



SANDVIK STUNNERS

Swedish firm Sandvik produces an incredibly broad range of construction equipment, including specialist equipment for working underground. Steven Downes looks at replicas of some of its machines

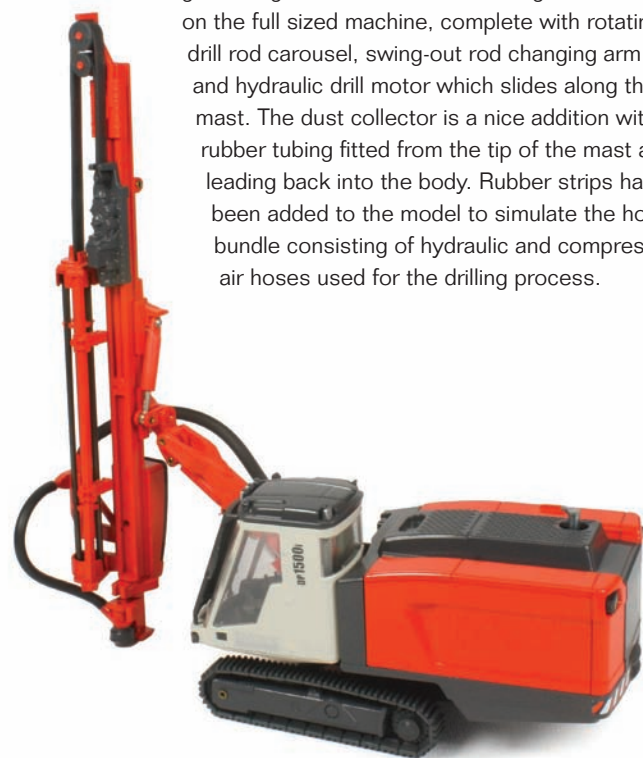


Sandvik is a global company, based in Sweden, which produces a range of unique and interesting products for the construction and mining sector. The introduction of a model programme has seen some rather interesting replicas produced, representing examples from the wide range of equipment produced by the firm. With the latest addition now available, Model Tractor and Miniature Construction Scene decided to take a look at the Sandvik models produced to date.

The Sandvik DP1500i surface top hammer is an intelligent, self-propelled drill rig with ROPS/FOPS certified cabin and HL1560T rock drill. This machine, the first to be produced in 1/50 scale by Conrad, features a pivoting undercarriage with plastic tracks, and a fully-replicated cabin with swing-open front grille for operator

protection that reveals all the interior detailing, including the crisp casting of the body panels with textured grille detailing.

The drill mast is mounted to a fully-functional boom which offers a good range of movement, mimicking that found on the full sized machine, complete with rotating drill rod carousel, swing-out rod changing arm and hydraulic drill motor which slides along the mast. The dust collector is a nice addition with rubber tubing fitted from the tip of the mast and leading back into the body. Rubber strips have been added to the model to simulate the hose bundle consisting of hydraulic and compressed air hoses used for the drilling process.



For underground mining, the LH621 loader is the next replica in the series, accurately modelled in 1/50 by Conrad to capture all the functional aspects of the full sized machine. The open engine compartment houses a replicated Detroit Diesel S60 DDEC IV engine block with a rear-mounted opening radiator grille cover, while the chassis has working articulated steering for good mobility and manoeuvrability. The front loader arms can be raised, lifting the enormous front shovel which has an angled cutting edge, detailed wear protection parts and a good tipping angle, complete with boom-mounted floodlight holders. The side-mounted cab has a replicated interior with integrated access steps on the front fenders and rear body leading up to the top of the model, where accurately printed anti-slip panels have been simulated.



The Sandvik DT1130i tunnelling jumbo is a monster drill rig, used for excavating tunnel and cavern constructions, with the three TB150 telescopic booms housing HFX5T rock drills that make light work of the most demanding conditions. The TC11 carrier has been accurately replicated in 1/50 with the steering rear axle and front dual wheels with extending stabilisers. The engine compartment is adorned with the replicated power pack and cable/hose reels which rotate, complete with a drop down access ladder. Rear mounted screw-down stabilisers give the model good stability, and the range of movement of the three booms demonstrates the operating envelope of the machine very well.

The charging basket is another good addition to the model, mounted to the two-stage telescopic boom which allows the operator to reach the full working area, while the strong frame and canopy keep him protected from falling rock. The large cab has been accurately modelled, and can be elevated telescopically, while the interior demonstrates the two different operator stations, one used during drilling and one high up to the rear of the cabin which is used during positioning of the machine.





The fourth release in the series is the UJ440i mobile crushing unit. As with the previous models, it has been produced in 1/50 scale by Conrad, and accurately captures the functional and rugged looks of the full sized machine. The track frames have hard plastic tracks which will rotate, although they are a little fragile. The main chassis houses the engine compartment, complete with large silver grille and access ladders leading up to the walkways and the observation platform overlooking the CJ412 jaw crusher. The hopper is fixed to the chassis with simulated suspension

mountings visible, while the inner surfaces of the hopper are covered with rubber matting, simulating the wear and noise reduction properties found on the full sized unit.

Unfortunately, the hopper sides are fixed and do not pivot, which does not allow the model to be accurately presented as a load. The main discharge conveyor has a rotating rubber belt with dust suppression housing, and a natural fines conveyor is also supplied with the model and can be fitted to either side of the chassis, with metal lines used to secure it in place. The full sized crusher can be fitted with a hydraulic hammer and boom system to quickly remove blockages and jams, and Sandvik has included this on the model, with the BB1425 pedestal boom housing a BR927 breaker which can be fitted to the model if desired. The range of movement is very accurate, with the boom capable of reaching the opening to the jaws easily, while rotation of the entire unit allows it to rest alongside the engine housing when not in use.

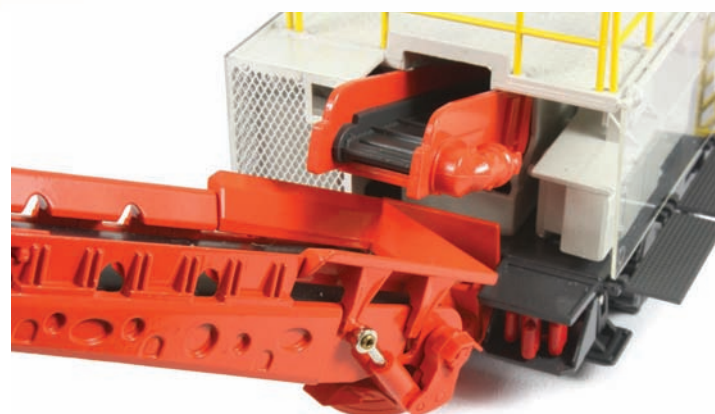
The long awaited fifth release in the range is the TH550 underground hauler, produced in a limited edition run of only 500 pieces and highlighting the new interim safety equipment colouring scheme of fluorescent green railings, grab rails and access steps. Interestingly, Conrad has produced its own limited edition version, which has the original orange handrails and access steps fitted. With a replicated cab interior just about visible through the small windows, the model accurately captures the look of the full sized truck nicely. The low mounted articulating chassis has a good



amount of steering movement, with hydraulic hose detailing and a visible driveshaft to the rear axle adding to the realism.

The large tyres have a deep tread pattern moulded into the surfaces, with plenty of bolt detailing on the wheel hubs. The tipping body can be tipped fully and captures all the angles and shapes very well, replicating the full 55 tonne load capacity. Opening front and side grilles reveal the internal radiator housings, with fan blades visible, while the roof sports the exhaust and air filters along with crisp casting of the various panels and openings, topped with a photo-etched cover.





Along with the release of the models, Sandvik has chosen to have a set of accurately scaled figures produced to accompany them, which also helps to create an idea of the actual scale and size of each model. In a male-oriented field, it is interesting to see that two of the figures are female, and each has a different role. The figures add a new dimension to the models and it would be nice to see a driver produced and fitted to the models for a completely authentic look.

The latest release in the Sandvik range, and one which nicely captures the complex nature of the machine, is the MT720 tunnelling roadheader, which incorporates a surprising number of moving parts. At the heart of the single-piece chassis is a chain-driven conveyor, which has intricate chain link detailing along the edges with fold down stabilisers at the rear which are used to steady the machine during operation.

The large front section has rotating stars which are used for transferring the cut material onto the conveyor, which is hinged to the chassis with stiff hydraulic ram replicas, allowing the front edge to dig into the ground, raising the tracks into the air. The track frames are nicely detailed and, at first glance, the track links looked a little strange, reminiscent of the early excavator tracks. However, after looking at the full sized machines, the track links are very accurately modelled.

The main part of the machine is the cutting head, and this rotates smoothly, with the various cutting picks modelled to accurately resemble the full sized machine. The extending boom is stiff, with a protective plate sliding along with the boom as it extends, while



optional safety railings can be fitted to the upper section of the boom. The range of movement has been accurately captured, with both side-to-side and up and down action smooth and accurate. A hinged cover at the base of the boom provides additional protection to the hydraulics below.

The internal chain driven conveyor extends out of the rear of the chassis where a secondary belt driven conveyor can be fitted. The structural frame of the conveyor is highly detailed, with a three-position hinge allowing discharge at different heights. Stiff hydraulic ram replicas are used to provide full height control, while the entire assembly can be rotated by about 25 degrees to each side of the body for offset loading.

The design of the machine is interesting, with many of the electrical and drive components housed externally. On the full sized unit, these are protected from dust by large flexible plastic covers, and this has been simulated well on the model with the addition of removable see-through plastic coverings already fitted to the model on delivery. Other nice additions are the swing up maintenance platforms which are located along the sides of the chassis, two on each side. When raised, these take the weight of a Sandvik figure (not supplied with the model) without moving. The

engine area is covered with a photo-etched metal cover with an intricate mesh pattern.

The location of the cab high up on top of the body gives the operator a commanding view of the surroundings, and the interior has been replicated with the requisite computer screens and joystick controls, while the cab frame has a front debris screen with integrated front facing lights. Light housings are also located on the rear of the cab, along with the air conditioning unit. Cabin mounts have also been replicated to simulate the isolated nature of the cab, which reduces vibration for the operator. All the safety railings are supplied in the box

and require fitting, but they are easily installed with a snug fit, and are painted in the new fluorescent yellow safety colours.

As expected from Conrad, the paint finish is excellent, with crisp printing of the Sandvik logos on the boom and cabin. The recently launched TH550 underground hauler is a perfect partner for the roadheader and the pair look great together. The models are available from the Sandvik online shop at www.3pr.se/merchandiseshop

If you've ever wondered what goes into producing a model, in the next issue I take an in-depth look at the entire process, from concept to delivery, as I travel to Germany to take a full tour of the Conrad factory, and report from Zeltweg in Austria where the real MT720 is produced. 🚧

