

FAN-CLUB News 02/2002

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Page 1 EDITORIAL

Hi Fans,

Welcome to the second issue of News 2002!

For a change, let's start the News from the other end: we have one page less available for reports, but for once three pages are filled with the building instructions for two complete models: the "Expedition Team" with an amphibian vehicle and off-road heavy duty power truck consists of the new "Super Trucks" construction kit and "Power Bulldozers". On pages 6 to 8 you can find out all about how to build it. And as a bonus there is also a radio tower so that you have something to transport...

As usual, Pages 4 and 5 in the centre are for your own developments in the "Post Box". Like last time we have kept the picture captions brief to *leave* room for more models. I hope this is all right with you?

On Page 3 you will discover how to build tunnels and that it is possible to construct tunnel driving machines with fischertechnik.

Page 2 contains some fischertechnik information: first of all there is our new homepage: www.fischertechnik.de, with a super new feature: the building instructions database, which also contains all the FAN CLUB models that *have* been published up to the present in the universal PDF - format.

You will find a schedule so that you know which fischertechnik events will be taking place in the near future, and we also have reports on the fischertechnik Convention and the anniversary of our Maltese sales partner.

Last but not least: all the fischertechnik FAN-CLUB members who present their membership cards at the Auto & Technik Museum in Sinsheim and the associated IMAX cinemas in Sinsheim and Speyer, or at the Technik Museum in Speyer will receive reduced-price entrance tickets and we are running a lottery!

Okay, enough of the introduction. Have fun reading the News!

Page 2 NEWS

fischertechnik.de revised

We have completely redesigned our homepage, www.fischertechnik.de. It has not merely been altered visually; it has also been extended in terms of content. In addition to the much anticipated Gallery in which you can present (and win) your models, the fischertechnik database is now also available. It contains all the construction kits and accessory sets that have been produced since the beginning of the fischertechnik Story (1965) and is equipped with many search functions. Among other things you can now trace what we produced and when.

But the best part of the whole thing is that via the database we are providing you with the building instructions for these past kits to be downloaded free of charge! It will take a while before all of them

are stored in the database. However, thanks to our forum, we already have quite a reasonable store of building ideas. The 22 sets of instructions for past FAN-CLUB models and a few from the Seventies are already available

Of course you can still place your questions and suggestions in the fischertechnik forum in spite of the new design. You won't find any faster form of support in all matters regarding fischertechnik than via the Community there. This is a suitable opportunity to say a sincere "thank you" to our faithful forum users!

So you can see: a visit to www.fischertechnik.de is also worthwhile - today more than ever. ..

fischertechnik Convention

In June the first "fischertechnik Convention" took place in Morshausen (near Kassel). We would like to take the opportunity of thanking the organisers, Heiko Engelke and Lothar Vogt.

On exhibit were various unusual fischertechnik models, for instance huge cranes (on of them voice-controlled!), a pendulum clock, egg cooler, robot-controlled vacuum grabber, a pneumatic "byte" that can convert numbers into binary codes by means of LLW in programming, a helicopter flight simulator etc. etc. Furthermore, there were electronic developments to be admired, such as a digital remote control unit, which was demonstrated on a truck-mounted crane, as well as interface modules.

This event, which is an absolute must for fans, will most probably be repeated next year.

You will soon find information and photos of the event at www.ftconvention.de.vu!

fischertechnik Club Malta - Event

Malta - this country is not only a beautiful Mediterranean holiday island; it is also a real fischertechnik stronghold! With only approximately 400,000 inhabitants, Malta already has 200 members. That is the highest ratio between the population and fischertechnik FAN CLUB members in the world! Yet the Maltese importer, Onegin Ltd., only celebrated its first anniversary on July 6th with a wonderful event. So there is definitely more to be expected here!

At the original film location of the well-known Popeye film (the Spinach fan), the team surrounding Onegin boss Luisa Montalto organized among other things a model competition (first prize was a Lufthansa ticket to Germany), bulldozer race ("Power Bulldozers" had to be moved as fast as possible around obstacles) and a who-can-build-fastest competition (to see who got furthest assembling a "Mini Trike" in 2 minutes). In addition, Ronald McDonald entertained everybody with a number of magic tricks. Many of the 200 members joined in the celebration, making the event a real success. Our thanks go to the Maltese fans and Onegin.

New fischertechnik exhibition at the Auto & Technik Museum in Sinsheim flower entrance fees for fans

With an area in excess of 30,000 square metres and over 3,000 exhibits, the Auto & Technik Museum in Sinsheim is the largest private museum in Europe. Each year over 750,000 visitors from Germany and the rest of the world visit the museum, which is situated near the A6 Motorway between Heilbronn and Heidelberg.

The variety of exhibits at the Auto & Technik Museum in Sinsheim ranges from the very first cars to the Formula One HP bolides, airplanes, locomotives..... Over 300 Old Timers transport young and old back into past decades. And right in the middle: fischertechnik is present with an exhibition of its own. After ten years the existing exhibition has been enlarged, redesigned and furnished with up-to-date exhibits. It is worth visiting just for this. As members you are entitled to reduced entrance fees for the Auto & Technik Museum in Sinsheim, the Technik Museum in Speyer and the IMAX 3D cinemas in Sinsheim and Speyer if you show your club membership card.

Sinsheim:
Auto & Technik Museum
Children (aged 6 to 15): 6.50 EUR instead of 7.50
EUR Adults: 7.50 EUR instead of 10.00 EUR

IMAX 3D cinemas
Children (aged 4 to 15): 4.50 EUR instead of 5.50
EUR Adults: 5.50 EUR instead of 8.00 EUR

Speyer:
Technik Museum
Children: 6.00 EUR instead of 7.00
EUR Adults: 7.00 EUR instead of
9.00 EUR

IMAX
Children: 4.00 EUR instead of 5.00
EUR Adults: 5.00 EUR instead of
7.00 EUR

The museum is open every day. More information is available on 07261 /92 99-0 or at www.technikmuseum.de

The museum has most kindly provided us with prizes for a lottery among all members who send us a postcard or e-mail by 31.12.02 (for address see below, Slogan: "Museums-Gewinnspiel" - museum lottery). The prizes are:

10 x entrance tokens for the Auto & Technik Museum in
Sinsheim 10 x entrance tokens for the IMAX 3D Cinema
5 x visits to the museum
5 x baseball caps

The winners will be informed in writing. Legal action is precluded. We wish to thank the Auto & Technik Museum in Sinsheim for its support.

Page 3 TECHNOLOGY

How is a tunnel built?

Certainly not the way it used to be with shovels and explosives. Today, computer-controlled tunnel drilling machines, such as those produced by Herrenknecht Tunnelvortriebstechnik AG from Schwanaue-Allmannsweier (near Lahr in the Black Forest) are used for this kind of work.

These machines not only work their way through the hardest kind of stone to simply drill a hole with a diameter of between 1 and 14.20 metres (Elbe tunnel tube in Hamburg - world record!) - no indeed, they insert the supporting tunnel walls at the same time (the individual segments are known as tubbing rings).

When the machine returns to the surface, a complete tunnel tube, which then merely has to be finished off in keeping with its purpose (road tunnels, for instance, require tarring amongst other things as well as being equipped with traffic lights or signs). So modern tunnel drills are full-scale factories capable of almost completely producing a tunnel.

Many civil engineers, some of whom must surely have played with fischertechnik when they were younger, are occupied with the construction of these sophisticated machines. The centrepiece of a drilling machine is its cutting head, i.e. the front part. The design of the cutting head is particularly important because it is its tools that have to do the real work of a tunnel drilling machine: to remove the stone lying ahead of it as fast and carefully as possible.

But where do the broken pieces of stone go to? They are guided through the bore shield and from there via pipelines or conveyor belts to the end of the machine from where they are transported away.

In the meantime, under the protection of the shield, where the stone was previously located the tubing ring erector (a kind of robot), has shifted a new ring made of tubing rings. The machine then pushes itself further forward along these under the gigantic pressure of huge pneumatic cylinders so that the cutting head always gets enough to "feed" on. The tunnel is gradually bored in this way while the tunnel wall is installed simultaneously.

Our fischertechnik tunnel boring machine, which is modelled on the Herrenknecht machine for the fourth Elbe tunnel in Hamburg (also known as "Trude") designed by Albert Kohl is also (almost) completely functional; because it lacks a "sharp" cutting head it cannot really dig through stone.

However, it has everything a proper tunnel boring machine needs: the cutting head for tunnelling; a robot (tubing ring erector) that moves the tubing rings (segments of the tunnel wall); a transport device for bringing the tubing rings to the robot; at the end of the machine there are tracks and the crane system for transporting (away) the tunnel stones and the tubing rings etc. The model is controlled via an IR control set, an intelligent interface, an extension module as well as a special control panel. This steers the 24 pneumatic cylinders and magnetic valves with which the machine like the original - props itself on the tubing rings and pushes itself forward.

The fischertechnik tunnel drilling machine is 230 cm long, weighs 14 kg and has a cutting shield diameter of 46cm. 11 motors, several thousand parts and, among other things, 29 metres of pneumatic tubes are required for its construction.

Further information about tunnelling machines and the way they work is to be found on the Herrenknecht homepage: www.herrenknecht.de

We wish to express our sincere thanks to Herrenknecht AG for the friendly support we have received. Illustration material: Original drilling machine © Herrenknecht AG.

Page 6/7/8 FAN-CLUB Model No. 21 "Expedition team"

AmphiTruck with a heavy-duty transport vehicle and radio mast

Just imagine you work for a telecommunications company. You have to install a radio mast for UMTS technology (new mobile phone standard). Unfortunately, it is necessary to transport it across rough territory. How are you going to get the job done?

No trouble: with the fischertechnik AmphiTruck and an off-road heavy duty lorry, which will bring the mast as close to its destination as possible. If the lorry cannot make it all the way, the amphibian vehicle will take over the mast and lift it from the transport vehicle using its built-in crane. The mast is then brought to its future location and fixed into position. Of course, all these devices are capable of a good deal more.

You can build our models using the fischertechnik "Super Trucks" (NEW!) and "Power Bulldozers" construction kits. What's more: the AmphiTruck can be equipped with the following accessories for a whole lot more fun - as described in the respective instructions: 3 Mini Motor sets, 2 Power Motor sets, IR Control set with 2 receivers, Accu set and lights. When constructing the back part of the amphibian vehicle you can really let your imagination run wild: how would it be if you used the excavator boom from the new "Profi Pneumatic II" instead of the crane? So, let's get on with it!