

TECHNICAL SPECIFICATIONS – CHASSIS

CHASSIS	105 SX
Frame	Central chrome-moly-steel frame
Fork	telescopic fork WP Suspension 43 MXMA
Wheel travel front/rear	275 mm / 300 mm
Rear suspension	WP PDS 4618 (Progressive Damping System) shock absorber
Front brake	Disc brake Ø 220 mm, 4 piston
Rear brake	Disc brake Ø 200 mm, 4 piston
Tires front	70/100-19" Pirelli MT 32A
Tires rear	90/100-16" Pirelli MT 320
Air pressure	1.0 bar
Fuel tank capacity	5.1 liter
Final drive ratio	14 : 49 t
Chain	1/2 x 5/16" 122 rolls
Steering angle	66 °
Wheel base	1290 mm
Seat height, unloaded	900 mm
Ground clearance	415 mm
Dead weight without fuel	68 kg
Rider's body weight	max. 75 kg
Recommended age of rider	10 to 15 years

STANDARD ADJUSTMENT – FORK	
	WP 4357 MXMA 05187B05
Compression adjuster	20
Rebound adjuster	20
Spring	3 N/mm
Spring preload	3 mm
Air chamber length	110 mm
Fork oil	SAE 5

STANDARD ADJUSTMENT - SHOCK ABSORBER	
	WP 4618 PDS-DCC WP 15187B02
Compression adjuster	15 LS (LOW SPEED) 2 HS (HIGH SPEED)
Rebound adjuster	22
Spring	35-215
Spring preload	4 mm

TIGHTENING TORQUES - CHASSIS		
Hexagon bolt - brake caliper front	M 8	Loctite 243 + 25 Nm
Allan head screw - brake pads rear	M6	5 Nm
Flat head bolt - brake discs	M6	Loctite 243 + 10 Nm
Hexagon nut - front wheel spindle	M 10x 1.5	40 Nm
Hexagon nut - rear wheel spindle	M 20x1.5	80 Nm
Hexagon nut - swingarm bolt	M 14/M 16x1.5	75 Nm
Clamping bolts - top triple clamp	M 8	20 Nm
Clamping bolts - bottom triple clamp	M 8	15 Nm
Bolt - handlebar clamp	M 8	20 Nm
Spoke nipple	M 4,5/M 5	4.5 - 6 Nm
Other chassis bolts	M6	10 Nm
	M8	25 Nm
	M10	45 Nm

TECHNICAL SPECIFICATIONS - ENGINE »


ENGINE	105 SX 2006
Design	Liquid cooled single cylinder two-stroke engine with reed valve intake
Displacement	103.96 ccm
Bore/stroke	52 / 48.95 mm
Fuel	unleaded fuel with at least RON 95 (USA = Premium RON 91), mixed with high grade two-stroke oil
Oil/gasoline ratio	1 : 40 - 1 : 60 when using high grade two-stroke oil (e.g. Motorex 2T Crosspower), when in doubt, please contact your importer
Lubrication	mixture lubrication
Crankshaft bearing	deep-groove ball bearing, cylinder roller bearing
Connecting rod bearing	needle bearing
Piston pin bearing	needle bearing
Piston rings	1 compression ring
Primary drive	straight cut spur gears, 19 : 66 t
Clutch	multiple disc clutch in oil bath, hydraulic operated (Motorex Kupplungs-Fluid 75)
Transmission	6 speed, claw actuated
Gear ratio	1 st gear 11 : 29 2 nd gear 14 : 28 3 rd gear 16 : 26 4 th gear 19 : 26 5 th gear 21 : 25 6 th gear 20 : 21
Transmission oil	0.5 liter engine oil Motorex Topspeed 4T 15W50
Ignition system	Moric Digital 2M1
Spark plug	NGK BR 10 ECMVX
Electrode gap	0.60 mm
Carburetor	flat-slide carburetor, carburetor see table
Coolant	1 liter, mixture 50% antifreeze, 50% distilled water, at least -25° C (-13° F)
Air filter	wet foam type air filter insert

BASIC CARBURETOR SETTING	
Carburetor	Keihin PWK 28
Main jet	118
Needle jet	2.6
Idling jet	45
Jet needle	N5HG
Needle position from top	III
Throttle valve	3.5
Starting jet	62
Air adjustment screw open	1,5

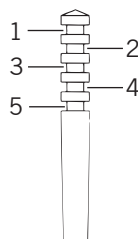
TECHNICAL SPECIFICATIONS - ENGINE »

TIGHTENING TORQUES - ENGINE		
Flange bolts - cylinder-head	M 6	10 Nm
Nuts-cylinder base	M 8	30 Nm
Flywheel collar nut	M 12X1	60 Nm
Primary gear bolt	M 10X1,25	Loctite 243 + 80 Nm
Nut for inner clutch hub	M 14X1,25	Loctite 243 + 60 Nm
Crankcase and cover bolts	M 6	8 Nm
Spark plug	M 14X1,25	20 Nm
Swingarm pivot	M 14X1,5	75 Nm
Reed valve housing	M 6	6 Nm
Kickstarter	M 6	Loctite 243 + 12 Nm
Shift lever	M 6	Loctite 243 + 12 Nm
Other bolts	M 5	6 Nm
	M 6	10 Nm

CARBURETOR SETTING »

VERGASERREGULIERUNG CARBURETOR SETTING KEIHIN PWK 28		85 / 105 SX 2006					
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 38°C 79°F to 98°F	
3000 m 10000 ft ↑ 2301 m 7501 ft	LSO ASO LD IJ NADEL NEEDLE POS POS HD MJ	1,5 45 N5HG 2 118	1,75 42 N5HH 3 115	2 40 N5HH 2 115	2,25 38 N5HH 1 115	2,5 38 N5HH 1 115	
2300 m 7500 ft ↑ 1501 m 5001 ft	LSO ASO LD IJ NADEL NEEDLE POS POS HD MJ	1,25 48 N5HG 3 120	1,5 45 N5HG 2 118	1,75 42 N5HH 3 115	2 40 N5HH 2 115	2,25 38 N5HH 1 115	
1500 m 5000 ft ↑ 751 m 2501 ft	LSO ASO LD IJ NADEL NEEDLE POS POS HD MJ	1 50 N5HF 3 122	1,25 48 N5HG 3 120	1,5 45 N5HG 2 118	1,75 42 N5HH 2 115	2 40 N5HH 2 115	
750 m 2500 ft ↑ 301 m 1001 ft	LSO ASO LD IJ NADEL NEEDLE POS POS HD MJ	0,75 50 N5HF 4 125	1 50 N5HF 3 122	1,25 48 N5HG 3 120	1,5 45 N5HG 3 118	1,75 42 N5HH 2 115	
300 m 1000 ft ↑ Meeresniveau Sea level	LSO ASO LD IJ NADEL NEEDLE POS POS HD MJ	0,5 50 N5HF 5 125	0,75 50 N5HF 4 125	1 50 N5HG 3 122	1,25 48 N5HG 3 120	1,5 45 N5HG 2 118	

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 STRASSEN BETRIEB

Kraftstoff: Super Bleifrei ROZ 95

NOT FOR HIGHWAY USE

Fuel: unleaded fuel with at least RON 95
USA = Premium PON 91