



DUCATI XDIAVEL

Ducati enters the Cruiser domain and does so in its own inimitable way, presenting a true Cruiser with all the design, technology and performance one expects from a Ducati thoroughbred. Called the XDiavel, it brings together two worlds: the Cruiser world - low speeds, relaxed riding, long journeys and feet forward ergonomics - and the Ducati world, characterised by Italian style, refined engineering and unparalleled performance.

The XDiavel ensures the "low speed excitement" typical of a Cruiser and the adrenaline rush of sports riding that Ducati has made its own. That's what the X in XDiavel stands for: the merging of two apparently separate, distant worlds on one bike, a superb combination where both are accomplished without compromise.

5,000, 60, 40. Three numbers that sum up the XDiavel concept.

5,000 as in the rpm at which the twin-cylinder engine achieves maximum torque (13.1 kgm). Extremely low revs for a Ducati engine but perfect for a Cruiser. Moreover, at 2,100 rpm the XDiavel power unit already ensures a torque of over 10 kgm, with an extremely flat curve all the way to the rev-limiter. Yet the engine remains a Ducati engine through and through, with a maximum power of 156 hp and thrilling performance across the rev range.

To obtain that performance Ducati engineers pushed the Testastretta engine through its ultimate development phase to create the Ducati Testastretta DVT 1262. Increased engine displacement, together with the DVT (Desmodromic Variable Timing) system, results in delivery of full yet fluid torque at low revs, but ensures sports bike performance when the throttle is twisted wide open. Moreover, the design work on the Ducati Testastretta DVT 1262 has been meticulous: for example, relocation of the water pump inside the intra-cylinder V means the cooling system pipes are no longer visible on the left.

60, as in the number of different ergonomic configurations for the rider. The XDiavel provides vast scope for personalisation thanks to 4 different footrest positions, 5 different seats and three different handlebars. It's also possible to fit a comfier passenger seat, even with a small backrest. All this, then, because comfortable riding means full "low speed excitement".

Lastly, 40, as in the maximum attainable lean angle. The XDiavel is a Ducati and as such ensures dynamic performance and the thrill of a sports bike, but only when you really want to push it to the limit. Frame, suspension, brakes and the chassis set-up have been designed to maximise sports-style riding fun, but without compromising on the comfort and easy handling that are essential when exploring the highways at a more relaxed pace.

The XDiavel is the first Ducati to use belt-type final transmission. A must within the Cruiser world, this system has been developed for the XDiavel by Ducati engineers to ensure reliable, secure transmission of the power provided by the Ducati Testastretta DVT 1262. Belt drive offers the advantages of more silent running, cleanliness, reduced maintenance and the fluid throttle response one wants from a Cruiser.



Design and technology merge again on the Full LED light assemblies, which play a key role in the styling of the XDiavel.

Like all latest-generation Ducati bikes the XDiavel features the Bosch Inertial Measurement Unit (IMU), which dynamically measures pitch and roll angles plus the speed of relative variations in attitude, thus raising performance and safety standards even further. This system, together with Ducati Traction Control (DTC), Riding Modes, Bosch Cornering ABS, Cruise Control and the innovative Ducati Power Launch (DPL) make the XDiavel a technological gem offering high performance and, above all, safety.

Available also as an S version, the XDiavel features a black-only colour scheme (on the S version the matt black becomes gloss). The bike also has the innovative DRL (Daytime Running Light) at the front, forks with DLC coating, Brembo M50 front brake callipers, a special seat and parts with machine-finished highlights. These include eye-catching alloy wheels and aluminium engine belt covers, given even greater allure thanks to the gloss black paintwork.



Main as-standard features

XDiavel

- **Colours**
 - Dark Stealth with Mineral grey frame and wheels
- **Equipment**
 - Ducati Testastretta DVT 1262 engine
 - Inertial Measurement Unit (IMU) by Bosch
 - Bosch-Brembo ABS 9.1MP Cornering braking system
 - Adjustable suspension
 - Riding Modes (Sport, Touring, Urban)
 - Ducati Traction Control (DTC)
 - Ducati Power Launch (DPL)
 - Electronic Cruise Control
 - Full-LED front and rear lights
 - Dashboard with TFT display

XDiavel S

- **Colours**
 - Thrilling Black with matt black and red trim with grey frame and black wheels
- **Equipment**
 - Ducati Testastretta DVT 1262 engine
 - Inertial Measurement Unit (IMU) by Bosch
 - Bosch-Brembo ABS 9.1MP Cornering braking system
 - Brembo M50 front callipers
 - Adjustable suspension
 - Adjustable fork with DLC coating on the fork bodies
 - Riding Modes (Sport, Touring, Urban)
 - Ducati Traction Control (DTC)
 - Ducati Power Launch (DPL)
 - Electronic Cruise Control
 - Full-LED front and rear lights
 - Front headlight with DRL
 - Dashboard with TFT screen
 - Bluetooth module for infotainment system
 - Seat with dual-material lining
 - Machine-finished forged lateral frame plates
 - Natural brushed-effect anodized swingarm
 - 12-spoke machine-finished wheels
 - Gloss black engine
 - Machine-finished aluminium belt covers
 - Rear view mirrors in billet aluminium



Personalisation packages

Ducati Performance offers an extremely broad accessory catalogue for the XDiavel. In addition to individual items, three dedicated personalisation packages are also available: Sport, Touring and Urban.

- **Sport Pack:** further forwards handlebars, handlebar plugs, fuel filler cap and forged aluminium rim set.
- **Touring Pack:** comfortable passenger seat, passenger backrest, magnetic tank bag and transparent Plexiglas screen.
- **Urban Pack:** rear brake fluid reservoir cover, billet aluminium footrests, billet aluminium frame plugs, billet aluminium handlebar end weights, brake and clutch fluid reservoir covers, billet aluminium clutch cover, phase inspection cover and Roadster nose fairing.

Design

Long, low, beefy, with modern lines and technologically advanced components. And, above all, sexy. That's how the XDiavel designers at Ducati envisaged it when they came up with the first sketches. A bike conceived, on one side, with the Cruiser world in mind... and Ducati DNA on the other. A bike that takes the Cruiser concept into the future, offering nothing less than a true "Technocruiser".

Proportions, shaping and details are all explicitly Cruiser. And everything offers a view of the Cruiser world as Ducati sees it.

The XDiavel has a unique silhouette. It captures the gaze, frames the full volume of the bike, balances it between the wheels and brings out the beauty of the engine: the new Ducati Testastretta DVT 1262. As the star of the show, the engine has been meticulously designed down to the very last detail. The overriding goal was to highlight the intra-cylinder 'L', the hallmark of every Ducati. The overall layout, the outcome of close teamwork between engineers and designers, is elegant and clean. The result is a futuristic exaltation of mechanics and technology, not just as performance-focused functional elements but also as pure beauty.

Extreme in its proportions, the XDiavel has deliberately been designed "element by element". The frame, short and modern, is immediately recognisable as the classic Ducati Trellis frame. The steel teardrop tank inevitably brings to mind the Cruiser world, but retains the DNA of the Monster and the Diavel. The headlamp, an ultra-modern interpretation of the classic Ducati naked headlight, now features the innovative DRL, giving the bike immediate recognisability. And so on with tailpiece, silencer and seat: all elements that, observed individually, have their own appeal yet, together, produce an extremely harmonic, balanced whole. Just as a host of skilled musicians form an orchestra.

This painstaking work has seen Ducati give the entire XDiavel range one specific colour: black. Applied differently on the standard and S versions, the black is accompanied by red - Ducati's long-standing trademark colour - and the same yellow that characterises the Ducati Scrambler, creating a new distinctive made-in-Bologna feature. The XDiavel is matt black (Dark Stealth), as are the engine covers and belt covers, while subframe and swingarm are Mineral Grey. The XDiavel S, instead, is gloss black (Thrilling Black) with a matt black stripe and red trim. On this version the entire engine is gloss black and the belt covers have been machined to leave the aluminium in view.



Ergonomics

The riding position tells you everything you need to know about a bike. That's why, when the designers and engineers started work on the XDiavel, they did so with one clear aim: a relaxed riding position worthy of a true Cruiser. The seat had to be low and the footrests positioned forwards. And the ergonomics had to be modular to let riders fit themselves on the bike just as a tailor-made suit fits the body. That's why the XDiavel footpegs can be adjusted to three different positions (+/- 22.5 mm with respect to the standard setting). Moreover, for those who like a racier riding position, a Ducati Performance "central footpeg" kit will be available as an optional feature.

When, instead, the designers conceived the handlebars, cables and wires were routed to allow fast replacement of as-standard bars with a further forward (+ 25 mm) or more retracted (- 25 mm) Ducati Performance option. With regard to the seat, in addition to the standard one with an above-ground height of 755 mm, Ducati Performance offers higher (+ 20 mm) and lower (- 10 mm) options, a wider, more comfortable version and a premium version featuring exclusive design and special materials.

Lastly, to keep the passenger as snug as possible, in addition to the standard seat a 'comfort' seat with backrest is available as a Ducati Performance accessory.



Engine

The twin-cylinder Ducati Testastretta DVT 1262 is a completely new, Euro 4 type-approved engine featuring the DVT (Desmodromic Variable Timing) system. First introduced on the Multistrada 1200, it has been re-thought and recalibrated to put out high torque even at low revs, ensuring fluid, low-rpm power delivery and a full torque curve all the way to the high revs. The Ducati Testastretta DVT 1262 has a maximum power of 156 hp at 9,500 rpm and a maximum torque of 13.1 kgm at 5,000 rpm.

The DVT system independently varies the timing of both the intake valve camshaft and the exhaust valve camshaft thanks to the adoption of a valve timing adjuster applied on the ends of each of the two overhead camshafts. The DVT system is divided into two parts: an external part rigidly connected to the pulley driven by the timing belt and an internal one connected to the camshaft, coaxial to the first and which, with respect to the latter, can rotate earlier or later depending on the oil pressure in the special chambers. This oil pressure is adjusted by dedicated valves and the timing of each cam is controlled dynamically by a sensor in the cam covers.

The twin-cylinder Ducati engine on the XDiavel has a displacement of 1262 cm³ with bore-stroke measurements of 106 x 71.5 mm (as opposed to the 106 x 67.9 mm on the Ducati Testastretta DVT 1200). Compared to the Multistrada 1200 engine, it has a higher compression ratio, now 13:1 (as opposed to 12.5:1); however, it shares the same Bosch electronic injection system, featuring elliptical throttle bodies with a 56 mm-equivalent diameter and a Ride-by-Wire system that has, of course, been recalibrated.

The top end of the Ducati Testastretta DVT 1262 has been given a thorough overhaul. Both cylinder heads have frame attachments and the horizontal one has been redesigned so it can also support the further-forwards rider footpegs. The crankshaft features a new balancing system that, instead of the classic pads, uses ground steel plates.

The DVT also features the Dual Spark (DS) system (i.e. two plugs per cylinder) and employs a secondary air system; the latter introduces fresh air into the exhaust duct to complete oxidation of unburned hydrocarbons and reduce the levels of pollutants such as HC and CO without affecting engine performance.

Of course, the Ducati Testastretta DVT 1262 uses the Desmodromic engine valve closure system that has made Ducati famous all over the world. Thanks to this system the intake and exhaust valves are closed positively with the same precision and similar technique as to be found during valve opening.

Ducati engineers have worked in close collaboration with the designers at the Style Centre to reposition the water pump. On all liquid-cooled Ducati engines this component is placed on the alternator cover on the left side of the engine. This solution involves complex pipe routing that covers a good part of the cylinders. On the XDiavel, instead, the engine is designed to be a core characterising feature of the vehicle and, for this reason, the water pump has been positioned in the 'L' between the two cylinders. Engineers and designers have striven to produce an engine as aesthetically clean as possible, leaving it in clear view at the centre of the bike.



The new water pump is driven by an auxiliary belt that is, in turn, powered by the one of the timing belt pulleys. It has also been sized to improve on the performance of its predecessor; flow has been optimised to ensure perfectly balanced coolant flow between the horizontal and vertical cylinders. Connection pipes and hoses have been hidden while the cylinders, which host the pump couplings, have a new internal circuit, the result of complex research into fluid dynamics.

The enormous attention to detail that allowed engineers and designers to build the Ducati Testastretta DVT 1262 can also be observed in the repositioning of the blow-by pipe which on other Ducati bikes exits from the base immediately behind the vertical cylinder: on the XDiavel, instead, it has been integrated into the belt covers. Moreover, the surface finishing of all engine parts has been completed meticulously.

The XDiavel mounts a 6-speed gearbox and features the same gear sensor first seen on the 1299 Panigale; the clutch, instead, is of the oil bath type with slipper function.

For the very first time on a Ducati, transmission is of the belt type. To mount the front pulley the engine cover has been specially redesigned. The final 28/80 ratio corresponds to a drive ratio of 15/43.

The XDiavel exhaust is a 2-in-1 system with a chamber-type body and two tail pipes. Exhaust pipe routing deliberately leaves the engine in view; likewise, the central body has been positioned in front of the rear wheel, making it practically invisible.

Long service intervals

Constant investment in quality - ensured by design, advanced materials and cutting-edge engineering - has allowed Ducati to provide highly competitive maintenance scheduling; routine maintenance intervals have been extended to 15,000 km (9,000 miles) - or one year - and valve timing adjustment to 30,000 km (18,000 miles), providing clear advantages for customers. This has been achieved by employing special materials for the valve seats, improving combustion efficiency and limiting the running temperature of the Ducati Testastretta DVT engine. Moreover, the innovative DVT system does not in any way complicate the valve timing adjustment procedure.



Electronics

The Ducati XDiavel makes use of Bosch IMU (Inertial Measurement Unit) inertial platform technology. This dynamically measures roll and pitch angles and the speed of relative changes in attitude, thus raising performance and safety standards even further. The IMU allows the Riding Modes (Sport, Touring and Urban) to give the bike three distinct personalities. Each Riding Mode has different engine delivery, maximum power, Ducati Traction Control and Cornering ABS settings. All electronic control systems can be adjusted to intervene as desired and, thanks to the Default function, all values (or just some of them) can be returned to their standard settings.

Furthermore, on the XDiavel engine power delivery is controlled via a Ride By Wire system. Torque is no longer adjusted directly by a throttle cable but electronically: a signal is read and processed by the engine control unit which then modulates throttle body aperture. The Ride by Wire system allows three different engine power delivery mappings to be used.

Sport

Selecting Sport Riding Mode transforms the XDiavel into a high-adrenaline 156 hp machine. This mode gives the rider full control over the throttle response to maximise acceleration. This is combined with reduced DTC intervention (Level 2), perfect for riders who want to push it to the edge and enjoy the unbridled power of the Ducati Testastretta DVT 1262. ABS, instead, is set to interaction Level 2.

Touring

For the Touring Riding Mode, Ducati has provided enjoyable power delivery, again at 156 hp, but this time in a travelling configuration that offers softer, easier-to-handle torque. Rear traction is controlled by the DTC, set at a level designed to ensure stable, relaxed riding (Level 4), just perfect for maximum rider and passenger comfort on long journeys. The ABS is set to interaction Level 3.

Urban

Urban mode instantaneously transforms the personality of the XDiavel, changing it into an easy-to-handle bike that instils confidence. Urban Riding Mode limits power to 100 hp and sets a high level of traction control (Level 6), allowing the rider to take on even the heaviest city traffic in complete safety. The ABS is set to interaction Level 3.

DTC (Ducati Traction Control)

Ducati Traction Control is a competition-derived system that acts as a filter between the rider's right hand and the rear tyre. Within the space of just a few milliseconds the DTC can detect and, subsequently, control any wheelspin, improving bike performance and active safety considerably.

This system has 8 different intervention levels. Each one has been programmed to provide a rear wheelspin tolerance that matches progressive levels of riding ability (classified from 1 to 8). Levels 1 and 2 are specifically intended for sports-style riding and allow for high levels of rear wheelspin. Levels 3 to 6 ensure excellent grip on dry asphalt while levels 7 and 8 are designed to maximise grip on wet tarmac.



DPL (Ducati Power Launch)

The "Dragster" coiled within every XDiavel can be unleashed thanks to Ducati Power Launch (DPL). This system guarantees breathtaking - yet safe - starts thanks to the IMU, which adjusts fuel delivery, and DTC intervention as per the selected setting. DPL has three different modes, Level 1 being the one that provides maximum performance.

The DPL is activated by pressing the dedicated button on the right switchgear. Once it has been activated the rider then sets the intervention level via a menu on the dashboard. Once the level has been selected, the rider has to squeeze the clutch lever, engage first gear and twist the throttle wide open. At this point, simply by releasing the clutch gradually, it's possible to experience the most awesome starts.

The system is automatically disengaged once the bike tops 120 kph (75 mph), or once third gear is selected or when the bike slows to below 5 kph (3 mph). To protect the clutch, a specially developed algorithm allows only a limited number of consecutive starts. One by one, the number of 'launches left' are re-enabled once the motorcycle returns to being ridden normally.

Bosch Brembo brake system with Cornering ABS system

The XDiavel features a Brembo braking system with the ABS 9.1MP Cornering device, an integral part of the Ducati Safety Pack (DSP). Cornering ABS makes use of the Bosch IMU (Inertial Measurement Unit) platform to optimise front and rear braking power even in critical situations and with the bike at considerable lean angles. Through interaction with the Riding Modes, the system provides solutions suitable for any situation or riding condition.

Designed to improve rear tyre control during hard braking, wheel lift detection is enabled at Level 3 but remains disabled at Levels 1 and 2. Nevertheless, the ABS can also be fully disabled from the instrument panel in any Riding Mode, and settings can be saved and recalled at the next Key-On.

The system integrates perfectly with the Ducati Riding Modes and has three different intervention levels. Level 1 offers maximum sports riding performance by eliminating rear wheel lift detection and allows rear wheel drifting by applying the ABS at the front only. Level 2 ensures equilibrium between front and rear without rear wheel lift detection but with the Cornering function on and calibrated for sports-style riding. Level 3 allows, in Touring and Urban modes, optimisation of the combined braking action with rear wheel lift detection on and the Cornering function on and calibrated for maximum safety.



Dashboard

The XDiavel dashboard consists of a TFT screen with a separate warning light module positioned above the handlebars. The dashboard has four different display modes. New to Ducati, the Default mode provides a minimal must-have level of information, presented in an attentively styled manner. The other three, instead, are the classic Track, Full and City display modes associated with the Riding Modes.

The XDiavel has dedicated switchgears with red-backlit keys. Under static conditions it is possible to use the left switchgear to access a setting menu to activate and adjust various functions such as personalised DTC and DPL settings and the three Cornering ABS intervention levels. Moreover, Cruise Control has dedicated keys to activate and manage the speed setting. It's also possible, under either static or dynamic conditions, to choose between the Sport, Touring or Urban Riding Modes.

The XDiavel S is, moreover, equipped with a Bluetooth module. Connecting a smartphone to the dashboard allows the rider to see incoming calls and text messages on the screen and display any music being listened to.

Lights

The XDiavel light assemblies are the result of intense, meticulous design work. Both the front and rear are full-LED units (in countries where they are permitted) and have been designed to give the bike instantly recognisable appeal. Lights automatically shift from their daytime configuration to their night-time one thanks to a sensor on the dashboard. This function can, where desired, be deactivated to allow manual operation.

Moreover, the headlight on the XDiavel S features the DRL (Daytime Running Light) (in countries where it is permitted). The DRL is a special side light that ensures perfect vehicle visibility during the day while providing the XDiavel with yet another uniquely distinguishing feature.

Hands Free Ignition

The XDiavel can be started without inserting a mechanical key. Just come within 2 metres of the bike and the system automatically reads the electronic key code; this allows ignition without even having to remove the key from your pocket. At this point pressing the key-on button will power up the control panel and allow the engine to be started. The key consists of an electronic circuit and a mechanical flip key to open the seat and remove the filler cap. This system includes an electrical steering lock actuator: when the bike is parked, the steering lock can be engaged at the press of a button. When you return to the bike, the lock is automatically released at key-on.



Frame

The XDiavel features a steel tubular Trellis frame that employs the Ducati Testastretta DVT 1262 as a stressed chassis element. The frame is attached to the engine at the two cylinder heads, as is the shell-cast aluminium subframe. Also attached to the engine are two forged aluminium plates (these are machine-finished on the S version) that embrace the swingarm. The lower part of the swingarm is cast, while the upper Trellis section with a forged, removable part allows extraction of the transmission belt. Although the XDiavel has a 1615 mm wheelbase, its agile chassis geometry and the possibility of reaching lean angles as high as 40° on mixed-road routes ensure pure Ducati performance.

Suspension

At the front the XDiavel mounts 50 mm Marzocchi forks with black anodised sleeves, with fully adjustable rebound and compression damping and spring pre-load (the S version also has fork tubes with DLC coating). Damping compression and spring pre-load adjustment are on the left fork tube, while rebound adjustment is located on the right tube. The XDiavel has cast aluminium slanted fork yokes with risers that support aluminium alloy handlebars having a diameter of 32 mm with external rubber-mounted tubes having a diameter of 22 mm. With a headstock rake of 30° and an offset of 130 mm, the XDiavel offers excellent front-end agility and feel, ensuring exceptional handling and a generous steering lock.

At the rear, instead, the XDiavel mounts a Sachs monoshock - with adjustable spring-preload and damping rebound - with a separate reservoir. Mounted almost horizontally, the shock absorber works in concert with progressive linkage.

Brakes

At the front end of the XDiavel excellent braking performance is provided by Brembo brakes with M4 32 radial monobloc callipers (M50 on the S version); actuated by a PR18/19 radial brake pump featuring an integrated aluminium reservoir; the calipers grip two 320 floating discs. At the rear, instead, a 265 mm disc is braked by a 2-piston PF 30/32 calliper, again made by Brembo.

Tyres and wheels

The XDiavel mounts 14-spoke wheels. At the front end the bike sports a 3.5" x 17" wheel, at the rear an 8" x 17" one. On the XDiavel S, instead, exclusive machine-finished 12-spoke wheels bring design even further to the fore.

The front wheel mounts a traditional 120/70 ZR17 tyre with a tread redesigned to maximise wet weather performance. The rear tyre is a 240/45 ZR17. The bike comes with Pirelli Diablo Rosso II tyres. To provide increased grip when leaning hard into a bend yet still ensure excellent mileage, the impressive rear tyre features both dual compound technology and EPT (Enhanced Patch Technology) to maximise the contact area at any lean angle. Tread design and carefully selected compounds ensure exceptional performance whatever the road conditions, especially in the wet.