## 2018 Season Release



# **Summary**

#### I. Company Situation

- 2017 season data
- □ New Sherco factory
- Racing Program

#### **II. 2018 Product Evolutions**

- **Enduro**
- **Cross Country**
- Trial







#### **Racing Program**

□ World Enduro Championship: Matthew Phillips / Lorenzo Santolino



#### Sherco World Champion Enduro Gp/E2 2016

Benefit: Brand Image, Products credibility, Federate around the brand

#### **Racing Program**

Enduro : Extreme & Indoor : Wade Young
 > Winner X-Wiesel + Winner King of the Hill + Winner XL Lagares, Podium Alestrem



Strong media coverage / Great international feedback



#### **Racing Program**

Enduro : Extreme & Indoor : Mario Roman > Winner Avanda Rocks, podium Alestrem



Strong media coverage / Great international feedback



#### **Racing Program**

**Classic Enduro: Jeremy Tarroux** 

> Winner all classics 2017 and current leader French championship
 Val de Lorraine / Grappe de Cyrano / Trèfle Lozérien





#### **Racing Program**

- **Rally Raid** 
  - Joan Pedrero
  - **Adrien Metge**
  - □ Aravind KP





# Worldwide promotion out of the pure offroad market



#### **Racing Program**



- □ Albert Cabestany
- Miquel Gelabert
- □ Alexandre Ferrer
- **Emma Bristow**









#### **Racing Program**

#### Trial

□ Albert Cabestany: The current generation







#### **Racing Program**

#### **Trial**

□ Miquel Gelabert : The next generation







# ENDURO

## **II. 2018 Enduro Evolutions**

### Welcome to SHERCO SE-R 125 !





#### **Context : The Engine to complete the range**

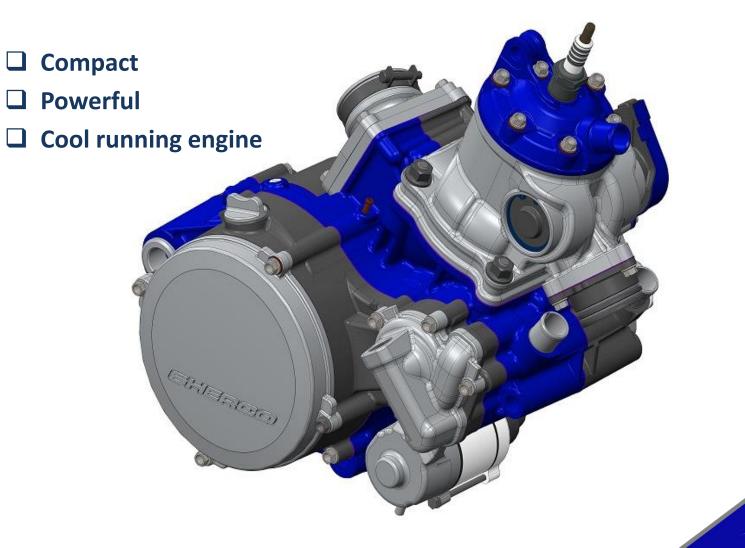
- □ The 125 market is large in Europe, especially among young riders.
- □ Motorcycle developed 100% for enduro but tested in MX and sand.
- **D** Tested in racing (French championships)
- **Euro 4 homologation**
- □ Attract young riders to Sherco brand



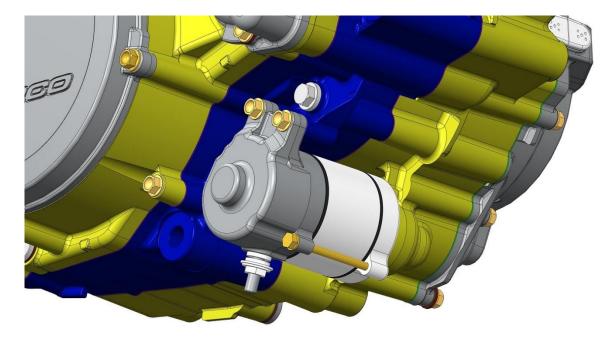
Product philosophy: making a high performance motorcycle

- Light weight and ease of handling that is a characteristic of Sherco motorcycles
- **D** Be part of the reference 125 category (in competition and leisure)





- □ Starting system: Only electric starter located under the engine (Sherco 2T experience)
- □ More than 10,000 start-up cycles

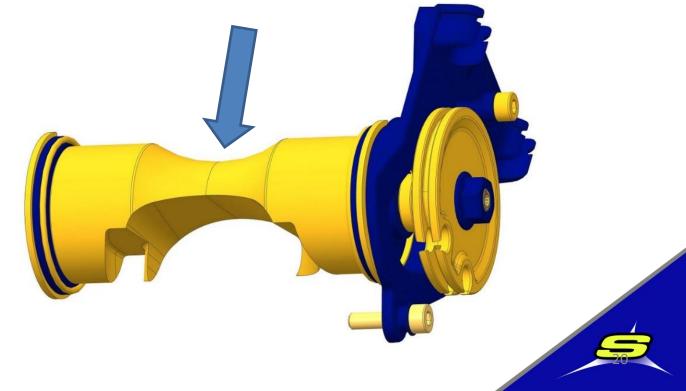




- **Q** Rotative drum valve that permit progressive delivery of the power
- **C** Electronic exhaust valve system: 2-piece drum including exhaust valve and boosters
  - **Exit exhaust slider system from 250/300 2T**
  - **Drum valve**
- Optimum sealing with the piston when the valve is closed
- Mechanically simple
- Easy to maintain and adjust
- Strong and reliable

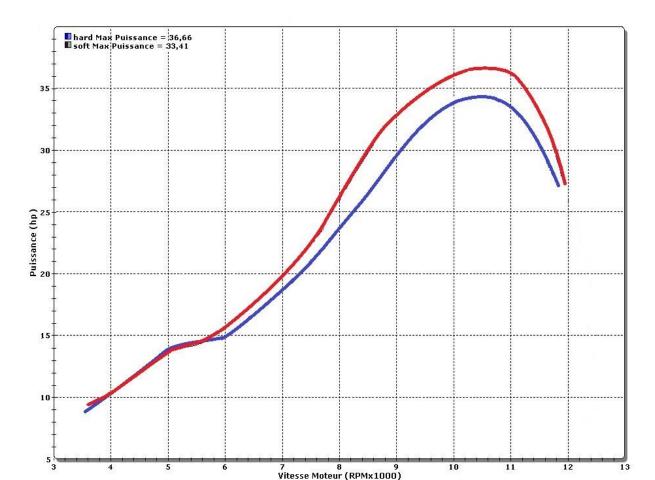


- □ Precise control of valve opening according to the RPM
  - **Composed of 2 parts**
  - **Light aluminum material**
  - □ Special shape to avoid sticking
  - □ Significant differentiation between Sherco and the competition



#### ENGINE

#### **2** maps (Soft/Hard) standard with switch button 3HP difference





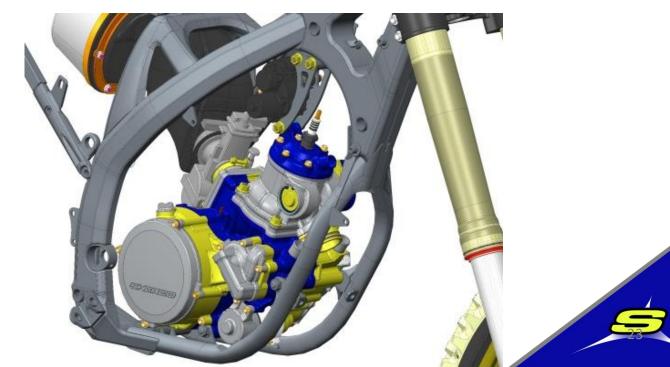
#### ENGINE

Clipping State:XSEC000

- □ Stability of combustion chamber with Water on all faces of the cylinder
  - Water chamber under the valve system

- □ Monobloc cylinder head
- □ Head bracket design has vertical C shape
  - □ Reduces stresses at the frame interface





#### ENGINE

**G** Keihin PWK 36 carburetor: A reference

- Viton intake pipe material : ease of assembly, improved reliability
  - **D** Number of parts reduced
  - **Carburetor fixed by only one clamp**
- □ Vforce 4R reedcase :
  - **Low and midrange power gain 1 Hp**
  - **General Stoppers for an optimal life.**
  - Rubber on the reeds case to maintain sealing







#### **ENGINE**

#### **D** Powerful ignition: 220W

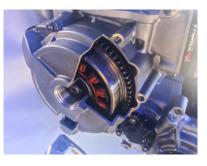
- **Great for additional light connection**
- □ Same power as 300 4T

#### **Double segment piston**

- Increased sealing
- □ Longevity improved

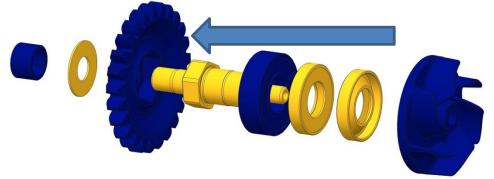
#### □ Viton exhaust gasket

□ High temperature resistant.



#### **Optimized water pump**

- **DLC** treatment shaft and specific high-pressure seals
- **Gamma** Standard turbine and gaskets
- **D** Plastic pinions glass fiber raw material PA66 for weight reduction



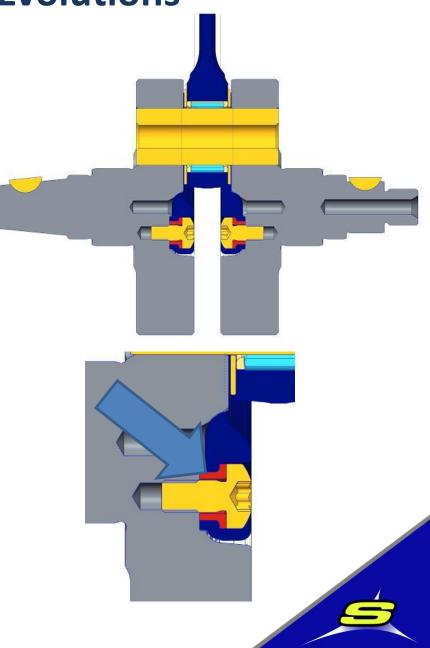


#### **Crankshaft:**

ENGINE

- Inertia studied for enduro: Provides excellent low end power with a smooth transition
- Composite flywheels: PA66 glass fiber filler) secured with spacers to ensure optimum tightening

**FCC** clutch discs: proved on our 4T models



**CYCLE PART :** 

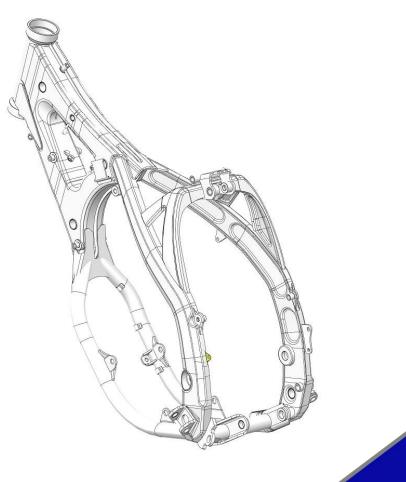
Sherco's experience adapted to the small engines

Specific 125 geometry

- **Generation**:
- Common base 250 / 300cc
- 15mm shorter wheelbase
- Steering angle reduced by 0.9 degrees

#### **Gamma** Standardization:

Whole cycle and body part common to other Sherco models. (Wheels, swingarm, plastics, brakes, handlebars, tires, air box, saddle ...)



Specific shock and fork settings. WP Xplor fork used on factory models.

#### **Other Enduro models**





#### **CYCLE PART :**

#### □ NEW WP 46 SHOCK

- □ Modified settings for better absorption
- Bottom and compression
- □ Eliminates link axle bending
- □ All models except 450



#### **CYCLE PART :**

- □ NEW RADIATOR CAP
  - □ Easier to access and open





#### CYCLE PART :

□ New Seat Material Luna Sella De La Valle

Improved grip in wet conditions

□ Inmolded Graphic Kit for 2018

UV resistance fluorescent yellow



#### PLASTICS MATERIAL

- 20 % more flexible
- Handguards have rubber built in
- Rear mudguard reinforced on rear number plate fixation



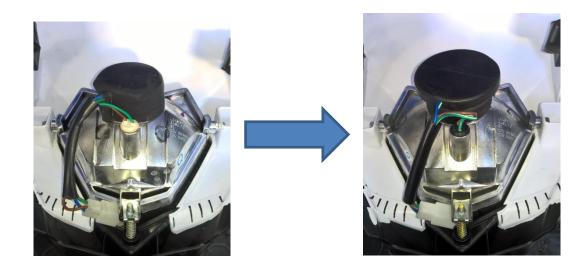
#### CYCLE PART :

#### □ Water resistance computer

□ New membrane system

#### **Given Street** Front light

- Reinforced mount
- New front light bulb for resistance to shocks and vibrations
- Protection rubber redesigned behind light





#### **CYCLE PART :**

#### Rear wheel axle

New assembly process with Loctite and stronger tightening torque

#### □ New gripster aluminium overmolded

□ Better contact assembly

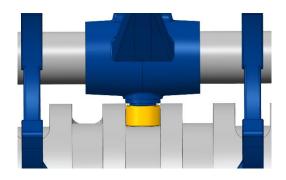




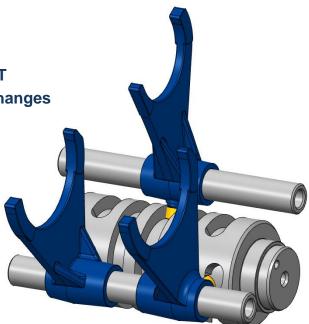
#### CYCLE PART :

#### □ MODIFIED SELECTION DRUM

- □ New shifter fork rollers on the 250/300 2T and 450 4T
- □ Selector drum profile modified for smoother gear changes
- □ Improved precision



- **GEAR SELECTOR SPRING** 
  - □ Stronger with longer service life
  - □ Tested and proven in the Dakar Rally





#### 250 / 300 SE-R 2T 2018:





#### 250 / 300 SE-R 2T 2018 common evolutions

Riders who promote this Engine design
 > Wade Young
 > Mario Roman





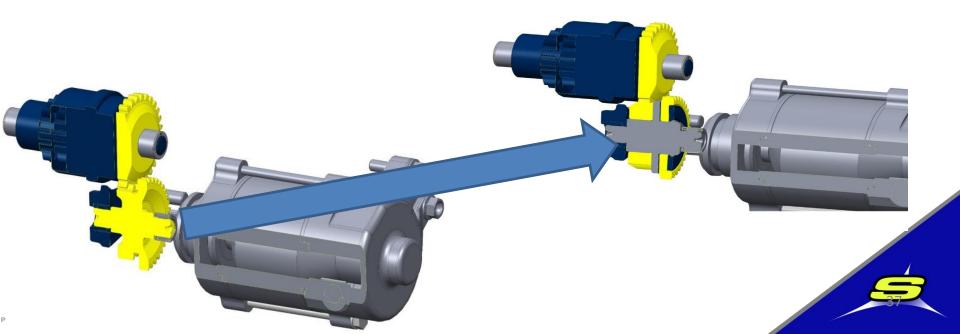


250 / 300 SE-R 2T 2018 :

#### ENGINE :

- **BENDIX TORQUE LIMITOR** 
  - **Q** Resistance system improvement
  - □ The double pinion becomes torque limiter



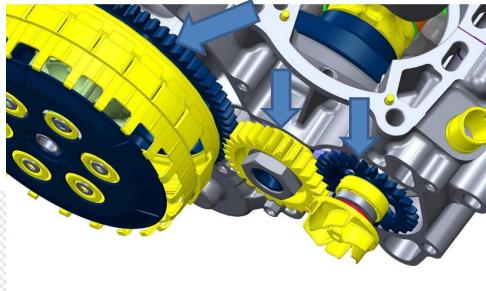


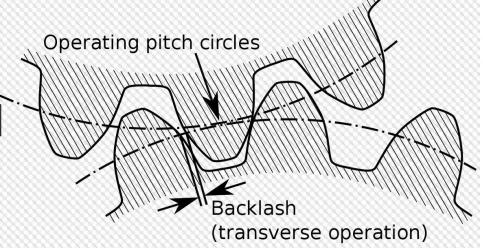
#### 250 / 300 SE-R 2T 2018:

ENGINE :

SPROCKET DESIGN > PRIMARY TRANSMISSION DRIVE AND WATER PUMP MODIFIED

- Friction reduced
- □ Improved performance
- Less noise





### 250 / 300 SE-R 2T 2018:

**ENGINE :** 

□ CLUTCH ASSEMBLY REINFORCED

□ Increased reliability

**Clutch hub with different machining washer spacer location** 

□ NEW WATER PUMP SEALING

- Output
- Longer life
- □ Seal ring adapted from 4T range

□ NEW CYLINDER GASKET

Longer life



### 250 / 300 SEF-R 4T 2018:





#### 250 / 300 SEF-R 4T 2018 common evolutions

- **Q** Riders who promote this Engine design
- Matthew Phillips World Champion GP E2
- Lorenzo Santolino Leader in Spanish Championship
- □ Jeremy Tarroux Winner of all classic races this season





#### 250 / 300 SEF-R 4T 2018 common evolutions

#### New Exhaust Pipe Collector

- **Better response at low RPM**
- **U** The new shape provides heat protection for the riders boot
- **Esthetic**
- □ No heat protection plate necessary





#### 250 / 300 SEF-R 4T 2018 common evolutions

- ❑ NEW SICLENCER
  - **More power**
  - □ Weight reduction: 300 g
  - **Given Six Days design**
  - □ Stronger aluminium tube
  - □ Improved impact resistance
- □ INJECTION MAPPING CALIBRATION
  - □ Improved performance
  - **Better throttle response**





250 / 300 SEF-R 4T 2018 common evolutions

#### **CYCLE PARTS**

- ALUMINIUM T COOLING SYSTEM
  - □ Improved life in extreme conditions
  - □ Ideal during extreme riding
  - □ Maintains a more even engine temperature

#### **FUEL PUMP EVOLUTIONS**

- □ Internal fuel circuit to avoid vapor lock effect
- □ Pressure regulation optimized (new regulator mount)



### 300 SEF-R 4T (SPECIFIC)

### ENGINE

#### **NEW PISTON**

- □ Longer life
- **Compression increased**
- □ More Performance



#### □ NEW CRANKSHAFT WITH V CONNECTING ROD PROFILE

- □ Adapted to new piston
- □ The connecting rod has a viper shaped head





### 450 SEF-R 4T 2018:

- NEW SILENCER
  - **D** More power
  - □ Weight reduction: 500 g
  - **Given Six days design**
  - □ Aluminum
  - □ Improved impact resistance

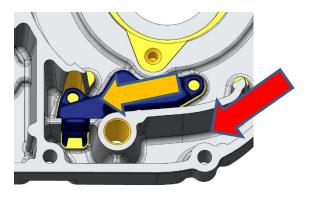


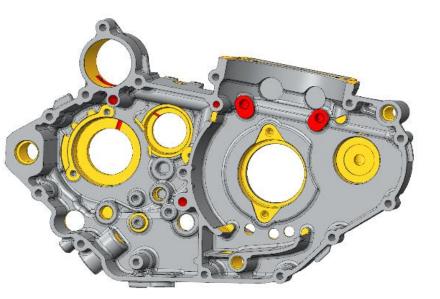


### 450 SEF-R 4T 2018:

#### ENGINE :

- □ OIL CIRCUIT SYSTEM MODIFIED
  - **D** Better heat control
  - □ More performance
  - **Dakar tested**







### 450 SEF-R 4T 2018:

#### **CLUTCH EVOLUTIONS:**

Clutch plate oil jet mount reinforced

Neutral easier to select

□ Reduced slippage

#### **CYLINDER HEAD EVOLUTIONS:**

- Redesigned distribution chain tensioner adjuster (material / geometry) Dakar type
  Plastic Bush with different material
- □ Valve guides and seats modified due to new technology of machining
- Performance and longer life
- **Q** Reinforced cylinder head fasteners





### **Available in all engine versions:**







### **Benefits from all enduro evolutions:**

### **125 SC-R:**

- **Blue Rims**
- **XPLOR Front fork**
- □ Aluminium silencer with carbon tip
- **Rear MX tire**









### **Benefits from all enduro evolutions:**

### **250/300 SC-R**:

- □ Mx Fork double cartridge with spring
- **G** Fmf silencer
- **Rear MX tire**









### **Benefits from all enduro evolutions:**

#### **250/300 SCF-R**:

- □ Mx Fork double cartridge with spring
- □ Ackrapovic full exhaust system
- **Rear MX tire**







### ST 125 / 250 / 300 Common evolutions



## ST 125 / 250 / 300 Common evolutions

#### **CYCLE PARTS :**

#### □ SUSPENSION EVOLUTIONS

- □ ALUMINIUM FORK TECH
  - □ Lower weight: 850 g
  - **Comfort**
  - **Gamma** Steering optimized
- **REIGER NEW SHOCK ABSORBER** 
  - □ Absorption
  - **Traction**
  - **Precision**
  - **Repeatability**





## ST 125 / 250 / 300 Common evolutions

- □ AIR FILTER MOUNT
  - **Easier to disassemble**





## ST 125 / 250 / 300 Common evolutions

- □ MODIFIED RADIATOR
  - **Easy water level control**
  - □ Improved access

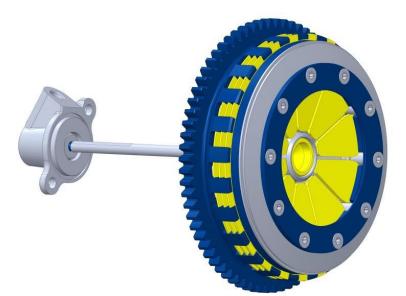




## ST 125 / 250 / 300 Common evolutions

- **CLUTCH EVOLUTIONS** 
  - □ Low volume AJP master cylinder
    - Better control feeling
  - □ Clutch receptor sealing optimized
  - **D** Profile of the hose has been modified
    - **Precision**
    - **Reliability**







## ST 125 / 250 / 300 Common evolutions

#### **CYCLE PARTS :**

**G** Frame reinforced for the exhaust mounts

- **D** New Position Dual Map Switch
- **G** Foot pegs Position Optimized







### ST 125 / 250 / 300 Common evolutions

#### **CYCLE PARTS :**

**□** Fuel tank vent hose relocated





## ST 125 / 250 / 300 Common evolutions

#### **CYCLE PARTS :**

**Rear Sprocket Protection** 

□ More security

#### Black Swing arm





## ST 125 / 250 / 300 Common evolutions

#### ENGINE :

**Re map CDI:** 

 $\hfill\square$  More performance at lower RPM and smoother transition

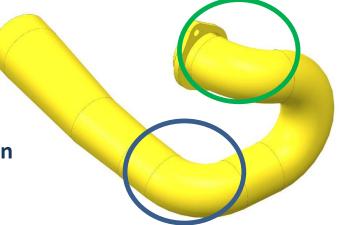




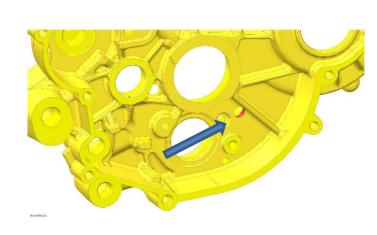
## ST 125 / 250 / 300 Common evolutions

#### **ENGINE :**

- □ New Dark Grey Crankcase color
- **Evolution of diameter bigger blue**
- □ Progressive exhaust 125 green
- □ Better cooling of the clutch by oil retention







### **ST 125 Specific Evolutions**

#### ENGINE :

- □ New primary transmission ratio:
- □ Allows 9 / 44 secondary (same 250 / 300 ST)
- □ Sprocket diameter reduction
- □ Chain effect reduced
  - Better shock absorption



