

What is new in MY21	4	Technical Accessories	41
Features and benefits	5	Company	45
FC 450	16	History	46
FC 350	19	Milestones	46
FC 250	22	Motorsport	48
TC 250	28		
TC 125	31		

3

Apparel

37

Introduction

Introduction

Committed to building true performance motorcycles that ensure superior riding experiences, for 2021 Husqvarna Motorcycles offers a complete line-up of full-size 2-stroke and 4-stroke motocross machines. Benefitting motocross first-timers and seasoned racers alike, all models are easy-to-use and feature the latest technological advancements.

All five motocross models deliver exceptional on-track performance, giving all TC 125, TC 250 and FC 250, FC 350 and FC 450 fans cutting-edge machines that feature unparalleled attention to detail.

To further refine all 2-stroke and 4-stroke machines, Husqvarna Motorcycles has mixed in-house research and development with feedback from top-level Rockstar Energy Husqvarna Factory Racing riders. For 2021 the brand has focused on improving the suspension by adding a new mid-valve damping system for enhanced performance on the WP XACT forks with AER technology. Additionally, new low-friction linkage seals offer refined suspension response on the WP XACT shock for improved rider comfort. Striking new electric yellow and dark blue graphics give the MY21 motocross machines a fresh Swedish inspired design.

Accompanying the launch of the 2021 motocross range is the new Husqvarna Motorcycles app. The Husqvarna Motorcycles app together with the Connectivity Unit that needs to be mounted on the machine will be available from 25th of July 2020 onwards as a Technical Accessory for MY21 4-stroke models and the 2020 FC 450 Rockstar Edition. Opening a whole new era of motorcycle performance tuning, the app enables riders to adjust their engine mapping and gives recommendations for the optimum suspension setting.





What is new in MY21:

- New Technical Accessory Husqvarna Motorcycles app allows to adjust engine mappings and gives suspension setup recommendations on all FC models
- New mid-valve damping system provides improved damping and consistent suspension performance on the WP XACT forks with AER technology
- New 10 mm shorter fork cartridges and outer tubes offer refined rigidity for improved rider comfort
- The WP XACT shock features new low-friction linkage seals for refined suspension response and advanced damping characteristics
- New roller actuated throttle assembly on 2-stroke models provides smoother throttle motion and improved durability
- New seat cover texture provides exceptional comfort and control in all conditions
- Striking new electric yellow and dark blue graphics stylishly adorn the Swedish inspired design



Frame

The hydro-formed, laser-cut and robot-welded frame is expertly crafted. Constructed with specifically calculated parameters of longitudinal and torsional flex, the frames feature optimal rigidity. That results in advanced rider feedback, energy absorption and stability. The frame is finished off in a premium blue powder coating and standard frame protectors that guarantee superior protection and durability.

- Optimal rigidity advanced rider feedback, energy absorption and stability
- Durable blue power coating finish and standard frame protectors

Composite carbon fibre subframe

Showcasing latest technologies and innovation the composite subframe is a design unique to Husqvarna Motorcycles. Using 70% polyamide and 30% carbon fibre, the 2-piece subframe design features a total weight of just over 1 kg. In addition to being robust, specific care has been taken to create the perfect rigidity for optimal handling and rider comfort.

- 1 2-piece subframe total weight just over 1 kg
- Carbon fibre composite construction lightweight and robust
- Specific rigidity benefits handling and comfort

Swingarm

The hollow cast aluminium swingarm is designed to offer optimal stiffness and reliability at the lowest possible weight. The chain adjustment slot extends the total wheelbase adjustment length for optimal straight-line stability on faster tracks and over whoops.

- Optimal stiffness and reliability in a lightweight construction
- Large chain adjustment range advanced straight-line stability



WP XACT front fork with AER technology

The 48 mm split air fork features a capsuled air spring and pressurised oil chamber for progressive and consistent damping. Extended oil and air bypasses reduce pressure peaks and new 10 mm shorter cartridges and outer tubes provide refined rigidity. In combination with a new mid-valve damping system, the fork provides exceptional feedback and rider comfort. The setting is easily adjusted via the single air pressure pre-load valve, as well as through easy access click adjusters for compression and rebound. Additionally, the air pump needed to adjust the air pressure in the fork is provided as standard.

- New mid-valve damping system improved damping and performance
- New 10 mm shorter cartridges and outer tubes refined rigidity for improved rider comfort
- Precision engineering, quality materials and advanced production processes guarantee highest performance levels
- Capsuled air spring and pressurised oil chamber progressive and consistent damping
- Easy access clicker dials simple and fast clicker settings

WP XACT rear shock

With updated settings and new low-friction linkage seals, the WP XACT rear shock provides advanced damping characteristics for unsurpassed traction and energy absorption while keeping a compact and lightweight design. With a pressure balance inside the shock offering consistent damping the end result is superior rider comfort and handling. Fully adjustable and matched to a linkage system with a specific geometry, the system delivers the greatest possible traction and absorption. The rear wheel travel is 300 mm.

- New low-friction linkage seals refined rear shock response for advanced damping characteristics
- Progressive setting balanced with front-end set-up and frame rigidity
- Lightweight and compact
- Pressure balance consistent damping
- 300 mm wheel travel

For all FC models, the Suspension feature of the Husqvarna Motorcycles app provides suspension set-up recommendations based on a rider's skill level, weight (incl. riding gear) and track conditions. Depending on these inputs, the Husqvarna Factory Racing recommendations for the fork and shock set-up are shown.





MAGURA hydraulic clutch

Extremely reliable, high-quality German-made clutch system guarantees even wear, near maintenance-free operation and perfect action in every condition. Clutch 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.

 MAGURA hydraulic clutch - perfect action in every condition



Brakes

The highest level of quality is guaranteed with class-leading Brembo calipers and controls. The 260 mm front and 220 mm solid rear discs deliver superior stopping power while instilling confidence in any condition.

Brembo calipers and high-performance discs - superior stopping power with greater control and confidence



ProTaper handlebar

The ProTaper handlebar is second to none for function and style. Manufactured to exacting standards, it features class-leading fatigue resistance while adding minimal weight. A unique bend provides advanced comfort by minimising the pressure point on the rider's hands.

- ProTaper handlebar class-leading function and style
- 1 Unique Husqvarna bend optimal rider comfort

CNC machined triple clamps

The 22 mm offset CNC-machined triple clamps feature an integrated rubber damping system that reduces vibration and increases rider comfort. The triple clamp features an optimal stiffness fitting with the frame rigidity and suspension set-up. A three-way handlebar adjustment is standard and allows for customisable ergonomics. Additionally, the front number plate integrates a yellow triple clamp guard, which covers the lower triple clamp and protects it from wear.

- Rubber damping on top clamp reduced vibrations, increased comfort
- CNC aluminium finest quality and reliability
- Adjustable handlebar position adjustable ergonomics
- Triple clamp protector integrated into front number plate

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.

Throttle assembly and ODI grips - adjustable throttle progression and easy grip mounting



Map switch and launch control

Designed for easy operation, the standard map switch on all 4-strokes activates launch control, selects between two engine maps and activates the traction control feature. Both traction control and launch control feature advanced settings. These offer optimal traction off the start and on slick tracks and see the two systems – when both activated – working simultaneously to offer maximised benefits. With the engine at idle, launch control is engaged by pressing both TC and MAP buttons simultaneously for about two seconds. The LED lamp will blink continuously meaning the system is active. This function limits the amount of power to the rear wheel, improving traction and preventing loss of control under hard acceleration.

- Standard handlebar map switch modify engine characteristics according to conditions and rider preference
- Description De

Traction control

Featuring an optimal setting for a significant advantage in wet or muddy conditions, the traction control can be selected to an on or off position from the handlebar switch. It functions by analysing throttle input from the rider and the rate at which RPM increases in the engine. If the RPM increases too quickly, the EMS registers a loss of grip and reduces the amount of power to the rear wheel ensuring maximum traction.

Traction control - optimal traction in all conditions



Engine Management System (EMS)

The Keihin EMS is specifically designed to be smaller, lighter and faster at processing data. It integrates launch control for perfect starts, selectable engine maps via the switch on the handlebar as well as traction control. Combined with the gear sensor, power delivery is tailored for each gear.

- Heihin EMS small, light and fast at processing data
- Gear sensor specific engine maps for each gear

Electric start and advanced Li-Ion battery

Along with the benefit of an easy electric starting system, an advanced Li-lon 2.0 Ah battery is fitted to the 4-stroke range. The Li-lon battery weighs approx. 1 kg less than a conventional lead battery meaning the convenience of electric starting is delivered while keeping overall weight to a minimum.

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





44 mm throttle body

All FC machines feature a 44 mm Keihin throttle body. The injector is positioned accordingly to offer the most efficient flow into the combustion chamber. To ensure optimal throttle response the throttle cable is mounted directly and without a throttle linkage. This set-up provides immediate throttle response and feeling.

- 44 mm throttle body injector positioned for optimal flow
- Direct cable mounting immediate throttle response

2-stroke exhaust systems

Tailored specifically for each model using an innovative 3D design process, the 2-stroke header pipes offer optimal geometry, performance and ground clearance, making them less susceptible to damage. All 2-stroke mufflers also feature an aluminium mounting bracket and advanced internal construction for excellent noise damping and weight saving.

4-stroke exhaust systems

All 4-stroke exhaust systems are expertly crafted to deliver the best possible performance at the lowest possible weight. The 4-stroke header pipes feature an advanced flow designed resonance chamber integrated within them. The header pipes also feature an optimal joining position allowing them to be removed without detaching the rear shock. The silencers are short and compact while delivering the optimal damping volume and noise levels. The units are crafted from lightweight aluminium and are stylishly finished off with an anodised coating that proudly carries the Husqvarna Motorcycles logo.

- 4-stroke exhausts lightweight and compact
- Flow designed resonance chamber optimal performance
- Optimal header joining position easier removal

Bodywork

The motocross range features a fresh bodywork that showcases Husqvarna Motorcycles' progressive approach to offroad motorcycles while striking new electric yellow and dark blue graphics stylishly adorn the Swedish inspired design. The ergonomics are specifically designed to deliver greater comfort and control, enabling riders to perform at the highest level for extended periods of time. Additionally, the slim contact points make movement between riding positions seamless. The flat seat profile, combined with a new high grip seat cover, deliver superior comfort and control in all conditions.

- Progressive bodywork distinctive looks, modern design and graphics
- Ergonomics confidence-inspiring riding position in all riding situations
- Seat flat seat profile and new seat cover texture for exceptional comfort and control in all conditions

Fuel tank

The 7-litre polythene fuel tanks incorporate a threaded filler cap and an integrated fuel pump on the 4-stroke range. The fuel pump is optimised with internal line routing, directly from the pump to the flange for optimal fuel flow. The external fuel line is angled inward and is less exposed and susceptible to damage.

- 7-litre polythene tanks large capacity for extended running times
- Advanced fuel line routing optimal flow and reliability

Wheels

Black high-strength alloy rims by D.I.D. are coupled to CNC-machined hubs using lightweight spokes and silver anodised aluminium nipples. The spoke nipples feature a progressive design that reduces the frequency of checks or tightening.

- Lightweight, strong and reliable wheels minimum unsprung weight
- Progressive spoke nipples reduces frequency of tightening

Tvres

Fitted as standard are Dunlop MX33 Motocross tyres that feature the proven 'block-within-a-block' design for progressive cornering and superior grip.

 Developed in top-level racing - enhanced handling, cornering and steering feel

Airbox and tool-less air filter access

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

Delivering further performance customisation, the FC models are delivered with an additional airbox cover that can be changed without the use of any tools while still offering maximum air filter protection. The new airbox side panel offers increased airflow for a sharper throttle response tailored according to rider preference or track conditions.

- Interchangeable airbox cover on all FC models for optimised airflow and more aggressive power delivery
- Airbox maximum air flow and filter protection
- Filter mounting system safe and accurate protection against dirt
- Tool-less filter access easy and fast maintenance

Integrated cooling system and radiators

The radiators are expertly crafted using high-strength aluminium. CFD (computational fluid dynamics) technology is used to channel air through the radiators efficiently for optimal cooling in any condition. Channelling coolant through the frame allows for optimal cooling, with the system eliminating the need for additional hoses. A centre tube that runs through the frame reduces the pressure at this point in the system allowing for a consistent coolant flow.

Additionally, the radiators are mounted for the optimal centre of gravity while smart radiator protectors not only protect the radiators from flying debris but also act as a brace in the event of an impact.

- Integrated cooling maximum efficiency in minimum space
- Expertly crafted radiators offering optimal cooling
- Central cooling tube consistent coolant flow
- Low mounting position optimal centre of gravity





Technical information by model 4-strokes

FC 450

Engine

The SOHC cylinder head is incredibly compact and lightweight using a short profile with the camshaft located as close to the centre of gravity as possible, significantly improving handling and agility. The lightweight valves are actuated via a rocker arm and feature timing specifically designed to deliver precise levels of torque and throttle response.

- Mass centralisation advanced handling and reliability
- Performance 63 hp at only 27.3 kg

For the FC 450, the new Husqvarna Motorcycles app allows to adjust engine settings according to a rider's personal preferences.

Among the list of several adjustment options the highlights are the two main Engine modes, Prime and Advanced which allow riders of all levels to fine-tune their engine's performance according to their riding requirements and track conditions. Both the Prime and Advanced mode give recommendations to support riders in choosing an appropriate EFI mapping. Depending on the mode, the rider can then adjust the Engine Brake, Throttle Response, Traction- and Launch Control.

- Customisable EFI mapping alter engine characteristics according to conditions and rider preference
- Traction Control optimal traction in all conditions
- Launch Control maximum traction for perfect starts



Cylinder and piston

The lightweight aluminium cylinder is an engineering masterpiece. It features a 95 mm bore and a CP bridge-box-type piston that weighs only 320 g. The compression ratio is 12.75:1 for an impressive peak output of 63 hp.

- Lightweight aluminium cylinder 95 mm bore
- CP forged bridged-box-type piston high performance, reduced oscillating masses



Crankshaft

The inertia produced by the crankshaft has been carefully calculated to deliver optimal traction and rideability from the powerful 450cc plant. The crankshaft is specifically positioned to harness the rotating mass in the ideal centre of gravity, with the end result being a lightweight and agile handling feel. A plain big end bearing comprising of two force-fitted bearing shells that ensure maximum reliability and durability, while also guaranteeing long service intervals of 100 hours.

- Crankshaft position ideal centre of gravity, advanced handling
- Plain big end bearing and force-fitted bearing shells increased durability and service intervals

Crankcases

The crankcases are designed to house the shaft arrangements and internals of the engine in the position that offers the best possible handling. Additionally, the position of the clutch shaft keeps the clutch above the oil level resulting in decreased friction and increased efficiency. High-pressure die-cast production processes keep the overall weight to a minimum, resulting in thin wall thickness while retaining reliability.

- Design optimised mass-centralisation, increased efficiency
- High-pressure-die cast production process thin walls for reduced weight, while maintaining strength









Cylinder head

The FC 450 features a compact and lightweight SOHC cylinder head. As a result of the compact design the camshaft is closer to the centre of gravity, significantly improving handling. Additionally, short valve timing offers progressive bottom-end performance and responsiveness. The camshaft features an optimal cam surface and actuates four lightweight titanium valves. The diameter of the intake valves is 40 mm, with the exhaust valves being 33 mm in diameter. Low-friction DLC coating on the rocker arm and low-friction chain guides offer optimum efficiency and reliability.

- Cylinder head compact design
- Camshaft Optimal cam surface
- DLC coating and optimised chain guides reduced friction

Gearbox

The lightweight 5-speed gearbox is produced by Pankl Racing Systems ensuring the highest level of durability and reliability. The gear lever features a design that prevents dirt build-up and makes the lever tip in its original position even in the toughest conditions. An advanced gear sensor selects a specific engine map tailored for each gear.

- 5-speed gearbox smooth and precise shifting
- Integrated gear sensor specific engine maps for each gear

DDS clutch

The FC 450 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 CNC-machined steel component that allows the use of thin steel liners and contributes to the compact design of the engine.

 DDS clutch - lighter, with better action and advanced durability

FC 350

Engine

The 350cc DOHC engine weighs in at only 27.2 kg and has a maximum power output of 58 hp. The engine is specifically designed with performance, weight and mass centralisation as key criteria. As a result, all shaft arrangements have been positioned to allow oscillating masses to occupy the ideal centre of gravity while all parts are engineered to offer the best possible performance while adding the least possible weight.

- Performance, weight, mass centralisation 58 hp at just 27.2 kg
- Shaft arrangements oscillating masses at ideal centre of gravity

For the FC 350, the new Husqvarna Motorcycles app allows to adjust engine settings according to a rider's personal preferences.

Among the list of several adjustment options the highlights are the two main Engine modes, Prime and Advanced which allow riders of all levels to fine-tune their engine's performance according to their riding requirements and track conditions. Both the Prime and Advanced mode give recommendations to support riders in choosing an appropriate EFI mapping. Depending on the mode, the rider can then adjust the Engine Brake, Throttle Response, Traction- and Launch Control.

- Customisable EFI mapping alter engine characteristics according to conditions and rider preference
- Traction Control optimal traction in all conditions
- Launch Control maximum traction for perfect starts



Crankcases

The FC 350 features an engine design with mass-centralisation and weight reduction as the main goals. All the major components have been positioned to achieve the best possible centre of gravity. As a result, the motorcycle benefits from superb handling while ensuring a light and compact engine design. High-pressure die-cast production processes keep the overall weight to a minimum, resulting in a thin wall thickness while retaining reliability. The iconic Husqvarna logo adorns the bronze finished crankcase covers.

- ① Crankcases mass-centralisation and weight reduction
- High-pressure die-cast production process thin walls for reduced weight while maintaining strength

Crankshaft

A top-quality crankshaft is at the heart of the high output, high-revving FC 350 engine. The plain big end bearing features two force-fitted bearing shells to ensure maximum reliability and durability, guaranteeing long service intervals of 100 hours.

Plain big end bearing - increased durability and service intervals

Cylinder and piston

An 88 mm bore and 57.5 mm stroke cylinder features a compression ratio of 14.2:1 and a large diameter yet lightweight forged bridged-box-type piston. As a result, the low oscillating mass delivers exceptional power, high revs and a very wide power band.

- ① Lightweight 88 mm diameter piston reduces oscillating masses
- Forged bridged-box-type piston high performance and reliability









Cylinder head

The FC 350 features an advanced DOHC cylinder head layout meticulously engineered to deliver every fraction of performance. The internals feature polished camshafts and DLC coated finger followers, resulting in minimal friction and unsurpassed overall performance, allowing the engine to rev freely to 13.400 rpm.

- Advanced layout lightweight
- Large titanium valves 36.3 mm intake and 29.1 mm exhaust
- Polished camshafts, finger followers with DLC coating reduced friction, better performance

Gearbox

Produced by Pankl Racing Systems, the compact 5-speed gearbox features a low-friction coating on the fork that makes shifting smooth and precise. The gear lever features a design that prevents dirt build-up and ensures easy operation in the toughest conditions. An advanced gear sensor allows for specific engine maps in each gear.

- Pankl 5-speed gearbox smooth and precise shifting
- Integrated gear sensor specific engine maps for each gear

DS clutch

The FC 350 features a DS (Diaphragm Steel) clutch. The exclusive characteristics of this system include a single diaphragm steel pressure plate instead of traditional coil springs. The clutch basket is a single-piece CNC-machined steel component that allows the use of thin steel liners and contributes to the compact design of the engine.

 DS clutch - lighter, with better action and advanced durability

FC 250

Engine

Engineered to ensure class-leading performance and handling characteristics, all major engine components and shaft arrangements are carefully positioned closer to the centre of gravity to reduce the effects of rotational inertia. The 250cc 4-stroke engine is also light, tipping the scales at only 26.1 kg, but is also remarkably powerful with an overall power output of 46 hp.

- Engine design light and compact for optimised mass-centralisation
- ① Outstanding performance 46 hp peak power and 14,000 rpm rev-limit
- Low friction low overall drag

For the FC 250, the new Husqvarna Motorcycles app allows to adjust engine settings according to a rider's personal preferences.

Among the list of several adjustment options the highlights are the two main Engine modes, Prime and Advanced which allow riders of all levels to fine-tune their engine's performance according to their riding requirements and track conditions. Both the Prime and Advanced mode give recommendations to support riders in choosing an appropriate EFI mapping. Depending on the mode, the rider can then adjust the Engine Brake, Throttle Response, Traction- and Launch Control.

- Customisable EFI mapping alter engine characteristics according to conditions and rider preference
- Traction Control optimal traction in all conditions
- Launch Control maximum traction for perfect starts



Crankcases

All Husqvarna motocross motors are designed with mass centralisation and weight reduction as the main criteria. As a result, the crankcases are 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. The result is thin wall thickness and exceptional reliability. The iconic Husqvarna logo adorns the bronze finished crankcase covers.

- ① Crankcases light, compact and optimised for mass-centralisation
- High-pressure die-cast production thin walls for reduced weight, while maintaining strength

Crankshaft

The crankshaft is designed to offer the best possible performance while being placed in the perfect position to centralise oscillating masses for optimal handling. The plain big end bearing features two force-fitted bearing shells, ensuring maximum reliability and durability and guaranteeing long service intervals of 100 hours.

 Plain big end bearing with force-fitted bearing shells - increased durability and service intervals

Cylinder and piston

The 78 mm bore cylinder houses a forged bridged-box-type piston made by CP. Both the cylinder and piston are professionally engineered from high strength aluminium resulting in outstanding performance and reliability. The compression ratio is 14.4:1.

- 1 Large 78 mm bore and large diameter valves high-revving, quick response
- Forged box-type piston high performance and reliability









Cylinder head

Featuring finger followers treated in a Diamond-like Carbon (DLC) coating, the DOHC cylinder head is engineered for high-level performance. Large titanium valves - 32.5 mm intake and 26.5 mm exhaust – aid the motor to rev freely towards its 14,000-rpm limit, while maintaining smooth, efficient power throughout the rev-range.

- Large titanium valves (32.5 mm intake, 26.5 mm exhaust) optimal gas flow
- Finger followers with DLC coating low friction, better performance
- Advanced exhaust camshaft timing optimal power delivery

Gearbox

Produced by Pankl Racing Systems, the 5-speed gearbox is designed to be extremely light and durable while featuring specific motocross specific ratios. The shifting fork has a low-friction coating for smooth shifting, while the gear lever is designed to prevent dirt build-up and ensure perfect gear selection in all conditions. An advanced gear sensor allows for specific engine maps delivering the best possible performance in each gear.

- 5-speed gearbox by Pankl Racing Systems increased durability and optimal shifting
- 1 Integrated gear sensor specific engine maps for each gear

DS clutch

The FC 250 features a (DS) Diaphragm Steel clutch. The clutch basket is engineered from a single-piece of CNC-machined steel that allows the use of thin steel liners and contributes to the compact design of the engine. The exclusive characteristics of this system include a single diaphragm steel pressure plate instead of traditional coil springs.

 DS clutch - lighter with better action and advanced durability

Technical details | engine



FC 450

Engine type

Displacement

Bore/stroke

Compression ratio

Starter/battery

Transmission

Fuel system

Control

Lubrication

Gear ratios

Primary ratio

Final drive

Cooling

Clutch

Ignition / Engine Management

Single cylinder, 4-stroke

449.9 cc

95/63.4 mm

12.75:1

Electric starter / Lithium Ion 12.8V 2Ah

5 gears

Keihin EFI, throttle body 44 mm

4 V / SOHC with rocker levers

Pressure lubrication with 2 oil pumps

16:32 18:30 20:28 22:26 24:24 -

31:76

13:49

Liquid cooling

Wet multi-disc DDS-clutch, MAGURA hydraulics

Keihin EMS



FC 350

Single cylinder, 4-stroke

349.7 cc

88/57.5 mm

14.2:1

Electric starter / Lithium Ion 12.8V 2Ah

5 gears

Keihin EFI, throttle body 44 mm

4 V / DOHC with finger followers

Pressure lubrication with 2 oil pumps

14:28 16:26 18:24 21:24 22:21 -

24:73

14:51

Liquid cooling

Wet multi-disc DS-clutch, MAGURA hydraulics

Keihin EMS



FC 250

Single cylinder, 4-stroke

249.9 cc

78/52.3 mm

14.4:1

Electric starter / Lithium Ion 12.8V 2Ah

5 gears

Keihin EFI, throttle body 44 mm

4 V / DOHC with finger followers

Pressure lubrication with 2 oil pumps

13:32 16:32 17:28 19:26 21:25 -

24:73

14:51

Liquid cooling

Wet multi-disc DS-clutch, MAGURA hydraulics

Keihin EMS

Technical details | chassis

	FC 450	FC 350	FC 250
Frame	Central double-cradle-type 25CrMo4 steel	Central double-cradle-type 25CrMo4 steel	Central double-cradle-type 25CrMo4 steel
Subframe	Carbon fibre reinforced polyamide	Carbon fibre reinforced polyamide	Carbon fibre reinforced polyamide
Handlebar	ProTaper, Aluminium Ø 28/22 mm	ProTaper, Aluminium Ø 28/22 mm	ProTaper, Aluminium Ø 28/22 mm
Front suspension	WP XACT-USD, Ø 48 mm	WP XACT-USD, Ø 48 mm	WP XACT-USD, Ø 48 mm
Rear suspension	WP XACT Monoshock with linkage	WP XACT Monoshock with linkage	WP XACT Monoshock with linkage
Suspension travel front/rear	300/300 mm	300/300 mm	300/300 mm
Front/rear brakes	Disc brake Ø 260/220 mm Brembo	Disc brake Ø 260/220 mm Brembo	Disc brake Ø 260/220 mm Brembo
Front/rear rims	1.60×21"; 2.15×19" DID	1.60×21"; 2.15×19" DID	1.60×21"; 2.15×19" DID
Front/rear tyres	80/100-21"; 120/90-19"	80/100-21"; 110/90-19"	80/100-21"; 110/90-19"
Chain	5/8x1/4"	5/8x1/4"	5/8×1/4"
Silencer	Aluminium	Aluminium	Aluminium
Steering head angle	63.9°	63.9°	63.9°
Triple clamp offset	22 mm	22 mm	22 mm
Wheel base	1,485 ± 10 mm	1,485 ± 10 mm	1,485 ± 10 mm
Ground clearance	370 mm	370 mm	370 mm
Seat height	940 mm	940 mm	940 mm
Tank capacity, approx.	7	71	7
Weight, without fuel, approx.	101 kg	100 kg	99.5 kg



Technical information by model 2-strokes

TC 250

Engine

The TC 250 2-stroke engine is the best combination of unsurpassed power and lightweight construction. The simplicity and low maintenance cost of the 2-stroke motor has made it a favourite amongst motocross riders for generations. The TC 250 engine features the latest 2-stroke technology aimed at centralising rotating masses and reducing vibration while delivering the highest level of performance in its class. Additionally, the new roller actuated throttle assembly delivers a smoother sensation when opening the throttle.

 New roller actuated throttle assembly - smoother throttle motion and improved durability





Cylinder

The 66.4 mm bore cylinder features an innovative power valve system, which delivers a smooth and controlled power throughout the RPM range. The exhaust port features a machined finished for optimal function and performance. The power delivery can be further customised by simply changing between the two springs supplied. This changes the power delivery for different track conditions and according to rider preference.

- ① Cylinder and power valve smooth, customisable power delivery
- Machined exhaust port optimal function and performance

Counter balancer shaft

The TC 250 features a laterally-mounted counter balancer shaft. Significantly reducing vibrations, this shaft offers a smooth and comfortable ride and reduced rider fatigue.

Counter balancer shaft - reduced vibration

Engine casings

The TC 250 engine is developed with mass centralisation as a pivotal design objective. Housing the shaft arrangements in the perfect position, the lightweight, die-cast engine casings help centralise oscillating masses and improve rideability.

Shaft arrangements - ideally positioned for mass centralisation









Carburettor

The TC 250 features a 38 mm flat slide Mikuni TMX carburettor with an advanced setting for optimal performance. Providing a smooth and controllable power delivery, it also offers optimal performance over the entire RPM range.

38 mm Mikuni carburettor - advanced setting

Gearbox

The TC 250 features a 5-speed gearbox. Guaranteeing precise and easy shifting, the no-dirt shift lever also prevents the build-up of dirt in the toughest conditions.

- 5-speed gearbox precise and easy shifting
- No-dirt gear lever prevents dirt build up

DDS clutch

The TC 250 features a DDS (Damped Diaphragm Steel) clutch. Using a diaphragm spring instead of the more common coil spring design it allows for a much lighter clutch action. This design also allows for a damping system that increases traction and durability.

DDS clutch - light action, increased traction and reliability

TC 125

Engine

With 40 hp and an overall weight of just 17.2 kg, the TC 125 is at the pinnacle of performance in the competitive 125cc class. The lightweight engine is designed to provide more torque than current 125cc 2-stroke engines, making the TC 125 easier to ride for both beginners and seasoned professionals. The TC 125 engine is designed to centralise rotating mass for optimal operation with the chassis resulting in a light and agile handling feel. Additionally, the new roller actuated throttle assembly delivers a smoother sensation when opening the throttle.

- New roller actuated throttle assembly smoother throttle motion and improved durability
- Pinnacle of performance 40 hp at 17.2 kg
- Mass-centralisation significant benefits in handling and manoeuvrability





Crankcases

High-pressure die-cast production processes ensure low weight, thin wall thickness and optimum durability. The crankcase design also aids in a compact arrangement, positioning the shaft arrangements closer to the centre of gravity for optimal handling. The Husqvarna logo adorns the bronze-finished crankcase covers as a modern-day salute to the 2-stroke legends of the past.

- High-pressure die-cast production light weight and optimum strength
- Compact crankcase design optimal centre of gravity for advanced handling

Cylinder and piston

The cylinder has a 54 mm bore. An innovative power valve design controls both the main exhaust and lateral exhaust ports. With a machined finish on the upper contour of the exhaust port, the system ensures accurate port timing while delivering unrivalled performance.

Optimised exhaust port - optimal performance and controllability



Crankshaft

Manufactured to be as light as possible, the crankshaft is balanced perfectly to reduce vibrations. The component is also positioned accordingly to ensure that the rotational mass created has very little effect on the handling of the motorcycle.

Lightweight crankshaft - reduced vibration

DS clutch

The TC 125 features a DS (Diaphragm Steel) clutch. The exclusive characteristics of this system include a single diaphragm steel pressure plate instead of traditional coil springs. The clutch basket is a single-piece CNC-machined steel component that allows the use of thin steel liners and contributes to the compact design of the engine.

DS clutch - lighter, with better modulation and advanced durability







Carburettor

The TC 125 features a 38 mm flat slide Mikuni TMX carburettor. The carburettor provides a smooth and controllable power delivery with optimal performance over the entire RPM range.

38 mm Mikuni carburettor - optimal power deliver, optimal performance

Gearbox

Manufactured exclusively for Husqvarna Motorcycles by Pankl Racing Systems, the motocross-specific 6-speed gearbox ensures the highest level of durability and reliability. The gear lever features an innovative tip design that prevents dirt build-up.

MX specific 6-speed gearbox - manufactured by Pankl Racing Systems

Technical details | engine



TC 250

Engine type Displacement Bore/stroke Compression ratio Starter/battery Transmission Fuel system Control Lubrication Gear ratios Primary ratio Final drive Cooling Clutch

Single cylinder, 2-stroke 249 cc 66.4/72 mm Kickstarter 5 gears Mikuni TMX 38 Exhaust control TVC Mixture oil lubrication 1:60 14:28 16:26 18:24 21:24 22:21 -26:73 14:49 Liquid cooling Wet multi-disc DDS-clutch, MAGURA hydraulics Kokusan Ignition / Engine Management



TC 125

124 8	00
124.0	CC
54/54.	.5 mm
-	
Kickst	arter
6 gear	'S
Mikuni	i TMX 38
Exhau	st control
Mixtur	e oil lubrication 1:40
14:32	15:30 17:28 19:27 19:23 22:24
23:73	
13:51	
Liquid	cooling
	nulti-disc DS-clutch, JRA hydraulics
Kokus	an

Technical details | chassis

	TC 250	TC 125
Frame	Central double-cradle-type 25CrMo4 steel	Central double-cradle-type 25CrMo4 steel
Subframe	Carbon fibre reinforced polyamide	Carbon fibre reinforced polyamide
Handlebar	ProTaper, Aluminium Ø 28/22 mm	ProTaper, Aluminium Ø 28/22 mm
Front suspension	WP XACT-USD, Ø 48 mm	WP XACT-USD, Ø 48 mm
Rear suspension	WP XACT Monoshock with linkage	WP XACT Monoshock with linkage
Suspension travel front/rear	300/300 mm	300/300 mm
Front/rear brakes	Disc brake Ø 260/220 mm Brembo	Disc brake Ø 260/220 mm Brembo
Front/rear rims	1.60 x 21"; 2.15 x 19" DID	1.60 x 21"; 2.15 x 19" DID
Front/rear tyres	80/100-21"; 110/90-19"	80/100-21"; 100/90-19"
Chain	5/8 x 1/4"	5/8 x 1/4"
Silencer	Aluminium	Aluminium
Steering head angle	63,9°	63.9°
Triple clamp offset	22 mm	22 mm
Wheel base	1,485 ± 10 mm	1,485 ± 10 mm
Ground clearance	375 mm	375 mm
Seat height	940 mm	940 mm
Tank capacity, approx.	81	81
Weight, without fuel, approx.	96 kg	87.5 kg





Apparel

Designed and manufactured to deliver innovative technical features that assist riders in all conditions, Husqvarna Motorcycles' Functional Apparel ensures all TC and FC owners can focus on riding and racing while benefiting from high levels of comfort and safety. Developed to aid riders take on the unique challenges of offroad riding, all items are durable, deliver premium quality and protection from the elements.



Moto 9 Flex Railed Helmet

Made by Bell Helmets, the Moto 9 Flex Railed Helmet is race-tested and built around a lightweight composite carbon shell. Featuring an exclusive Magnefusion Emergency Removal System, a fully ventilated EPS-lined chin area and velocity flow ventilation system assure maximum cooling while Quick-Flip $^{\text{TM}}$ peak screws allow fast adjustability. Its XT-2® interior lining is removable and washable.

Racecraft+ Goggles

Professional motocross goggles that deliver performance and style, the Racecraft+ Goggles by 100% are packed full of technical features. From the four-layer moisture wicking fleece foam to the anti-fog and anti-scratch lens these are goggles that deliver the very best fit, protection and looks.



Railed Shirt Pro

An ultra-lightweight performance shirt that features a striking three-colour design, the Railed Shirt Pro delivers a racer inspired fit due to its longer back section and shorter front. Allowing effortless ease of movement, mesh panels ensure optimum ventilation while fade-proof sublimation printing secures long-lasting style.

Railed Pants

Featuring an eye-catching asymmetrical design, the Railed Pants are built to offer an ultra-lightweight, premium fit. A bold blue/grey/yellow colourway ensures a stylish look, while perforated ventilation zones guarantee optimised cooling. Heatproof and abrasion-resistant leather knee reinforcements and taped seams assure high levels of durability.

iTrack Railed Gloves

With a bold, yellow and blue colourway the iTrack Railed Gloves by 100% are as visually striking as they are comfortable and light. Proudly displaying the Husqvarna Motorcycles logo, they feature perforated palms, silicone print for increased grip and neoprene cuffs for quick and secure fitment.



Origin Shirt

A lightweight performance motocross shirt styled to offer a minimalist colourway, the Origin Shirt recognises the brand's past successes and directly focuses on the Husqvarna logo placed across the chest and shoulders. Subtle in its styling, the shirt features modern taped sleeve cuffs, mesh panels for optimum ventilation and foam padding on elbows.

Origin Pants

Functional, performance motocross pants with technical features that shine through. The Origin Pants offer a subtle, predominantly all-blue colourway with minimal additional colour and feature heatproof and abrasion-resistant leather knee reinforcement, taped seems and perforated ventilation zones for maximum comfort and durability.



Technical Accessories

Husqvarna Motorcycles' Technical Accessories provide an extensive range of engine upgrade options as well as suspension, exhausts, wheels, brakes, graphics and many more allowing riders and racers to further customise, protect and improve the performance of their TC and FC machines. Combining innovative technology with premium quality all items are carefully crafted to suit the individual needs of motorcyclists.

Factory Triple Clamp

Delivering multiple set-up adjustment options, the Factory Triple Clamp allows for precise front-end fine-tuning. Manufactured from high-grade aluminium for optimal stiffness and flex they improve front fork performance for better handling. Offset adjustment of 20 or 22 mm ensures either greater straight-line stability or quicker cornering.

Factory Seat

A complete, standard height seat unit that features a durable and grippy, wave surface, for all TC and FC machines. Perfectly allowing riders to move forwards and backwards while riding, the increased surface hold importantly ensures reduced movement while seating for corners.

Akrapovič "Racing Line"

Combining increased power and torque, uncompromising factory bike looks and substantial weight savings over standard, Husqvarna Motorcycles' Akrapovič "Racing Line" exhaust system is the ultimate bolt-on performance part. Improving overall engine performance, the header pipe is designed for optimum performance gains, featuring a striking additional expansion chamber. Manufactured from high-grade titanium the system complies with current FIM and AMA sound regulations.





Factory Wheels

Husqvarna Motorcycles' Factory Wheels are built tough to excel in modern-day motocross, delivering maximum weight saving together with increased stability and improved handling. Lighter than standard wheels the anodised D.I.D. DirtStar rims and machined hubs combine for maximum strength and reliability.

Carbon SMC Skid Plate

The most effective protection where it matters most. Ensuring engine and frame safety, the Husqvarna Motorcycles' Carbon SMC Skid Plate fits quickly and precisely due to high-quality machining and a perfect design. Guaranteeing extremely tough, endurance tested, sump and frame rail protection, 3 mm thick carbon SMC material offers high strength and minimum weight.

FMF Factory 4.1 RCT Silencer

Increased power and torque while also reducing weight, the FMF Factory 4.1 RCT Silencer is as eye-catching as it is performance enhancing. Manufactured from high-grade titanium and featuring a blue anodised outer sleeve and a carbon fibre end cap the FMF Factory silencer can be used with either a standard or FMF header pipe.

FMF Megabomb Header

The ultimate bolt-on power upgrade that delivers a tangible performance boost throughout the entire rev range. Simple and easy to fit and made from ultralightweight titanium, the FMF Megabomb Header gives an improved distribution of torque and contributes to sound reduction.





Company

Husqvarna Motorcycles is flourishing globally – a revitalised brand with a rich heritage. Shaped by their unique and distinct origins, where only the purest and smartest solutions could endure the rugged Scandinavian landscape. Leading the way when it comes to forward-thinking innovation, today the European premium manufacturer offers motorcycles that set the benchmark for quality, aesthetics and high performance.

Currently enjoying notable success in both sales and global offroad competition, Husqvarna Motorcycles looks forward to a bright future. Changing perceptions of 2-stroke motorcycles with the introduction of fuel injection enduro models in MY18, more recently the brand took a first step into the exciting world of electric mobility with the introduction of the EE 5 mini electric motocross racer.

Husqvarna Motorcycles remains committed to fulfilling their progressive vision of street motorcycling. From their return to the street segment with the 701 Supermoto and 701 Enduro in 2015 to the introduction

and subsequent expansion of the exciting Vitpilen and Svartpilen family, Husqvarna Motorcycles is now broadening their thrilling street line-up with the Norden 901, a unique travel motorcycle that features a twincylinder engine, advanced rider ergonomics and high performance based on years of rally experience, in a distinct modern design.

Considered to be Europe's most technologically advanced motorcycle hub, Husqvarna Motorcycles' state-of-the-art manufacturing facilities in Mattighofen, Austria, are strategically located near their Research & Development departments, their motorsports building and their partners KTM Components GmbH and WP Suspension GmbH. Synergies between these key operations brings this pioneering vision to reality.

Throughout its 117-year-history, the brand has experienced several transformations. Under the ownership of PIERER Mobility AG, Husqvarna Motorcycles have enjoyed their most successful era to date, selling close to 200,000 motorcycles worldwide during the last six business years. Following this steep

upward trajectory since 2013, the brand continues to focus on increased growth, reaching new markets and the continued development of a wider motorcycle range.

In addition to their legacy as a brand, Husqvarna Motorcycles' growth goes hand-in-hand with a long heritage of success in onroad (early years) and offroad competition. Using world-class competition to develop their products, Husqvarna Motorcycles strives for excellence with the global Rockstar Energy Husqvarna Factory Racing team. World championship titles, race victories and success across the globe all affirm their position as a dominant force in all offroad racing activities. Showcasing the ongoing commitment to consolidate the brand in the street segment, Husqvarna Motorcycles will re-enter the Moto3TM World Championship in 2020.

Husqvarna Motorcycles' global business extends to Clothing and Accessories, which are distributed worldwide through an ever-increasing network of 18 subsidiaries and 50 high-profile importers.

History

Ever since the brand's inception Husqvarna has continued to evolve. What started as a weapons factory advanced to produce household appliances before moving onto two-wheeled goods. Adding bicycles to their product range in 1896, the leap into motorcycle production happened in 1903. This bold step marked the beginning of a long and fruitful journey for Husqvarna Motorcycles. The brand forged an envious reputation for their unrelenting spirit and commitment to premium products with state-of-the-art technology.

Milestones

1689 The birth of Husqvarna, at the King's command. Starting as a weapons factory, the brand evolved to produce sewing machines and kitchen appliances.

1903 Husqvarna unveils its first motorcycle. The start of a legendary journey of more than 110-years of uninterrupted motorcycle production.

1933 A first taste of racing success. Using a revolutionary 4-stroke engine design, Husqvarna's early road racers spawn a tradition of racing triumphs that endures for over 80 years.

1953 The era of Moto. Husqvarna's easy-to-adapt single-cylinder road bikes are a perfect match for this new era of offroad motorcycling.

1955 The birth of a motorcycling icon. The nimble Silverpilen - Silver Arrow, in Swedish - introduces technology that revolutionises the market.

Milestones

Motocross Champions. Rolf Tibblin's 250cc Motocross European Championship marks the beginning of an era of success in international offroad competition.

Racing success transcends into production. Securing the 500cc Motocross World Championship with Bill Nillson, Husqvarna develops a championship-winning big-bore motocross machine.

A dominant force in competition. Entering their Golden Era in global offroad racing, Husqvarna riders have since earned 93 World Championship titles and counting.

Following the division of Husqvarna's production of sewing machines, chain saws and "white goods-appliances", one of Sweden's leading corporations, Electrolux, acquires the brand's motorcycle segment.

Introduced in 1983, the easy-handling 500cc single TE 510 becomes the forerunner for a new generation of 4-stroke competition motorcycles.

1987 The move to Italy. Husqvarna's motorcycle division is acquired by Cagiva becoming part of MV Agusta S.p.A. All models are now produced in Varese, northern Italy.

Husqvarna engineers give birth to Husaberg. Remaining in Sweden, Husqvarna's core development team launch Husaberg.

Husqvarna's rich legacy in offroad attracts another European entity – BMW – who acquire the brand with ambitious plans to expand their offroad motorcycle range.

The start of the new era. Husaberg owner – KTM AG – acquire Husqvarna reuniting the two halves of the original Husqvarna brand at their headquarters in Mattighofen, Austria.

The bold step toward street motorcycling. Reentering the street market with the 701 Supermoto and 701 Enduro machines, a year later Husqvarna Motorcycles presents the first models from their exciting new street range – the Vitpilen 401 and Svartoilen 401.

Forward-thinking innovation. Husqvarna Motorcycles changes perceptions about 2-stroke offroad motorcycles with the introduction of electronic fuel injection into their MY18 TE 250i and TE 300i models.

The tradition of rigorous development lives on. The brand continues to take vital steps towards fulfilling their progressive vision of street motorcycling with the introduction of the Vitpilen 701 and Svartpilen 701.

2019 Ongoing development in terms of performance, technology and design is seen in the first-ever electric EE 5 minicycle as well as in all street and offroad models. As the 2019 highlight, Husqvarna Motorcycles introduces the Norden 901 Concept – a dynamic twin-cylinder machine that balances practical accessibility and comfort to suit the modern motorcyclist.

2020 Husqvarna Motorcycles becomes available in India, South East Asia and Latin America, launching into these markets with a collection of 200 cc and 250 cc street motorcycles in a bid to bolster sales and further grow the brand.

Motorsport

Motorsport is an integral part of Husqvarna's 117-year history and a driving factor in the continued development of its classleading production motorcycles. Husqvarna Motorcycles remains resolute about achieving success at the highest levels of two-wheeled motorsport.

Introducing the global Rockstar Energy Husgvarna Factory Racing team in 2015, Husqvarna Motorcycles solidifies its position as a dominant force in all offroad racing activities. World Championship titles, race victories and success across the globe has all contributed to unforgettable motorsport triumphs.

Making history, Jason Anderson captured the AMA 450SX Championship in 2018, the brand's first SuperCross title since its inception in 1903. Strengthen Husgvarna Motorcycles' dominant position in the 250cc class throughout 2018, Zach Osborne defended his AMA 250SX East SuperCross crown, winning the title for a second consecutive year.

Spearheading Husqvarna Motorcycles' assault in FIM Motocross World Championship competition, Thomas Kier Olsen secured the runner-up position in the 2019 MX2 World Championship standings. In the MXGP World Championship, FC 450 mounted Pauls Jonass and Arminas Jasikonis finished sixth and seventh respectively.

extremely successful one. Claiming the FIM SuperEnduro Championship - the third FIM World Championship title in his illustrious career - Haaker also secured the 2019 AMA EnduroCross title.

Fielding a solid team in the World Enduro Super Series, Husgvarna Motorcycles saw Billy Bolt make history by becoming the first ever WESS champion in 2018. In 2020, bouncing back from injury in the best possible way, Billy showed what he is capable of and secured the FIM SuperEnduro World Championship title for the Rockstar Energy Husqyarna Factory Racing team. In addition, Graham Jarvis claimed an emphatic victory at the ErzbergRodeo, his fifth win at the iconic event.

FR 450 Rally mounted rider Pablo Quintanilla put in numerous hard-fought performances throughout 2019, ending the year on a high by winning the Atacama Rally and securing the runner-up position at the Rally du Maroc. Beginning 2020 with the Dakar Rally, two-time FIM Cross-Country Rallies World Champion Quintanilla secured a personal-best second place overall - this superb result also marked the greatest-ever result for Husgvarna Motorcycles at the world's toughest rally.

For Colton Haaker, the 2019 indoor enduro season was an In 2020 Husqvarna Motorcycles returned to international road racing and the FIM Moto3™ World Championship. Entering two Husgvarna FR 250 GP machines, the Max Biaggi owned Max Racing Team will compete with Italian Romano Fenati and Spaniard Alonso Lopez.







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Imitation not advised!

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