

POLARIS XC 700 -98

M. Performance
Tel: 0250-71321

Engine Basic Spec

Bore	81mm
Stroke	68mm
Con-Rod	136mm
Total cc	700.8cc
Bore/Stroke Ratio	
Rpm Peak HP	rpm
HP,max	hp
Rpm Peak Torque	rpm
Torque,max	lb-ft
BMEP Hp Peak	psi
BMEP Hp peak	bar
Piston Speed	m/s
Piston Speed	ft/min
Fuel Flow	
Air Flow	
A/F	
BSFC	

Head Basic Spec

Geometric CR/1	11.45 : 1
Trapped CR/1	6.06 : 1
Used Head Gasket	o-ring
Deck Clearance	0.68mm
Head Step Cut	0.86mm
Total Squish Clea.	1.54mm
Head Bore	81mm
Used Cylinder gasket	0.4mm
Est. Crank Press.	133 psi
Est. Octan R+M/2	87

Head Volume

Deck Volume	3.50
Port Closed Vol.	169.64
Head cc Flat Plate	40cc
Head cc Installed	33.5cc

Head Design

Type	central
Bowl Width + ble. rad.	mm
Squish Width	13.3mm
Squish Angle	11 °
SAR	0.55
Total deep	19.8mm

Head Squish Action

Squish Velocity	34.3m/s
Squish Pressure Ratio	1.077
At deg bt/dc	11.05°

Std. Piston Spec

Skirt Length	71 mm
Pin c. to up length	33.14mm
Pin c. to down length	37.86mm
Pin c. to trans inlet	mm
Wrist-Pin diameter	20mm
Thickness of Rings	2 * 1.4
Dome Ang under Sq.band	9.8°
Dome volyme,cc	9.97
Weight Pist. + Ring	377g
Weight wrist pin	44.5g

Intake Port Spec

Est. Carb size on area	mm
Est. Carb size on cc/rpm	mm
Intake gas velocity est.	fps
Estimated HP	hp
Estimated Bmep	psi

Transfers Spec

Main port roof to top	51.8mm
M-port liner width	31mm
M-port chordal width	29mm
M-port angle up	12°
5-Port roof to top	51.8mm
5-port liner width	26.7mm
5-port chordal width	21.3mm
5-port angle up	25°
Boost port roof to top	51.8mm
Boost port width	27.6mm
Boost port angle up	32°
Total area	2004mm ²
Time-Area	10.52
S-sg mm	3.68
Opens	113.38°
Duration	133.5°

Upper radius	16mm
Lower radius	22mm
Sub Port upper height	38.5mm
Sub port lower height	47.8mm
SUB port choke point	9,8 * 9,8
Max width	54.9mm
Blowdown width	53.5mm
% of bore width	67.8 %
Port Opens	81.05 °
Duration	197.91 °
Blowdown deg.	32.3°
Total Area	1810mm ²
Blowdown Area	1115mm ²
Lower Area	695mm ²
Time-Area	13.88
Time-Area,blowdown	8,72
S-sg mm	4.86
Angle-Area	6.70
Estimated HP	124.6 hp
Estimated BMEP	144.3psi
Est. Blowdown HP	129.6 hp
Est. Blowdown BMEP	136 psi
Length of port	43mm
I.D of port	48mm
Estimated port i.d	47.4mm
Exh. gas velocity est.	fps

Carburetor Spec

Typ	Kehin
Main Jet	
Mj based on sae Rad	%
Mj based on air temp,c	+
Jet Needle	
Needle Jet	
Throttle valve cut.	
Pilot Jet	
Air Screw	

Ignition Spec

Btdc at 3000 rpm,mm	
Btdc at 3000 rpm,deg	°
Btdc at 7500 rpm,mm	
Btdc at 7500 rpm,deg	°
Spark plug	
Spark plug gap	
Cdi box id. #	
Alternator output	watt

MULLE Tuesday 18 April 1995

Exhaust Spec.

Dist. to top	33.6mm
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