TMPnews

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Project *developed in-house*
Authorisation from the Court of La Spezia N. 5/08 dtd. 02/12/2008

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January 2016, issue 01

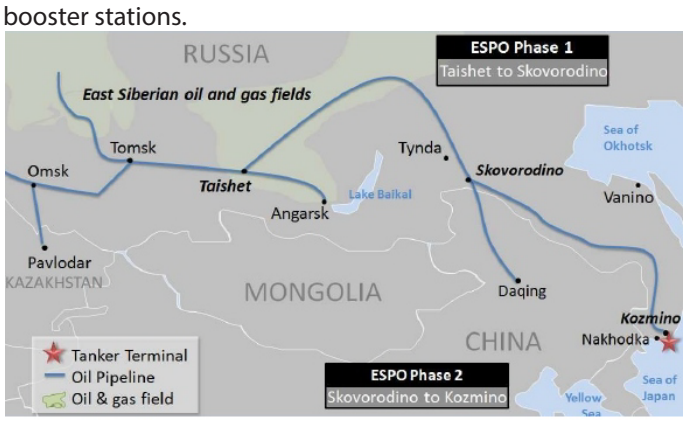
Message from the Managing Director

Even though it was a year characterized by a climate of market uncertainty, mainly due to the geo-political instability of the Middle East but not only, Termomeccanica concluded 2015 with good results.
Indeed, in 2015, the turnover remained substantially in line with that of 2014, which had however increased by 30% with respect to 2013 while profitability almost doubled and the order portfolio grew by 50% comparatively to the previous year, ensuring a good workload starting from 2016.
Such particularly positive results are a source of pride for the company as they were achieved not only in spite of the negative economic conditions affecting the main reference markets but also in a sector that has been constantly shrinking over the last three years.
These performances confirm that the projects that were initiated over the last few years, such as opening new markets and investing in new technologies and operations efficiency, have borne fruit.
I am convinced in any case that the real accumulated capabilities still have to be expressed in full and that they will do so when markets regain serenity; in the meantime, we will continue with our development and re-organization plans with determination.
I seize the opportunity to thank all those whom have contributed to our journey: customers, whom have given us their trust, suppliers, whom have given us their support and employees, whom, together with management, have worked assiduously and perseverantly.
I wish all our readers and their family a new year full of successes.

Edoardo Garibotti

Termomeccanica asserts itself further on the Russian Oil & Gas market thanks to the award of an order for the ESPO oil pipeline

In the first trimester of 2015, Termomeccanica Pompe was assigned an order for the ESPO (East Siberia Pacific Ocean) oil pipeline. The end user is Transneft, the Russian state company with head office in Moscow that manages the oil pipelines network of the country.
The company was established in 1993 and handles today the largest pipeline system in the world with a total length of almost 50,000 kilometers.
The 5,000 kilometer-long ESPO oil pipeline connects Taishet to Kozmino through Skovorodino and exports crude oil to China, Japan and Korea.
It consists of 41 pumping stations, which include both the main stations (crude oil stocking and transport) and the booster stations.



TMP's scope of supply includes the design, manufacturing, testing and on-site supervision of the erection and commissioning of 21 pumping units divided as below:

- n. 8+5 Main Oil Pumps with a flow rate ranging from 6000 to 9600 m^3/h and a head ranging from 184 to 380 m.
  The pumps, BB1-type according to API 610 latest edition, are equipped with a double mechanical seal and a 53B system plan.
  The electric motors have a power ranging from 6000 to 12000 kW and some of them are equipped with a variable frequency drive (VFD).

- n. 4+4 Booster Pump Units with a flow rate ranging from 600 to 1250 m^3/h and a head ranging from 90 to 110 m.
  The pumps, VS7-type according to API 610 latest edition, are equipped with a single mechanical seal and a 13/66A system plan and are complete of suction tank.
  The electric motors have a power ranging from 250 to 500 kW.

Each pumping station is equipped with 4 Main Oil Pumps working in series (3 in operation and 1 in stand-by), therefore the last pump is subject to a suction static pressure ranging from 7,5 to 10 MPa.
One of the specificities of these machines stems from the fact that the pump casing and cover must be designed so as to house 3 different rotors that will allow a future variation of performance of the machines.

The booster pumps, on the other hand, are installed outdoors with temperatures varying from -60° to + 40°C.
The specificity of these pumps originates from a tracking and insulating system in the bearings and seals area, system which allows to guarantee a correct operation both in winter with very low temperatures and in summer when temperatures can reach +40°C.

The string tests of the various units will be performed at TMP's test center, tests which include the use of the job's motors, VFDs, seal system, lubrication units, hydraulic couplings and instrumentation.

Training sessions are also planned for the end-user (Transneft) personnel. Such trainings are related to the main components of the various units and will take place at Termomeccanica Pompe's headquarters during the phases of assembly and testing of the units.

The delivery of the first units is planned for May 2016 and the supply should be completed by end-October 2016.

Supply in Zimbabwe for Termomeccanica Pompe's Service Division

In April 2015, TMP's Service Division was assigned a 3 million euro contract for the rehabilitation activities of Stage II Unit 6 of the Hwange thermal power plant in Zimbabwe

Stage II of the power plant was built in the mid 80s by Ansaldo and consists of two units of a total rated input of 220MW named Unit 5 and Unit 6, which, after 30 years of operation, are near their end of life, usually estimated at 35 years.

The customer, Zimbabwe Power Company (ZPC), has planned the major overhaul of unit 6 for the end of 2016. For this overhaul, Termomeccanica will supply two new boiler feed water pumps (BFWPs) to substitute existing ones and will also rehabilitate another stand-by BFWP.

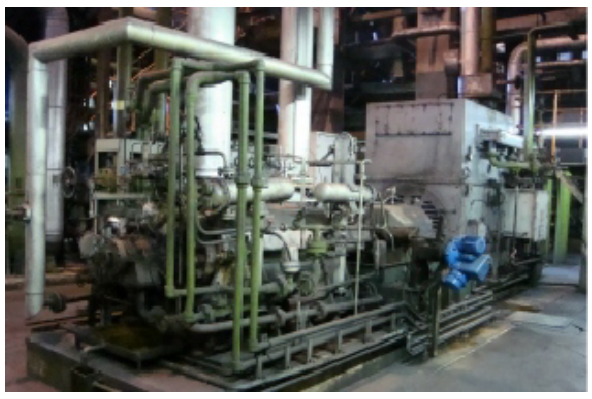

Centrale Termoelettrica di Hwange

The installation and commissioning of the new pumps and the overhaul of the existing one will regard the main components of the thermal cycle and will last approximately 5 months, period during which TMP will be present on site through its technical supervisors.

Thanks to the constant technological advances made, TMP will substitute the existing Unit 6 pumps with BFWPs of a new and improved design & construction, offering a higher yield while remaining fully interchangeable with the existing ones.

Such new improved pumps are already installed in Unit 5 of the power plant, unit object of a major overhaul also performed by TMP which was concluded with success in 2014.

Thanks to this previous overhaul, which equally involved our company, ZPC was able to witness an increase in reliability with the reduction of unplanned stoppages and the improvement of performance in terms of electric power produced.


TMP boiler feed water pump

Still regarding Hwange, Termomeccanica Pompe, in joint venture with other Italian industries involved in the power generation sector, has proposed to Zimbabwe Power Company a project of life extension of the power plant that goes beyond the necessary major overhaul. The objective of such project is to bring the two units back as close as possible to the initial 220MW project performance and to ensure a residual plant lifespan of at least 25 years.

The technical and commercial offer has been presented to ZPC who has already started its technical evaluation through a consultant it has nominated. Considering the extreme urgency of the intervention, it is possible that the project receive the green light in 2017.

The editors of this issue are:

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