Scottoilers on Electric Motorcycles

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We are often asked about the suitability of our products for use on electric motorcycles so please see below some information that you may find useful in considering a Scottoiler to manage your electric motorcycle chain maintenance.

Firstly, as electric motorcycles don't have engines our range of vacuum operated chain oilers will clearly not be suitable. However, we do have a range of electronic systems which you should consider. The xSystem 3.0 and eSystem 3.1 are both are electrically powered and electronically controlled so would be worth considering for your EV.

The xSystem v3.0

The xSystem 3.0 requires a 12v live feed which can be connected directly onto a 12v battery using the spade connectors or a switched (non-continuous) live via an accessory manager (e.g. Hex Ezcan, Denali Cansmart) or a hardwire connection. With the xSystem 3.0 connected directly to a 12v battery the system will remain powered but will only activate the oiling process once it detects that your motorcycle is moving, when your motorcycle is parked, the system will revert to sleep mode.

If you have your xSystem 3.0 connected via a switched (non-continuous) live it will turn on when power is supplied and will be set to the previously selected flow rate setting, the system will then power down when the power supply is turned off.

The xSystem 3.0 uses an accelerometer to sense vibration/motion. When connected to a 12v power feed the xSystem will activate when it senses movement, so it will come on automatically with each ride. You can easily control the flow rate with the push of a button to adjust the lubrication to your preference. To find out about the xSystem 3.0 check out the Scottoiler website & F.A.Q's.

Alternatively, you can also consider the eSystem 3.1.

The eSystem v3.1

The eSystem 3.1 also requires a 12v live, but it can be a switched (non-continuous) live. The eSystem 3.1 will retain its settings and re-activate automatically each time you go for a ride. It also has the added benefit of being adjustable on the fly from the handlebar mounted controller.

The eSystem 3.1 uses an accelerometer to sense vibration/motion and it is this which determines it's functional state. For ICE motorcycles, even at idle, there is usually some vibration from the engine which allows the screen to stay on even while stationary, but it is possible to re-awaken the display by pushing one of the buttons. It is also possible to adjust the sensitivity of the system to vibration/motion to influence when the system goes from 'on' to 'oiling' mode. Some machines that have smoother engines and therefore less vibration (and this includes electric motorcycles) benefit from increasing the sensitivity to account for their smooth running so that the system begins oiling sooner. In effect adjusting the lower level speed at which the system lubricates the chain. We advise to adjust the sensitivity to maximum such that at about 30mph the system resumes. The added benefit of only operating above this speed is it minimises the chance of over-oiling during extended periods of low level activity.

To adjust the sensitivity, scroll through the menu to the sensitivity screen (below) and adjust to maximum:



In terms of the current draw for both systems we believe the increase in efficiency of the drive chain will significantly outweigh the impact of the current required to power the systems (which is pretty negligible). To put this in context, the actual current requirements for both systems are as follows:

eSystem v3.1

Current draw at sleep is only 400µA & ~5mAh when in use.

xSystem v3.0

Current draw at sleep is only 87µA & ~4mAh when in use.

The current draw at sleep is less than the natural self-discharge of the battery so there is no impact on battery performance & longevity.

One final thing to note, if your machine has an enclosed chain we would recommend a lower flow rate be used as the chain won't be exposed to the environment as much and therefore less lubricant will be required. The lower the flow rate, the longer the refill interval for the reservoir, so you can expect to get the greatest range possible from your system.

We hope this helps in coming to a decision about which Scottoiler system is most suited to manage your electric motorcycle chain maintenance requirements. If you have any questions thought, please don't hesitate to contact us on technical@scottoiler.com.

For an example installation on an Energica Ribelle Click Here

Online URL:
https://marketingengineer.de/article/scottoilers-on-electric-motorcycles-607.html