

FREICH FREEISIBN

Uncompromising high-end motorcycling technology for riders who want it all: a racing precision chassis with the world's most powerful series single-cylinder, an upgraded engine with 690 cc, a crankshaft with greater stroke, new mapping and numerous detail optimisations provide an impressive 51.5 kW/70 Hp of power and a maximum torque of 70 Nm.

Marchesini aluminium rims with an orange rim ring, a black anodised triple clamp, the orange R-tubular space frame and a whole range of additional black-coated components act as one refined part after another to underline the Duke 690 R's status as an exceptional motorcycle.



Exhaust systemIt's what comes out that matters: the installation position of the silencer provides an optimally low centre of gravity from a riding perspective and the regulated catalytic converter ensures adherence with the Euro-III emissions values.



Mudguard

Manually laminated carbon mudguard supplied as standard. The carbon fibre component made in Germany by carbon specialist WETHJE is 60 % lighter and reduces the unsprung masses on the front wheel by over 300 g.







690 DUKE R 04 05

The LC4 engine is currently regarded as the world's reference point for large-volume single-cylinder four-stroke engines. When looking at the Duke as a whole, however, it really is just one part. Precisely like the coated Torx screws. Only the sum of all the parts (however small they are) makes the Duke so exceptional.

Swing arm — Technical chassis designs are somewhat of an amazing thing as they have a very low weight compared to their load capacity. Although you can see this on bridges and cranes, it is particularly impressive here: a single-piece cast aluminium swing arm with optimal torsional and bending stiffness thanks to framework ribs with variable wall strengths. The result: a light weight part of barely 4,000 g that is attractive and has infinite mechanical grip.

Rear Brake — The floating 1-piston brake calliper is attached to the swing arm together with the socket — instead of all the parts having to be removed when changing a tyre, they remain precisely where they should be.

Engine

You don't get anything from nothing: getting stable, cultivated and reliable 51.5 kW/70 HP from a single-cylinder engine (in the case of the 690 Duke 48 kW/65 HP) requires a bit of effort. A few key concepts for technically exquisite designs: expensive, lightweight forged piston supplied as standard, hollow stem valves, extremely sturdy carbon coating on many sliding parts, active engine housing ventilation, shot-peened tooth profiles ...

This technical equipment not only makes the LC4 engine extremely high-revving and powerful, but also makes it so reliable that we can extend the maintenance intervals for the 2011 models by 50%.

Frame – This frame is so stunning that we have even coated it in orange for the R-model. The intelligent design using thin-walled chrome-molybdenum steel provides maximum torsional stiffness and directional stability at a

weight of just 9 kg.

Electronic Power Throttle (EP

The engine management system monitors the riders throttle commands. If the rider goes too hard on the right twist grip, the opening speed of the throttle valve is regulated to ensure that the motorcycle always powers forward vehemently but never jerkily.

Handlebar – Butted aluminium handlebar supplied as standard. Black anodised triple

Fork — Fully-adjustable upside-down fork with 140 mm spring travel, specially tuned for racing. The torsionally stiff inner tubes on the 48 mm version are carefully polished, hard-chrome plated and then coated in particularly low friction titanium-aluminium-nitride, which is about 2.5 times harder than hard-chrome.

690 DUKE R OF OT

Wheels — Specially designed aluminium rims from Marchesini with an orange rim ring.

Front brak

- Brembo system with a 320 mm disc, radial main brake cylinder and radially mounted 4-piston brake calliper with 4 brake pads. Steel flex brake lines supplied as standard.

APTC — The anti-hopping clutch supplied as standard prevents undesired brake judder.



First Oil Filling for all KTM Engines.



PROICHLLY LIGHTWEIGHT

The current Duke 690 has a bit more to offer than the original Duke: quiet running and a suitability for pillion riding, touring and long-distance journeys for example. In adding these benefits, however, it has certainly not lost its intensive and intrinsic riding dynamics, which cannot be found on any other motorcycle in the world and cannot be described using words.

A 10-minute test ride will explain everything ...



Headlight mask

We really are quite proud of the fact that these two ellipsoid eyes are used by almost every well-known Streetfighter tuner. But the original can only be found on the Duke: a mean look that says I'm coming past.

Seat
Supermoto meets ergonomics: The incredibly comfortable seat on the Duke perfectly conveys the

riding situation to the rider, while at the same time providing the necessary hold and grip for every manoeuvre. And we really mean every manoeuvre.

BLACK GGD DUKE

Warning: this is not a sensible motorcycle. This motorcycle is a motorised, mechanical embodiment of terms like uncompremising, veresions and assistance.



of terms like uncompromising, voracious and consistent. "Sensible" motorcycles look completely different.

And feel completely different too.

990 SUPER DUKE R 1219

No discussions: a lightweight mono-seat rear with a seat that we are intentionally not calling a "pad" provides the response that R-pilots know to appreciate, including in family discussions. Possible arguments include: "the seat is so hard that you wouldn't want to sit on it anyway' and 'you'll get a thrashing there too".

Exhaust System

There are many good reasons why KTM produces its bikes in Austria: for one, the welding wizards in Mattighofen. They fuse forged, stainless sheet steel together with exquisite weld seams to form true silencer works of art – just like on the Super Duke. With integrated cat and a great sound.









990 SUPER DUKE R 1415

This frame is about as heavy as a lightweight mountain bike. However, the 9 kg lightweight design made from thin-walled chrome-molybdenum steel with a screwed on light alloy subframe can control over 130 horse power. For the R-version, the chassis has been adapted to the uncompromising uses: for example, through greater ground clearance, a modified steering head angle and a shorter caster angle.

Total Control of the control of the

Also exclusively for the Super Duke R: fully-adjustable WP steering damper, CNC machined and black anodised triple clamps, radial fittings and Akrapovic manifold.

High-end racing technology from the factory: fullyadjustable 48 mm upside-down fork with highly sporty R-tuning. The skid pipes are carefully coated with titanium-aluminium-nitride in a process which is basically as follows: the sliding surface is first carefully polished, then hard-chrome plated and finally given a TiAIN coating. The result is about 2.5 times as hard as hard-chrome and so even and smooth that the fork is highly sensitive due to the minimised breakaway force.

MOTOREX First Oil Filling for all KTM Engines.

The LC8 engine has been completely overhauled for the R-version: lighter piston, adapted crank mechanism, larger titanium inlet valves, optimised cooling circuit, new R-mapping and the throttle valve body from the 1190 RC8 are just a few features of the new model. With the 1190 KCB are just a few reatures of the new model. With 97 kW/132 Hp, the LCB engine in the R-version has about 10% more power than the basic version. The maximum torque of 110 Nm abuts about 1000/min later. However, the raw figures alone do not do this engine justice. A great sentence that we once read in this regard: "KTM HP is like scoring an away goal at the European Cup: it's worth twice as much."







The 990 Super Duke has given new meanings to terms like handling, agility, weightlessness and explosiveness in the sporty naked bikes segment. It immediately came out top in numerous international comparison tests and is truly living up to its name as a Duke. If this motorcycle didn't already exist someone would have to invent it. Presumably us ...

GOLD **990 SUPER DUKE**



990 SUPER DUKE 1517

achometer

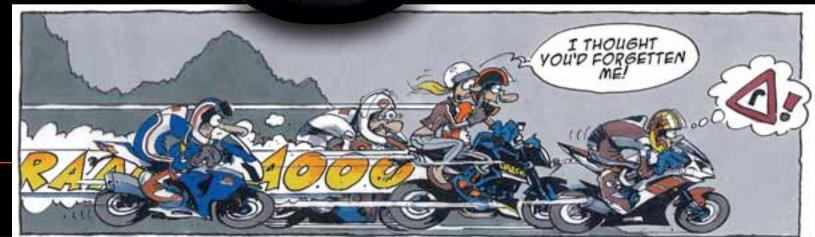
In times of sensory overload, a glance at the basics can be extremely calming. Overhauled instrument panel (including for all LC4 and LC8 models).

The face

Strong faces are sharply contoured. Just like on the Super Duke. Not a single gram of extra weight that could impair the riding dynamics. The unmistakeable identity of a powerful opponent. The face of a champion.







ork — WP Suspension upside-down fork with a 48 mm diameter. The broad adjustment range makes optimal tuning possible Fully-adjustable compression and rebound damping, 135 mm spring travel.

e — Brembo brake system with a radial main brake cylinder, two radially mounted 4-piston brake callipers and a 320 mm brake disc at the front. Floating single piston brake calliper and 240 mm brake

Shock absorber — The shock absorber is directly connected to the swing arm for maximum sensitivity. Fully-adjustable compression damping separated in high and low speed and rebound damping, 160 mm spring travel.

Chassis – We could spend ages talking about the special chassis design on the 990 Super Duke, about handling, stability and mechanical grip, but we want to be brief: we believe that this is the best naked bike chassis on the market. That's it.

> ... IT'S SAFER!

the heart of the Super Duke is the LC8 75°-twin – seen as the yardstick among the high-revving series two-cylinder motorcycles. The
intelligent design with a multifunctional balance shaft makes it the
lightest and most compact V2 in its class. The sophisticated engine
design impresses through its explosive power with a very soft and
even throttle response. The uniqueness of this engine is evident
even before you have moved a metre. Simply press the starter button and see how the engine reacts to even the tiniest turn of the throttle. The 990 Super Duke's LC8 is particularly powerful in the mid-speed range. Maximum power: 88 kW/120 HP. Maximum torque: 100 Nm.

> Swing arm — At a length of 575 mm, the swing arm carries the main responsibility for 990 Super Duke's mechanical grip. The swing arms' conical profiles make them particularly light and stable - and cost a small fortune.



First Oil Filling for all KTM Engines.







Made in Austria – by riders for riders. Designers without racing experience are a rarity at KTM. That's why every KTM follows the logic of the race. So that you never tire, so that the ergonomics fit perfectly, so that no additional ballast is carried, so that every maintenance task is particularly easy, so that they reliably withstand the hardest of tests, where they reveal their decisive

Whether by means of the most elaborate computer simulation or aluminium spacer sleeves, by the use of roller-bearing-mounted levers or laser-cut frame tubes, meticulously designed and welded by robot for absolute consistency and freedom from inherent tension. No one else expends so much effort. Effort that's worthwhile: As you ride, you can feel the quality in the hidden details.

It knows what point to set first. It draws the seams perfectly in the most intelligent sequence. It welds a few kilogrammes of Cr-Mo steel tubing into one of the lightest, most stable and most precise frames in motorcycling history. A KTM frame. Every KTM frame.

Made in Austria - those who make everything control the quality of the outcome themselves. When it comes to the main assemblies. KTM relies on its own expertise: frame. exhaust, engine, even the shock components from WP designed, computed and tested in Orange County.



Quality assurance

Nothing assures quality better than the masterly work of well-trained hands. All KTM parts undergo meticulous checks by experienced specialists - people who know what really matters when it comes to riding.



Laser cutting

High-precision laser cutting machines cut the raw material precisely to the required lengths with perfect cutting lines. Together with the clean welding work, this process ensures that KTM frames arrive in final assembly practically free of inherent tension and incomparably

COMBAT LEATHERSUIT

UECTOR GLOVES

POWERPARTS

TITANIUM EXHAUST SYSTEM

TECHNICAL DATA

The fastest tailor-made suit in the world: Power-Parts for your bike and PowerWear for you. Hightech accessories and textiles: nothing off the peg, everything for the road. Ask your KTM dealer for the current catalogue and visit our website for all

the latest news at
www.ktm.com » PowerParts
www.ktm.com » PowerWear

TRIPLE CLAMP









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WEIGHT (READY TO RACE) approx. 148.5 kg (without fuel)

WHITE **690 DUK**

approx. 148 kg (without fuel)

BLACK **990 SUPER DUKE**

approx. 186 kg (without fuel)

BLACK **990 SUPER DUKE R**

approx. 184.5 kg (without fuel)

TECHNICAL DATA 22 23

	ENGINE				
	ENGINE TYPE	Single cylinder, 4-stroke	Single cylinder, 4-stroke	2-cylinder, 4-stroke, V 75°	2-cylinder, 4-stroke, V 75°
	DISPLACEMENT	654 cc	690 cc	999 cc	999 cc
	BORE/STROKE	102/80 mm	102/84.5 mm	101/62.4 mm	101/62.4 mm
	POWER	48 kW (65 hp) @ 7,500 rpm	51.5 kW (70 hp) @ 7,500 rpm	88 kW (120 hp) @ 9,000 rpm	97 kW (132 hp) @ 10,000 rpm
	TORQUE	67 Nm @ 5,500 rpm	70 Nm @ 5,500 rpm	100 Nm @ 7,000 rpm	102 Nm @ 8,000 rpm
	COMPRESSION RATIO	11.8:1	12.5:1	11.5:1	12.2:1
	STARTER/BATTERY	Electric starter / 12 V 8.6 Ah	Electric starter / 12 V 8.6 Ah	Electric starter / 12 V 11.2 Ah	Electric starter/12 V 11.2 Ah
	TRANSMISSION	6 gears	6 gears	6 gears	6 gears
	FUEL SYSTEM	Keihin EFI with EPT (Electr. Power Throttle)	Keihin EFI with EPT (Electr. Power Throttle)	Keihin electronic fuel injection	Keihin electronic fuel injection
	CONTROL	4 V/OHC with roller rocker levers	4 V/OHC with roller rocker levers	4 V/DOHC	4 V/DOHC
	LUBRICATION	Pressure lubrication with 2 Eaton pumps			
	ENGINE OIL	Motorex, SAE 10W-60	Motorex, SAE 10W-60	Motorex, SAE 10W-50	Motorex, SAE 10W-50
À	PRIMARY DRIVE	36:79	36:79	35:67	35:67
	FINAL DRIVE	16:40	16:40	16:38	16:38
	COOLING	Liquid cooling	Liquid cooling	Liquid cooling	Liquid cooling
	CLUTCH	APTCTM slipper clutch, hydraulically operated	APTCTM slipper clutch, hydraulically operated	Wet multi-disc clutch, hydraulically operated	Wet multi-disc clutch, hydraulically operated
	ENGINE MANAGEMENT/	Keihin EMS	Keihin EMS	Keihin EMS	Keihin EMS
	IGNITION				

	Tomm Emo	TOTAL ENG	North Elifo	Norma Emo
IGNITION				
CHASSIS				
FRAME	Chromium-Molybdenum trellis frame, powder coated	Chromium-Molybdenum trellis frame, powder coated	Chromium-Molybdenum trellis frame, powder-coated	Chromium-Molybdenum trellis frame, powder-coated
SUBFRAME	Aluminium	Aluminium	Aluminium	Aluminium
HANDLEBAR	Aluminium, tapered, Ø 28/22 mm	Aluminium, tapered, Ø 28/22 mm	Aluminium, tapered, Ø 28/22 mm	Aluminium, tapered, Ø 28/22 mm
FRONT SUSPENSION	WP-USD Ø 48 mm	WP-USD Ø 48 mm	WP-USD Ø 48 mm	WP-USD Ø 48 mm
REAR SUSPENSION	WP-Monoshock with Pro-Lever linkage	WP-Monoshock with Pro-Lever linkage	WP-Monoshock	WP-Monoshock
SUSP. TRAVEL FRONT/REAR	140/140 mm	140/140 mm	135/160 mm	135/150 mm
FRONT BRAKE	Brembo 4 piston, radially bolted caliper, brake disc Ø 320 mm	Brembo 4 piston, radially bolted caliper, brake disc Ø 320 mm	2 x Brembo 4 piston, radially bolted caliper, brake disc Ø 320 mm	2 x Brembo 4 piston, radially bolted caliper, brake disc Ø 320 mr
REAR BRAKE	Brembo single piston, floating caliper, brake disc Ø 240 mm	Brembo single piston, floating caliper, brake disc Ø 240 mm	Brembo single piston, floating caliper, brake disc Ø 240 mm	Brembo single piston, floating caliper, brake disc Ø 240 mm
WHEELS FRONT/REAR	Cast aluminium wheels 3.50 x 17"; 5.00 x 17"	Cast aluminium wheels 3.50 x 17"; 5.00 x 17"	Cast aluminium wheels 3.50 x 17"; 5.50 x 17"	Cast aluminium wheels 3.50 x 17"; 5.50 x 17"
TYRES FRONT/REAR	120/70 R 17"; 160/60 R 17"	120/70 R 17"; 160/60 R 17"	120/70 ZR 17"; 180/55 ZR 17"	120/70 ZR 17"; 180/55 ZR 17"
CHAIN	X-Ring 5/8 x 1/4"	X-Ring 5/8 x 1/4"	X-Ring 5/8 x 5/16"	X-Ring 5/8 x 5/16"
SILENCER	Stainless steel underfloor silencer with reg. cat. converter	Stainless steel underfloor silencer with reg. cat. converter	Stainless steel silencer with regulated catalytic converter	Stainless steel silencer with regulated catalytic converter
STEERING HEAD ANGLE	63.5°	63.5°	66.1°	67.3°
TRAIL	115 mm	115 mm	100.7 mm	93.9 mm
WHEEL BASE	1,472 ± 15 mm	1,472 ± 15 mm	$1,450 \pm 10 \text{ mm}$	$1,450 \pm 10 \text{ mm}$
GROUND CLEARANCE	155 mm	155 mm	140 mm	150 mm
SEAT HEIGHT	865 mm	865 mm	850 mm	865 mm
TANK CAPACITY	approx. 13.5 litres / 2.5 litres reserve	approx. 13.5 litres/2.5 litres reserve	approx. 18.5 litres / 3.5 litres reserve	approx. 18.5 litres/3.5 litres reserve