

**COMPANY PROFILE:**

**KOMATSU INDIA**

**SEPTEMBER 2010**

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**INTRODUCTION**

The Indian operations of Komatsu are run by a subsidiary of Komatsu Asia Pacific Pte Limited, Singapore, known as Komatsu India Private Limited (KIPL). The Singapore operation is wholly owned by Komatsu Ltd. The parent company is now 93 years old and best known for its construction, mining and material handling equipment, although it is also engaged in the businesses of industrial machinery, logistics and electronic system controls.

This is an update of the profile published in Off-Highway Research's Multi-Client Study, dated October 2007, and explains the recent growth in its business activities, and identifies the direction that the company intends to take in the next few years.

**SUMMARY**

Komatsu is a Fortune 500 company and after Caterpillar is the second largest manufacturer of construction equipment in the world. Headquartered in Tokyo, Japan, the corporation has established a wide web of subsidiaries and affiliates across the globe. Its products are manufactured at over 55 locations in Japan, Europe, USA, China, Indonesia, Brazil, Thailand and India, and are sold worldwide through an extensive sales and service network.

The Komatsu Group as of March 2010 constituted Komatsu Ltd and 183 other associate companies, which together employed 38,518 people. The group recorded consolidated net sales of US\$15.4 billion in the fiscal year ended March 2010, of which nearly 89 per cent came from the construction, mining and utility equipment business. Industrial machinery and other businesses contributed the remaining 11 per cent share.

The company's activities are divided into six regions: Japan, the Americas, Europe and the Commonwealth of Independent States (CIS), China, Asia and Oceania, and the Middle East and Africa. India is a part of the Asia and Oceania region, and is home to two registered companies. Komatsu India Private Limited manufactures rigid dump trucks in Chennai, while L&T-Komatsu Limited manufactures hydraulic excavators in Bangalore. The joint venture partner of the latter

business, Larsen & Toubro Limited (L&T), markets all Komatsu construction equipment products in India.

## **HISTORICAL OUTLINE**

### **Parent Company**

The history of Komatsu is long and eventful, as summarised below. The company was formally established in January 1917 as Komatsu Iron Works by Takeuchi Mining Industry (founded in 1894), and it separated from the parent company in May 1921 to become Komatsu Ltd.

**Table 1. Komatsu Limited: Historical Highlights**

<b>1917</b>	Takeuchi Mining Industry establishes Komatsu Iron Works
<b>1921</b>	Komatsu Iron Works splits from Takeuchi Mining Co to become Komatsu Ltd
<b>1931</b>	Produces Japan's first crawler-type farm tractor
<b>1938</b>	Establishes the Awazu plant
<b>1943</b>	Produces the Model 1 ground levelling machine, the prototype of bulldozers to follow
<b>1947</b>	Introduces the D50 bulldozer
<b>1948</b>	Starts diesel engine production
<b>1952</b>	Opens the Osaka plant, starts production of motor graders
<b>1952</b>	Establishes Kawasaki and Himi plants after acquiring Ikegai Automobile Manufacturing Company and Chuetsu Electro Chemical Co Ltd, respectively
<b>1953</b>	Starts production of forklift trucks, dump trucks and special purpose vehicles
<b>1955</b>	Commences exports business by selling motor graders and hydraulic presses to Argentina
<b>1956</b>	Commences the production of shovel loaders
<b>1958</b>	Signed an agreement with India's Ministry of Defence for local production of dozers
<b>1961</b>	Signed a technology license agreement for the diesel engines with Cummins Engine Co Inc
<b>1962</b>	Opens the Oyama plant
<b>1963</b>	Enters technology license agreement with Bucyrus-Erie for hydraulic excavators
<b>1964</b>	Opens Komatsu's first overseas liaison office in India
<b>1964</b>	Signs joint venture agreement with International Harvester of the USA
<b>1965</b>	Commences production of wheeled loaders
<b>1967</b>	Establishes N.V. Komatsu Europe S.A., Komatsu's first overseas subsidiary in Belgium
<b>1968</b>	Commences the production of hydraulic excavators
<b>1968</b>	Establishes an integrated production facility for diesel engines at the Oyama plant
<b>1970</b>	Establishes Komatsu America Corp in the United States
<b>1971</b>	Establishes Komatsu Singapore Pte Ltd in Singapore
<b>1974</b>	Establishes Dina Komatsu Nacional S.A. de C.V. in Mexico
<b>1975</b>	Komatsu do Brasil Ltda produces D50A dozer, Komatsu's first offshore production of construction equipment
<b>1979</b>	Establishes Komatsu Australia Pty Ltd in Australia
<b>1982</b>	Establishes PT Komatsu, Indonesia
<b>1985</b>	Establishes Komatsu America Manufacturing Corp. and Komatsu America Industries LLC in the USA; and Komatsu UK Ltd in the UK
<b>1986</b>	Establishes Komatsu Industries Europe GmbH in Germany
<b>1988</b>	Establishes Komatsu Dresser Company in the USA
<b>1989</b>	Establishes Komatsu Europe International N.V. in Belgium; equity participation in Hanomag AG of Germany
<b>1990</b>	Completes construction of a leading-edge FA facility for hydraulic equipment at the Oyama plant and for hydraulic excavator assembly at the Osaka plant
<b>1991</b>	Introduces a new corporate brand logo and a new corporate message
<b>1991</b>	Establishes NS Komatsu Pty Ltd in Australia, (renamed Komatsu Australia Pty Ltd in 2001)

(continued)

**Table 1. Komatsu Limited: Historical Highlights (continued)**

<b>1991</b>	Establishes casting plant at Komatsu Indonesia; equity participation in FAI S.p.A., Italy
<b>1992</b>	Komatsu UK launches wheeled excavators in the European market
<b>1993</b>	Establishes Komatsu Cummins Engine Co Ltd in Japan, Cummins Komatsu Engine Company in the USA, and Komatsu Huanan Ltd in Hong Kong
<b>1994</b>	Establishes Komatsu Industries Corporation and Komatsu Machinery Corporation
<b>1995</b>	Establishes Komatsu Changlin Construction Machinery Co, Komatsu Shantui Construction Machinery Co, and Komatsu Changlin Foundry Corporation in China; Komatsu Saigon Co Ltd in Vietnam; FKI Fai Komatsu Industries S.p.A. in Italy; and Bangkok Komatsu Co Ltd in Thailand
<b>1995</b>	PT Komatsu Indonesia Tbk listed on the Jakarta Stock Exchange, Hanomag AG renamed Komatsu Hanomag AG, and commences worldwide shipment of D41dozers from Komatsu do Brasil Ltda
<b>1995</b>	The world's largest dump truck 930E developed by Komatsu Dresser Company
<b>1996</b>	Establishes Demag Komatsu in Germany, Komatsu (Shanghai) Ltd, in China
<b>1996</b>	Establishes Komatsu Asia & Pacific Pte Ltd in Singapore as a supervisory company of the Asia Pacific region
<b>1996</b>	Komatsu Dresser Company renamed Komatsu America International Company
<b>1996</b>	Equity participation in Modular Mining Systems Inc, of the United States
<b>1997</b>	Establishes Komatsu Mining Systems Inc and Komatsu Utility Corporation in the USA, Komatsu Southern Africa (Pty) Ltd in South Africa, and Komatsu Castex Ltd in Japan
<b>1998</b>	Establishes Industrial Power Alliance Ltd in Japan, L&T-Komatsu Ltd in India, KRANEKS International Company Limited in Russia, and Komatsu Brasil International Ltda in Brazil
<b>1999</b>	Establishes Komatsu Middle East FZE in U.A.E. and Komatsu Cummins Chile Ltda in Chile
<b>1999</b>	Launches the world's largest mechanical-drive WA1200 wheeled loader; starts OEM supply of small diesel engines to Cummins, and reorganises the Board of Directors to introduce "Executive Officers" and "Global Officers" system
<b>2000</b>	Establishes global collaboration with the Linde Group of Germany for manufacture and sales of lift trucks and related products, and extends the existing agreement with TRUMPF GmbH+Co. KG of Germany
<b>2000</b>	Acquired Hensley Industries Inc, establishes GIGAPHOTON Inc., and PT Komatsu Undercarriage Indonesia to manufacture components for crawlers
<b>2001</b>	Establishes Komatsu (China) Ltd, a holding company in China
<b>2001</b>	Announces "GALEO"; Komatsu's new-generation construction equipment to worldwide customers
<b>2002</b>	Establishes Komatsu Italy S.p.A. in Italy; signs a letter of intent for production of wheeled loader cabs with Volvo Construction Equipment
<b>2003</b>	Establishes Komatsu Forklift (Shanghai) Co Ltd, China, and Komatsu Forest AB, Sweden
<b>2004</b>	Establishes Komatsu Industries (Shanghai) Ltd, Komatsu Zenoah (Shandong) Machine Co Ltd, Komatsu Power Generation Systems (Shanghai) Ltd, Komatsu Forklift Manufacturing (China) Co Ltd in China, and PT Pandu Dayatama Patria in Indonesia
<b>2004</b>	Establishes Hensley Lingfeng Co Ltd, a manufacturer of teeth for construction equipment
<b>2004</b>	Commences the production of PC3000, super large-sized excavator in Rokko plant
<b>2005</b>	Developed the "ecot3" engine technology compliant to Tier III emission standards
<b>2005</b>	Commences production of dump trucks in China
<b>2006</b>	Marked 50th anniversary of participation in the China's market
<b>2007</b>	Establishes three new plants; Ibaraki and Kanazawa plants in Japan, and Chennai plant in India
<b>2007</b>	Established Komatsu Undercarriage China Corp in China. Integrates Komatsu Forklift Co Ltd and Komatsu Zenoah into new Komatsu Utility Co Ltd
<b>2008</b>	Establishes Komatsu Manufacturing Rus LLC in Russia; introduces the world's first hybrid hydraulic excavator; turns NIPPEI TOYAMA Corporation into a wholly owned subsidiary
<b>2008</b>	Introduces the autonomous haulage systems at the Rio Tinto mines in Australia
<b>2009</b>	Reorganises Japanese sales and service structure for construction equipment and establishes Komatsu Construction Equipment Sales and Service Japan Ltd

Source: Company Information

The 1930s was marked by the development of Japan's first crawler farm tractor, production of steel and castings and the establishment of a manufacturing facility at Awazu, and in the 1940s, Komatsu began the production of hydraulic presses, crawler dozers and diesel engines. In 1935 the company commenced the production of high-grade castings and special steel materials.

In the 1950s the company moved to its new headquarters in Tokyo, and established another plant at Osaka as well as acquiring plants at Himi and Kawasaki. This was the period when the production of motor graders, forklifts, dump trucks, special purpose vehicles, and wheeled loaders commenced, and the company entered the global market by making its first sales to Argentina. The company's association with India also started in 1958 by signing a technical assistance agreement with the Ministry of Defence for the production of dozers.

The 1960s saw Komatsu's increasing association with American companies such as Cummins, Bucyrus-Erie and International Harvester. The first overseas liaison office was opened in India in 1964, which was followed by the opening of the overseas subsidiary company in Belgium in 1967. Wheeled loaders and hydraulic excavators were launched, and the company introduced its new quality system, which earned the company the Deming prize for quality control in 1964. The 1970s will be remembered for new business establishments in the USA, Singapore, Mexico, and Australia, and the start of production at the company's first overseas construction equipment plant in Brazil.

Komatsu's evolution continued through the 1980s with the establishment of new subsidiaries in Indonesia, USA, the UK, Germany and Belgium for the production and distribution of its product lines, but it was the 1990s when it emerged as a truly global company. The history of the next two decades is written largely in terms of growth through its global operations.

In 1991, Komatsu introduced a new corporate logo signalling its arrival at the world stage, and what followed was the establishment of a series of subsidiaries and affiliates across the globe. During the 1990s, the company set up more than 25 new overseas sales companies in Australia, Brazil, Chile, China, Hong Kong, Germany, India, Indonesia, Italy, Russia, Singapore, South Africa, Thailand, USA, UAE and Vietnam, besides major expansion of its Japanese production facilities.

By 2000 Komatsu had firmly established itself as a truly global company and it continued to expand into new territories through acquisitions, collaborations and joint ventures. China was at the centre of its growth strategy in this decade and a holding company named Komatsu (China) was established in 2001. It was followed by the establishment of a sales company for forklifts in 2003 and for industrial machinery in 2004. Production facilities for mini excavators, power generation equipment and forklifts were also established in 2004. The production of dump trucks started in 2005 and in 2007 Komatsu Undercarriage China Corp was established. The company celebrated 50 years of operation in China in 2006.

At present the Komatsu Group is owned by over 305,000 shareholders. The group recorded net sales of over ¥2 trillion for the fiscal year ended March 2009, but the prevailing economic slowdown has impacted the company's global operations with net sales declining to ¥1.43 trillion in 2010.

**Komatsu India Private Limited (KIPL)**

**Table 2. KIPL: Historical Highlights**

<b>1958</b>	Commenced production of crawler dozer in Kolkata in collaboration with the Indian Government
<b>1964</b>	Established liaison office in Kolkata
<b>1969</b>	Relocated the liaison office from Kolkata to Bangalore
<b>1979</b>	Collaboration with Indian Government company to manufacture mining and earthmoving equipment
<b>1997</b>	Restructured Bangalore office as liaison office of Komatsu Asia Pacific, Singapore
<b>1997</b>	Distribution agreement with L&T
<b>1998</b>	L&T-Komatsu, a 50:50 joint venture company with L&T established for the local production of Komatsu hydraulic excavators
<b>2006</b>	Komatsu India Private Limited established
<b>2007</b>	Commenced the production of rigid dump trucks at the Chennai plant
<b>2008</b>	Established Industrial Machinery Division

Source: Company Information

Though KIPL was formally established on January 1, 2006, its legacy dates back to the late 1950s. As a newly emerging independent nation, India was keen to develop its industrial and agricultural base for which the availability of modern technology and equipment was of paramount importance, and the government was the custodian of all infrastructure development activities including the construction and mining industries. Komatsu, then an emerging transnational with a global vision, stepped in to play a part and in 1958, the production of crawler dozers commenced at Kolkata in collaboration with the Ministry of Defence. This relationship was to last for the next four decades.

In 1964 Komatsu opened its first overseas liaison office in Kolkata, which was then moved to Bangalore in 1969. The relationship with the Indian government company developed into a collaboration for mining and earthmoving equipment in 1979. The production of rigid dump trucks, crawler dozers, hydraulic excavators and other machines continued under the agreement until 1997.

In 1997 Komatsu appointed L&T as its distributor, and in 1998 established L&T-Komatsu Limited, a 50:50 joint venture. At that time L&T had a well established excavator plant in

Bangalore, which was taken over by the joint venture, and is currently the country's second largest producer of hydraulic excavators.

The country was experiencing rapid growth and its construction and mining sectors provided greater opportunities than ever before for Komatsu to establish an independent company in India, and enhance its role in the construction equipment industry. KIPL was established in 2006 with an initial capital of Rs745 million, which was followed by the establishment of a new plant in 2007, for the production of rigid dump trucks.

The southern port city of Chennai was chosen for this plant, as it offered trained manpower and a well developed supplier base, as well as being well suited for exporting trucks. The plant now builds 60 and 100 ton mining dump trucks, while all other machines are imported directly by customers through Komatsu Asia Pacific, Singapore. The company has plans to gradually increase its local content in rigid dump trucks and introduce new products. The company is looking forward to exploiting growth opportunities in this market and using the natural advantages the country provided for it to expand its export base.

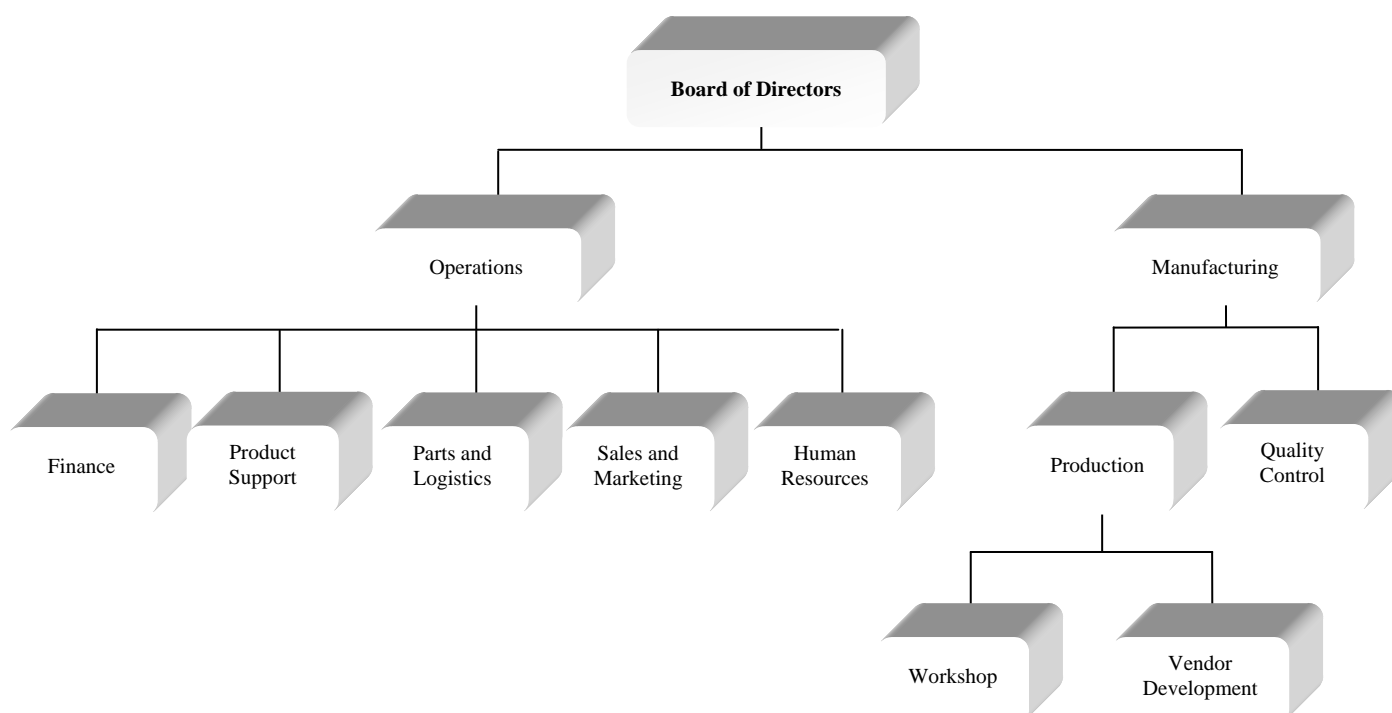
Today Komatsu is a key supplier of excavators (including machines manufactured locally by L&T-Komatsu), crawler dozers, rigid dump trucks and motor graders in the country. In these four products it accounts for a third of all production in the country today.

## **ORGANISATION AND CORPORATE STRUCTURE**

KIPL has its registered office in Chennai. The manufacturing, quality control, logistics, human resources and finance departments are located in Chennai, while the marketing, product support and parts operations are in the Bangalore office.

KIPL also has a satellite office in Kolkata for product support, specifically to serve the mining companies that are largely based in the Eastern Region. Its parts warehouse is in Nagpur, the city located at the country's geographical centre and adjacent to the major mining belt. The company utilises the distribution network of L&T, its only distributor in the country.

**Table 3. KIPL: Corporate Structure, 2010**



Source: Company Information

## FINANCIAL ANALYSIS

The company's financial year follows the standard Japanese practice, starting on 1st April and ends on 31st March of the following year. Specific years in this report therefore refer to a fiscal year that starts in the April of the same calendar year. For example, 2009 corresponds to the period 1st April 2009 to 31st March 2010.

**Table 4. Komatsu Ltd: Consolidated Highlights, 2005-2009**

(¥ Billion)

	2005	2006	2007	2008	2009
<b>Net Sales</b>	1,612.1	1,893.3	2,243.0	2,021.7	1,431.6
<b>Operating Income</b>	163.4	244.7	332.9	151.9	67.0
<b>Net Income</b>	114.3	164.6	208.8	78.8	33.6
<b>Return on Equity (%)</b>	20.8	23.5	25.1	9.3	4.1
<b>Return on Assets (%)</b>	10.0	13.5	16.3	6.3	3.3
<b>Number of Employees</b>	34,597	33,863	39,267	39,855	38,518

Source: Company Information



As a private company, KIPL is not under any obligation to publish full and detailed financial accounts, and the company prefers to consolidate its financials with the parent company. Consolidated highlights of Komatsu Ltd are presented in the table above.

Komatsu's net sales peaked at ¥2,243 billion in 2007 after five years of sustained growth but declined thereafter to ¥2,022 billion in 2008 and ¥1,432 billion in 2009. Its operating income and net income also declined sharply in 2008 and 2009, clearly displaying the impact the global economic downturn has had over the overall performance of the group.

**Table 5. Komatsu Ltd: Machinery and Engine Sales by Region, 2006-2009**

(¥ Billion)

	2006	2007	2008	2009
<b>Americas</b>	537.8	541.1	503.4	323.9
<b>Japan</b>	487.1	505.1	452.1	323.8
<b>Asia and Oceania</b>	252.7	348.4	335.5	299.8
<b>China</b>	129.4	189.9	236.2	270.8
<b>Europe and CIS</b>	324.0	427.6	284.0	127.3
<b>Middle-East &amp; Africa</b>	162.1	230.6	210.2	85.6
<b>Total</b>	<b>1,893.1</b>	<b>2,242.7</b>	<b>2,021.4</b>	<b>1,431.2</b>

Source: Company Information

The group's global business is divided into six regions, of which the Americas generate the largest revenues followed closely by Japan. The business in China and Asia and Oceania has displayed positive trends in recent years and as a result the share of the total attributable to these two regions doubled from 20 per cent in 2006 to 40 per cent in 2009. The shift in demand patterns in the last quarter of 2008 and 2009 has brought the sales volumes of Asia and Oceania and the Chinese markets nearly at par with the American and the Japanese markets.

## CORPORATE STRATEGY

After unbroken growth for over five years, Komatsu's net sales peaked in 2007, which was followed by a steep global descent of demand. Sales volumes in India improved during this period in response to positive economic growth and large gains in both mining and infrastructure construction. These sectors benefited from increased demand for minerals and higher government capital expenditures.

Though the company's business plans are very carefully mapped out, keeping in view the long term goals, the growth of the Indian mining and construction equipment industry in the recent

past will force Komatsu to look more carefully towards this market. The company is aware of this reality. It was farsighted enough to identify this market half a century ago, long before it started to show its true potential. One of the major reasons for the establishment of KIPL was to be more responsive towards the rapid changes that the company had foreseen in this market.

Though the market for the mining and construction equipment is still small in comparison to the other major markets such as the USA, Europe and China, KIPL views it as one of great potential. The company has been active in it long enough to understand the market's intricacies, and feels that despite all its problems, the business environment is gradually becoming more favourable.

KIPL is already assessing the options of introducing more products into the market, which it still finds to be extremely price sensitive. Though cautious about competing on price, it will gradually localise to remain competitive and gain greater market share.

**Table 6. Komatsu: Overseas Production and Sales Ratios in Construction and Mining, 2005-2009**

(%)

	2005	2006	2007	2008	2009
<b>Overseas Production Ratio</b>	49	49	50	50	59
<b>Overseas Net Sales Ratio</b>	62	62	61	61	72

Source: Company Information

When viewed from a global perspective, the group's production base has been steadily moving out of Japan. This is corroborated by the company's published overseas production ratio of construction and mining equipment displayed in the table above. The rapid changes in the global markets and differences in production costs in various parts of the world will force a further change in its production bases towards low cost destinations such as India.

Globally, Komatsu operates on the 'Mother Plant' concept. The plants designated as the mother plants are the core production units that are engaged in the design and development of new products and support the group's other production facilities. Of the nine mother plants currently under operation, four each are in Japan and Europe, and one in the USA. India now offers the right mix of variables for KIPL to plan for a mother plant. These include growing demand for its products, lower costs of production, availability of trained manpower and increasing adherence to global business practices, a favourable ecosystem, and a geographical advantage.

Komatsu is deeply committed towards the quality of its products and services, environment protection and ethics in business, while working towards maximising its corporate value for all its stakeholders. While a defensive cost-cutting strategy for the company might be suitable for declining markets, the strategy of Komatsu for the Indian market will be guided by the prospects of long term uninterrupted growth.

KIPL has a lean management structure with a matrix operation. The company's sales, distribution and product support activities are currently managed by L&T, and this leaves KIPL free to focus entirely on the planning, production and quality assurance aspects. While the company has established itself well in some segments such as rigid dump trucks, crawler dozers and motor graders, it is still striving to gain ground in others. Though it has a comprehensive range of products available, it prefers to make new launches at its own pace, matching the market needs in terms of price and the sophistication of the product.

## MANUFACTURING FACILITIES

### KIPL, Chennai

**Table 7. KIPL: Summary Plant Data**

<b>Plot Area (m<sup>2</sup>)</b>	240,000
<b>Plant Area (m<sup>2</sup>)</b>	8,000
<b>Employees</b>	115
<b>Product Line</b>	Rigid dump trucks
<b>Production Capacity (Units)</b>	200
<b>2009 Production (Units)</b>	171

Source: Company Information

Established with an initial investment of Rs500 million, the rigid dump truck manufacturing facility is located in the Oragadam Sipcot Industrial Park near Chennai. The plant is spread over a 24 hectare site, with 8,000 m<sup>2</sup> of covered area. It houses a welding section, assembly line, body-mounting station and completion zone.

The plant also has an independent training section, paint shop, component warehousing section and a testing corridor for the final running test. It has followed the basic design concepts of Japan's Ibaraki plant, and features a simple assembly line configuration and assembly instruction display system. The plant has an installed capacity to produce 200 trucks each year, and employs 115 people. Production at the plant reached 171 units in 2009.

**L&T-Komatsu, Bangalore**

L&T-Komatsu is a 50:50 joint venture formed between L&T and Komatsu Asia & Pacific Pte. Ltd in 1998, with a registered capital of Rs1, 200 million.

**Table 8. L&T-Komatsu: Summary Plant Data**

<b>Plot Area (m<sup>2</sup>)</b>	266,000
<b>Plant Area (m<sup>2</sup>)</b>	53,000
<b>Employees</b>	683*
<b>Product Line</b>	Hydraulic excavators Hydraulic components
<b>Production Capacity (Units)</b>	
– Excavators	5,000
– Components	52,100
<b>2009 Excavator Production (Units)</b>	2,378

\* As of March 2010

Source: Company Information

L&T was the pioneer of local production of hydraulic excavators in the 1970s in collaboration with Poclairn of France, and after the end of this collaboration in 1989, it continued with the production of these models under its own brand.

The plant is located at Byatarayanapura, on the outskirts of Bangalore, and is spread over 27 hectares with a covered area of 53,000 m<sup>2</sup>. It houses facilities that include the production of a wide range of steel structures and hydraulic components. The ‘Machinery Works’ manufactures the excavators while the ‘Hydraulic Works’ section of the plant manufactures a complete range of hydraulic systems, including pumps, motors, valve blocks, turning joints and cylinders. The latter are also supplied to Komatsu Japan.

The company currently manufactures eight models, of which the L&T72, L&T90-3, and L&T300-2 are upgraded Poclairn machines. The PC200-6, introduced in 1998, was the first Komatsu model to be manufactured in India. The production of the PC71 began in 2001, followed by the PC300LC-7 in 2004, the PC130 in 2006, and the PC450 in 2008. The production of excavators peaked at 3,000 units in 2008.

The Komatsu models are technologically far more advanced than the Poclairn machines, and are the mainstay of the company’s current excavator business, constituting over 95 per cent of the

company's output. The PC200, by far the most popular excavator in the country, accounted for nearly 52 per cent of the company's output in 2009.

## RESEARCH AND DEVELOPMENT

**Table 9. Komatsu Ltd: Research and Development Expenditure, 2006-2009**

(₹ Billion)

	2006	2007	2008	2009
Construction, Mining, Utility Equipment	39.7	44.0	47.0	40.3
Industrial Machinery and Others	6.5	5.6	6.7	6.0
<b>Total</b>	<b>46.2</b>	<b>49.6</b>	<b>53.7</b>	<b>46.3</b>
<b>% of Net Sales</b>	<b>2.4</b>	<b>2.2</b>	<b>2.7</b>	<b>3.2</b>

Source: Company Information

Table 9 summarises Komatsu's research and development expenditure over the last four years. It peaked at 3.2 per cent in 2009, and has averaged around 2.6 per cent of revenues during the period. Nearly 87 per cent of the research expenditure was directed towards the Construction, Mining and Utility Equipment segment, and the remaining 13 per cent went towards Industrial Machinery and Others.

## MARKETING AND DISTRIBUTION

KIPL has its branch office in Bangalore to manage its marketing, product support, and other logistical operations. L&T is the company's sole distributor, and its Construction and Mining Business Unit, located in Bangalore, is its direct interface with customers for all sales related activities.

L&T in turn has 31 offices. All KIPL products, and products imported from Komatsu are marketed and serviced directly by L&T through its offices as shown below:

- Ahmedabad
- Bangalore
- Bhopal
- Bhubaneswar
- Chennai
- Coimbatore
- Chandigarh
- Delhi
- Dhanbad
- Durg
- Durgapur
- Goa
- Guwahati
- Hyderabad
- Jamshedpur
- Jaipur
- Kochi
- Kolkata
- Kota
- Lucknow
- Madurai
- Mumbai
- Nagpur
- Pune
- Rajkot
- Ranchi
- Rourkela
- Vadodara
- Vijayawada
- Vishakhapatnam
- Udaipur

L&T also has an independent network of 22 dealers with a total of 44 nationwide outlets. These dealers market and support the L&T-Komatsu products that are manufactured at the Bangalore plant.

**Table 10. L&T: Dealer Network, 2010**

<b>Location</b>	<b>Dealer</b>	<b>Location</b>	<b>Dealer</b>
<b>Ahmedabad</b>	Saurav Auto	<b>Hyderabad</b>	Mithra Earth Movers
<b>Bangalore</b>	Anugraha Construction Equipment	<b>Jaipur</b>	New JK Excavators
<b>Barbil</b>	C.S. Diesel Engineering	<b>Kochi</b>	Cinzac Corporation
<b>Bhopal</b>	Unitrade & Services	<b>Kolkata</b>	Proficient Equipment Solutions
<b>Bhubaneswar</b>	Aryan Earthmovers	<b>Lucknow</b>	Action Earthmovers
<b>Chandigarh</b>	Chintamani Enserve	<b>Madurai</b>	M S Enterprises
<b>Chennai</b>	G.P. Enterprises	<b>Mumbai</b>	Tripti Engineering Services
<b>Coimbatore</b>	AayCee Excon	<b>Nagpur</b>	N K B Industrial Products
<b>Delhi</b>	J E Enterprises	<b>Pune</b>	N K Bhojani
<b>Dhanbad</b>	Waliram Taneja Mines	<b>Srinagar</b>	Abhinav Industrial Products
<b>Guwahati</b>	V.B.Techno Enterprise	<b>Udaipur</b>	Suchitra Sales

Source: Off-Highway Research

## FOREIGN TRADE

### Exports

**Table 11. KIPL: Exports of Rigid Dump Trucks, 2007-2009**

(Units)

<b>2007</b>	<b>2008</b>	<b>2009</b>
15	-	10

Source: Company Information

Though KIPL has exported some rigid dump trucks manufactured at its Chennai plant, the volumes have remained modest due to the prevailing slowdown in the global markets. The company exported 15 units in 2007, which constituted 10 per cent of total rigid dump truck exports. This share was reduced to four per cent in 2009, as exports declined to 10 units.

### Imports

The most significant products that are imported include motor graders and crawler dozers, followed by crawler excavators and wheeled loaders. Although the majority of crawler

excavators are manufactured locally, large excavators for mining and machines with the latest technology demanded by customers are still imported.

**Table 12. Komatsu India: Imports, 2005-2009**

**(Units)**

	2005	2006	2007	2008	2009
<b>Articulated Dump Trucks</b>	-	2	-	-	-
<b>Crawler Dozers</b>	23	85	103	167	108
<b>Hydraulic Excavators</b>	75	87	75	67	57
<b>Motor Graders</b>	40	65	184	174	131
<b>Rigid Dump Trucks</b>	-	26	28	-	17
<b>Wheeled Dozers</b>	-	-	6	5	6
<b>Wheeled Loaders</b>	29	40	46	44	33
<b>Total</b>	<b>167</b>	<b>305</b>	<b>442</b>	<b>457</b>	<b>352</b>

Source: Company Information

Rigid dump trucks were imported before the start of local production in 2007, and 17 units of the 228 tonne capacity electric drive model 830E-AC were imported in 2009. Other imported equipment includes articulated dump trucks and wheeled dozers, but their numbers are small and irregular.

## **EQUIPMENT ANALYSES**

### **ARTICULATED DUMP TRUCKS**

Though only a limited number of articulated dump trucks have been sold in the country over the past decade, demand appears to have been increasing slowly since 2006. There is no local manufacturer of these machines, and the market is currently being serviced by five suppliers offering imported machines.

Off-Highway Research expects a surge in the total market for these machines in the coming year, due to large demand from Goa for iron ore mining applications, and the market is expected to peak at 75 units in 2011. Sales are expected to drop to 40 units in 2012 and grow steadily thereafter to reach 60 units by 2014. The demand will be centred around the 30-35 tonne payload capacity.

**Model Range**

**Table 13. Komatsu: Articulated Dump Trucks Available, 2010**

Model	Engine		Payload (Tonnes)	Product Source
	HP	Manufacturer		
HM300-2	329	Komatsu	27.3	Japan
HM350-2	389	Komatsu	32.3	Japan
HM400-2	438	Komatsu	36.3	Japan

Source: Company Information

The company offers three models of articulated dump trucks with payload capacity ranging from 27.3 to 36.6 tonnes. The machines are all sourced from Japan.

**Sales and Market Share**

The articulated dump truck market is small, with a limited number of deals against specific project requirements. Komatsu has had limited success in selling these machines in India and sold only two units in 2006, when it achieved an 11 per cent market share. However, the company is now focusing on this product segment and is hopeful of improving its fortunes in future.

**CRAWLER DOZERS**

The market for crawler dozers, which was more or less steady at between 300 and 350 units as recently as 2005, grew to peak at 608 units in 2008, but declined to 562 units in 2009 as the impact of the slowing down of the economy affected demand.

The machines available range from 70 to 890 horsepower, with major demand clustered around the mid-range segment of 150-250 horsepower, closely followed by the larger machines in the over 300 horsepower category. Four suppliers dominate the market, with Komatsu retaining second position since 2006.

The most noticeable development in the last five years has been the rise in import penetration from 13 per cent in 2004 to its current level of 43 per cent in 2009. Domestic production rose steadily to peak at 424 units in 2007, only to decline thereafter to 280 units in 2009. Prospects for the future appear positive for crawler dozers, with sales expected to reach 1,050 units by 2014.



The market will be driven by substantial demand from the infrastructure development programmes, and the growing mining sector.

**Model Range**

**Table 14. Komatsu India: Crawler Dozers Available, 2010**

Model	Engine		Weight (Tonnes)	Product Source
	HP	Manufacturer		
D39EX-21	95	Komatsu	8.5	Japan
D41E/P-6	110	Komatsu	10.8	Japan
D65E -12	180	Komatsu	19.1	Japan
D85ESS-2A	200	Komatsu	20.7	Japan
D155A-6R	354	Komatsu	41.7	Japan
D275A-5R	449	Komatsu	50.9	Japan
D375A-5	525	Komatsu	67.0	Japan
D475A-5EO	890	Komatsu	108.4	Japan
D575A-3	1,050	Komatsu	131.4	Japan
D575A-3 SD	1,150	Komatsu	152.6	Japan

Source: Company Information

KIPL offers a comprehensive range of crawler dozers in every segment of the market. The 180 horsepower D65E-12 model is by far the most popular, with 60 units being sold in 2009. The 354 horsepower D155A-5/6R, the other popular model, constitutes over 20 per cent of total dozer sales in unit terms.

**Sales and Market Share**

**Table 15. Komatsu India: Sales and Market Shares of Crawler Dozers, 2005-2009**

	2005	2006	2007	2008	2009
Sales (Units)	23	85	103	167	108
% Market Share	7	15	17	27	19

Source: Off-Highway Research

In the past, Komatsu’s products dominated the domestic crawler dozer market. Fully aware of the prevailing market conditions, Komatsu has now decided to target the growing private sector, and has tailored its price and delivery structure according to the needs of this segment. This not only helped it in increasing its sales from six units in 2002 to 167 units in 2008, but also raised its market share from a modest three per cent to 27 per cent during this period.

In 2006, the company displaced Caterpillar to become the second largest supplier of dozers in the country and has retained that position ever since. However, it showed its vulnerability in 2009 when construction activity slowed down, as a result of which its share declined from a peak of 27 per cent in 2008 to 19 per cent in 2009. Though sales were spread across a wide range of products from 112 horsepower to 860 horsepower, over 70 per cent of its sales in 2008 and 2009 came from its D65 and D155 models.

**Table 16. Komatsu India: Sales of Crawler Dozers by Horsepower Category, 2008-2009**

(Units)

Horsepower	2008	2009
<b>Under 100</b>	5	5
<b>101-200</b>	72	60
<b>201-400</b>	68	18
<b>Over 400</b>	22	25
<b>Total</b>	<b>167</b>	<b>108</b>

Source: Off-Highway Research

The 101-200 horsepower class of crawler dozers accounted for 43 per cent of the company's sales in 2008, and 56 per cent in 2009. The contribution from the mid-size category of under 201-400 horsepower declined from 41 to 17 per cent in this period, while the share of larger machines rose from 13 to 23 per cent, a sign of the company's increased focus on the mining sector.

## HYDRAULIC EXCAVATORS

The hydraulic excavator market, the largest in India in value terms, is one of the most competitive sectors of the business. Currently, demand covers very different levels of sophistication of hydraulic excavator technology with around 90 different models of excavators being sold in the market. It is still largely controlled by the strong domestic manufacturing base, with L&T-Komatsu being the second largest supplier.

The hydraulic excavator market is almost entirely made up of crawler machines. Sales peaked at 9,897 units in 2008, followed by a decline to 7,944 units in 2009. Domestic production levels have closely followed sales trends, peaking in 2007 at 7,832 units. The market remained subdued in 2009 due to the overall decline in construction activity, but demand has picked up strongly in 2010, and is expected to rise steadily to 22,500 units by 2014. The 18 to 22 tonne

class represents the largest single segment of the market, and accounts for nearly half of total excavator sales.

### **Model Range**

The range of excavators includes machines up to 50 tonnes manufactured locally by L&T-Komatsu, and those imported from Japan and Germany. Though all Komatsu excavators are in principle available for the Indian market, the list includes only those models that are being actively promoted. The 255 tonne PC3000-6 model is the largest excavator sold by Komatsu to date.

**Table 17. Komatsu India: Hydraulic Excavators Available, 2010**

Model	Engine		Service Weight (Tonnes)	Product Source
	HP	Manufacturer		
L&T 72	97	Ashok Leyland	13.3	India
L&T 90-3	120	Ashok Leyland	20.3	India
L&T 300-2	320	Cummins	58.4	India
L&T-Komatsu PC71	60	Kirloskar	7.1	India
L&T-Komatsu PC130-7	89	Komatsu	12.6	India
L&T-Komatsu PC200-6	128	Komatsu	19.6	India
L&T-Komatsu PC300LC-7	242	Komatsu	33.3	India
L&T-Komatsu PC450LC-7	330	Komatsu	45.0	India
Komatsu PC600-8R	429	Komatsu	57.3	Japan
Komatsu PC600LC-8R	429	Komatsu	58.3	Japan
Komatsu PC750-7	454	Komatsu	72.4	Japan
Komatsu PC750SE-7	454	Komatsu	73.2	Japan
Komatsu PC800-8R	487	Komatsu	74.2	Japan
Komatsu PC850-8	487	Komatsu	79.5	Japan
Komatsu PC1250-7	651	Komatsu	109.5	Japan
Komatsu PC1250SP-7	651	Komatsu	109.5	Japan
Komatsu PC2000-8	956	Komatsu	200.0	Japan
Komatsu PC3000-6	1,260	Komatsu	255.0	Japan
Komatsu PC4000-6	1,875	Komatsu	385.0	Germany
Komatsu PC5500-6	2,520	Komatsu	527.0	Germany
Komatsu PC8000-6	4,020	Komatsu	700.0	Germany

Source: Company Information

### **Production**

L&T-Komatsu has been for a long time the second largest domestic manufacturer of hydraulic excavators in the country. Production increased from 1,115 units in 2005 to peak at 3,000 units in 2008, but declined in 2009 to 2,378 units following the economic slowdown.

**Table 18. L&T-Komatsu: Production of Hydraulic Excavators, 2005-2009**

(Units)

2005	2006	2007	2008	2009
1,115	1,725	2,840	3,000	2,378

Source: Off-Highway Research

**Table 19. L&T-Komatsu: Production of Crawler Excavators by Weight Class, 2008-2009**

(Units)

Service Weight (Tonnes)	2008	2009
<b>6.1-8.0</b>	324	410
<b>12.1-18.0</b>	352	401
<b>18.1-22.0</b>	1,935	1,296
<b>22.1-32.0</b>	320	189
<b>32.1-50.0</b>	36	48
<b>Over 50.0</b>	33	34
<b>Total</b>	<b>3,000</b>	<b>2,378</b>

Source: Off-Highway Research

Its domestic production includes machines up to the 60 tonne size, with the 18.1-22.0 tonne class constituting over half of production.

### Component Sourcing

**Table 20. L&T-Komatsu: Component Sourcing for Crawler Excavators, 2010**

<b>Diesel Engines</b>	PC71: Kirloskar PC130, PC200, PC300: Komatsu Others: Ashok Leyland, Cummins (India)
<b>Hydraulics</b>	PC range: Komatsu Others: L&T-Komatsu
<b>Hydraulic Cylinders</b>	L&T-Komatsu; Komatsu
<b>Undercarriages</b>	TENGL
<b>Cabs</b>	Apex (Bangalore)
<b>Steelwork</b>	In-house, local subcontractor

Source: Off-Highway Research

The L&T range, based on the old Poclairn design, uses components that are produced either in-house or are sourced locally. Ashok Leyland engines are used on the L&T72 and L&T90-3 models, while the L&T300-2 model uses Cummins engines. The plant makes the hydraulic

components for the L&T models in-house, while undercarriages are sourced from TENGL. Cabs are sourced from local suppliers and steelwork is done in-house. For the PC models, which are based on Komatsu designs, most of the key components are imported from Japan.

### **Sales and Market Share**

**Table 21. Komatsu India: Sales and Market Shares of Hydraulic Excavators, 2005-2009**

	2005	2006	2007	2008	2009
Sales (Units)	1,185	1,852	2,887	3,028	2,410
% Market Share	26	31	30	31	30

Source: Off-Highway Research

Sales increased from 1,185 units in 2005 to peak at 3,028 units in 2008, but declined to 2,410 units in 2009 in line with the general softening in demand. The company's share of the total market has remained largely stable between 30-31 per cent since 2006.

The distribution of sales by service weight has broadly followed pattern of market demand, with 18.1- 20 tonne category machines constituting over half of the total machines sold. The company has a presence in every category except the 8.1-12.0 tonne class.

**Table 22. Komatsu India: Sales of Hydraulic Excavators by Weight Class, 2008-2009**

(Units)

Service Weight (Tonnes)	2008	2009
6.1-8.0	314	406
12.1-18.0	339	397
18.1-22.0	1,920	1,299
22.1-32.0	319	187
32.1-50.0	66	48
Over 50	70	73
<b>Total</b>	<b>3,028</b>	<b>2,410</b>

Source: Off-Highway Research

### **MOTOR GRADERS**

In the last 10 years, the market for motor graders has undergone considerable change in the size and category of products that are available, but in practice the majority of machines sold are in the 135-150 horsepower range and have operating weights of between 11.0 and 13.0 tonnes.

Some contractors demand machines in the intermediate range for higher productivity, while very powerful machines of over 250 horsepower are used for mining applications.

There are an increasing number of importers offering a wide variety of machines in terms of price and technology, and the trend is clearly shifting towards the use of more technically sophisticated graders. The most noticeable developments in the last decade have been the increased presence of imported machines that are mostly being sourced from Indonesia, Brazil and China. In contrast, exports have remained relatively modest for many years.

Sales have grown consistently since 2003, and stood at 553 units in 2008, but declined in 2009 to 342 units following lower demand from the road sector. Domestic production stood at 65 units in 2009, after peaking at 80 units in 2007. The grader market retains sufficient latent potential for growth as despite intermittent periods of slowdown, work on the construction of the huge planned road network will continue to progress for next several years. Prospects for the future therefore remain positive, and sales are expected to reach 950 units by 2014.

### **Model Range**

**Table 23. Komatsu India: Motor Graders Available, 2010**

Model	Engine		Service Weight (Tonnes)	Product Source
	HP	Manufacturer		
<b>GD511A-1</b>	135	Komatsu	12.5	Japan
<b>GD555-3A</b>	160	Komatsu	13.1	Japan
<b>GD623A-1</b>	155	Komatsu	13.4	Japan
<b>GD705A-4</b>	200	Komatsu	17.6	Japan
<b>GD825A-2</b>	280	Komatsu	26.4	Japan

Source: Company Information

All Komatsu's motor graders are imported from Japan, and of the five models that are available in India, the 135 horsepower GD511A-1 and the 155 horsepower GD555-3A models sell in the greatest numbers. Cumulatively, in 2008 and 2009 these two models accounted for over 90 per cent of sales, while the share of the GD705A-4 model stood at around three per cent. The more powerful 280 horsepower grader is sold for work on haul roads in mining.

**Sales and Market Share**

**Table 24. Komatsu India: Sales and Market Shares of Motor Graders, 2005-2009**

	2005	2006	2007	2008	2009
<b>Sales (Units)</b>	40	65	184	174	131
<b>% Market Share</b>	22	18	34	31	38

Source: Off-Highway Research

In the last decade, four major suppliers have engaged in an intense struggle for leadership in the motor grader sector, but none of them has emerged as a clear winner on a consistent basis. Komatsu led the market in 2002 with a 40 per cent share, but then slid to fourth position in 2003 with a share of 10 per cent. However, the company recovered strongly in 2008 and regained market leadership with a 31 per cent share, having retained second position during 2005-2007. The company consolidated its position further in 2009 by improving its share to 38 per cent as overall demand declined from a peak of 553 units in 2008 to 342 units.

**Table 25. Komatsu India: Sales of Motor Graders by Horsepower Category, 2008-2009**

(Units)

Horsepower	2008	2009
<b>Under 150</b>	143	92
<b>151-250</b>	29	30
<b>Over 250</b>	2	9
<b>Total</b>	<b>174</b>	<b>131</b>

Source: Off-Highway Research

The company has performed particularly well in the under 150 horsepower category. In terms of sales volumes, this is the largest segment representing over half of the total market, of which Komatsu gained 45 per cent share in 2008 and 53 per cent share in 2009.

The 135 horsepower GD511A-1 model has firmly established itself as a favourite of many of the road contractors, and 143 units of this model were sold in 2008, and a further 92 units were retailed in 2009. The company's sales of over 250 horsepower machines sold for haul roads in the mining sector increased from two units in 2008 to nine units in 2009, and its share in this segment also improved substantially from seven per cent to 24 per cent.

## RIGID DUMP TRUCKS

The last decade has been a period of solid growth for rigid dump truck suppliers, and despite the global economic downturn, demand for these machines reached record levels in 2009. On another positive note, production levels have risen over the last two years, helped by strong domestic demand and a steady rise in exports. India is now a major producer of rigid dump trucks, although the market has witnessed a steady consolidation in favour of the three domestic manufacturers.

Another noticeable trend is the continuous shift of demand towards the larger size of machines, which is evident from the demise of the under 30 tonne segment in 2008, and the steady expansion of the over 80 tonne segment from one per cent of the total market in 2005 to 34 per cent in 2009.

### Model Range

**Table 26. Komatsu India: Rigid Dump Trucks Available, 2010**

Model	Engine		Payload (Tonnes)	Product Source
	HP	Manufacturer		
<b>HD255-5</b>	316	Komatsu	25.0	Japan
<b>HD325-7</b>	498	Komatsu	36.5	Japan
<b>HD405-7</b>	508	Komatsu	45.0	Japan
<b>HD465-7R</b>	715	Komatsu	55.0	India
<b>HD785-7</b>	1,178	Komatsu	91.0	India
<b>HD1500-7</b>	1,406	Komatsu	149.0	Japan
<b>730E</b>	1,860	Komatsu	186.0	USA
<b>830E</b>	2,360	Komatsu	231.0	USA
<b>930E</b>	2,550	Komatsu	290.0	USA

Source: Company Information

Komatsu offers a wide range of rigid dump trucks in the country, and is able to offer a machine to meet the needs of all end-user sectors. Two models are produced locally, while the other mechanical types are sourced from Japan and electric drive units are sourced from the USA.



**Production**

**Table 27. KIPL: Production of Rigid Dump Trucks, 2007-2009**

(Units)

2007	2008	2009
75	160	171

Source: Off-Highway Research

The company manufactured 75 units in 2007, and production increased to 160 units in 2008 and further to 171 units in 2009. Exports during this period were modest, with over 90 per cent of output being directed towards the domestic market.

**Table 28. KIPL: Production of Rigid Dump Trucks by Payload Capacity, 2008-2009**

(Units)

Payload Capacity (Tonnes)	2008	2009
<b>51-60</b>	58	52
<b>81-100</b>	102	119
<b>Total</b>	<b>160</b>	<b>171</b>

Source: Off-Highway Research

Currently the 55 tonne HD465-7 and 91 tonne HD785-7 models are manufactured at the Chennai plant, with major components still being imported from Japan.

**Component Sourcing**

**Table 29. KIPL: Component Sourcing for Rigid Dump Trucks, 2010**

<b>Engines</b>	Komatsu
<b>Transmissions</b>	Komatsu
<b>Axles</b>	Komatsu
<b>Hydraulics</b>	Komatsu
<b>Cabs</b>	Komatsu
<b>Chassis</b>	In-house
<b>Steelwork</b>	In-house
<b>Tyres</b>	Various

Source: Company Information

The company is aware of the fact that it is losing out in certain sectors on account of the high selling price of its products. That problem can only be brought under control through enhanced local content, but for the moment at least there is a preference to stay with the established pattern of component supply, maintaining a fine balance between the invariably conflicting needs of product quality and manufacturing costs.

### **Sales and Market Share**

**Table 30. Komatsu India: Sales and Market Shares of Rigid Dump Trucks, 2005-2009**

	2005	2006	2007	2008	2009
<b>Sales (Units)</b>	-	26	62	155	173
<b>% Market Share</b>	-	3	10	20	21

Source: Off-Highway Research

Apart from Caterpillar, Komatsu faces serious competition from BEML. It has therefore decided to focus primarily on the private sector, and also to compete in government tenders. The strategy has paid rich dividends, with the company's market share increasing from a mere three per cent in 2006 to 21 per cent in 2009.

**Table 31. Komatsu India: Sales of Rigid Dump Trucks by Payload Capacity, 2008-2009**

**(Units)**

<b>Payload Capacity (Tonnes)</b>	2008	2009
<b>51-80</b>	56	50
<b>81-100</b>	99	106
<b>Over 100</b>	-	17
<b>Total</b>	<b>155</b>	<b>173</b>

Source: Off-Highway Research

Though there are two models on offer in the under 50 tonne category, Komatsu has had little success with them to date. There is some compensation, however, in that machines of that size have declined rapidly from 91 per cent of total market demand to 56 per cent in 2009. The company has instead focused on the mid-sized segment of 51-80 tonnes, where it leads with a 60 per cent market share.

Trucks of 80 tonnes and above have grown very strongly indeed in recent years, from one per cent of the total market in 2005 to more than 34 per cent in 2009. The 91-100 tonne class mainly

contributed to this growth, and accounted for 29 per cent of the total market, followed by the over 100 tonne class with a five per cent share. KIPL dominated this category with sales of 106 units of the 91 tonne HD785-7 model, and 17 units of its 228 tonne electric 830E-AC model, accounting for 45 per cent of the total market in this category. It also maintained its dominance in the 51-60 tonne and 81-100 tonne categories in 2009, and achieved a sizable presence in the newly emerging segment of over 100 tonne category.

### **WHEELED DOZERS**

The demand for wheeled dozers is very limited indeed. They used to be manufactured by BEML, but it has sold only one machine in the last three years and so has effectively stopped production of this product.

**Table 32. Komatsu India: Wheeled Dozers Available, 2010**

Model	Engine		Blade Capacity (M <sup>3</sup> )	Weight (Tonnes)	Product Source
	HP	Manufacturer			
<b>WD420-3</b>	224	Komatsu	3.1	20.0	Japan
<b>WD500-3</b>	315	Komatsu	5.1	26.9	Japan
<b>WD600-3</b>	485	Komatsu	8.0	42.9	Japan
<b>WD900-3</b>	853	Komatsu	26.0	100.0	Japan

Source: Company Information

Komatsu started promoting wheeled dozers in the country in 2007, and currently offers four models in 20-100 tonne range. All the machines are sourced from Japan.

**Table 33. Komatsu India: Sales and Market Shares of Wheeled Dozers, 2007-2009**

	2007	2008	2009
<b>Sales (Units)</b>	6	5	6
<b>% Market Share</b>	100	83	100

Source: Off-Highway Research

The company has been catering to almost all of the demand for wheeled dozers in the country since it started promoting the machines. The company sold four units of its 20 tonne model WD420-3 in 2007, and the balance of sales is made up by its 43 tonne model WD600-3.

## WHEELED LOADERS

During the last ten years, the market for wheeled loaders has undergone a major expansion, with sales climbing from 360 units in 1998 to 1,902 units in 2009, after peaking at 2,540 units in 2008. This rapid growth has attracted a number of international suppliers that have greatly increased the range of machines available. As a result, importers' penetration rose to an all time high of 25 per cent in 2009.

The changing structure of the industry has led many customers to reappraise the type and size of wheeled loaders they use, and as a result there has been a gradual but very evident shift in demand from the traditional core 101-150 horsepower wheeled loaders to the 150-250 horsepower class of machines.

**Table 34. Komatsu India: Wheeled Loaders Available, 2010**

Model	Engine		Bucket Capacity (M <sup>3</sup> )	Weight (Tonnes)	Product Source
	HP	Manufacturer			
WA200-5	123	Komatsu	2.0	9.5	Japan
WA380-3	196	Komatsu	3.0	16.4	China
WA470-3	260	Komatsu	3.9-4.2	21.6	China
WA500-6R	353	Komatsu	5.6	33.4	Japan
WA600-6R	527	Komatsu	6.4-7.0	52.7	Japan
WA700-3	672	Komatsu	8.7-9.4	70.6	Japan
WA800-3EO	808	Komatsu	11.0-12.3	101.9	Japan
WA900-3EO	856	Komatsu	11.5-13.0	107.2	Japan
WA1200-3	1,560	Komatsu	20.0	205.2	Japan

Source: Company Information

Despite its modest presence in the market, KIPL offers a wide range of imported wheeled loaders. While the WA380-3 and WA470-3 machines are sourced from China, all the other models are imported from Japan.

## Sales and Market Share

**Table 35. Komatsu India: Sales and Market Shares of Wheeled Loaders, 2005-2009**

	2005	2006	2007	2008	2009
Sales (Units)	29	40	46	44	33
% Market Share	2	2	2	2	2

Source: Off-Highway Research

The company has not been very aggressive in promoting sales of its wheeled loaders, but has steadily maintained its presence in the market with a two per cent share during the last five years. Its sales achieved a peak of 46 units in 2007, but declined to 33 units in 2009.

**Table 36. Komatsu: Domestic Sales of Wheeled Loaders  
by Horsepower Category, 2008-2009**  
**(Units)**

<b>Horsepower</b>	<b>2008</b>	<b>2009</b>
<b>151-200</b>	19	20
<b>251-300</b>	16	11
<b>Over 300</b>	9	2
<b>Total</b>	<b>44</b>	<b>33</b>

Source: Off-Highway Research

The company maintained its market share in the 151-200 horsepower class at 19 per cent in 2009. However, its share in the 251-300 horsepower and over 300 horsepower categories declined to 32 and six per cent from 55 and 33 per cent in 2008, largely because of the very competitive pricing strategies of the Chinese suppliers that have made strong inroads into the market recently.