



# TE 300 2025

Media information

Husqvarna Mobility has expanded its enduro line-up to eight models for 2025 with the return of the TE 125. The impressive, competition-focused range now comprises four 2-stroke and four 4-stroke machines. Each model is expertly assembled with race-tested components and using the latest technology to ensure best-in-class performance.

The returning TE 125 has been fully redesigned for ambitious young riders and shares very few components with the previous generation. The all-new machine benefits from many of the proven parts found on the larger capacity 2-stroke models including Throttle Body Injection (TBI) and a Map Select Switch. Complete with a close-ratio 6-speed gearbox, WP XACT suspension, and Brembo clutch and brake systems, the TE 125 makes a welcome return for 2025.

The new Brembo components found on the TE 125 can also be found on the existing models to improve performance and reliability. Further updates include new Swedish-inspired graphics and an updated swingarm to enhance the durability of the chain slider.

All four 2-stroke models – the TE 125, TE 150, TE 250, and TE 300 – are lightweight and highly capable enduro motorcycles. Offering easy maintenance, class-leading rideability, and an exceptional build quality, the range ensures all riders can take full advantage of the competitive edge that each machine provides. For those who prefer high performance 4-stroke enduro machinery, a choice of four established models is available – the FE 250, FE 350, FE 450, and the FE 501. Assembled with the latest technology throughout and electronic rider aids, including Traction Control and a Quickshifter, each machine delivers the torque and power riders need to master any terrain.

# Technical highlights

- New high-performance Brembo hydraulic clutch and brake systems
- New Swedish-inspired graphics for a distinctive look
- Revised die-cast aluminium swingarm provides optimal rigidity and improves the durability of the chain slider
- Competition-orientated start/stop button
- Bodywork with specifically tailored ergonomics for enhanced control
- Hydro-formed chromium molybdenum frame designed for refined anti-squat behaviour
- High-performance GSK discs deliver superior stopping power
- Throttle Body Injection (TBI) on 2-stroke engines provides class-leading power and rideability
- FE 250 and FE 350 powered by DOHC engines for class-leading torque and peak power
- Quickshifter ensures smooth upshifts on 4-stroke models, even under heavy load
- Aluminium-polyamide hybrid subframe construction provides specifically calculated rigidity and advanced durability
- WP XACT Closed Cartridge front forks offer progressive damping and predictable handling
- WP XACT rear shock features a Computational Fluid Dynamics (CFD) optimised main piston and tool-free adjusters
- Multifunctional Map Select Switch controls the Quickshifter and Traction Control on 4-stroke models
- Offroad Control Unit (OCU) for exceptional reliability and user-friendly serviceability of the electronics



# Features and benefits

## Frame

The hydro-formed, laser-cut and robot-welded frame is expertly crafted. Constructed with specifically calculated parameters of longitudinal and torsional flex, the frame provides exceptional rider feedback, energy absorption and straight-line stability. Additionally, the frame features forged brackets for mounting the skid plate.

The rotational masses of the engine and the forged steering head connection have been specifically positioned, and together with the upper shock mounting, which is not connected to the main tube, the anti-squat of the chassis is optimised for exceptional balance when accelerating and turning. Also, the wall thickness of the frame has been optimised for reliability and specific rigidity in high stress areas such as the steering head and the shock mounts. Parallel frame mounts (same position on left and right sides) improve chassis flex characteristics, while stability characteristics remain unrivalled.

Another highlight of the frame topology is the position of the footrests as they are mounted inward on the frame to be less susceptible to hooking on deep ruts. The size of the footrests is optimised for maximum grip with the overall design created using of state-of-the-art Computational Fluid Dynamics (CFD).

The one-piece steering head seal allows easier mounting in case of replacement or service and offers exceptional reliability. Additionally, the head tube is closed to prevent water, dust, or fuel from the overflow hose intruding and damaging the bearings. The fuel overflow hose is now routed downwards and sideways. The steering lock system that is clamped in place under the upper triple clamp guarantees perfect functionality and is easily replaced by removing the upper fork crown. The EU5 homologated 2-stroke models continue to have an oil tank integrated into the frame (besides the new TE 125) and the concept was optimised and adapted to the frame.

A forged one-piece side stand design is perfectly integrated onto each motorcycle and makes sure each model is stable when parked.

The frame is finished off in a premium metallic blue powder coating. The standard frame protectors feature an optimised topology, guaranteeing superior protection, durability, and advanced grip in any condition.

- Specifically engineered longitudinal rigidity → exceptional rider feedback, energy absorption and stability
- Optimised placement of rotational engine masses and shock mounting → significantly positioned to minimise chassis squat
- Topology-optimised frame wall thickness for specific rigidity and reliability in high-stress areas (e.g., steering head, shock mount)
- Parallel frame mounts (same position on left and right side) for refined flex characteristics
- Inward mounting position for the footrests reduces the risk of hooking on deep ruts
- Service friendly one-piece steering head seal → easier mounting, advanced reliability
- Durable powder coated finish with standard frame protectors
- Forged one-piece side stand → ultimate parking stability
- Steering lock system → removable without cutting of frame

## Polyamide-reinforced aluminium subframe

Using 60% polyamide and 40% aluminium, the two-component subframe has a total weight of just 1.8 kg. With the help of computational dynamics, specific rigidity was engineered into the light and robust subframe, delivering outstanding handling and rider comfort.

The lower subframe spars and frame mounts are made from extruded aluminium profiles to guarantee robustness and reliability where needed. The upper subframe is a perfect combination of injection-moulded polyamide and 3D formed aluminium, enabling specific flex characteristics and allowing a reliable construction.

- Topology-optimised polyamide/aluminium hybrid construction
- Lower subframe spars and frame mounts made from 3D formed aluminium profiles → extremely robust and reliable (no weld joints)
- Upper subframe made from injection-moulded polyamide → specific rigidity and flex benefit handling and comfort

## Swingarm

The hollow die-cast aluminium swingarm is designed to offer optimal stiffness and reliability at the lowest possible weight. The topology has been optimised for optimal rigidity while the casting process minimises weight. In order to optimise and match the chassis flex characteristics, a 22 mm rear axle is fitted.

Additionally, the chain guard and chain slider have been designed to be durable and less susceptible to hooking on external objects. The design reduces dirt build up around the swingarm and chain guard, especially in extreme muddy conditions.

The machining of the swingarm has been revised for MY25 to further improve the durability of the chain glider. The geometry of the chain glider itself has also been updated.

Chain adjustment markings are also visible from above to make for simpler adjustment.

- Diecast swingarm → topology-optimised for optimal rigidity
- Innovative casting process for minimal weight
- 22mm rear axle optimised to match chassis flex characteristics
- Durable chain guide and chain slider
- Transitions aligned with swingarm surface; spring-steel mounted for increased durability
- Overall, less susceptible to hooking on external objects
- Revised swingarm and chain glider → more durable design

## WP XACT Closed Cartridge fork

The WP XACT Closed Cartridge forks are 48 mm in diameter with a total length of 940mm.

Fast and consistent damping characteristics are guaranteed thanks to the closed cartridge spring design that optimises the oil flow within the cartridge and was adapted from the market leading WP Pro Component technology. This set-up avoids unwanted foaming of the oil, which leads to a less consistent damping behaviour. Additionally, a spring preloaded base valve provides precise high-speed compression damping that can be further customised with the preload adjuster that is available as a Technical Accessory.

A hydro stop in the last 68 mm of the stroke helps to keep a maximum of reserves in extreme riding situations such as large jumps and flat landings (e.g., special stages of enduro races). The fork protection rings come with an optimised design to reduce abrasion from the fork movement.

The fork is fully adjustable in rebound (36 clicks) and compression (36 clicks). Hand adjustable clickers on the bottom of the fork shoe and fork top cap allow riders to change settings on the fly without the need of tools.

- WP XACT Closed Cartridge spring fork → fast and consistent damping characteristics, superior performance for any riding level
- Mid-valve piston → fully filled oil cartridge, no foaming of oil
- Hydrostop → high damping reserves for strong impacts and jumps (no abrupt hardening)
- Optimised fork protection rings → reduced abrasion from fork movement
- Fully adjustable → rebound and compression adjustable via easy access clicker dials (base valve preload adjuster available as Technical Accessory through WP)

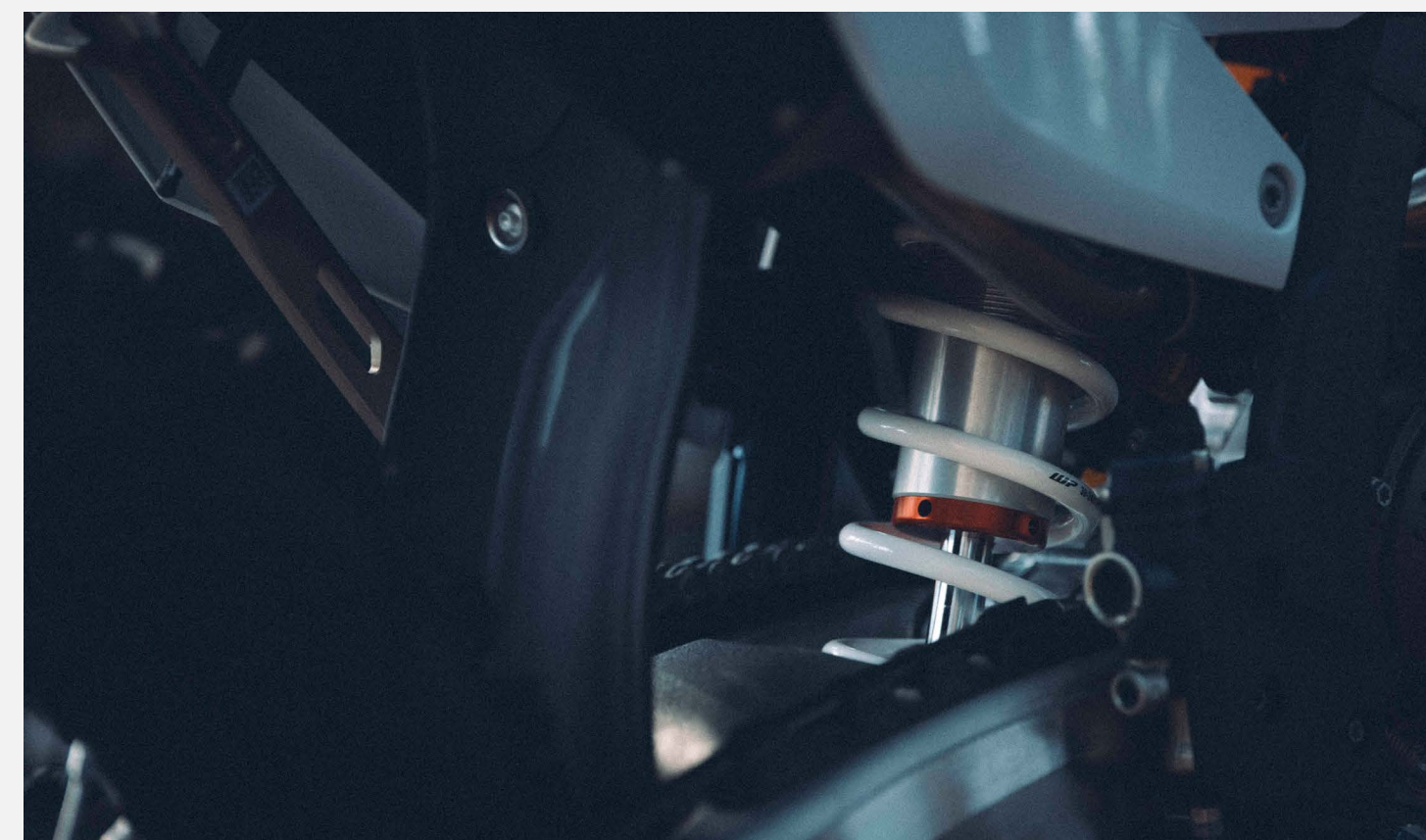
## CNC-machined triple clamps

Made from high-grade aluminium, the CNC-machined triple clamps feature optimally tuned steering stem stiffness, perfect alignment of the fork tubes, and precise geometry of the fork clamps to ensure a highly responsive and smooth fork action.

Topology-optimised bar mounts provide a large contact surface for reduced handlebar twist at the same weight as the previous generation. Additionally, they come with a rubber damped mounting to provide just the right amount of handlebar flex. A 2-way handlebar adjustment is standard and allows for customisable ergonomics by rotating the handlebar mount.

The headlight mask integrates a triple clamp protector that covers the lower triple clamp and protects it from wear caused by roost.

- CNC-machined aluminium with anodised surface → inest quality and reliability
- Perfect clamping and alignment → smooth fork action
- Topology-optimised handlebar mounts → increased grip surface for less handlebar twist, same weight as previous generation
- Rubber damping on top clamp → reduced vibration, increased comfort
- Adjustable handlebar position → adjustable ergonomics



## WP XACT rear shock

The Computational Fluid Dynamics (CFD) optimised main piston in the shock offers exceptional initial comfort and provides strong hold-up. Differently sized flow holes allow the shims to open more easily and reduce the overall stress of oil flow and pressure on the shims. Reduced weight also means less moving mass, resulting in lower forces on the piston bearings.

A fully hand-adjustable dual compression control concept allows high- and low-speed settings to be changed by hand. Together with the rebound adjuster, which is hand or tool adjustable, riders are now able to adjust their shock settings without tools and without the help of a mechanic.

On top of the tool-free setting adjustment possibilities, the preload adjuster brings increased resistance to dirt intrusion and a two-piece spring retainer allows for quick mounting without splitting the shock. A revised linkage bolt with a smaller diameter provides weight savings compared to the previous model year.

- Lightweight, compact rear shock design
- Rear wheel travel → 300 mm
- Reduced weight results in less moving mass → lower forces on bearings
- CFD-optimised main piston for exceptional initial comfort and strong hold-up
- High ground clearance, lower risk of damage in extreme bottoming-out situations
- Dual compression control allows high and low-speed settings to be adjusted by hand
- Rebound adjuster allows setting changes by hand or tool
- Two-piece spring retainer allows for quick mounting and assembly of preload adjuster and shock
- Smaller diameter linkage bolt for weight reduction and stiffness optimisation

## Engine hangers

The engine hangers are unified across the 2-stroke models with a different design for the 4-stroke machines. For the FE 501, they are unique because of the engine dimensions. This has significant advantages when it comes to machine set-up including the suspension, balance, and changes to the frame. This wasn't possible in the past as frame geometry changes had different effects on each model due to different engine hangers and engine position within the frame.

- 2-stroke Enduro range → unified engine hangers
- 4-stroke Enduro → unified engine hangers (except FE 501)
- FE 501 → unique engine hangers due to size of engine, cylinder, cylinder head

## Brembo hydraulic clutch

The high-performance Brembo hydraulic clutch system guarantees even wear, near maintenance-free operation and perfect modulation in every condition. It means that play is constantly compensated so that the pressure point and function of the clutch remain identical in cold or hot conditions, as well as over time. Countless hours of race-focused testing have proven the exceptional reliability of the high-quality, Italian-made Brembo hydraulic system.

- Brembo hydraulic clutch system → perfect action and outstanding reliability in every condition

## Brembo Brakes

The highest level of quality is guaranteed with class leading Brembo calipers and controls. The calipers are matched to a 260 mm waved front brake disc and a 220 mm rear brake disc to deliver superior stopping power. Both brake discs are made by GSK.

- Brembo brake calipers and high-performance GSK discs → superior stopping power

## ProTaper handlebar

The ProTaper handlebar is second to none for function and style. Manufactured to exacting standards, the handlebar features class-leading fatigue resistance at a minimal weight. The handlebar bend further increases comfort with an optimal pressure point on the rider's hands while the Pro Taper logos are chemically applied and are scratch and peel resistant.

- ProTaper handlebar → class-leading function and style
- Handlebar bend → optimised for vehicle ergonomics

## Grips and throttle assembly

The ODI lock-on grip on the left side does not require gluing while on the right, the vulcanised grip features an innovative integrated throttle mechanism. The assembly has easy free-play adjustment and, by changing a cam, throttle progression can be altered. The throttle housing has been designed for resistance against external forces.

- Throttle assembly and ODI grips → easily alter throttle progression; easy grip mounting without glue
- Throttle housing → increased resistance against external forces

## Footrests

The CFD-designed footrests offer a bigger surface for boot soles while being less susceptible to hooking on deep ruts to ensure maximum control in all conditions. A narrow mounting concept integrated in the frame design reduces weight.

- Topology-optimised, die-cast footrests → low weight and designed to prevent dirt build-up
- Footrest mount integrated in frame → narrower profile is less susceptible to hook on deep ruts

## Map Select Switch and Traction Control

Designed for easy and intuitive operation, the Map Select Switch is fitted as standard. It activates Traction Control, selects between two engine maps (aggressive/smooth) and activates the Quickshifter feature on the 4-stroke models. Map 1 is the standard map for linear, predictable power, while Map 2 is an aggressive map for added throttle response and more explosive power output.

The Quickshifter function (upwards only) can be activated or deactivated via the Map Select Switch. The function works only when upshifting, interrupting the ignition for a fraction of a second. This allows upshifting while the throttle is fully opened without the use of the clutch lever. A sensor on the shift drum registers the force from the shift lever, sends the signal to the ECU and the ignition timing is interrupted. To prevent unintended shifts and false neutrals, the function is only active from second to sixth gear.

Traction control on the 4-stroke models is engaged by a switch marked 'TC' and functions by analysing throttle input from the rider and the rate at which engine RPM increases. If the RPM increases too quickly, the Engine Management System (EMS) registers a loss of grip and reduces the amount of power to the rear wheel ensuring maximum traction. This is a distinct advantage in wet or muddy conditions.

The Map Select Switch on the 2-stroke models features a simpler design, allowing the selection between two engine maps (aggressive/mellow). The Quickshifter and Traction Control is not available for 2-stroke models. Map 1 is the standard, more mellow map for linear, predictable power, while map 2 is the aggressive map for added throttle response and a more crispy, explosive power output.

- Handlebar mounted Map Select Switch → alters engine characteristics according to conditions and rider preference
- Quickshifter function → clutch-free upshifting
- Traction Control → optimal traction in all conditions

## Start/stop button

All Husqvarna enduro models are fitted with a competition-inspired Start/Stop button.

- First introduced on the TC/FC range

## Engine Management System (EMS)

The Keihin EMS is specifically designed to be small, light, and fast at processing data. It integrates selectable engine maps and Traction Control via the Map Select Switch on the handlebar as well as the Quickshifter function. Combined with the gear sensor, power delivery is tailored for each gear.

A Rollover Sensor (ROS) cuts the ignition in case of extreme crashes, adding another level of safety to the Husqvarna enduro machines.

- Keihin EMS → small, light and faster at processing engine data for more efficient engine management
- Rollover Sensor (ROS) → automatic cutting of ignition in extreme crashes
- Gear sensor → specific engine maps for each gear

## Offroad Control Unit (OCU)

The OCU replaces electronic fuses and relays (main relay, fan relay, light relay) and can be found under the seat. All outputs are switched depending on signals from the voltage regulator and the ECU. In the event of over-current, outputs are deactivated individually. This allows a simple error detection as the status of each output is indicated by a LED light. The OCU checks the electronic system completely self-reliant. Once an indicated mechanical error is fixed (e.g. fuel pump), the OCU light status will change from red to green, indicating that everything is alright again.

Additionally, thanks to the compact electrical packaging, it is possible to better integrate the voltage regulator on the vehicle allowing for an increased steering angle while keeping the regulator clean and secure.

- Simple error detection and self-explaining guidance in finding solutions
- No more carrying of fuses
- Voltage regulator position → increased steering angle

## Keihin throttle body

The 4-stroke range features a 42 mm Keihin throttle body while the 2-stroke range features a 39 mm throttle body. The injectors are positioned to ensure the most efficient flow into the combustion chamber and to ensure optimal throttle response, the throttle cable is mounted directly without a linkage providing a more immediate throttle response and feel.

The 39 mm Keihin throttle body features dual injectors positioned for optimal flow and more immediate throttle response thanks to direct cable mounting. Idle is controlled over the throttle valve (not over a bypass system as on Transfer Port Injection) with a dual injector setup – one low load injector (positioned as on 4-stroke models) and one “top-feed” oriented injector for maximum performance before throttle valve.

A TPS-Sensor provides the same cold start mechanism as on the 4-stroke models. The throttle valve pivots on ball bearings instead of plain bearings as it provides less than half the friction torque compared to the former throttle body and allows a much easier throttle operation.

All in all, this provides much better idle control, more stable idle behaviour, and much better fuel-air mixture preparation. The results are more power, more response and a larger possible fuel air mixture operation window in comparison to TPI. Therefore, it is less prone to engine cut-outs or hesitations and less sensitive to different ambient conditions (e.g. temperature, altitude, humidity).

- 4-stroke throttle body → 42 mm, injector positioned for optimal flow, more immediate throttle response thanks to direct cable mounting
- 2-stroke throttle body → 39 mm with two injectors positioned for optimal flow and more immediate throttle response thanks to direct cable mounting

## Exhaust system

The 2-stroke header pipes are manufactured using an innovative 3D design process with the target of achieving more ground clearance to reduce the risk of damage in deep ruts or from external objects.

The compact silencers of the 2-stroke enduro range are crafted from lightweight aluminium, feature an aluminium mounting bracket, and an advanced internal construction for excellent noise damping and weight saving. Additionally, they are stylishly finished off in a black coating that highlights its premium quality.

The 4-stroke exhaust system is expertly designed to deliver class-leading performance at the lowest possible weight. The header pipe is designed and manufactured in two pieces to be as compact as possible. The joining position allows it to be removed without needing to take out the rear shock. The routing of the header pipe is extremely close to the engine for maximum mass centralisation and to minimise exposure to rocks and other objects that may cause damage.

Further innovation allows for a short, compact silencer without increasing noise levels. The component is crafted from lightweight aluminium and is stylishly finished off in a black coating to highlight its premium quality.

- Compact exhaust systems, lightweight and engineered for optimal performance
- Header joining position allows removal without removing rear shock
- Standardised mounting points and screw length across 4-stroke exhaust systems
- Header pipe mounted directly onto the engine for improved serviceability



## LED Headlight Unit

All Husqvarna enduro models come with an LED headlight unit and mask. The mask itself features a lower triple clamp protection against roost and external objects while the headlight is directly mounted to the triple clamp. This allows the fork to be quickly removed while the front mask stays in position.

Inside the headlight, the LED lighting unit is snapped in place with a quick release system. This has the big advantage of fast exchanges in case of damages. Also, not having to replace the complete headlight unit brings cost savings to customers.

The light output is brighter by approx. 300 % compared to the old model generation and is a significant advantage for any rider competing in special stages in low light conditions, or for riders commuting with a Husqvarna enduro machine in the early morning or late at night.

Additionally, the speedometer provides clear readability while being attached to the vehicle with just one electric connector.

- State of the art headlight unit → LED technology improves light output by 300 %
- Speedometer → exceptional readability and less risk of failure

## Light switch

Light Switch (US competition only):

- Light switch allows switching low beam on/off.
- The high beam can only be activated with the EU Spec handlebar switch
- Switch is easily interchangeable with EU switch → plug and play
- Switch position behind the front mask → releases space on the handlebar
- Switch offered as Technical Accessory for EU Spec, enabling EU Spec models to switch off lights completely for competition purposes

## Electric start and Li-Ion battery

Along with the benefit of an easy electric starting system, a Li-Ion 2.0 Ah battery is fitted to the full Husqvarna enduro range. The Li-Ion battery weighs approximately 1 kg less than a conventional lead/acid battery, so the convenience of electric starting is delivered while minimising overall weight.

- Electric starter → easy starting when time is critical
- Li-Ion battery → lightweight, 1 kg lighter than a conventional battery

Note: Retrofitting of Kickstarter is no longer possible.

## Integrated cooling system, radiators, and fan

The radiators are expertly crafted using high-strength aluminium. CFD optimisation is used to channel air through the radiators more efficiently and provide optimal cooling in any condition. The cooling system is integrated through the frame to eliminate the need for additional hoses. A large centre tube running through the frame reduces the pressure at this point in the system allowing for a more consistent coolant flow and includes an internal thermostat for added reliability.

Additionally, the radiators are mounted close to the centre of gravity to aid handling agility. The 4-stroke models are equipped with a standard radiator fan for increased cooling in extreme conditions.

- Integrated cooling with centre tube → maximum efficiency in minimum space
- Bayonet closure radiator caps
- CFD optimised radiators → efficient for optimal cooling
- ECU controlled radiator fan → no additional thermal switch necessary

## Fuel tank

The 8.5 (TE) / 8.0 (FE) litre transparent polythene (XPE) fuel tanks incorporate a threaded filler cap and an integrated fuel pump. A one-piece fuel pump with integrated filter provides the fuel supply and the external fuel line is specifically positioned to make it less exposed and susceptible to damage. The fuel filter can be easily replaced with a toolless access.

The fuel tank rubber has been revised for MY25 to firmly hold the tank in place and protect the frame from chafing.

For the US spec machines, the FE 350s and FE 501s, the fuel tanks are also made from transparent XPE and manufactured using an innovative process including fluorescent gas for a highly durable, street legal fuel tank. Additionally, gas cannot escape the tank, which is a requirement for the US street legal enduro line-up.

- New fuel tank rubber for better fitment of the tank and less wear on the frame
- 8.5 litre (TE) / 8.0 litre (FE) polythene fuel tanks → large capacity for extended running times
- One-piece fuel pump and filter provides the fuel supply → tank can be emptied further at low fuel levels
- External fuel line routing → less exposed and susceptible to damage

## Airbox and tool-less air filter access

The CFD optimised airbox is designed with precisely positioned inlet ducts to prevent air deformation and ensure maximum airflow and filter protection. The air filter is easily accessed, without tools, by removing the left side panel. Easy maintenance is guaranteed by the Twin Air filter element and filter cage design, featuring a simple fail-proof mounting system for safe and accurate filter installation.

- CFD optimised airbox → improved air flow and maximised filter protection
- Intuitive filter mounting system → safe and accurate protection against dirt
- Tool-less filter access → quick and easy maintenance
- High-flow airbox cover in the by-pack → added customisability of the engine response



## Wheels

Black high-strength alloy rims by D.I.D with laser engraved logos are coupled to CNC-machined hubs using lightweight spokes and silver anodised aluminium nipples. The nipples incorporate an advanced design reducing the frequency of spoke checks and maintenance.

- Lightweight but strong and reliable construction → minimum unsprung weight

## Tyres

The European enduro models feature Michelin Enduro tyres as used by Husqvarna Factory Racing. The FIM approved tyres offer exceptional grip in a wide variety of different terrain and riding conditions.

US spec enduro models feature a Dunlop GEOMAX MX33 tyre on the front and a AT81 tyre on the rear with the proven 'block-within-a-block' design for more progressive cornering and all-terrain grip as standard.

- Michelin Enduro tyres → advanced grip in challenging conditions
- Dunlop GEOMAX → wide range of application including sand, mud, loose surface, and hard pack
- Increased durability and crack resistance through innovative rubber compounds

## Bodywork

The enduro range features bodywork which clearly showcases Husqvarna's progressive approach to offroad motorcycles and striking white, blue, and yellow graphics stylishly adorn the Swedish-inspired design.

The rider triangle is designed for maximum knee contact, especially when riding stood up. This inspires confidence in riders of all abilities and enables them to perform at their very best for extended periods of time. The slim contact surfaces on the bodywork allow the rider to move around on the machine easily for a superior riding experience.

The flat seat profile, combined with a high grip seat cover, delivers superior comfort and control in all conditions. A recessed pocket under the seat, just above the airbox, allows gripping and lifting of the machine.

- Progressive bodywork → distinctive looks, modern design, and graphics
- Rider triangle designed for maximum knee contact, especially when riding stood up
- Recessed grip pockets → allows riders to lift their machine when needed
- Seat → flat seat profile and high-grip seat cover offer exceptional comfort and control in all conditions





## Engine

All the latest innovations have been brought into the 2-stroke enduro platform. With 49 hp, and an overall weight of just 24.6 kg, the TE 300 engine sets the benchmark when it comes to a weight/performance ratio. Many championships will see the TE 300 on top of the result sheets of the highly competitive E3 class, underlining this new era of 2-stroke technology.

The lightweight engine is designed to provide more torque than any previous 2-stroke engine without losing its typical high-revving, lightweight 2-stroke character.

The engine is designed to centralise rotating mass for optimal operation with the chassis resulting in a light and agile handling feel. The power train has been positioned in the same place as on the TE 250. Together with the benefits of mass centralisation and reduced weight, the anti-squat behaviour of the chassis was significantly refined on the current model by disconnecting the backbone of the steel frame concept with the engine mounted symmetrically on both sides.

The Throttle Body Injection (TBI) system (Keihin 39 mm throttle body in combination with Vitesco EMS) and the electronic exhaust control implemented on the TE 300 engine allows for a more compact engine design and free definable values for engine speed and load. The result is a tailor-made power delivery for each gear and every situation.

Another focus when developing the engine was the serviceability. Draining noses for liquids, an oil level indicator and added service markers on the engine (▲) clearly show where to use washers, making maintenance and service easier than in the past.

The water pump concept includes a shaft featuring a drive wheel instead of the previous centrifugal regulator and is protected by the aluminium diecast water pump cover. The water pump concept is shared among all 2-stroke enduro engines, making it easy for dealers to supply spare parts in the rare case it's needed.

- Pinnacle of performance → 49 hp, 24.6 kg
- Mass-centralisation → significant benefits in handling and manoeuvrability
- Easy serviceability of engine internals → added service markers and draining noses for liquids

## Cylinder head

The cylinder head features an external water temperature sensor within the tubing for a maximum level of accurate values. A “front” indication makes it close to impossible to mount the cylinder head the wrong way, which not only helps mechanics but also riders servicing engines by themselves.

The combustion chamber inserts follow the same logic and mixing up inserts from different models is a matter of the past. All these details significantly improve the overall engine serviceability.

The enduro-specific cylinder timing and porting results in a high compression ratio and no compromise between the motocross and enduro ranges as each engine configuration is tailor made for its own use case.

- “Front” indication on cylinder head → prevents wrong installations
- Combustion chamber insert → impossible to mix-up with insert of other models
- Enduro-specific cylinder timing and porting → enduro specific compression ratio without compromises

## Cylinder

The cylinder features a 72 mm bore. The highly innovative electronic exhaust control manages the opening of both the main exhaust and lateral exhaust ports via specifically developed kinematics, activated via an actuator. On the TE 300 the main exhaust port opens before the lateral exhaust port opens to deliver maximum, yet controllable power. The results are exceptional rideability, engine control, and a larger adjustability range of the engine characteristics (differences between the two engine maps).

The power valve can be controlled according to the throttle position and engine rpms (vs. only engine rpms on mechanical system). Additionally, its auto-calibrating, meaning there's no more hassle with wrong power valve adjustments.

The machined finish on the upper contour of the exhaust port ensures accurate port timing delivering unrivalled performance in every situation.

- Electronic exhaust control → tailor-made, linear, and predictable power delivery
- Machined exhaust port → outstanding performance and controllability

## Crankshaft

The crankshaft was designed with weight reduction in mind to increase the liveliness and response of the engine. The perfect balance of rotating masses is achieved by balancing the weights of the crankshaft flywheel, the rotor, and the counter balancer shaft. With a perfect combination of these components, vibrations are kept to an absolute minimum. Engine internals are also positioned to ensure that the rotational mass created has very little effect on the handling of the motorcycle.

- Lightweight crankshaft → responsive engine character
- Combination of crankshaft, rotor, and counter balancer shaft → very little vibration

## Counter balancer shaft

The TE 250 features a laterally mounted counter balancer shaft. This shaft significantly reduces vibrations resulting in a smoother and more comfortable ride with less rider fatigue.

- Counter balancer shaft → significantly reduced vibration

## Crankcases

The TE 300 engine is designed with mass centralisation as one of the main criteria. As a result, the crankcases have been designed to house the internal components of the engine in the perfect position to achieve the ideal centre of gravity while adding the least possible weight. The casings are manufactured using a high-pressure die cast production process, resulting in thin wall thickness while retaining exceptional reliability.

The black powder coating provides additional durability and a premium look, while service markings and oil level markings improve the serviceability. Additionally, the engine is connected to the frame with symmetrical engine mounts (left and right side) resulting in a refined flex characteristic.

- Light and compact crankcases, optimised mass-centralisation
- Symmetrical engine mounts
- Easy serviceability of engine internals with added service markers and draining noses for liquids
- Optimised crank case pressure sensor: larger hose diameter, more robust against soiling with oil carbon particles, better signal quality, and better engine load detection

## Gearbox

The 6-speed gearbox is manufactured exclusively by Pankl Racing Systems for the highest levels of durability and reliability. The gearbox features specific enduro gearing while the gear lever has an innovative tip design that prevents dirt build-up. An optimised transmission ventilation concept rounds out the shifting mechanism.

- 6-speed gearbox → manufactured by Pankl Racing Systems
- Gear lever → smooth and precise shifting in all conditions
- Friction optimised shifting mechanism in every detail → less necessary lever force

## DDS Clutch

The TE 300 features a DDS (Dampened Diaphragm Steel) clutch. The exclusive characteristics of this system include a single diaphragm steel pressure plate instead of traditional coil springs. It integrates a damping system for better traction and durability. The clutch basket is a single-piece of CNC-machined steel component that allows the use of thin steel plates and contributes to the compact design of the engine.

- DDS clutch featuring consistent modulation and exceptional durability
- Light action with integrated damping system, increased traction and reliability



## EFI (TBI)

The Husqvarna 2-stroke enduro models come with an electronics-controlled fuel injection. The Throttle Body Injection (TBI) was initially introduced with the MY23 2-stroke Motocross range.

In cooperation with Keihin, we developed a 39 mm throttle body fulfilling the needs of an innovative and state of the art 2-stroke enduro injection. The ECU is supplied by Vitesco and works in harmony with the Keihin throttle body by always delivering the right amount of air-fuel mixture. Therefore, the ECU continuously analyses water temperature, air temperature, ambient pressure, pressure within the crankcase, rpm, and throttle position to calculate the perfect air-fuel mixture for any riding situation.

Composite flaps on the outside of the reed valve case provide a perfect sealing for the intake tract. This design avoids fuel excess in extreme up or downhill sections, which could lead to overly rich engine settings while Boyesen Inc. supply the carbon membranes for the reed valve case. A beneficial side effect of the electronic fuel injection and the ECU is the implementation of the innovative electronic exhaust control.

With all these innovative features it was also possible to introduce different engine maps on the 300 cc enduro engine. Map 1 is the standard, more mellow map for linear, predictable power, while map 2 is the more aggressive map for added throttle response and a crisper, explosive power output. Both maps can be selected via the Map Select Switch on the left side of the handlebar.

- EFI by Keihin (39 mm throttle body) → optimal power delivery and performance in any condition
- Reed valve case design → guarantees right air-fuel mixture even in most extreme up or downhill sections
- Injectors with optimised Sauter Mean Diameter (SMD) → smaller droplets

## Oil Injection

Additionally, the ECU controls the specific amount of oil injected into the throttle body. It's not consistently a mix of 1:60 but varies pending on the riding situation and can be leaner or richer.

The TBI injection has the big benefit of a more homogeneous fuel/air mixture due to a later oil injection compared to the older TPI engine. The injection point is at the membrane flange while in the past (TPI) the position was at the throttle body. The oscillation of membranes increases the oil/fuel mix further and leads to an unreached level of atomisation. As a result, the engines have a lower risk of seizing, a better internal combustion. and a better rideability in all conditions. The drawback is a higher fuel and oil consumption.

The engine character of the old TPI engine was not known for being very lively. Actually, quite often in low revs with low engine loads, "oil nests" were common, which led to delayed and sluggish engine responses. This is now a matter of the past and the engines are much more versatile, fulfilling the needs of different rider levels and use cases. From hard enduro to classic enduro.

## E-Start

The full enduro range comes with E-Start only. A kickstart is not in place and cannot be retrofitted. The starter motor comes without any intermediate shaft, saving weight and allowing a compact engine design with perfect integration. A robust but also compact cover protects the starter motor from damage caused by roost or rocks. The 12.8V 2 Ah Lithium-Ion battery is placed under the seat close to the centre of gravity. The engine can easily be put to life by pressing the combined start/stop button on the right side of the handlebar. A high-quality stator and pickup is built into the TE 300 engine for reliability and an efficient power supply for the electronics.

- E-Start → less loss of time if the engine is stalled and user friendliness
- Li-Ion battery → lightweight, 1 kg lighter than a conventional battery
- High-capacity stator and pickup → reliable and provides an efficient power supply for the electronics





**[Click here and find more information on our website.](#)**

[www.husqvarna-motorcycles.com](http://www.husqvarna-motorcycles.com)