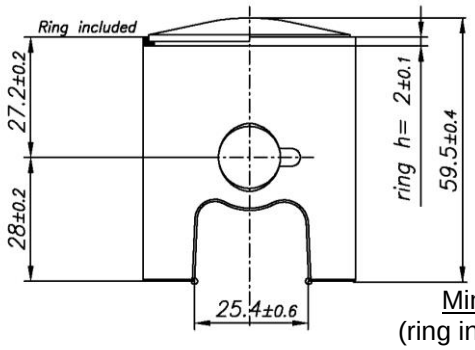
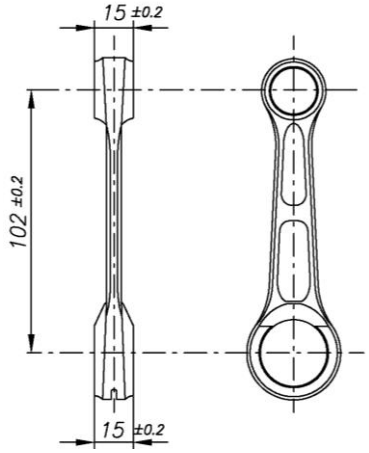
100cc REEDJET USA – TaG

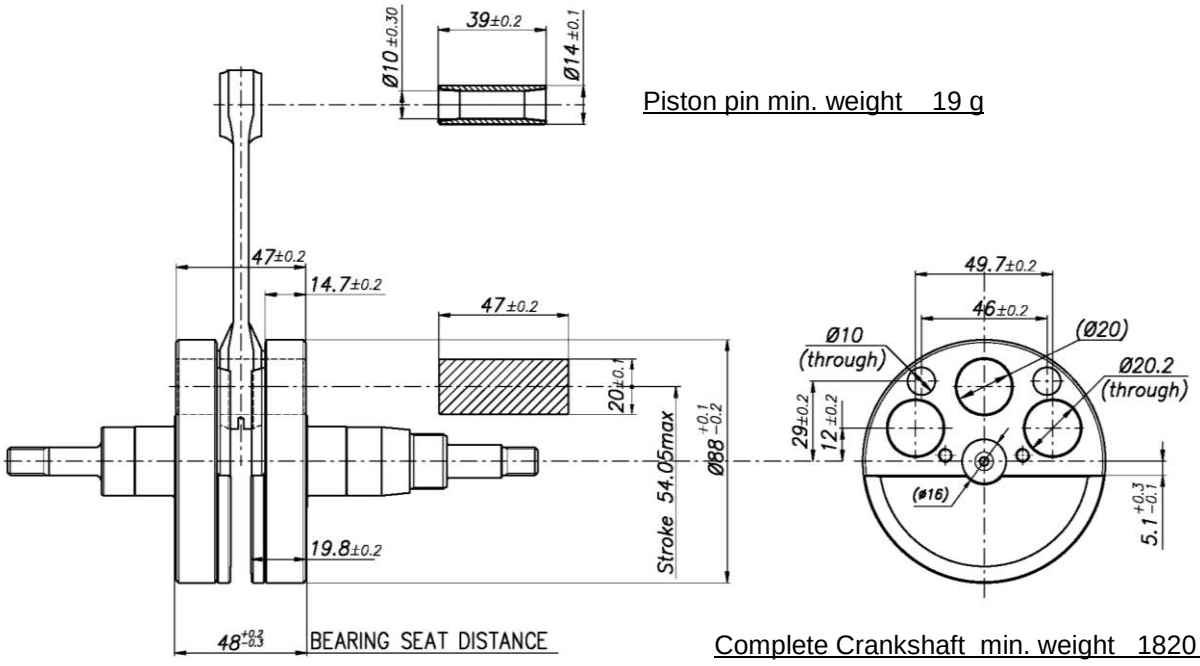
FEATURES

Cylinder Volume	100 cm³ max
Bore	48.20 mm
Max. theoretical bore	48.53 mm
Stroke	54.05 mm max
Cooling system	Air
Inlet system	Reed valve
Number of carbs	1

Tillotson Carburettor	HW-33A Ø24mm	Cylinder / crankcase transfers n°	3 / 3
Number of piston rings	1	Transfers / exhaust ports number	3 / 3
Big end conr. ball-bearing diam.	20x26x15	Combustion chamber shape	Spherical
Crankshaft ball-bearing diam.	25x52x15	Selettra ignition (adjustable)	Analogue 2 Poles
Small end conr. ball-bearing diam.	14x18x18	Distance between Conrod centres	102 mm

DESCRIPTION OF THE MATERIAL		PISTON
Conrod material	Steel	 Min. Weight (ring included) 95 g
Crankshaft material	Steel	
Head material	Aluminium	
Cylinder material	Aluminium	
Liner material	Cast Iron	DISTANCE BETWEEN CONROD CENTERS
Crankcase material	Aluminium	 Min. Weight 110 g
Piston material	Aluminium	
Piston rings material	Cast Iron	
Exhaust muffler material	Sheet-steel	
Ball-bearings	6205 type	

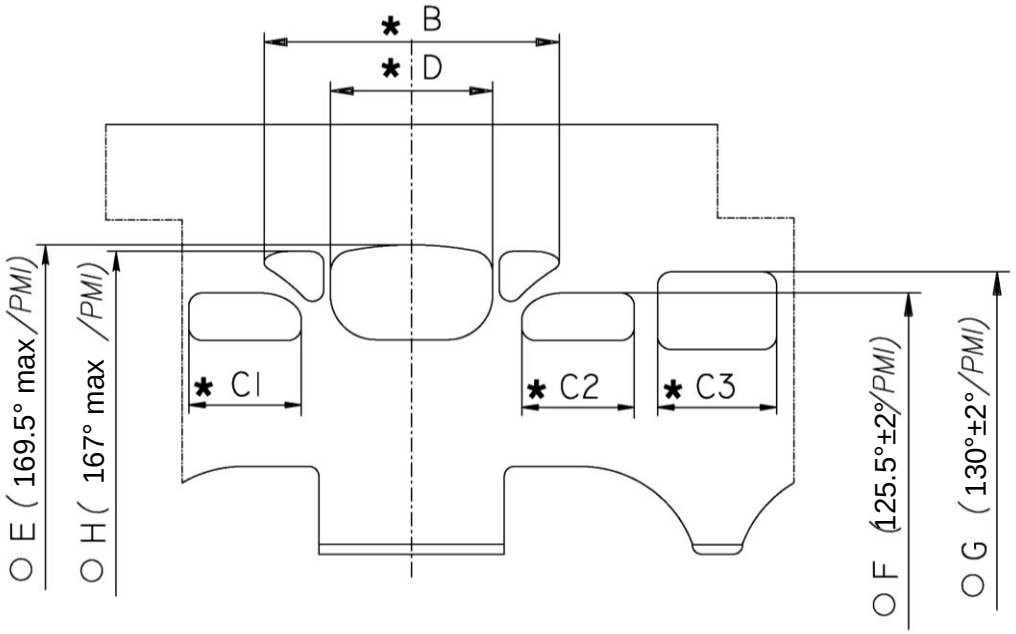
CRANKSHAFT



Piston pin min. weight 19 g

Complete Crankshaft min. weight 1820 g

CYLINDER DEVELOPMENT

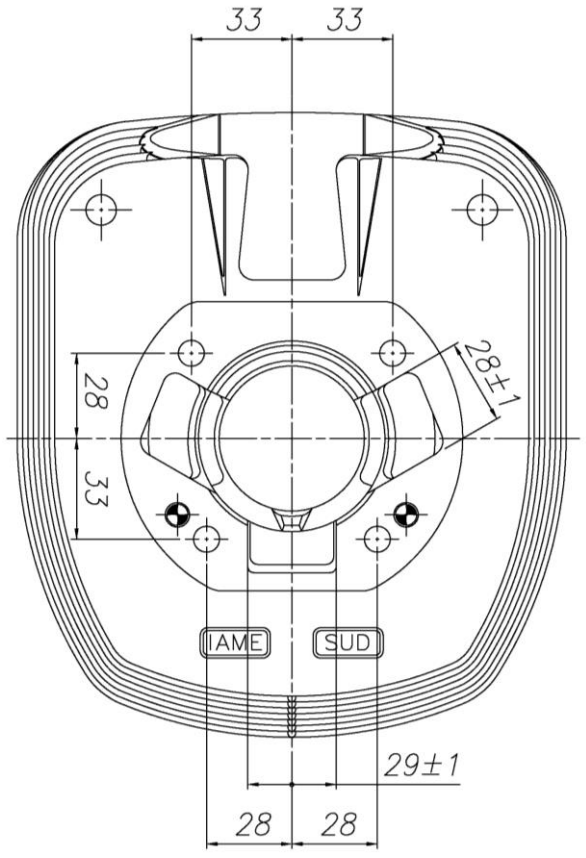


B	≤ 48.2 mm
C1 = C2	≤ 27.2 mm
C3	≤ 27 mm
D	≤ 34 mm
E	169.5° max
F	125.5° ±2°
G	130° ±2°
H	167° max

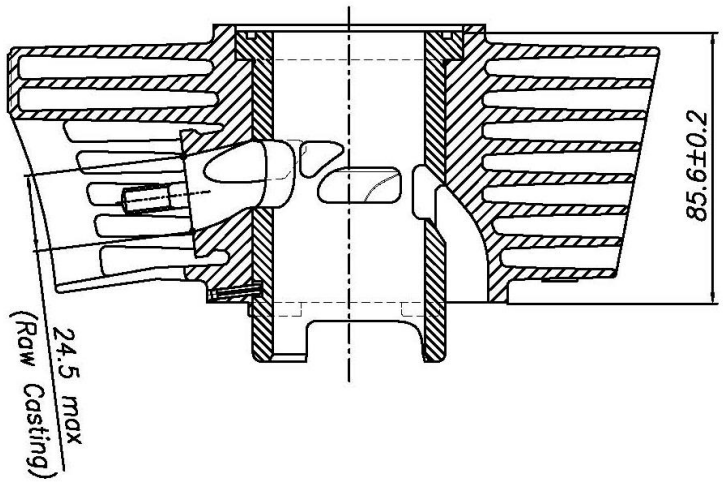
* *CHORDAL READING*

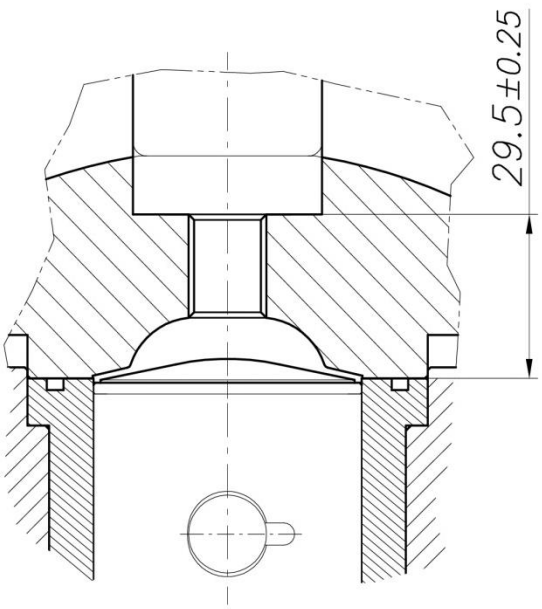
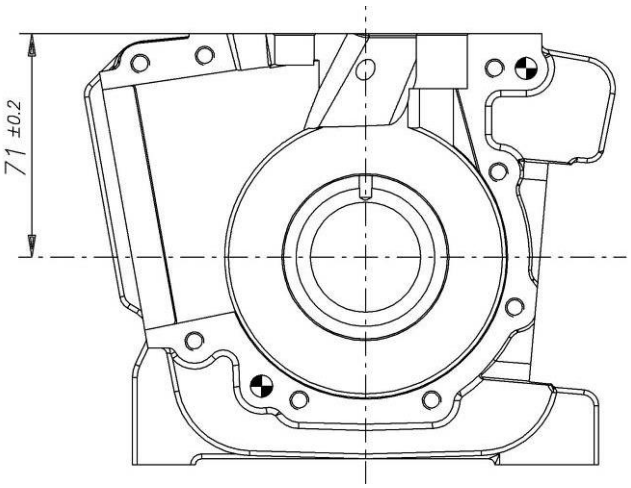
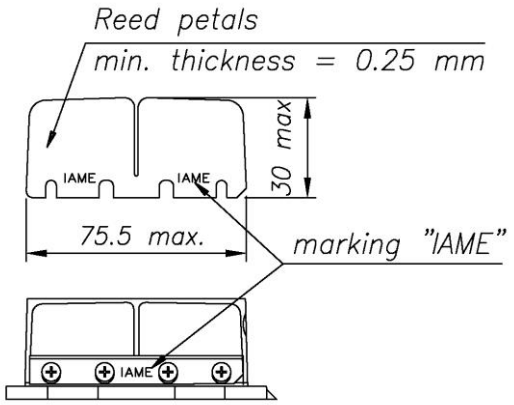
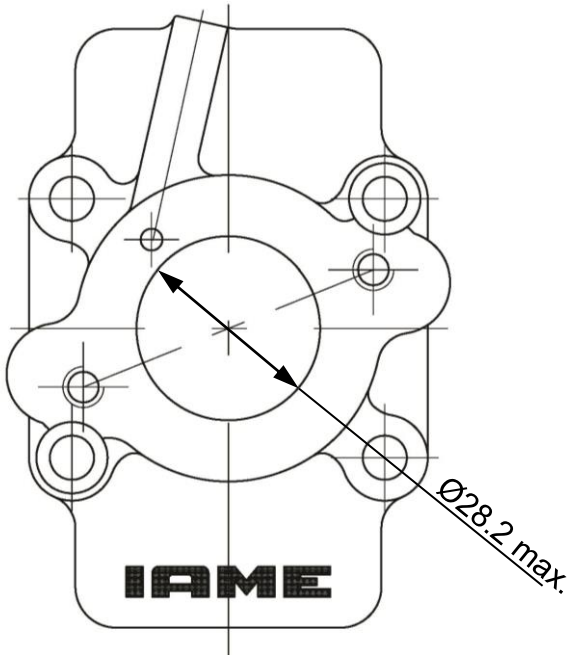
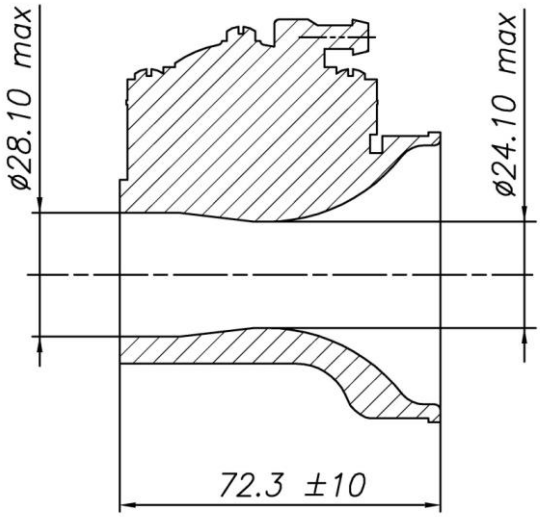
O *ANGULAR READING BY INSERTING A 0.2x5 mm GAUGE*

CYLINDER BASE VIEW



CYLINDER CROSS SECTION VIEW

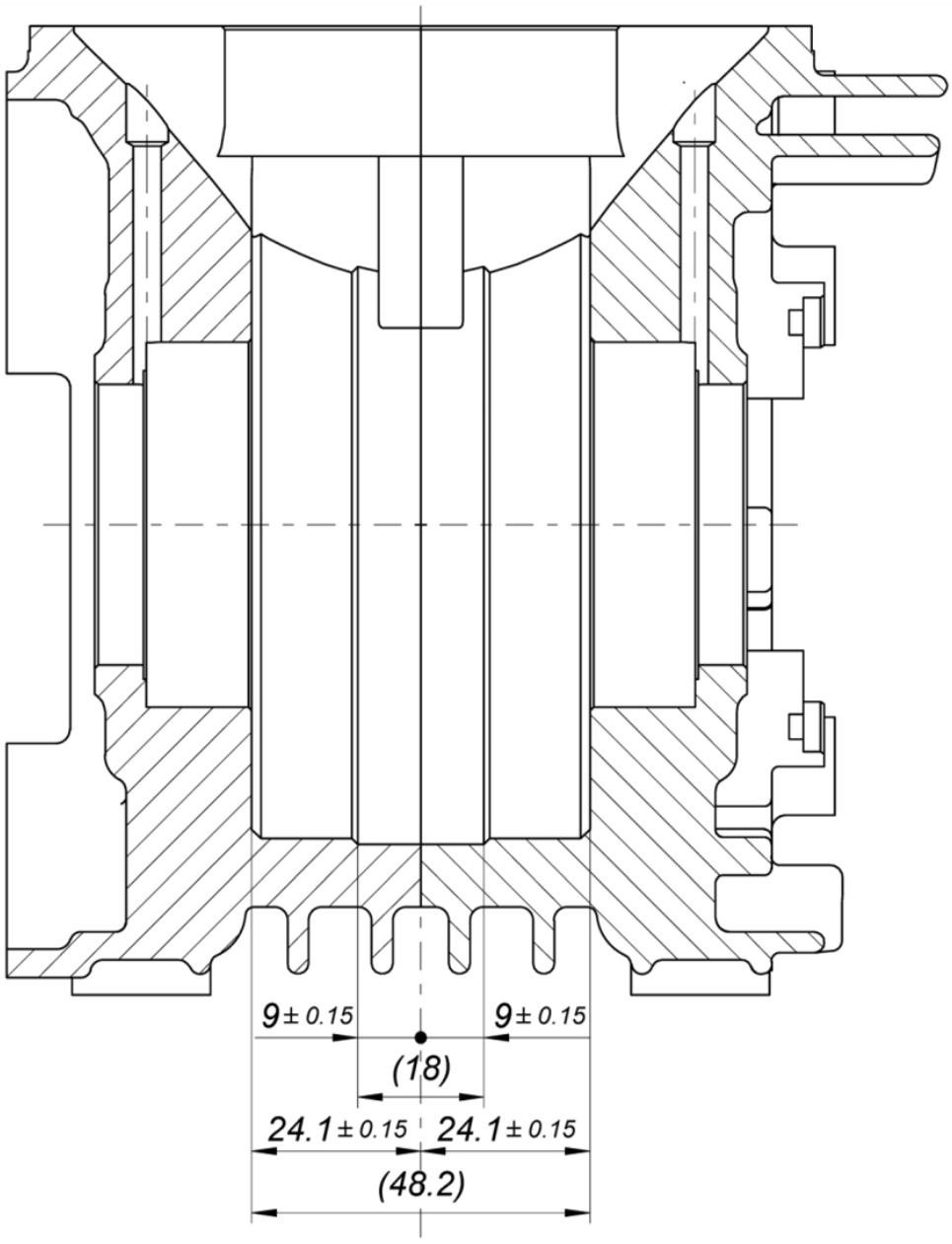


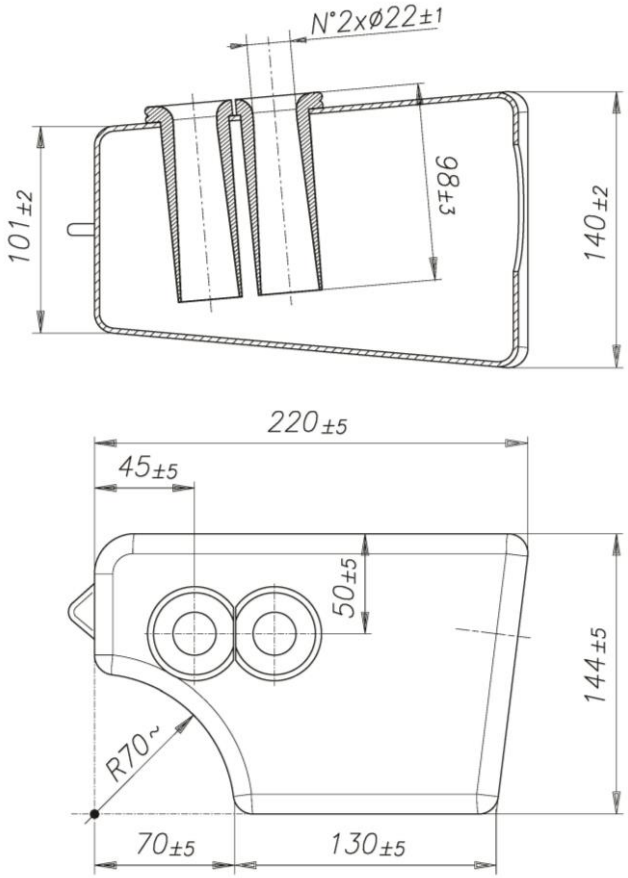
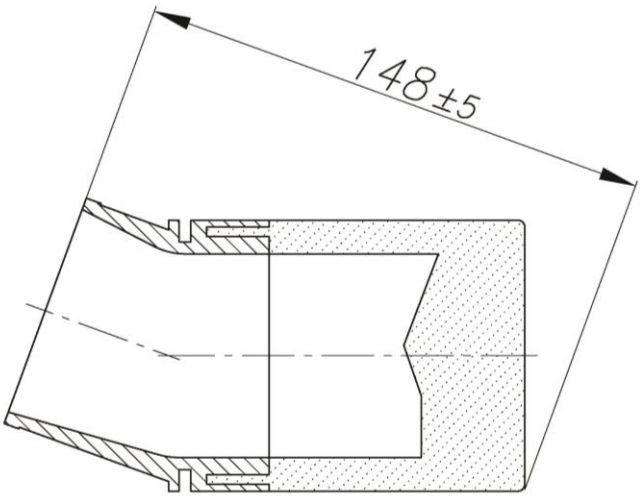
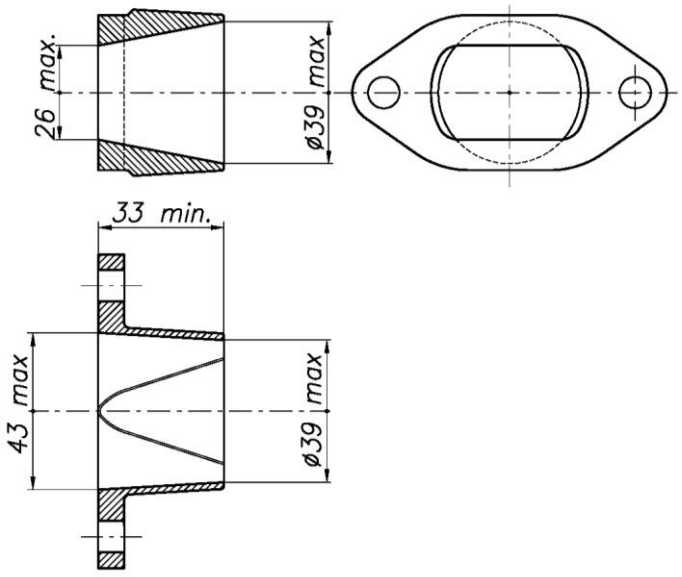
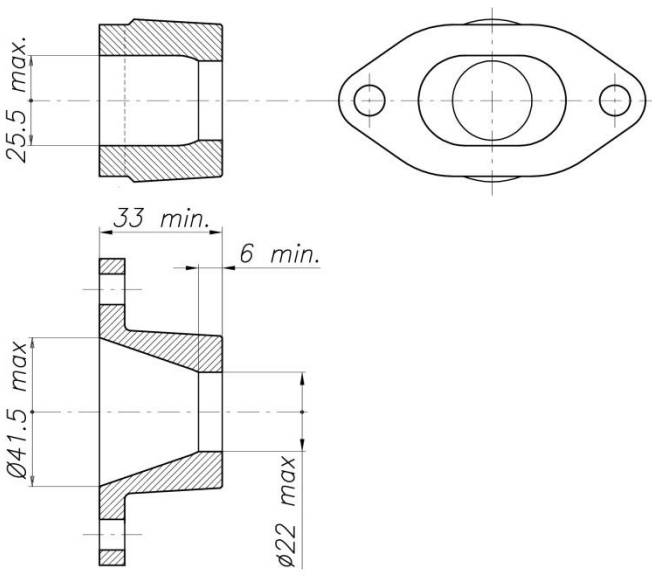
COMBUSTION CHAMBER VIEW	CRANKCASE INSIDE VIEW
	
SQUISH MIN.= 0.0413" (1.05 mm) ***(measured with 0.0625" (1/16") / Ø1.58mm solder)***	REEDS DIMENSIONS
	
INLET CONVERYOR DIMENSIONS	VENTURI CARB. DIMENSIONS
	 *TILLOTSON MOD. HW-33A*

CRANKCASE WIDTH DIMENSIONS

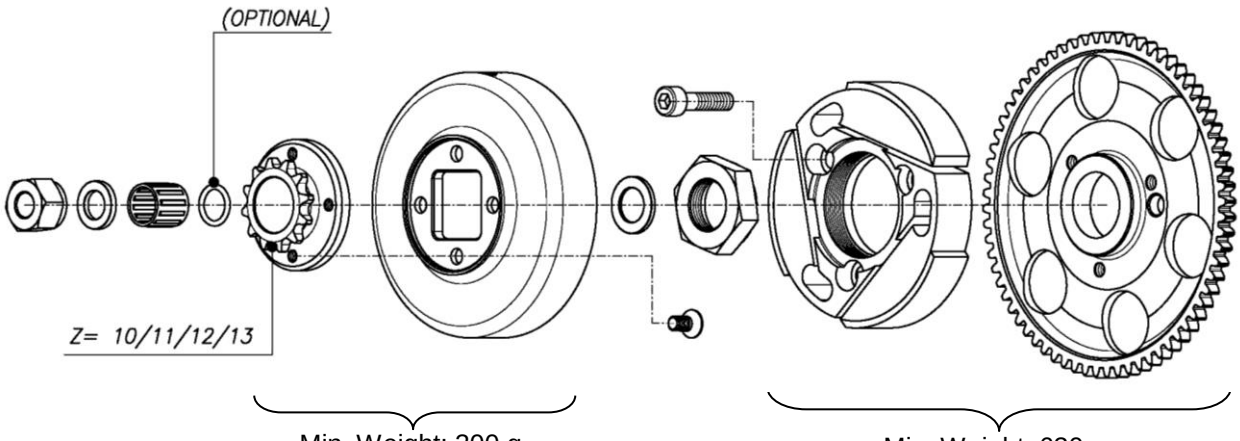
DRIVE SIDE

IGNITION SIDE



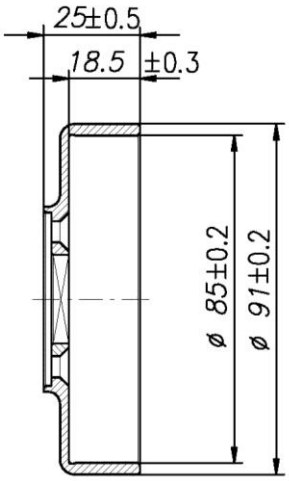
INLET SILENCER	SPONGE FILTER INLET SILENCER
	
EXHAUST MANIFOLD	EXHAUST MANIFOLD RESTRICTED
	

DESCRIPTION OF THE CLUTCH

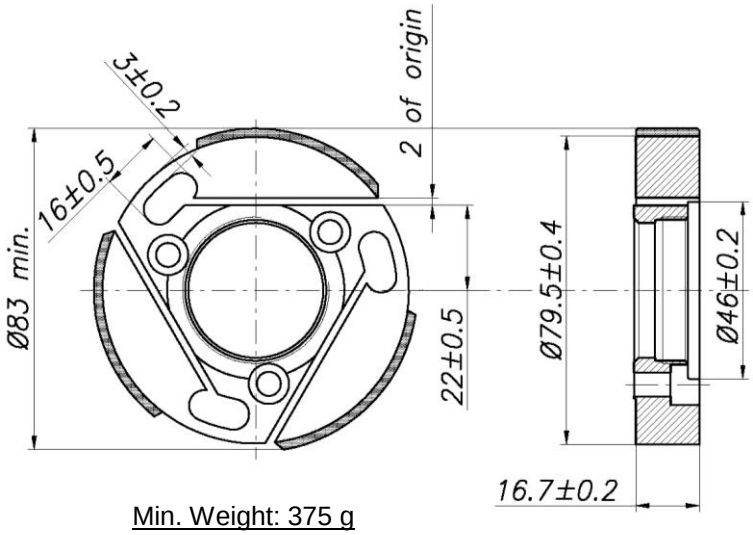


Min. Weight: 300 g

Min. Weight: 630 g



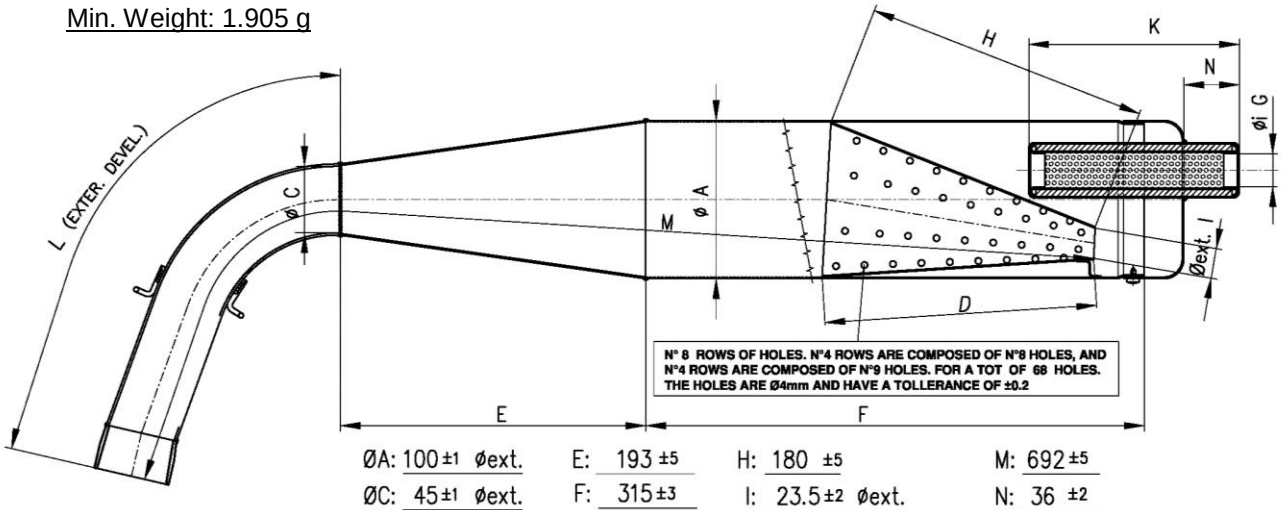
Min. Weight : 225g



Min. Weight: 375 g

EXHAUST MUFFLER VIEW AND DIMENSIONS

Min. Weight: 1.905 g



ØA: 100 ±1 øext.	E: 193 ±5	H: 180 ±5	M: 692 ±5
ØC: 45 ±1 øext.	F: 315 ±3	I: 23.5 ±2 øext.	N: 36 ±2
D: 172 ±5	K: 131 ±3	L: 270 ±5 ext.	G: 21 ±1

WIRING DIAGRAM

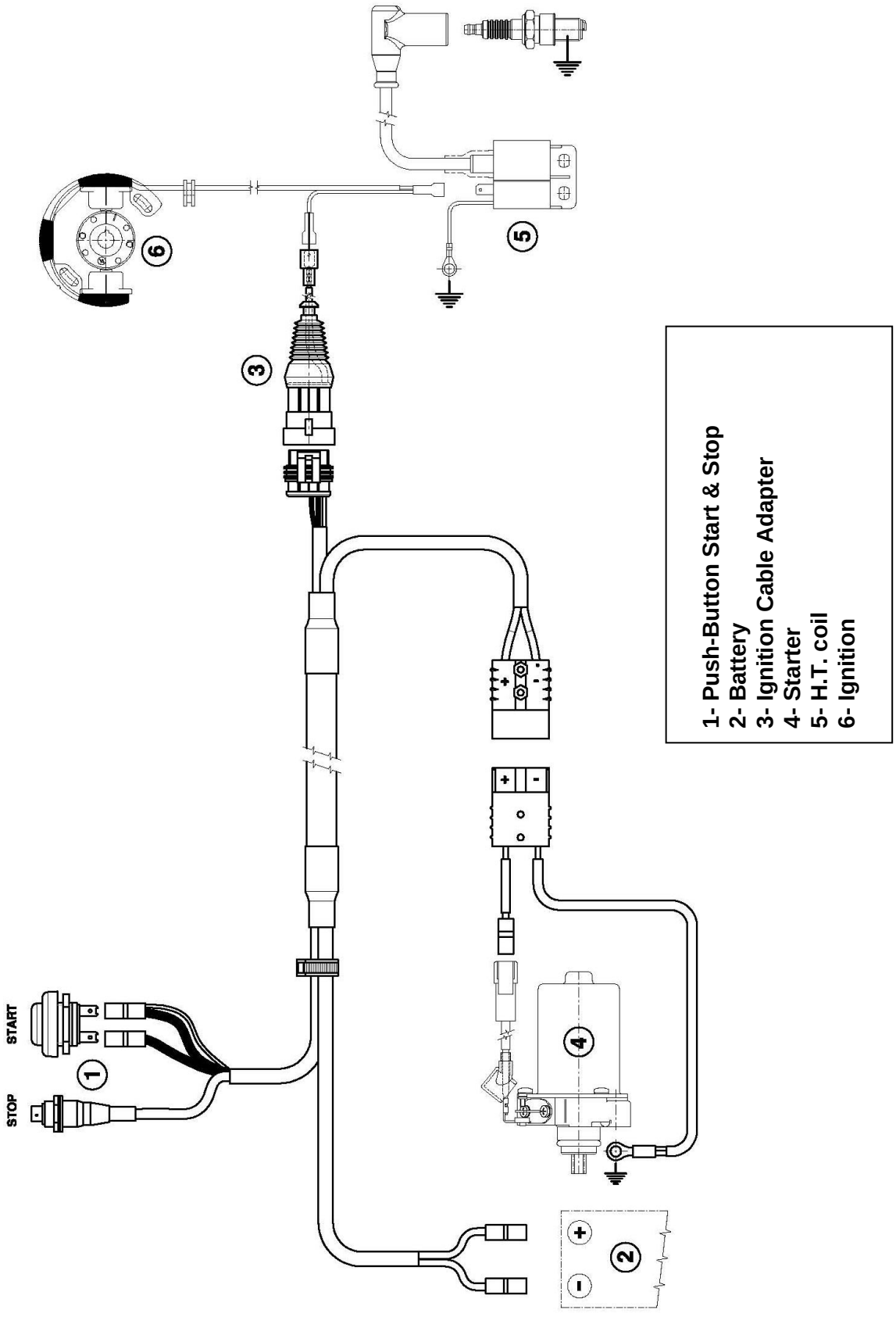
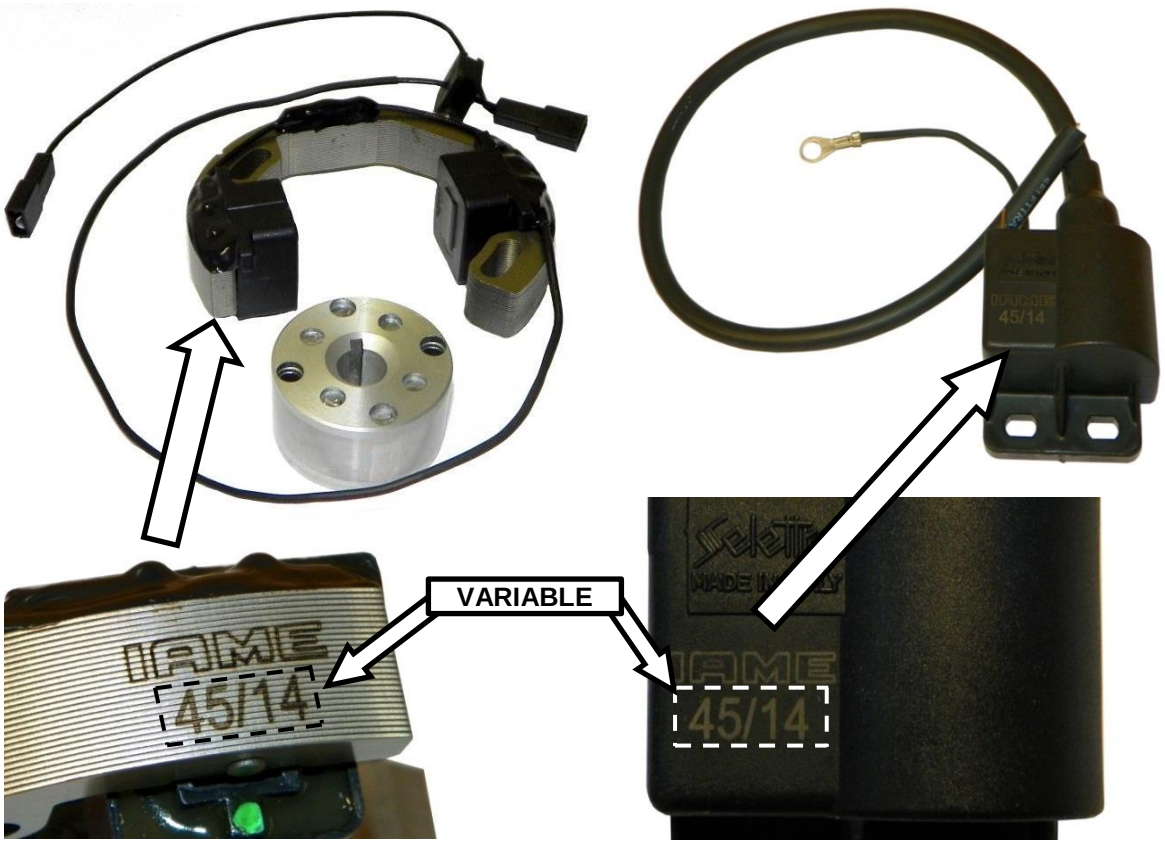
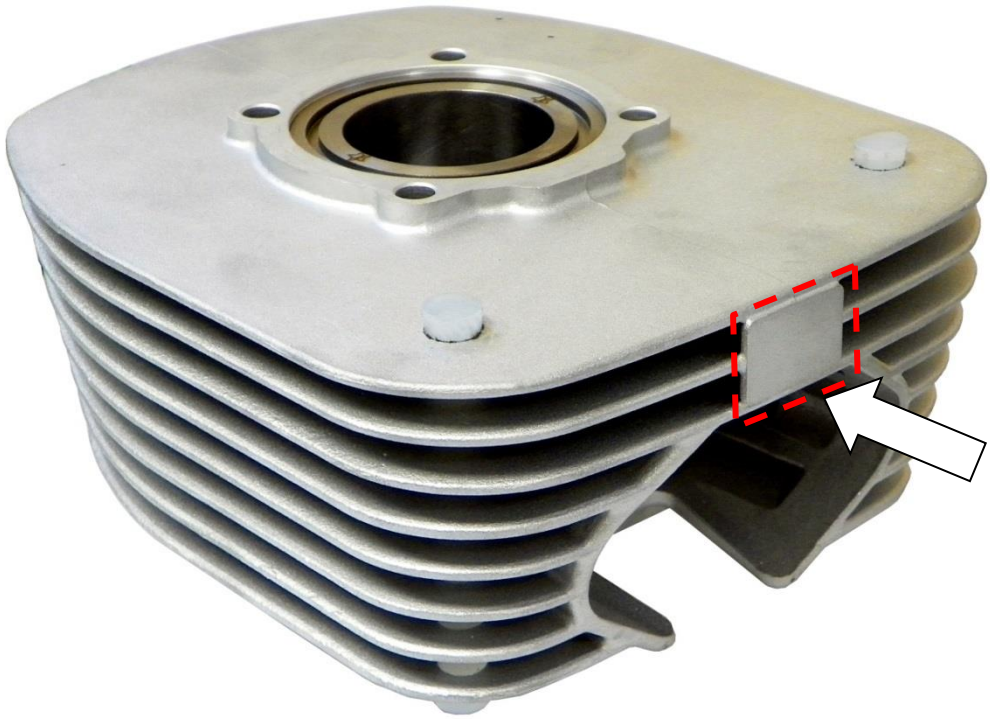


PHOTO COMPLETE WIRING

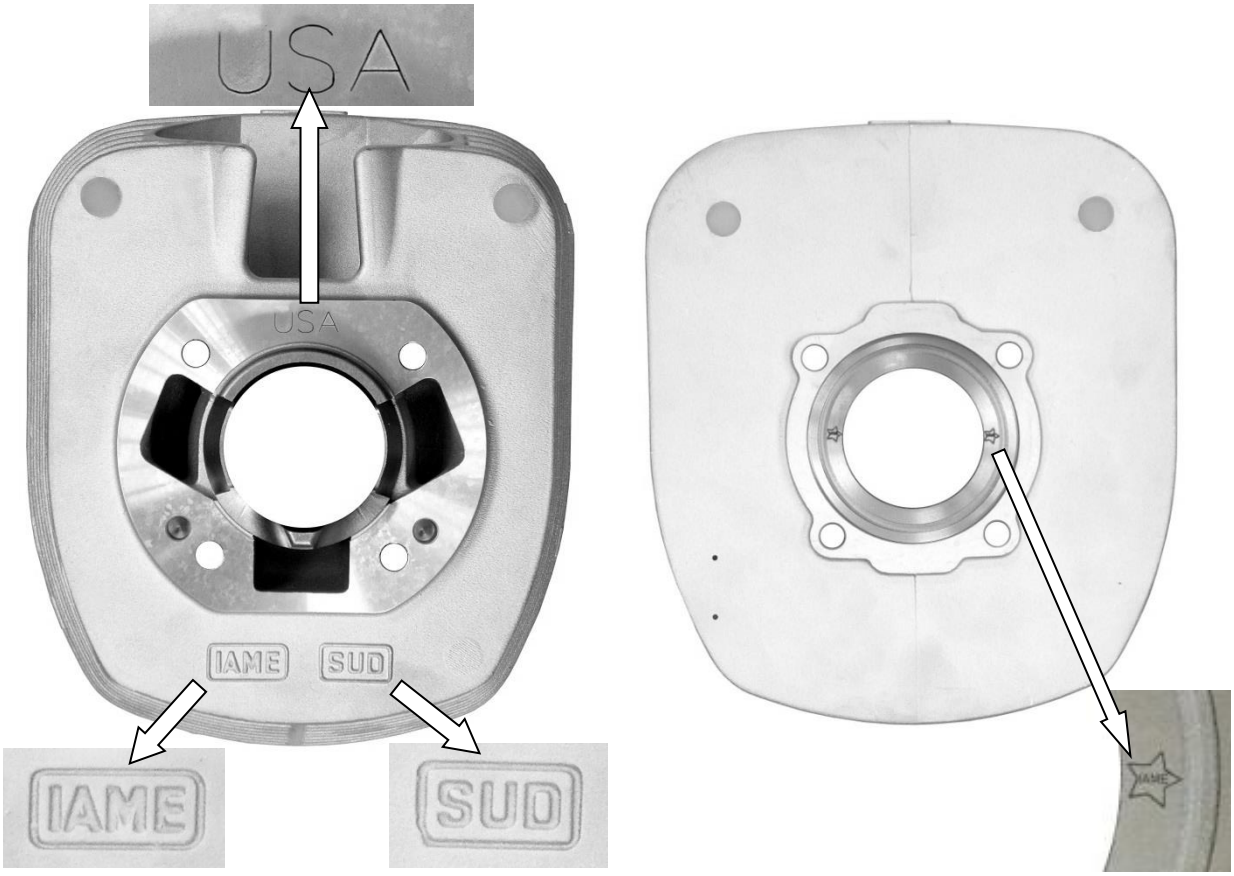
PHOTO OF IGNITION / PHOTO OF H.T. COIL (SELETTRA ANALOGUE 2 POLES)



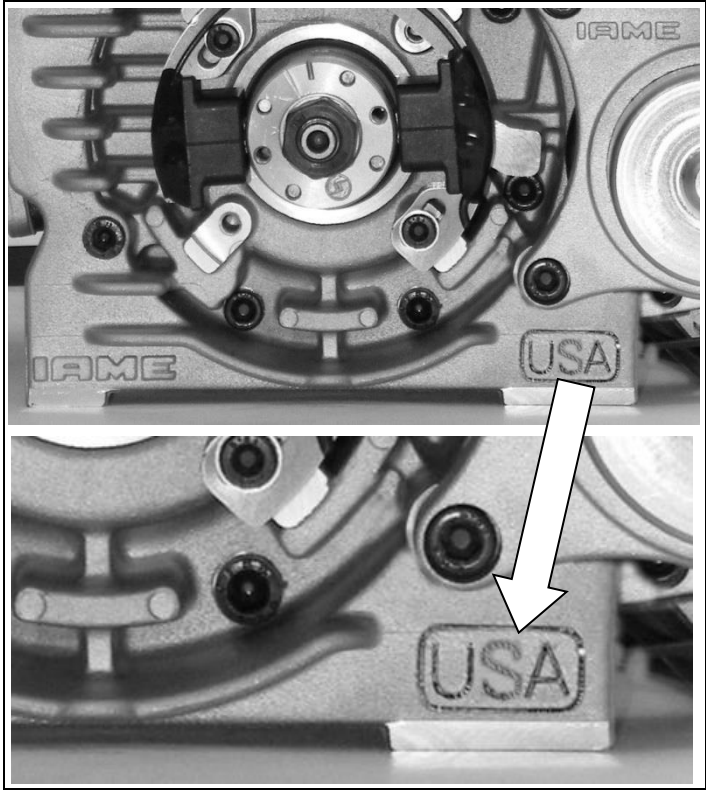
STICKER APPLICATION AREA



CYLINDER IDENTIFICATION MARKING



CRANKCASE IDENTIFICATION MARKING



HEAD IDENTIFICATION MARKING

INLET SILENCER - “IAME” IDENTIFICATION MARKING

PISTON IDENTIFICATION MARKING

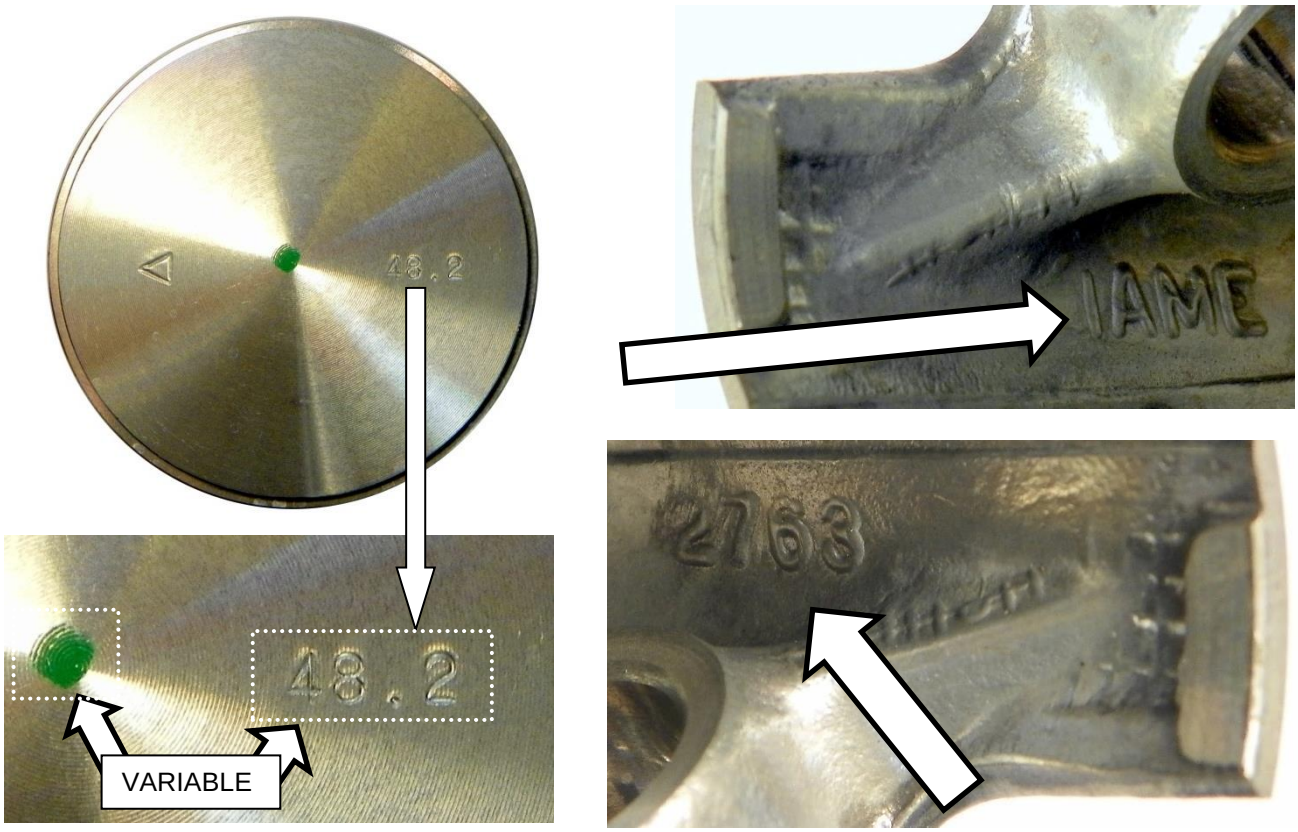
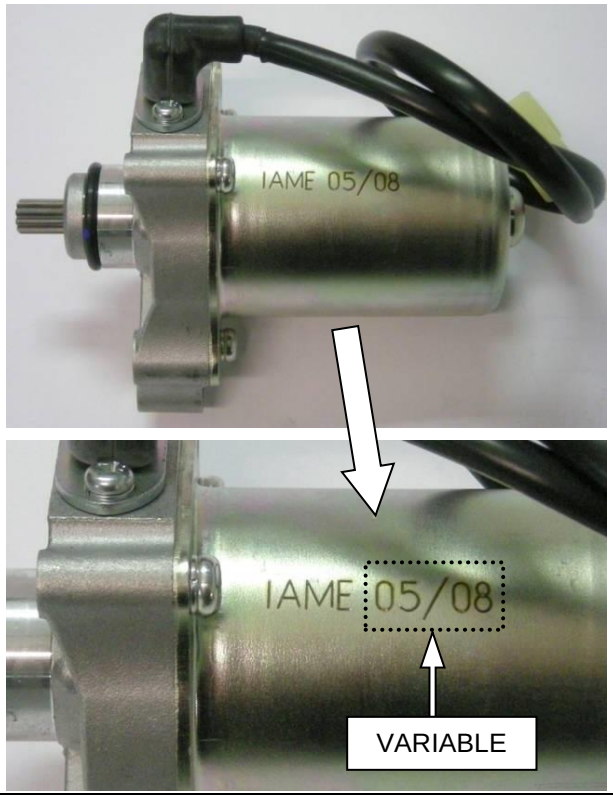


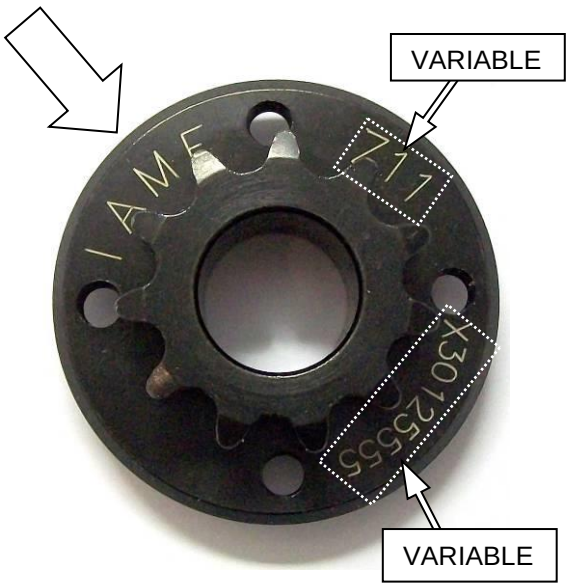
PHOTO IDENTIFICATION CONROD

STARTER IDENTIFICATION MARKING



CRANKSHAFT IDENTIFICATION MARKING

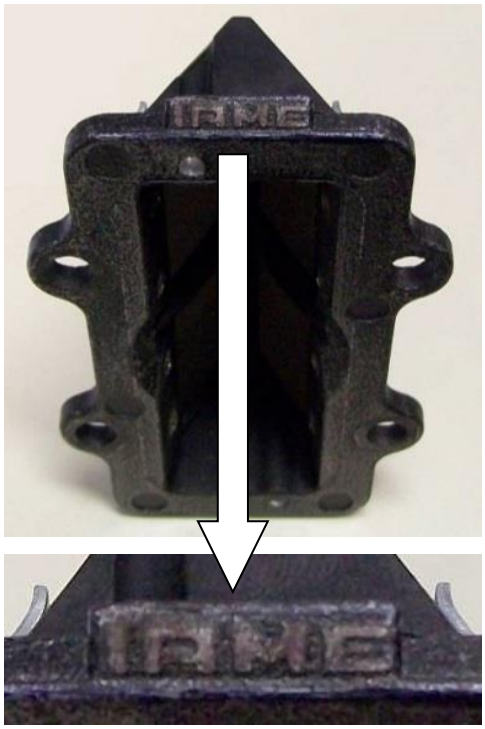
SPROCKET IDENTIFICATION MARKING



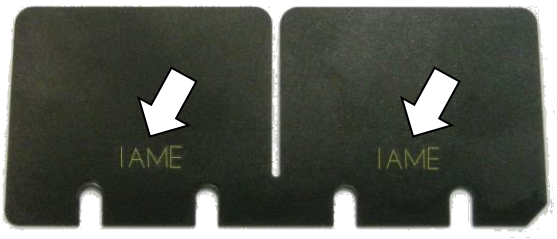
STARTER RING IDENTIFICATION MARKING

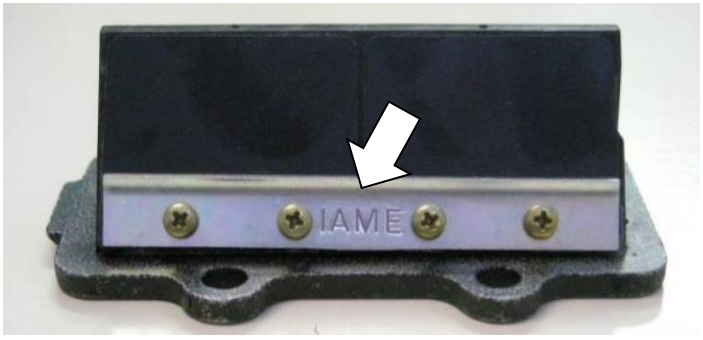
CLUTCH BODY IDENTIFICATION MARKING	CLUTCH DRUM IDENTIFICATION MARKING
 	
PHOTO IDENTIFICATION CARBURETOR INLET CONVEYOR	BENDIX COVER IDENTIFICATION MARKING
	  REAR SIDE FRONT SIDE 

REED GROUP & PETALS IDENTIFICATION MARKING

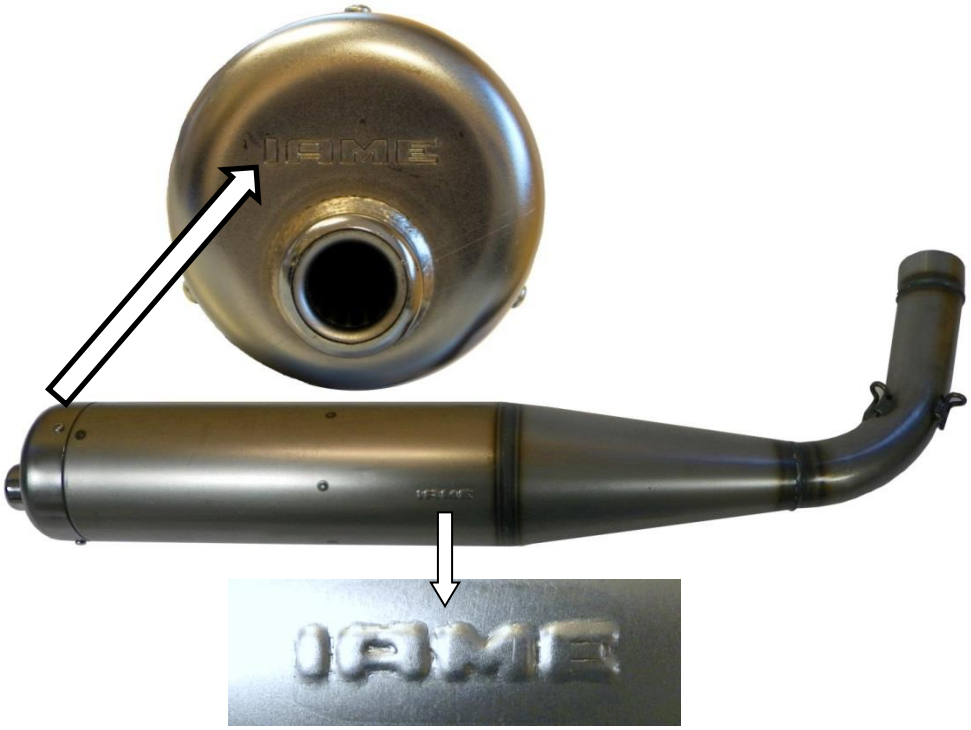


FIBER GLASS



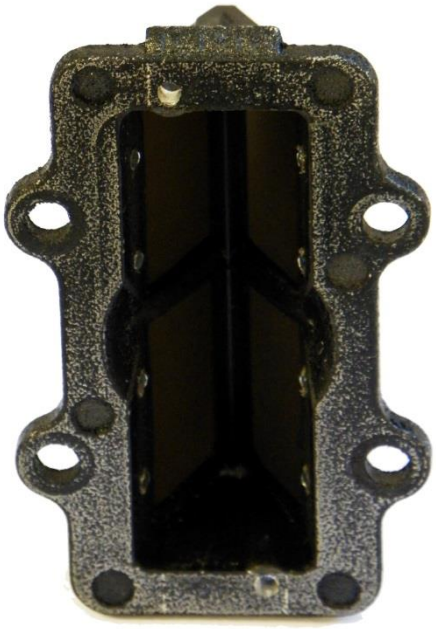


EXHAUST SILENCER IDENTIFICATION MARKING



CLUTCH COVER - ALTERNATIVE SHAPE AND SURFACE FINISHING

ALTERNATIVE

PHOTO IDENTIFICATION REED GROUP	
CURRENT VERSION	ALTERNATIVE VERSION
  	  

ALTERNATIVE INSTALLATION OF GROUND CABLE ON THE CRANKCASE

STANDARD INSTALLATION

ALTERNATIVE INSTALLATION

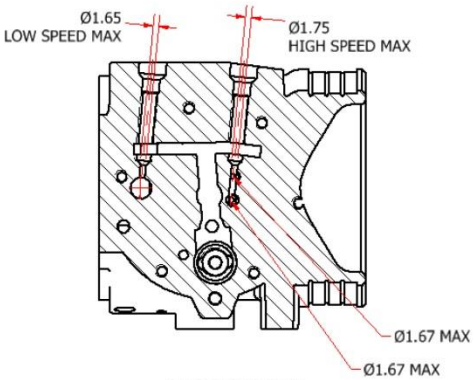
CARBURETTOR

Tillotson HW-33A

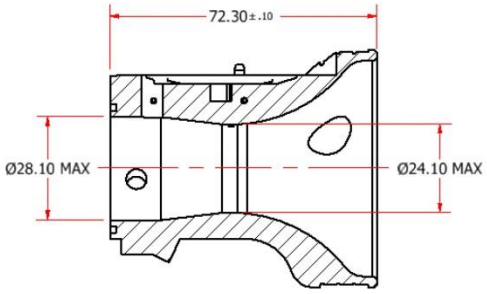
	
PHOTO OF ADJUSTING SIDE	PHOTO OF INLET SIDE

Manufacturer	**TILLOTSON LTD.**
Make	**TILLOTSON**
Model	**HW-33A**

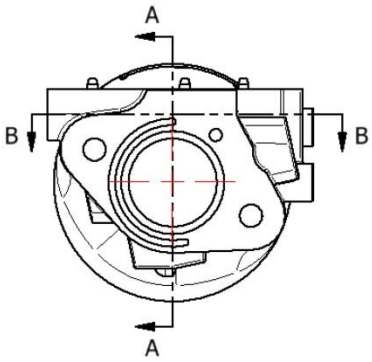
SECTION VIEW



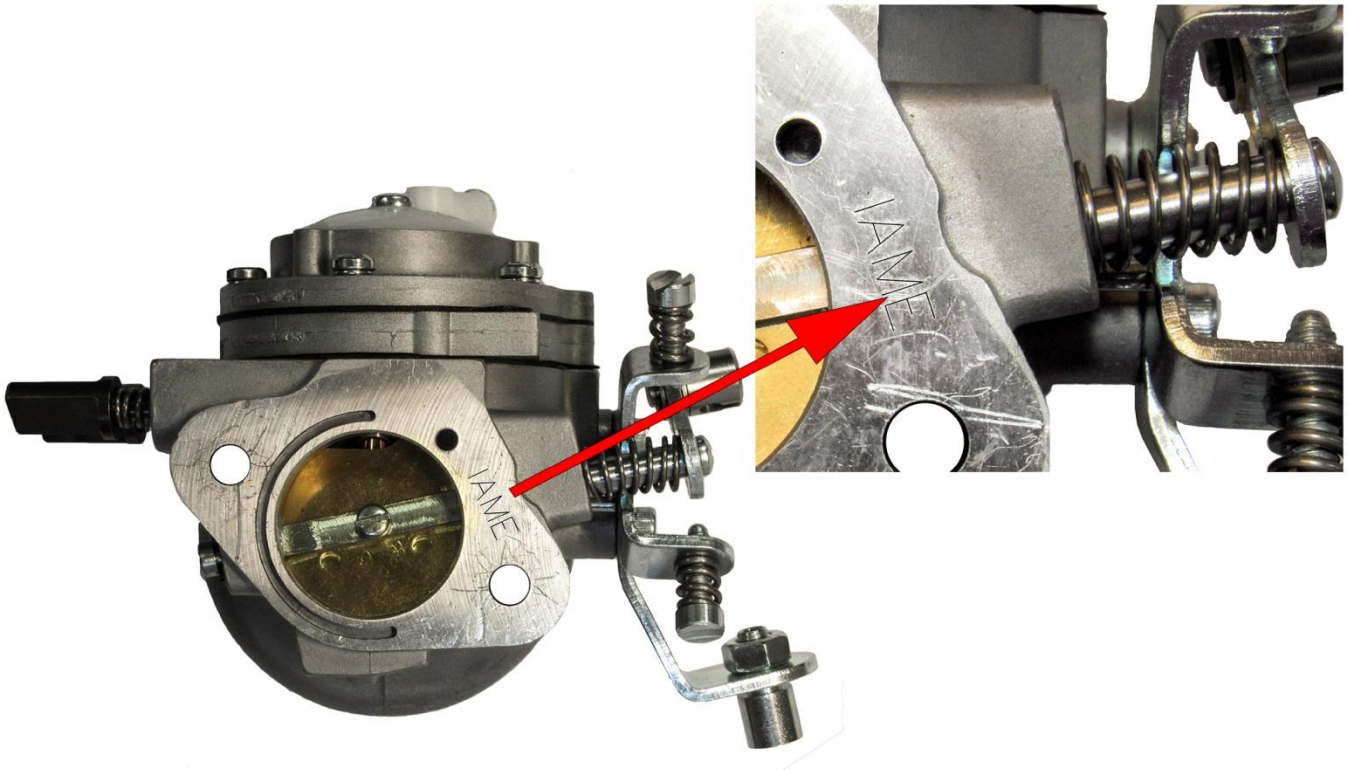
SECTION B-B



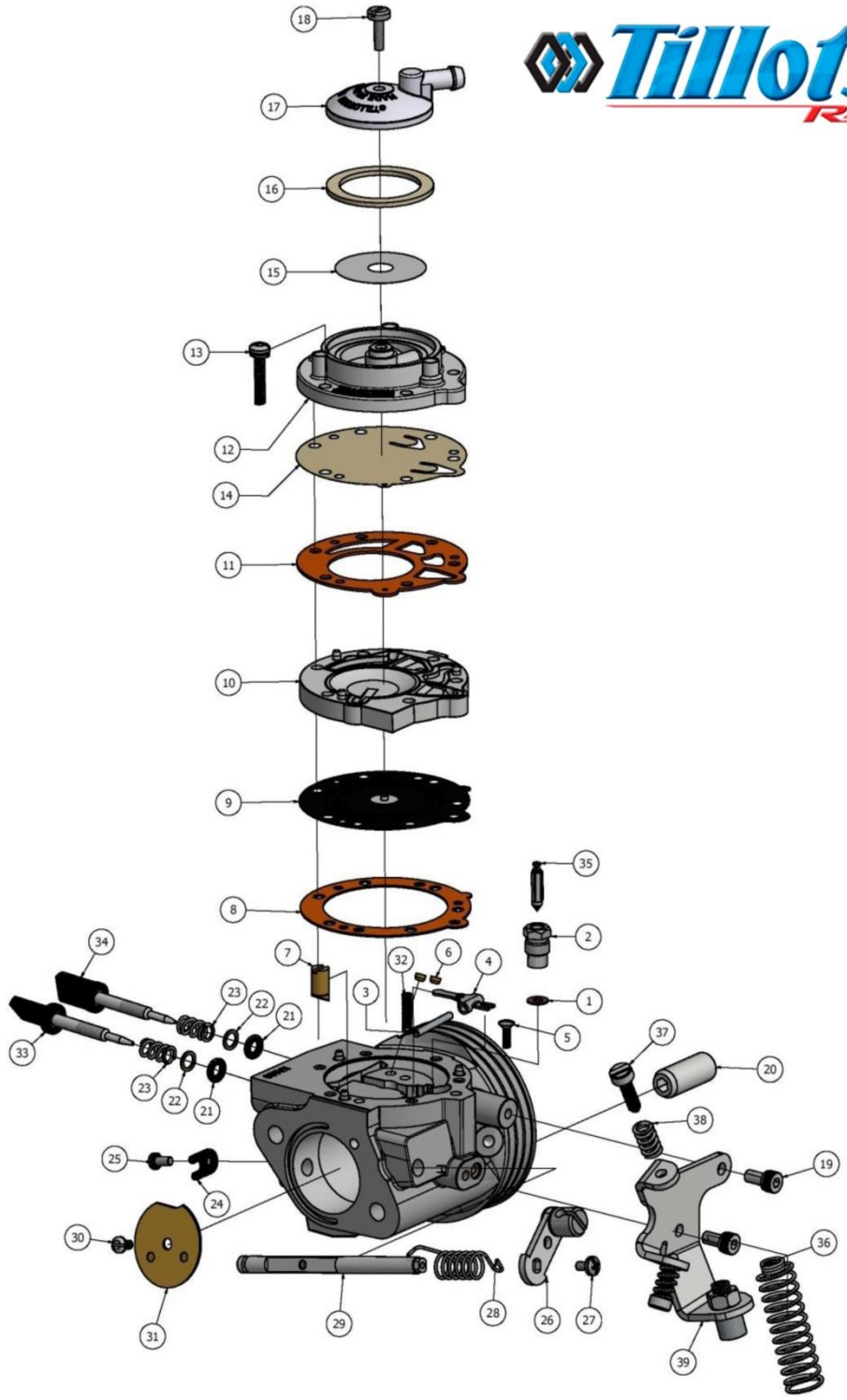
SECTION A-A



IAME IDENTIFICATION MARKING



CARBURETTOR DESCRIPTION AND SKETCH OF PARTS



ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION	ITEM	QTY	PART NUMBER	DESCRIPTION
1	1	16-B199	+* INLET SEAT GASKET	17	1	91-A251	FUEL STRAINER COVER	33	1	43-1029	8-32 UNC ADJUSTMNET SCREW ASSEMBLY
2	1	36-A42	+ INLET SEAT	18	1	15-B313	5-40 UNC SCREW	34	1	43-1030	8-32 UNC ADJUSTMNET SCREW ASSEMBLY
3	1	32-79	FULCRUM LEVER PIN	19	2	15-C67	M4 X 0.7 SOCKET CAP SCREW	35	1	34-216	+ INLET NEEDLE
4	1	155-A27	+ INLET CONTROL LEVER	20	2	81-377	CARBURETTOR MOUNTING NUT	36	1	24-C334	CABLE RETURN SPRING
5	1	15-B329	FULCRUM PIN SCREW	21	2	44-361	ADJUSTMENT SCREW O-RING	37	2	15-C9	LIMITER SCREW
6	2	80-160	BRASS PLUG	22	2	78A-256	ADJUSTMENT SCREW WASHER	38	2	24-B131	SPEED CREW SPRING
7	1	363-318	IDLE NOZZLE	23	2	24-B449	ADJUSTMENT SCREW SPRING	39	1	136-A55	CABLE BRACKET
8	1	16-B406	+* DIAPHRAGM GASKET (ORANGE)	24	1	29-224	THROTTLE SHAFT CLIP				
9	1	237-600	+* DIAPHRAGM ASSEMBLY	25	1	15-C19	4-40 UNC SCREW			*	REPAIR KIT CONTENTS
10	1	91-A275	FUEL PUMP BODY	26	1	12-1220	THROTTLE LEVER ASSEMBLY			+	DIAPHRAGM & GASKET KIT CONTENTS
11	1	16-B407	+* FUEL PUMP GASKET (ORANGE)	27	1	15-C52	4-40 UNC SCREW				
12	1	141-89	FUEL PUMP BODY	28	1	24-B381	THROTTLE RETURN SPRING			RK-6HW	REPAIR KIT
13	6	15-C51	6 - 32 UNC SCREW WITH LOCK WASHER	29	1	13-B216	THROTTLE SHAFT			DG-3HW	DIAPHRAGM & GASKET KIT
14	1	237-162	+* FUEL PUMP DIAPHRAGM	30	1	15-C20	4-40 UNC SCREW			233-721P	INLET NEEDLE & SEAT SET
15	1	95 - 170	FUEL STRAINER SCREEN	31	1	14-A118	THROTTLE SHUTTER				
16	1	16-B205	+* FUEL STRAINER COVER GASKET	32	1	24-B299	INLET TENSION SPRING 37g				

PARTS OF CARBURETTOR

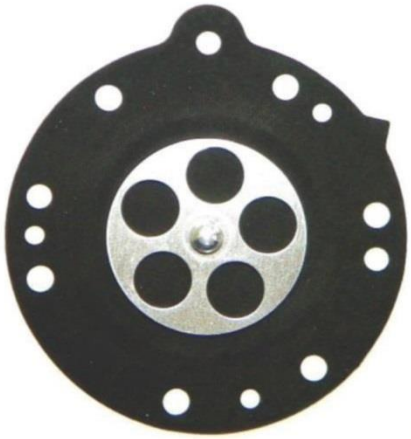
REF.8 - P. N°16-B406
DIAPHRAGM GASKET

Thickness = 0.5 ±0.1 mm

REF.11 - P. N° 16-B407
PUMP DIAPHRAGM GASKET

Thickness = 0.8 ±0.1 mm

REF.9 - P. N°237-600
DIAPHRAGM



Thickness = 0.13 ±0.07 mm

REF.14 - P. N°237-162
PUMP DIAPHRAGM

Thickness = 0.10 ±0.063 mm

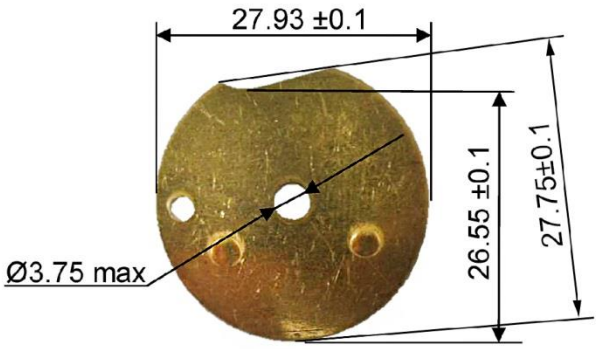
REF.10 - P. N° 91-A275
DIAPHRAGM COVER

Thickness = 6.75 ±0.15 mm

REF.12 - P. N° 141-89
PUMP COVER

Thickness = 12.5 ±0.15 mm

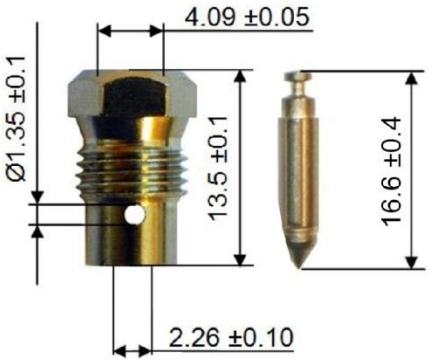
REF.37 - P. N° 14-A118
THROTTLE SHUTTER



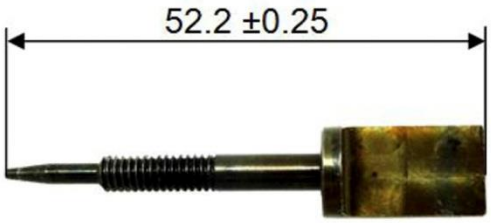
ALTERNATIVE SHAPE

Thickness = 0.84 ±0.1 mm

REF.27 - P. N° 233-721P
SEAT + NEEDLE



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



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

ALTERNATIVE FUEL NEEDLE

PHOTO IDENTIFICATION OF SMALL END CONROD BEARING – TYPES ALTERNATIVE

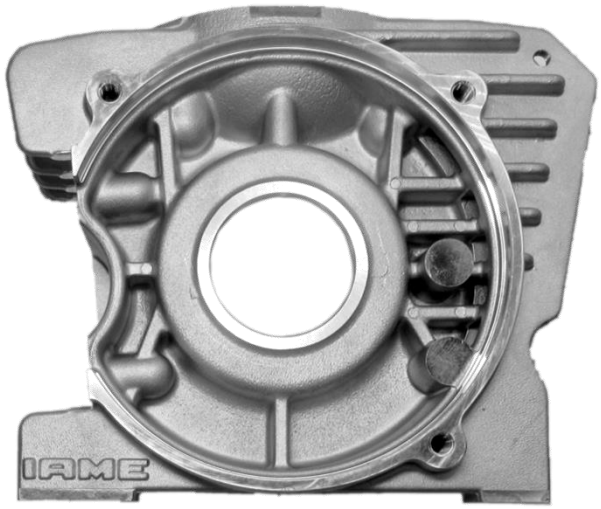
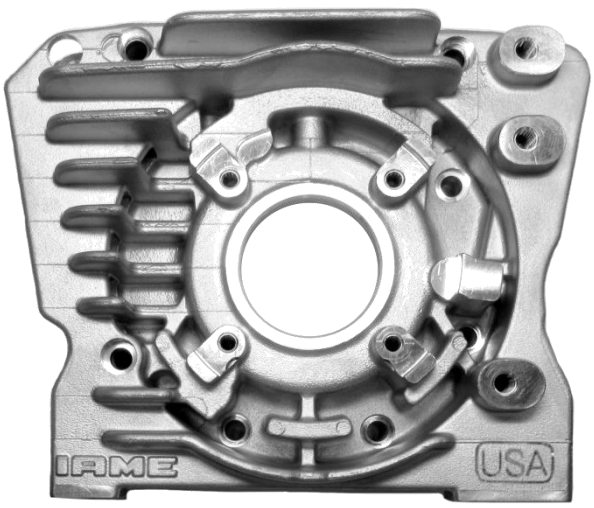
TYPE 1

TYPE 2

PHOTO IDENTIFICATION OF SILVER CONROD WASHER – TYPES ALTERNATIVE

TYPE 1

TYPE 2

PARTICULARS WITH ALTERNATIVE NEW LOGO "IAME"	
CYLINDER HEAD	CYLINDER
 **NEW LOGO** 	 **NEW LOGO** 
SEMICARTER TRANSMISSION SIDE	SEMICARTER IGNITION SIDE
 **NEW LOGO** 	 **NEW LOGO** 

PARTICULARS WITH ALTERNATIVE NEW LOGO "IAME"	
STARTER SUPPORT	CLUTCH COVER
 **NEW LOGO** 	 **NEW LOGO** 
REED GROUP	CARBURETTOR INLET CONVEYOR
 **NEW LOGO** 	 **NEW LOGO** 

PARTICULARS WITH ALTERNATIVE NEW LOGO "IAME"

EXHAUST

NEW LOGO

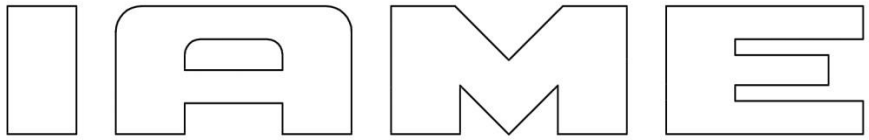
NEW LOGO

INLET SILENCER

NEW LOGO

PARTICULARS WITH ALTERNATIVE NEW LOGO "IAME"

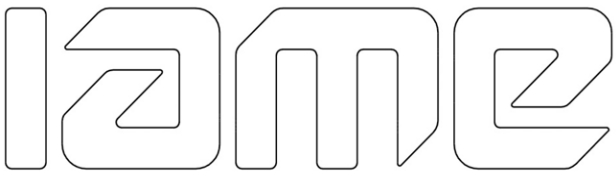
THE OTHERS COMPONENTS OF ENGINE THAT ARE MARKED (LASER OR PUNCHING) UNTIL TODAY WITH LOGO OR WRITTEN "IAME"



or

IAME

NOW COULD BE MARKED WITH NEW LOGO "IAME"



or

or