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Závody Tazkého Strojárstva (ZTS) - Archived 10/2001

Outlook

- With new tank production at a standstill, ZTS has focused its efforts on upgrade packages for the T.72 main battle tank
- ZTS continues to struggle for survival

Sales & Net Income Trends

Information Unavailable

Headquarters

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Závody Tazkého Strojárstva (ZTS) has traditionally been one of the most significant manufacturing concerns in Slovakia. The company was established on January 2, 1937, with the concern of the joint stock company Skovody Zavody Plzen. Production of ammunition was carried out for the first two years of the firm's existence. Between 1939 and 1945, the company began its affiliation with Hermann Goring Waffenwerke for the manufacture of aero engines and parts for marine torpedoes. After World War II, the company produced a significant quantity of armored vehicles (including Soviet-designed BMP.1 armored personnel carriers and T.72 main battle tanks) for the former Warsaw Pact nations and customers in the Middle East and Asia.

ZTS is related to several other companies that, while once part of the massive ZTS organization, are now highly independent and decentralized from former management structures. For example, ZTS Martin was once very closely associated with ZTS, but today the two firms are legally separate.

Slovakia's defense industry was built up as a result of economic necessity in the Slovak Republic following the end of World War II, although the legacy of armament production in Slovakia extends back to the time of the Austro-Hungarian empire. During the Second World War, Czechoslovakia's defense industries were subordinated to the needs of the occupying German forces, but after the rise of the communists in Czechoslovakia in 1949, there was great expansion of the overall ZTS organization, including the Dubnica nad Vahom facilities. A metallurgical facility was added to its eight mechano-assembling plants in 1952.

The ZTS organization, which has been decentralized following the fall of the Eastern and Central European communist system, was formerly geared to fulfill military requirements of the defunct Warsaw Pact. These former requirements called for the mass production of main battle tanks, armored personnel carriers and infantry fighting vehicles. Of this production, most was exported to neighboring Eastern European countries, while some 20 percent was provided to customers in the Third World. In 1997, ZTS became a joint stock company.

ZTS employs approximately 1,900 persons in its single headquarters and production complex. With the split of

Czechoslovakia into two separate republics on January 1, 1993, ZTS is now located in Slovakia.

Structure and Personnel

The most recent listing of ZTS officials is presented below:

Jaroslav Balogh
General Director
Lubomir Chribik
Commercial Director
Jan Fillo
Director for Development and Strategy

Milos Holec
Personal Director
Ivan Novotny
Manufacturing Director
Bruno Laurencik
Financial Director

Product Area

Current production programs at ZTS focus on hydraulic systems, hydrostatic converters, linear hydrometers, complete hydraulic systems for traction drives, mobile machinery, mini-excavators, transport manipulators, high-lift trucks, snow track vehicles, scooters, utility vehicles for specialized applications, machine tools, special tools and measuring instruments, and machine metallurgy. ZTS manages its operations in the following manner:

1. Industrial Equipment Division
2. Hydraulics Division
3. Motive Machine Division
4. Military Technology Division
5. Tools & Dedicated Machine Division
6. Metallurgy Division
7. Oil Exploitation Equipment Division
8. Filial Division

Facilities

Závody Tazkého Strojárstva, 01841 Dubnica nad Vahom, Slovakia. ZTS' main facilities are believed to be located at this address.

Corporate Overview

The Závody Tazkého Strojárstva (ZTS) organization has traditionally been one of the most significant industrial complexes in Czechoslovakia, and was once the most powerful firm in Slovakia. ZTS is a large industrial organization which engages in the production of hundreds of products through many different divisions, some of which are legally separate entities, but all are essentially independent from a central organ of control. The current 15 organizations which bear the ZTS name primarily manufacture heavy machinery, but activities range from gears and bearings to armored vehicles, and construction equipment.

New Products and Services

With new tank production at a standstill, ZTS has concentrated its efforts on upgrades of the T.72 main battle tank. Development efforts currently under way include the following.

Antares. Developed by ZTS in conjunction with Societé Anonyme Belge des Constructions

Aeronautiques (SABCA) of Belgium and Societé de Fabrication d'Instruments de Mesure (SFIM) of France, Antares is actually the first phase of a planned complete and much larger upgrade package for the T.72. Antares interfaces with the existing TPD-K1 sighting system and can be installed with a minimum of alterations to the turret. The system consists of the VEGA thermal imaging system from Societé Anonyme Belge des Constructions Aeronautiques for the gunner. The VEGA sensor system is mounted on the roof of the turret and includes a monitor and control unit for the commander; either the gunner or commander can fire the main armament. The commander is also provided with a VS 580 stabilized day sight from Societé de Fabrication d'Instruments de Mesure; this unit has a 360-degree capability. A two-axis gyroscopic stabilizing unit from Societé de Fabrication d'Instruments de Mesure is also integrated with the main armament. The integration of the Antares system allows the T.72 to better engage targets at day or night.

Vega. Developed by ZTS in conjunction with SABCA, the Vega fire control enhancement is available in two levels. Both systems incorporate a new thermal imaging system. The existing TPN-1 gunner's sight is removed, but the sighting head is retained in modified form; the sighting head is modified in order to integrate the thermal sensor component. The existing coupling, transmission rod and elevation mechanism are retained, but an improved mechanism to retain the line of sight is integrated. The basic Vega system includes the aforementioned components plus a new ballistic computer with inputs from the laser rangefinder and ammunition type. The Vega Plus system has all the components of the Vega system plus a target tracking component, cant sensor and an atmospheric sensor with the related data links. Both Vega systems can be installed in the T.72 with no turret alterations.

Lyra/Moderna. This is the most extensive modernization/retrofit program developed for the T.72 by ZTS; it is also called the T.72 Lyra. Several areas of perceived deficiencies are addressed by this program: explosive reactive armor is added to the turret and hull; appliqué armor is added under the driver's position; some components of the Vega and Antares fire control suites are integrated; a laser warning system from SABCA is fitted; and a new turret management system from Marconi Radar and Control Systems is added. The retrofit also includes new components to improve gun stabilization, and a new frequency-hopping radio and vehicle intercommunication system, both from the BAMS firm of Belgium. In addition, the Moderna is

fitted with twin hull-mounted anti-aircraft cannon. The Moderna upgrade is believed to have been selected by the Slovak Republic for the upgrading of its T.72 inventory; however, as of early 1999, this program had yet to be implemented.

Plant Expansion/Organization Update

No news concerning plant expansions or organizational changes have been announced in the past two years.

Mergers/Acquisitions/Divestitures

No mergers, acquisitions or divestitures have been reported concerning ZTS.

Teaming/Competition/Joint Ventures

SABCA and SFIM. These two firms are cooperating with ZTS on various upgrades of the T.72 main battle tank (see NEW PROGRAMS).

Technical Cooperation Pact. In August 1993, the Slovak and Russian defense ministers signed a technical cooperation pact. This agreement calls for technical cooperation with the Slovak heavy armaments industry. ZTS, as Slovakia's largest arms manufacturer, is expected to be a large recipient of this "technical cooperation."

Hanomag. ZTS is cooperating with the German company Hanomag AG, in a license arrangement whereby ZTS is manufacturing Hanomag construction equipment.

Financial Results/Corporate Statistics

ZTS has not released any official financial information.

Strategic Outlook

ZTS continues to struggle for survival. The former Czechoslovakia's "moral" embargo of virtually all of its international arms transactions, in conjunction with the collapse of the Warsaw Pact, nearly obliterated the armaments industry in Slovakia. This becomes apparent through a brief look at ZTS's employee levels: this firm, which once employed over 16,000 persons, has now slashed its work force to approximately 1,900. As a result, the town of Dubnica Nad Vahom, located just north of Bratislava, has suffered greatly since 75 percent of its population claims employment in defense-related jobs.

Ideally, Slovakia would like to return production in its armament industry to approximately 50 percent of its

former output. Following the lead of the Czech Republic, Slovakia is expected to actively pursue Western technology, teaming, and joint venture opportunities in order to expand upon its own civil/military aircraft, avionics, electronics, radar, and small arms/explosive industrial base. ZTS is expected to lead these expansion efforts, and it will not be easy. The future for this company would certainly be in great jeopardy if it were not for the fact that it is still one of the largest defense concerns in the Slovak republic. Despite its best efforts, ZTS will not regain even a glimmer of its former greatness.

Prime Award Summary

Unavailable

Program Activity

Business Interests. Some important aerospace and government programs currently under way at Dowty are listed below. The briefs are intended to provide a listing of programs that are of major importance to the company. For detailed information or analysis of specific aerospace and defense programs or equipment, please refer to the appropriate FORECAST INTERNATIONAL binder (for example AIRCRAFT, MILITARY VEHICLES, WARSHIPS, MISSILES, ELECTRONICS, and GAS TURBINES). ZTS is involved in the following areas of business:

- Hydraulic systems
- Hydrostatic converters
- Linear hydrometers
- Mobile machinery
- Utility vehicles for specialized applications
- Machine tools
- Special tools and measuring instruments
- Machine metallurgy

BMP.1 and BMP.2

These are Soviet-designed tracked armored personnel carriers. This Soviet vehicle is built under license and is equipped with an automatic 30 millimeter gun, as well as anti-tank missiles. The anti-tank missiles may also be assembled under license from the former Soviet Union by ZTS.

T.72 Main Battle Tank

This main battle tank, designed by the Soviet Union, makes up the bulk of Eastern European front-line armored formations. The tank is built under license, and is equipped with the smoothbore 125 millimeter gun. The vehicle is fully NBC-protected. ZTS manufactures the gun turret for the T.72 manufactured by Martin in the CSFR and Labedy in Poland. ZTS is also working on several upgrades of this ubiquitous tank.

120 Millimeter PRAM-S Self-Propelled Mortar

The 120 millimeter self-propelled mortar is equipped with an automatic loader and NBC protection. The system is able to negotiate water barriers by flotation. The weapon is embodied in a modified tracked chassis of the Soviet BMP-1 armored personnel carrier, with an additional pair of bogie wheels.

122 Millimeter Salvo MRL

The Salvo MRL is a wheeled vehicle equipped with multiple launch rockets. Indirect fire is the principal function of this system, although it can be used in a direct fire role. The wheeled vehicle chassis is also produced by the Czechoslovakian defense industry.

152 Millimeter Dana SPG-H

This 152 millimeter self-propelled howitzer is designed in Czechoslovakia and mounted on a Tatra wheeled heavy transport vehicle chassis (the Tatra 815 type vehicle). This system is equipped with a self-loading mechanism for 152 millimeter ammunition, as well as a complete NBC system. The Dana is expected to be modernized and offered to export customers throughout the world.

Other ZTS Programs

ZTS also produces a variety of equipment not necessarily linked with the military. A successful area that ZTS could see maintained by the Havel Government is the production of Nuclear/Biological/Chemical (NBC) equipment. This, along with aviation and electronic equipment, has been one of the company's successful market areas.

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