BODY WORK

FENDER New design consistent with the style of front & rear fender

New rear fender profile to improve mud evacuation.

HEAD LIGHT Front headlight with preservation of the SCORPA brand identity

Homogenization of trial & enduro light appearance.

REAR LIGHT integrated in the rear of the air filter box
Hidden electrical harness.

COCKPIT & TRIPLE CLAMPS

- MAP switch and front and rear switch grouped behind the headlight shell.

- CLAMPS Optimized design for weight reduction of **4% or 29 grams**

  Front face clean up by screws integrated into the rear surface
  Steering stops positioned on the lower fork clamps.

Map switch map & Front/rear switch

BRAKE PEDAL & GEAR SELECTOR

- Integration of an anti-mud hinge system
  MIM technology tip
  Integrated bearings to avoid lateral play.

- Integration of an anti-mud hinge system. MIM technology tip
  Complete selector group weight reduction of **118%** or **57** grams.

FRAME

Geometry allowing a center of gravity lowering and easy turns
6% or 365 grams weight reduction
Improved rigidity and increased traction.

Chrome-molybdenum tubes and micro-fusion parts Robot-weldec
1 000 000 test cycles
Removable forged aluminum side plates that provide better access
Integrated polymer frame protectors.

SWINGRAM & SUSPENSION LINKS

- New settings that improve comfort, and provide better weight distribution

Significant weight reduction in the control links

Improved traction in dry and slick conditions.

FUEL TANK & FUEL POMP

2.2 liters capacity
Integrated fuel pump
Blown technology for optimized weight.

Ultra-compact fuel pump
developed by SCORPA
Bypass recovery tank to prevent fuel loss.

RADIATOR & FOOTRESTS

- Radiator cores increased by **58%** from 12 to 19 : improved cooling with same size

  Radiator fill spout tilted **30°** to the front
  quick removable grill with clips.

- Steel micro-fusion footrest group
  Improved central stability & increased grip

  Better mud evacuation &
  Improved riding position
  Axle fixing without nut & Anti-sag stopper.

EXHAUST

- Internal volume of silencer increased by **35%** : strength, torque, stability, durability

Thermoformed compressed fiber for better longevity

Silencer is now easy to disassemble for fiber change.

AIR FILTER

- Air filter box Volume increased by **7%.**
  Air filter surface INCREASED by **11%.**

  Provides an increase in power at low revs, increased torque and engine response.

- The hatch can be opened with a finger

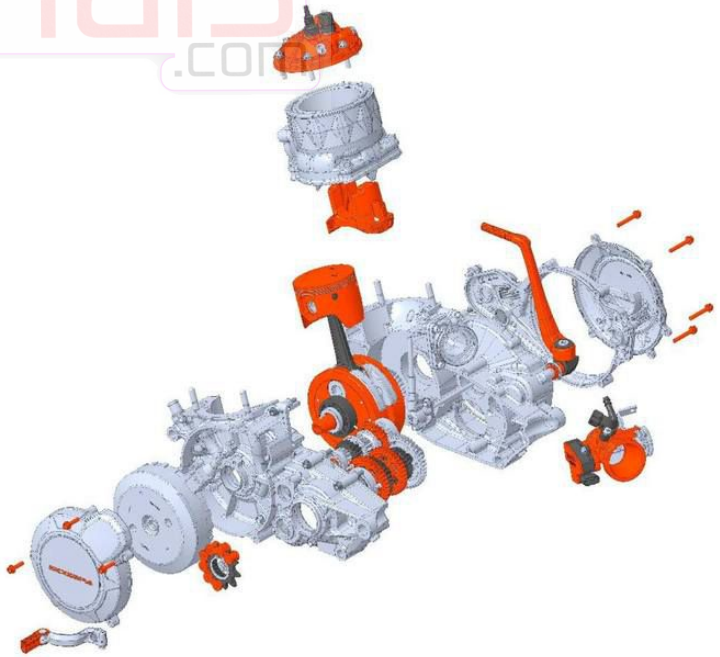
  Filter replacement is easier.

CONCEPT

MY 2022 engine weighed **20.5 kg.**

MY 2023 engine weighs **16 kg.**

Reduction in weight **28%** or **4.5 kg.**

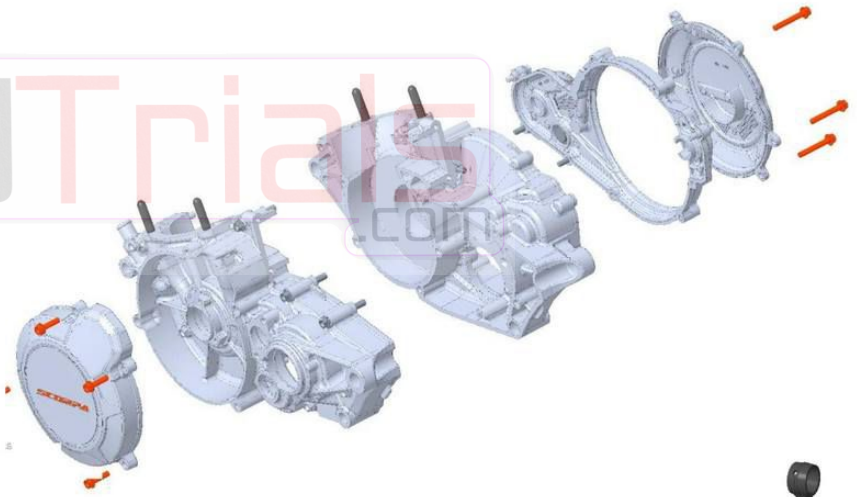


CRANKCASES & CEANKSHAF

- New pre-compression system in lower engine to improve performance

  Possibility to modify the compression in the lower part of the engine.

- Lighter crankshaft by **13%** or **500** grams
  larger diameter **110** MM > **116** mm in order to increase inertia
  Significant reduction in weight at the axis.



weight −

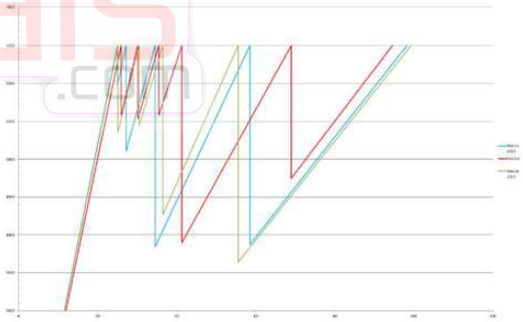
diameter +

inertia +

GEARBOX & GEAR SELECTION SYSTEM

The most compact 5-speed gearbox and the lightest by 500 grams

Regular specific gearing **1>2>3** for sections, **4** mid sections and inter section and **5** for travel between sections.



Aluminum selector forks directly articulated on the selection drum the 2 axes eliminated which saves weight.

Shifting is provided by a ratchet system : compact and lighter. the total weight reduction is **28% or 145 grams.**

MOTUL

OIL & CLUTCH

- The oil capacity is now **450 ml**
  Magnesium clutch cover with oil level inspection window
  filling method has been simplified.

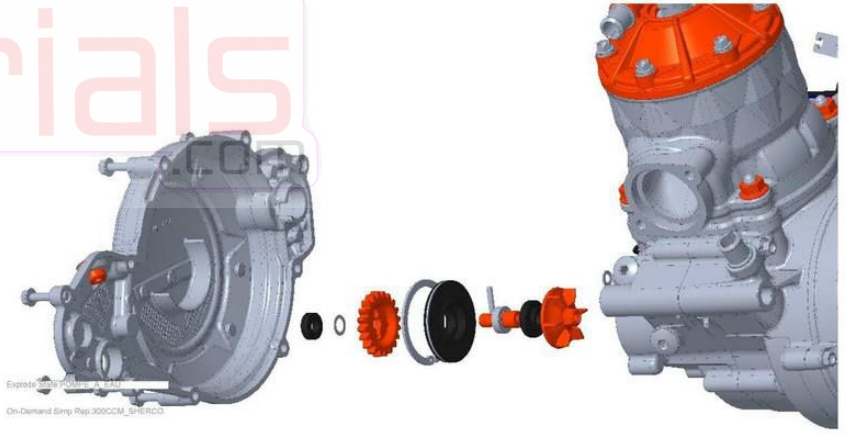
- Diaphragm clutch system with **3 positions** allowing MODULATION

  Revised pressure plate and spring for improved comfort and precise control.

WATER PUMP & CYLINDER

- The water pump is located internally in an inverted position

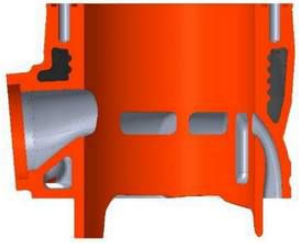
  NO contact between the coolant and the magnesium case.



- New foundry cylinder with a faceted design.

  New improved thermodynamics, FROM **5 to 7 intake transfers**
  Improved cylinder cooling circuit utilizing redesigned contact surfaces.

  +24% cooling surface.



REED CASE & INJECTION BODY

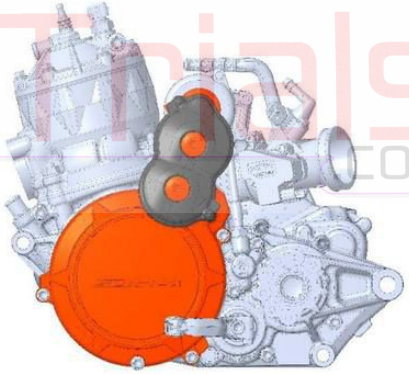
- New reed valve box system to optimize gas flows (fuel/air) in the intake and gain increased power at low revs

- New specific throttle body with triple sensors integrated in 1 Atmospheric pressure

  TPS Throttle position
  Temperature
  32mm diameter to optimize efficiency
  and provide proper flow response

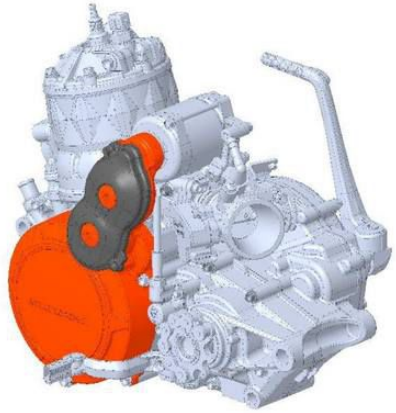
  Reduced fuel consumption through optimized gas exchange

ELECTRIC START



FUTURE

Electric strat integrated



SCORPA

EN

DATASHEET

2 stroke			
Engine	125 ST	250 ST	300 ST
Displacement	123cc	249cc	294 CC
Bore and stroke	54 x 54mm	73 x 60 mm	79 x 60mm
Lubrication	1 % Blend		
Fuel	SP 98		
Carburetor	Electronic Fuel Injection		
Cooling	Liquid cooling and a fan		
Starting	Kick starting system with folding lever		
Exhaust	Stainless steel head pipe with an sluminum silencer		
Transmission	5-speed sequential primary, chain drive secondary		
Clutch	Hydraulic operated diaphragm system with adustable preload		
Ignition - CDI unit	Hidria Digital		
Frame	Tubular Chrome-Molybdenum Steel		
Fuel tank	2.2 Liter capacity		
Brakes	Hydraulic controlled, 185mm 4-piston floating disc (front) and 145mm 2-piston (rear)		
Front suspension	Tech aluminum fork - Ø 39 mm fork tubes - 165 mm stroke with 2 settings		
Rear suspension	Progression system with control linkage - 165 mm stroke		
Rear shock absorber	Reiger adjustable		
Front wheel	21" Morad black aluminum rim		
Rear wheel	19" Morad black aluminum rim		
Wheelbase	1310mm		
Ground clearance	350mm		
Seat Height	704mm		