

# CONSTRUCTION REVIEW

## TWH Vermeer TG 7000 Tub Grinder



Gary Vermeer started his manufacturing company back in 1948 in the town of Pella, Iowa where it has grown to become one of the leading suppliers of equipment for directional drilling, trenching, agriculture and environmental cleanup. One of Gary's first inventions was a modified farm wagon with mechanical hoist which proved very popular and the demand that followed led to the opening of the Vermeer manufacturing company. The Vermeer range of environmental equipment includes brush chippers, tree spades, stump cutters, compost turners, horizontal grinders and tub grinders. TWH Collectibles have been commissioned to produce a museum quality replica of the TG7000 tub grinder, capturing all the details of the full sized machine with meticulous accuracy. Every feature of the real machine has been authentically reproduced from the detailed control station, replicated engine, fully functional loading boom and operators cab to the undermill conveyor.

The TG7000 Tub Grinder is deployed on large land clearance and organic waste processing applications where it has the power and durability to get the job done. The 1000hp Caterpillar 3412E twin turbo charged and inter-cooled diesel engine lies at the heart of the machine powering a hammer mill cutting system that makes light work of the toughest objects. Safety is always paramount and the non-bridging tub design and patented TORS (Thrown Object Restraint System) assist material flow and reduce the quantity and distance of thrown debris.

Two large door panels, one on each side of the engine bay can be opened to reveal the fully replicated diesel engine at the heart of the 1:50 scale model, complete with exhaust silencer, oil filters and hydraulic and cooling pipe work. In front of the engine is the cooling enclosure where the large radiator panel is housed while the gearbox is mounted to the rear of the engine and connected to the cutter head via a rotating drive shaft.

The large tub is housed on a tilting frame which uses a multi-stage hydraulic piston to raise it to 90 degrees to give access to the entire cutting system hidden beneath including the very intricately reproduced cutting drum with all the hammer teeth replicated along with the detailed gearbox block connecting the drum to the engine drive and the hydraulic distribution block, complete with both flexible and fixed hydraulic piping. The tub can be rotated smoothly and a flexible rubber drive belt has been added to the tub to simulate the chain drive found on the full sized machine.

The screens for the milling head are made from a metal mesh panel with re-enforced frame and are supplied separately in the box allowing the collector to choose to store them in the holders on the side of the chassis for transport setup or fix them into the cutting drum assembly. The TORS (Thrown Object

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Restraint System) is mounted to the tub frame and uses a spring to keep it tensioned against the tub edge. This mechanism can be lifted and rotated away from the tub and stored along the side of the engine housing just like on the full sized machine.

Another interesting feature on the model is the small locking bars fitted to the large stabiliser legs which need to be operated to lock the legs in the lowered or raised position as required. This is a nice addition to the model and demonstrates the intricate features found throughout the model.

The undermill conveyor features a single piece rubber belt with fine textured pattern moulded into the surface which travels beneath the hammer mill. The conveyor frame uses hydraulic cylinders to allow the conveyor to be fully positioned as required with flexible piping added to the conveyor belt drive motor.

One of the most intricate features on the model has to be the control panel which has been fully replicated with accurate printing of the switches, dials and display screen on the main panel which are accessible by opening the top and side protection screens which fold in for transport. When extended, the screens protect the operator from flying debris.

The front of the model has holes where the service lines from the tractor can be connected up and above this is a large fuel tank with an air compressor mounted to the side of the platform. Several safety cones are supplied with the model and they fit on the moulding just behind the compressor and this is a nice addition on the model and something that most manufacturers would not even consider which again demonstrates the extra levels TWH go to when developing a model.

The loader boom is operated from the small cab which has a detailed interior with controls and driver's seat all visible through the glazed windows and opening side door. The access steps have a very fine photo-etched anti-slip surface with accurately scaled grab rails, several of which need fitting to the model once unpacked. The front window has a protective metal safety screen fitted which has a fine mesh pattern. In transport configuration, the loader boom and stick are extended along the top of the main housing with the grapple located to the side of the conveyor. The stick has a cast bracket which locates with the top edge of the tub to hold the boom in position.

The grapple mounted to the boom has small hydraulics allowing it to be positioned as required with flexible hydraulic lines fitted to the rotating head of the attachment. Silver coloured metal piping has been added to the stick and boom with flexible hoses at the articulation points and this really gives the model a realistic look.

The TG7000 is supplied complete with a Peterbilt 379

tractor unit which is finished in a black colour scheme with Vermeer logos printed on the cab doors. The 379 is a Sword model and it is good to see its inclusion with the TG7000. The rear fenders have detailed diamond plate pattern with flexible rubber mud flaps and tool box and authentic air and electrical service lines have been added which can be connected to the TG7000. The rear of the cab features a headache rack with chains, binders and lights authentically reproduced and are finished off with the addition of a folded tarpaulin sheet for that extra bit of realism. The day cab features a fully detailed interior which is visible through the clear windows and opening doors. The roof has mounting locations for two designs of air horn, both of which are supplied in the box along with a set of door mounted wing mirrors. The bonnet can be opened revealing a fully detailed engine compartment with detailed engine block and radiator which is just about visible through the etched mesh stainless steel front grill. The tractor is finished with side mounted hollow chrome exhaust stacks and chrome fuel tanks on each side of the chassis while die-cast wheels with authentic rubber tyres, complete with Michelin tread pattern finish off a highly detailed replica.

TWH Collectibles have created a museum quality replica of a unique and unusual machine. Three decorations of the TG7000 have been produced including the standard release finished in yellow along with limited edition versions in white and green, as pictured here.

Another new release from TWH is a limited edition Peterbilt 335 mechanics truck in Vermeer decoration. The fully modelled cab interior is finished in a light tan colour with contoured seats and fully detailed dashboard with printed gauges. The cab doors can be opened but there is nothing to get hold of so they can be tricky to open if they are a tight fit. The paint finish is exceptional with painted rubber window seals and intricate silver trim along the body and cab frames.

The rear body contains a replicated air compressor and generator with non-opening storage compartments along the sides of the body, complete with tiny chromed handles. The support crane is mounted to the side of the body and can be raised and rotated with a small piece of rope connected to a hook. The upper storage compartments on the model open to reveal a host of modelled accessories including coiled wire and tools with three cones and four wheel chocks also supplied in the box along with a creeper. The rear of the truck has a work platform with photo-etched step and vice along with flexible electrical sockets, complete with chassis mounted winding drums also added.

The mechanics truck and all three versions of the TG7000 are now available in the UK from Models of Distinction. ([www.models-of-distinction.co.uk](http://www.models-of-distinction.co.uk) or phone 01531-632585)

