

YAMAHA V-MAX 83-87 std

Engine Basic Spec

Bore	73
Stroke	64
Con-Rod	116
Total cc	535.8
Bore/Stroke Ratio	1,14
Rpm Peak HP	8250
HP,max	86.4
Rpm Peak Torque	7500
Torque,max,lb-ft	57
BMEP Hp Peak,Psi	125.1
BMEP Hp peak,Bar	8,62
Piston Speed,m/s	17.52
Piston Speed,ft/min.	3450
Liter/Hk	163.5
Fuel Flow	58
BSFC	0,69

Head Basic Spec

Geometric CR/1	12.75
Trapped CR/1	6,70
O-Ring	0.10
Deck Clearance	0.20
Head Step Cut	1.30
Total Squish Clea.	1.50
Head Bore	73.2
Used Cylinder gasket	0.40
Est. Octane R+M/2	93
Est. Crank Press,PSI	147

Head Volume

Gasket Volume	0.44
Deck Volume	0.84
Port Closed Vol.	129.75
Head cc Flat Plate	27.5
Head cc Installed	22.79

Head Design

Type	Offset
Bowl Width - ble.R	41.2
Bowl Width + ble.R	41.8
Bowl Radius	20
Squish Width,offset	7,5 + 17,4
Squish Angle	16.5°
SAR	0.593
Total deep	19.3
Blending Radius	1.5
Head width	37.4

Head Squish Action

Squish Velocity m/s	42.2
Squish Pressure Ratio	1,072
At deg btcd	11.34
Kinetic Energy mj	24.5

Std. Piston Spec

Skirt Length	70
Width intake side	57.8
Pin c. to up length	36.2
Pin c. to down length	33.8
Pin c. to trans inlet	15.8
Wrist-Pin diameter	20
Thickness of Rings	2 * 1.2
Dome Height	3.4
Dome Ang under Sq.band	9°
Dome volyme,cc	5.98
Weight Pist.	295g

Intake Port Spec

Port intake diam.	44.5
Length in port	37.9
Dist. to top	75.7
Dist. to bottom	104,8
Port open mm	29.1
Number of ports	2
Width of each	22.2
Width total	52
Upper right radius	5
Upper left radius	2
Lower right radius	5
Lower left radius	2
Port area	1503
Time-Area	12.76
Angle-Area	6,28
Duration	171,84
A.T.D.C	85,9
% of bore width	71.2
Est. Carb size on area	41,5
Est. Carb size on cc/rpm	37
Intake gas velocity now est.	212
Estimated HP	82
Estimated BMEP,Psi	121,1

Transfers Spec

Main port roof to top	48.8
M-port bottom to top	64.9
M-port liner width	29.6
M-port chordal width	22.5
M-port angle up	19°
5-Port roof to top	49.8
5-port bottom to top	64.9
5-port liner width	24.7
5-port chordal width	17
5-port angle up	5°
Total area	1137
Time-Area	6.77
S-sg mm	2.03
Good to bmep/hp	124 / 84
Opens	113.6°
Duration	132.8°
TAW T/B ratio (ch)	1.01
TAW T/B ratio liner	1.49
Trans Inlet,mm	110.6
Inlet to port area ratio	1.5
Length of ports	64 + 8.8

Exhaust Spec.

Dist. to top	31.2
Upper radius	24
Lower radius	14
Max width	52.1
Blowdown width	52.1
% of bore width	71.4%
Port type	rectangular
Port Opens	80.34°
Duration	199.3°
Blowdown deg.	33.3°
Total Area mm ²	1388
Blowdown Area mm ²	670
Lower Area,mm ²	718
Time-Area	13.72
Time-Area,blowdown	6,89
S-sg mm	3.67
Angle-Area	6.77
Estimated HP	82.8
Est. Blowdown HP	72.4
Estimated BMEP,Psi	122.4
Est. Blowdown BMEP.Psi	107
Length of port	53.1
I.D of port	41.7
Exh. I.D good to ,rpm	7500
Exh. gas velocity est.fps	176
Est. port i.d,based on port	42

Carburetor Spec

Type	Mikuni vm 38
Stock Main Jet	290
Main Jet on Dyno	290
Mj based on air temp,c	+27
Mj based of barometer	30,26
Mj based on vapor press.	0,60
Jet Needle	6DH1-4
Needle Jet	480-Q-0
Throttle valve cut.	
Pilot Jet	40
Air Screw	0.5

Ignition Spec

BTDC	1.60mm
BTDC,6000rpm	27°
BTDC,7000rpm	24°
BTDC,8000rpm	19°
BTDC,8500rpm	16°
BTDC,9000rpm	13°
CDI	Hitachi T1AO1-43
Spark Plug	BR9EV

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