

TECHNICAL DATA - ENGINE 250/300/380 SX / MXC / EXC 2000 (only USA)

Engine	250 SX	250 EXC, MXC	300 EXC, MXC	380 SX	380 EXC, MXC			
Design	Liquid-cooled single-cylinder two-stroke engine with KTM Twin Valve Control exhaust system and KTM Torque Chamber							
Piston displacement	249 ccm		297 ccm		368 ccm			
Bore / stroke	66.4 / 72 mm (2.62 / 2.84 in)		72 / 73 mm (2.84 / 2.88 in)		78 / 77 mm (3 / 2.98 in)			
Fuel	unleaded SUPER fuel, research octane no 95, mixed with high-grade two stroke oil (Shell Advance Racing X)							
Oil / gasolin 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		forged piston		cast piston			
Piston ring	one plain compression rings		two plain compression rings					
Dimension "X" <small>(upper edge piston - upper edge cylinder)</small>	0 +0.1 mm (0 + 0.004 in)							
Ignition timing	2.0 mm (0.07 in) (17 °) BTDC			2.2 mm (0.09 in) (17 °) BTDC				
Spark plug	NGK BR 8 ECM							
Electrode gap	0.6 mm (0.024 in)							
Dimension "Z" <small>(height of the control flap)</small>	50,5 mm (1.99 in)		46 mm (1.7 in)		50.5 mm (1.99 in)			
TVC start open	5400/min		5300/min		5200/min			
TVC fully open	7550/min		7750/min		7200/min			
Primary drive	straight cut spur gears, primary ratio 25:72			straight cut spur gears, primary ratio 26:72				
Clutch	multiple disc clutch in oil bath, hydraulic operated (Shell HF-E15)							
Transmission	5 speed, claw actuated							
Gear ratio		EXC	MXC	EXC	MXC		EXC	MXC
1 st Gear	15:29	15:29	15:29	15:29	15:29	15:29	15:29	15:29
2 nd Gear	17:27	18:26	17:27	18:26	18:26	18:26	18:26	18:26
3 rd Gear	19:25	19:22	19:25	19:22	19:24	19:24	19:22	19:24
4 th Gear	21:23	21:20	21:23	21:20	21:23	21:23	21:20	21:23
5 th Gear	23:21	23:18	23:21	23:18	23:21	23:21	23:18	23:21
Gear lubrication	0.8 l engine oil 20W-40 (Shell Advance VSX4)							
Available chain sprockets	13t / 14t / 15t for chain $\frac{5}{8} \times \frac{1}{4}$ "							
Coolant	1.3 litres, 40% anti freeze, 60% water, at least -25 °C (-13 °F)							
Ignition system	KOKUSAN 2K-4	KOKUSAN 2K-2			KOKUSAN 2K-1	KOKUSAN 2K-3		
Generator output	no generator	12V 40W			no generator	12V 110W		
Carburetor	flat-slide carburetor, carburetor setting see table 3							
Air-filter	wet foam type air filter insert							

TOLERANCES AND FITTING CLEARANCES	
Piston fitting clearance	0.05 mm (250) 0.06 mm (300) 0.08 mm (380)
Piston ring end gap	0.3–0.4 mm
Connecting rod bearing - radial clearance	0.021–0.032 mm
Transmission shafts end float	0.1–0.2 mm
Clutch springs - length	∅ 2.5 new = 43 mm, minimum length = 42 mm

GASKET THICKNESSES	
Crankcase	0.5 mm
Clutch cover	0.5 mm
Cylinder bottom gasket	as required
Available cylinder bottom gaskets	0.2/0.4/0.5/0.75 mm
Cylinder-head gasket	O-rings

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 242 150 Nm (110 ft.lb)
Nut for inner clutch hub	M 18x1.5	Loctite 242 100 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	10 Nm (7 ft.lb)
	M 8	25 Nm (19 ft.lb)
	M 10	45 Nm (33 ft.lb)

BASIC CARBURETOR SETTING				
	250 SX	250 MXC, EXC	300 MXC, EXC	380 SX, MXC, EXC
Carburetor	Keihin PWK 38 AG PJ	Keihin PWK 38 AG	Keihin PWK 38 AG	Keihin PWK 38 AG
Carburetor setting number	110499	130499	140499	150499
Main jet	172 (170,175)	180 (178,182)	175 (172,178)	170 (168,172)
Idling jet	48 (45,50)	45 (48)	45 (48)	45 (48)
Starting jet	85	85	85	85
Jet needle	NOZ E (NOZ F)	NOZ G (NOZ H)	NOZ H (NOZ I)	NOZ H (NOZ I)
Needle position from top	III	III	III	III
Throttle valve	7	6	6	6
Air adjustment screw open	1,5	1,5	1,5	1,5
Performance restrictor	-	-	-	-
Power jet jet	55	-	-	-

TABLE 3

TECHNICAL DATA - ENGINE 250/300/380 SX / EXC 2000 (all models out of USA)

Engine	250 SX	250 EXC	300 EXC	380 SX	380 EXC
Design	Liquid-cooled single-cylinder two-stroke engine with KTM Twin Valve Control exhaust system and KTM Torque Chamber				
Piston displacement	249 ccm		297 ccm	368 ccm	
Bore / stroke	66.4 / 72 mm (2.62 / 2.84 in)		72 / 73 mm (2.84 / 2.88 in)	78 / 77 mm (3 / 2.98 in)	
Fuel	unleaded SUPER fuel, research octane no 95, mixed with high-grade two stroke oil (Shell Advance Racing X)				
Oil / gasoline 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		forged piston	cast piston	
Piston ring	one plain compression rings		two plain compression rings		
Dimension "X" <small>(upper edge piston - upper edge cylinder)</small>	0 + 0.1 mm (0 + 0.004 in)				
Ignition timing	2.0 mm (0.07 in) (17 °) BTDC			2.2 mm (0.08 in) (17 °) BTDC	
Spark plug	NGK BR 8 ECM				
Electrode gap	0.6 mm (0.024 in)				
Dimension "Z" <small>(height of the control flap)</small>	50,5 mm (1.99 in)		46 mm (1.7 in)	50.5 mm (1.99 in)	
TVC start open	5400/min		5300/min	5200/min	
TVC fully open	7550/min		7750/min	7200/min	
Primary drive	straight cut spur gears, primary ratio 25:72			straight cut spur gears, primary ratio 26:72	
Clutch	multiple disc clutch in oil bath, hydraulic operated (Shell HF-E15)				
Transmission	5 speed, claw actuated				
Gear ratio					
1 st Gear	15:29		15:29	15:29	15:29
2 nd Gear	17:27		18:26	18:26	18:26
3 rd Gear	19:25		19:22	19:24	19:22
4 th Gear	21:23		21:20	21:23	21:20
5 th Gear	23:21		23:18	23:21	23:18
Gear lubrication	0,8 l engine oil 20W-40 (Shell Advance VSX4)				
Available chain sprockets	13t / 14t / 15t for chain $\frac{5}{8} \times \frac{1}{4}$ "				
Coolant	1.3 litres, 40% anti freeze, 60% water, at least -25 °C (-13 °F)				
Ignition system	KOKUSAN 2K-4		KOKUSAN 2K-3	KOKUSAN 2K-1	KOKUSAN 2K-3
Generator output	no generator		12V 110W	no generator	12V 110W
Carburetor	flat-slide carburetor, carburetor setting see table 3				
Air-filter	wet foam type air filter insert				

TOLERANCES AND FITTING CLEARANCES	
Piston fitting clearance	0.05 mm (250) 0.06 mm (300) 0.08 mm (380)
Piston ring end gap	0.3–0.4 mm
Connecting rod bearing - radial clearance	0.021–0.032 mm
Transmission shafts end float	0.1–0.2 mm
Clutch springs - length	∅ 2.5 new = 43 mm, minimum length = 42 mm

GASKET THICKNESSES	
Crankcase	0.5 mm
Clutch cover	0.5 mm
Cylinder bottom gasket	as required
Available cylinder bottom gaskets	0.2/0.4/0.5/0.75 mm
Cylinder-head gasket	O-rings

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 242 150 Nm (110 ft.lb)
Nut for inner clutch hub	M 18x1.5	Loctite 242 100 Nm (74 ft.lb)
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Swingarm pivot	M 14	100 Nm (74 ft.lb)
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Other screws	M 6	10 Nm (7 ft.lb)
	M 8	25 Nm (19 ft.lb)
	M 10	45 Nm (33 ft.lb)

BASIC CARBURETOR SETTING						
TABLE 3		250 SX	250 MXC, EXC	300 MXC, EXC	380 SX, MXC, EXC	250/300 EXC throttled
	Carburetor	Keihin PWK 38 AG PJ	Keihin PWK 38 AG	Keihin PWK 38 AG	Keihin PWK 38 AG	Keihin PWK 38 AG
	Carburetor setting number	110499	130499	140499	150499	050799
	Main jet	172 (170,175)	180 (178,182)	175 (172,178)	170 (168,172)	175
	Idling jet	48 (45,50)	45 (48)	45 (48)	45 (48)	35
	Starting jet	85	85	85	85	85
	Jet needle	NOZ E (NOZ F)	NOZ G (NOZ H)	NOZ H (NOZ I)	NOZ H (NOZ I)	R 1475 J
	Needle position from top	III	III	III	III	III
	Throttle valve	7	6	6	6	6
	Air adjustment screw open	1,5	1,5	1,5	1,5	1,5
Performance restrictor	–	–	–	–	slide stop 34mm	
Power jet jet	55	–	–	–	–	

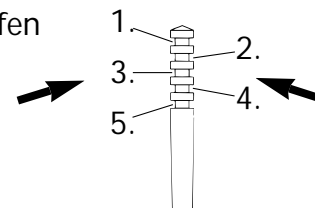
VERGASERREGULIERUNG
CARBURETOR SETTING

KTM 250 SX EUR/USA 2000

KEIHIN PWK 38AG PJ

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	1 1/2 48 NOZD 3 170	1 3/4 45 NOZE 3 168	2 45 NOZE 2 165	2 1/4 42 NOZF 2 161628	2 1/2 42 NOZG 1 160	2 3/4 40 NOZH 1 160
2300 m 7500 ft ↑ 1501 m 5001 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ	1 1/4 50 NOZD 3 172	1 1/2 48 NOZD 3 170	1 3/4 45 NOZE 2 168	2 45 NOZE 2 165	2 1/4 45 NOZF 2 162	2 1/2 42 NOZG 2 160
1500 m 5000 ft ↑ 751 m 2501 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ	1 50 NOZD 4 175	1 1/4 48 NOZD 3 172	1 1/2 48 NOZE 3 170	1 3/4 48 NOZE 2 168	2 48 NOZF 2 165	2 1/4 45 NOZF 2 162
750 m 2500 ft ↑ 301 m 1001 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ	3/4 52 NOZC 4 178	1 50 NOZD 4 175	1 1/4 48 NOZE 3 172	1 1/2 48 NOZE 3 170	1 3/4 48 NOZE 3 168	2 45 NOZF 2 165
300 m 1000 ft ↑ Meeresniveau Sea level	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ	1/2 52 NOZC 4 180	3/4 50 NOZC 4 178	1 48 NOZD 3 180	1 1/4 48 NOZD 3 172	1 1/2 48 NOZE 3 170	1 3/4 45 NOZE 2 168

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



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

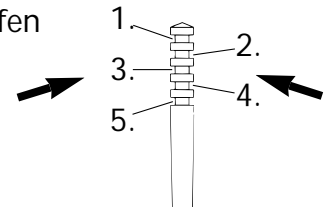
NICHT FÜR STRASSEN BETRIEB
Kraftstoff: Euro-Super bleifrei ROZ 95
NOT FOR HIGHWAY USE
Fuel: Euro-Super unleaded ROZ 95

VERGASERREGULIERUNG
CARBURETOR SETTING

KTM 250 MXC/EXC EUR/USA 2000 KEIHIN PWK 38 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 LD IJ NADEL NEEDLE POS POS HD MJ	1 3/4 40 NOZH 3 178	1 3/4 40 NOZH 3 175	1 3/4 40 NOZH 2 172	2 38 NOZI 2 170	2 1/2 38 NOZI 2 170	1 3/4 38 NOZI 2 168
2300 m 7500 ft ↑ 1501 m 5001 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ	1 1/4 42 NOZG 3 180	1 1/2 42 NOZG 3 178	1 3/4 40 NOZH 2 175	1 3/4 40 NOZH 2 172	2 40 NOZI 2 170	2 40 NOZI 2 168
1500 m 5000 ft ↑ 751 m 2501 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ	1 1/4 45 NOZG 4 182	1 1/2 45 NOZG 3 180	1 1/2 42 NOZG 3 178	1 3/4 42 NOZH 2 175	1 3/4 42 NOZI 2 172	2 40 NOZI 2 170
750 m 2500 ft ↑ 301 m 1001 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ	1 1/4 45 NOZF 4 185	1 1/4 45 NOZG 4 182	1 1/4 45 NOZG 3 180	1 1/2 42 NOZG 3 178	1 3/4 42 NOZH 3 175	1 3/4 42 NOZH 2 172
300 m 1000 ft ↑ Meeresniveau Sea level	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ	1 50 NOZE 5 188	1 1/4 48 NOZF 4 185	1 1/2 45 NOZG 3 182	1 1/4 45 NOZG 3 180	1 1/2 42 NOZH 3 178	1 3/4 42 NOZH 2 175

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



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

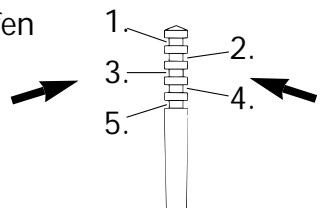
NICHT FÜR STRASSEN BETRIEB

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

VERGASERREGULIERUNG CARBURETOR SETTING **KTM 300 MXC/EXC EUR/USA 2000 KEIHIN PWK 38 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 LD IJ NADEL NEEDLE POS POS HD MJ	1 1/2 45 NOZH 3 172	1 3/4 42 NOZH 2 170	2 40 NOZH 1 168	2 1/4 40 NOZI 1 165	2 1/2 40 NOZI 1 162	2 3/4 38 NOZI 1 162
2300 m 7500 ft ↑ 1501 m 5001 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ	1 1/4 48 NOZG 3 175	1 1/2 45 NOZH 2 172	1 3/4 42 NOZH 1 170	2 42 NOZI 1 168	2 1/4 42 NOZI 1 165	2 1/2 40 NOZI 1 162
1500 m 5000 ft ↑ 751 m 2501 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ	1 48 NOZG 3 178	1 1/4 45 NOZG 3 175	1 1/2 45 NOZH 2 172	1 3/4 45 NOZH 22 170	2 45 NOZH 2 168	2 1/4 42 NOZI 2 165
750 m 2500 ft ↑ 301 m 1001 ft	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ	3/4 50 NOZG 3 180	1 48 NOZG 2 178	1 1/4 45 NOZH 2 175	1 1/2 45 NOZH 2 172	1 3/4 45 NOZI 2 170	2 42 NOZI 2 168
300 m 1000 ft ↑ Meeresniveau Sea level	LSCHR AS LD IJ NADEL NEEDLE POS POS HD MJ	1/2 50 NOZF 4 182	3/4 48 NOZG 3 180	1 45 NOZG 3 178	1 1/4 45 NOZH 2 175	1 1/2 42 NOZH 1 172	1 3/4 42 NOZI 1 170

LSCHR = Luftregulierschraube offen
LD = Leerlaufdüse
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AS = Air screw open from fully-seated
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NICHT FÜR STRASSENBETRIEB

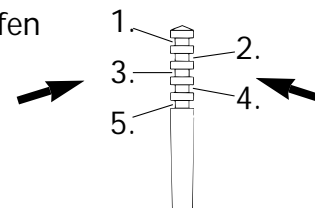
Kraftstoff: Euro-Super bleifrei ROZ 95
NOT FOR HIGHWAY USE
Fuel: Euro-Super unleaded ROZ 95

VERGASERREGULIERUNG **KTM 380 SX/MXC/EXC** EUR/USA 2000 KEIHIN PWK 38 AG

CARBURETOR SETTING

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 1/2	1 3/4	2	2 1/4	2 1/2	2 3/4
	LD	IJ	45	45	40	40	40	38
	NADEL	NEEDLE	NOZH	NOZH	NOZH	NOZI	NOZI	NOZI
	POS	POS	3	2	1	1	1	1
	HD	MJ	172	170	168	165	162	162
2300 m 7500 ft ↑ 1501 m 5001 ft	LSCHR	AS	1 1/4	1 1/2	1 3/4	2	2 1/4	2 1/2
	LD	IJ	48	45	42	42	42	40
	NADEL	NEEDLE	NOZG	NOZH	NOZH	NOZI	NOZI	NOZI
	POS	POS	3	2	1	1	1	1
	HD	MJ	175	172	170	168	165	162
1500 m 5000 ft ↑ 751 m 2501 ft	LSCHR	AS	1	1 1/4	1 1/2	1 3/4	2	2 1/4
	LD	IJ	48	45	45	45	45	42
	NADEL	NEEDLE	NOZG	NOZG	NOZH	NOZH	NOZH	NOZI
	POS	POS	3	3	2	22	2	2
	HD	MJ	178	175	172	170	168	165
750 m 2500 ft ↑ 301 m 1001 ft	LSCHR	AS	3/4	1	1 1/4	1 1/2	1 3/4	2
	LD	IJ	50	48	45	45	45	42
	NADEL	NEEDLE	NOZG	NOZG	NOZH	NOZH	NOZI	NOZI
	POS	POS	3	2	2	2	2	2
	HD	MJ	180	178	175	172	170	168
300 m 1000 ft ↑ Meeresniveau Sea level	LSCHR	AS	1/2	3/4	1	1 1/4	1 1/2	1 3/4
	LD	IJ	50	48	45	45	42	42
	NADEL	NEEDLE	NOZF	NOZG	NOZG	NOZH	NOZH	NOZI
	POS	POS	4	3	3	2	1	1
	HD	MJ	182	180	178	175	172	170

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