


# TECHNICAL SPECIFICATIONS – ENGINE 250 XC/XC-W/EXC/EXC SIX DAYS 2009»

ENGINE	250 XC	250 EXC EU 250 EXC SIX DAYS	250 XC-W 250 EXC AUS
Design	Liquid-cooled single-cylinder two-stroke engine with KTM Twin Valve Control exhaust system and KTM Torque Chamber		
Piston displacement	249 ccm		
Bore / stroke	66.4 / 72 mm (2.62 / 2.84 in)		
Fuel	unleaded fuel with at least RON 95 (USA = Premium RON 91), mixed with high grade two stroke oil (Motorex Cross Power 2T)		
Oil / gasoline ratio	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 aluminium		
Piston ring	two plain compression rings		
Dimension „X“ <small>(upper edge piston- upper edge cylinder)</small>	0 + 0.1 mm (0 + 0.004 in)		
Ignition timing	1.9 mm (0.074 in) BTDC		
Spark plug	NGK BR7 ES		
Electrode gap	0,60 mm		
Dimension „Z“ <small>height of the control flap</small>	47.5 mm (1.87 in)		
TVC start open	5500/min		
TVC fully open	7300/min (red spring), 7800/min (yellow spring), 8300/min (green spring)		
Primary drive	straight cut spur gears, primary ratio 26:72		
Clutch	multiple disc clutch in oil bath, hydraulically operated (Brake fluid DOT 5.1)		
Transmission	5 speed, claw actuated		
Gear ratio			
1st gear	14 : 30	14 : 30	14 : 30
2nd gear	16 : 26	17 : 26	17 : 26
3rd gear	18 : 24	19 : 23	19 : 23
4th gear	21 : 24	20 : 20	20 : 20
5th gear	22 : 21	29 : 23	29 : 23
Gear lubrication	0,7 liter Motorex Top Speed 4T 15W50		
Available chain sprockets	13t / 14t for chain 5/8 x 1/4"		
Coolant	1.2 litres, 50% anti freeze, 50% distilled water, at least -25 °C (-13 °F)		
Ignition system	KOKUSAN E		
Generator output	12V / 110 W		
Starting aid	kickstarter and electric starter	kickstarter	kickstarter and electric starter
Carburator	Keihin PWK 36 flat-slide carburetor, carburetor setting see table		
Air-filter	wet foam type air filter insert		

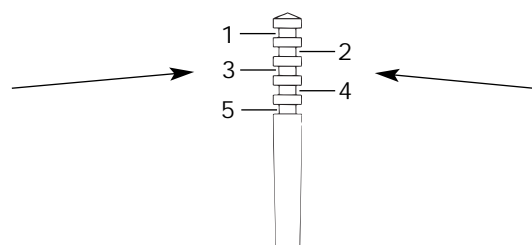
BASIC CARBURETOR SETTING				
	250 XC	250 XC-W	250 EXC AUS	250 EXC EU 250 EXC SIX DAYS
Carburetor	Keihin PWK 36S AG	Keihin PWK 36S AG	Keihin PWK 36S AG	Keihin PWK 36S AG
Carburetor setting mark	FK0220	FK0230	3600C	FK0251
Main jet	168 (170)	165 (162)	160 (162,165)	115 (162, 165)
Idling jet	35	35	35	38x38 (35)
Starting jet	85	85	85	50 (85)
Jet needle	N8RH (N8RG)	N8RW (N8RH, N8RJ)	N3CJ (N8RH, N8RJ, N8RW, N2ZJ, N2ZW)	N84K (N8RH, N8RJ, N8RW)
Needle position from top	4	4	1	3 (4)
Throttle valve	7	7	7	7
Air adjustment screw open	1 turn	1 turn	3.5 turns	1.75 turns
Performance restrictor	-	-	slide stop 36 mm	slide stop 36 mm

TIGHTENING TORQUES - ENGINE		
Flange bolts - cylinder-head	M 8	27 Nm
Nuts-cylinder base	M 10	35 Nm
Flywheel collar nut	M 12x1	60 Nm
Exhaust control - retaining bracket	M 5	Loctite 243 + 7 Nm
Exhaust control - control flap	M 6	Loctite 243 + 10 Nm
Exhaust control - lever for control segment	M 5	Loctite 243 + 6 Nm
Shift roller - bearing retaining bracket	M 6	Loctite 243 + 10 Nm
Shift lock	M 6	Loctite 243 + 10 Nm
Locking lever	M 5	Loctite 243 + 6 Nm
Idler bolt	M 6	Loctite 2701 + 8 Nm
Kickstarter release plate	M 6	Loctite 243 + 10 Nm
Spring hanger for kickstarter	M 6	Loctite 243 + 10 Nm
Spring hanger on kickstarter	M 6	Loctite 243 + 10 Nm
Oil drain plug with magnet	M 12x1.5	20 Nm
Water pump wheel	M 5	Loctite 243 + 6 Nm
Drain plug on water pump cover	M 10x1	15 Nm
Nut for primary sprocket (LH thread)	M 18x1.5	Loctite 2701 + 150 Nm
Nut for inner clutch hub	M 18x1.5	Loctite 2701 + 100 Nm
Crankcase	M 6	10 Nm
Spark plug	M 14x1.25	25 Nm
Kickstarter lever	M 8	Loctite 243 + 25 Nm
Shift lever	M 6	Loctite 243 + 14 Nm
Cover screws	M 5	6 Nm
Ignition / stator	M 6	Loctite 243 + 8 Nm
Ignition / pick up	M 5	Loctite 243 + 6 Nm
Ignition cover	M6	8 Nm
Outer ignition cover	M6	8 Nm
Other bolts	M 5	6 Nm
	M 6	10 Nm
	M 8	25 Nm
	M 10	45 Nm

# VERGASERTABELLE » CARBURETOR TABLE

VERGASERREGULIERUNG CARBURETOR SETTING KEIHIN PWK 36S AG		250 XC 2009						
MEERESHÖHE ALTITUDE ↓	TEMPERATUR TEMPERATURE →	-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 36°C 79°F to 98°F	37°C bis 49°C 99°F to 120°F	
3000 m 10000 ft ↑	LSO ASO LD IJ NADEL NEEDLE POS POS HD MJ	1 35 N8RH 4 168	1 35 N8RH 3 168	1,5 35 N8RW 3 165	1,75 35 N8RW 2 162	2 35 N8RJ 2 160		
2301 m 7501 ft ↑	LSO ASO LD IJ NADEL NEEDLE POS POS HD MJ	1 35 N8RG 4 170	1 35 N8RH 4 168	1 35 N8RH 3 168	1,5 35 N8RW 3 165	1,75 35 N8RW 2 162	2 35 N8RJ 2 160	
2300 m 7500 ft ↑	LSO ASO LD IJ NADEL NEEDLE POS POS HD MJ	1 38 N8RG 4 172	1 35 N8RG 4 170	1 35 N8RH 4 168	1 35 N8RH 3 168	1,5 35 N8RW 3 165	1,75 35 N8RW 2 162	
1500 m 5000 ft ↑	LSO ASO LD IJ NADEL NEEDLE POS POS HD MJ	1 40 N8RF 5 175	1 38 N8RG 4 172	1 35 N8RG 4 170	1 35 N8RH 4 168	1,5 35 N8RW 3 165	1,75 35 N8RW 2 162	
750 m 2500 ft ↑	LSO ASO LD IJ NADEL NEEDLE POS POS HD MJ	1 42 N8RF 5 178	1 40 N8RF 5 175	1 38 N8RG 4 172	1 35 N8RG 4 170	1 35 N8RH 4 168	1,5 35 N8RW 3 165	
301 m 1001 ft ↑	LSO ASO LD IJ NADEL NEEDLE POS POS HD MJ	0,75 42 N8RF 5 178	1 40 N8RF 5 175	1 38 N8RG 4 172	1 35 N8RG 4 170	1 35 N8RH 4 168	1 35 N8RH 3 168	
300 m 1000 ft ↑ Meeresniveau Sea level	LSO ASO LD IJ NADEL NEEDLE POS POS HD MJ	0,75 42 N8RF 5 178	1 40 N8RF 5 175	1 38 N8RG 4 172	1 35 N8RG 4 170	1 35 N8RH 4 168	1 35 N8RH 3 168	

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



ASO = Air screw open from fully-seated  
IJ = Idling jet  
POS = Needle clip position from top  
MJ = Main jet

**NICHT FÜR STRASSENBETRIEB  
NICHT FÜR SANDSTRECKEN**

Kraftstoff: Super Bleifrei ROZ 95

**NOT FOR HIGHWAY USE AND SAND TRACKS**  
Fuel: unleaded fuel with at least RON 95  
USA = Premium PON 91

**EXC Modelle:** Die oben angeführten Vergaserregulierungen gelten nur für entdrosselte Motorräder.

Um die volle Motorleistung zu erhalten, sind neben der Vergaserregulierung auch noch andere Maßnahmen erforderlich, Ihr KTM Händler hilft Ihnen gerne.

**WENN SIE ÄNDERUNGEN AM MOTORRAD VORNEHMEN, GEHT DIE STRASSENZULASSUNG VERLOREN, DER BETRIEB AUF ÖFFENTLICHEN STRASSEN IST DANN VERBOTEN UND STRAFBAR! AUSSERDEM ERLISCHT DER VERSICHERUNGSSCHUTZ!**

**EXC models:** The carburetor adjustments described above only apply to dethrottled motorcycles. Other measures will be required in addition to the carburetor adjustment for full engine performance. Your KTM dealer will be pleased to assist you.

**CHANGES TO YOUR MOTORCYCLE WILL CAUSE YOU TO LOSE YOUR ROAD APPROVAL. IT WILL BE ILLEGAL TO OPERATE THE MOTORCYCLE ON PUBLIC ROADS! YOUR INSURANCE COVERAGE WILL ALSO BE CANCELLED!**

**Modelli EXC:** Le tarature suindicate del carburatore valgono solo per motociclette potenziata. Per ottenere la piena potenza del motore sono richieste, oltre alla taratura del carburatore, anche altre misure. Il vostro concessionario KTM sarà sempre disposto ad aiutarvi.

**MODIFICHE APPORTATE ALLA MOTOCICLETTA DETERMINANO LA PERDITA DELL'OMOLOGAZIONE STRADALE, L'IMPIEGO SU STRADE PUBBLICHE DI CONSEGUENZA È VIETATO E PASSIBILE DI PENNA! INOLTRE DECADE LA COPERTURA ASSICURATIVA!**

**Modèles EXC :** Les réglages de carburateur décrits ci-dessus valent seulement pour des machines débridées. Pour obtenir la pleine puissance, d'autres mesures sont nécessaires en plus de ces réglages. Les agents KTM connaissent ces mesures.

**QUAND ON EFFECTUE DES TRANSFORMATIONS SUR UNE MOTO, L'HOMOLOGATION N'EST PLUS VALABLE, L'UTILISATION SUR LA VOIE PUBLIQUE EST INTERDITE ET TOMBE SOUS LE COUP DE LA LOI. DE PLUS LA COUVERTURE D'ASSURANCE DISPARAIT.**

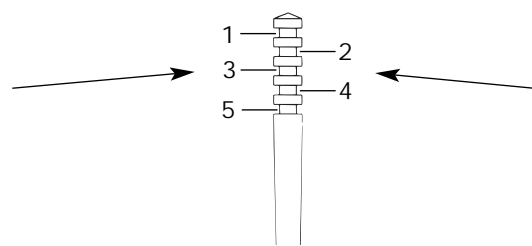
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**SI EFECTÚA CAMBIOS EN LA MOTOCICLETA, SE PIERDE EL PERMISO DE CIRCULACIÓN EN CARRETERAS; LA CIRCULACIÓN EN VÍAS PÚBLICAS QUEDA ENTONCES PROHIBIDA Y ES PUNIBLE. ¡ADEMÁS CADUCA LA PROTECCIÓN DEL SEGURO!**

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3000 m 10000 ft ↑	LSO ASO LD IJ NADEL NEEDLE	1 35 N8RW	1 35 N8RW	1,5 35 N8RJ	1,5 35 N8RJ	2 35 N8RK		
2301 m 7501 ft	POS POS HD MJ	4 165	3 165	3 162	2 160	2 158		
2300 m 7500 ft ↑	LSO ASO LD IJ NADEL NEEDLE	1 35 N8RH	1 35 N8RW	1 35 N8RW	1,5 35 N8RJ	1,5 35 N8RJ	2 35 N8RK	
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301 m 1001 ft	POS POS HD MJ	5 172	4 170	4 168	4 165	3 165	3 162	
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Meeresniveau Sea level	POS POS HD MJ	5 175	5 172	4 170	4 168	4 165	3 165	

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