

AIDKA

Australian Independent Dirt Kart Association

<i>Manufacturer</i>	Pro Racing Design Co Ltd
<i>Make</i>	PRD
<i>Model</i>	GALAXY
<i>Validity of the homologation</i>	6 years
<i>Number of pages</i>	27

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 AIDKA

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	
<i>The number of decimal places must be 2 or comply with the relevant tolerance.</i>		<i>Tolerances & remarks</i>
Cylinder		
<i>Volume of cylinder</i>	<u>123.15cm³</u>	<u><125cm³</u>
<i>Original bore</i>	<u>53.90mm</u>	--
<i>Theoretical maximum bore</i>	<u>54.40mm</u>	--
<i>Original Stroke</i>	<u>54mm</u>	--
<i>Number of transfer ducts, cylinder/sump</i>		
	<u>3 / 3</u>	--
<i>Number of exhaust ports / ducts</i>		
	<u>3</u>	--
<i>Volume of the combustion chamber</i>		
	<u>10.5cm³</u>	minimum
Crankshaft		
<i>Number of bearings</i>		
	<u>2</u>	--
<i>Diameter of bearings</i>		
	<u>25</u>	□0.1mm
<i>Minimum weight of crankshaft assembly</i>		
	<u>1880g</u>	minimum
<i>All parts represented on page 17 photo</i>		
Exhaust Restrictor		
<i>Restrictor for TaG Restricted class's</i>		
	<u>KA-G1 24.95mm</u>	Max
Connecting rod		
<i>Connecting rod centreline</i>		
	<u>100mm</u>	□0.2mm
<i>Diameter of big end</i>		
	<u>18mm</u>	□0.05mm
<i>Diameter of small end</i>		
	<u>14mm</u>	□0.05mm
<i>Min. weight of the connecting rod</i>		
	<u>118g</u>	minimum

Piston		
<i>Number of piston rings</i>	1	
<i>Min. weight of the bare piston</i>	130g	minimum
Gudgeon pin		
<i>Diameter</i>	14mm	□0.05mm
<i>Length</i>	44mm	□0.15mm
<i>Minimum weight</i>	24g	Minimum
Clutch		
<i>Minimum weight</i>	1050g	minimum
<i>Of all the parts represented on the page 21 technical drawing</i>		

B	OPENING ANGLES	
<i>Of the inlet (main transfer ports)</i>	126°	□2°
<i>Of the exhaust</i>	191°	□2°
<i>Of the exhaust ears</i>	184°	□2°
<i>Of the boosters</i>	127.5°	□2°

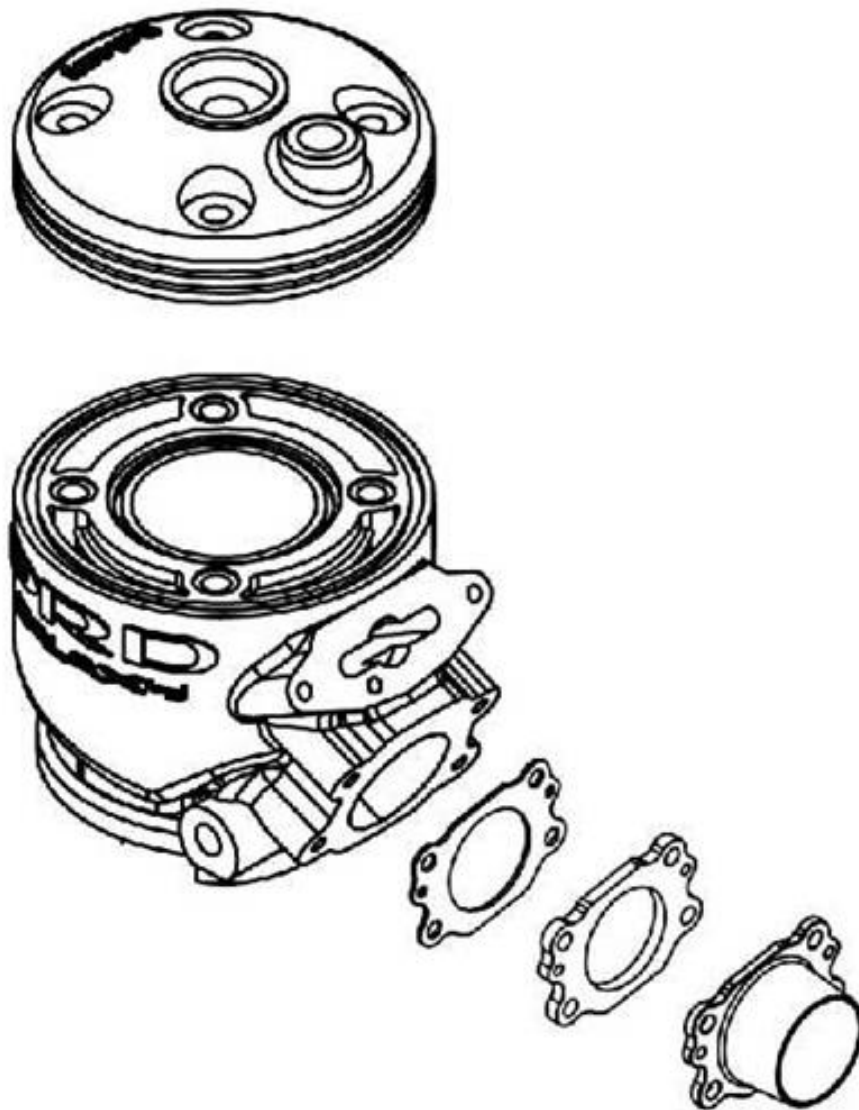
C	MATERIAL	
<i>Cylinder head</i>	ALLOY	
<i>Cylinder</i>	ALLOY	
<i>Cylinder wall</i>	CAST IRON	
<i>Sump</i>	ALLOY	
<i>Crankshaft</i>	IRON	
<i>Connecting rod</i>	STEEL	
<i>Piston</i>	ALLOY	

D

PHOTOS, DRAWINGS & GRAPHS

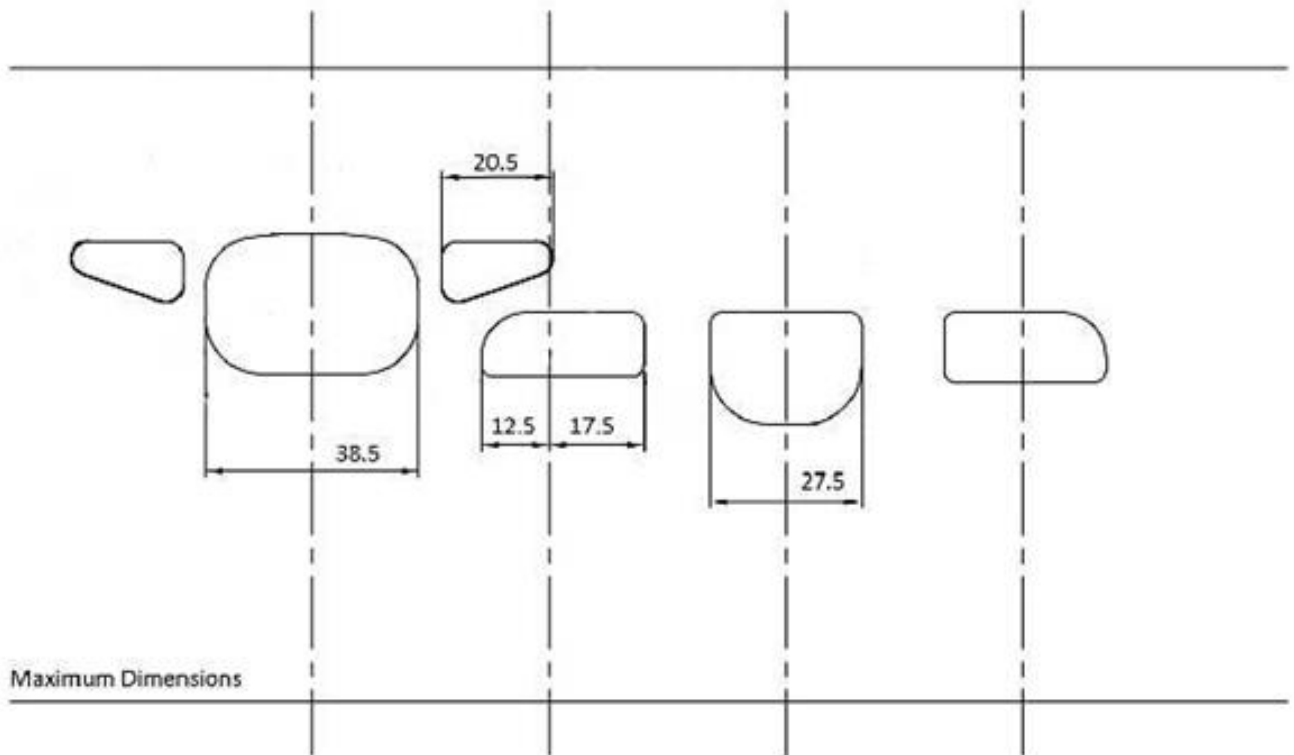
D.1 CYLINDER UNIT

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



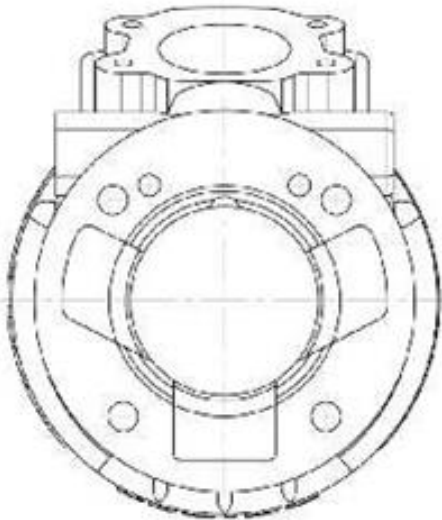
.. Section D.1

DRAWING OF THE CYLINDER DEVELOPMENT



*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

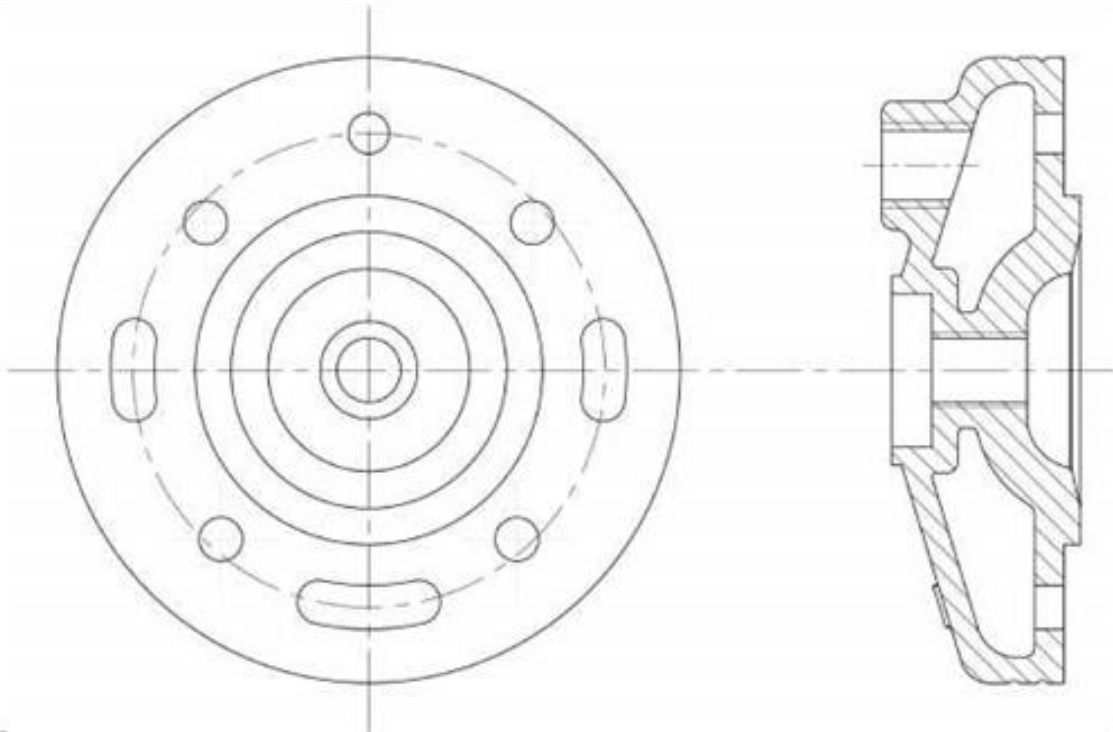


PHOTO OF THE CYLINDER HEAD

PHOTO OF THE COMBUSTION CHAMBER IN THE CYLINDER HEAD



... Section D.1

VERTICAL CROSS SECTION VIEW OF CYLINDER WITH LINER, without dimensions

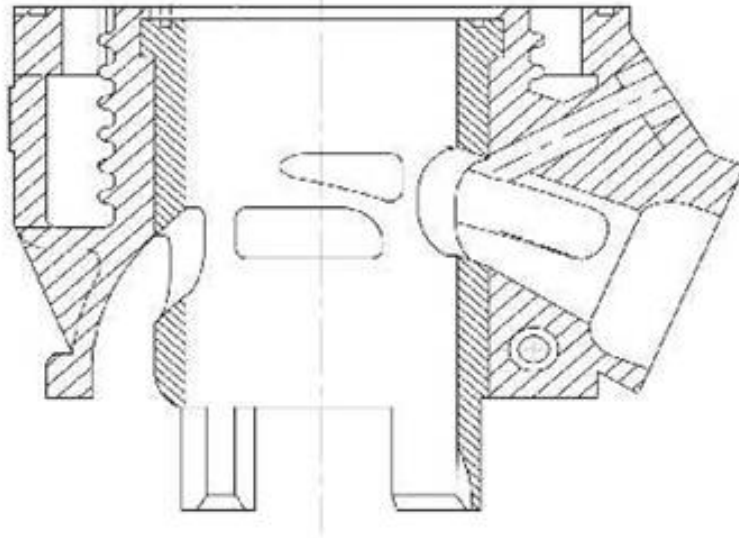
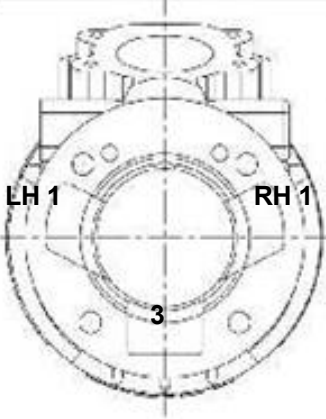


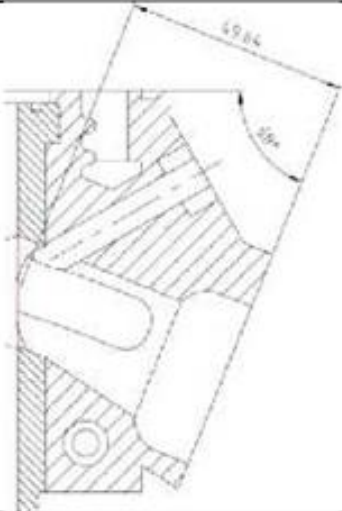
PHOTO OF THE CYLINDER FROM ABOVE

PHOTO OF THE CYLINDER FROM RH SIDE



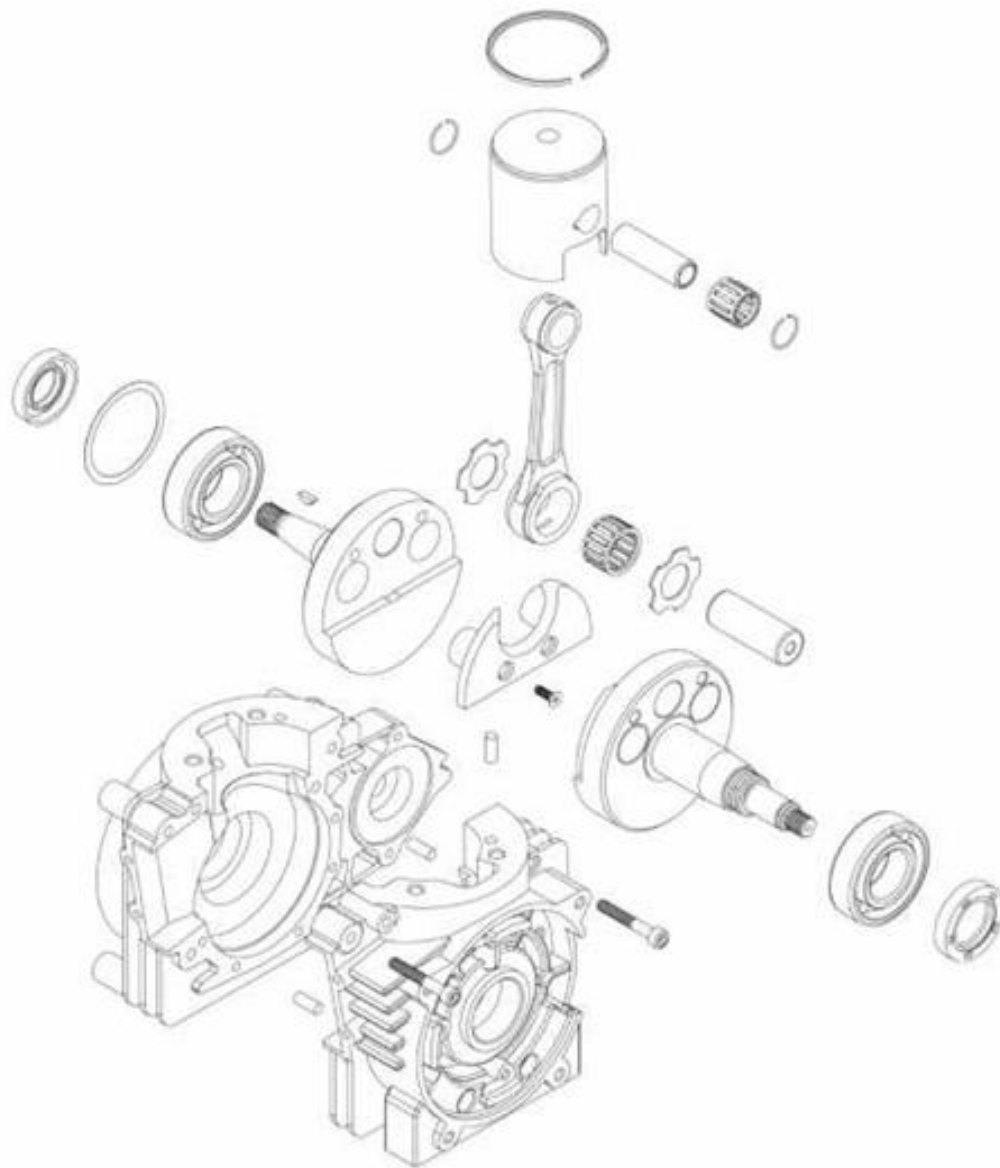
... Section D.1

TRANSFER DUCTS VOLUME			
	Transfer position on 3-transfer cylinder	TRANSFER No.	VOLUME in cm ³
		Transfer No. 1 LH	18.50 +/- 5 %
		Transfer No. 2 LH	18.50 +/- 5 %
		Transfer No. 3 or 5	12.80 +/- 8 %

EXHAUST DUCT LENGTH		
	ANGLE \square in $^{\circ}$	Minimum in mm
	68° +/-1°	49.64 mm +/-1.00
<p>The L min. dimension will be the result of the value taken on the reference engine minus 5 mm.</p>		
<p>Technical Drawing No.13</p>		
		
<ul style="list-style-type: none"> <input type="checkbox"/> 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. <input type="checkbox"/> 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. 		

D.2 CONROD, CRANKCASE, CRANKSHAFT & PISTON

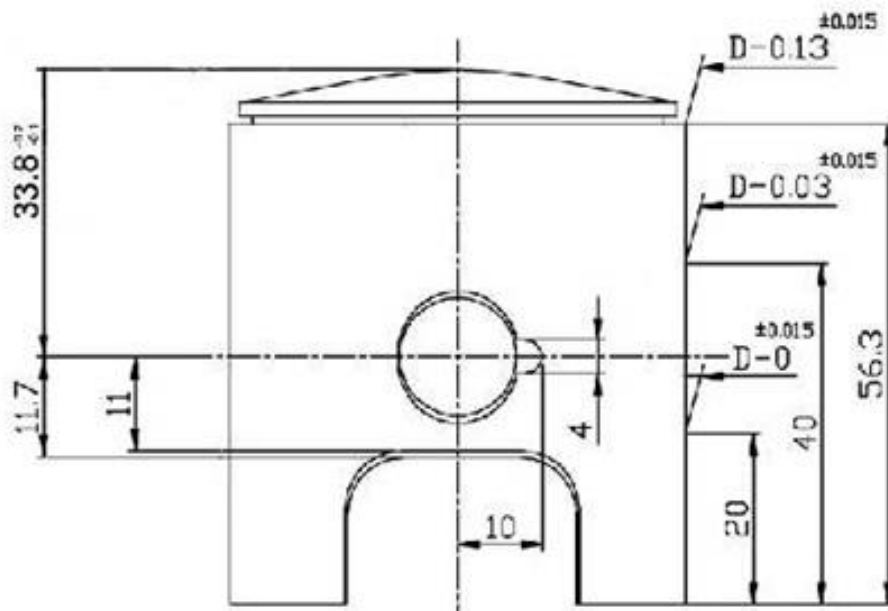
EXPLODED DRAWING OF THE PISTON, CRANKSHAFT, CONNECTING ROD AND CRANKCASES UNIT (exploded crankshaft)





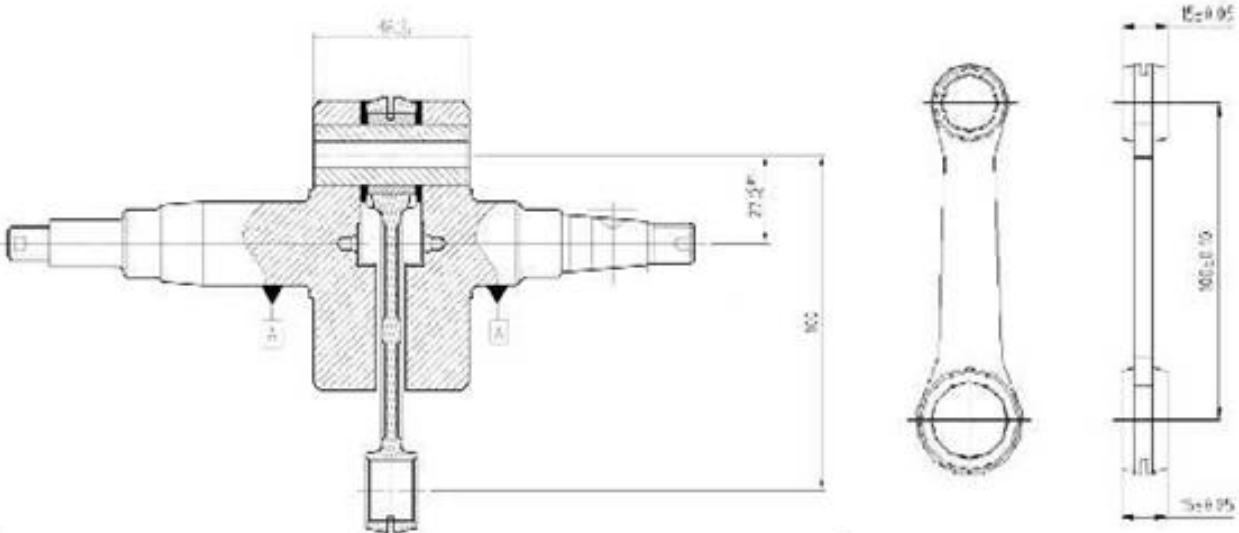
...Section D.2

PHOTO OF THE CRANKSHAFT & CONROD	PHOTO OF THE CONROD

DRAWING OF THE PISTON (MAIN DIMENSIONS incl. tolerances)

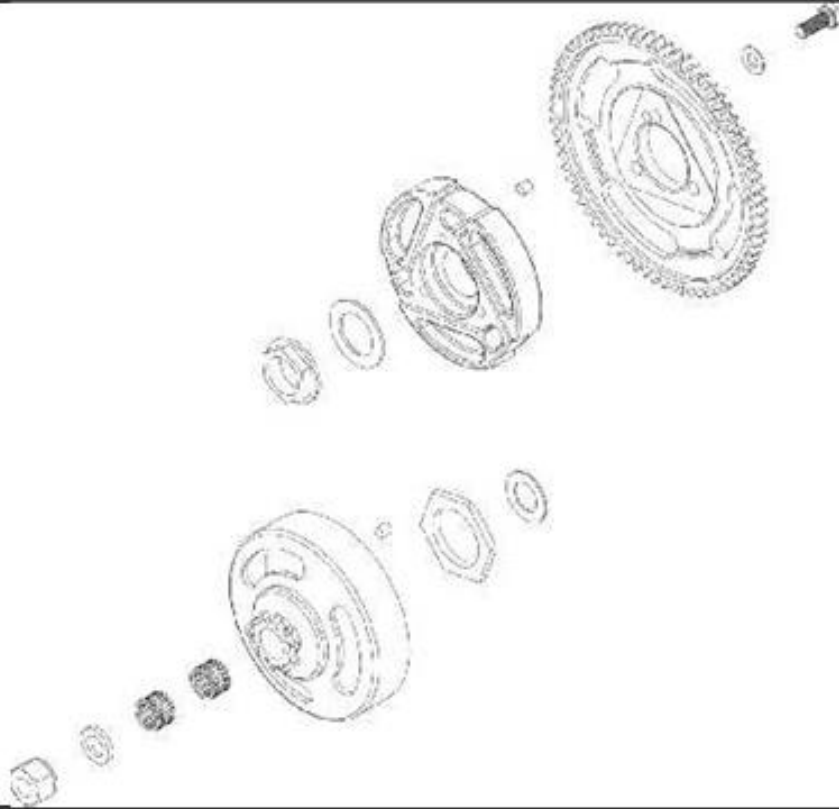


...Section D.2

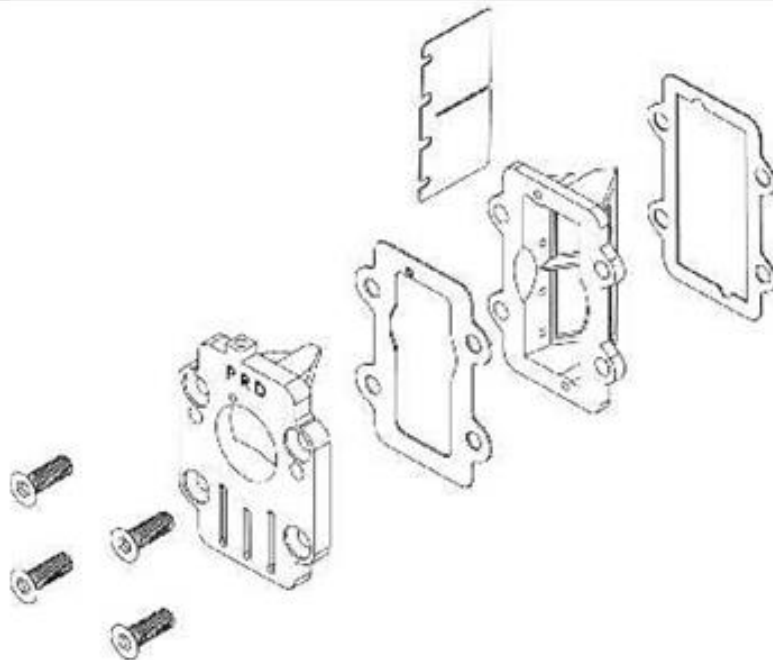
<p><i>PHOTO OF THE INSIDE OF THE RH CRANKCASE</i></p>	<p><i>PHOTO OF THE INSIDE OF THE LH CRANKCASE</i></p>
	
<p><i>DRAWING OF THE CRANKSHAFT - CON ROD UNIT (DIMENSIONS incl. tolerances, big & small ends thickness, crank mass thickness & diameter)</i></p>	
	

D.4 REED VALVE & CLUTCH

TECHNICAL DRAWING (exploded view) OF THE CLUTCH ASSEMBLY

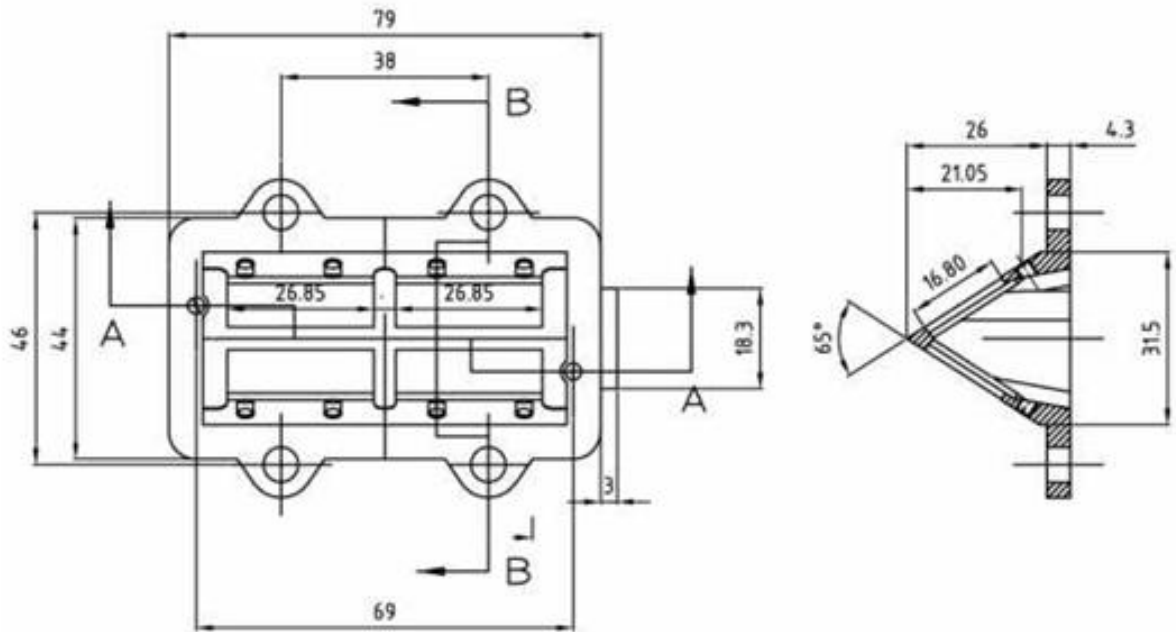


TECHNICAL DRAWING (exploded view) OF THE REED VALVE

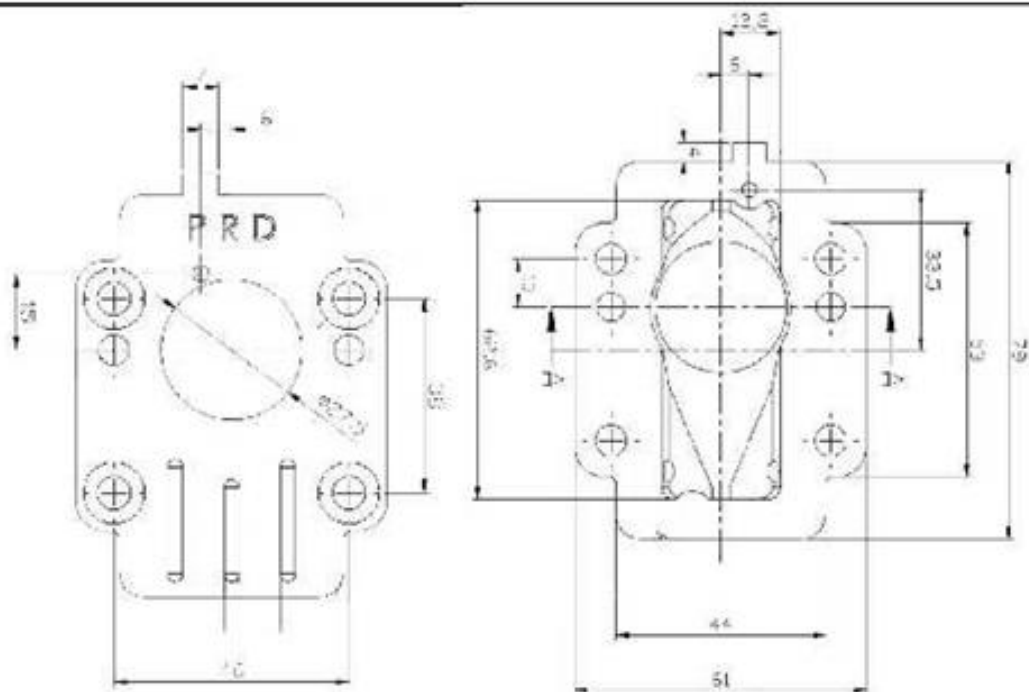


... Section D.4

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



*DRAWING OF THE REED VALVE COVER
(only basic engine)*



D.5 EXHAUST SYSTEM

PHOTO OF THE EXHAUST MANIFOLD



PHOTO OF THE EXHAUST



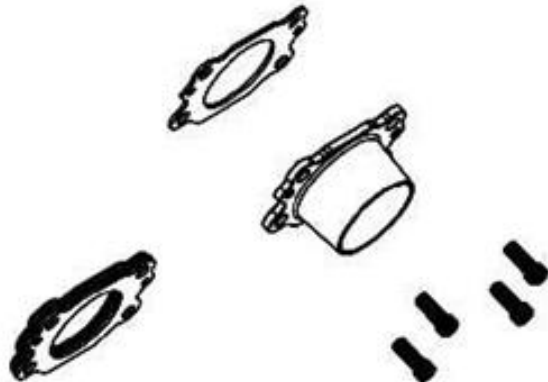
... Section D.5

*TECHNICAL DESCRIPTIONS
OF THE EXHAUST (Art. 8.9.3 of HR)*

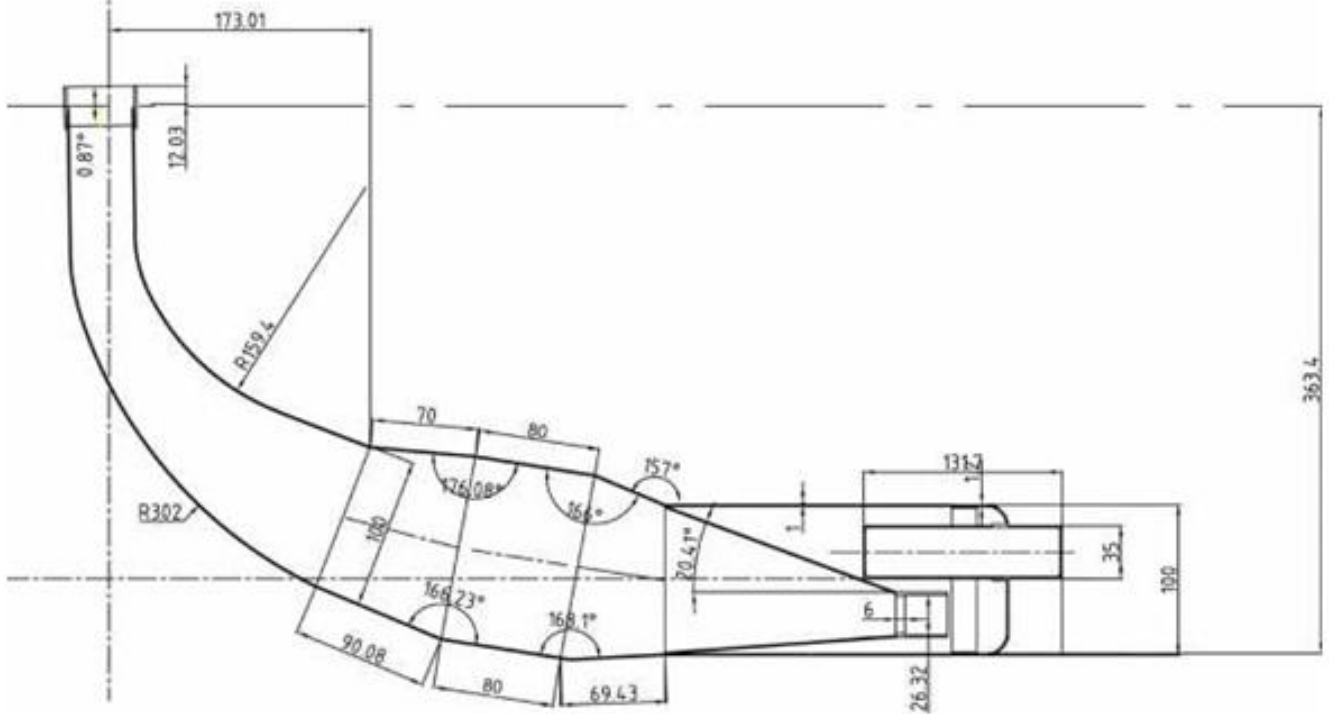
<i>Weight in g</i>	2280	<i>Minimum</i>
<i>Volume in cc</i>	4150	<i>+/-5 %</i>

TECHNICAL DRAWING

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

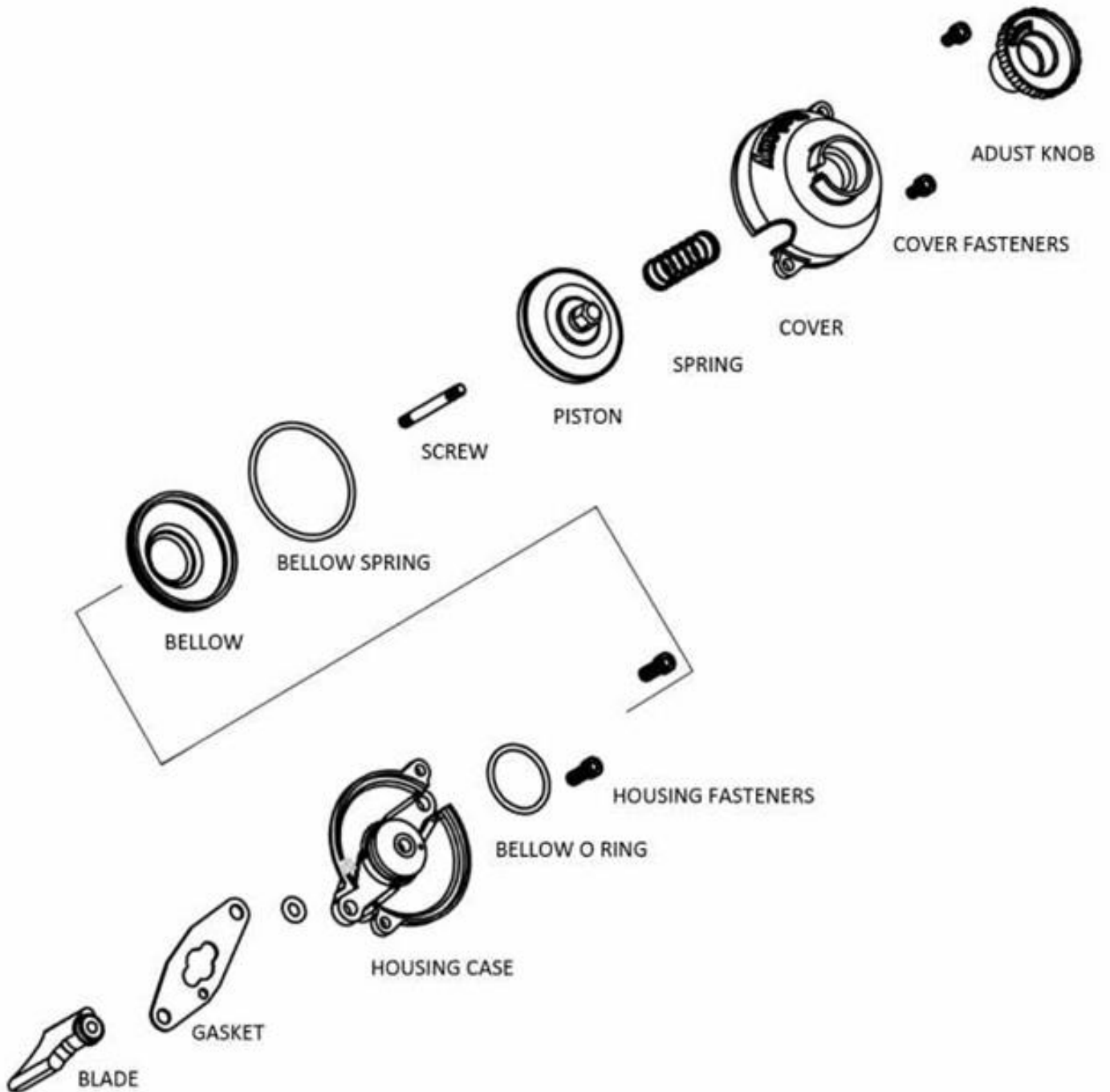


Maximum Exhaust Spacers 40mm



... Section D.5

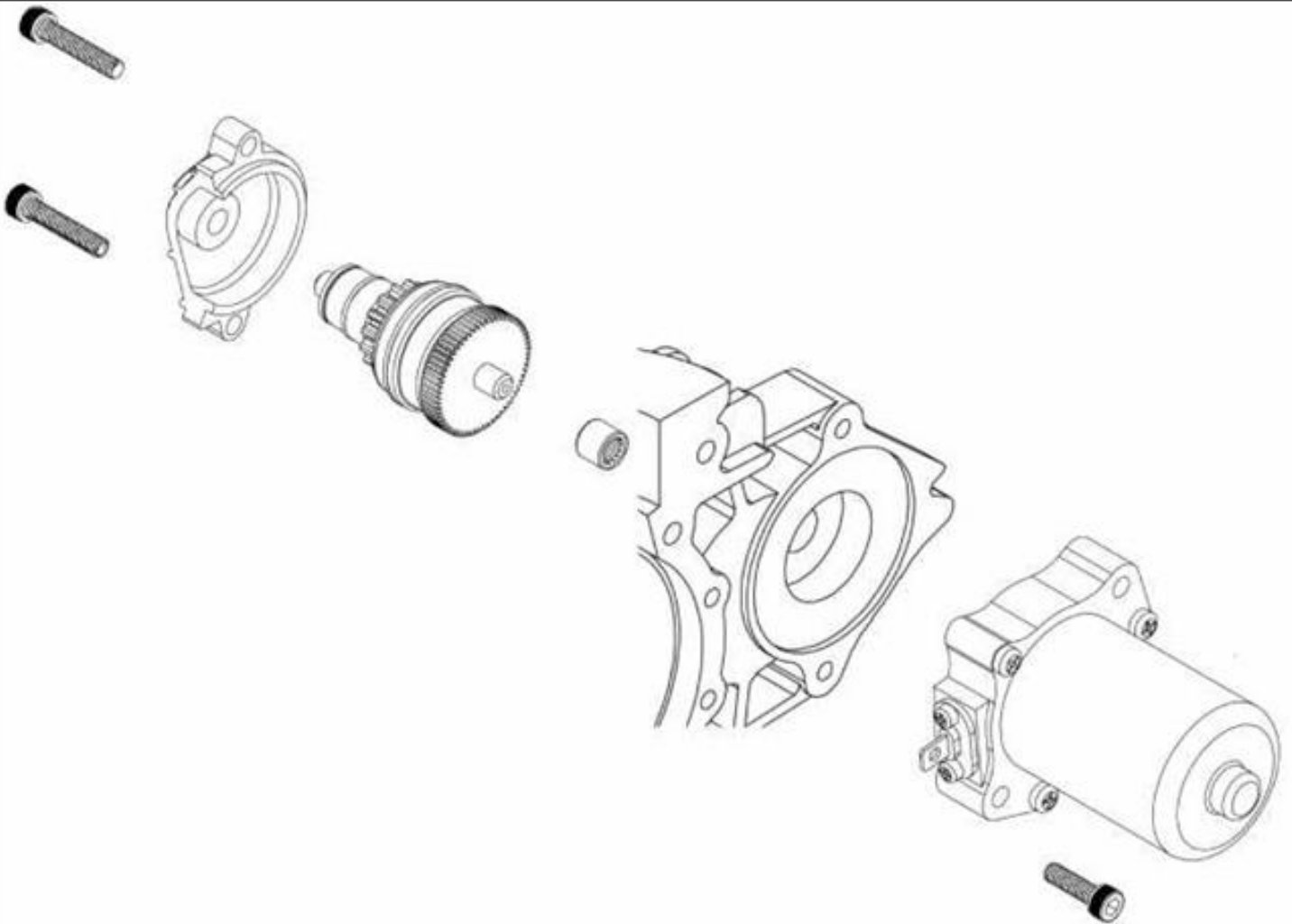
EXPLODED DRAWING AND DESIGNATION OF THE POWER VALVE COMPONENTS



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

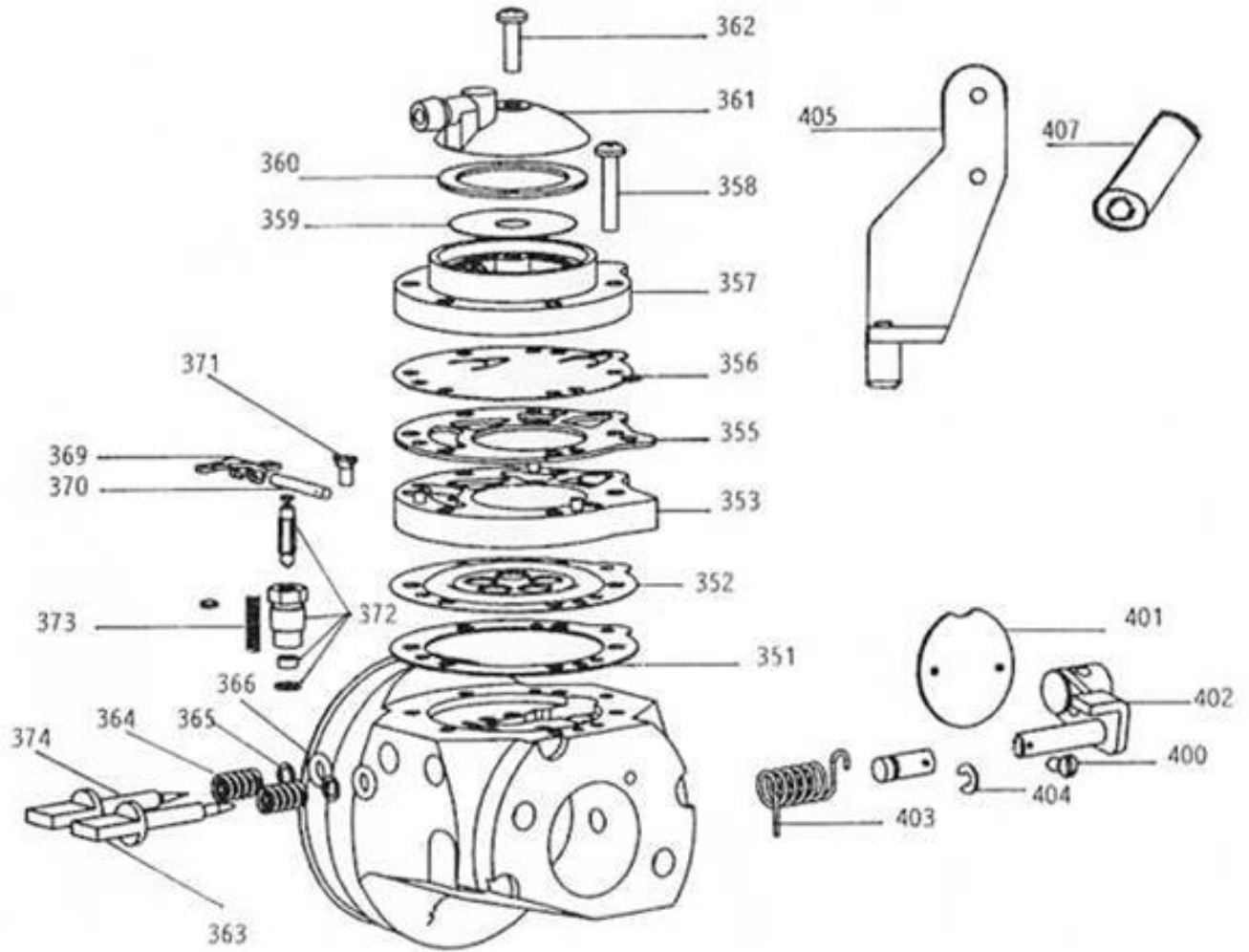
D.6 STARTER

EXPLODED DRAWING OF THE STARTING UNIT AND OF ITS HOUSING



D.7 CARBURETTOR

EXPLODED DRAWING OF THE CARBURETTOR



... Section D.7

5





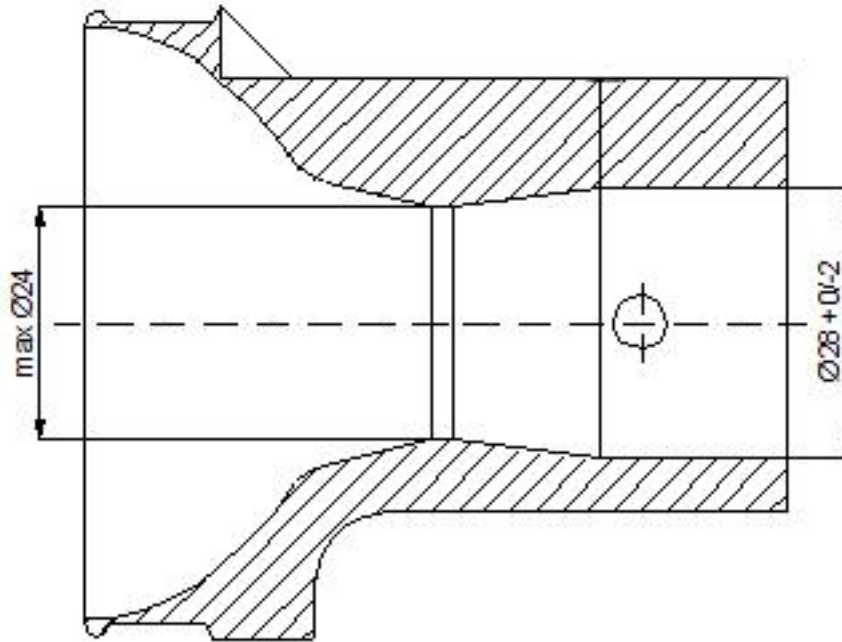
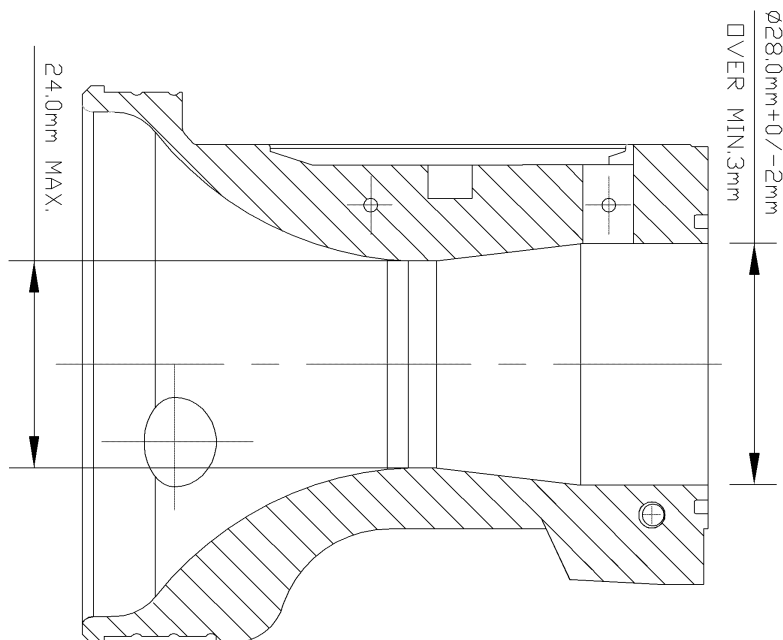
PHOTO OF CARBURETTOR	
ORIGINAL VERSION	REPLACEMENT VERSION
 <p>The original carburettor is a silver metal component with a yellow plastic top. It has a large circular air filter housing on the left side and a small adjustment screw on the right. The word "ibea" is engraved on the side.</p>	 <p>The replacement carburettor is a silver metal component with a white plastic top. It has a large circular air filter housing on the left side and two adjustment screws on the right. The word "ibea" is engraved on the side.</p>

PHOTO OF CARBURETTOR	
ORIGINAL VERSION	REPLACEMENT VERSION
 <p>The original carburettor is shown from a side view, highlighting the yellow top and the "ibea PRD 1.9" engraving on the side.</p>	 <p>The replacement carburettor is shown from a side view, highlighting the "HW 30A 451 PRD" engraving on the side.</p>

DRAWING OF IBEA PRD L9



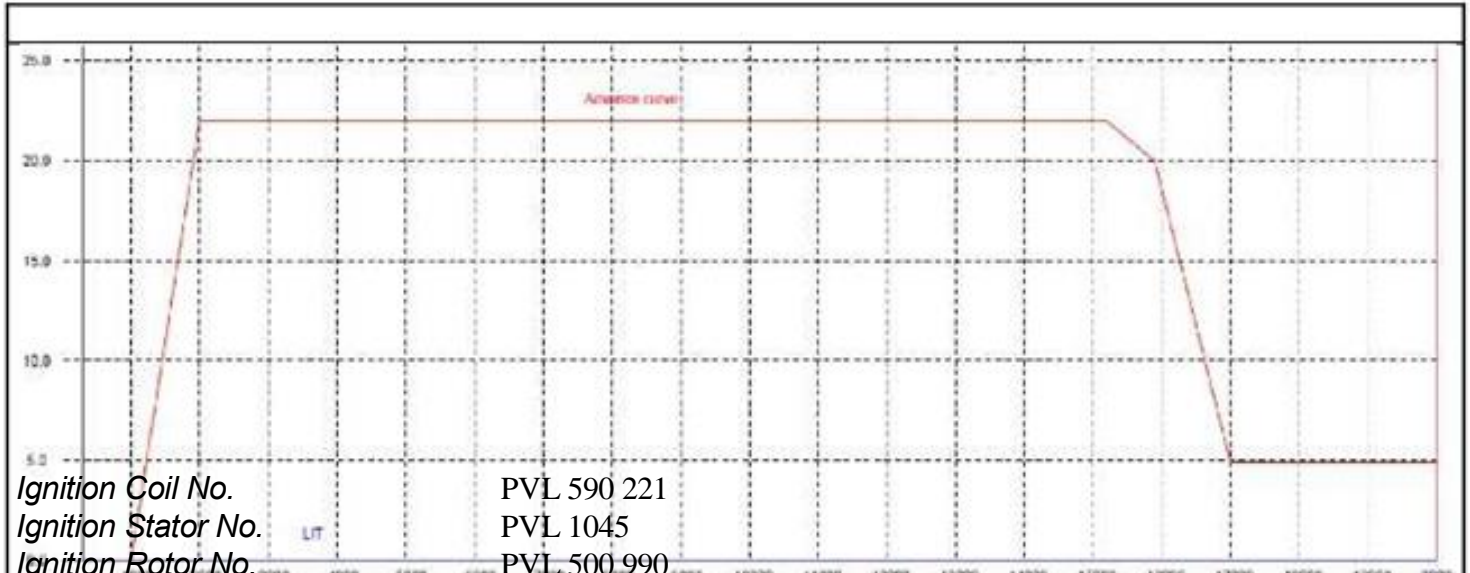
DRAWING OF TILLOTSON HW-30A PRD



D.8 ELECTRICAL SYSTEM

IGNITION SYSTEM

ADVANCE CURVE GRAPHS



Ignition Coil No. PVL 590 221
 Ignition Stator No. PVL 1045
 Ignition Rotor No. PVL 500 990
 Ignition Plug Cap No. PVL 401 222
 Or PRD Easy Start Ignition PRD0073ES19

Tr/min	1000	2000	3000	4000	5000	6000	7000	8000	10000	12000	14000	15200	15900	17000
° adv	0	22	22	22	22	22	22	22	22	22	22	22	20	5

... Section D.9

PHOTO OF THE RADIATOR



DRAWING OF THE RADIATOR
(include dimension)

