

Equipment INDIA

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- Material Handlers
- Truck Cranes
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DIGGING DEEPER

The government's various initiatives on revival of the infrastructure sector and favourable policies have driven the growth of Indian hydraulic excavator market.

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BEML rolls out mechanical minefield marking equipment

BEML Limited, one of the leading public sectors under Ministry of Defence, GoI, has rolled out the first prototype of Mechanical Minefield Marking Equipment Mk-II, built on BEML TATRA 6x6 an 'Atmanirbhar' product, developed through TOT from R&D E Engineers, DRDO.

The virtual roll out was performed in the presence of MV Rajasekar, CMD, BEML and VV Parliker, Director, R&D (Engrs), DRDO. Also present were Shri Kiran Jadhav, CMD Accurate Group, other valued partners from Dynalog (India), Electro-pneumatics and Hydraulics (I) and Adroit System and BEML team headed by AK Srivastav, Director Defence. BEML signed LAToT during the 'Bandhan' event in presence of Hon'ble Raksha Mantri during DEFEXPO 2020 and is executing the project by partnering with number of

MSMEs.

Mechanical Minefield Marking Equipment MK-II developed by R&DE (Engineers) would greatly benefit Indian army to mark/fence minefields. The MK II is designed for marking the mine fields at faster rate, semi-automatically with minimal human intervention. The equipment is capable of marking/fencing at a minimum rate of 1.2 km/hr with inter-picket spacing of 15 m. The system has capability to place the pickets at 10-35 m spacing in the step of 5 m. The picket can be driven to a maximum depth of 450 mm by this system.

MMME Mk-II system is designed to operate in plains of Punjab, as well as semi-desert & desert of Rajasthan, in all weather conditions. The system can store 500 numbers of pickets and polypropylene rope of 15 km in length.



The main sub systems which are to be integrated on to the vehicle are Carrier vehicle, Mechanical sub system, Pneumatic sub system, Electrical sub system and Electronic sub system with selected sub-vendors. Sourcing of subsystem from industries established during development phase is being followed by BEML. The superstructure is being built by sub-vendors and supplying to Accurate Group for integration onto BEML HMV.



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Schwing Stetter India joins the fight against Covid-19



CNH Industrial (India) continues proactive measures to combat Covid-19 related matters



L&T working on war footing to build medical-grade oxygen units



AM/NS sets up 1000-bed COVID hospital in Hazira



Jindal Stainless to airlift liquid medical oxygen from Odisha unit

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Hospital and to the Joint Director of District Industries Centre, Dharwad. We also distributed thermal scanners, three-ply masks, face-shields, sanitisers and hygiene kits to government functionaries, primary health centres and Covid health workers. In addition, we also ran drives in villages and rural communities around our areas of operations to directly provide them with sanitisers, Covid-19 hygiene kits, masks, family survival food kits comprising of one month's dry ration, clothes for stranded labour as well as support to migrant labour in Bangalore in the form of food and dry rations," said Shorey.

In addition to its long-term CSR ongoing projects, BEML has also taken up following activities to combat Covid: the company is setting-up oxygen generating unit at Government general hospital, KGF, Kolar District at the approximate cost of Rs 1.10 crore, the company is also setting up mass production of oxygen generating unit through ToT with DEBEL, DRDO to cater to the rising needs of Covid patients. To mitigate the crisis and to make available proper medical facilities like bed, oxygen, etc.



MV Rajasekhar,
Chairman and
Managing Director,
BEML, "We not only
under took many
activities to fight the
pandemic with the co-operation of all
stake holders, but also extended
support to the local public during this
difficult situation. Various initiatives
such as distribution of food,
medicines, masks, food provisions etc.
and massive awareness campaign were
organised with the involvement of
local authorities to demonstrate our
commitment towards our employees
and local public."

BEML has joined hands and contributed Rs 50 lakh for establishing 500 bed Covid hospital at Lucknow. The company has also chalked out catch-up recovery plans to overcome



the production loss due to lockdown and to cope up with new normal. Last year, though at the initial stage, the sales and production were negligible due to various restrictions, BEML achieved its highest ever turnover during 2020-21.

CNH Industrial has undertaken a host of preventive measures to combat Covid-19 including daily temperature checking, maintaining social distancing, compulsory registration on the Arogya Setu app, the provision of safety gear including masks, gloves and eye-protection along with daily regular sanitisation at all their facilities.

A few of the initiatives undertaken by CNH Industrial are:

- Insurance for all the employees and their immediate families for Covid infection - A financial support of Rs 50,000 is provided to all those employees who are tested positive or are home quarantined. There is also a

home care coverage of Rs 20,000 for all employees and their families per instance.

- CNH Industrial has forged a tie-up with Apollo Hospitals, which has set up a dedicated 24x7 medical consultation helpline number for employees.
- A dedicated task force has been put in place to track all infected employees and arrange all the



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Machinery, “The excavator market peaked in FY2018-19 following three years of sustained growth led by increased government focus and investment in the infrastructure sector. However, the excavator market was significantly affected national elections in early FY2020. This was followed by liquidity issues as a fallout of elections, as well as the continuing effects of the IL&FS crisis. Further, just as the market was recovering its growth trajectory from January 2020 onwards, Covid-19 lockdown hit in March, adversely affecting sales. All this led to the market contracting by more than 20 per cent in FY2020. Given the extreme impact of the lockdown on sales of the first quarter of FY2021, the market was bracing for a second successive year of contraction.”



Arvind K Garg,
Executive Vice-
President and
Head-Construction
& Mining
Machinery
Business, Larsen &

Toubro, had this to say: “In recent times, demand for hydraulic excavators peaked in FY2018-19 to 25,000 plus units and was expected to sustain over the years. However, the pandemic hit the demand in 2019-20, shrinking it to about 18,000 units. Demand during Q1 of FY20-21 was obviously severely affected, but we witnessed a sharp rebound from September 2020 and onwards, which helped the annual demand recover to the FY 19-20 levels.”

“Last year, the excavator market touched 18,000 units. The start of last

year was good. Later on the numbers dipped due to Covid-19 pandemic. However from September onwards, the market picked up. Compared to other industries, 2020 was a good year



for the construction equipment sector. But if you compare to the previous year (2019), the market is down by 20 per cent,” said **VG Sakthi Kumar, Managing Director, Schwing Stetter (India).**

Opportunities galore

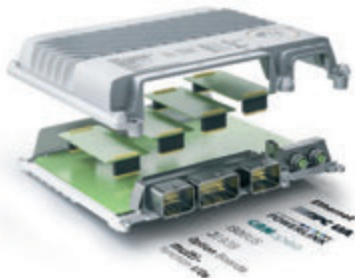
Speaking on the opportunities for the hydraulic excavators market, **MV Rajasekhar, Chairman & Managing Director, BEML,** said, “The government’s Infrastructure Development Plan is instrumental in creating huge demand for construction equipment including hydraulic excavators. The plan will result in a huge demand and growth for hydraulic excavators in the near future. Coal mining companies are planning for higher capacity mining projects to increase production; which requires deployment of higher capacity hydraulic excavators (100T and 180T class). Hence, there will be a requirement of higher capacity hydraulic excavators in future in coal mining sector.”



Dheeraj Panda, Director – Sales, Marketing and Customer Support, Sany Heavy Industry India, was of the same opinion as BEML CMD. He said, “The demand for hydraulic excavators is on surge due to infrastructure development and mining reforms in the country. Considering the prevailing situation, Sany India envisages unprecedented growth and ample of business opportunities for hydraulic excavators amidst stiff competition and uncertainties.”

Says **Sandeep Mathur, CASE Construction Equipment Brand Leader – India & SAARC,** “The long-term future trend for the excavator industry remains positive and demand is expected to grow with a CAGR of 16 per cent during 2021-2023 and reach 28,000 units, as per Off-Highway Research report. Excavators account for a bulk of revenue in the CE segment and with the government focus on infrastructure development to fuel economic growth, the demand of hydraulic excavators is expected to increase significantly.”

Shorey expects the mini excavator market to continue to grow faster than the overall market with increased mechanisation due to labour shortage, apart from the natural advantage of increased productivity due to



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"WITH INFRA PLANS IN PLACE, THERE WILL BE CONTINUOUS GROWTH FOR HYDRAULIC EXCAVATORS"

What is the present size and growth rate of the hydraulic excavators market in India? How has the market evolved in the last couple of years?

The market size and growth rate of hydraulic excavators as per ICEMA reports is as below:

Crawler excavators	FY 2020	FY 2021
Domestic sales (Nos.)	19,196	20,476
Exports (Nos.)	1,042	1,376
Total sales (Nos.)	20,238	21,852

Initially during first quarter of FY2021 there was decline in sales of hydraulic excavators due to pandemic. During second quarter the sales have improved and subsequently, during third and fourth quarter the sales of crawler excavators has picked up and ended with a total sales growth of 8 per cent compared to previous FY2020.

What are the various product offerings from your company in this segment?

BEML is indigenously manufacturing and supplying various capacities of hydraulic excavators with latest technologies:

- BE75 hydraulic excavator – 7.5 tonne class
- BE220G hydraulic excavator – 22 tonne class
- BE300LC hydraulic excavator – 30 tonne class
- BE700 hydraulic excavator – 70 tonne class
- BE1000-1/BE1000E-1 hydraulic excavator – 100 tonne class (diesel and electric versions)
- BE1800E/BE1800D – 180 tonne class (electric and diesel versions)



MV Rajasekhar,
Chairman & Managing Director,
BEML

In light of the plans of infrastructure creation and reforms in mining, what opportunities do you foresee for hydraulic excavators?

The government's Infrastructure Development Plan is instrumental in creating huge demand for construction equipment including hydraulic excavators.

- ◆ Small and medium-end hydraulic excavators' up to 30T class are generally used in Infrastructure

Projects and higher capacity hydraulic excavators' 70T class and above are generally used in Mining Projects.

- ◆ India is one of the fastest growing economies in the world. The Union Government's vision is to become a \$5 trillion economy by 2024-25.
- ◆ The total capital expenditure in infrastructure sectors in India during fiscals 2020 to 2025 is projected at ~Rs 111 lakh crore. The sectors includes energy sector, roads, railways, urban (smart cities, MRTS, affordable housing), ports, airports and irrigation.

The plan will result in a huge demand and growth for hydraulic excavators in the near future. Coal mining companies are planning for higher capacity mining projects to increase production; which requires deployment of higher capacity hydraulic excavators (100T and 180T class). Hence, there will be a requirement of higher capacity hydraulic excavators in future in coal mining sector.

Moreover, renewable power generation is picking up with increasing use of solar power; which is available



most of the time in India. Also, solar density is very high to make it viable in future. Once the solar panels become more acceptable and affordable the requirement of power from thermal power stations reduces. It is already being felt in the most developed countries like US, Germany and many other countries. Hence, the requirements of hydraulic excavators from coal mining sector will either reduce or remain stagnant. However, in non-coal mining sectors like iron ore mining (steel), limestone mining (cement), aluminium, zinc, etc. there will be demand and continuous growth for hydraulic excavators in future.

What are the major changes taking place in terms of technology? What are the key market opportunities?

Keeping up with the latest trend in vehicle system electrification and advanced safety systems, BEML is geared up for developing high-end shovels with AC electrical motors and drives. BEML has already developed and supplied 100 and 180 tonne class electrically driven hydraulic excavators with 6.6 kV HT induction motor as prime mover.

These machines have zero emission, low maintenance and ownership cost. Further BEML is also geared up to meet CEV stage IV diesel engine norms to meet upcoming statutory requirement for mining and construction equipment. BEML equipment have also been upgraded with GPS ready cabin by facilitating vehicle critical data portability through single universal port for fleet management system by our customers.

While migrating from conventional design, digitalisation and advanced technologies are being introduced, in phased manner; in BEML excavators by including telematics-based real time monitoring, data analytics and preventive and predictive maintenance which provides prognostic solutions. BEML is also working and focusing to implement ADAS (Advanced driver



assistance system) and AI-based autonomous equipment as these technologies creates several opportunities for market growth.

What are the major challenges faced in this segment? How do you plan to overcome those?

Some of construction equipment are deployed in remote areas where approach is difficult and lack of proper maintenance facilities. BEML is well-networked with its regional offices, district offices, activity centres and service centres spread across the nation to provide effective after-sales-support to customers. Further, BEML has deployed service engineers at pit heads to monitor the equipment closely. BEML is offering maintenance contracts, recon exchange of aggregates, rehabilitation of used equipment, technical audit, upgradation of equipment, service centre repair facilities and condition based monitoring system; as an overall product support to improve availability, increase productivity and to reduce the operating cost of equipment.

Non-availability of skilled operators and maintenance staff in some areas: BEML's factory trained service teams

are posted all over country, who in turn are training the customer operators and maintenance staff. BEML is also providing product wise training at manufacturing plants to operators and maintenance staff of customers. To develop the skill of operators BEML has adopted the latest simulator-based training technology both at selected project and at manufacturing plant.

How do you look at the future market for hydraulic excavators in India?

With the future infrastructure development plans in place; we envisage there will be demand and continuous growth for hydraulic excavators in infrastructure sector in India. As far as coal mining sector is concerned, there will be demand for higher capacity hydraulic excavators. However, with renewable energy picking up, the requirements of hydraulic excavators from coal mining sector will either reduce or will remain stagnant in future. However, in non-coal mining sectors like iron ore mining (steel), limestone mining (cement), aluminium, zinc, etc. there will be demand and continuous growth for hydraulic excavators in future.

