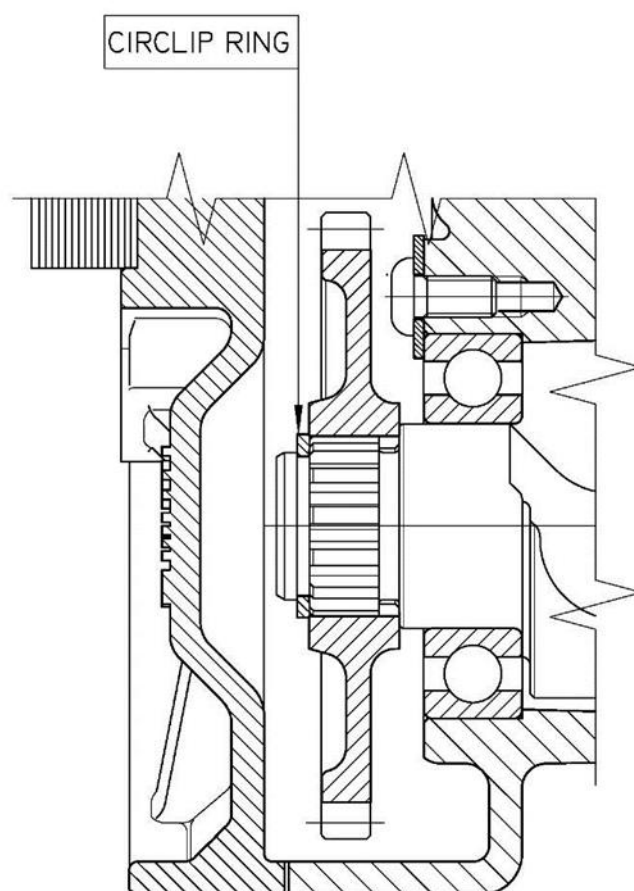
## 9.0 WIRING DIAGRAM



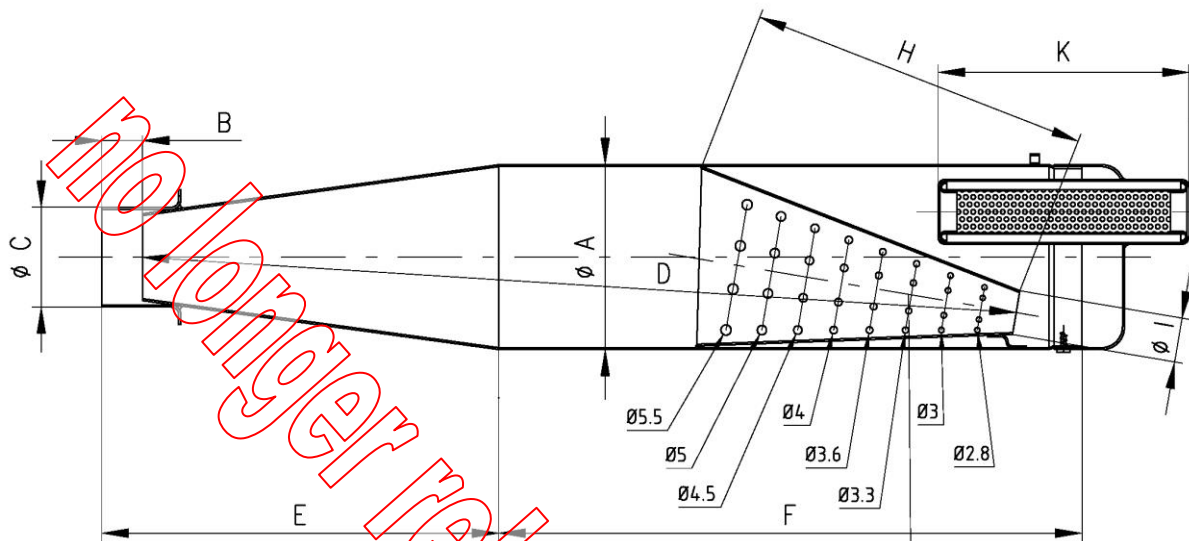


## 10.0 SCHEME FOR ADVANCE CONTROL

ADVANCE CURVE GRAPHS

**11.0 ELECTRONIC BOX****12.0 GEAR FIXING**

## 13.0 EXHAUST MUFFLER

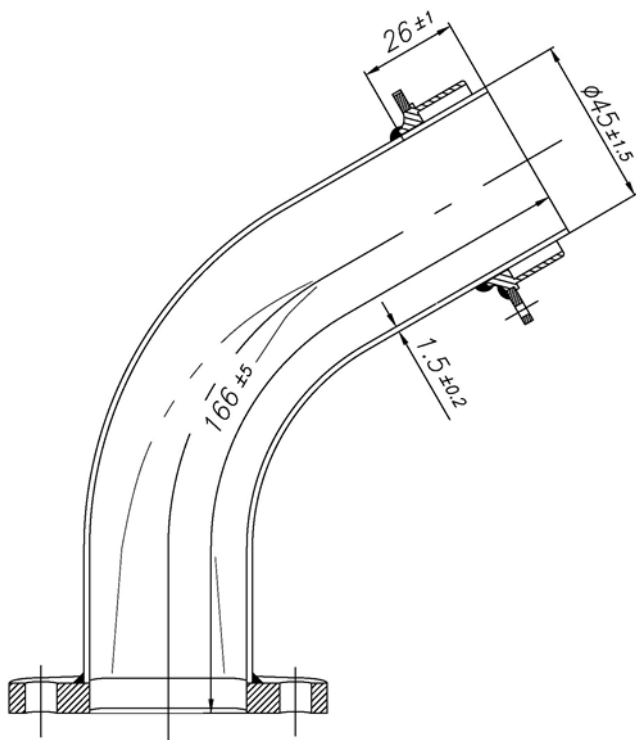


N° 8 ROWS OF HOLES. THE ROWS ARE COMPOSED OF N°8 HOLES,  
FOR A TOT OF 64 HOLES. THE HOLES HAVE A TOLLERANCE OF  $\pm 0.2$

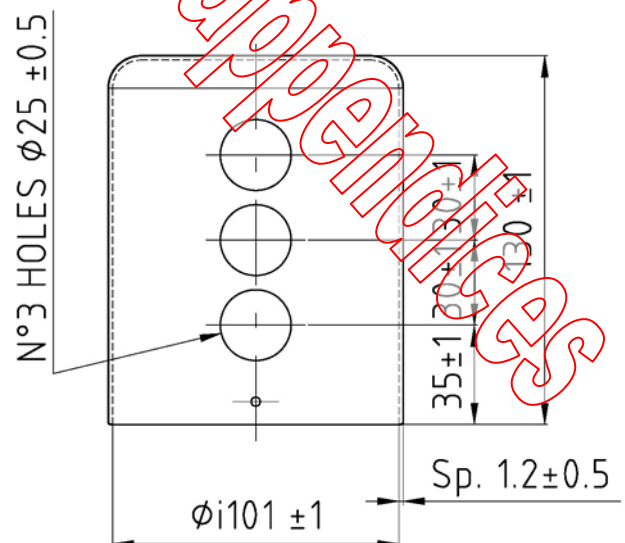
A: $100 \pm 1 \text{ ext.}$	D: $485 \pm 5$	H: $180 \pm 5$
B: $22 \pm 1$	E: $218 \pm 5$	I: $24 \pm 2 \text{ ext.}$
C: $54 \pm 1 \text{ ext.}$	F: $315 \pm 5$	K: $130 \pm 3$

Min. weight 1.39 kg

## 13.1 EXHAUST HEADER DIMENSIONS



## 13.2 EXHAUST END CAN DIMENSIONS



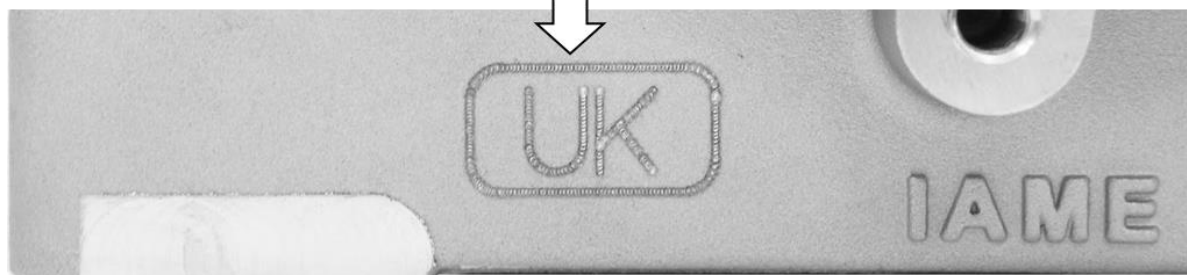
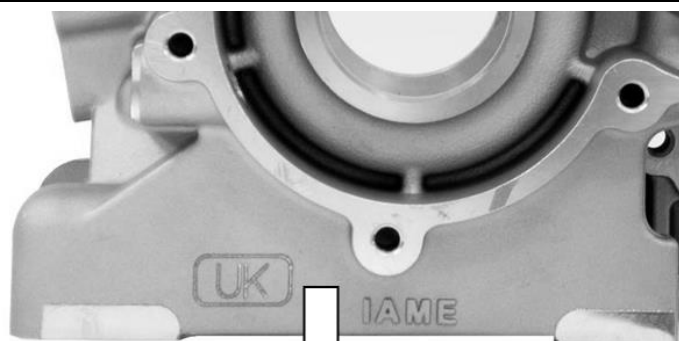
## 14.0 STICKER APPLICATION AREA



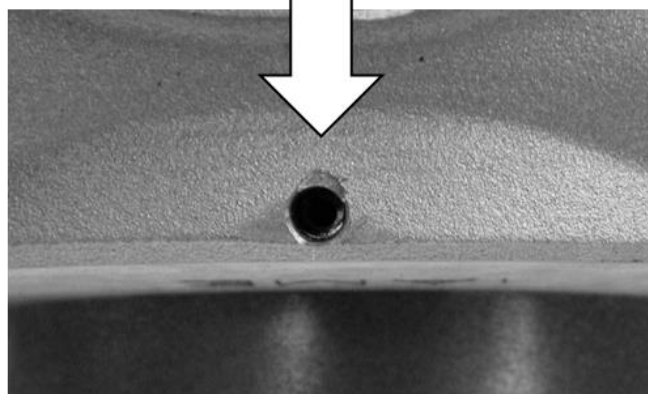
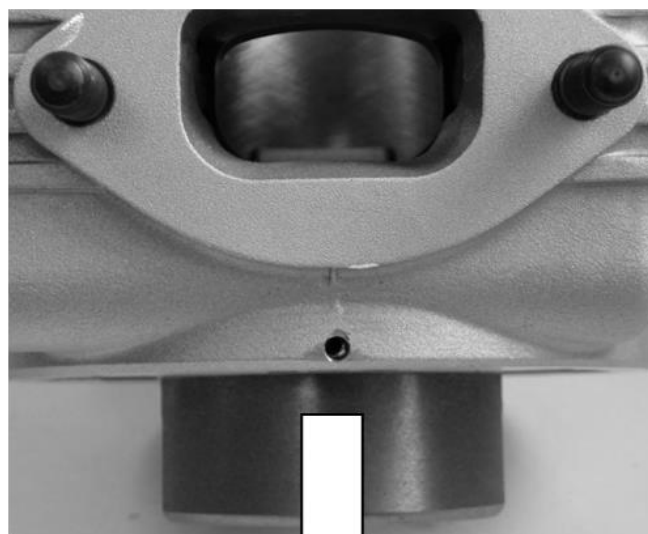
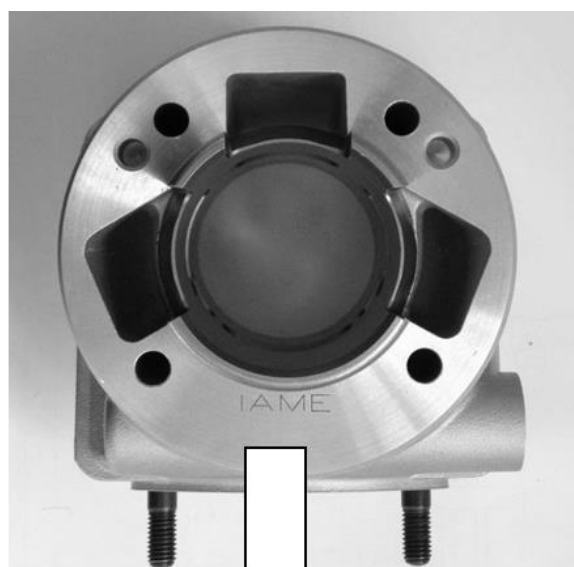
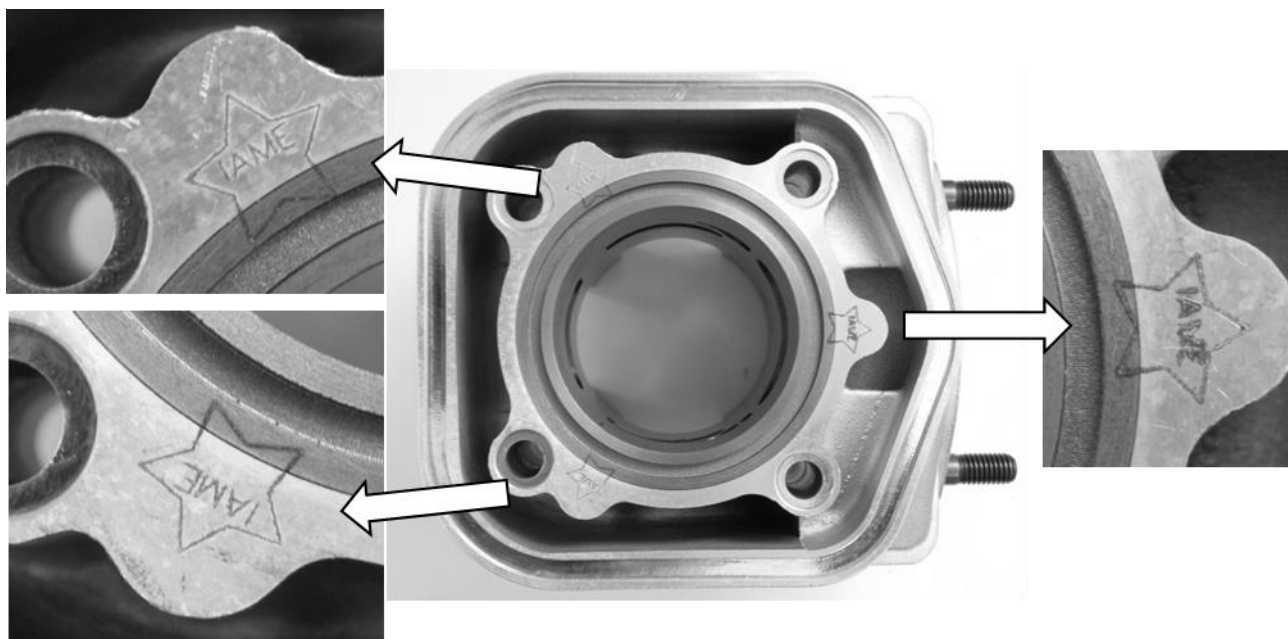
ALTERNATIVE AREA



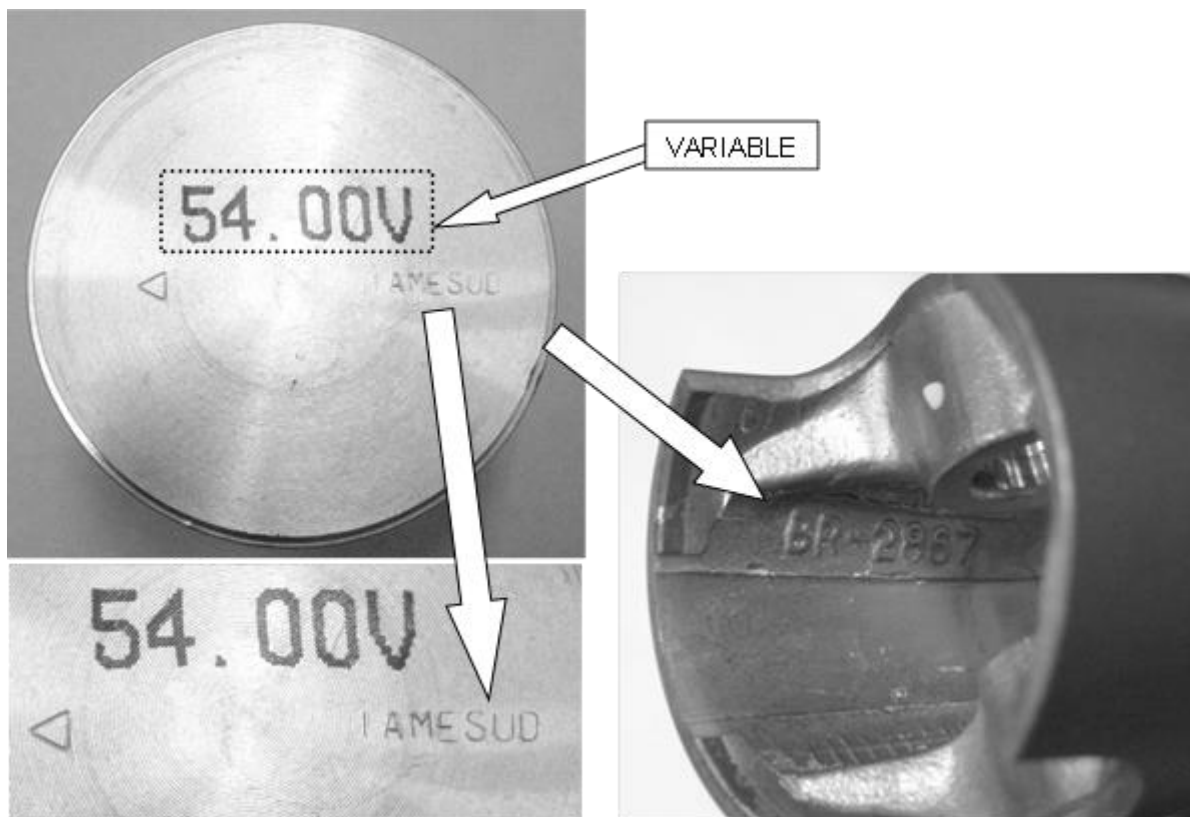
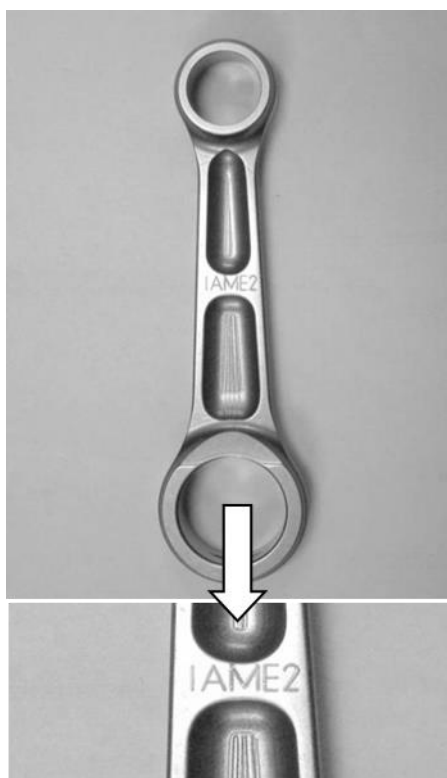
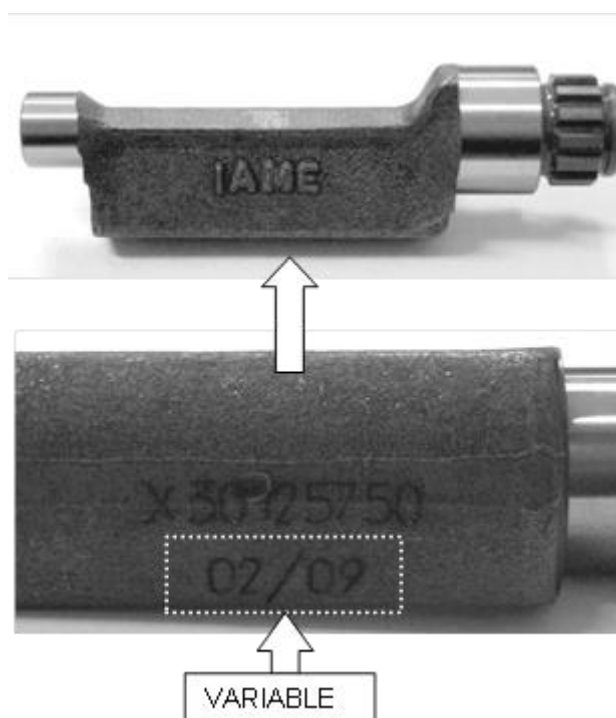
## 14.1 CRANKCASE IDENTIFICATION MARKING



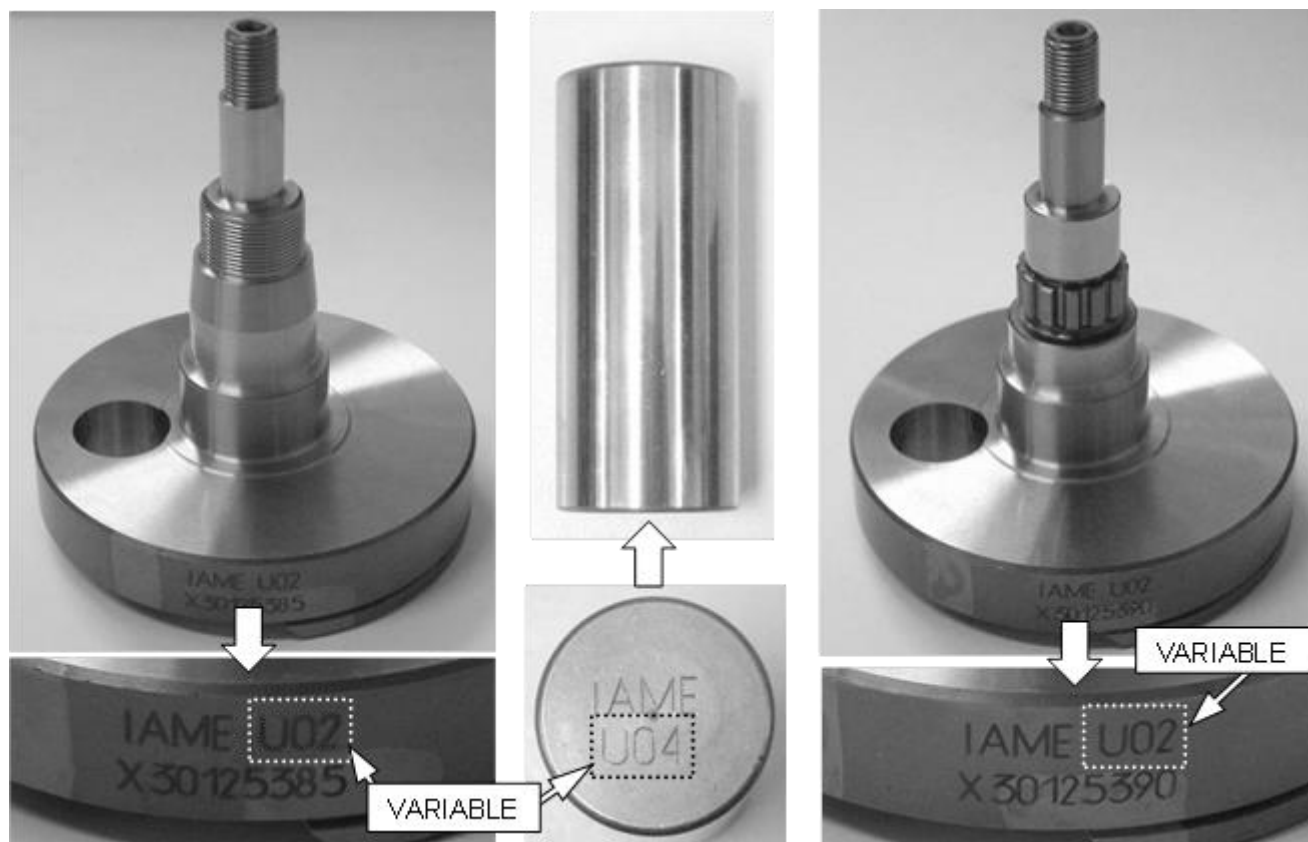


**14.2 CYLINDER IDENTIFICATION MARKING**

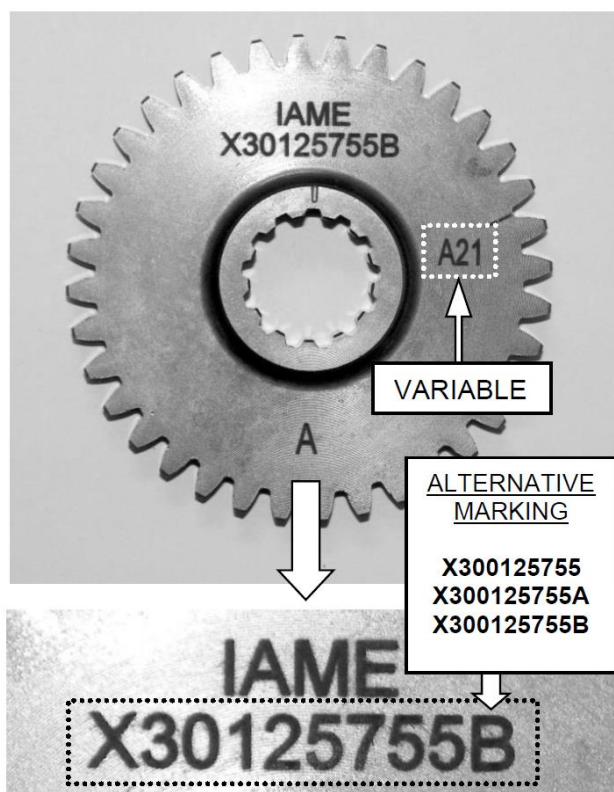


**14.3 PISTON IDENTIFICATION MARKING****14.4 CONROD IDENTIFICATION MARKING****14.5 BALANCING SHAFT ID MARKING**

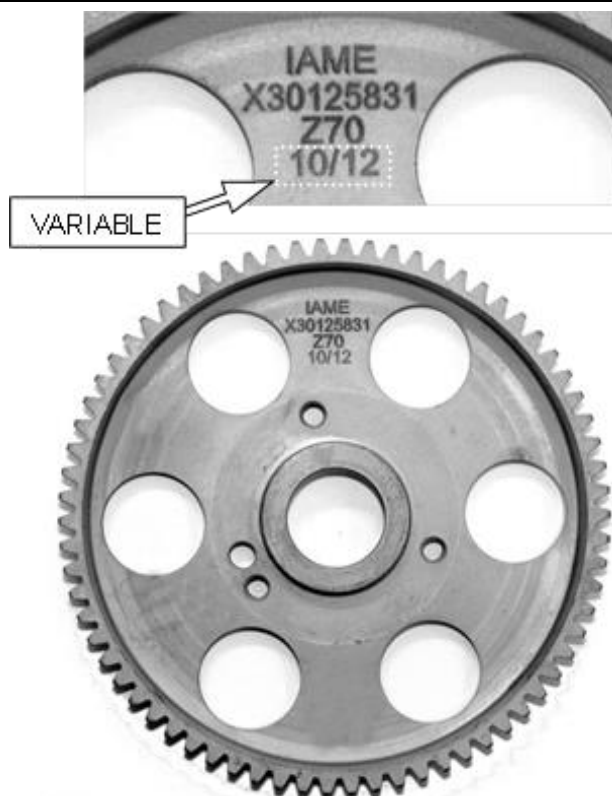
## 14.6 CRANKSHAFT IDENTIFICATION MARKING



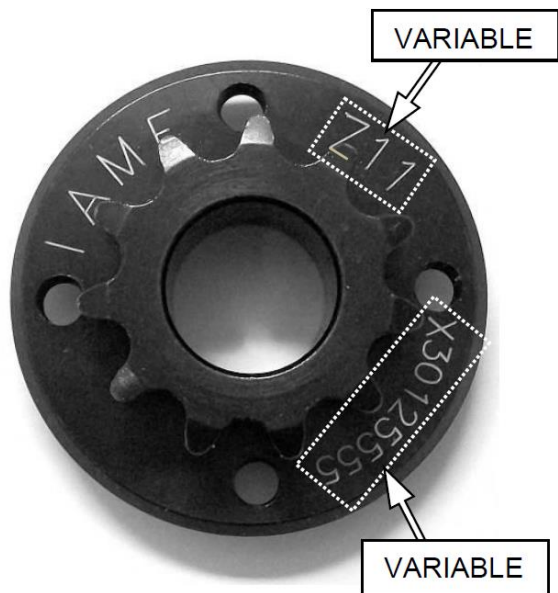
## 14.7 GEAR COMMAND BALANCING SHAFT IDENTIFICATION MARKING



## 14.8 STARTER RING ID MARKING



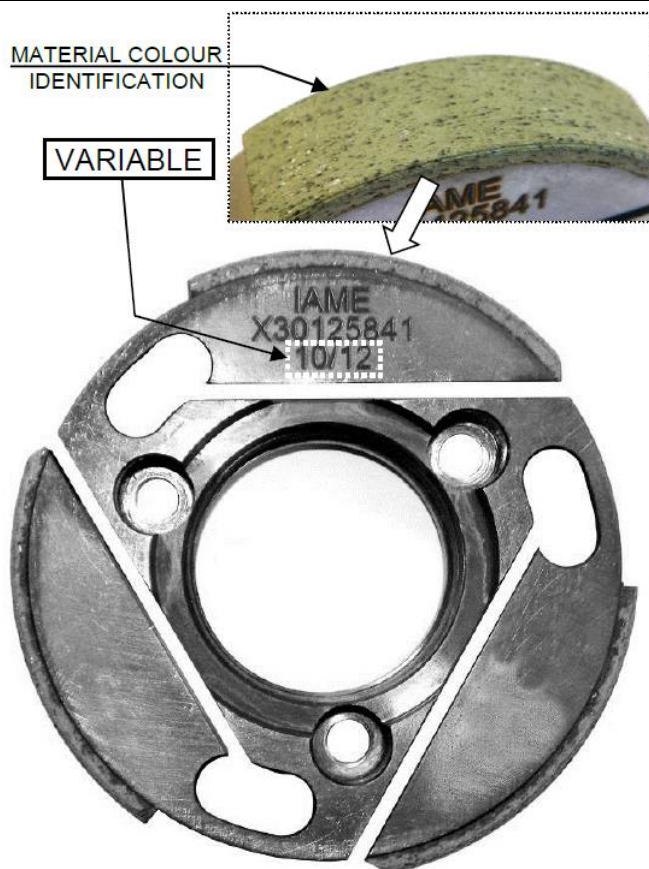
## 14.9 SPROCKET ID MARKING



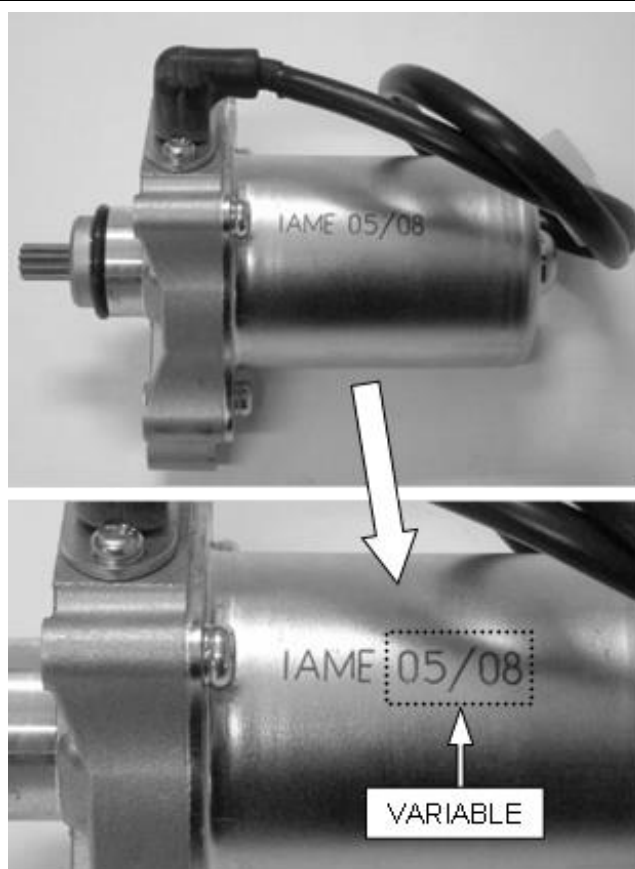
## 14.10 CLUTCH DRUM ID MARKING



## 14.11 CLUTCH BODY ID MARKING

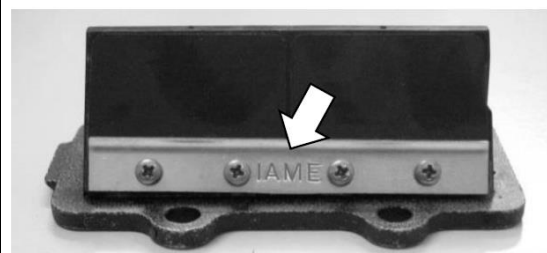
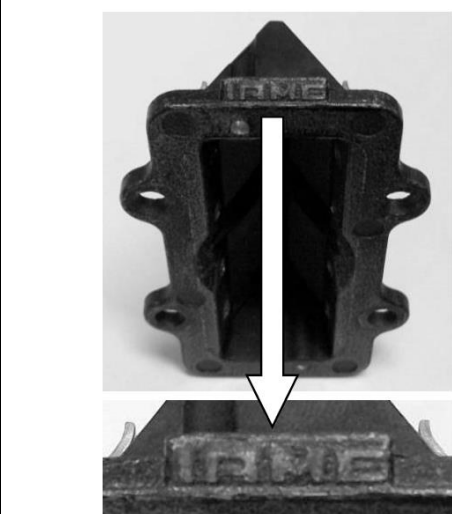


## 14.12 STARTER IDENTIFICATION MARKING

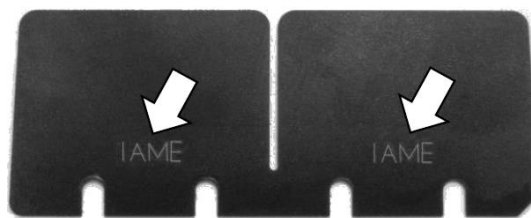




## 14.13 REED GROUP &amp; PETAL IDENTIFICATION MARKING

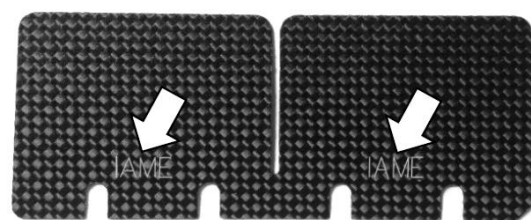


VETRONITE

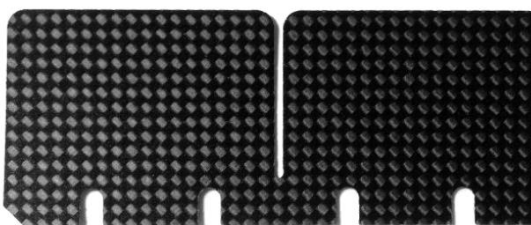


CARBON FIBER

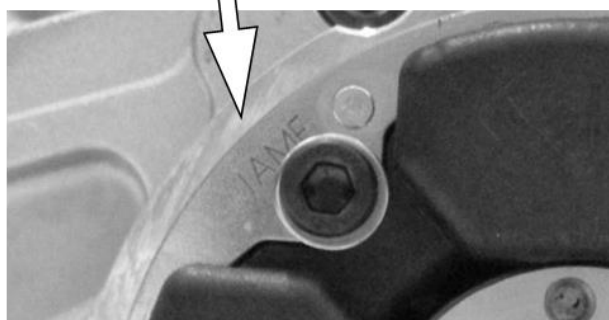
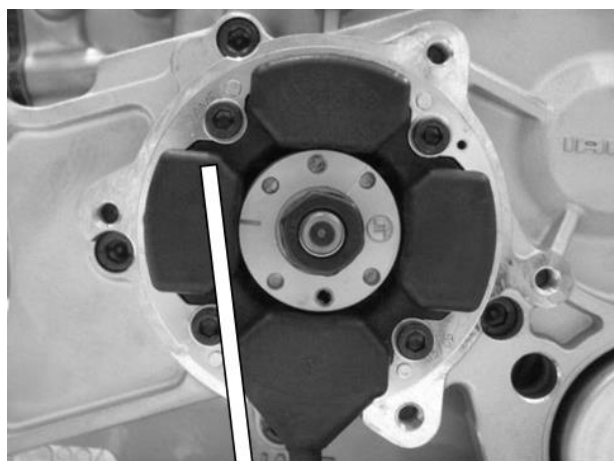
FRONT SIDE



REAR SIDE



## 14.14 STATOR IDENTIFICATION MARKING



## 14.15 EXHAUST IDENTIFICATION MARKING

no longer relevant  
see apendices

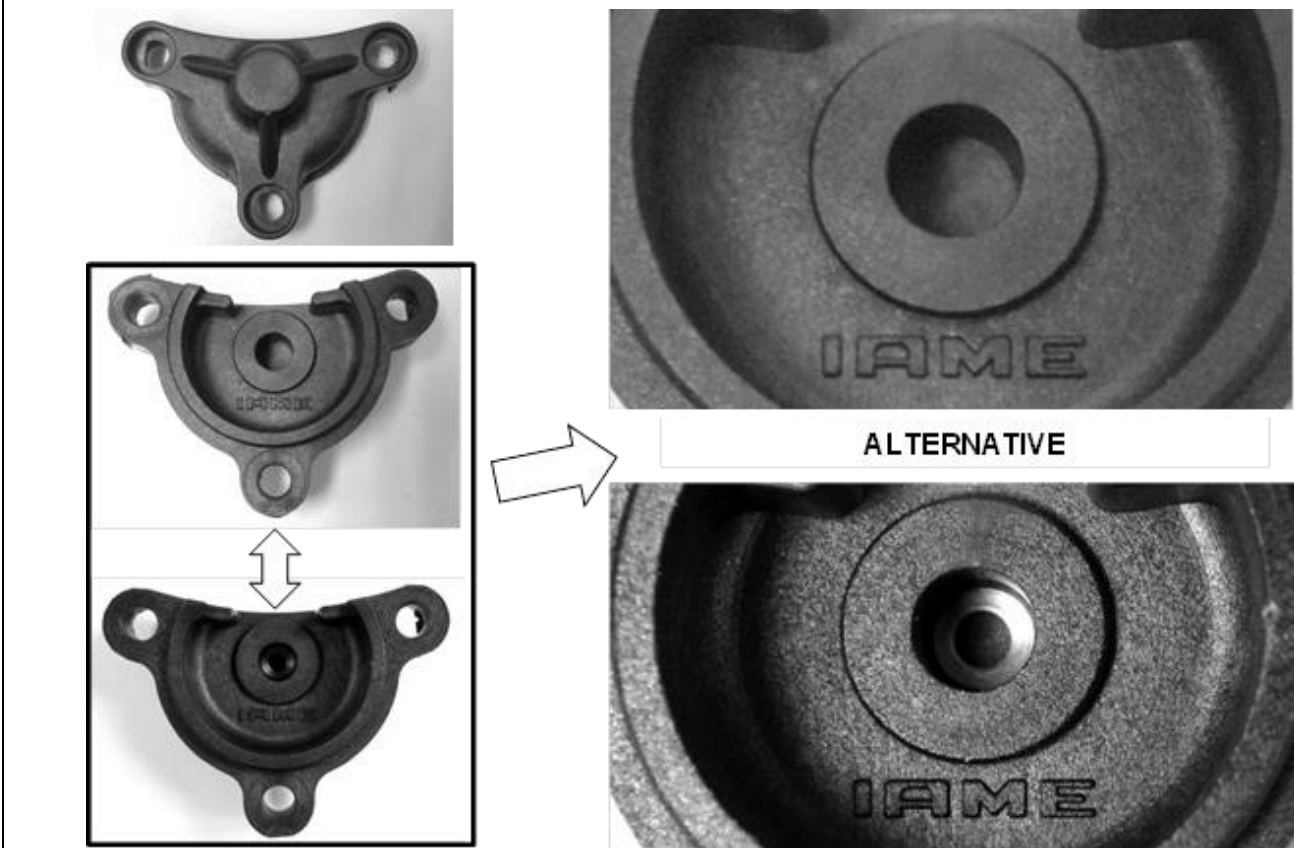


**14.16 EXHAUST HEADER ID MARKING**

no longer relevant  
see apendices

**14.17 CLUTCH COVER & H.T. COIL IDENTIFICATION MARKING**



**14.18 BENDIX COVER IDENTIFICATION MARKING****14.19 EXHAUST END CAN IDENTIFICATION MARKING****END**

## Appendix 1

HOMOLOGATION OF KART ENGINE – SUPPLEMENT  
JUNIOR

Category	IAME X30 JUNIOR
Manufacturer	IAME
Model	X30 125cc RL TaG - UK
Valid From	01 January 2014
Number of pages	2

## SIGNATURE AND STAMP OF THE MSA



Date: 18 December 2013

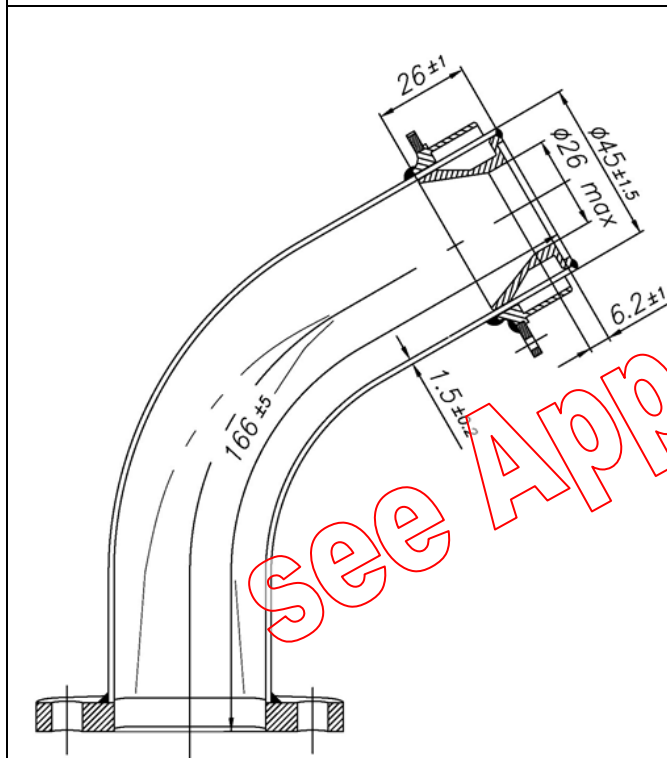
Signed by: Joe Hickerton

Position: MSA Technical Administrator

## TECHNICAL INFORMATION

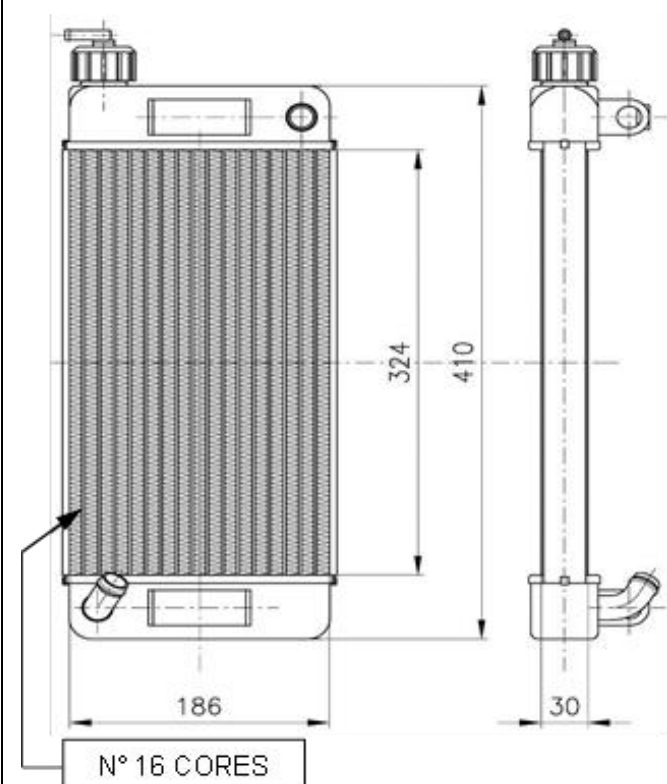
All parts of the preceding **IAME X30** engine fiche are applicable and remain unchanged with the exception and/or addition of the following points:

## 13.1 EXHAUST HEADER DIMENSIONS

14.20 EXHAUST HEADER WITH JUNIOR  
RESTRICTOR ID MARKING

Note: Silver finish for Junior

## 15.0 RADIATOR DESCRIPTION



## 15.1 RADIATOR PHOTOGRAPHS

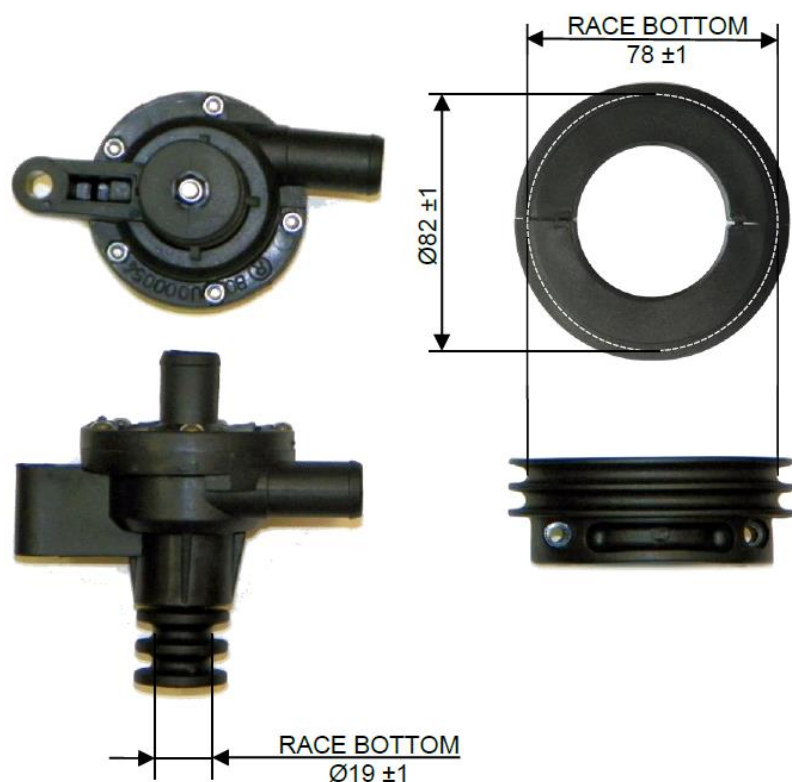
PAINTED AND NOT PAINTED



FRONT

REAR

## 16.0 WATER PUMP GROUP



## 16.1 THERMOSTAT ID MARKING



END

## Appendix 2

**HOMOLOGATION OF KART ENGINE – SUPPLEMENT  
CARBURETTOR**

Category	IAME X30 JUNIOR & SENIOR
Manufacturer	Tillotson Ltd.
Model	HW-27A
Valid From	01 January 2014
Number of pages	5

*This Homologation Form reproduces descriptions, illustrations and dimensions of the engine at the moment of the MSA Homologation. This document may be supplemented by official amendment. This document must be read in conjunction with the appropriate Class Regulations.*



Photo of adjusting side



Photo of inlet side

**SIGNATURE AND STAMP OF THE MSA**

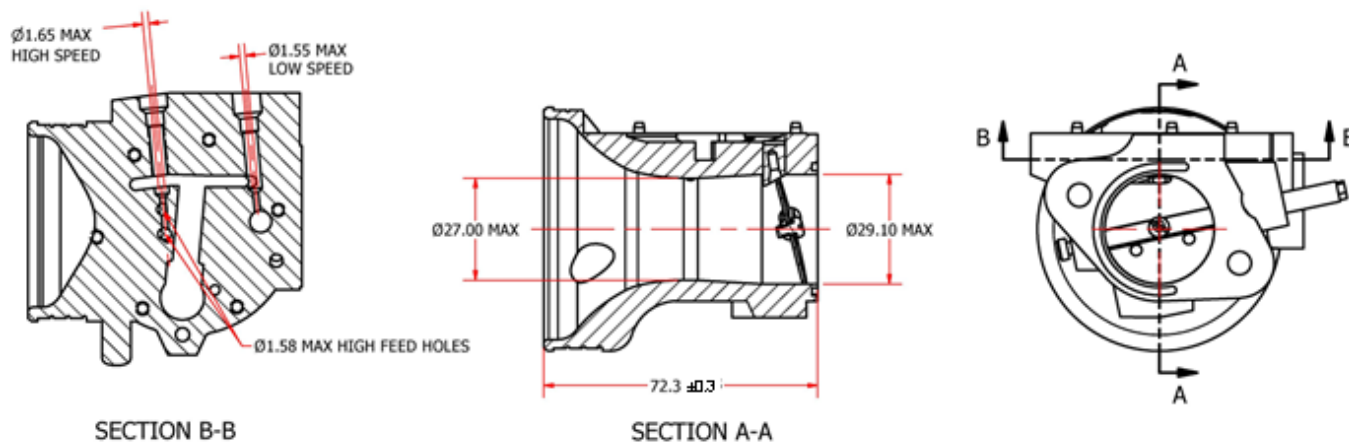
Date: **18 December 2013**Signed by: **Joe Hickerton**Position: **MSA Technical Administrator**

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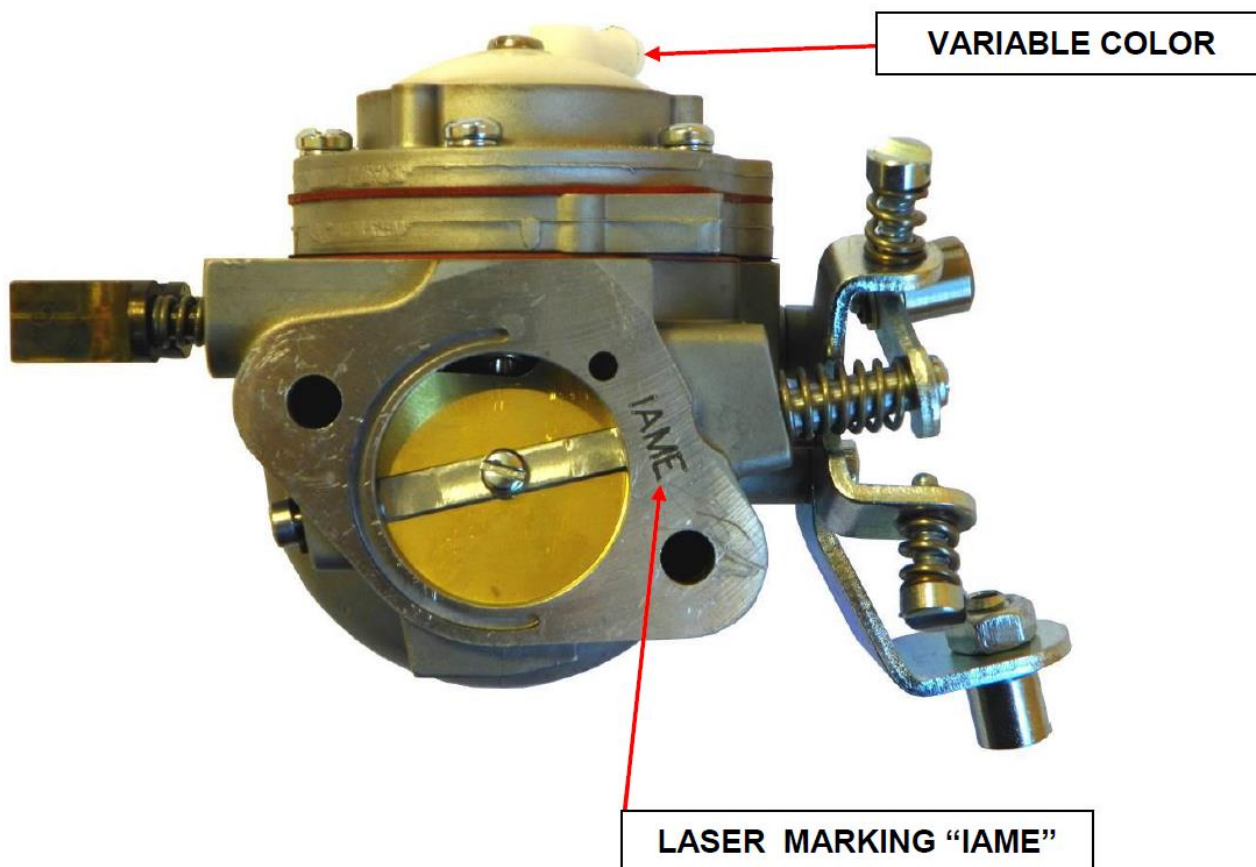


## TECHNICAL INFORMATION

## C1.0 SECTION VIEW



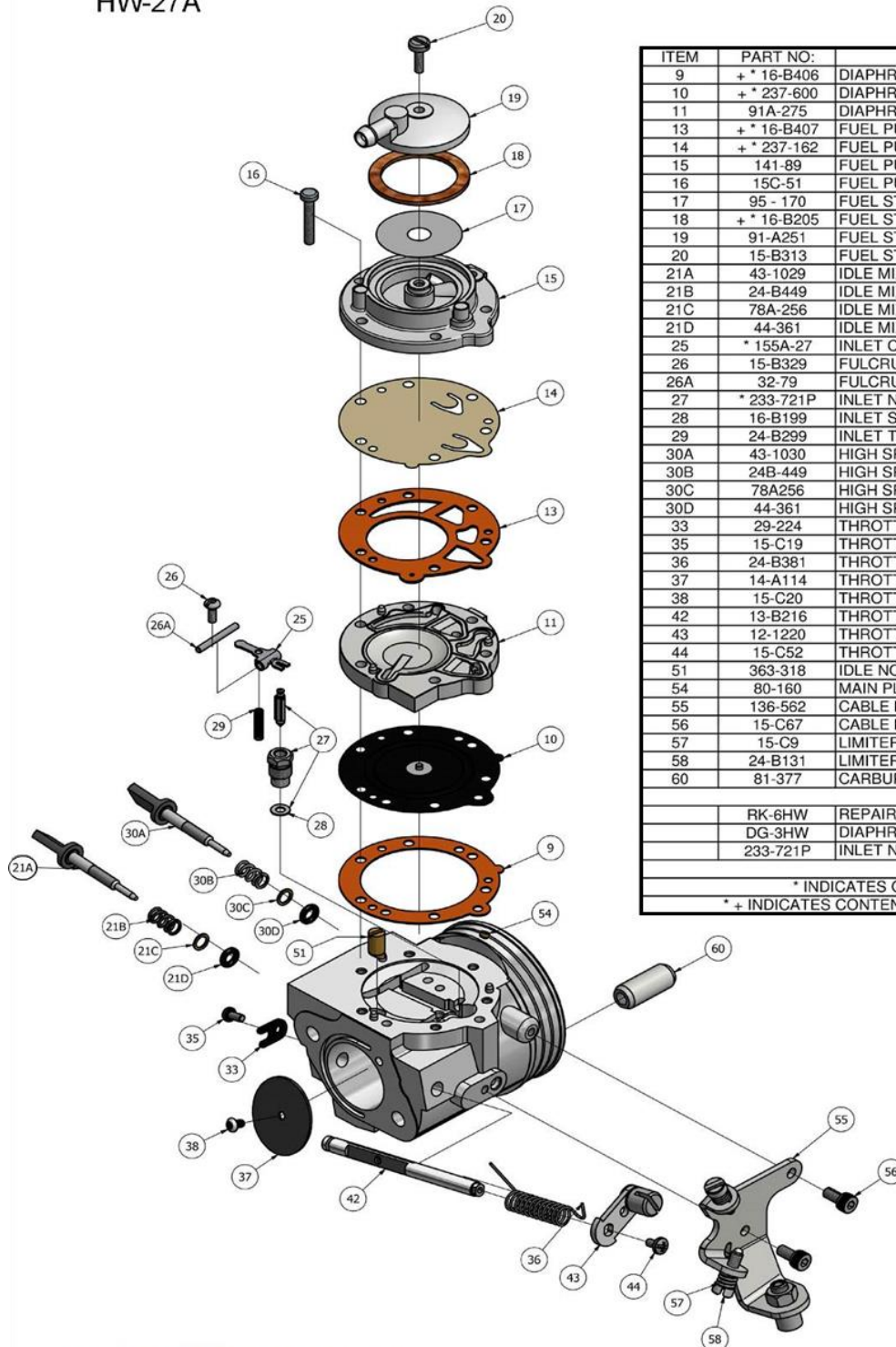
## C2.0 CARBURETTOR MARKING





## C3.0 SECTION VIEW

HW-27A



ITEM	PART NO:	DESCRIPTION	QTY
9	+ * 16-B406	DIAPHRAGM GASKET (ORANGE)	1
10	+ * 237-600	DIAPHRAGM	1
11	91A-275	DIAPHRAGM COVER	1
13	+ * 16-B407	FUEL PUMP GASKET (ORANGE)	1
14	+ * 237-162	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	* 233-721P	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
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-A114	THROTTLE SHUTTER	1
38	15-C20	THROTTLE SHUTTER SCREW	1
42	13-B216	THROTTLE SHAFT	1
43	12-1220	THROTTLE LEVER ASSEMBLY	1
44	15-C52	THROTTLE LEVER RETAINING SCREW	1
51	363-318	IDLE NOZZLE	1
54	80-160	MAIN PLUG	2
55	136-562	CABLE BRACKET	1
56	15-C67	CABLE BRACKET RETAINING SCREW	2
57	15-C9	LIMITER SCREW	2
58	24-B131	LIMITER SPRING	2
60	81-377	CARBURETTOR MOUNTING NUT	2

RK-6HW REPAIR KIT

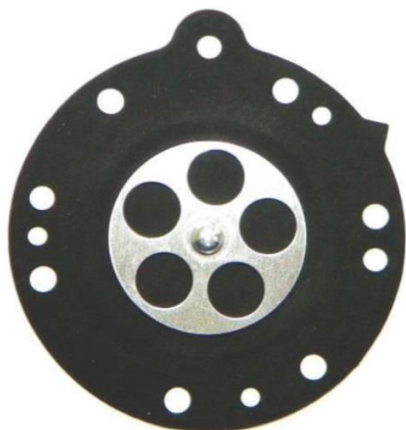
DG-3HW DIAPHRAGM &amp; GASKET (STANDARD)

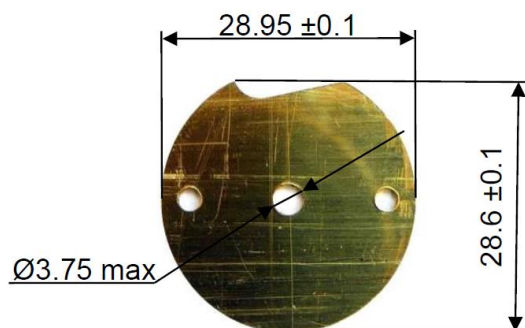
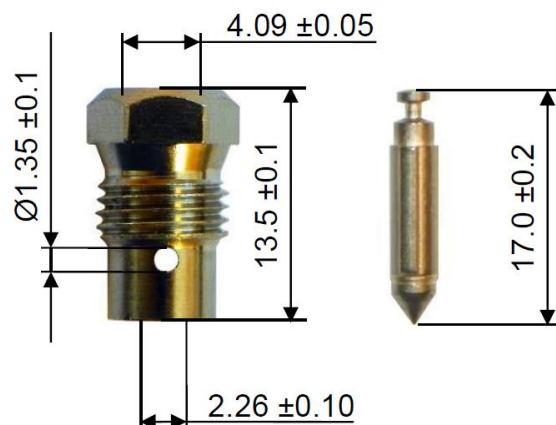
233-721P INLET NEEDLE &amp; SEAT SET

\* INDICATES CONTENTS OF REPAIR KIT

\* + INDICATES CONTENTS OF DIAPHRAGM &amp; GASKET SET

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

**C4.0 CARBURETTOR COMPONENTS****REF.9 - P. N°16-B406  
DIAPHRAGM GASKET (ORANGE COLOR)**Thickness =  $0.5 \pm 0.1$  mm**REF.13 - P. N° 16-B407  
PUMP DIAPHRAGM GASKET (ORANGE COLOR)**Thickness =  $0.8 \pm 0.1$  mm**REF.10 - P. N°237-600  
DIAPHRAGM**Thickness =  $0.13 \pm 0.07$  mm**REF.14 - P. N°237-162  
PUMP DIAPHRAGM**Thickness =  $0.10 \pm 0.063$  mm**REF.11 - P. N° 91-A275  
DIAPHRAGM COVER**Thickness =  $6.75 \pm 0.15$  mm**REF.15 - P. N° 141-89  
PUMP COVER**Thickness =  $12.5 \pm 0.15$  mm

**C4.0 CARBURETTOR COMPONENTS (continued)****REF.37 - P. N° 14-A114  
THROTTLE SHUTTER**Thickness =  $0.81 \pm 0.1$  mm**REF.27 - P. N° 233-721P  
SEAT + NEEDLE****REF.30A - P. N° 43-1030  
NEEDLE HIGH SPEED****REF.21A - P. N° 43-1029  
NEEDLE LOW SPEED****END**



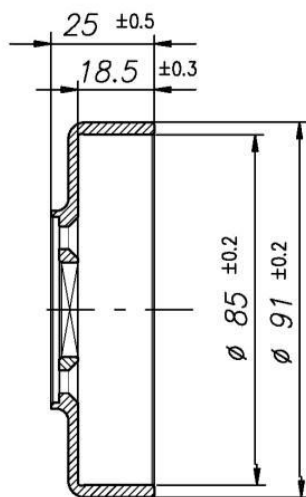
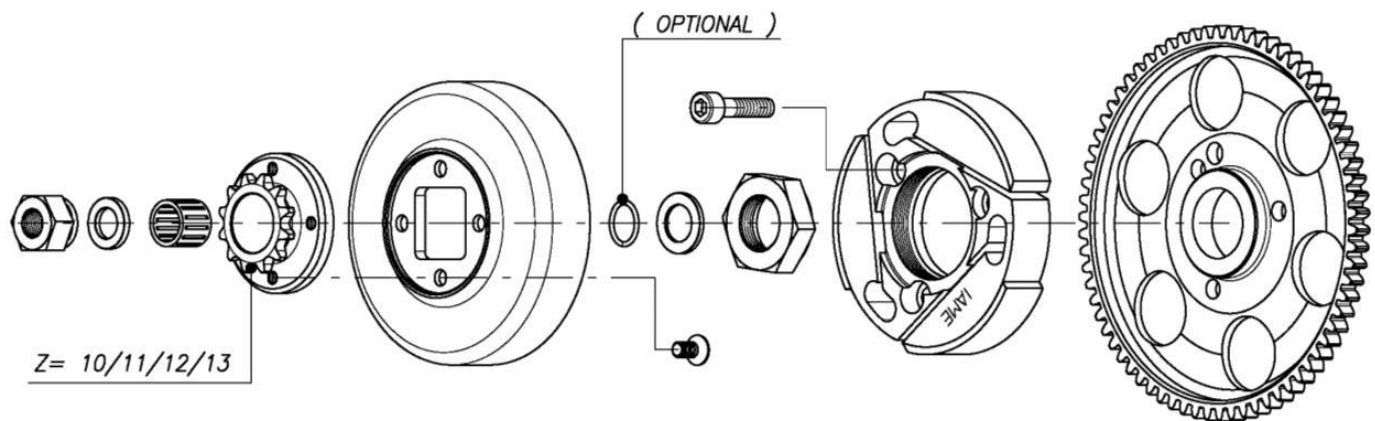
## Appendix 3

## HOMOLOGATION OF KART ENGINE – VARIANT

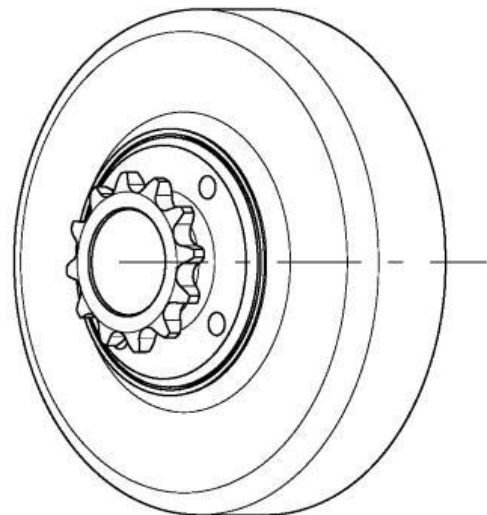
Category	IAME X30 JUNIOR & SENIOR
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2015
Number of pages	2

## ALTERNATIVE SOLID CLUTCH DRUM

## 8.0 CLUTCH



Min. weight 225 g



Min. weight 300 g



## 14.10 CLUTCH DRUM ID MARKING



END

## SIGNATURE AND STAMP OF THE MSA

A blue ink signature is written over the MSA logo, which consists of the letters 'MSA' in a stylized font with a red and blue swoosh above it.

Date: 09 October 2014

Signed by: Joe Hickerton

Position: MSA Technical Administrator

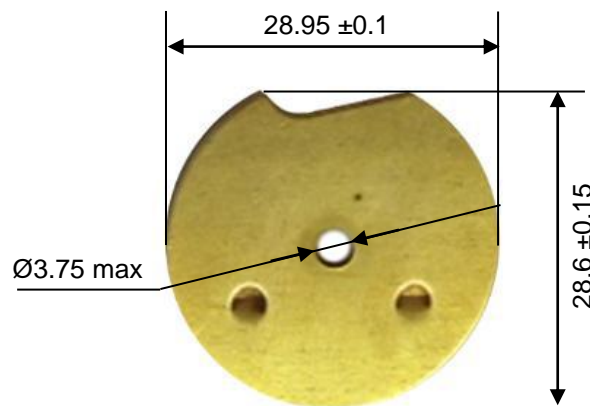
## Appendix 4

HOMOLOGATION OF KART ENGINE – VARIANT  
CARBURETTOR

Category	IAME X30 JUNIOR & SENIOR
Manufacturer	Tillotson Ltd
Model	HW-27A
Valid From	01 January 2015
Number of pages	1

## ALTERNATIVE THROTTLE SHUTTER

## C4.0 CARBURETTOR COMPONENTS

REF.37 - P. N° 14-A114  
THROTTLE SHUTTER

Thickness = 0.81 ±0.1 mm

END

## SIGNATURE AND STAMP OF THE MSA

Date: 14 October 2014

Signed by: Joe Hickerton

Position: MSA Technical Administrator

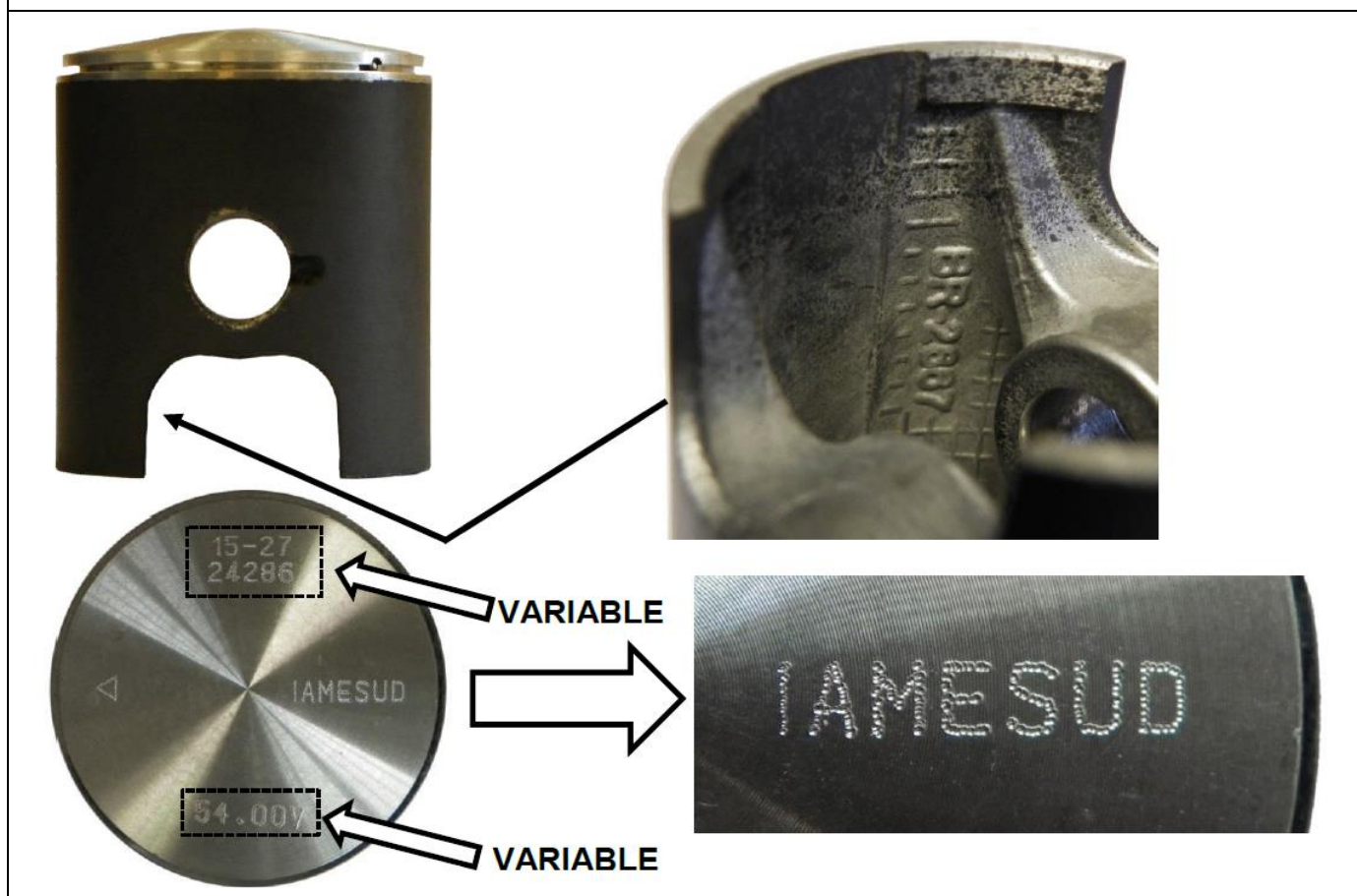
## Appendix 5

## HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 JUNIOR & SENIOR
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2016
Number of pages	1


## ALTERNATIVE PISTON MARKINGS

## 14.3 PISTON IDENTIFICATION MARKING



END

## SIGNATURE AND STAMP OF THE MSA

	Date: 24 September 2015
	Signed by: Joe Hickerton
	Position: MSA Technical Administrator

## Appendix 6

## HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 JUNIOR & SENIOR
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2016
Number of pages	1

## ALTERNATIVE REED VALVE MARKINGS

## 14.13 REED GROUP &amp; PETAL IDENTIFICATION MARKING



Note: Petal identification markings remain unchanged.



END

## SIGNATURE AND STAMP OF THE MSA

Date: 24 September 2015

Signed by: Joe Hickerton

Position: MSA Technical Administrator



## Appendix 7

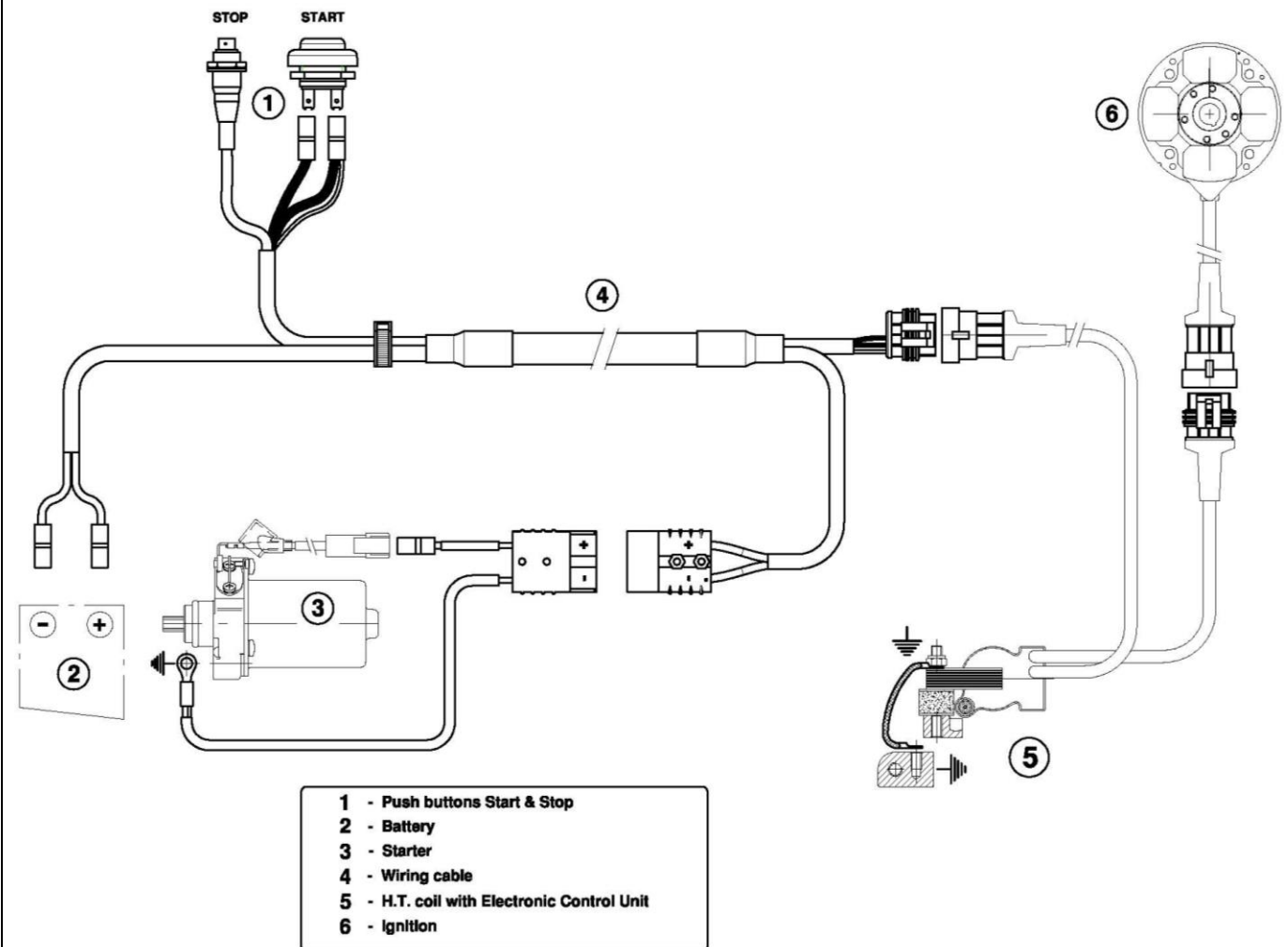
## HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 JUNIOR & SENIOR
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2016
Number of pages	2

## ALTERNATIVE IGNITION &amp; WIRING LOOM

## 9.0 WIRING DIAGRAM

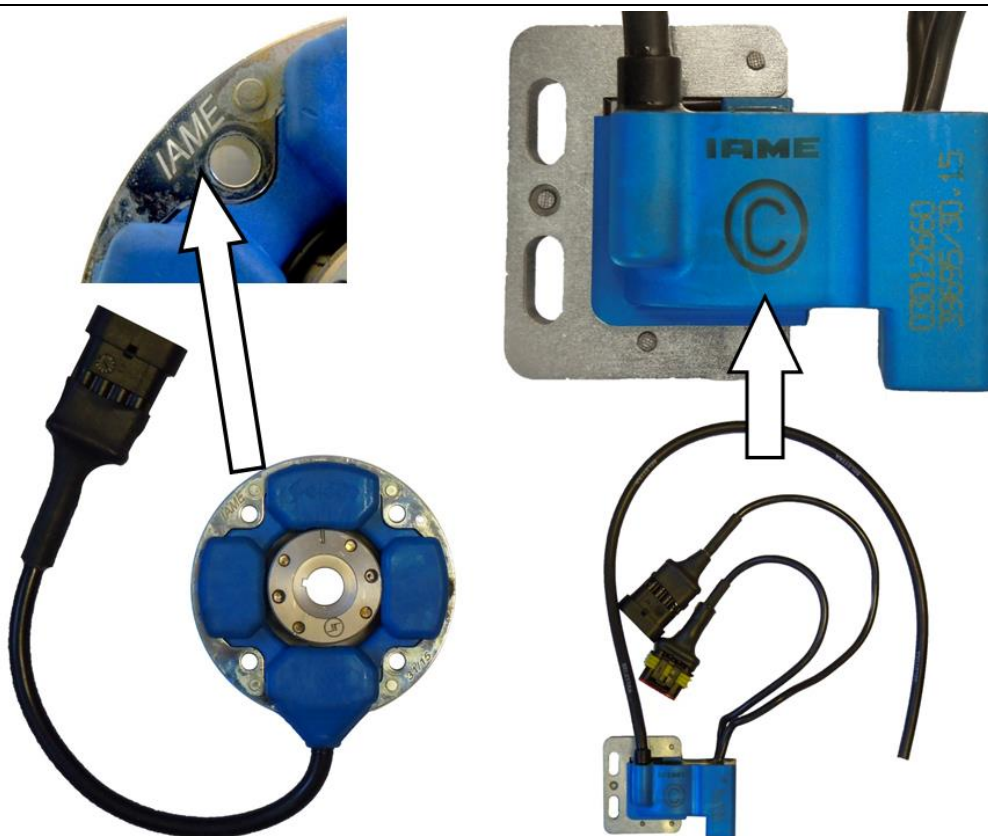
## SELETTRA ALTERNATIVE DIGITAL “S” IGNITION



## 9.1 PHOTO OF COMPLETE WIRING LOOM



## 9.2 PHOTO OF IGNITION WITH MARKING



END

## SIGNATURE AND STAMP OF THE MSA

A handwritten signature in blue ink, followed by a grey MSA stamp.

Date: 24 September 2015

Signed by: Joe Hickerton

Position: MSA Technical Administrator

## Appendix 8

**HOMOLOGATION OF KART ENGINE – VARIANT**

<i>Category</i>	<b>IAME X30 JUNIOR &amp; SENIOR</b>
<i>Manufacturer</i>	IAME
<i>Model</i>	X30 125cc RL TAG – UK
<i>Valid From</i>	01 January 2016
<i>Number of pages</i>	1

**ALTERNATIVE PUSH BUTTONS – START & STOP****9.1 PUSH BUTTONS – START & STOP**

Note: To replace the key switch on the original wiring loom.



**END**

**SIGNATURE AND STAMP OF THE MSA**

Date: **24 September 2015**

Signed by: **Joe Hickerton**

Position: **MSA Technical Administrator**

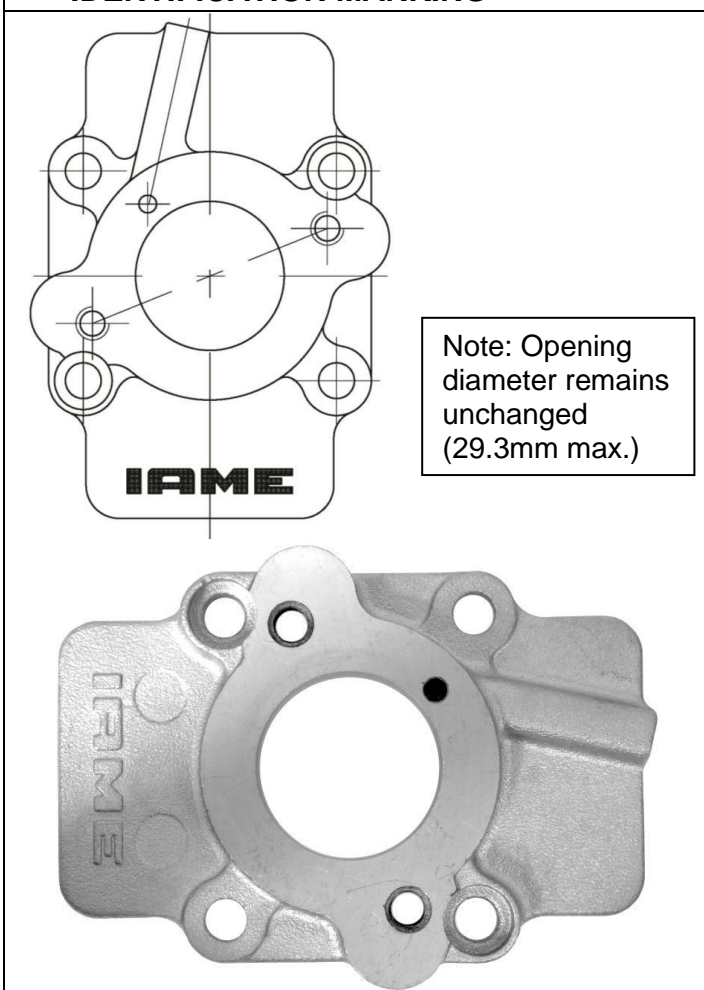
## Appendix 9

## HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 JUNIOR & SENIOR
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2016
Number of pages	1

## ALTERNATIVE INLET CONVEYOR

## 7.0 INLET CONVEYOR DIMENSIONS &amp; IDENTIFICATION MARKING



END

## SIGNATURE AND STAMP OF THE MSA

	Date: <b>24 September 2015</b>
	Signed by: <b>Joe Hickerton</b>
	Position: <b>MSA Technical Administrator</b>



## Appendix 10

## HOMOLOGATION OF KART ENGINE – AMENDMENT

Category	IAME X30 JUNIOR & SENIOR
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2016
Number of pages	1

## FUEL NEEDLE MEASUREMENT

## C4.0 CARBURETTOR COMPONENTS

Note: This replaces the measurement on page 27 of the original fiche



END

## SIGNATURE AND STAMP OF THE MSA

Date: 24 September 2015

Signed by: Joe Hickerton

Position: MSA Technical Administrator

## Appendix 11

HOMOLOGATION OF KART ENGINE – SUPPLEMENT  
MINI X

Category	IAME X30 MINI X
Manufacturer	IAME
Model	X30 125cc RL TaG - UK
Valid From	01 January 2017
Number of pages	1

## SIGNATURE AND STAMP OF THE MSA



Date: 01 January 2017

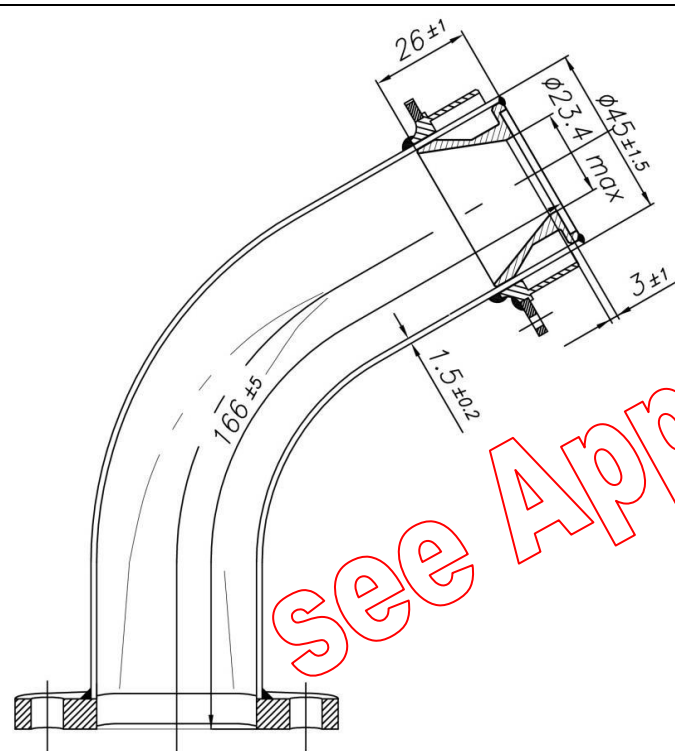
Signed by: Joe Hickerton

Position: MSA Technical Manager

## TECHNICAL INFORMATION

All parts of the preceding **IAME X30** engine fiche and **IAME X30 Junior** supplement (appendix 1) are applicable and remain unchanged with the exception and/or addition of the following points:

## 13.1 EXHAUST HEADER DIMENSIONS

14.20 EXHAUST HEADER WITH MINI X  
RESTRICTOR ID MARKING

Note: Silver finish for Mini X

END

## Appendix 12

**HOMOLOGATION OF KART ENGINE – SUPPLEMENT  
MINI X CARBURETTOR**

Category	IAME X30 MINI X
Manufacturer	Tillotson Ltd.
Model	HW-34A
Valid From	01 January 2017
Number of pages	5

*This Homologation Form reproduces descriptions, illustrations and dimensions of the engine at the moment of the MSA Homologation. This document may be supplemented by official amendment. This document must be read in conjunction with the appropriate Class Regulations.*



Photo of adjusting side



Photo of inlet side

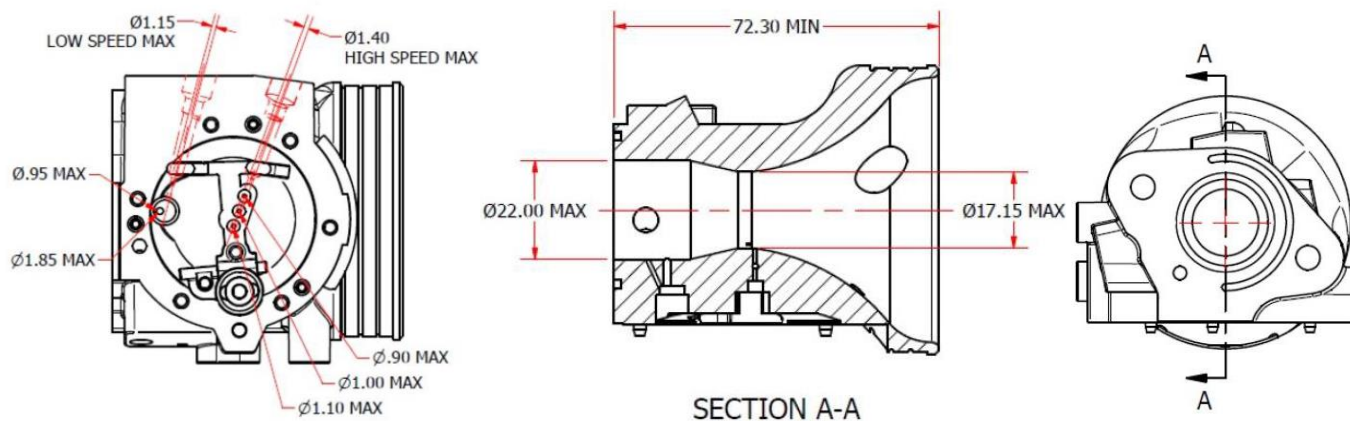
**SIGNATURE AND STAMP OF THE MSA**

Date: **01 January 2017**Signed by: **Joe Hickerton**Position: **MSA Technical Manager**

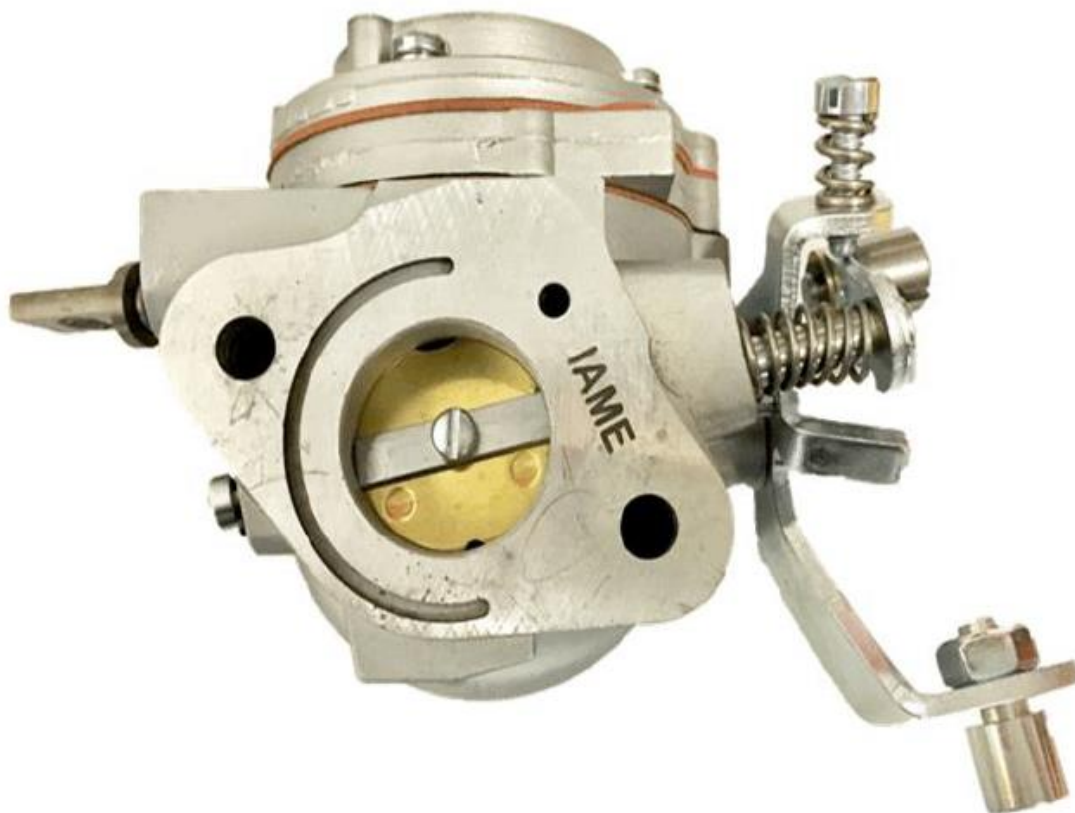
*Any reproduction must be authorised by the MSA*

## TECHNICAL INFORMATION

## C1.0 SECTION VIEW

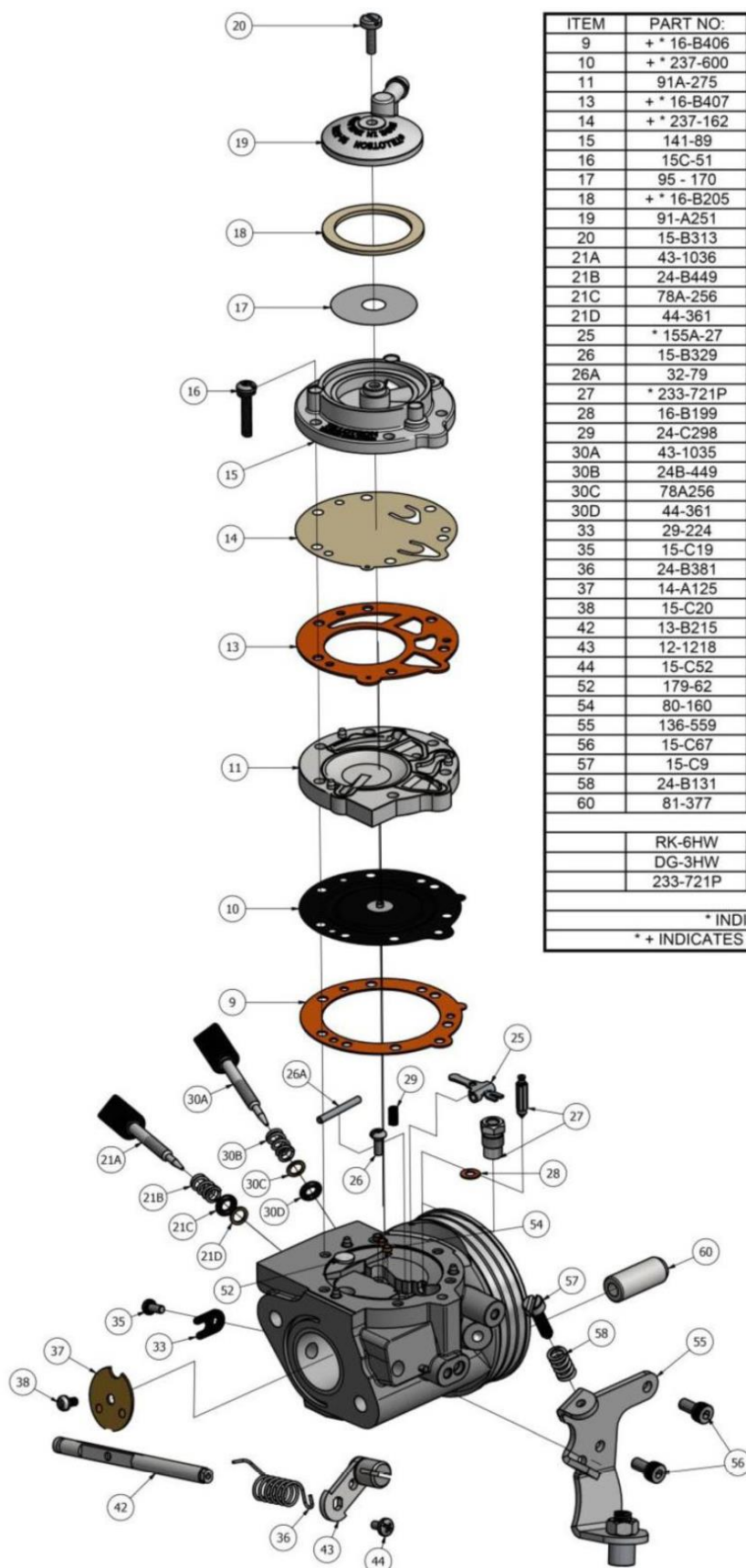


## C2.0 CARBURETTOR MARKING





## C3.0 SECTION VIEW



ITEM	PART NO:	DESCRIPTION	QTY
9	+ * 16-B406	DIAPHRAGM GASKET	1
10	+ * 237-600	DIAPHRAGM	1
11	91A-275	DIAPHRAGM COVER	1
13	+ * 16-B407	FUEL PUMP GASKET	1
14	+ * 237-162	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	43-1036	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	* 233-721P	INLET NEEDLE & SEAT SET	1
28	16-B199	INLET SEAT GASKET	1
29	24-C298	INLET TENSION SPRING	1
30A	43-1035	HIGH SPEED MIXTURE SCREW	1
30B	24B-449	HIGH SPEED MIXTURE SCREW SPRING	1
30C	78A256	HIGH SPEED MIXTURE SCREW WASHER	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-A125	THROTTLE SHUTTER	1
38	15-C20	THROTTLE SHUTTER SCREW	1
42	13-B215	THROTTLE SHAFT	1
43	12-1218	THROTTLE LEVER ASSEMBLY	1
44	15-C52	THROTTLE LEVER RETAINING SCREW	1
52	179-62	WELCH PLUG	1
54	80-160	MAIN PLUG	3
55	136-559	CABLE BRACKET	1
56	15-C67	CABLE BRACKET RETAINING SCREW	2
57	15-C9	LIMITER SCREW	2
58	24-B131	LIMITER SPRING	2
60	81-377	CARBURETTOR MOUNTING NUT	2

RK-6HW REPAIR KIT

DG-3HW DIAPHRAGM &amp; GASKET (STANDARD)

233-721P INLET NEEDLE &amp; SEAT SET

\* INDICATES CONTENTS OF REPAIR KIT

\* + INDICATES CONTENTS OF DIAPHRAGM &amp; GASKET SET

**C4.0 CARBURETTOR COMPONENTS**
**REF.9 - P. N°16-B406**  
**DIAPHRAGM GASKET (ORANGE COLOR)**

 Thickness =  $0.5 \pm 0.1$  mm

**REF.13 - P. N° 16-B407**  
**PUMP DIAPHRAGM GASKET (ORANGE COLOR)**

 Thickness =  $0.8 \pm 0.1$  mm

**REF.10 - P. N°237-600**  
**DIAPHRAGM**

 Thickness =  $0.13 \pm 0.07$  mm

**REF.14 - P. N°237-162**  
**PUMP DIAPHRAGM**

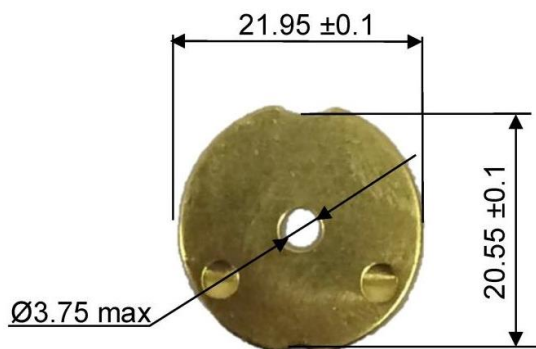
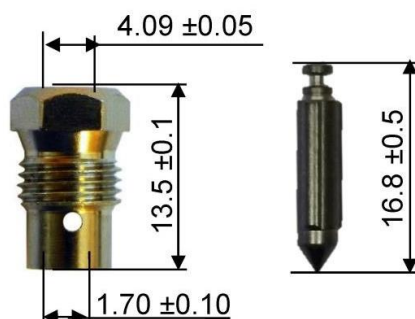
 Thickness =  $0.10 \pm 0.063$  mm

**REF.11 - P. N° 91-A275**  
**DIAPHRAGM COVER**

 Thickness =  $6.75 \pm 0.15$  mm

**REF.15 - P. N° 141-89**  
**PUMP COVER**

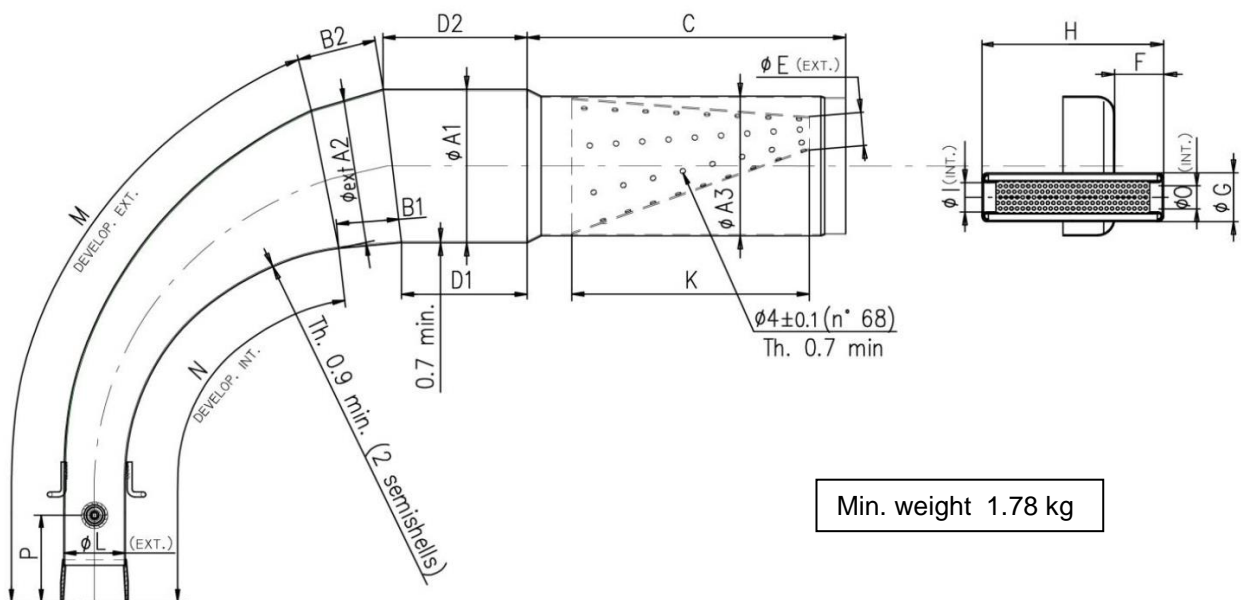
 Thickness =  $12.5 \pm 0.15$  mm

**C4.0 CARBURETTOR COMPONENTS (continued)****REF.37 - P. N° 14-A125  
THROTTLE SHUTTER**Thickness =  $0.81 \pm 0.1$  mm**REF.27 - P. N° 233-721P  
SEAT + NEEDLE****REF.21A - P. N° 43-1036  
NEEDLE LOW SPEED****REF.30A - P. N° 43-1035  
NEEDLE HIGH SPEED****END**

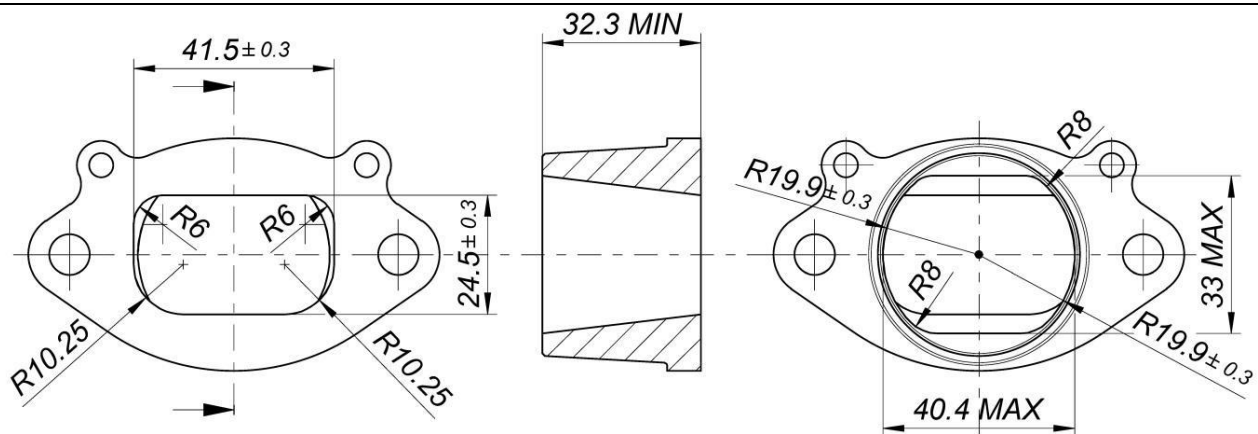
## Appendix 13

**HOMOLOGATION OF KART ENGINE – AMENDMENT***This Appendix fully replaces relevant sections of the main fiche for SENIOR only*

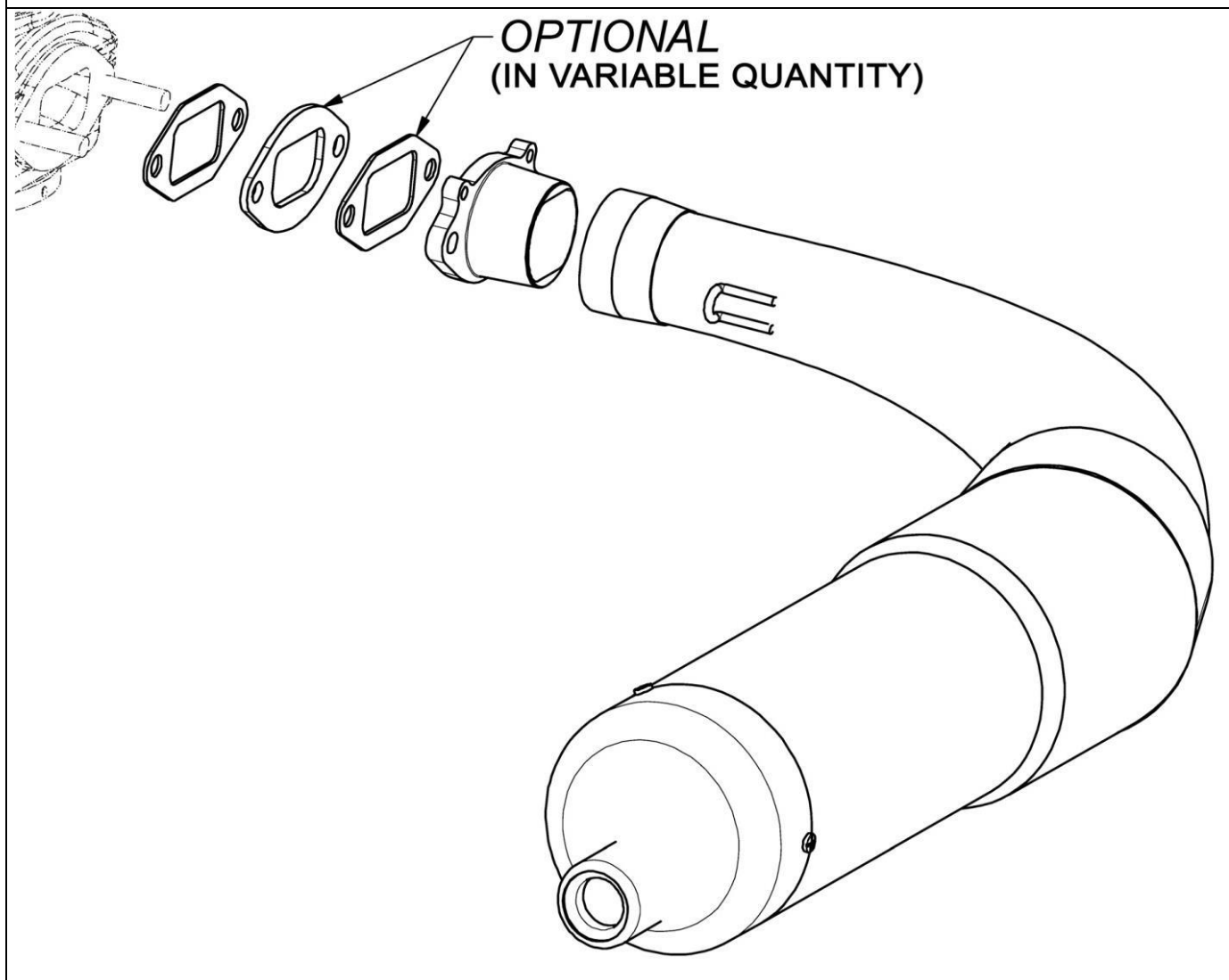
Category	IAME X30 SENIOR
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2018
Number of pages	2

**MANDATORY EXHAUST – SENIOR****13.0 EXHAUST MUFFLER**

A1: 110 $\pm 1.5$	B1: 59 $\pm 3$	D1: 89.5 $\pm 3$	F: 36 $\pm 2$	I: 21 $\pm 1$	M: 435 $\pm 3$	P: 50 $\pm 10$
A2: 102 $\pm 1.5$	B2: 59 $\pm 3$	D2: 109 $\pm 3$	G: 35 $\pm 1$	K: 170 $\pm 3$	N: 340 $\pm 3$	
A3: 100 $\pm 1.5$	C: 219 $\pm 3$	E: 23 $\pm 2$	H: 132 $\pm 2$	L: 42.5 $\pm 1.5$	O: 21 $\pm 1$	

**13.1 EXHAUST HEADER**



**13.2 EXHAUST INSTALLATION****END****SIGNATURE AND STAMP OF THE MSA**

A blue ink signature is written over a grey MSA logo stamp.

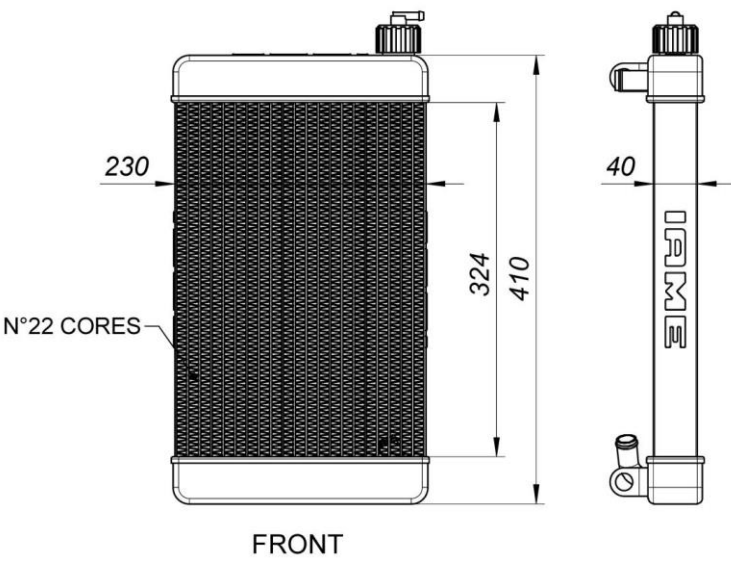

Date: **01 January 2018**Signed by: **Joe Hickerton**Position: **MSA Technical Manager**

## Appendix 14

## HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 JUNIOR & MINI X
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2018
Number of pages	1

## ALTERNATIVE LARGE RADIATOR – JUNIOR &amp; MINI X

15.0 RADIATOR DESCRIPTION	15.1 RADIATOR PHOTOGRAPHS
 <p>230</p> <p>N°22 CORES</p> <p>324</p> <p>410</p> <p>FRONT</p> <p>40</p>	

END

## SIGNATURE AND STAMP OF THE MSA

	<p>Date: 01 January 2018</p> <p>Signed by: Joe Hickerton</p> <p>Position: MSA Technical Manager</p>
---	---

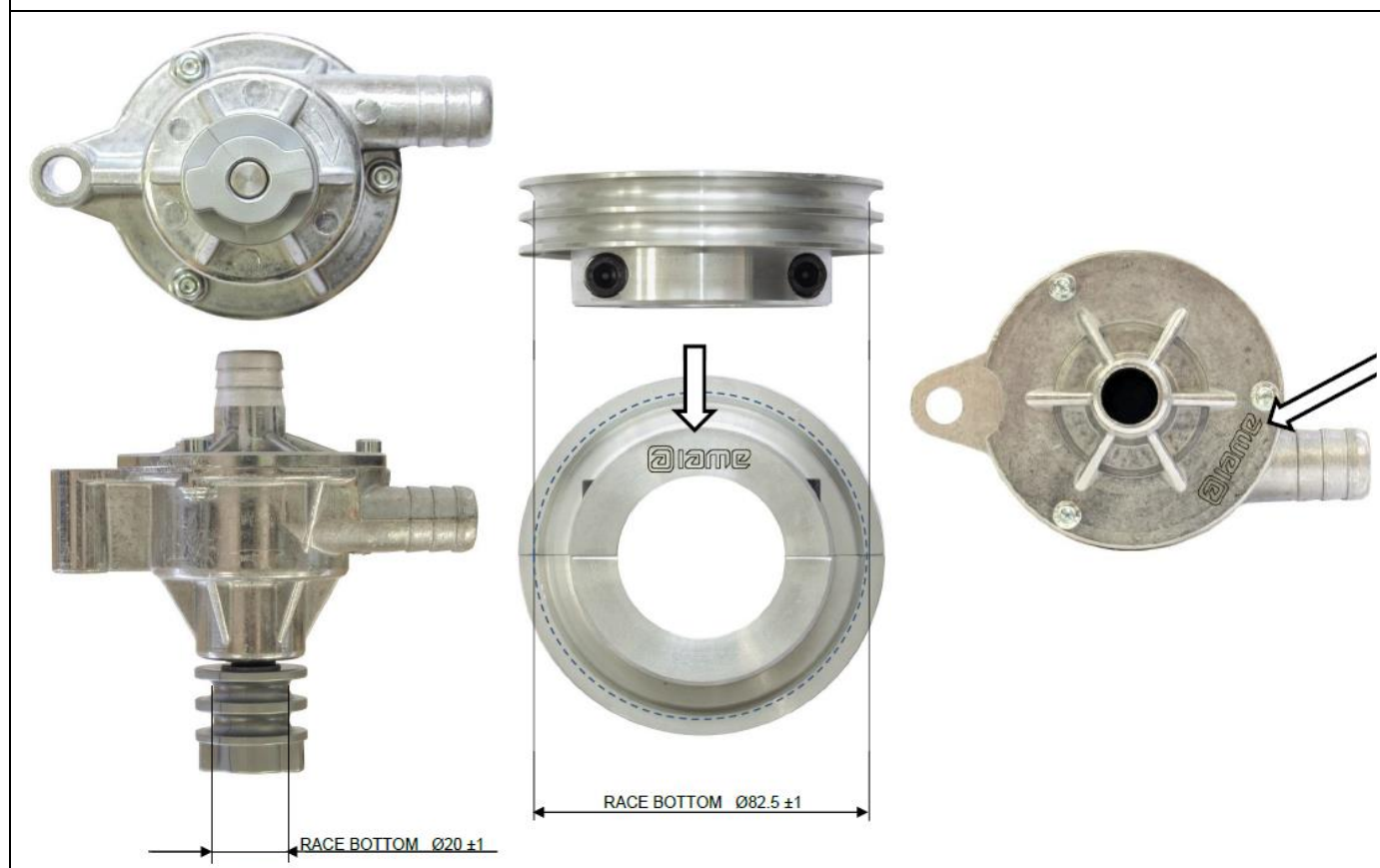
## Appendix 15

## HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 JUNIOR & MINI X
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2018
Number of pages	1

## ALTERNATIVE WATER PUMP &amp; PULLEY – JUNIOR &amp; MINI X

## 16.0 WATER PUMP GROUP



END

## SIGNATURE AND STAMP OF THE MSA

	Date: 01 January 2018
	Signed by: Joe Hickerton
	Position: MSA Technical Manager

## Appendix 16

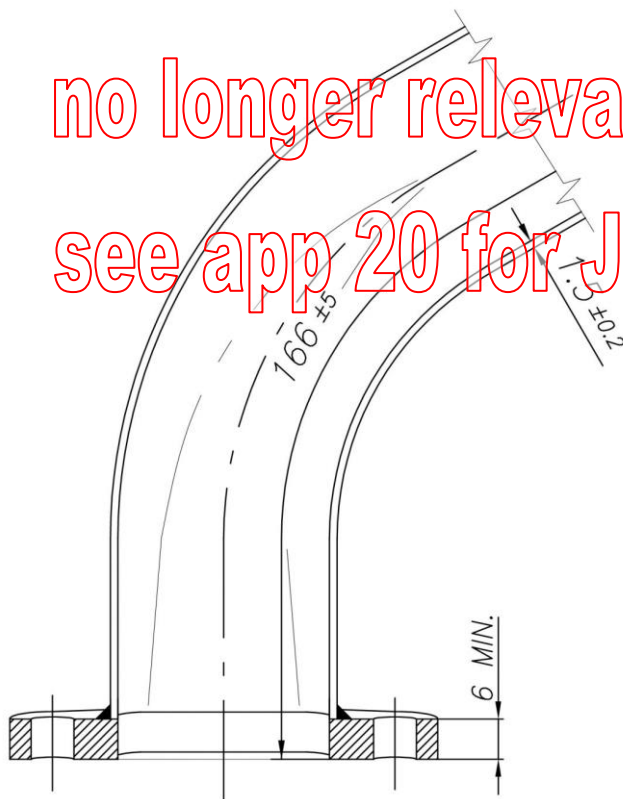
**HOMOLOGATION OF KART ENGINE  
ADDITIONAL INFORMATION**

Category	IAME X30 JUNIOR & MINI X
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2018
Number of pages	1

**EXHAUST HEADER FLANGE THICKNESS – JUNIOR & MINI X****13.1 EXHAUST HEADER DIMENSIONS**

no longer relevant

see app 20 for Junior &amp; 26 for Mini



The thickness of all types of exhaust header flange (engine side) must be 6mm minimum.

**END****SIGNATURE AND STAMP OF THE MSA**

Date: **01 January 2018**Signed by: **Joe Hickerton**Position: **MSA Technical Manager**



## Appendix 17

## HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 SENIOR & JUNIOR
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2018
Number of pages	1

## ALTERNATIVE FUEL NEEDLE

## C4.0 CARBURETTOR COMPONENTS



END

## SIGNATURE AND STAMP OF THE MSA

Date: 01 January 2018

Signed by: Joe Hickerton

Position: MSA Technical Manager

## Appendix 18

## HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 JUNIOR, SENIOR & MINI X
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2018
Number of pages	1

## ALTERNATIVE PUMP DIAPHRAGM

## C4.0 CARBURETTOR COMPONENTS

REF.14 - P. N°237-162  
PUMP DIAPHRAGM

Thickness = 0.10 ±0.063 mm

END

## SIGNATURE AND STAMP OF THE MSA

Date: 01 January 2018

Signed by: Joe Hickerton

Position: MSA Technical Manager

## Appendix 19

**HOMOLOGATION OF KART ENGINE – AMENDMENT***This Appendix fully replaces relevant section of Appendix 2*

Category	IAME X30 SENIOR & JUNIOR
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2018
Number of pages	2

**LOW AND HIGH SPEED NEEDLE CORRECTION****C4.0 CARBURETTOR COMPONENTS**REF.21A - P. N° 43-1029  
NEEDLE LOW SPEED

52.2 ±0.25

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

52.2 ±0.25

**END****SIGNATURE AND STAMP OF THE MSA**

Date: **01 January 2018**Signed by: **Joe Hickerton**Position: **MSA Technical Manager**

## Appendix 20

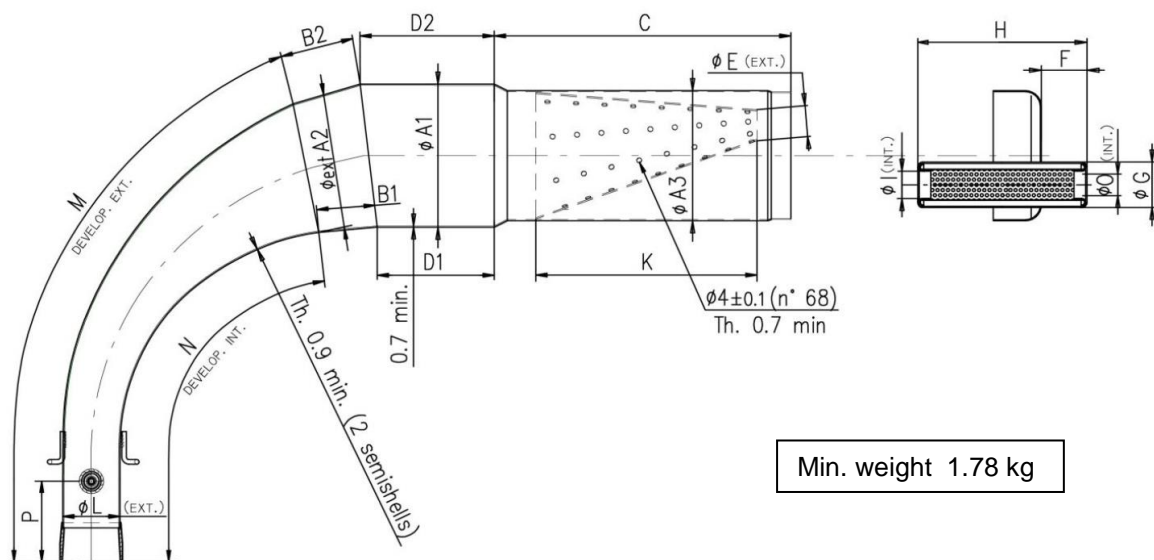
# HOMOLOGATION OF KART ENGINE – AMENDMENT

*This Appendix fully replaces relevant sections of the main fiche and appendices 1 and 16 for JUNIOR only*

Category	IAME X30 JUNIOR
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2019
Number of pages	2

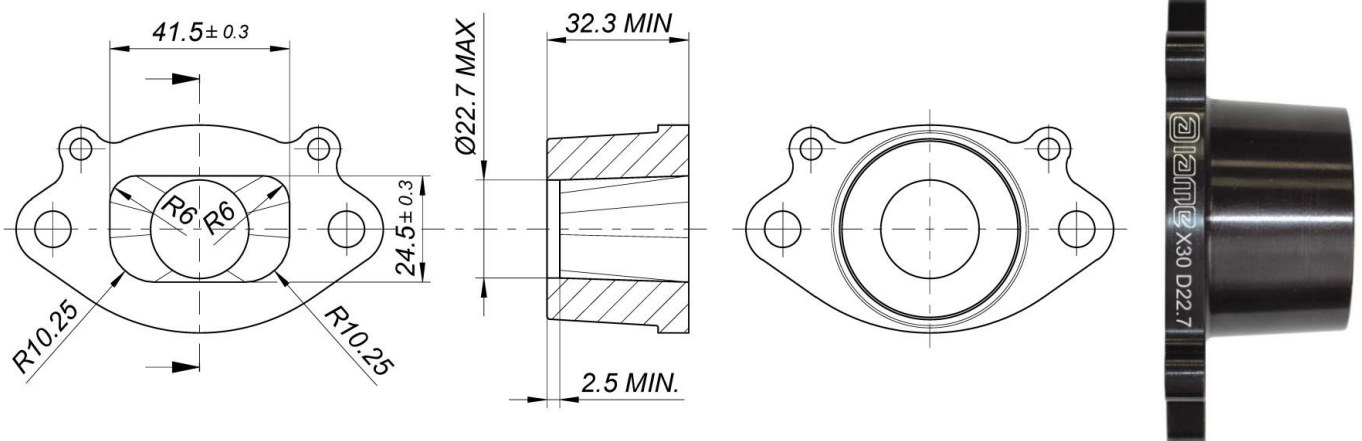
## MANDATORY EXHAUST & RESTRICTOR – JUNIOR

### 13.0 EXHAUST MUFFLER



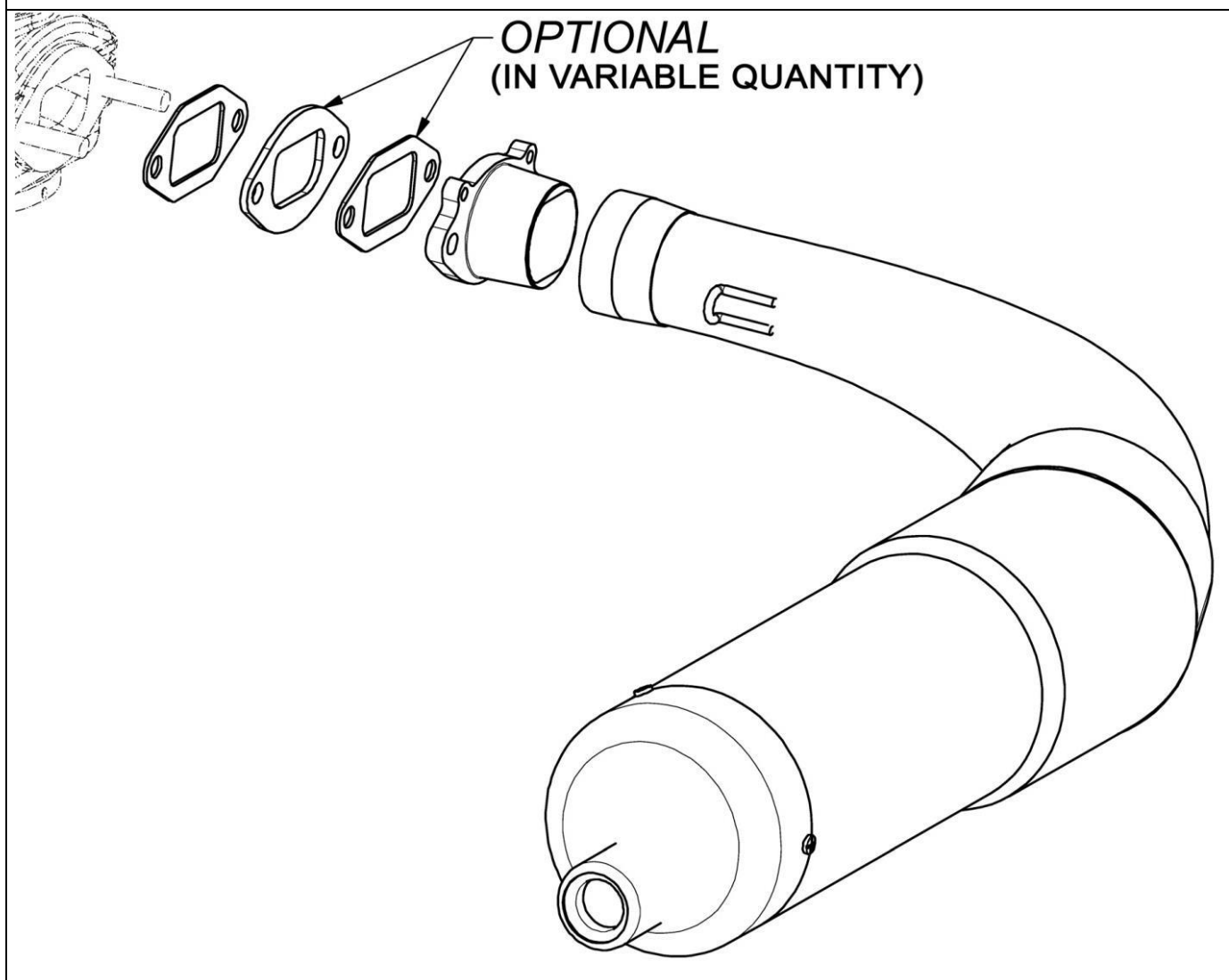
A1: 110 ±1.5	B1: 59 ±3	D1: 89.5 ±3	F: 36 ±2	I: 21 ±1	M: 435 ±3	P: 50 ±10
A2: 102 ±1.5	B2: 59 ±3	D2: 109 ±3	G: 35 ±1	K: 170 ±3	N: 340 ±3	
A3: 100 ±1.5	C: 219 ±3	E: 23 ±2	H: 132 ±2	L: 42.5 ±1.5	O: 21 ±1	

### 13.1 EXHAUST FITTING AND RESTRICTOR



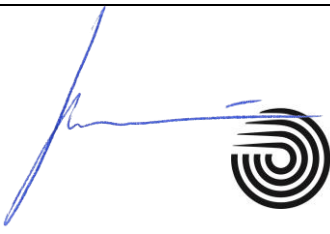


## 13.2 EXHAUST INSTALLATION



**END**

### SIGNATURE AND STAMP

 	<p>Date: <b>01 January 2019</b></p> <p>Signed by: <b>Joe Hickerton</b></p> <p>Position: <b>Technical Manager</b></p>
---	--

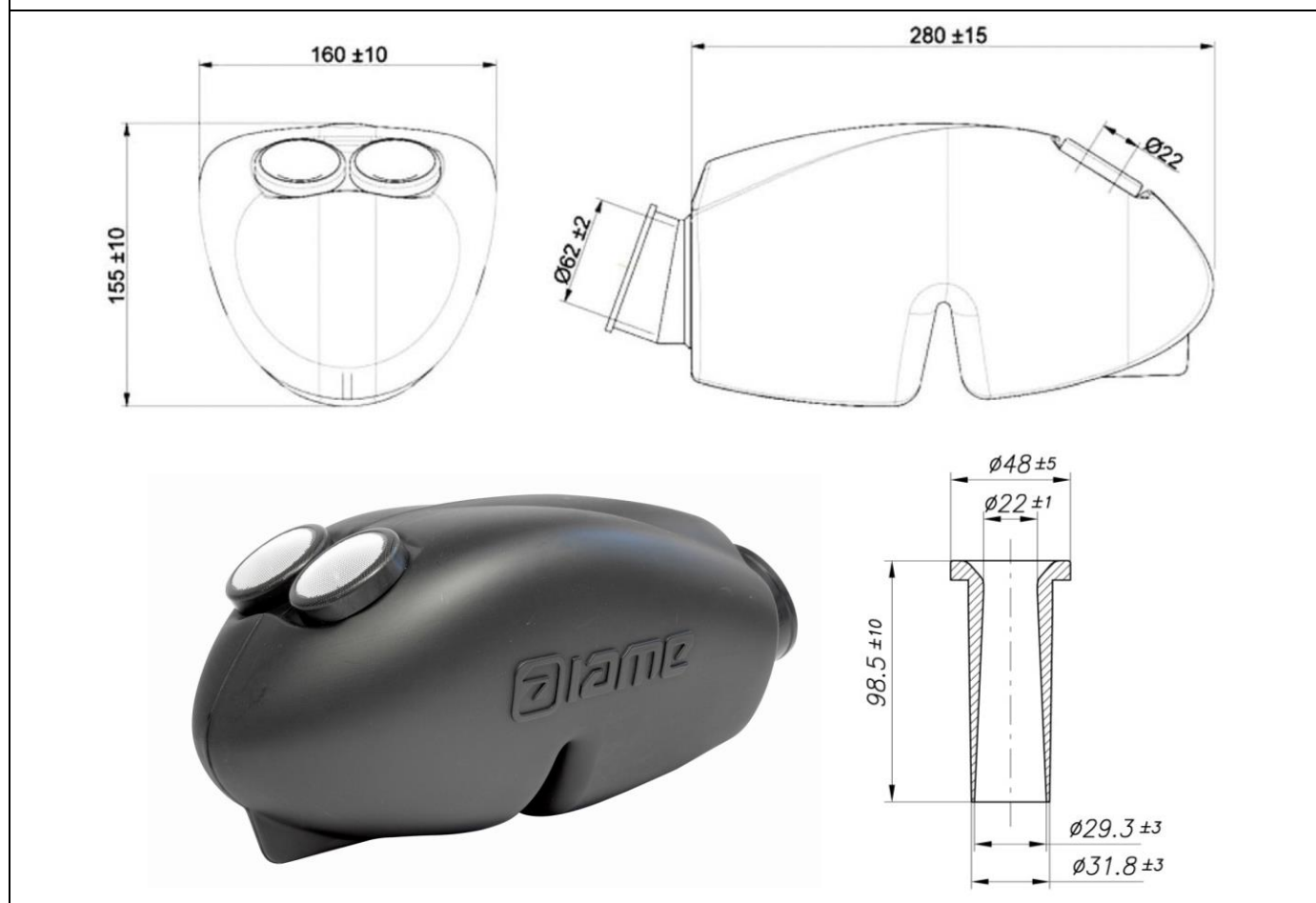
## Appendix 21

# HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 – ALL CLASSES
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2019
Number of pages	1

## ALTERNATIVE INLET SILENCER / AIR BOX

### 7.1 INLET SILENCER



END

### SIGNATURE AND STAMP

 	<p>Date: <b>01 January 2019</b></p> <p>Signed by: <b>Joe Hickerton</b></p> <p>Position: <b>Technical Manager</b></p>
---	--

## Appendix 22

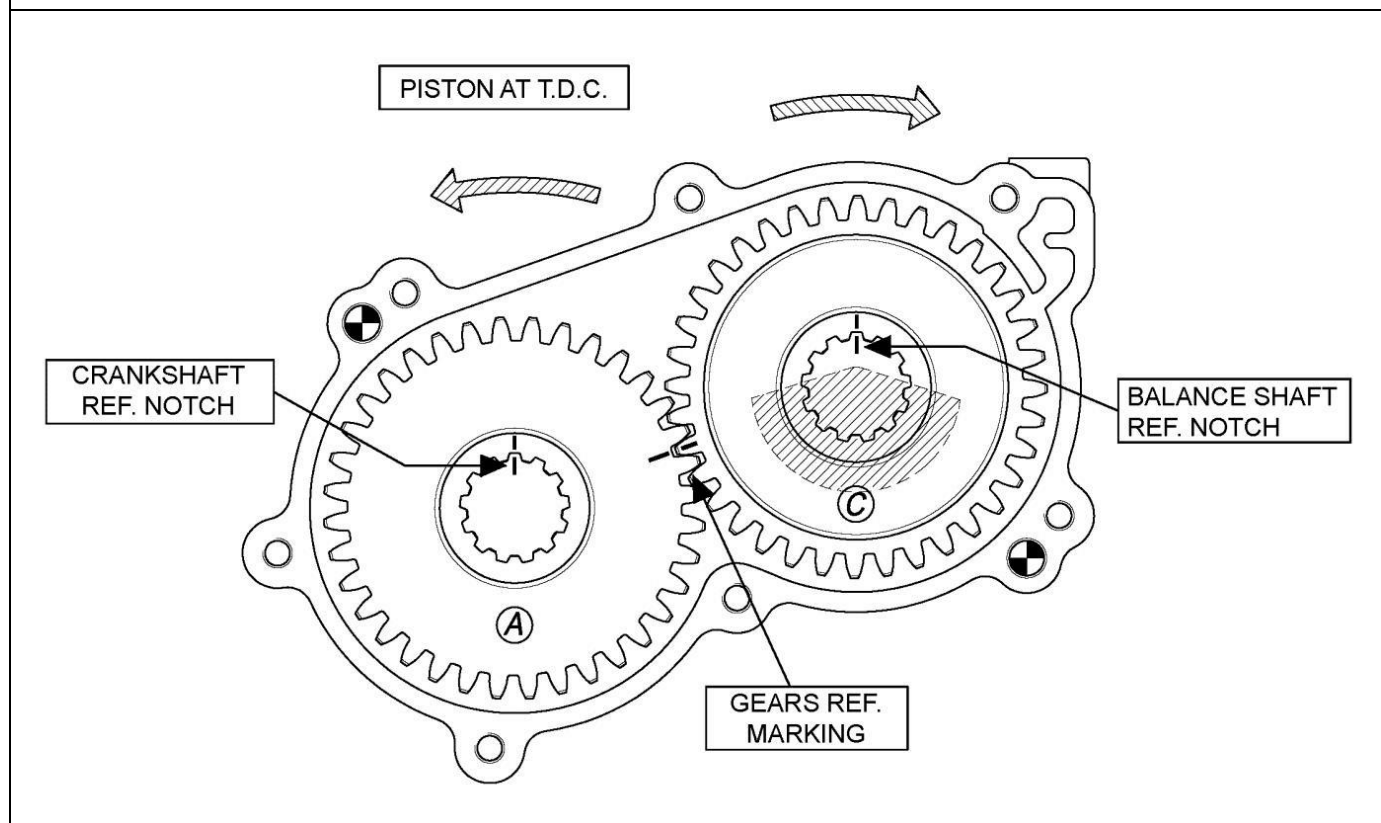
# HOMOLOGATION OF KART ENGINE

## ADDITIONAL INFORMATION

Category	IAME X30 – ALL CLASSES
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2019
Number of pages	1



## BALANCE SHAFT / GEAR TIMING DIAGRAM

### 12.1 TIMING DIAGRAM



END

### SIGNATURE AND STAMP

 	Date: <b>01 January 2019</b> Signed by: <b>Joe Hickerton</b> Position: <b>Technical Manager</b>
---	---

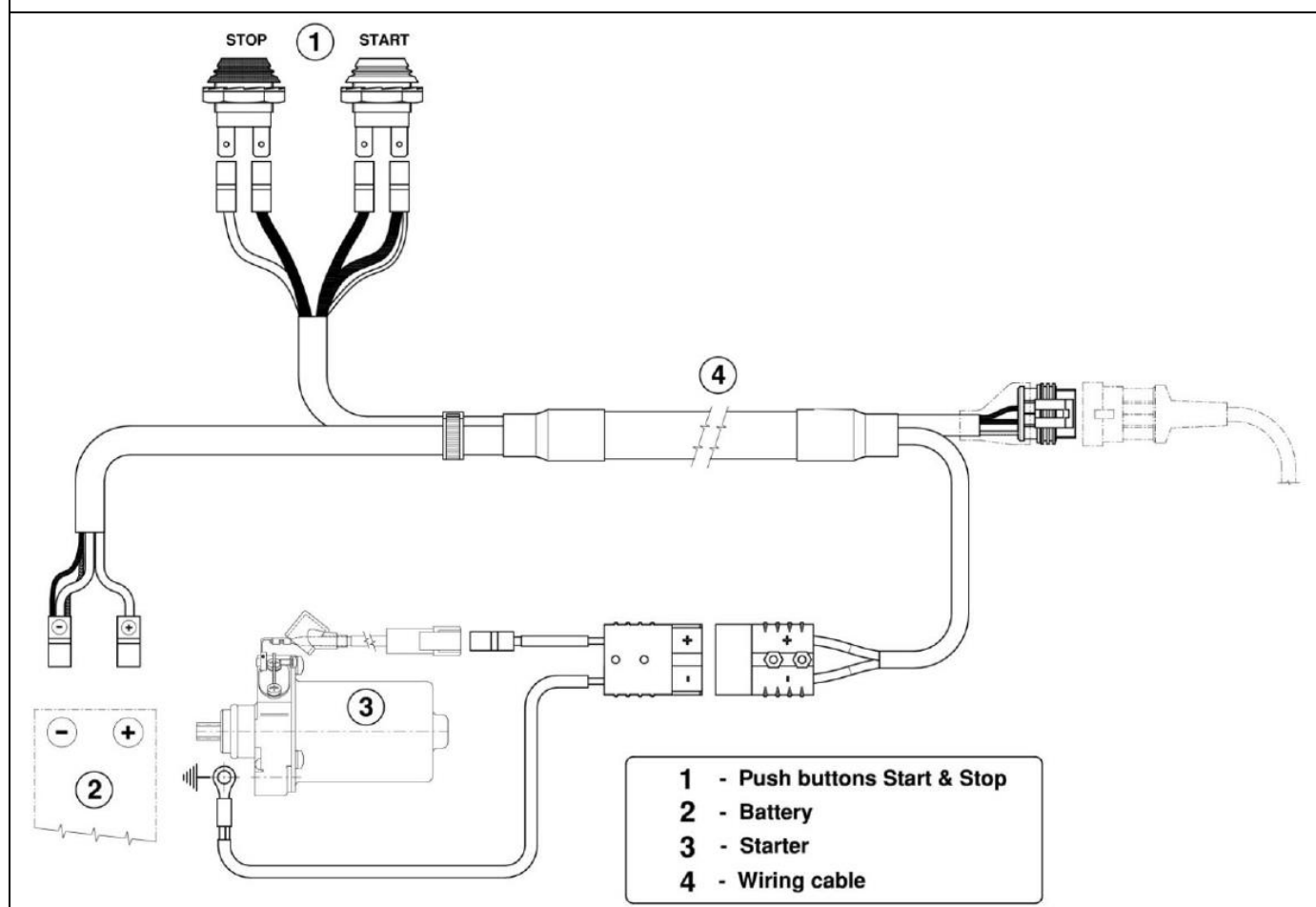
## Appendix 23

# HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 – ALL CLASSES
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2019
Number of pages	2

## ALTERNATIVE WIRING LOOM

### 9.0 WIRING DIAGRAM



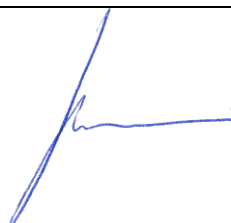



## 9.1 PHOTO OF COMPLETE WIRING LOOM



**END**

### **SIGNATURE AND STAMP**



**motor  
sport  
UK**

Date: **01 January 2019**

Signed by: **Joe Hickerton**

Position: **Technical Manager**

## Appendix 24

# HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 – ALL CLASSES
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2019
Number of pages	1

## ALTERNATIVE SMALL END CONROD BEARINGS

### 3.4 SMALL END CONROD BEARING

TYPE 1

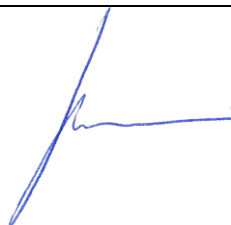



TYPE 2



END

### SIGNATURE AND STAMP

Date: 01 January 2019

Signed by: Joe Hickerton

Position: Technical Manager









## Appendix 25









# HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 – ALL CLASSES
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2019
Number of pages	3

## NEW LOGO MARKINGS

(note previous logo markings remain valid)



CYLINDER HEAD	CYLINDER
 <p>NEW LOGO</p> 	 <p>NEW LOGO</p> 
CRANKCASE – TRANSMISSION SIDE	CRANKCASE – IGNITION SIDE
 <p>NEW LOGO</p> 	 <p>NEW LOGO</p> 

IGNITION COVER	CLUTCH COVER
 <p data-bbox="357 786 539 815"><b>NEW LOGO</b></p> 	 <p data-bbox="1050 860 1225 889"><b>NEW LOGO</b></p> 
REED GROUP	CARBURETTOR INLET CONVEYOR
 <p data-bbox="373 1352 523 1382"><b>NEW LOGO</b></p> 	 <p data-bbox="1070 1731 1225 1760"><b>NEW LOGO</b></p> 



EXHAUST – TYPE 1	EXHAUST – TYPE 2
 <b>NEW LOGO</b>   <b>NEW LOGO</b> 	 <b>NEW LOGO</b>  <b>NEW LOGO</b> 
EXHAUST HEADER	
 <b>NEW LOGO</b> 	

**END**

SIGNATURE AND STAMP	
  <b>motor sport UK</b>	Date: <b>01 January 2019</b> Signed by: <b>Joe Hickerton</b> Position: <b>Technical Manager</b>



## Appendix 26

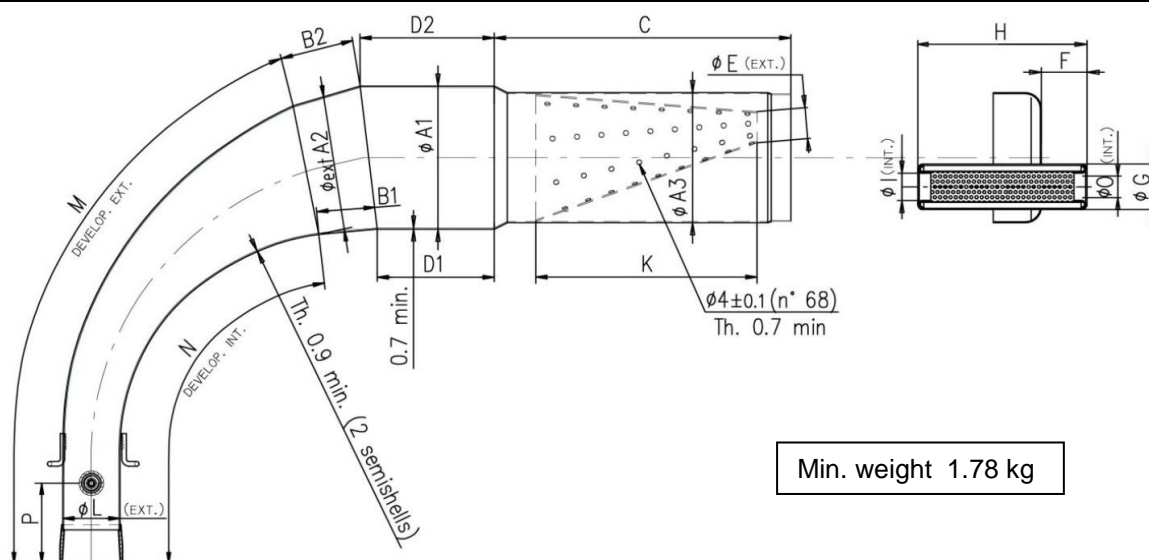
# HOMOLOGATION OF KART ENGINE – AMENDMENT

*This Appendix fully replaces relevant sections of the main fiche and appendices 11 and 16 for MINI only*

Category	IAME X30 MINI X
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2020
Number of pages	2

## MANDATORY EXHAUST & RESTRICTOR – MINI X

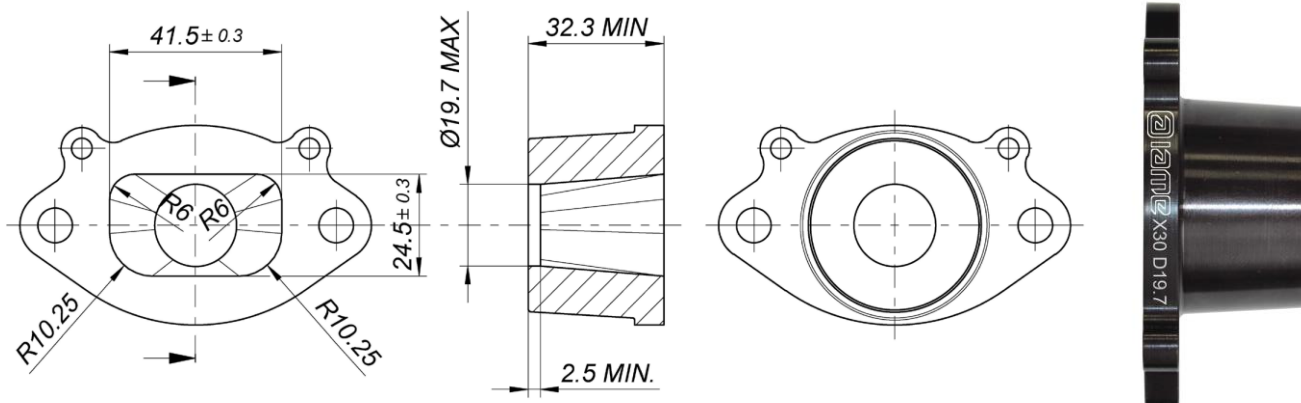
### 13.0 EXHAUST MUFFLER



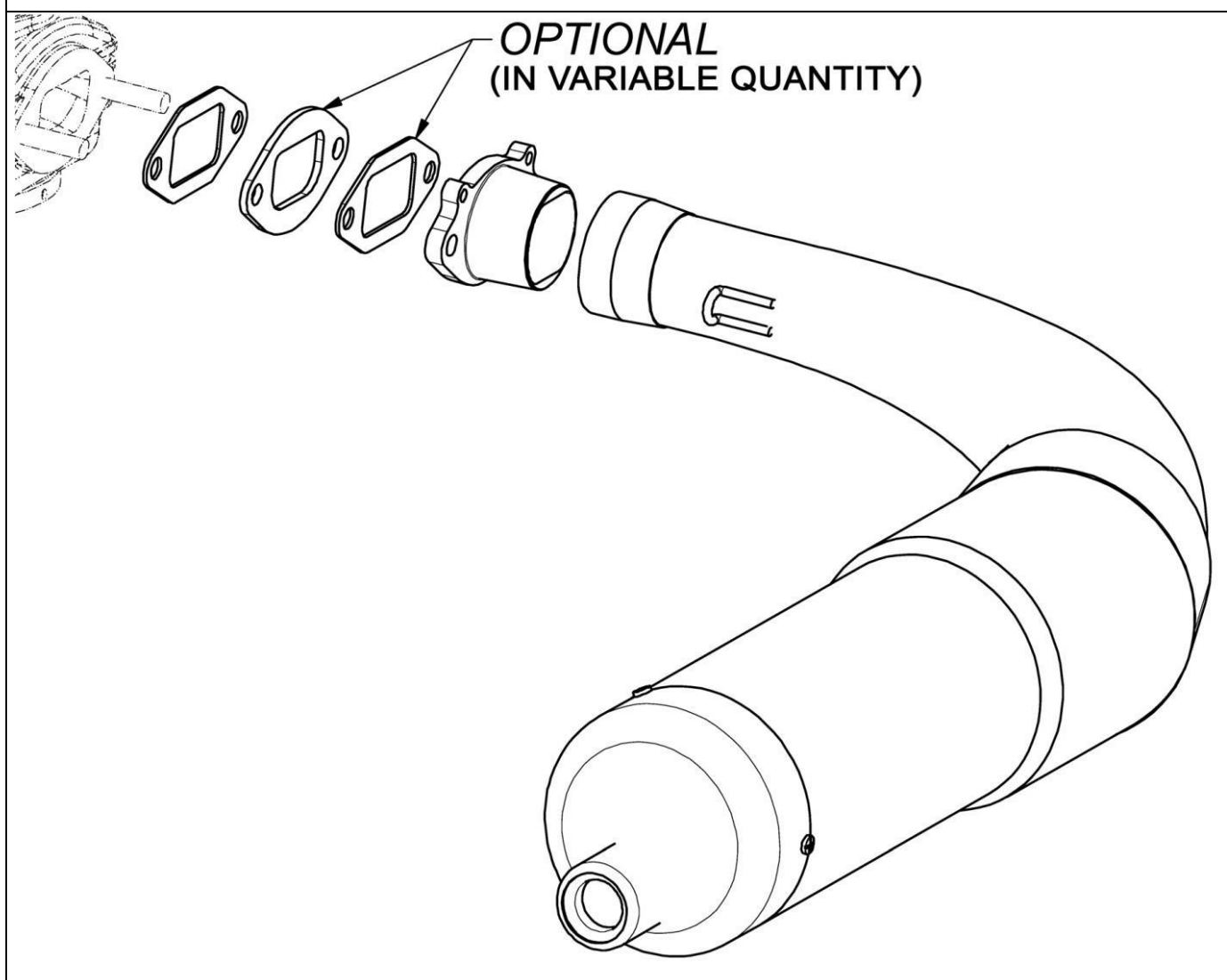
Min. weight 1.78 kg

A1: 110 ±1.5	B1: 59 ±3	D1: 89.5 ±3	F: 36 ±2	I: 21 ±1	M: 435 ±3	P: 50 ±10
A2: 102 ±1.5	B2: 59 ±3	D2: 109 ±3	G: 35 ±1	K: 170 ±3	N: 340 ±3	
A3: 100 ±1.5	C: 219 ±3	E: 23 ±2	H: 132 ±2	L: 42.5 ±1.5	O: 21 ±1	

### 13.1 EXHAUST FITTING AND RESTRICTOR





## 13.2 EXHAUST INSTALLATION



**END**

### SIGNATURE AND STAMP

 	<p>Date: <b>01 January 2020</b></p> <p>Signed by: <b>Joe Hickerton</b></p> <p>Position: <b>Technical Manager</b></p>
---	--

## Appendix 27

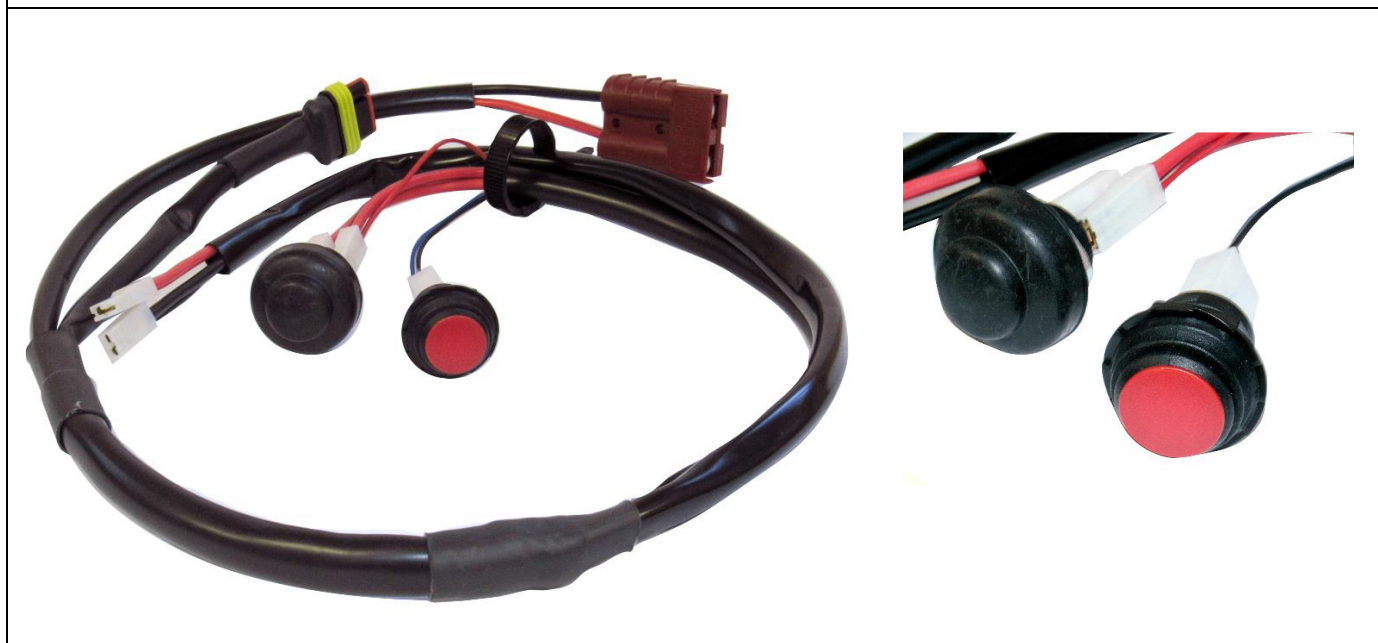
# HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 – ALL CLASSES
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2020
Number of pages	1

## ALTERNATIVE WIRING LOOM WITH NEW STOP BUTTON

Wiring diagram is as shown in Appendix 23

### 9.1 PHOTO OF COMPLETE WIRING LOOM



END

### SIGNATURE AND STAMP

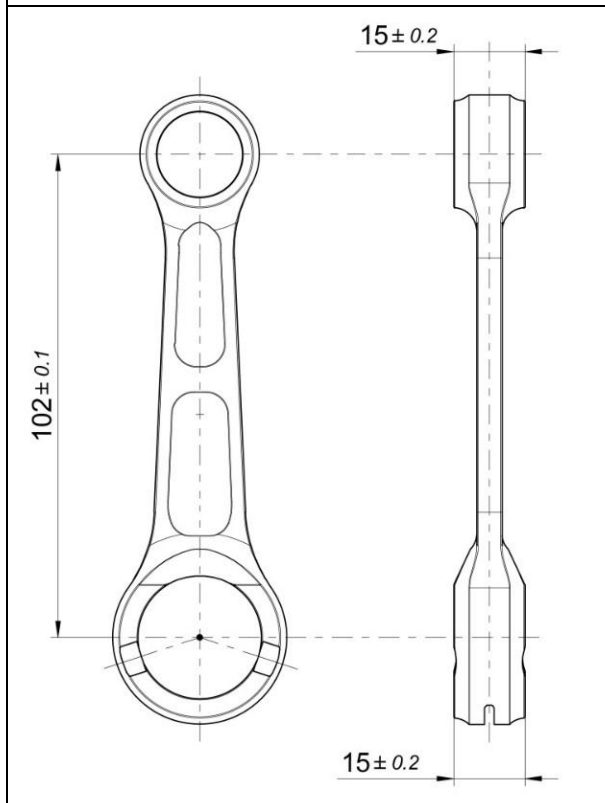
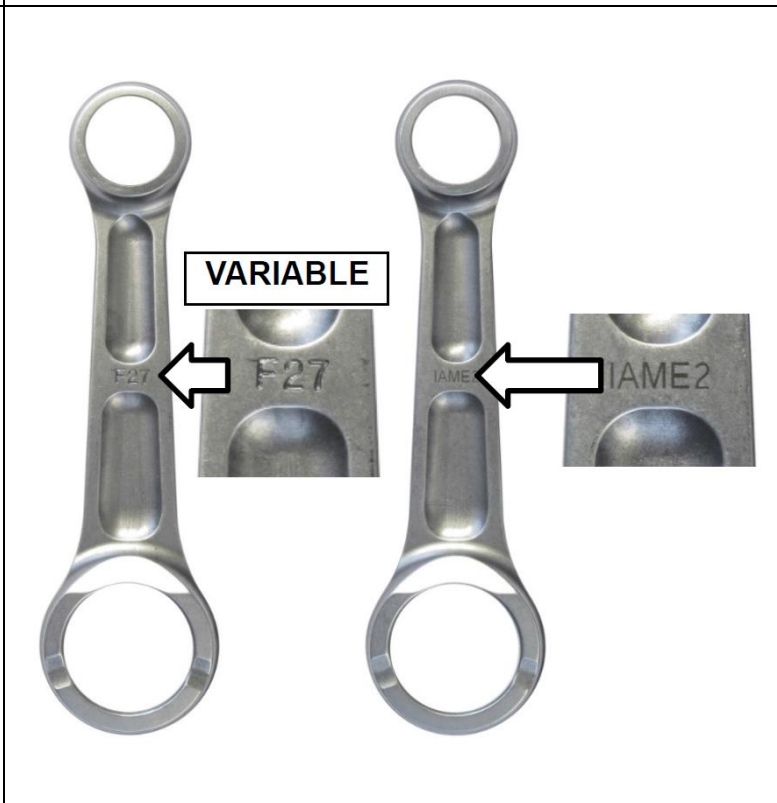
 	Date: <b>01 January 2020</b> Signed by: <b>Joe Hickerton</b> Position: <b>Technical Manager</b>
---	---

## Appendix 28

# HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 – ALL CLASSES
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2020
Number of pages	2

## ALTERNATIVE CONROD & THRUST WASHER

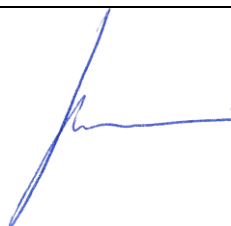

3.1 DISTANCE BETWEEN CONROD CENTERS	14.4 CONROD IDENTIFICATION MARKING
	

**3.5 THRUST WASHER**

Original



Alternative


**END**
**SIGNATURE AND STAMP**


**motor  
sport  
UK**

Date: **01 January 2020**

Signed by: **Joe Hickerton**

Position: **Technical Manager**



## Appendix 29

# HOMOLOGATION OF KART ENGINE – AMENDMENT

*This Appendix fully replaces the relevant section of the main fiche*

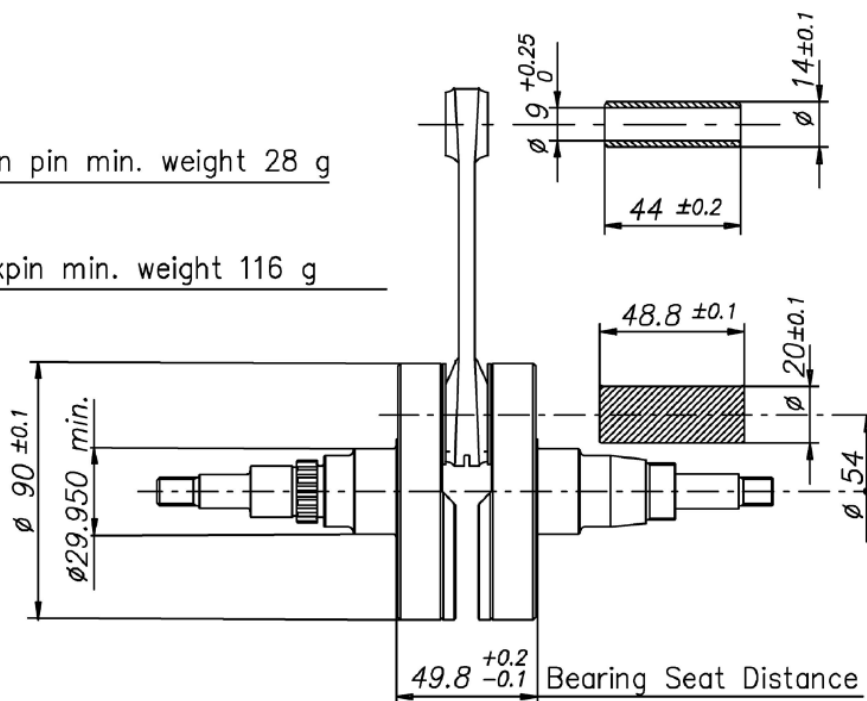
Category	IAME X30 – ALL CLASSES
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2020
Number of pages	1

## CRANKSHAFT & MAIN BEARING DIMENSIONS

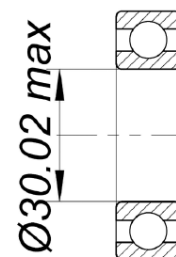
### 3.2 CRANKSHAFT

Piston pin min. weight 28 g

Crankpin min. weight 116 g



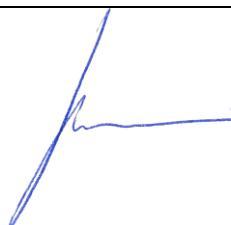

### MAIN BEARING



Crankshaft complete min. Weight 2150g

END

### SIGNATURE AND STAMP

Date: 01 January 2020

Signed by: Joe Hickerton

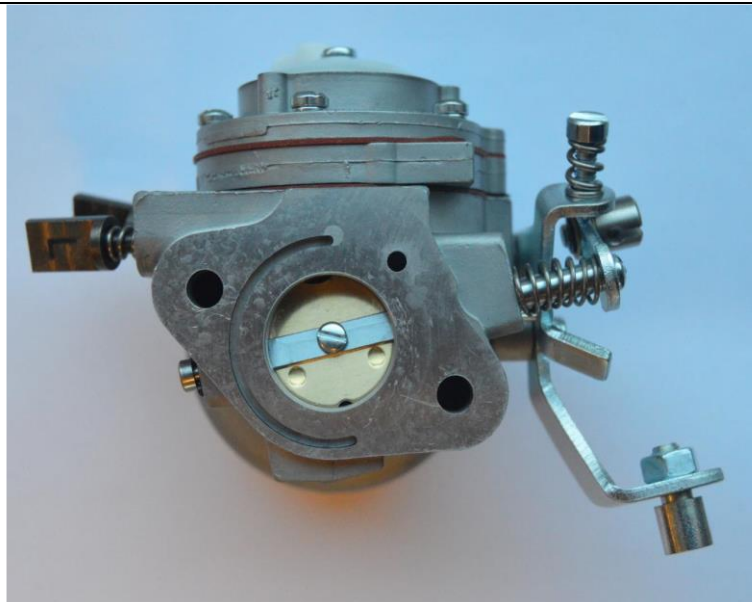
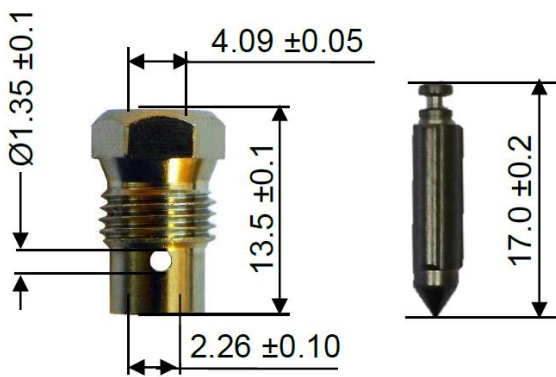
Position: Technical Manager

# Appendix 30

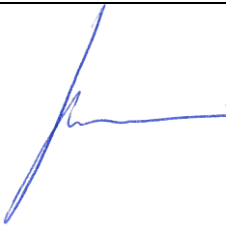

## HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 MINI X
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2021
Number of pages	1

### ALTERNATIVE MARKING, SEAT AND NEEDLE

C2.0 CARBURETTOR MARKING	C4.0 CARBURETTOR COMPONENTS
	<p>REF.27 - P. N° 233-721P SEAT + NEEDLE</p> 

END

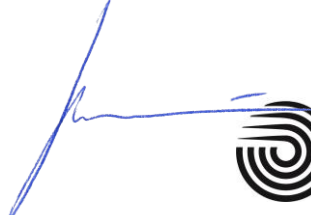

SIGNATURE AND STAMP	
 	<p>Date: 01 January 2021</p> <p>Signed by: Joe Hickerton</p> <p>Position: Technical Manager</p>

**Appendix 31**
**HOMOLOGATION OF KART ENGINE – VARIANT**

<i>Category</i>	<b>IAME X30 JUNIOR &amp; MINI X</b>
<i>Manufacturer</i>	<b>IAME</b>
<i>Model</i>	<b>X30 125cc RL TAG – UK</b>
<i>Valid From</i>	<b>01 January 2021</b>
<i>Number of pages</i>	<b>1</b>

**ALTERNATIVE RADIATOR SUPPORT**
**15.1 RADIATOR PHOTOGRAPHS**

**END**
**SIGNATURE AND STAMP**

 	Date: <b>01 January 2021</b> Signed by: <b>Joe Hickerton</b> Position: <b>Technical Manager</b>
---	---

## Appendix 32

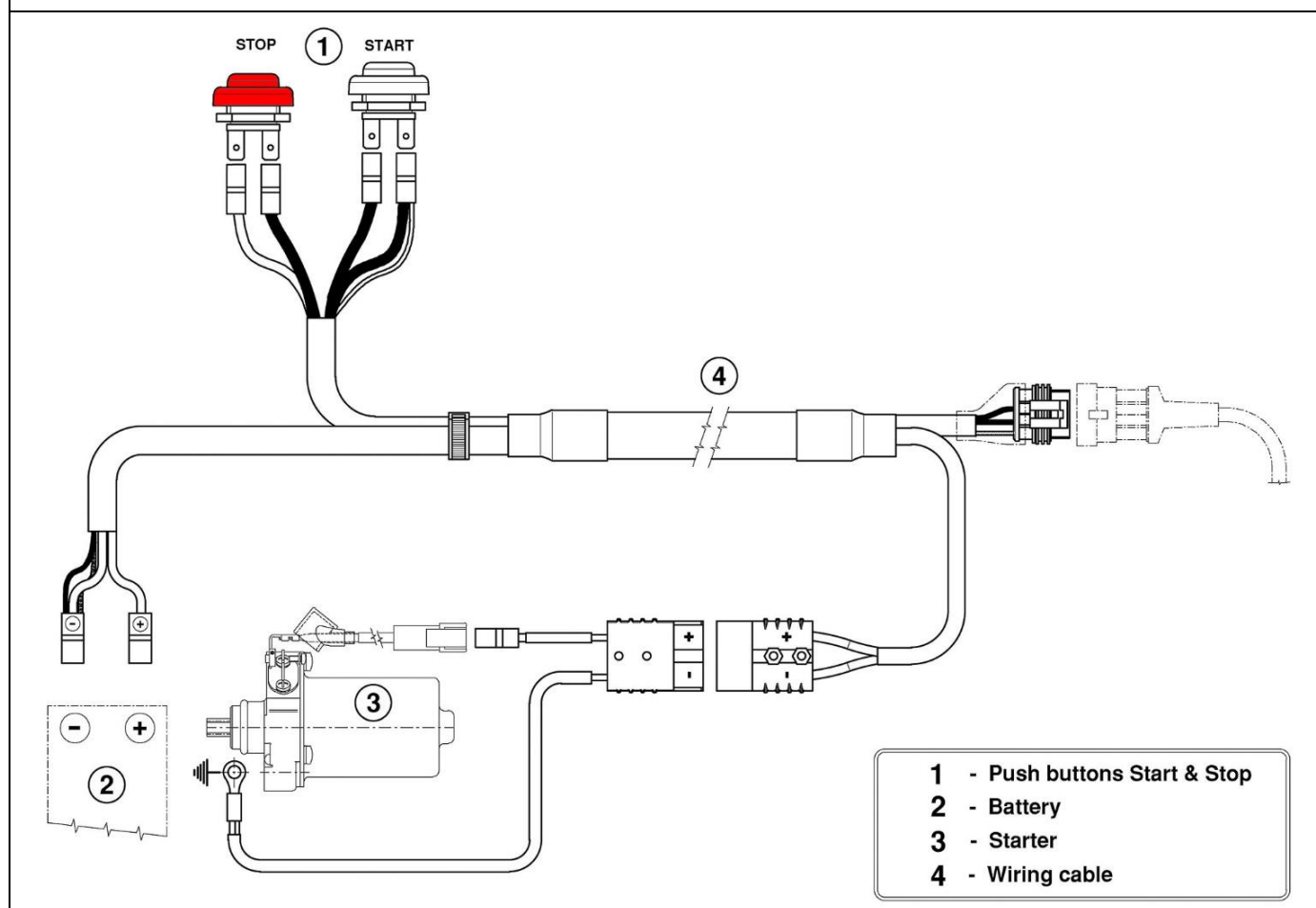
# HOMOLOGATION OF KART ENGINE – AMENDMENT

*This Appendix fully replaces the relevant sections of appendices 23 and 27*

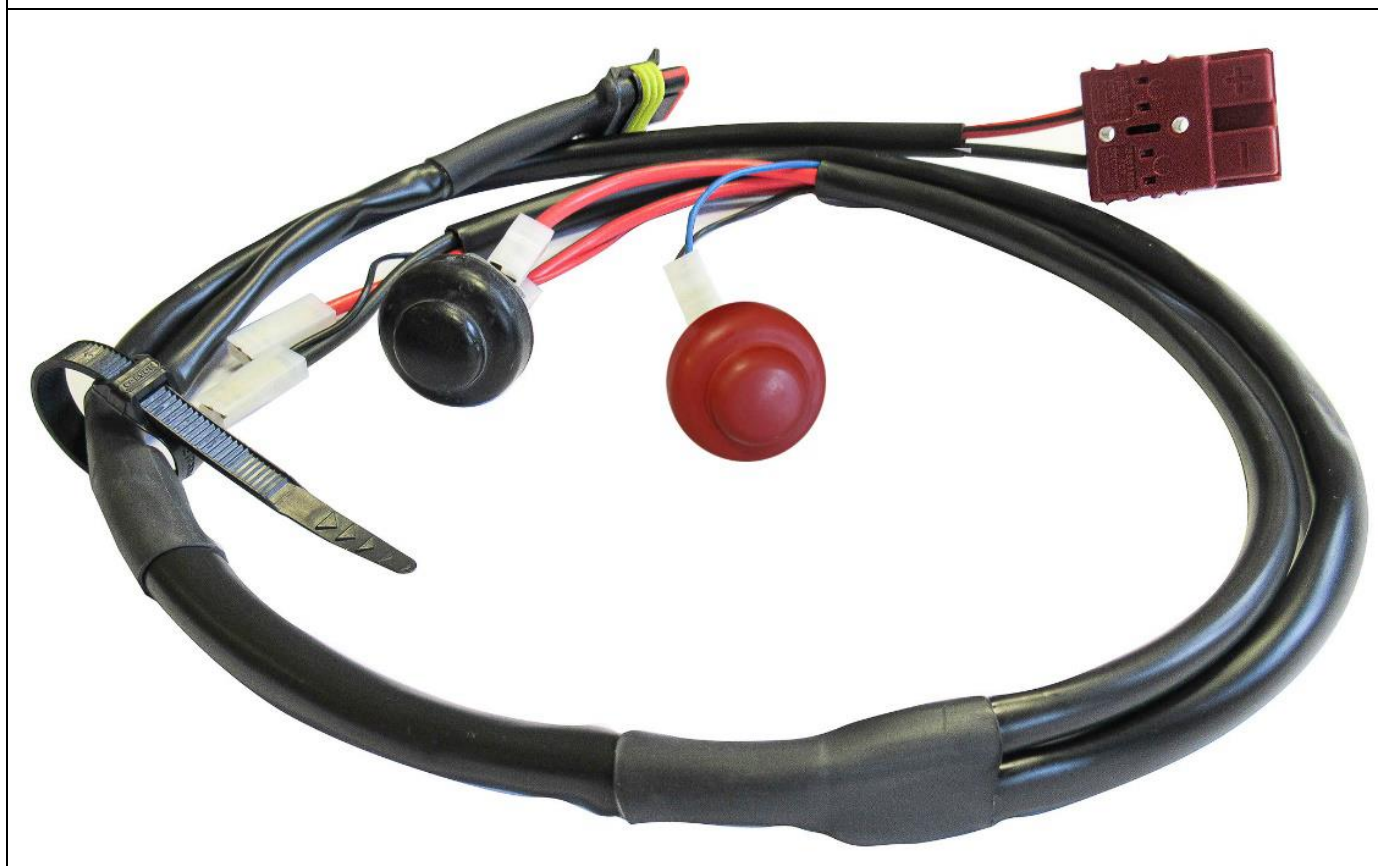
Category	<b>IAME X30 – ALL CLASSES</b>
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2021
Number of pages	2

## ALTERNATIVE WIRING LOOM DETAILS

### 9.0 WIRING DIAGRAM

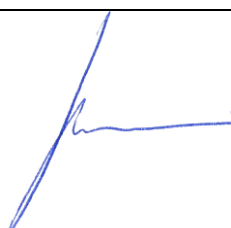



## 9.1 PHOTO OF COMPLETE WIRING LOOM



**END**

### SIGNATURE AND STAMP

Date: **01 January 2021**

Signed by: **Joe Hickerton**

Position: **Technical Manager**



### Appendix 33

## HOMOLOGATION OF KART ENGINE – VARIANT

Category	IAME X30 – ALL CLASSES
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2021
Number of pages	1

### NEW LOGO MARKINGS

(note previous logo markings remain valid)

#### 14.5 BALANCING SHAFT ID MARKING



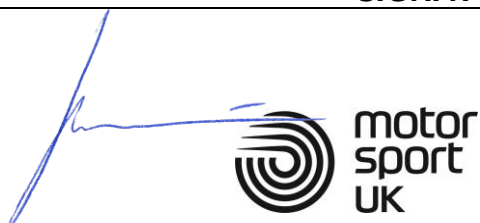
#### UNCHANGED LASER MARKING



VARIABLE

END

#### SIGNATURE AND STAMP



Date: 01 January 2021

Signed by: Joe Hickerton

Position: Technical Manager

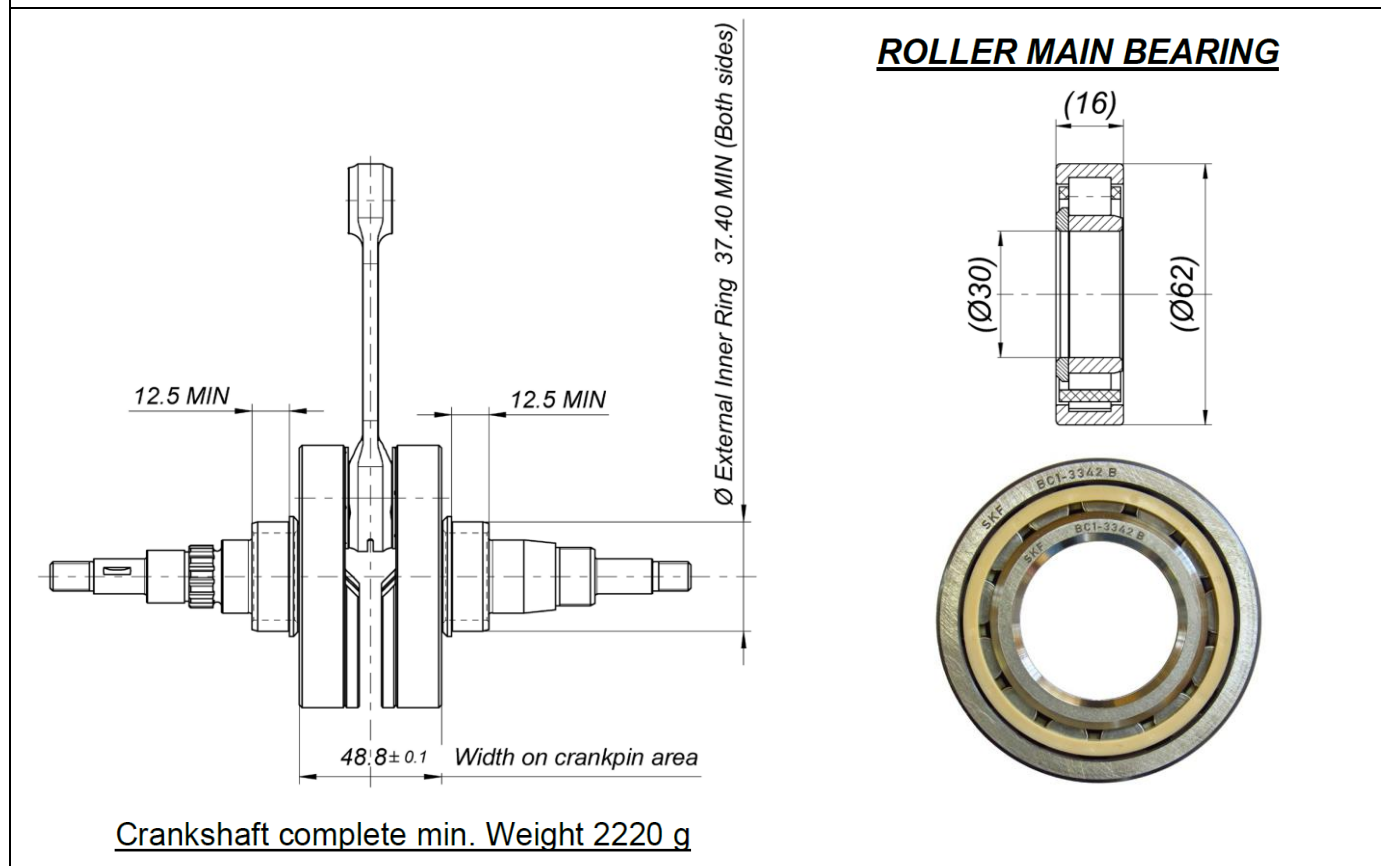
# Appendix 34

## HOMOLOGATION OF KART ENGINE – AMENDMENT

Category	IAME X30 – ALL CLASSES
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2021
Number of pages	1

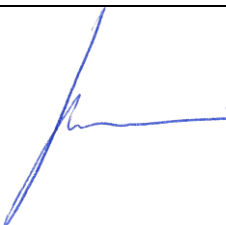

### CRANKSHAFT DIMENSIONS WITH ALTERNATIVE ROLLER MAIN BEARINGS

#### 3.2 CRANKSHAFT



END

#### SIGNATURE AND STAMP

 	Date: 01 January 2021 Signed by: Joe Hickerton Position: Technical Manager
---	--

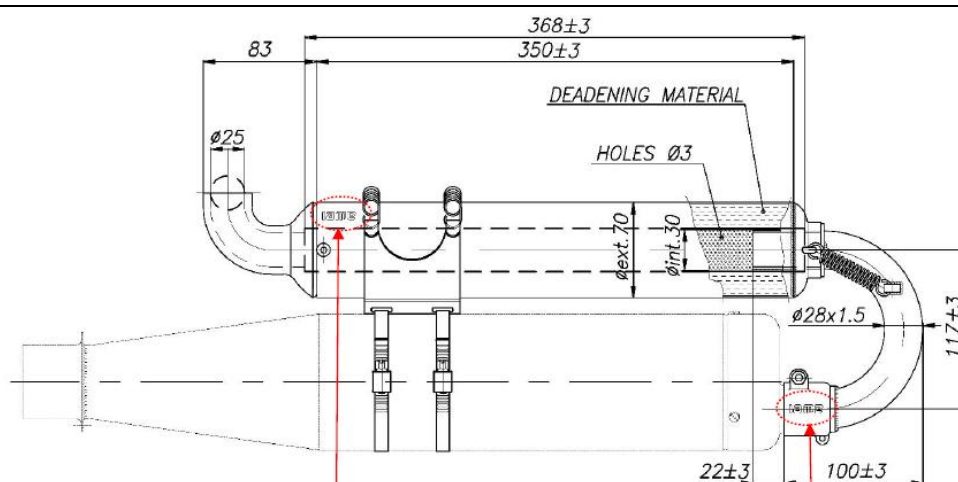
## Appendix 35

# HOMOLOGATION OF KART ENGINE – AMENDMENT

Category	IAME X30 – ALL CLASSES
Manufacturer	IAME
Model	X30 125cc RL TAG – UK
Valid From	01 January 2021
Number of pages	1

## NEW MANDATORY EXHAUST SILENCER

### 13.3 SUPPLEMENTARY EXHAUST SILENCER



OR



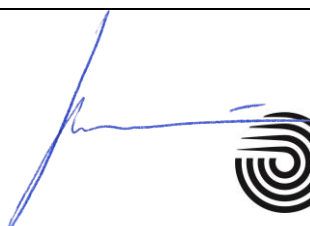

OR



IAME MARKING

END

### SIGNATURE AND STAMP

Date: 01 January 2021

Signed by: Joe Hickerton

Position: Technical Manager