



CASE STUDY

Faresin Electric Telehandler: HS2 Main Works, West Ruislip

Overview

The 2.6T Eco Telehandler from Faresin is an environmentally friendly option for single-shift or multi-shift materials handling operations. Offering the same performance as an equivalent conventional telehandler model but without the noise of a combustion engine, this innovative Telehandler operates with zero CO2 emissions and is a pioneer within the materials handling equipment sector.

The Project

Flannery Plant Hire are working with the Skanska Costain STRABAG Joint Venture (SCS JV) on the main works for HS2 at West Ruislip. As part of these a Tarmac Compound is being established, going forwards this will manage deliveries and storage of materials for this section of the project.

HS2

Innovation

With a lifting capacity of 2.6t, this innovative, eco-friendly telehandler is powered by a lithium battery, which delivers a range of benefits including reduced charging times and notable savings in maintenance when compared to combustion engine telehandler. The standard 300Ah battery has a battery life of up to 6hours (depending on use) and a recharge time of 3h45mins using the standard external three-phase charger.

Unlike standard wet cell batteries, lithium batteries can be “opportunity” charged without any damage or life reduction to the battery. This means the batteries can be topped up at break times or at convenient intervals throughout the day, minimising downtime.



Green Technology: The electric drive unit creates zero CO2 emissions.



Silent & Effective: The same performance as a conventional telescopic handler without the noise of a combustion engine.



Three Types of Recharging: Use fast charging to opportunity charge during the work cycle, classic charging overnight or the on-board single phase charger as required.

This eco telehandler is ideal for use in closed or environmentally sensitive areas and can offer versatility for a wide range of industries. Featuring all-wheel drive and four wheel steering options the eco telehandler offers a viable solution in today’s environmentally focused market.

Background

Flannery Plant Hire are committed to protecting the environment from the effects of our daily activities, is at the very heart of what we do. As an organisation we feel passionate about making sure our activities go as far as possible to protect the public, and beyond that enhance the environment.

Part of our commitment to driving sustainability in the construction sector includes a strong focus on finding the latest technology and innovation that can help us provide clients with a greener solution. This is a continuous process and involves working closely with manufacturers and clients to find appropriate test sites for these products. This allows us to assess products and also learn about where they can be most effective, in our experience there is not a one-size-fits-all solution and having access to a range of innovative products best serves our clients.

Case Study

Niall Hester, Operation Director at Flannery Plant Hire has been working closely with GGR Group (the UK distributor for Faresin telehandlers) to find a suitable test site.

HS2 is Britain's new high speed, low carbon railway that will transform connectivity between cities and towns in the South, Midlands and North. The project is keen to adopt the most innovative technology and to reduce its carbon footprint. HS2 has also set ambitious targets for the supply chain to minimise the whole life carbon emissions of assets.

Niall explained, "HS2 have been hugely proactive in driving their green agenda and this is a great project to introduce this new machine. Working with SCS JV we identified the material handling requirements in this particular section as an ideal testing ground, and the site team provided good support for the process.

Flannery Plant Hire are committed to protecting the environment from the effects of our daily activities. We are passionate about making sure we go as far as possible to protect the public, and beyond that enhance the environment. We're extremely pleased with the outcome from the trial and are now talking to SCS JV about how we roll out more vehicles across other HS2 sites."

The Eco Telehandler has been onsite supporting the set up of a concrete compound, the trial lasted for one week with the machine working an average of five to six hours a day.

John Marley, Senior Works Superintendent from SCS JV commented, "We have been really impressed with this telehandler, it has great lifting capabilities for its size and has managed 80% of the deliveries to site.

It actually lasted for a full ten hour shift each day, without charge and we then used the three phase, five pin charger with a charging point we already have installed onsite, overnight it would fully charge ready for the next day. Flannery did supply a fast charger which would have charged the machine in just under two-hours but we didn't need it in the end."

HS2's Air Quality Lead Andrea Davidson said, "HS2 is leading the way with green technology in order to reduce our carbon footprint across the whole project, supporting the UK's green economic recovery and making a major contribution to the country's 2050 net zero carbon emissions target.

Putting the environment at the heart of everything we do at HS2, the project is well placed to encourage innovations and set new standards in the industry to help improve air quality on construction sites. We've set ambitious targets for our supply chain to minimise whole life carbon emissions, and Flannery have gone way beyond these, providing an industry-first in the materials handling equipment sector."

Conclusions

This proved to be a very useful and positive case study, looking at the telematics data from our telehandler we can predict that this machine (had it been a “traditional” combustion telehandler) would have burnt around 412 litres of fuel. Using an electric telehandler obviously represents a huge reduction in carbon and NOX emissions.

This represents a significant fuel and cost saving for the customer and fewer refuelling vehicles means a reduction of plant movement onsite. This has significant benefit in terms of safety at the people plant interface, as well as reducing overall environmental impact.

Anything we can do to support any client deliver a more efficient and cleaner output is certainly worth doing, particularly when it also delivers a better environment during construction for local communities.

James Richardson, Managing Director, Costain Skanska STRABAG Joint Venture commented, “Driving innovation that reduces emissions and noise and embracing new technology is at the heart of our Costain, Skanska and STRABAG Joint Venture work on HS2.

We were pleased to be the first construction site in the UK to trial the Eco Telehandler with Flannery and will be looking at opportunities to bring them on site to reduce carbon and deliver the project more efficiently”.

More Information

For more information why not visit our website flanneryplanthire.com where you will also find a supporting video for this case study. If you have any questions please contact us by emailing marketing@flanneryplant.co.uk

