



Hydraulic Mining Excavator



RH 340

An innovative design

for higher productivity

► The all-over operating weight of a mining excavator is the rough classification into a certain performance category - in general. The new TEREX O&K RH 340 disproves this rule, as its inventive attachment design allows for significant higher payload in the bucket, in contrast to the 550 tonnes heavy machine.

Four passes to load a 240 ton truck

The RH 340 has a standard bucket capacity of 34 m³ in both shovel or backhoe configuration. This translates into a payload of 60 tons per pass and represents a perfect match for the widely-used 240 ton haul trucks.





Nevertheless, the RH 340 is not a full new development. The entire basic unit instead of that is based on the exceptionally successful RH 200, which has been delivered more than 100 times so far. The main developments apart from the working attachment are a longer undercarriage including more powerful final drives, a reinforced superstructure plus a 10 tonne heavier counterweight and various engines and therefore power options. Thus all RH 340 components are reliable, well proven and accepted in severe mining environments for years. And, on top of that, the RH 340 comprises of course all the established TEREX O&K features, such as an independent oil cooling system, a closed loop swing circuit with energy recovery and the TriPower geometry for the face shovel version. All these attributes ensure fast working cycles and full buckets for unmatched productivity and profitability. The RH 340 is available either with electric or diesel drive. Two different engine versions – Cummins K 1500 or QSK 45 – can be installed, depending on compulsory emission regulations and power demand.

Two travel speeds are offered for long distance tramming and maneuvering on rough terrain respectively.

The RH 340 develops a tractive force of 2,830 kN by means of torque-increased travel gearboxes.

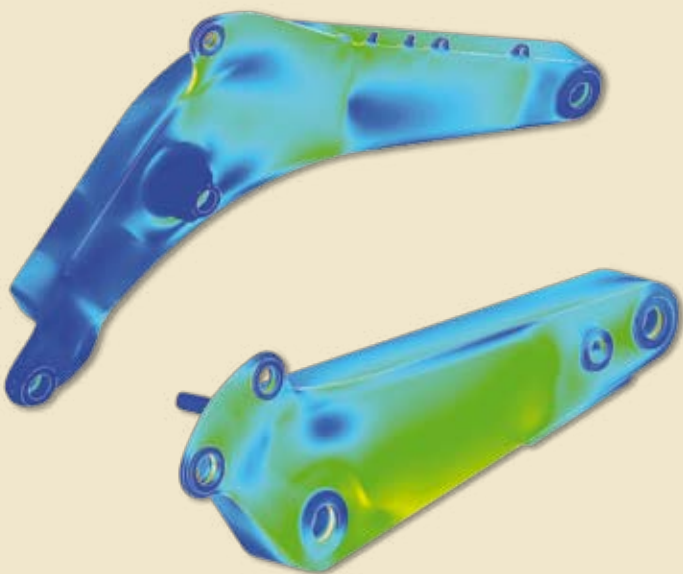
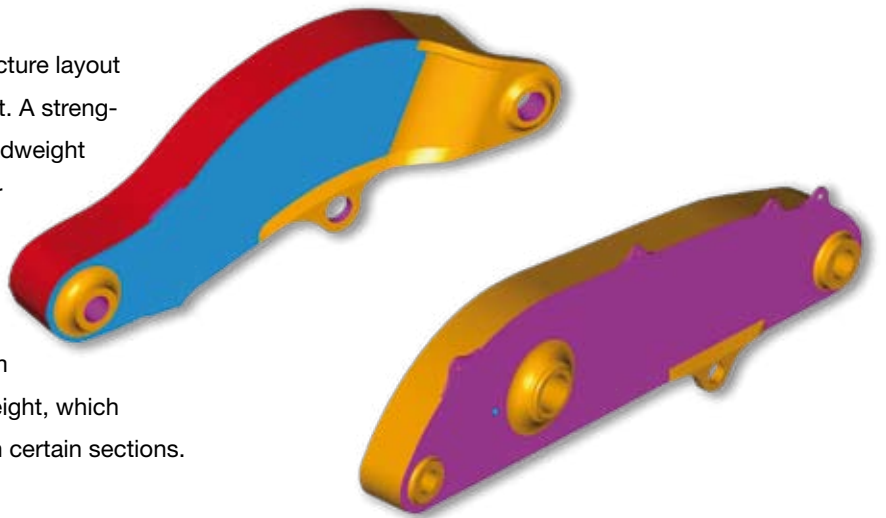


The braking energy while counteracting during the slew process is fed back to the hydraulic system for faster loading cycles.



New attachment design

► The attachment's brand-new steel structure layout is the key issue behind the RH 340 concept. A strengthened structure on one hand plus less deadweight on the other facilitate an effective higher payload in the bucket. Therefore welding seams have been shifted away from high stress areas by means of extensive finite-element methods. Additionally boom and stick were analyzed for superfluous weight, which could be reduced by using thinner plates in certain sections.



Each boom and stick is stress relieved after welding.



TriPower

attribute of all TEREX O&K face shovels

► Rotating triangles at the front shovel boom are the distinctive characteristic of TEREX O&K hydraulic mining excavators. This unique linkage of the cylinders affords various benefits during operation resulting in increased safety and higher productivity. TriPower advantages at a glance:

- Increasing crowd force throughout the entire crowd distance
- Constant-angle bucket position at any lifting height
- Automatic bucket back-tilt limiter to prevent spillage over the rear wall
- Automatic parallel bucket guidance when crowding at any digging height
- Raised effective lifting forces
- Constant boom momentum



► Thought-out layout and best accessibility help to keep effort for service and maintenance on a low level. The RH 340 has a spacious and clearly arranged superstructure, built in modular design. It provides quick access to all service points and allows easy inspection of the components. Two drive trains are powered by a Cummins diesel engine each. Only TEREX O&K's twin engine concept permits to continue work, if one engine should fail, which is primarily a pure safety issue. However, using just one engine it is even possible to continue work with 55 to 60 per cent speed, while the digging forces remain constant. The identification of an engine failure and the consequential automatic adaptation of the hydraulic system is only one function of the Pump Managing System. The PMS is the wide-ranging interface linking engines and pumps. Permanent comparison of set values with real operating data initiates the micro-processed controlling of the pumps for best utilization as well as pressure cut-off or reduced oil flow.

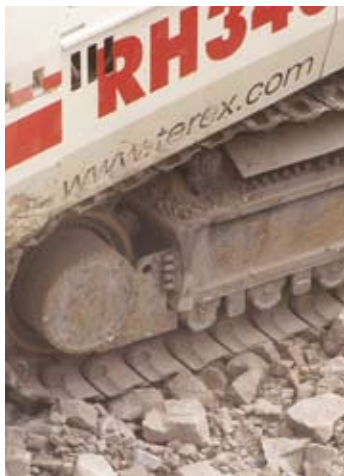


Easy to maintain and reliable

Communication between the operator and the machine is maintained via an electronic-over-hydraulic servo system. Excellent fine-tuning and enhanced diagnosis options are only one benefit. Quick faultfinding methods are also offered by the Board Control System BCS. Various analog and digital sensors are spread over the entire hydraulic excavator for monitoring purposes. All vital operating data are displayed on a large color screen in the cab. Any irregularities are immediately indicated optically and acoustically so that serious damage can be prevented well in advance.



The cooling of hydraulic oil on TEREX O&K hydraulic shovels is a unique system within the industry. A separate pump sucks the oil permanently out of the tank for a consistent and especially independent cooling process. This means that cooling capacity is supplied even with the engines idling when waiting for the next truck.



The travel motors are well protected by solid, hinged covers.

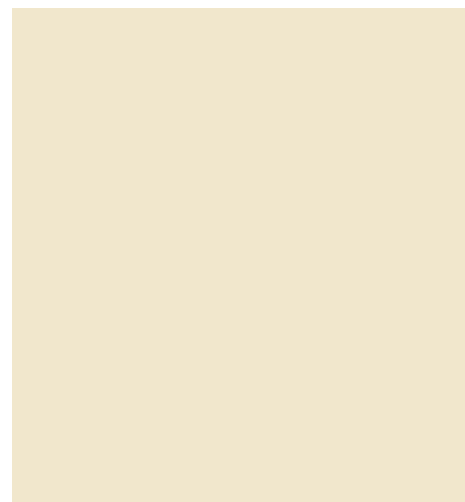
The RH 340 undercarriage features many of the well proven RH 200 components. It is engineered for harsh mining environments and virtually maintenance free. TEREX O&K emphasizes the use of common parts at different models. The support rollers of the RH 340, RH 200 and RH 170 for instance are equal to the carrier rollers of the **Excellent mobility** RH 120-E. An all-hydraulic track tensioning system adjusts the charging pressure in line with changing operating circumstances. An added lubrication system is on hand, if frequent travelling is mandatory.



All service fluids, such as oil, water, grease and diesel can be topped up at the superstructure's rear end tanklift.



The positioning of the main hydraulic valve block at the boom creates better access to the superstructure components, such as the slew motors and gearboxes.



World wide establishment

in only one year



Australia, coal mine



USA, coal mine



USA, coal mine



Australia, coal mine



Australia, nickel mine



Colombia, coal mine



South Africa, diamond mine



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