NATIONAL HOMOLOGATION FORM

Homologation N°

100H

ENGINE

Manufacturer	Pro Racing Design Co Ltd
Make	**PRD**
Model	**GALAXY**
Validity of the homologation	*6 years*
Number of pages	**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 Karting Australia

Les Allen National Technical Commissioner
17 December 2014

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

Homologation N °

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PHOTO OF THE COMPLETE ENGINE TAKEN FROM ABOVE

PHOTO OF THE COMPLETE ENGINE TAKEN FROM BELOW

Homologation N °

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TECHNICAL INFORMATION

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

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

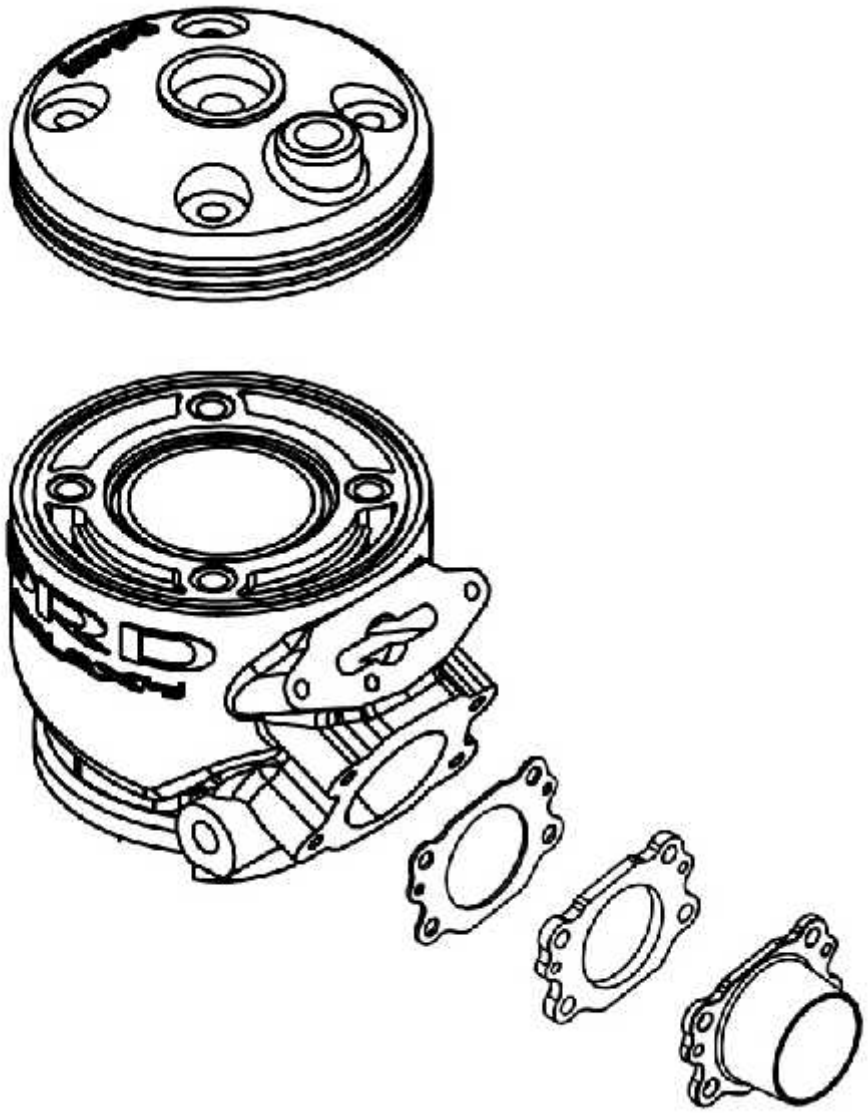
B	*OPENING ANGLES*	
Of the inlet (main transfer ports)	**126°**	ï **2°**
Of the exhaust	**191°**	ï **2°**
Of the exhaust ears	**184°**	ï **2°**
Of the boosters	**127.5°**	ï **2°**

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

D	*PHOTOS, DRAWINGS & GRAPHS*

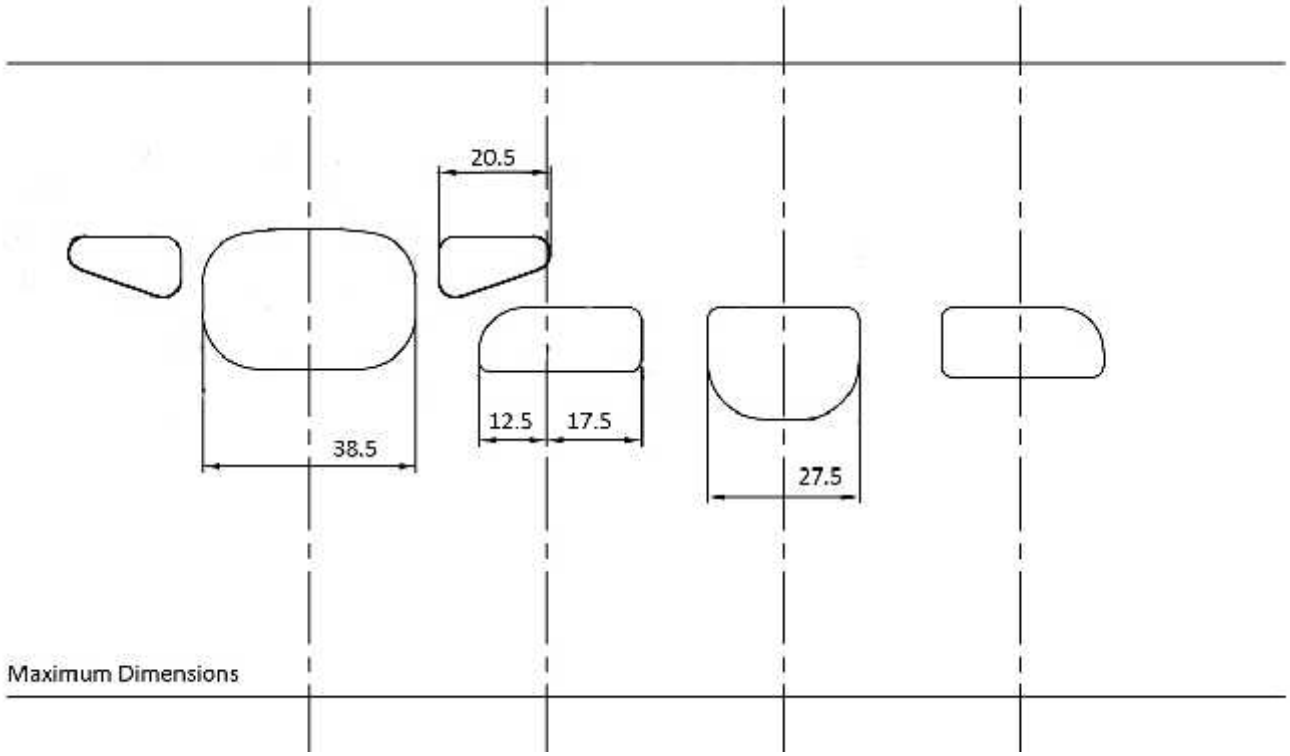
D.1 *CYLINDER UNIT*

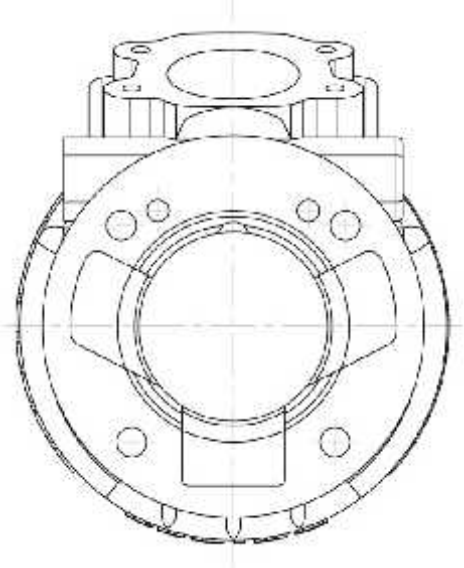
EXPLODED DRAWING OF THE CYLINDER, CYLINDER HEAD AND EXHAUST MANIFOLD UNIT



... 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

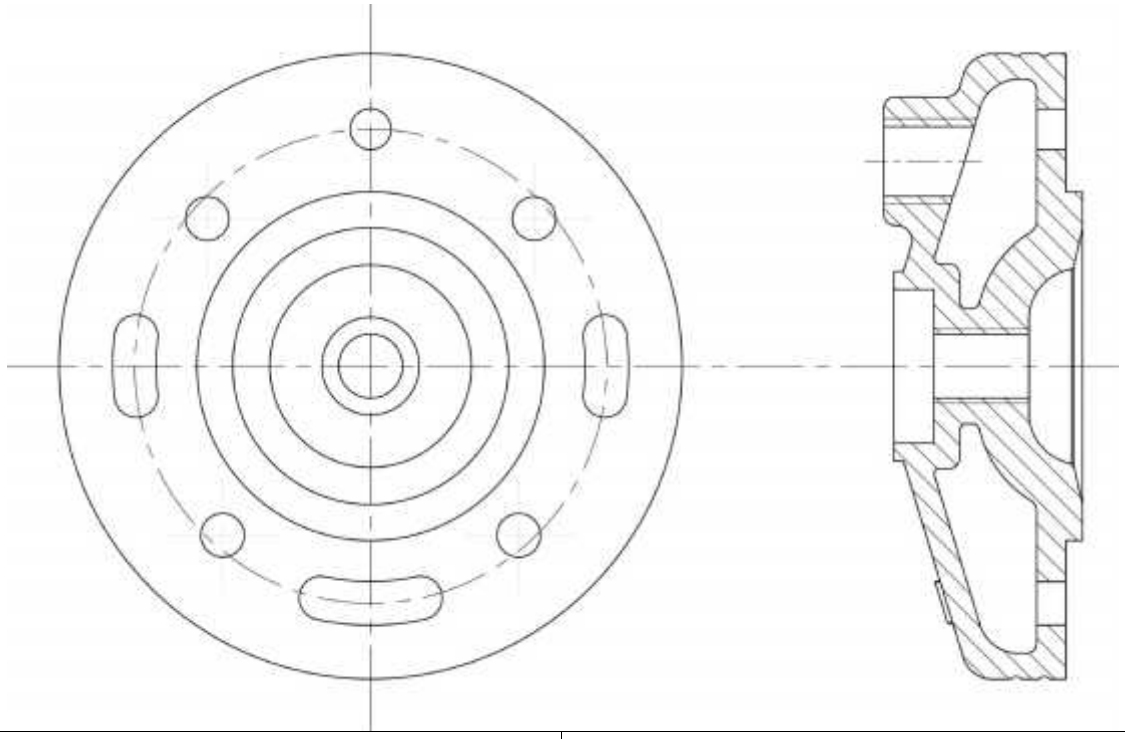


PHOTO OF THE CYLINDER HEAD

PHOTO OF THE COMBUSTION CHAMBER IN THE CYLINDER HEAD

... Section D.1

VERTICAL CROSS SECTION VIEW OF CYLINDER WITH LINER, without dimensions

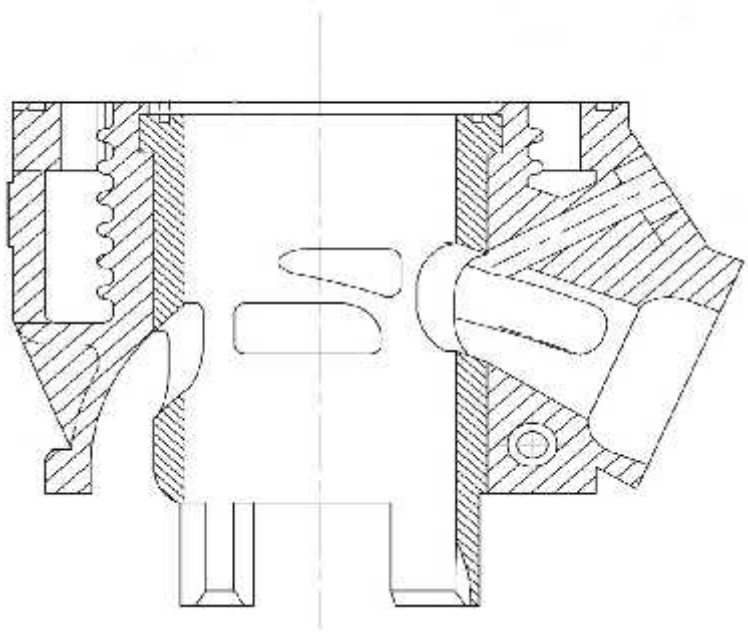
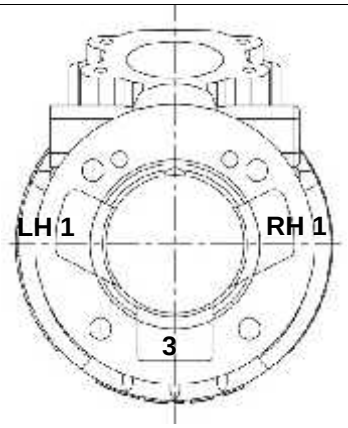


PHOTO OF THE CYLINDER FROM ABOVE

PHOTO OF THE CYLINDER FROM RH SIDE

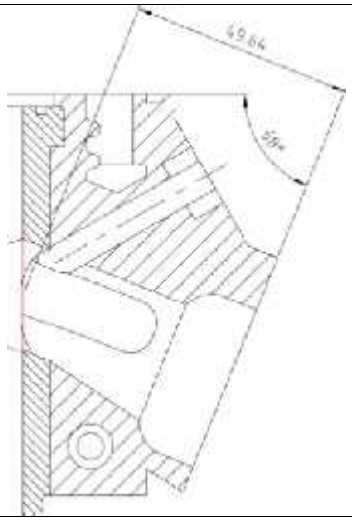
... Section D.1

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 ~ *in* **°**	**Minimum** *in* **mm**
	68° +/-1°	49.64 mm +/-1.00

The L min. dimension will be the result of the value taken on the reference engine minus 5 mm.

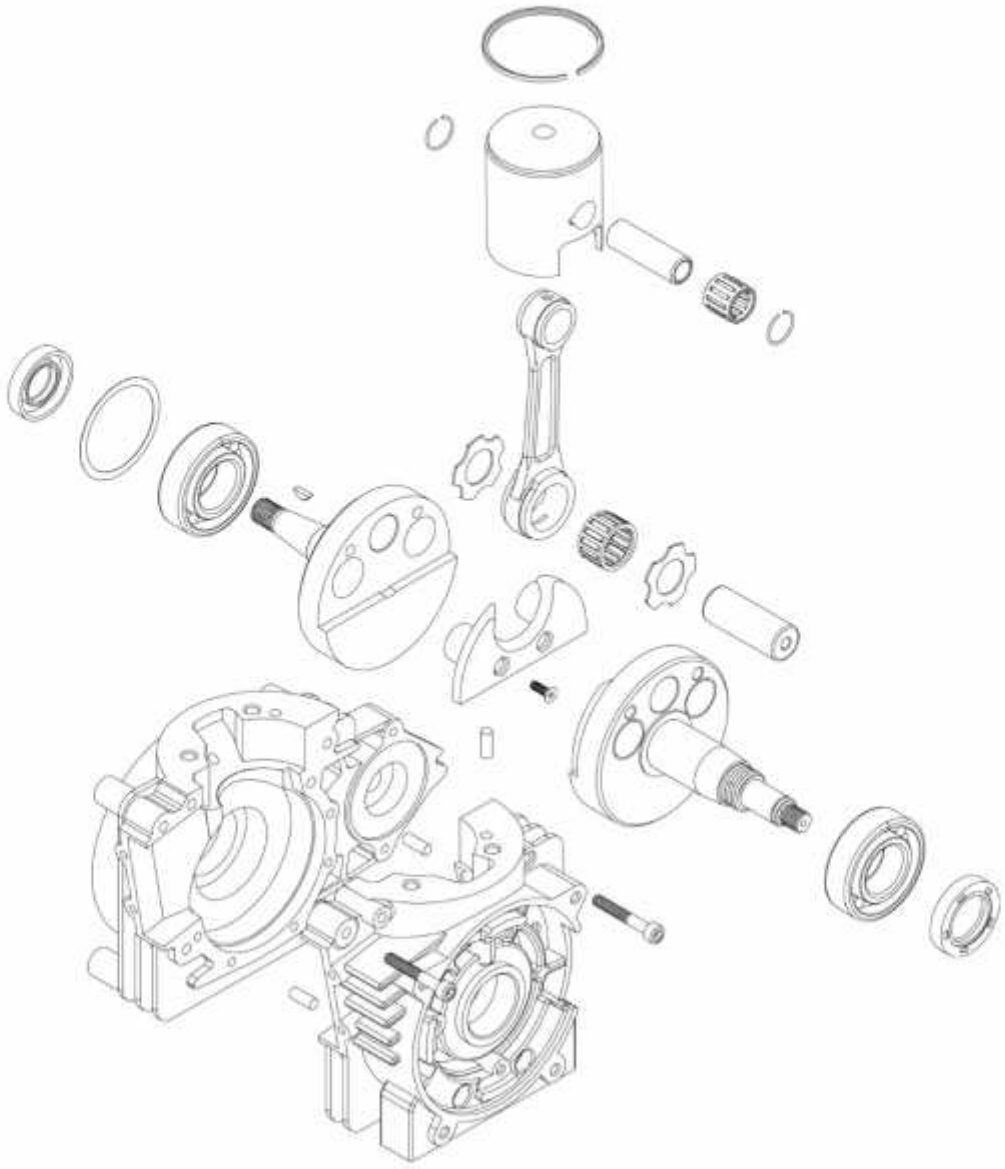
Technical Drawing No.13



- *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.*

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

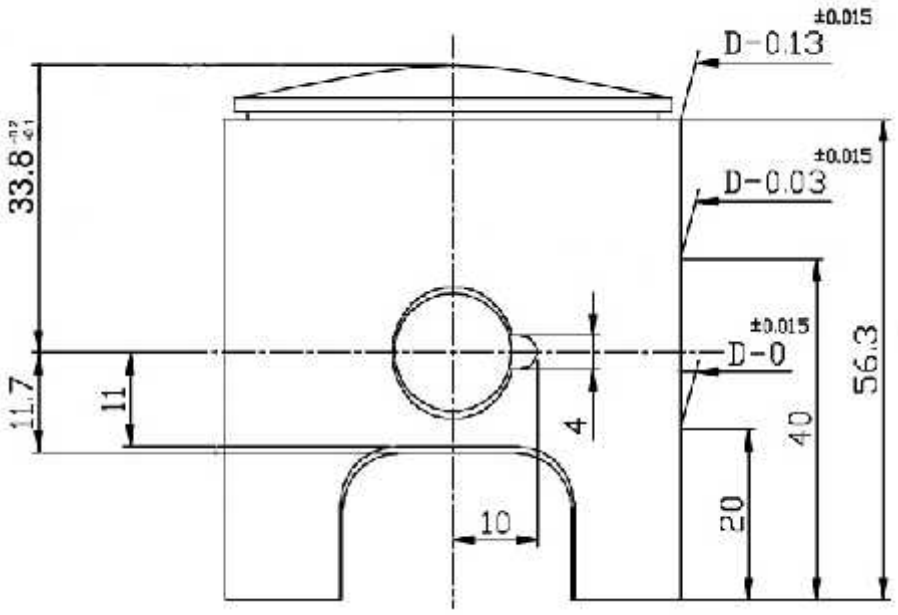
EXPLODED DRAWING OF THE PISTON, CRANKSHAFT, CONNECTING ROD AND CRANKCASES UNIT (exploded crankshaft)



...Section D.2

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

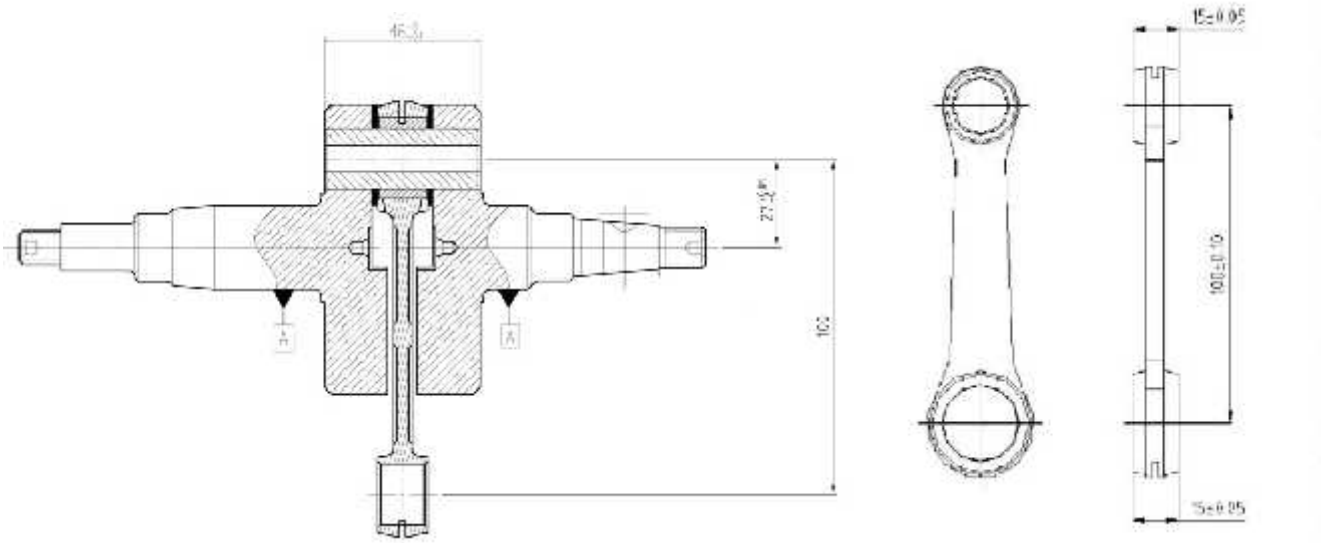
DRAWING OF THE PISTON (MAIN DIMENSIONS incl. tolerances)



...Section D.2

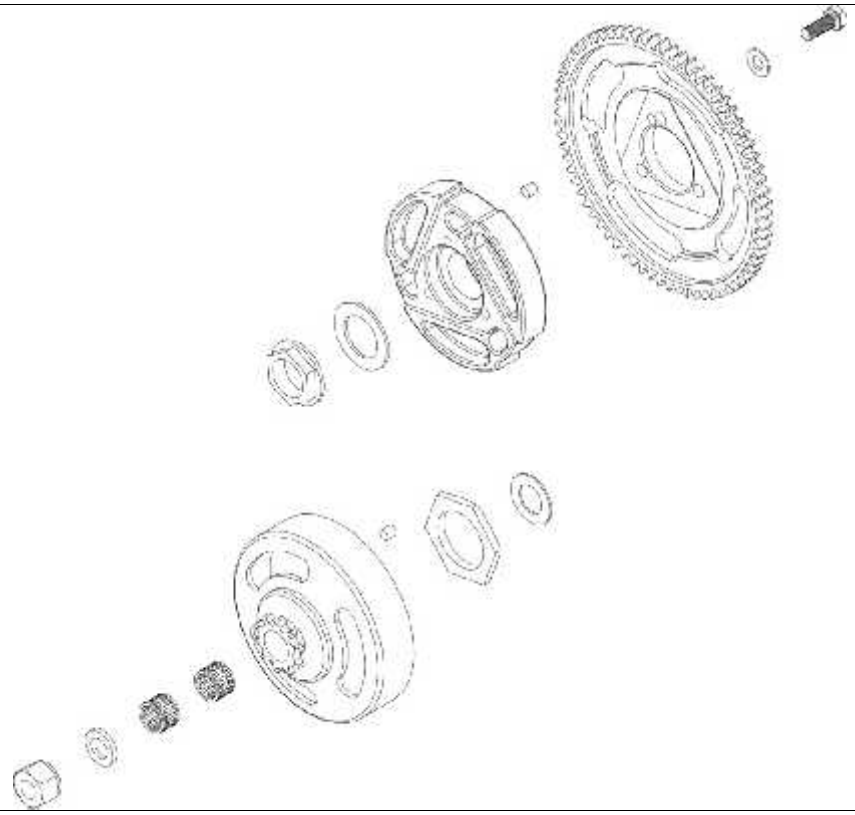
PHOTO OF THE INSIDE OF THE RH CRANKCASE	*PHOTO OF THE INSIDE OF THE LH CRANKCASE*
	

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

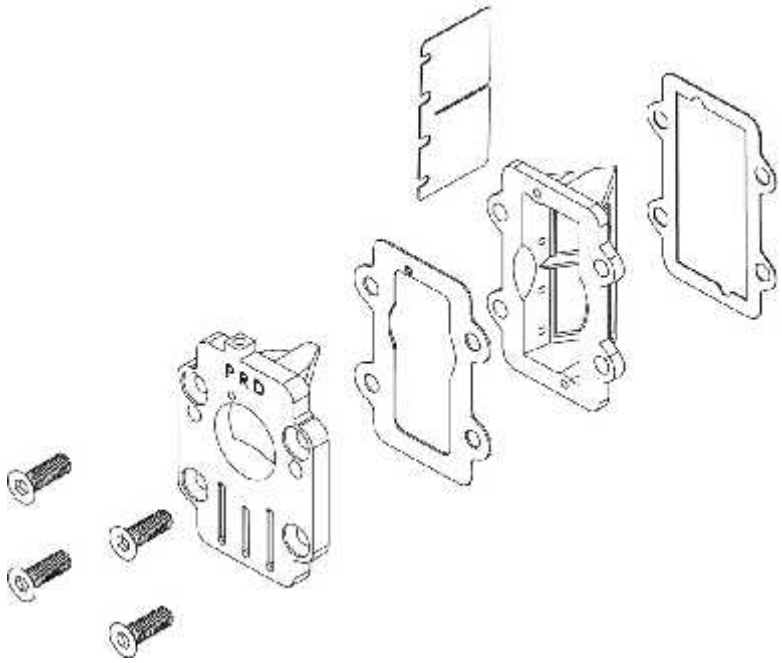


D.4 ***REED VALVE & CLUTCH***

TECHNICAL DRAWING (exploded view) OF THE CLUTCH ASSEMBLY



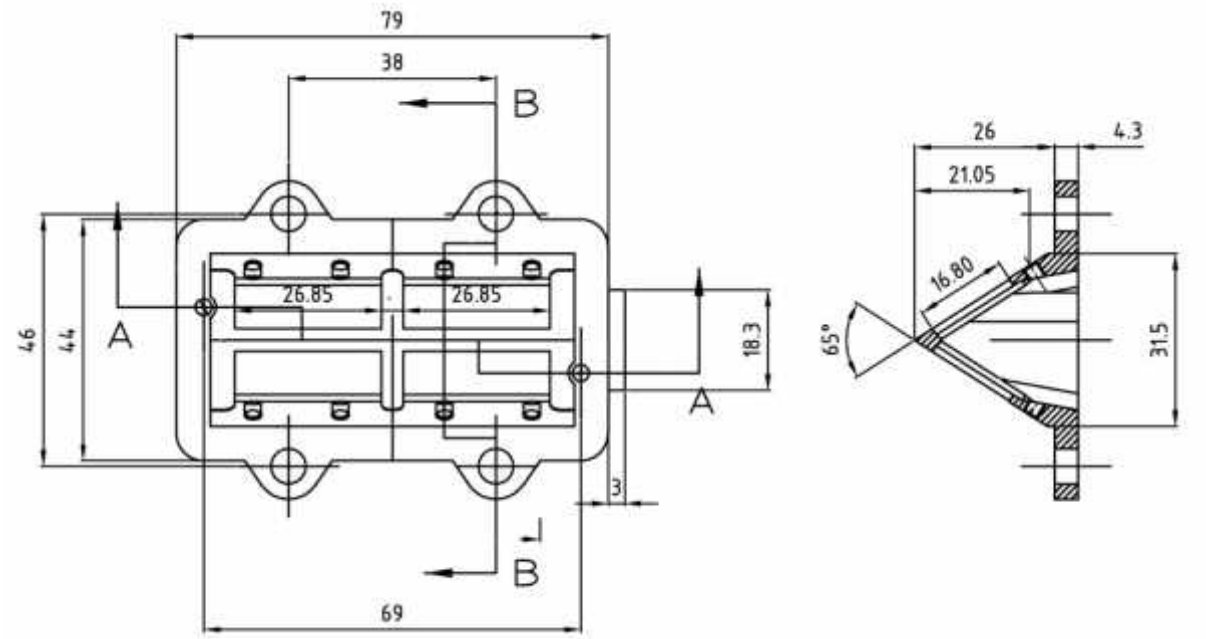
TECHNICAL DRAWING (exploded view) OF THE REED VALVE



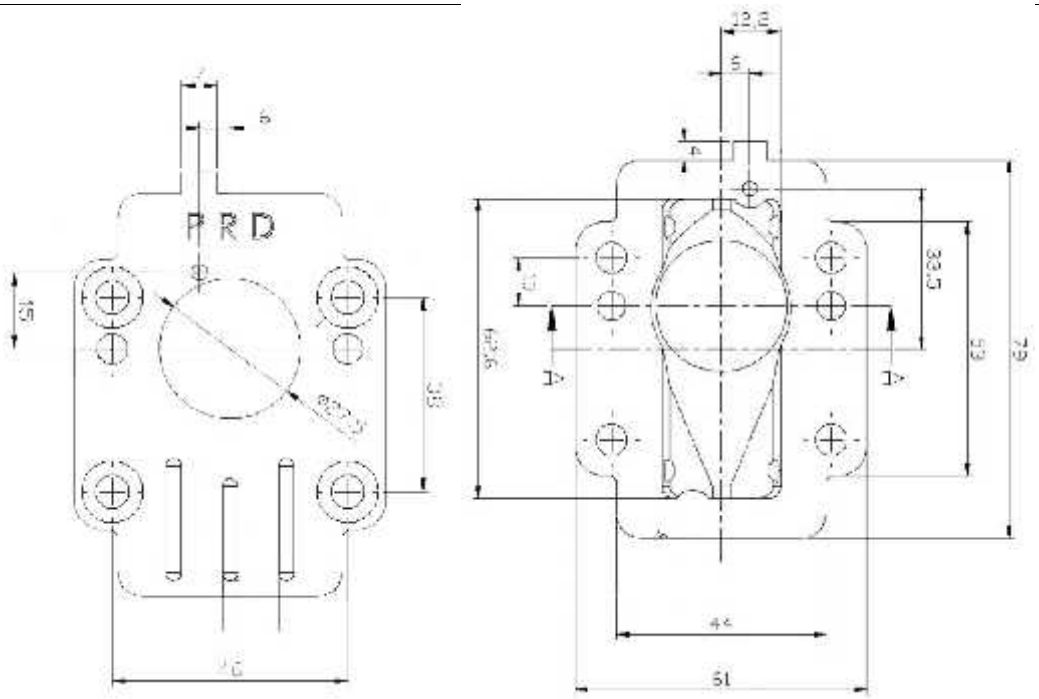
PRD Fibre Glass or PRD Carbon Fibre Petals only.

... 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

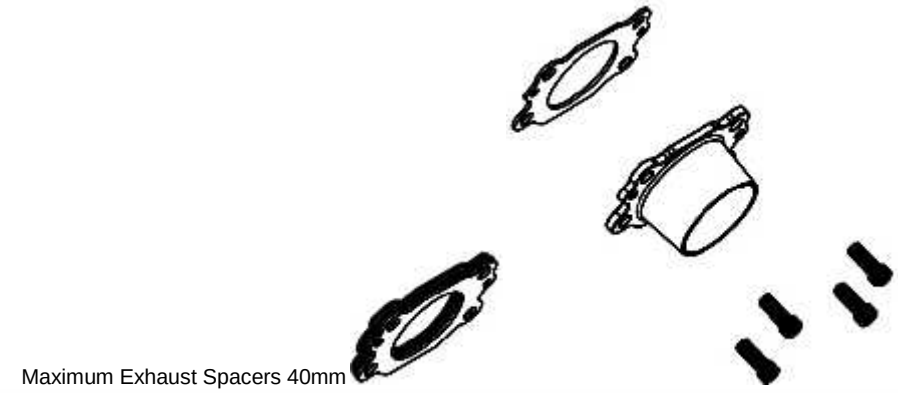
PHOTO OF THE EXHAUST

... Section D.5

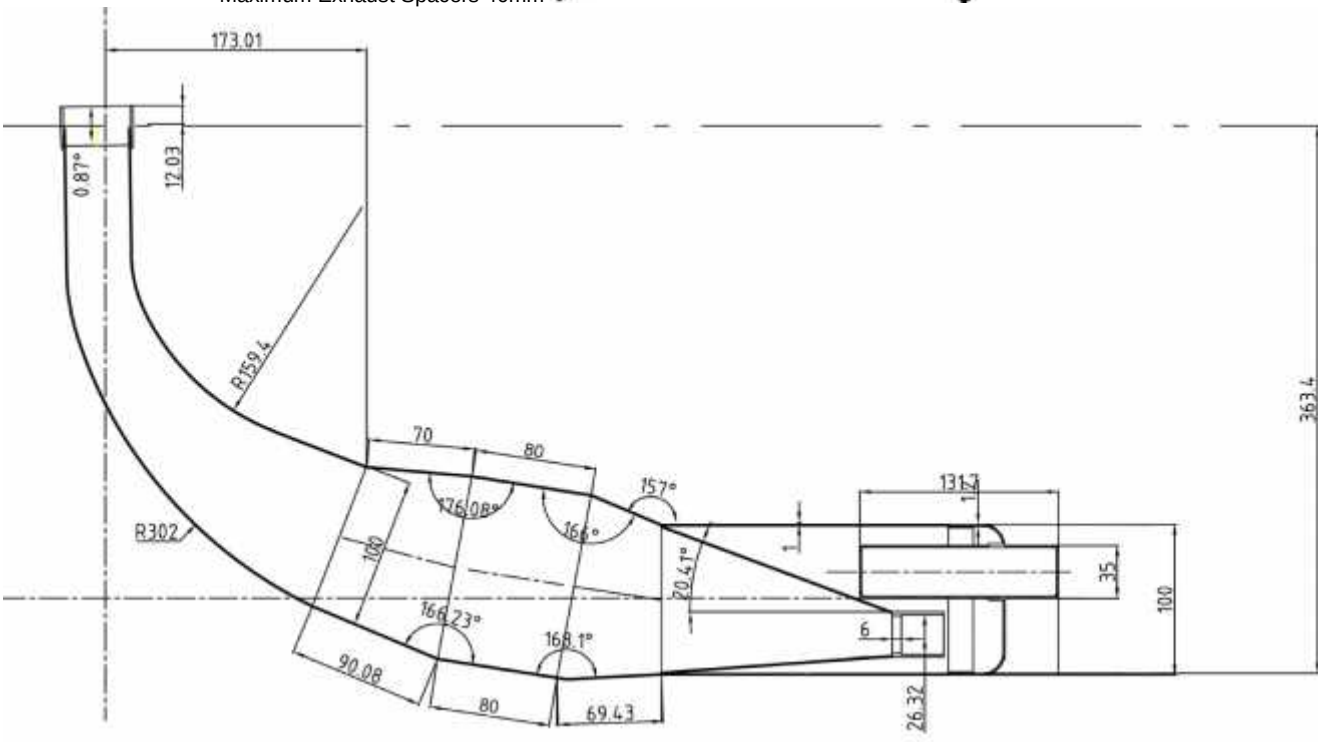
TECHNICAL DESCRIPTIONS OF THE EXHAUST (Art. 8.9.3 of HR)		
Weight in g	**2280**	*Minimum*
Volume in cc	**4150**	*+/-5 %*

TECHNICAL DRAWING

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

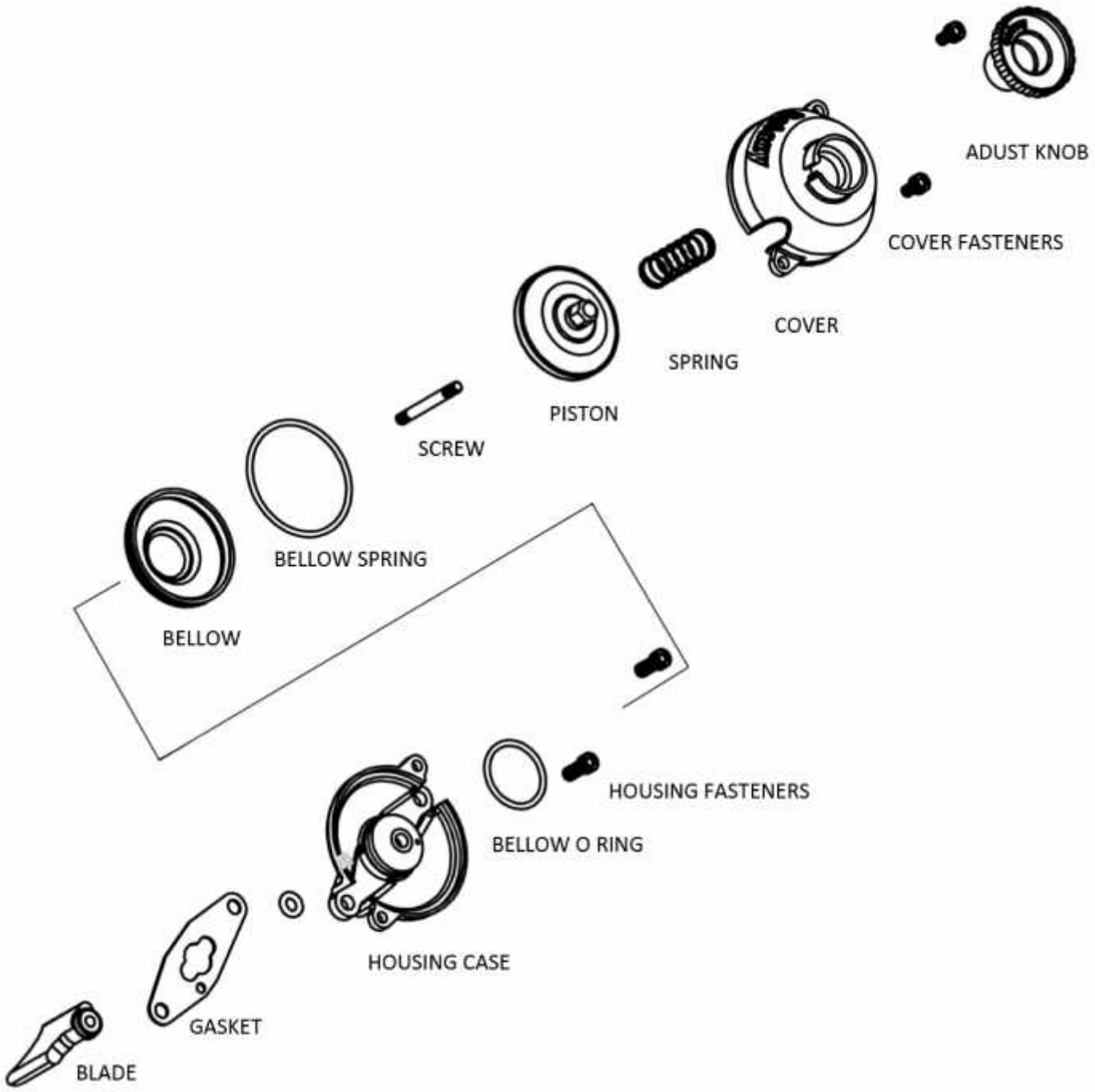


Maximum Exhaust Spacers 40mm



... Section D.5

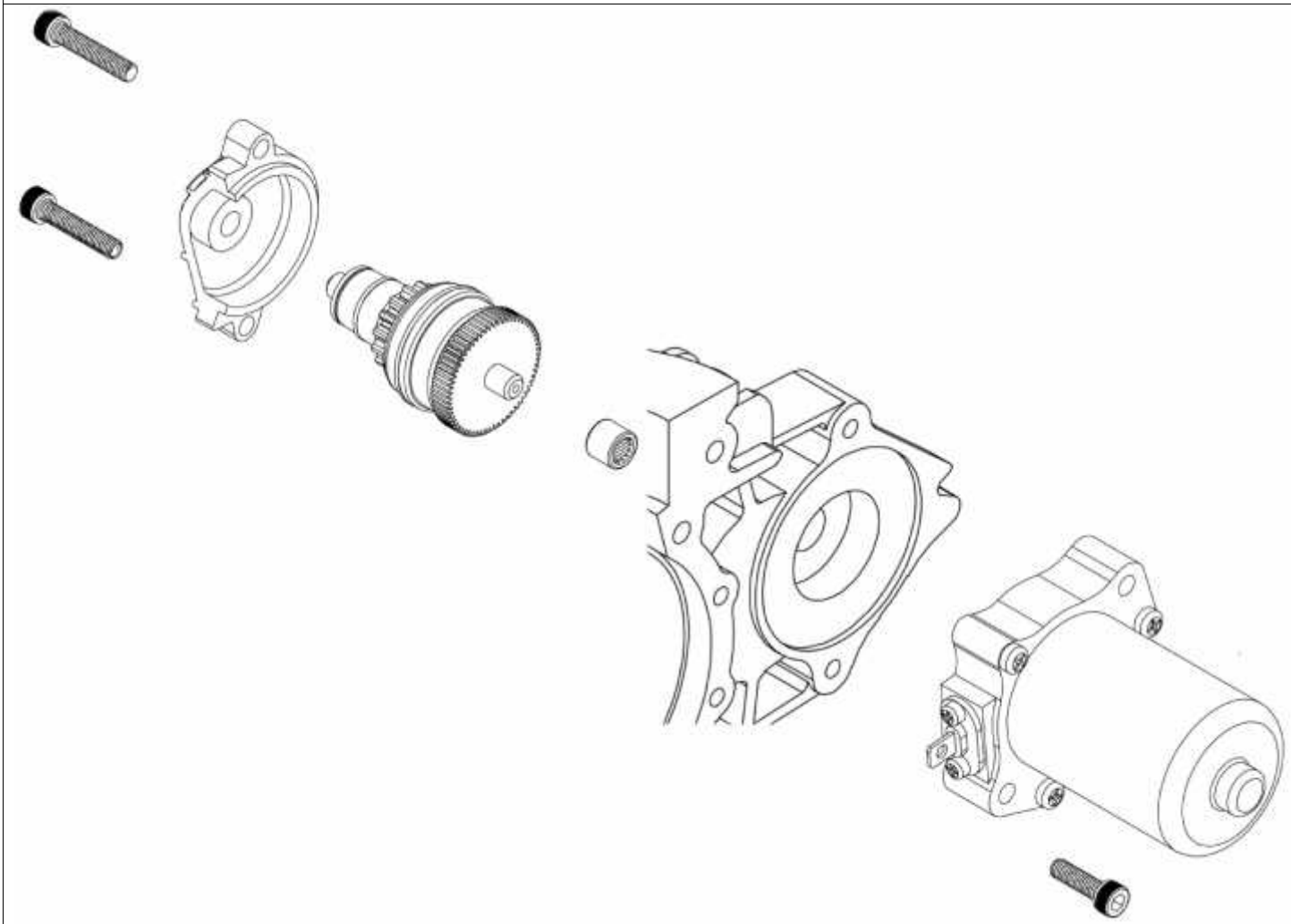
EXPLODED DRAWING AND DESIGNATION OF THE POWER VALVE COMPONENTS



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

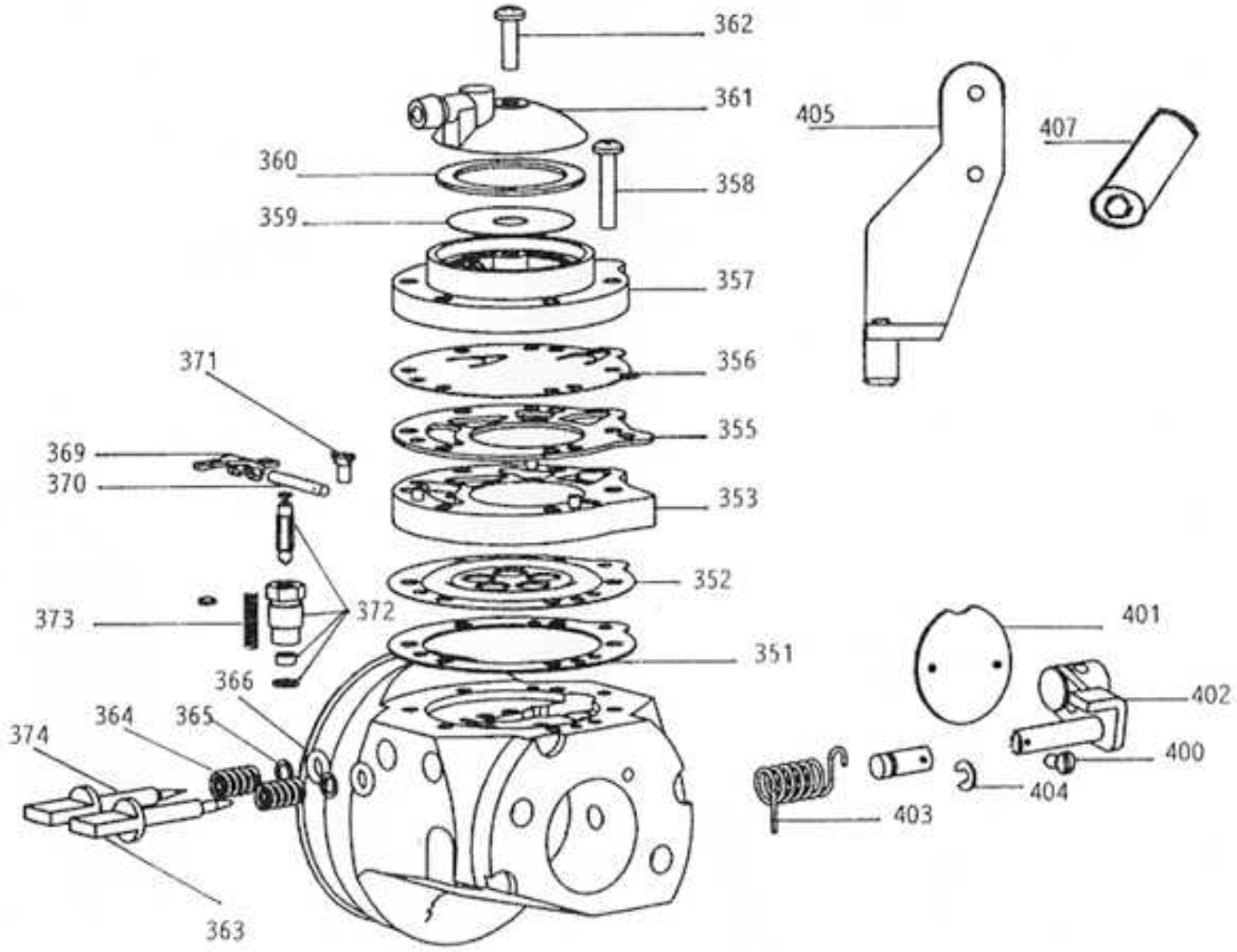
D.6 *STARTER*

EXPLODED DRAWING OF THE STARTING UNIT AND OF ITS HOUSING



D.7 *CARBURETTOR*

EXPLODED DRAWING OF THE CARBURETTOR

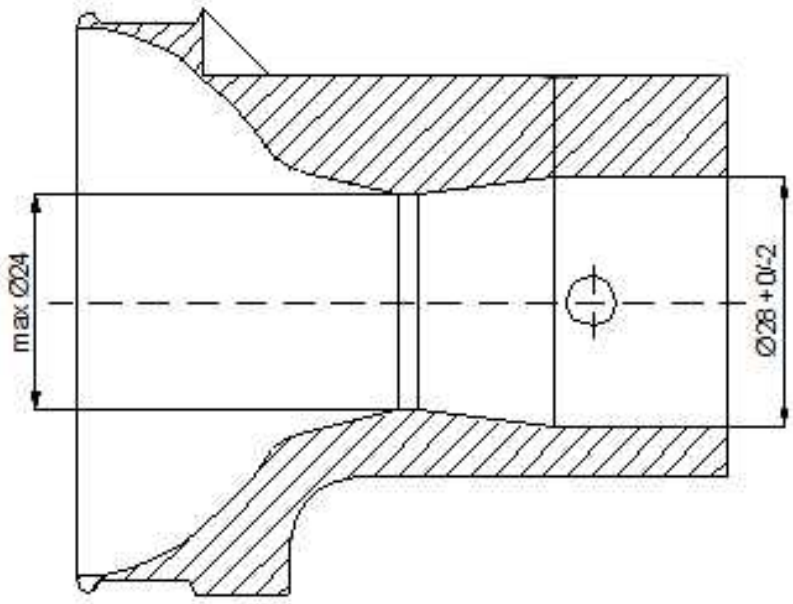


... Section D.7

PHOTO OF THE CARBURETTOR
(include markings)

Must be marked PRD L9

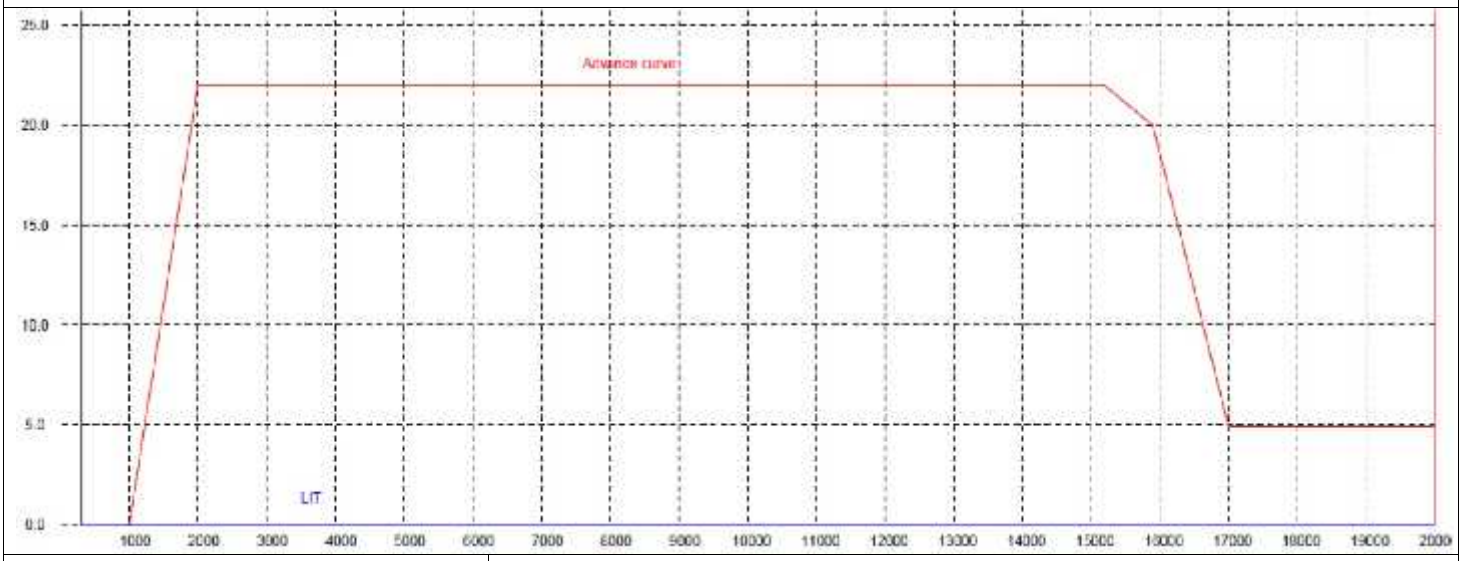
DRAWING OF THE CROSS SECTION OF THE CARBURETTOR
(include passage dimension)



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)