

TECHNICAL DATA - ENGINE – MOTOR 250 SX 2003

Engine	250 SX
Design	Liquid-cooled single-cylinder two-stroke engine with KTM Twin Valve Control exhaust system
Piston displacement	249 cm ³
Bore / stroke	66,4 / 72 mm (2.62 / 2.84 in)
Fuel	unleaded SUPER fuel, research octane no 95, mixed with high-grade, two- stroke oil (Shell Advance Racing X)
Oil / gasolino ratio	1:40 – 1:60 when using high grade, two- stroke oil. When in doubt, please contact your importer or use 1:40 mix ratio to be on the safe side
Crankshaft bearing	1 deep-groove ball bearing / 1 cylinder roller bearing
Connecting rod bearing	needle bearing
Piston pin bearing	needle bearing
Piston	cast piston
Piston ring	one plain compression ring
Dimension "X" <small>(upper edge piston - upper edge cylinder)</small>	0 + 0,1 mm (0 + 0.004 in)
Ignition timing	1,9 mm vor OT
Spark plug	BR 8 ECM
Electrode gap	0,60 mm
Dimension "Z" <small>(height of the control flap)</small>	48,5 mm (1.9 in)
TVC start open TVC fully open	5200/min 7000/min
Primary drive	straight cut spur gears, primary ratio 26:72
Clutch	multiple disc clutch in oil bath, hydraulically operated (Shell HF-E15)
Transmission	5 speed, claw actuated
Gear ratio 1 st gear 2 nd gear 3 rd gear 4 th gear 5 th gear	14:28 16:26 18:24 21:24 22:21
Gear lubrication	0,7 l engine oil 10W-40 (Shell Advanced Ultra 4)
Ailable chain sprockets	13Z / 14Z / 15Z für Kette ⁵ / ₈ x ¹ / ₄ "
Coolant	1.3 liters, 40% antifreeze, 60% water, at least -25 °C (-13 °F)
Ignition system	KOKUSAN 2K-1
Generator output	no generator
Carburetor	flat-slide carburetor, carburetor setting see table
Air- filter	wet foam type air filter insert

BASIC CARBURETOR SETTING

	250 SX
Carburetor	Keihin PWK 38-S AG
Carburetor setting number	110202
Main jet	178 (182)
Idling jet	50
Starting jet	85
Jet needle	N3CH(N3CW)
Needle position from top	III
Slide	6,5
Air adjustment screw open	1
Performance restrictor	-
Power jet nozzle	-

TIGHTENING TORQUES

Flange bolts - cylinder-head	M 8	35 Nm (25 ft.lb)
Nuts-cylinder base	M 10	35 Nm (25 ft.lb)
Flywheel collar nut	M 12x1	60 Nm (44 ft.lb)
Nut for primary sprocket (LH thread)	M 18x1.5	Loctite 243 150 Nm (110 ft.lb)
Nut for inner clutch hub	M 18x1.5	Loctite 243 100 Nm (74 ft.lb)
Crankcase and cover bolts	M 6	8 Nm (6 ft.lb)
Swingarm pivot	M 14	100 Nm (74 ft.lb)
Flat head screw release plate kickstarter	M 6x16	Loctite 648 19 Nm (14 ft.lb)
Other screws	M 6 M 8 M 10	10 Nm (7 ft.lb) 25 Nm (19 ft.lb) 45 Nm (33 ft.lb)

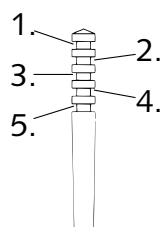
VERGASERREGULIERUNG
CARBURETOR SETTING

KTM 250 SX EUR / USA 2003

KEIHIN PWK 38-S AG

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	1	1	1,5	1,5	2
	LD	IJ	50	50	50	48	48	45
	NADEL	NEEDLE	N3CH	N3CH	N3CH	N3CW	N3CW	N3CW
	POS	POS	3	2	2	2	2	1
	HD	MJ	178	178	175	172	170	170
2300 m 7500 ft ↑ 1501 m 5001 ft	LSCHR	AS	1	1	1	1,5	1,5	2
	LD	IJ	50	50	50	50	48	48
	NADEL	NEEDLE	N3CH	N3CH	N3CH	N3CH	N3CW	N3CW
	POS	POS	3	3	2	2	2	2
	HD	MJ	180	178	178	175	172	170
1500 m 5000 ft ↑ 751 m 2501 ft	LSCHR	AS	1	1	1	1	1,5	1,5
	LD	IJ	50	50	50	50	50	48
	NADEL	NEEDLE	N3CH	N3CH	N3CH	N3CH	N3CH	N3CW
	POS	POS	4	3	3	2	2	2
	HD	MJ	180	180	178	178	175	172
750 m 2500 ft ↑ 301 m 1001 ft	LSCHR	AS	1	1	1	1	1	1, 5
	LD	IJ	52	50	50	50	50	50
	NADEL	NEEDLE	N3CG	N3CH	N3CH	N3CH	N3CH	N3CH
	POS	POS	4	4	3	3	2	2
	HD	MJ	182	180	180	178	178	175
300 m 1000 ft ↑ Meeresniveau Sea level	LSCHR	AS	3/4	1	1	1	1	1
	LD	IJ	55	52	50	50	50	50
	NADEL	NEEDLE	N3CG	N3CG	N3CH	N3CH	N3CH	N3CH
	POS	POS	5	4	4	3	3	2
	HD	MJ	185	182	180	180	178	178

LSCHR = Luftregulierschraube offen
LD = Leerlaufdüse
POS = Clip Position von oben
HD = Hauptdüse
Schieber= 6,5
Zerstäuber= 5 mm



AS = Air screw open from fully-seated
IJ = Idling jet
POS = Clip position from top
MJ = Main jet
Slide = 6,5
Atomizer= 5 mm

NICHT FÜR STRASSEN BETRIEB

Kraftstoff: Euro-Super bleifrei ROZ 95
NOT FOR HIGHWAY USE
Fuel: Euro-Super unleaded ROZ 95