

Setup info for PVP 251 Motor

Important: Use only fuel supply system with, filter, vacuum pump, regulator & pressure gauge [Click here](#)"

Specification

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Cylinder and Piston

Cylinder 93 mm. high Bore: 54,00 maximum 54,035, Stroke: 54,5 mm	Piston /Cylinder Clearance: 0.07 mm.		Squeeze 0.8 in the front cylinder (insert 2.25) Squeeze 0.85 in the rear cylinder (insert 2.2)
	Cylinder diam.	Piston	
	54.01	53.94	
	54.02	53.95	
	54.03	53.96	

Cylinder 91 mm. high. use piston number 3965

Minimum bore is is 53,025 for piston 53.965 and the minimum clearance is 0.06 mm.

Insert for cylinder head

The number on the insert 2.2, 2.25, 2.3 and 2.35 is the distance the insert is go down into the cylinder, so by change this you will change the compression and the Squeeze,

The insert with 2,2-1, 2,25-1, 2,3-1 and 2,35-1 have 0.8 cc smaller volume than the insert without -1, with this 8 deferent insert can you find the compression there is maximum for the fuel you use.

Recommended insert for 91 mm. high cylinder with 102 octane unladed petrol (ELF SK35) or same quality is:

Front part no. 331 (2.3-1) Rear part no. 330 (2.25-1)

If you have detonations then go one step down, Front part no. 330 (2.25-1) Rear part no. 329 (2.2-1)

If you not have any detonations can you try to go one step up. Front part no. 332 (2.35-1) Rear part no. 331 (2.3-1)

Recommended maximum EGT if you measure 150 mm. out in the exhaust from there the steel start. 580 to 600 Dg. Celsius.

Ignition

Ignition unit: PVL	Ignition timing: 5.4 mm before T.D.C.	Spark plug: NGK B10EGP
If you have problem with it burning a hole in the middle of the piston then	Reduce the ignition timing to be twin 5.0 and 5.2 mm. before T.D.C.	If you have problem with detonation then increase the volume of the combustion camber

Rotary valve

Rotary valve timing: model 2006	Opens: 48.5 mm. before T.D.C.	Closes: 27.3 mm. after T.D.C.
Rotary valve timing: model 2007	Opens: 51.4 mm. before T.D.C.	Closes: 28.8 mm. after T.D.C.

Primary drive

	clutch axle / rear crankshaft	Reduction
Primary reduction ratio:	58 : 26	2.2308

Gearbox

	Standard	Reduction	Part number	Rotax number on gear
1 st. gear low	32 : 12	2.6666	611 : 512	4949 : 467
1 st. gear medium	31 : 12	2,5833	613 : 512	5904 : 467
1 st. gear high	31 : 13	2.3846	615 : 514	4944 : 462
2 nd. gear low	29 : 15	1,9333	621 : 523	4964 : 4950
2 nd. gear high	28 : 15	1.8666	624 : 523	4080 : 4950
3 rd. gear	22 : 14	1.5714	632 : 542	5924 : 5910
4 th. gear	23 : 17	1.3529	642 : 542	5933 : 5910
5 th. gear	22 : 18	1.2222	654 : 554	5954 : 5940
6 th. gear low	23 : 20	1.15	663 : 564	5976 : 5966
6 th. gear high	21 : 19	1.1052	666 : 566	5975 : 5965

Gear box oil	In primary drive	In gear box
Castrol Syntrox 75-90	0.2 Liter	0.4 Liter

Recommended sprocket for motor and rear axle

Motor: 22 T. 23 T. 24 T. 25 T. 26 T.	Rear axle: 29 T. 30 T. 31 T. 32 T. 33 T.
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Chain

To not overload the chain use minimum 22 T. on the motor and minimum 29 T. on the rear axle, for front and rear sprocket together have minimum 52 T, so you not overhead the chain.	For lubrication of the chain, use Molykote Longterm W2
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Fuel supply system

Fuel pump	Fuel pressure	Pressure Regulator	Fuel Filter
Mikuni puls pump	0.15 to 0.18 Atu.	Part no. 4010	Part no. 4036

Torque for bolt and nuts

M6	M8	M18x1,5	M22x1.5	Plug screw
10 Newton	20 Newton	90 Newton	100 Newton	20 Newton

Petrol (Gasolin) & Oil

Petrol: Unleaded minimum octane 102	Oil: 4% mixture
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Oil approved is: Castrol, Yerebic, or Elf, UTV

Carburetor : PVP 42 mm.

Jet needle	Needle jet	Main jet	edler jet	Carburetor piston	Needle valve
K24 clip position 3 from top	DQ 270	208 to 220	120 with 44B pilot jet	40	250

Carburetor : Dellorto VHSC 39.5

Jet needle	Needle jet	Main jet	edler jet	Carburetor piston	Needle valve
K24 clip position 2 from top	DQ 268	188 to 195 on front cylinder 190 to 198 on rear cylinder	55 or 120 with 45 pilot jet	40	250

Always Change oil then you open gear box or primary drive**After 4 races weekends or max 3 working hours**

Description	Qty.	Part number
Piston, piston pin, c-clips & Piston ring	2	394, 395 or 396 for 93 mm. high cylinder or 3965 for 91 mm. high cylinder
Big end needle bearing in rods	2	223
Side washer for big end bearing	4	222
Oil seals between crankshaft and primary drive	2	812
Oil seal behind water impeller	1	806

Also change this after 8 races weekends

Description	Qty.	Part number
Rods 113 mm.	2	224
Crankshaft pin ø20x50	2	225
Main bearing for crank shaft	4	860
Bearing for end of crank shaft	2	848
Oil seal behind ignition & inside oil seal with water pump	2	806
O-Ring on exhaust ø42.52x2.62 FPM	4	770
Bearing in gearbox 6304-C3 2-RS ø20/52x15	1	852
Bearing in gearbox 6203-C3 2-RS ø17/40x12	1	845
Bearing in gearbox 6203-C3 ø17/40x12	1	844
Bearing in gearbox 6205-C3 ø25/52x15	1	856

Oil seal on shift shaft	1	802
Oil seal for clutch drum	1	820
Small end bearing for rod	2	390