

Hybrid R3e impact crusher shortlisted!

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Keestrack at the World Demolition Summit 2018

Keestrack will be competing for the "Innovation, Plant & Equipment" award at the World Demolition Summit in Dublin, Ireland. Keestrack's hybrid R3e, track-mounted impact crusher has been shortlisted alongside four other companies. The compact transport and operating dimensions give the fully equipped 32-ton impact crusher all the advantages of the diesel-electric hybrid concept offered by Keestrack for most of its mobile crusher and screening equipment. The hybrid drive is highly efficient and the R3e can operate entirely emission-free on account of its plug-in function. Furthermore, the sound level of the machine drops by 30% when the plug-in function is in use, making the crusher eminently suitable for urban areas.

Attractively designed distinguishing technologies

The Keestrack R3e, with its wide range of applications, belongs to the new generation of hybrid drive crushers. The R3e is a successor to the R3 (formerly known as the Destroyer 1011) and has a very attractive design, which was emphasized by the bestowal of the Red Dot Design award. The Red Dot jury took into consideration the machine's design, functionality, safety and ease of use.

These functionalities were also recognised by the panel of adjudicators of the World Demolition Summit, for which Keestrack's R3e has been shortlisted in the face of a record number of entries. The winner will be announced during the award ceremony in Dublin on 8 November.

Like its predecessor, the R3e is exceedingly mobile on tracks, is quickly operational and is easy to load. The new large protective covers and wide opening doors afford optimum accessibility and facilitate maintenance. Moreover, the fully hybrid R3e, with its diesel-electric drive and fully electric plug-in mains operations, affords cost savings of up to 70%. The R3e can also provide electrical power to other electrical equipment, like a stacker, via the plug-out connector.

At the core of the R3e is the high-performance impact crusher unit with an inlet of 770 x 960 mm, which in combination with the heavy-duty 920-mm rotor (diameter: 1,100 mm, 3,200 kg) and high rotor speeds affords impressive crushing capacities of up to 250 tonnes/h. Specially adapted crushing tools, a wide adjustment range of both impact aprons (with optional milling beam) and a tried and tested overload protection system

ensure a wide range of applications, from concrete recycling subject to intensive wear, to the production of high-grade natural stone granulate.

Hybrid solution with a high performance potential

Thanks to the 235 kW EU IV Volvo diesel engine (optional EU IIIA; 260 kW) and the 300 kVA generator as an integrated power source, the new Keestrack R3e is fully self-contained and exceedingly flexible for deployment on construction sites. The crusher is driven by an electric motor with an output of 132 kW or optionally 160 kW. The crusher's performance characteristics can be adjusted further by the drive pulleys (375 mm/450 mm). All hydraulic components (track drive, crusher control, hoisting hydraulics, feeder/prescreen unit, cooling fans) are powered by a 45-kW electric motor with two load-sensing pumps. The intensive use of electric drives for all conveyors and peripheral equipment means that complex extensive, expensive and disturbance-sensitive hydraulic pipes are a thing of the past. New cyclone extraction technology reduces the requisite volume of hydraulic oil in the system with identical change intervals to a mere 75 litres, thereby decreasing the maintenance and operating costs considerably.

The R3e has an external 32 A plug-out connector for the efficient operation of peripheral equipment as an electric screener or stacker, and also a standard plug-in connector for fully electrical operation on mains or auxiliary generator power. All functions are available via the PLC control with the new intuitive operating panel and the extensive wireless remote control, without the use of the integrated diesel engine.

At almost 4.4 m², the new optional single-deck afterscreen offers roughly 30% more screening area than the previous model, thereby optimising performance for the production of high-grade granulate. Thanks to the recycling conveyor and optional windsifter for light materials (plastic, wood etc.), it is possible to produce granulates in a closed system and prevent contamination. If desired, the oversized fraction can be removed as a secondary product via a removable side conveyor. All other conveyors, including the optional output of the natural fine fraction from the pre-screener, can be folded away hydraulically for transport purposes (transport dimensions L x B x H: 12,900 x 2,540 x 3,200 mm). Even when fully equipped (including a milling beam) the fully hybrid R3e has a transport weight of a mere 33 tonnes.

Thanks to the integrated diesel engine, the hybrid Keestrack machines offer higher profitability and increased flexibility and mobility, either as fully self-contained stand-alone solutions or as a fully electrical production line of crushers linked via cables to other hybrid or fully electrical screening units or stackers.

Source: KEESTRACK NV