



2004 Model Information

MODEL CODE: **KX125-M2**

MODEL NAME: **KX125**



OVERALL CONCEPT

Completely redesigned for 2003, the KX125 has received a number of modifications to further improve engine and chassis performance.

In the eternal quest for more power, an increase at one end of the rev spectrum usually means a drop at the other. However, Kawasaki engineers have succeeded in boosting low and mid range power, and actually managed a small increase at the top end as well.

The race-proven perimeter frame benefits from a new linkage system for the Uni-Trak rear suspension that both improves suspension action and allows a lighter frame construction, revised fork settings and an improved riding position.

KEY FEATURES

- **Improved engine performance** – revised combustion chamber with higher compression, improved piston/ring design, new expansion chamber, improved KIPS valve, new 2-stage reed valve with overlapping reeds, redesigned carb holder and airbox, revised ignition timing.
- **Improved handling and riding position** – Uni-Trak rear suspension with new linkage system offers greater traction, revised front fork settings for improved handling, new seat and expansion chamber improve riding position.

IMPROVED ENGINE PERFORMANCE

Engine

- Reshaped combustion chamber raises the compression for increased low and mid range output, and crisper throttle response.
- New piston ring reduces ring pressure (from 5.6 N·m to 3.8 N·m), for improved throttle response.
- Improved KIPS valve design reduces the gap between the valve and port when the valve is fully closed for improved low-rpm power.
- Expansion chamber redesigned for more power in the mid-range and on top-end.
- New 2-stage reed valves use carbon fibre reeds as last year, however, the weave direction has been rotated to a 45° angle. By increasing the flexibility of the reeds, low and mid-range torque characteristics are improved. To prevent over-flexing of the reeds at high rpm and to stiffen them, a second layer of smaller, glass fibre reeds (also with 45° weave pattern) reinforce the main reeds. The result is the best of both worlds: highly responsive low/mid-range with the performance of stiffer reeds at high rpm.
- New carb holder and airbox duct give a straighter flow of incoming air for improved throttle response at very low and low rpm.
- A reduction in diameter of the primary drive gear's oil seal contact area reduces frictional loss and contributes to the improved throttle response of the new engine.
- Revised ignition timing further boosts performance and improves reliability by reducing irregular combustion.

IMPROVED HANDLING & RIDING POSITION

Engine

- A smaller expansion chamber centre section contributes to the improved riding position by allowing the rider greater freedom of movement.

Frame

- The most significant modification to the lightweight steel perimeter frame is the new link Uni-Trak system. Additionally, the thickness and shapes of the upper cross tubes and engine mounts have been modified to idealise the stiffness balance for enhanced cornering performance and improved durability. Further, the footpeg location is now 3 mm higher for greater ground clearance when banked over and to complement the improved riding position.



- The rear brake pedal is now mounted 11.5 mm higher for increased ground clearance, and to suit the new riding position.

Front Suspension

- New Kayaba bladder fork features check valves on the bladders to control their internal pressure. The result is improved damping and better fork action throughout the stroke.



Rear Suspension

- The improved Uni-Trak rear suspension system uses a newly designed link and a new operating system. Unlike the



'03 chassis in which the link pivoted on the frame, in the new system, a newly designed link pivots on the swingarm. The advantages are twofold: first, the brunt of the suspension loads are now absorbed by the swingarm, allowing a lighter frame construction. The second benefit is that the shock absorber now moves in an outward arc as it compresses, rather than moving out and back in. This smoother, more stable action significantly improves traction.

Styling & Bodywork

- Flatter seat improves riding position and raises the seat height 8 mm. New seat cover texture resists slipping.

ADDITIONAL FEATURES

Engine

- 124cc liquid-cooled, two-stroke Single with crankcase reed valve induction.
- A new cylinder features a wider radius at the upper corners of the exhaust port rib to reduce piston friction and improve piston and piston ring durability.
- Cylinder cover changed from plastic to aluminium for improved sealing.
- A new piston relocates the piston ring locating pin at the exact rear of the piston. This ensures even heating/expansion of the piston ring and improves reliability of both the pin and the ring.
- With the exception of new settings, the TMX38x carburettor with arch-shaped slide remains unchanged. This unusual slide shape helps to concentrate the incoming charge more towards the centre of the intake tract for increased power in the higher rpm ranges. Also fitted is a semi-primary bleed needle jet that homogenises the fuel air mixture, contributing to sharp throttle response across the rev range.
- New crankshaft features increased clearance between the connecting rod big-end and the nylon crankcase "stuffer" for better lubrication of the big-end bearing. New connecting rod of stronger steel is more durable and improves reliability.

Chassis

- The swingarm is also new, and features a new cast bracket just aft of the shock to suit the new link, new forged axle holders (like those of the KX250N) which are stronger, and lighter, smaller diameter chain adjuster bolts. Plastic plugs now cover the holes in the swingarm beams to prevent the ingress of mud and dirt. The new swingarm features the tapering, hydroformed beams of the '03 model but is about 20 mm longer.
- Other modifications to the 48 mm inverted fork include a longer interior slide bushing for improved action, a "waisted" interior cylinder for reduced weight, and more compact axle brackets with a new clamping method.
- While the thin-wall aluminium triple clamps remain unchanged, the top nut is now made of lightweight aluminium instead of steel, and the washer below it is a thin stainless steel piece instead of the '03 model's thicker mild steel washer.
- The actuating rods for the Uni-Trak linkage are new. A one-piece forged rod replaces the '03 model's two-piece extrusions. A new D-head rod bolt eases maintenance (no wrench needed).
- In addition to a new spring and revised damping settings, the rear shock rod length is 20 mm longer to suit the new link, and a drain bolt has been added to the shock for easy oil changing.

Other

- Optional chassis parts include a lower seat (8 mm), a 20-inch front rim, a selection of aluminium and steel front and rear sprockets, different fork and shock springs, and solid brake discs.

SPECIFICATIONS

ENGINE

| | |
|-------------------|---|
| Type | Liquid-cooled, 2-stroke Single with KIPS |
| Displacement | 124 cc |
| Bore and Stroke | 54.0 x 54.5 mm |
| Compression ratio | 11.1:1 (low speed); 8.5:1 (high speed) |
| Induction | 6-petal carbon-fibre crankcase reed valve |
| Fuel system | Carburettor: Mikuni TMX38x |
| Ignition | Digital CDI |
| Starting | Primary kick |
| Lubrication | Pre-mix (32:1) |

DRIVETRAIN

| | |
|--------------|------------------------|
| Transmission | 6-speed |
| Final drive | Chain |
| Clutch | Wet multi-disc, manual |

FRAME

| | |
|-----------------------------|-------------------------------|
| Type | Perimeter, high-tensile steel |
| Wheel travel: | 300 mm |
| front | |
| rear | 310 mm |
| Tyre: | 80/100-21 51M |
| front | |
| rear | 100/90-19 57M |
| Caster (rake) | 27° |
| Trail | 113 mm |
| Steering angle (left/right) | 42° / 42° |

SUSPENSION

| | |
|---------------------|--|
| Front: Type | 48 mm upside-down cartridge-type telescopic fork |
| Compression damping | 16-way |
| Rebound damping | 16-way |
| Rear: Type | New Uni-Trak |
| Compression damping | 16-way |
| Rebound damping | 16-way |
| Spring preload | Fully adjustable |

BRAKES

| | |
|-------------|----------------------------------|
| Front: Type | Single semi-floating 250 mm disc |
| Caliper | Dual-piston |
| Rear: Type | Single 240 mm disc |
| Caliper | Single-piston |

DIMENSIONS

| | |
|------------------|------------|
| Overall length | 2,165 mm |
| Overall width | 840 mm |
| Overall height | 1,265 mm |
| Wheelbase | 1,470 mm |
| Ground clearance | 340 mm |
| Seat height | 945 mm |
| Dry weight | 87 kg |
| Fuel capacity | 8.2 litres |

PERFORMANCE

| | |
|----------------|-----------------------------------|
| Maximum power | 30.2 kW {41.0 PS}/ 11,500 rpm |
| Maximum torque | 26.5 N·m {2.70 kgf·m}/ 10,500 rpm |

The specifications mentioned here apply to and have been achieved by production models under standard operating conditions.

We intend only to give a fair description of the vehicle and its performance capabilities but these specifications may not apply to every machine supplied for sale. Kawasaki Heavy Industries, Ltd. reserves the right to alter specifications without prior notice.

Equipment illustrated and specifications may vary to meet individual markets.