

Trnkova 111
628 00 Brno
Czech Republic

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1. TRAKTORTRIAL



Traktortrial is a competition in which particularly home-made tractors compare each other's power. Traktortrial took place in Petrovice near Karviná for the third time. Partner of this event was Mitrenga company, an authorized dealer of Zetor tractors. There were exhibited Zetor tractors and also Case IH tractors. Other partners of this event were Fuchs Oil and Mitas companies.

The competition was split up into three categories: pulling, sprint and trial. The overall running of the competition unfortunately was made difficult because of steady rain, which had the effect that the track resembled to mire: only three tractors have managed to get pulling trolley to its destination. Another problem was to get him back. At

the distance of 3.04 meters was able Zetor Super from 1959 to pull the trolley away. While the audience was waiting for the second discipline, Mitrenga company has prepared an interesting spectacle - Proxima Power 105 pitted its strenght against one hundred adult men. The tractor was represented by "a hundred horses" under the cowling. Because experts know that the tractor does not develop higher tensile force than that which corresponds to its weight - the victory of the human factor was not surprising. Other events prepared by Mitrenga company was a riding skills in driving with Proxima with trailer.

The second discipline of Traktortrial was the 50 meters sprint, while the tractors were running in pairs. As a last came the traktortrial: organizers prepared a technical track with tight passages so bigger tractors had less trouble. Zetor found its placing in the series tractors - the second position for Zetor Super 50, which was driven by Viliám Babiš.



2. NEWS IN THE PROMOTIONAL MATERIALS

As an innovation in advertising materials we have prepared a Zetor badge in size 2.5 x 0.8 cm. You can order it at ZETOR PDC under order number 888.501.057.



3. NEW ZETOR 16-VALVE 4-CYLINDER ENGINE

On the traditional technical conference of users of CAD system Pro / ENGINEER (SUPro2009, 25th and 26th May 2009 at Hrotovice) were presented news from the world of modern design in Pro / ENGINEER and tips for optimal design of all systems of PTC company. During the conference had been announced the results of a competition in design in Pro / ENGINEER AWARDS 2009 /see www.aveng.cz/.

The new 16-valve four-cylinder Zetor engine, one of the Development Institute of Tractors's project, won the competition in Detailed design products how the special evaluating academy has decided.

Ideological concept of the project was conceived as an evolution of an existing range of four-cylinder ZETOR engines. It is completed by a new 16-valve cylinder head. Within the forthcoming EU and EPA legislation in 2012 - Tier IIIB, which limit emissions in exhaust gases, it was the target to meet the required parameters of the standard.

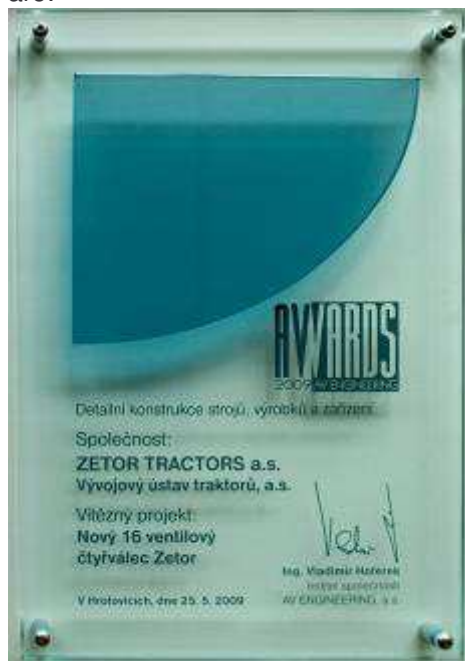
From the beginning, 3D conceptual design to the processing of several options of solution there were used Pro / ENGINEER system. This option of solution was then processed into structural form of the individual nodes using the methodology TOP-DOWN. Whole project of a new cylinder head has been fully constructed in Pro / ENGINEER WILDFIRE 4. By all new components was consulted the technology from the beginning through the 3D data in all selected foundries and machining shops. 3D models of the intake channels and their flow has been optimized by using FEM flow simulation. From the final Pro / E drawings at the end of the project was made a set of prototypes of engines, which are now in long-term operational tests.

The new 16-valve cylinder head and change of the surrounding functional accessories is the most important but also the most difficult innovation of this project. The head has two intake and two exhaust valves and a completely new control of these valves. The main advantages of this solution are:

- 1) increasing power to 95 kW, compared with the existing engine it is an increase of 5kW
- 2) increasing gearing moment approximately of 100 Nm compared with the existing engine. The new engine achieves 400 Nm at 1000 rpm
- 3) significant reduction in consumption particularly in the nominal rotation speed
- 4) improvement the circulation of coolant and thus increasing of the efficiency of the cooling system, which means that even for the improved performance parameters of the engine we can use the existing cooling systém

During measuring the engine at the Institute for Research in Motor Vehicles are all key parameters validated and the measurement results indicated that the engine is poised to meet the upcoming demanding emission legislation. It means that the engine is developmentally prepared in advance and engine parameters are quite competitive. Using multi-valve technology seems to be a good way and prominent tractor brands such as John Deere and SAME/Deutz proceed this way. A renowned professional magazine with agricultural issues AGRICULTURAL

MACHINERY No. 7 / 2009 published about this engine an artikel and image information, for details see www.agroweb.cz.



4. AGROSALÓN

In the area of Agrokomplex Exhibition, M3 hall, stand no.10 Zetor exhibited four tractors at the exhibition Agrosalon, 2009: Proxima 75, Proxima Plus 105, Proxima Power 115 and Forterra 125. All of this tractors were in design Agro - the most delivered implementation for customers in Czech republic and Slovakia. Exhibited tractors were a representatives of its model range produced by Zetor Tractors. Zetor Trade sent up to the "Agrosalon 2009" competition /in the category of machinery for plant production/ Zetor Proxima Power 115, which has been honored as a part of the entire model range



Proxima Power in the exhibition Agrokomplex by Zlatý Kosák award. On the basis of the committee evaluation from the first day of the exhibition, our tractor received "Honorable Mention". Formal acceptance of a diploma from the hands of the Secretary of State, Jan Slabý, took place at the manor Malanta in Nitra.

The scientific conference took place on the first day of the exhibition and was ensured together with Ing. Kompan (authorized representative of Zetor Trade for Slovakia), Agrion association and University of Agriculture, Nitra. Speakers were Prof. Ing. Anton Zíkl, Ph.D., AU Nitra, and Prof. Ing. František Bauer, CSc., Mendel University of Agriculture and Forestry, Brno.

YOUR SUGGESTIONS

If you are interested in any other ZETOR actuality which have not appeared in this issue, do not hesitate to send all information you want to share within the frame of ZETOR Sales network till the next issue deadline, 8th December 2009 to e-mail: EPrstkova@zetortrade.cz. We will try to satisfy you and ensure the maximum informedness.

Zetor Trade, s.r

Entered at the Regional Court in Brno, file numer C 40258

Company ID Number: 26146002
Tax ID Number: CZ26146002

Tel: 00 420 544 424751
Fax: 00 420 544 233558

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K P R E D N Í Z E T O R

URL: <http://www.zetor.com>
e-mail: info@zetor.com