Skidding Upwards!

A skid steer loader can be rightly called the 'jack of all trades.' This versatile mini-construction equipment can perform numerous functions.

lmost two decades ago, a skid steer machine was connoted as 'Bobcat', because that was the most popular brand of skid steer machines in the world. The term 'skid steer' stands for turning on its axis by skidding and not by steering the wheels. This is a very versatile mini-construction equipment capable of mega performance through the various working tools which can be attached to the same using a quick coupler. As such it can perform numerous functions ranging from simple material handling to excavation and even drilling by an auger attachment.

Initially the acceptance of this equipment in India was low because the then construction contractors were involved in large to very large projects. This tiny little machine did not catch their imagination or make any sense. As such it was an uphill task for the suppliers to establish this superb equipment in the Indian markets.

Fast forward to 2000: the importance of this equipment gained substantial traction because it was found to be the

most appropriate equipment to use in multiple urban, non-urban and greenfield applications like municipalities, garbage cleaning, urban infrastructure construction in congested areas, hill roads construction and maintenance; municipal applications in hill cities and even initial start-up activities for mega greenfield projects.

Once again fast forward to 2016. With huge funds being allocated to rural development, Pradhan Mantri Gram Sadak Yojana (PMGSY) and North Eastern states, this equipment is destined to be one of the market leaders in construction equipment for the next decade, to begin with. A fact witnessed at Excon wherein all big CE majors launched their versions of skid steer machines with numerous attachments meant for various applications.

Market movements

"The potential for skid steer loaders is growing in the country. Currently, the growth rate is hovering at around 8-10 per cent per annum, on a year-on-year basis. The demand v/s supply equa-

tion is at par as of now. However, we predict a moderate to high growth in the demand in the next few years due to rising infra projects. The major buyers for these machines are civic bodies, construction companies (housing), and process industries, to name a few. There is a lot of scope for expansion in many such sectors for equipment utilisation by using the right kind of attachments along with the machines. Predominantly, the machines are being sold with standard loader bucket; however, by understanding the customer's application and suggesting the right attachment to fulfill his need would certainly increase the sales volumes," says S Manjunath, General Manager - Sales & Marketing, Doosan Infracore India.

"The total skid steer loader industry in India is around 40-50 machines a month. The industry size for the year 2015 was 500 units and is expected to grow to 1,000+ units by 2020. With rapid infrastructure development plans all around the country, we see tremendous potential for growth in skid steer loader sales in the next 3-5 years. The global







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skid steer loader industry is expected to touch revenue of \$5 billion this year and developed economies like the US and Europe sell more than 40,000 units annually. Currently, the Indian skid steer loader market is growing at the rate of 10-12 per cent annually. We need awareness and promotional effort to increase the demand, for the customers to understand the versatility of application,"says Tanmay Majumdar, Associate Vice President & Head Construction Equipments, Gmmco.

"The skid steer market is still in its nascent stage in India. But given its versatility, the machine popularity has increased rapidly over the last few years. The small, compact structure of the machine is designed to operate in restricted areas and hence, can be used for wide range of applications such as agriculture, industry, construction, demolition, material handling and maintenance. As the markets mature, projects for urban rejuvenation and municipal solid waste management gain momentum, the demand for this machine can go up manifold in 2018," comments Jasmeet Singh, Head - Corporate Communications, JCB India Ltd.

Says Amar Chauhan, Regional Head, Terex Equipment, "Skid steer loader is still a concept selling product in India. But day by day, labour is scarcity and mechanisation is the need of the day. So skid steer loader market is bound to grow in upcoming days."

Technology & safety by design

Most skid steer loaders are designed to work in diverse climates of high ambient of 48°C or severe cold and high altitude areas, no matter what climatic conditions. They are designed to work long hours on demanding

jobsites with minimal time needed for routine maintenance. Uptime protections on the loaders include efficient machine cooling, a constant tension drive belt, solid steel tailgate, improved tie downs; the rear bumper extends past the tailgate to protect the loader from obstacles and related scrapes and bumps at worksites. With built-in standard safety and reliability features, it is a big advantage for operators.

"Of its own accord, the global design of Bobcat equipment is a solution to suit diverse climatic conditions of the country. Thoughtful design, quality engineering and features to adapt to extreme temperatures such as heating/defrosting systems and air-conditioning are features to suit the requirement. The seat bar is an important safety advancement along with Interlock Control System (BICSTM) which requires the operator to be seated with the seat bar in place," says Manjunath.

"A JCB skid steer is safe, economical and highly productive. With an average of 60 per cent better visibility, with entry and exit from the left side of the machine, the machine has been designed to reduce the operator fatigue and ensure safety at all times. Pressure sealed cab and low effort controls are some of the ergonomically designed features to ensure operator comfort," informs Singh.

Majumdar elaborates, "No matter

Skid Steer Applications: Jack of All Trades

General construction Land development Urban flyovers **Elevated Metro Underground Metro** Municipal cleaning Agriculture applications Garbage handling by grapple Forklift pellet handling Auger drilling Rock breaking Loader buckets Ditch cleaning Pick-up broom Back filling **Demolition** Dozing Excavation Grading and leveling Sweeping Solid waste management Plant maintenance

which industry you work in, safety of the employees is the first priority. Caterpillar skid steer loaders have multiple levels of security to ensure operator and machine safety. For instance, parking brakes are automatically engaged when the armrest is raised or engine goes off as the operator seat is vacated or if it fails to sense a minimum weight of 22 kg. If the machine gets trapped in a congested area, the operator can come out of the machine without the need of breaking the rear glass; all he has to do is to pull one ring on the rear window and remove the beading of the glass to come out. CAT 216B are powered by CAT engines complying with BS III emission norms."

Customisable for special applications



"Skid steer loader market is bound to grow in the upcoming days."

Amar Chauhan Regional Head, Terex Equipment.

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FEATURE – SKID STEER LOADERS

Cost and benefits

The initial acquisition cost for a skid steer loader when compared to backhoe loader or mini excavator is lower by more than 40 per cent and the cost of maintenance also is relatively lower.

Skid steer loaders come with different types of attachments, the measure for productivity changes with the attachment. When the machine is attached with a bucket it is measured in terms of loose cubic metre of material moved, with a rock breaker — metric tonne per hour of secondary breaking, with auger number of holes dug per hour, compactor — number of cu m of soil compaction done. The measure of productivity changes with every attachment.

"All the three machines (skid steer loader, backhoe loader, mini excavator) are utility machines. When one needs excavation work, a mini excavator is suitable, for loading and excavation work with easy drivability between sites, the backhoe loaders are ideal, but if you want excavation, loading, rock breaking, grading, compacting, digging, material lifting, skid steers are the best machines. Moreover, skid steer loaders can work in congested and low-roof height areas with easy drivability," informs Majumdar.

Manjunath on the other hand, recommends more focus in calculating the actual benefits of skid steers. He says, "There are many factors to arrive at the value proposition while calculating the productivity of the equipment. Sadly, a current oblivious practice of calculating only the initial investment is considered while choosing the type of equipment. To arrive at the value proposition, equipment owners should consider other aspects such as the regular maintenance cost, fuel cost, cycle time v/s other alternatives, and so on. Backhoes were a concept selling for almost a decade but

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> Tanmay Majumdar Associate Vice President & Head Construction Equipments, Gmmco.

the increase in demand has come by the ingenuity of a few customers who have made a business proposition by entering into the hiring market, but not by any special efforts from any manufacturer. In case of skid steer loaders, the versatility with its ability to work in confined spaces stands apart, which is unlikely in the case of backhoes and compact excavators."

Singh rightly points out, "It will be incorrect to compare a skid steer with a

backhoe loader because although both have a bucket in front, the intended use is very different. As I said, a skid steer is not a production machine. We will not put it in a situation where it is working 20 hours a day unlike excavators or wheel loaders. A skid steer is measured in terms of its utility because of the different things it can do. Skid steers cost in the range of Rs 15-16 lakh per unit depending on configuration or taxes. But if one invests in a skid steer loader with 4-5 different attachments, then at a fraction of the cost, you can do 7-8 different jobs with the same machine. So it can virtually replace different types of equipment that are used and all of them can come down to one machine,



one operator, and one dealer."

According to Chauhan, the best benefit of skid steer loader is against the manual labour. He adds, "The higher productivity is a demand for every industry today. That makes a skid steer loader the best valuable product. We can't compare skid steer loader with mini excavator. Both have different advantages and disadvantages."

Forward outlook

Skid steer loaders have been in the Indian industry for more than 15 years. However, the majority of the machines sold are imported and their spare parts cost is higher with less ease of availability. These reasons have also contributed to the slow and muted growth of skid steer loaders over these years.

However, majors like Doosan, Caterpillar and JCB now manufacture this equipment in India, which is in line with the available market potential in the country.



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> **lasmeet Singh** Head - Corporate Communications, JCB India Ltd.

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- SHANKAR SRIVASTAVA