

Modula: Advantage through sustainability

The DM 20 hybrid locomotive platform is now called Modula. The new name highlights the customer benefits of unparalleled flexibility and sustainability.

Berlin, 21 September 2022 While nothing is more constant than change, locomotives are extremely durable capital goods. In the new Modula platform for hybrid locomotives, Vossloh Rolling Stock combines flexibility and sustainability for a maximized economic life.

Its modular vehicle architecture allows the flexible implementation of different energy solutions – from the current overhead line/battery combination via the combination of overhead line with two diesel engines through to an all-electric locomotive for exclusive electric line and shunting service.

To assist customers and operators in selecting the optimum Modula variant, Vossloh Rolling Stock has developed a simulation that analyses energy consumption, costs and range on the basis of future line characteristics, schedules and train weight. This way, each customer obtains the hybrid equipment that is exactly tailored to the real deployment profile of the locomotive depending on the field of application and the configuration.

Plug & Play traction systems

Thanks to standardized and validated interfaces, other hybrid traction variants than those originally installed can be retrofitted and technological upgrades can be implemented to respond to changed requirements. With a view to an increasing availability of hydrogen by 2030 and fuel cells ready for series production at lower costs of procurement, also variants with hydrogen fuel cells or the more durable hydrogen internal combustion engine are conceivable. In any case, the compatible platform for integrating current and future energy storage and energy generation technologies is available.

Use-based maintenance regime

The Modula platform was developed under the guiding principle of “Design for Serviceability” to enable the first comprehensive implementation of the principle of use-based maintenance in a locomotive. In contrast to the now common regular

maintenance, this allows a largely flexible maintenance of the locomotive depending on its individual mileage and service hours.

The sensor-based Train Control & Management System (TCMS) evaluates the physical parameters of essential locomotive components during the operation which permits the identification of potential problems before they occur and an early development of technical solutions for an optimization of the product. With this predictive maintenance concept, Vossloh Rolling Stock not only ensures a high availability and reliability of the Modula but also reduces the operating costs per kilometre.

‘For our customers, the Modula is a real game changer,’ says Dr Bernd Hoppe, Chairman of the Management Board of Vossloh Rolling Stock. ‘It embodies all our skills and our passion to shape the future. Together with our customers, we want to transport more goods and raw materials on the rail because smart railway logistics stands for climate protection and low-emission economic growth. With our outstanding portfolio and our excellent service offering within the European IMATEQ network, we provide modular solutions tailored to the specific needs to rise to the major challenges of today and the future.’

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Vossloh Rolling Stock

With the move under the umbrella of the parent company CRRC ZELC in 2020, Vossloh Rolling Stock opened a forward-looking chapter in its history. This strong combination lays the foundation for a significant extension of our product range and an even faster acceleration of technological innovations and sustainable concepts. We benefit from economies of scale in the production and from investments in our manufacturing and service capacities. Today, we cover the entire value chain of a locomotive – from the locomotive design and engineering via the platform production in a highly modern manufacturing process through to customized service with all ECM capabilities.

As one of the leading locomotive manufacturers in Europe and a company rich in tradition with more than 150 years of expertise in building locomotives, Vossloh Rolling Stock is committed to sustainable mobility – with far-sighted and resolute action, in constant dialogue with our customers. The formula for success that customers from all areas – be they national railways, lessors or industrial and private railway customers – rely on is a traction that is exactly geared to the requirements. Our focus has

always been on extremely cost-efficient, robust and user-friendly solutions for all transport jobs in shunting and line service. With our technological Innovations and our resource-saving manufacturing and service processes we always set standards in our industry. What sets us apart is that in the cooperation with our customers and partners, we always take a decidedly personal Business-to-Human approach.