

TECHNICAL DATA – ENGINE

Engine	125 VC '96 SX	125 VC '96 EXC, EGS
Design	Liquid-cooled single-cylinder two-stroke engine	
Piston displacement	124,8 ccm	
Bore / Stroke	54,25/54 mm	
Fuel	SUPER fuel, research octane no 98, mixed with two-stroke oil	
Oil / gasoline ratio	1:40 when using 2-stroke competition oil. When in doubt, please contact your importeur or use 1:30 mix ratio to be on the safe side.	
Crankshaft bearing	1 cylindrical roller bearing – 1 deep-groove ball bearing	
Connecting rod bearing	needle bearing	
Piston pin bearing	needle bearing	
Piston	light alloy, forged	
Piston ring	1 plain compression ring	
Dimension "X" <small>(upper edge piston - upper edge cylinder)</small>	0,55 - 0,65 mm	
Ignition timing BTDC	0,9 mm (13 degrees) BTDC	
Spark plug	NGK BR 10 EG	
Electrode gap	0,6 mm	
Dimension "Z" <small>(height of the control flap)</small>	34,5 mm	
Primary drive	straight cut spur gears	
Clutch	multiple disc clutch in oil bath	
Transmission	6 speed, claw actuated	
Gear ratios	see Table gear ratio	
Gear lubrication	0,5 l engine oil SAE 30	
Coolant	1,1 litres, 40% anti freeze, 60% water, at least -25° C (-13 ° F)	
Ignition	PVL: digital ignition system	SEM: K11 COMET (60G-05)
Generator output	no generator	12V 130W
Carburettor	flat-slide carburettor, basic setting see table	
Air filter	wet foam-type air filter insert	

BASIC CARBURETOR SETTING

	SX, EXC, EGS open version	EGS throttled version
Carburetor type	VHSB 37 FD	VHSB 37 FD
Main jet	212 (210,215)	190 (210,212,215)
Needle jet	DP 266 (DP 265)	DP 264 /DP 266)
Idling jet	40	40
Jet needle	K 74	K 55
Needle position	3rd from top	2nd from top
Air adjust. screw open	2 turn	2,5 turn
Throttle valve	40	40
Starting jet	70	70
Regulation number	210693	021193

GEAR RATIO

Primary ratio	Transmission		Original final drive ratio	Available chain drive sprockets	Available final drive sprockets
18:61		E-XC	SX		38 t
		E-GS	13:50		40 t
	1st gear	13:32 12:34			42 t
	2nd gear	15:30 15:31	EXC, EGS	13 t for chain	45 t for chain
	3rd gear	14:23 14:23	13:50	14 t ⁵ / ₈ x 1/4"	48 t ⁵ / ₈ x 1/4"
	4th gear	15:21 15:21	13:45	15 t	50 t
5th gear	21:25 21:25	13:40		52 t	
6th gear	20:21 20:20				

Tolerances and gasket clearances

Piston fitting clearance	0,07 mm
Piston ring end gap	0,1–0,3 mm
Connecting rod bearing - radial clearance	0,021–0,028 mm
Transmission shaft end float	0,1–0,2 mm
Clutch spring length	2,6 Ø – 38 mm

Gasket thicknesses

Crankcase	0,3 mm
Clutch cover	0,3 mm
Ignition cover	0,5 mm
Water pump cover	0,5 mm
Cylinder base	as required
Available cylinder base gaskets	0,05/0,10/0,15/0,3/0,5/0,75 mm
Cylinder head gasket	1,1 mm + O-ring 2x60

Tightening torques

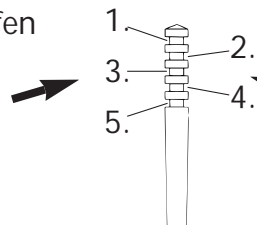
Collar nuts cylinder base	M 8	30 Nm
Cylinder head bolts	M 7	20 Nm
Collar nut flywheel (LH thread)	M 12x1	55-60 Nm
Nut for primary gear	M 14x1,5	90-95 Nm
Nut for inner clutch hub	M 16x1,5	90-95 Nm
Crankcase and cover bolts	M 6	8 Nm
Swing arm pivot	M 14	100 Nm

(Nm x 0,738 = ft. lbs)

VERGASERREGULIERUNG CARBURETOR SETTING **KTM 125 SX/EXC '97 EUROPA DELL'ORTO VHSB37FD**

MEERESHÖHE ALTITUDE	TEMPERATUR →	-20°C bis -7°C -2°F to 20°F	-6°C bis 5°C 19°F to 41°F	6°C bis 15°C 42°F to 60°F	16°C bis 24°C 61°F to 78°F	25°C bis 38°C 79°F to 98°F	37°C bis 49°C 99°F to 120°F
3000 m 10000 ft ↑ 2301 m 7501 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ ND NJ	1 1/2 40 K74 3 212 265	2 40 K74 2 210 265	2 1/2 38 K74 2 208 264	3 38 K74 2 205 264	3 38 K74 2 205 262	3 38 K74 2 205 262
2300 m 7500 ft ↑ 1501 m 5001 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ ND NJ	1 1/2 40 K74 3 215 266	1 3/4 40 K74 2 212 266	2 38 K74 2 210 265	2 1/2 38 K74 2 208 264	2 3/4 38 K74 2 208 264	3 38 K74 2 208 262
1500 m 5000 ft ↑ 751 m 2501 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ ND NJ	1 1/2 42 K74 3 218 268	1 3/4 40 K74 3 215 266	2 40 K74 2 212 266	2 1/4 40 K74 2 210 265	2 1/2 38 K74 2 210 264	3 38 K74 2 208 264
750 m 2500 ft ↑ 301 m 1001 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ ND NJ	1 1/2 45 K74 4 220 268	1 42 K74 3 218 268	1 1/2 40 K74 3 215 266	STANDARD 2 40 K74 3 212 266	STANDARD 2 1/2 38 K74 2 210 265	3 38 K74 2 208 264
300 m 1000 ft ↑ Meeresniveau Sea level	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ ND NJ	1 1/2 45 K74 4 220 270	2 42 K74 3 218 268	1 1/2 42 K74 3 215 268	1 1/2 40 K74 3 215 266	2 40 K74 2 212 266	2 1/2 38 K74 2 210 265

LSCHR = Luftregulierschraube offen
LD = Leerlaufdüse
POS = Clip Position von oben
HD = Hauptdüse
ND = Nadeldüse



AS = Air screw open from fully-seated
IJ = Idling jet
POS = Clip position from top
MJ = Main jet
NJ = Needle jet

NICHT FÜR STRASSENBETRIEB

Kraftstoff: Euro-Super bleifrei ROZ 98

NOT FOR HIGHWAY USE

Fuel: Euro-Super unleaded ROZ 98