

<u>CONTENTS</u>	<u>PAGE</u>
<b>CHUNG CHUN MACHINERY: SUMITOMO'S VITAL DEALER</b>	<b>1</b>
<b>LONGGONG EXPANDS IN SHANGHAI</b>	<b>4</b>
<b>NHL TO PRODUCE HYDRAULIC EXCAVATORS IN 2004</b>	<b>5</b>
<b>SAKAI TO PRODUCE COMPACTION EQUIPMENT IN SHANGHAI</b>	<b>6</b>
<b>XEMC MOVES TO NEW INDUSTRIAL PARK</b>	<b>8</b>
<b>YITUO EXPANDS ITS CONSTRUCTION EQUIPMENT INTERESTS</b>	<b>9</b>
<b><u>FINANCIAL RESULTS</u></b>	
<b><u>FIRST HALF</u></b>	
• <b>CHANGLIN</b>	<b>13</b>
• <b>GUANGXI LIUGONG MACHINERY</b>	<b>14</b>
• <b>INNER MONGOLIA NORTH HAULER JOINT STOCK – NHL</b>	<b>15</b>
• <b>SHANDONG LINYI ENGINEERING MACHINERY STOCK – SLEM</b>	<b>15</b>
• <b>SHANTUI CONSTRUCTION MACHINERY</b>	<b>17</b>
• <b>XIAMEN ENGINEERING MACHINERY – XEMC</b>	<b>17</b>
• <b>XUGONG SCIENCE &amp; TECHNOLOGY</b>	<b>18</b>

**CHUNG CHUN MACHINERY; SUMITOMO'S VITAL DEALER**

Chung Chun Machinery (www.zhjmachine.com) is a subsidiary of the Hong Kong based South China Group. It was originally established as a vehicle spare parts factory in 1984, but its core business is now the marketing of construction equipment, along with providing training and after sales service. This change began in the late 1980s and has witnessed remarkable growth since it became an official dealer in China for **Sumitomo** hydraulic excavators in 1996, and for the company's asphalt finishers and crawler cranes in 1998.

The company, also known as 'Zhongjun' in mandarin pronunciation, has 80 employees at its headquarters located in Xiamen, on the south-east coast of the Chinese mainland.

Sales reached RMB400 million in 2002, and are predicted to double to RMB800 million in 2003. The sale of Sumitomo hydraulic excavators provides the major portion of its revenues.

Sumitomo has three dealers on the Chinese mainland for its construction machinery. Apart from Chung Chun Machinery, Youfa Construction Machinery works in Qinhuangdao, Hebei Province, and Jilin Coyo Engineering Equipment Leasing is based in Changchun, Jilin Province. Chung Chun was the earliest of the three to be appointed, and is now the largest, accounting for at least 80 per cent of Sumitomo's total sales in China. Sumitomo also sells a small number of hydraulic excavators directly to local customers, but still relies on Chung Chun for its after sales service. To streamline its sales performance, a joint venture marketing operation is under consideration.

Between 2001 and 2002, Chung Chun doubled its sales of Sumitomo hydraulic excavator, to 550 units, of which the 20 tonne model accounted for the major portion of sales. To be competitive in the market, its pricing level is very similar to other Japanese suppliers like Komatsu and Hitachi. The best market lies in Shandong and other coastal provinces. Sumitomo excavators are becoming increasingly common on construction sites, although they are not domestically produced. Sales 2003 are forecast to grow to 1,000 units, given that sales in the first half exceeded 500 units.

**Table 1. Chung Chun: Sumitomo Construction Equipment Available, 2003**

	Model	Operating Weight (t)	Engine	
			Manufacturer	HP
Hydraulic Excavators	SH60	6.4-7.4	Isuzu	56.5
	SH75U	7.9	Isuzu	49
	SH100PAX	11.5	Isuzu	79
	SH120PAX	12.5	Isuzu	85
	SH200/200LC PAX	19.0/19.5	Isuzu	128
	SH220/220LC PAX	22.8/23.5	Isuzu	153
	SH300/300LC	30.1/30.7	Mitsubishi	229
	SH300HD/300LHD	32.4/33.1	Mitsubishi	229
	SH400HD	45.2	Isuzu	286

	Model	Type	Engine		Paving Width (m)
			Engine	HP	
Asphalt Finishers	HA44W-2	Wheeled	Mitsubishi	59	2.45-4.40
	HA60C-3	Crawler	Mitsubishi	94	2.5-6.0
	HA60W-3	Wheeled	Mitsubishi	94	2.5-6.0

	Model	Lifting Capacity
Crawler Cranes	SC Series: 10 models from SC350 to SC2500	35t to 250t
	CT Series: CT10000 and CT12000	500t and 650t

Source: Company Information

**Table 2. Chung Chun: Sales of Sumitomo Hydraulic Excavators in China, 2000-2003**

(Units)

2000	2001	2002	2003*
150	200	550	1,000

\* Forecast

Source: Company Information

Chung Chun also sells used hydraulic excavators supplied by Sumitomo's division for second-hand machines in Japan, and these will number around 100 units in 2003. At present most of these machines were built in Japan between 1997 and 1999. They sell for RMB300,000-400,000 each, or half of the price of a new machine. No financial support is available for buying a second-hand machine, which does not deter buyers, who regard these used excavators as a sound investment.

Selling Sumitomo's asphalt finishers and crawler cranes is a relatively harder challenge than selling its crawler excavators, and in 2002 Chung Chun sold only eight finishers and two 150 tonne crawler cranes.

Chung Chun operates Sumitomo Construction Machinery (China) Service & Training Centre in the Jimei District of Xiamen. The 13,500m<sup>2</sup> facility undertakes machine delivery, service, repairs, spare parts stock and training. It guarantees to keep Sumitomo hydraulic excavators in good repair for the first 12 months or 1,500 working hours of purchase from Chung Chun; it also promises a serviceman to reach sites in Fujian, Guangdong and Jiangxi within two working days, or three working days for other provinces, upon receiving a confirmed failure report from a customer.

**IHI** appointed Chung Chun in April 2003 as the general distributor of its mini excavators in the Chinese mainland and Hong Kong. The models available include the 3.5t, 5.5t and 8.0t types, all with zero tailswing, and are priced respectively at RMB320,000, 420,000 and 520,000 per unit. These machines target the users operating municipal works and minor construction projects. The sales plan for 2003 is 100 units, which is an ambitious target, given that its sales record to date in small excavators has been modest. The service centre is the same as that for Sumitomo in Xiamen.

**Table 3. Chung Chun: Available Models of IHI Mini Excavators, 2003**

Model	Operating Weight (Tonnes)	Engine	
		Manufacturer	HP
<b>35NX</b>	3.4	Isuzu	26.5
<b>55N</b>	5.2	Yanmar	55.8
<b>80NX-3</b>	7.6	Isuzu	54.7

Source: Company Information

The company has been selling **Case**'s backhoe loaders (the model 580L), skid-steer loaders (models 1840 and 1845C) as well as its horizontal directional drills in Fujian since 2001. It has yet to win much of a market for them in the province, given that only occasional sales were achieved in 2002. Chung Chun is also the general distributor for **Trench-Tech** trenchers; the models available consist of 2300, 2500 and 2700.

Since the opening of the **Metso Dynapac** factory in Tianjin in 2001, Chung Chun has been selling its compaction equipment as the dealer in Fujian. Sales in 2002 amounted to 12 units. It

also sells hydraulic drilling machines, asphalt mixing plants as well as some industrial machines of other brands.

The distribution network consists of the branch companies, representative offices and sub-dealers. Chung Chun runs Xiamen Juntai General Machinery, Xinjiang Zhongjun Machinery and Anshan Zhongjun Machinery for sales and service; while Xiamen Juncheng M&E Service operates repair businesses in Xiamen. It has representative offices in key central cities such as Beijing, Xiamen, Quanzhou, Ürümqi, Jinan, Kunming and Anshan.

The network covers all the provinces except Gansu, Qinghai and Tibet. There are 40 to 50 sub-dealers across the country, with 10 first class ones capable of after sale services.

### **LONGGONG EXPANDS IN SHANGHAI**

The Longgong Group, the largest private manufacturer of construction equipment in China, is planning to build its second production base in Shanghai, on a new piece of land of about 48 hectares. Longgong will make a total investment of RMB1.5 billion to build the **Shanghai Longgong Industrial Park**. By then, with this industrial park and its existing facilities of **Shanghai Longgong Machinery Co., Ltd.** and **Longgong (Shanghai) Axles and Gearboxes Co., Ltd.**, the group will occupy no less than 70 hectares of industrial land, representing a very strong industrial presence in the city.

Meanwhile, Longgong has just occupied a further 66,700 m<sup>2</sup> of space in its home town of Longyan, in the west of Fujian, where its headquarters and a production facility of 12,000 m<sup>2</sup> have been since 1993. Looking at the company's history, it does not take too long to realise that the right decisions made at the right time are the key to its success. The whole Longgong Group, including another two companies in Longyan and one in Hong Kong, is wholly-owned by a single individual, Mr. Li Xinyan.

Longgong was founded in 1993, when the construction equipment industry was undergoing its earliest periods of peak demand. The strategic move to Shanghai in 1999 was more striking, because that was the period when the price war was at its most brutal. It only took Longgong 11 months from the acquisition of the land in Shanghai to start production. When the new factory started to sell wheeled loaders in 2000, the market had just entered another cycle of prosperity, which is still in progress.

The rationale of the latest decision to build the industrial park in Shanghai is as follows:

- Firstly, Longgong's existing production capacity had already become a brake on its development, and it desperately needs extra production capacity for wheeled loaders. The location in Shanghai will reduce the purchasing cost of raw materials, improve information flow and reduce shipping costs by 50 per cent.
- This industrial park will be built into a first-class facility, according to international standards. Longgong needs to improve product quality further by installing advanced machine tools and equipment, and the new facility will provide them. It also wants to create a showcase to overcome the prejudice that some customers have against private manufacturers.
- Conscious of the risk of relying so heavily on wheeled loaders, Longgong needs to diversify its range of products. The production of compaction equipment has already started, but it needs more space for volume production of other machines. Sectors such as hydraulic excavators and compact equipment are being considered for the diversification programme, and these plans will be finalised by the end of this year.
- By 2005, Longgong is expecting its construction equipment business to generate turnover of RMB3 billion. Meanwhile, if this new investment in Shanghai makes a good return, Longgong should be in a strong position to reach its long-term objective, a public flotation.

In the short-term, Longgong's target for wheeled loaders this year is to produce 9,000 units, of which 7,200 units will be sold. The forecast for the total market in 2003 is 60,000 units; given that Longgong has already sold 4,173 wheeled loaders in the first half of 2003, there is little doubt that it should keep its position as the third largest producer of wheeled loaders in China.

#### **NHL TO PRODUCE HYDRAULIC EXCAVATORS IN 2004**

The leading producer of off-highway dump trucks in China, **Inner Mongolia North Hauler Joint Stock Co., Ltd. (NHL)** has launched its **North Hauler Terex Construction Equipment Industrial Park** on August 8, 2003. A total of RMB203.2 million will be invested to build a 26 hectare park with a covered area of 45,518 m<sup>2</sup>. The factory should be completed by the end of this year, and the company plans to start production in May 2004.

The operation will start by assembling CKD and SKD kits of crawler hydraulic excavators, and these will be sold under the brand name of **Atlas**. The annual production capacity will be 1,500-2,000 units of excavators, with bucket sizes ranging from 0.8m<sup>3</sup> to 1.6m<sup>3</sup>. No model details have yet been announced, but it may be assumed that they will be in the 19-21 tonne range. There is a strong possibility that wheeled models, in which Atlas is a specialist, will be added later.

Before the new facility is operational, NHL will start by importing up to 100 complete Atlas machines in the near future to promote the brand in the country, for it would certainly take some time to allow domestic customers to become acquainted with the product. The prices will be comparable to other imported excavators from **Caterpillar**, **Liebherr** and **Volvo**, at around RMB850,000 depending on the size.

Currently, the core business of NHL still lies in the dump truck sector with the most popular model being the 3340, and the market trend is to move to this smaller size. It also sells imported scrapers and backhoe loaders, but no real volumes have yet been achieved. NHL sold 125 units in 2002, an increase of 71 per cent over 2001.

From the second half of 2003, NHL will start to produce prototype backhoe loaders and auger boring rigs in-house, and the plan is to move the production of these to the new facility. Mobile cranes and asphalt finishers are also on the list of potential products to be built there. NHL claims that a turnover of RMB1.6 billion is its target when the capacity is fully utilised by the end of 2007.

### **SAKAI TO PRODUCE COMPACTION EQUIPMENT IN SHANGHAI**

Although imports of ride-on type rollers from Japan have been static at around 10 units a year in the recent past, Sakai, the principal supplier of compaction equipment in Japan, is soon going to open its third overseas factory which will be in Shanghai. Sakai's compaction equipment range has built up a sound reputation in China since the machines were supplied for the Beijing-Tianjin-Tanggu Expressway project that was constructed in the mid-1980s.

The factory, called Sakai Heavy Industries (Shanghai), Ltd., is to be located in the Jiading District of Shanghai, some 40 kilometres outside the city, on a site of 40,000m<sup>2</sup>. The investment amounts to US\$5.8 million.

**Table 4. China: Imports of Ride-on Compaction Equipment, 2000-2003**

	2000		2001		2002		January-May 2003	
	Units	\$'000	Units	\$'000	Units	\$'000	Units	\$'000
<b>Total Imports</b>	224	15,315	308	19,758	494	30,100	304	15,132
– <b>Japan</b>	10	316	13	500	9	333	28	859
– <b>% of Total</b>	4	2	4	3	2	1	9	6

Source: Customs Statistics

In recent years, the import of compaction equipment from Japan, almost all supplied by Sakai, was stable at round 10 units, of which the light tandem models of the SW300 series, at 2.8 tonnes in operating weight, accounted for a major portion.

Growth has been achieved in the first half of 2003. While the SW300 series is continuing to see good sales, imports for the first half of the year included 12 units of heavier tandem rollers, the SW850 of 12.4 tonnes' service weight. This range of rollers is in demand for paving high-class road projects, while the local products are not of sufficient quality to meet the market demands and technical requirements. Sakai's pneumatic tyred rollers are occasionally sold to the customers through combined orders with the tandems.

The market for the self-propelled single-drum rollers is relatively difficult for foreign manufactures to penetrate, because local customers favour cheap mechanical drive models that can do a similar job over the expensive hydraulic drive units. This sector is currently in the hands of the local manufacturers.

Looking to a fast growing market in China, Sakai has been preparing for the new factory since February 2003, when its company was established in Shanghai. It originally planned to have the factory in operation by the end of this year but because of the effects of SARS in the second quarter, the date has been postponed to early 2004.

In the initial period, it will introduce three tandem rollers: SW800, SW850 and SW900. The production will initially rely on the assembly of CKD parts imported from Japan, with an anticipated output of over 100 units in the first 12 months. This will be a significant amount to sell into the market, given its current sales level, and more models could be introduced to the factory in the future, depending on market demand.

**Table 5. Sakai Shanghai: Compaction Equipment Range to Be Introduced, 2004**

Model	Operating Weight (Tonnes)	Engine		Current Pricing Level (RMB)
		HP	Manufacturer	
SW800	10.2	109	Isuzu	780,000
SW850	12.4	121	Isuzu	820,000
SW900	13.0	159	Isuzu	900,000

Source: Company Information

The tandem rollers feature high vibrating frequency up to 67 Hz and good efficiency to meet the fast compaction requirements of modified asphalt pavement. The complete range of products should meet the needs of most customers. However, success still depends on the development of a strong distribution network and after sales service. Sakai Shanghai will only be the producer, and the distribution of the products will rely on independent dealers.

There are currently about 30 dealers offering Sakai compaction equipment in the country, but the majority of sales are shared among a few large sales outlets. One of them is the Great Way International Trading Co., Ltd., based in Harbin, Heilongjiang Province and which has branches in Tianjin, Shanghai and Guangzhou. Great Way began to sell Sakai's products in 1998 and now takes 60 to 70 per cent of Sakai's total sales in China. It provides after sales service and is giving support to the establishment of Sakai's Shanghai factory.

**XEMC MOVES TO NEW INDUSTRIAL PARK**

Starting in August 2003, **Xiamen Engineering Machinery Co., Ltd. (XEMC)** has begun to move its production facility in Xiamen to the newly built Xiagong Industrial Park. The move is part of a municipal planning programme to move all manufacturing enterprises out of the city, to a specially allocated industrial area in the outskirts of the city. Other member companies within the Xiamen Engineering Machinery Group (XEMG) are also moving to the same industrial park. XEMC is occupying about 60 hectares, half of the total area taken by the group.

The old plant, which was located in an expensive part of the downtown area, had a capacity of 5,000 units per year. However, XEMC tried to produce 7,700 wheeled loaders in 2002 by running more shifts, working six days a week, and outsourcing its ZL30 model to **Sanjiu Yigong Biopharmaceutical and Chemical Inc.** The target for 2003 is to produce and sell 10,000 wheeled loaders. It is quite possible to reach this goal, given the continuing growth of the market

and the expansion of the wheeled loader range to cover everything from the ZL15 up to the ZL80.

Its new factory will have a single-shift production capacity of 8,000 wheeled loaders and 2,000 units of other products. The move of all production within XEMC will be completed by mid-2004, while the headquarters and other business units still stay at the existing site.

Next year, XEMC will increase the ratio of outsourced parts. In the new facility it will build only front and rear axles, and undertake painting and final assembly. The rest will depend on using the well-developed and numerous component suppliers in Fujian province. It should be remembered that these suppliers are also the reason why Fujian has about 20 wheeled loader producers, 15 of them each building at least 100 units annually. The local statistics shows that in 2002, the wheeled loader producers of Fujian had total revenues of RMB4.1 billion, with 19,000 units sold. Astonishingly, 17,800 wheeled loaders were sold during the first seven months in 2003, and sales in this one province alone are expected to reach 28,000 units by the end of the year.

XEMC sold more than 6,000 wheeled loaders during the first half of 2003, bringing revenues of RMB1.24 billion and a net profit of RMB54 million. It is now well on the way towards its targets of RMB2.15 billion in revenues and RMB90 million net profits. Nevertheless, mounting competition and falling margins in the wheeled loader sector will force the company to further increase its volumes and diversify its product range. XEMC has laid a good foundation for its future in the new industrial park, with its newly increased wheeled loader production capacity and its recently installed hydraulic excavator assembly line.

### **YITUO EXPANDS ITS CONSTRUCTION EQUIPMENT INTERESTS**

Off-Highway Research reported in its November 2002 Market Report that the **China Yituo Group Corporation** had divided its business into three operations: agricultural equipment, construction equipment, and diesel engines. Since then the company has been busily focusing on two key priorities, product development, and its management system.

In 1997 Yituo achieved sales of RMB4.3 billion, but from then until 2002 sales fell quite sharply because of the sharp decline in demand for crawler agricultural tractors. This year, however, the company's fortunes are much improved and for the first six months of 2003 revenues were recorded at RMB2.4 billion; the company's forecast for the full year is RMB4.4 billion, which is just ahead of the record year in 1997, and probably a perfectly achievable goal.

**Table 6. Yituo Group: Forecast Sales, by Business Sector, 2003**

**(RMB Millions)**

	Forecast	
	Sales	%
<b>Agricultural Machines</b>	1,760	40
<b>Diesel Engines</b>	836	9
<b>Construction Equipment</b>	792	18
<b>Other, Forging, Components</b>	1,012	23
<b>Total</b>	<b>4,400</b>	<b>100</b>

Source: Company Information

In the mid-1990s Yituo had built up a significant capacity for producing crawler tractors, with 20,000 units a year being manufactured. Since then, however, the sector has fallen upon hard times and Yituo's output is now scarcely 5,000 units a year. To offset this decline, the company has been forced to expand its other equipment interests. Its areas of attention are directed at four product groups:

- Compaction Equipment
- Wheeled Loaders
- Crawler Dozers
- Mini Excavators

**Compaction equipment:** this sector was first entered into as far back as the 1950s, when the company started to develop construction equipment based on its own tractor design and components. The basic early models were upgraded by using technology from Bomag and Dynapac, and it was only then that the company was able to offer machinery that was truly effective.

The company has made great strides in developing its range, and from relatively humble beginnings in the early 1990s it is now the second largest manufacturer of compaction equipment in China, behind the all powerful XCMG. It now offers a wide range of equipment, with a full range of operating weights, and both mechanical and hydraulic transmissions.

In the first half of 2003 approximately 1,600 units were produced; for the full year production is likely to exceed 3,000 units, almost treble the volumes achieved as recently as 2001 and considerably ahead of the output of last year.

**Table 7. Yituo: Sales of Compaction Equipment, by Type, 1998-2002**

**(Units)**

<b>Type</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>Static Tandem</b>	262	291	170	172	343
<b>PTR</b>	5	20	47	72	89
<b>Self-Propelled Vibratory</b>	699	959	895	791	1,759
<b>Vibratory Tandem</b>	34	1,300	1,138	1,083	2,436
<b>Total</b>	<b>1,000</b>	<b>1,300</b>	<b>1,138</b>	<b>1,038</b>	<b>2,436</b>

Source: Off-Highway Research

Yituo performed well in all categories in 2002, but it was in the self-propelled vibratory and the vibratory tandem sectors that the company showed the greatest growth; and it is in these sectors where the company will focus its efforts, as they tend to be the more profitable parts of the business.

*Off-Highway Research is shortly to publish an Equipment Analysis on the Market for Compaction Equipment in China.*

**Crawler dozers:** much of Yituo's engineering expertise lies in the development of crawler agricultural tractors, of which some 80 per cent are equipped with a dozer blade and are used on farms for land levelling and water conservation projects. It did not take much of a leap in engineering expertise, therefore, to develop a genuine crawler dozer for construction and civil engineering works. More importantly, much of the engineering and design had already been done so the cost of market entry in 1998, with its 90 horsepower T90 model, was quite modest. Since then, production rates have increased rapidly.

**Table 8. Yituo: Sales of Crawler Dozers, 1998-2002**

**(Units)**

<b>Model</b>	<b>Horsepower</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002</b>
<b>T90</b>	90	20	50	100	110	108
<b>TS100</b>	100	-	-	-	10	102
<b>TY100G</b>	100	-	-	-	100	409
<b>TY165</b>	165	-	-	-	-	4
<b>Total</b>		<b>20</b>	<b>50</b>	<b>100</b>	<b>220</b>	<b>623</b>

Source: Off-Highway Research

Whilst the machines feature mechanical drive and lack the sophistication typically found in the ranges of Western suppliers, Yituo's mechanical drive machines nevertheless offer good value

for money; priced at around RMB175,000 (\$22,000) they are typically 25-30 per cent cheaper than their domestic equivalents. As a result, growth has been rapid in recent years: in the first half of 2003 Yituo had produced 580 units, almost the equivalent of last year's production. The goal for the full year is 1,000 units.

*Off-Highway Research published an Equipment Analysis on The Market for Crawler Dozers in China in September 2003.*

**Wheeled loaders**: in this enormous and rapidly growing market, where demand is now more than 50,000 units a year, the company has made a relatively late entry, with two models at 140 and 210 horsepower. Sales this year are relatively modest at around 100 units, mostly in the larger size, but for a new entrant to have achieved annual production of around 200 units is no mean feat. The company is now looking at the possibility of entering the compact wheeled loader market in the future, and might well launch a model in the 60-100 horsepower range.

**Mini excavators**: Yituo's small excavating tools are not the mini excavators of the kind that have become universally accepted in the West; instead they are made up of a wheeled chassis, a 0.3 m<sup>2</sup> bucket, a boom which can slew 180°, and is equipped with tractor axles and gears. All comparatively basic, but at RMB40,000 (\$5,000) it is a resounding success in small towns and rural areas. It is little wonder that Yituo has been able to sell 1,300 units in the first six months of 2003.

Whilst these modest machines are directed to a separate sector from the area that mini excavator manufacturers target, it is evident that Yituo has the ability and determination to enter the genuine mini excavator market very soon. A crawler machine with rubber tracks is currently under development and should be launched in the near future.

**Diesel engines**: sales of the company's Dong Fang Hong brand reached 40,000 units in the first six months of 2003, equal to the entire output of 2002. The major end-user markets were agricultural tractors, combine harvesters, and small wheeled loaders.

**FINANCIAL RESULTS**

**FIRST HALF**

**CHANGLIN CO., LTD.**

**Table 9. Changlin: Financial Highlights, First Half, 2002-2003**

**(RMB Millions)**

	<b>Six Months Ending June</b>		
	<b>2002</b>	<b>2003</b>	<b>% Change</b>
<b><u>Turnover</u></b>			
Wheeled Loaders	339.7	494.2	45
Compaction Equipment	42.9	83.5	95
Motor Graders	39.8	54.5	37
Excavator Structural Parts	75.6	147.8	96
Spare Parts	11.1	10.8	-3
Others	1.3	10.9	735
<b>Total</b>	<b>510.6</b>	<b>801.9</b>	<b>57</b>
<b><u>Operating Income</u></b>			
Wheeled Loaders	44.6	77.4	73
Compaction Equipment	7.2	17.3	139
Motor Graders	9.3	15.0	62
Excavator Structural Parts	8.7	11.5	32
Spare Parts	2.1	2.0	-5
Others	-0.0	2.6	-
<b>Total</b>	<b>72.1</b>	<b>126.0</b>	<b>75</b>
<b>Net Profit</b>	<b>17.4</b>	<b>105.9</b>	<b>509</b>

Source: Company Information

Changlin's turnover witnessed a year-on-year increase of 57 per cent, moving up to RMB801.97 million, with continuous growth in all its core products. The first half of the year saw sales of wheeled loaders reaching 3,154 units, compared to 2,142 units in the first six months of 2002, and continued to be the company's largest business sector. Sales grew in compaction equipment (420 units as against 214 in 2002) and in motor graders, where sales increased from 97 to 146 units in the same period. Meanwhile, with Hyundai rapidly increasing its hydraulic excavator output, the supply of excavator parts almost doubled.

Operating income grew by 75 per cent, while business costs and overheads were maintained at a similar level to last year. Along with investment earnings, the net profit is therefore significantly increased, more than fourfold to RMB105 million.

**Changzhou Hyundai** recorded sales of RMB1,925.25 million and earned a net profit of RMB192.83 million in the first half of 2003, as reported by Changlin which has a 40 per cent share of Changzhou Hyundai. This contributed about 65 per cent of the total profits Changlin earned in the period. The two partners are now working closely on new production facility, Hyundai (Jiangsu) Construction Machinery, which is to be the next focus of Changlin's investment.

**GUANGXI LIUGONG MACHINERY CO., LTD.**

**Table 10. Liugong: Financial Highlights, First Half, 2002-2003**  
(RMB Millions)

	Six Months Ending June		
	2002	2003	% Change
<b>Turnover</b>			
Wheeled Loaders	711.3	1,193.6	68
Hydraulic Excavators	27.8	56.2	102
Compaction Equipment	39.2	63.7	62
Spare Parts and Others	50.5	36.7	-27
<b>Total</b>	<b>828.9</b>	<b>1,350.4</b>	<b>63</b>
<b>Operating Income</b>			
Wheeled Loaders	154.4	285.9	85
Hydraulic Excavators	1.2	8.6	604
Compaction Equipment	7.6	14.1	85
Spare Parts and Others	13.9	11.2	-20
<b>Total</b>	<b>177.3</b>	<b>319.9</b>	<b>80</b>
<b>Net Profit</b>	<b>38.7</b>	<b>119.7</b>	<b>210</b>

Source: Company Information

In the first half of 2003, Liugong continued to register fast year-on-year growth. Turnover rose by 63 per cent, moving up to RMB1,350 million. Wheeled loader sales accounted for 88 per cent of the total and amounted to 5,778 units, increasing by 2,332 units over the same period in 2002.

After production moved to a new manufacturing site last year, Liugong's hydraulic excavators witnessed a doubling of turnover to RMB56 million, or in unit terms to 120 units, compared with 53 units in the same period of 2002. In compaction equipment, where sales increased from 112 units to 205 units, turnover increased by 62 per cent. In addition, Liugong has also sold 12 motor graders that were originally manufactured by Dahua and valued at RMB4.9 million.

The substantial expansion in sales increased operating income by 80 per cent to RMB320 million, and with overheads now well under control, the net profit was double that achieved in the first half of 2002.

**INNER MONGOLIA NORTH HAULER JOINT STOCK CO., LTD. – NHL**

**Table 11. NHL: Financial Highlights, First Half, 2002-2003**

**(RMB Millions)**

	<b>Six Months Ending June</b>		
	<b>2002</b>	<b>2003</b>	<b>% Change</b>
<b>Turnover</b>	95.8	114.0	19
<b>Operating Income</b>	30.1	34.5	15
<b>Net Profit</b>	7.3	8.6	18

Source: Company Information

NHL sold 47 units of Terex dump trucks in the first six months of 2003, and reported a turnover of RMB114.0 million. The business of Terex dump trucks continued to dominate its revenues, with truck sales accounting for 87.3 per cent of turnover, and the spare part sales 9.4 per cent. While the principal market for its rigid trucks still lies in construction, NHL has concluded successful sales to the cement and coal industries.

The operating margin from truck sales was similar to that of 2002, but the profitability of the core business deteriorated with increasing business costs. This was, however, compensated by investment earnings, thus resulting in the improvement of net profit.

The company expects to put articulated dump trucks, motor scrapers, backhoe loaders and auger boring rigs into pilot production in the second half of 2003. Moreover, it announced an investment of RMB600 million into a new industrial park for Terex construction machinery, for producing a range of Atlas excavators. NHL, China's largest dump truck manufacturer is therefore planning to broaden its product lines from next year, and so compete in other, highly competitive sectors.

**SHANDONG LINYI ENGINEERING MACHINERY STOCK CO., LTD. – SLEM**

SLEM reported a gross turnover of RMB902.3 million for the first half of 2003, of which wheeled loaders accounted for 73 per cent. In that sector unit sales moved ahead to 3,107 from

2,115 units in the same period of 2002. Hydraulic excavator sales reached 78 units, as compared to 44 units in the first half of 2002. Farm vehicle gearboxes witnessed the most significant growth by 135 per cent.

**Table 12. SLEM: Financial Highlights, First Half, 2002-2003**  
(RMB Millions)

	Six Months Ending June		
	2002	2003	% Change
<b>Turnover</b>			
Wheeled Loaders	388.7	655.6	69
Hydraulic Excavators	21.3	35.7	67
Farm Vehicle Parts	71.9	169.3	135
Shotguns	2.4	1.1	-52
Others	37.0	40.5	9
<b>Total</b>	<b>521.5</b>	<b>902.3</b>	<b>73</b>
<b>Operating Income</b>			
Wheeled Loaders	69.1	124.0	79
Hydraulic Excavators	0.0	3.1	3,800
Farm Vehicle Parts	5.5	14.0	152
Shotguns	0.6	0.1	-75
Others	2.6	5.6	119
<b>Total</b>	<b>78.0</b>	<b>147.0</b>	<b>88</b>
<b>Net Profit</b>	<b>16.2</b>	<b>26.9</b>	<b>66</b>

Source: Company Information

Operating income, to which the wheeled loaders contributed 84 per cent, improved by 88 per cent. Net profits grew only by 66 per cent, due to a significant increase in management costs.

In May 2003, SLEM sold out its 42 per cent shareholding in Jinan Kögel Special Automobile that it bought in last year, but this made no significant impact on the financial results.

Upon approval of the State-owned Assets Supervision and Administration Commission (SASAC), the transfer of 28.97 per cent shares from Shandong Construction Machinery Group to Nanfang Heung Kong took effect on 31 July 2003; with the latter becoming its largest holder, SLEM in tends to adjust its business structure, (as explained in Off-Highway Research's Market Report of March 2003, in which the company was called LCMC – Linyi Construction Machinery Co., Ltd.

**SHANTUI CONSTRUCTION MACHINERY CO., LTD.**

**Table 13. Shantui: Financial Highlights, First Half, 2002-2003**

**(RMB Millions)**

	Six Months Ending June		
	2002	2003	% Change
<b>Turnover</b>	1,131.8	1,157.4	2
<b>Operating Income</b>	249.8	150.0	-40
<b>Net Profit</b>	77.2	87.4	13

Source: Company Information

Shantui reduced its stake in Komatsu Shantui to 30 per cent in September 2002, so this year its turnover does not include the manufacture of hydraulic excavators but only their distribution. This amounted to RMB349.1 million, yielding RMB15.3 million of operating income, 30 per cent and 10 per cent of the company total respectively.

Crawler dozers have now become the principal component of its business, resulting in a turnover of RMB477.2 million (41 per cent of the total) in the first half of 2003 and RMB87.1 million (58 per cent) of operating income, with physical sales increasing from 542 to 1,149 units.

Other sales included 34 units of compaction equipment, two motor graders and sets of tracks, torque converters, which together accounted for 29 per cent of the total turnover and 49 per cent of operating income.

With the manufacturing of hydraulic excavators changed into an item of investment earnings, the total operating income declined year-on-year by 40 per cent.

In the same period, **Komatsu Shantui** enjoyed total sales of RMB2,110.27 million and a net profit of RMB228.48 million, as reported by Shantui. This brought in RMB67.83 million of investment earnings for Shantui, and helped improve its net profit by 13 per cent over the same period of 2002.

**XIAMEN ENGINEERING MACHINERY CO., LTD. – XEMC**

Xiagong is the largest supplier in the rapidly growing market for wheeled loaders, and has recently seen great growth in its sales. In the first half of 2003, XEMC achieved 6,130 wheeled

loader sales, a 66 per cent growth over the 3,702 units in the same period of 2002. With a market share approaching 19 per cent, the manufacturer remained market leader.

**Table 14. XEMC: Financial Highlights, First Half, 2002-2003**  
(RMB Millions)

	Six Months Ending June		
	2002	2003	% Change
<b>Turnover</b>			
Wheeled Loaders	790.8	1,207.2	53
Others*	19.3	33.3	73
<b>Total</b>	<b>810.1</b>	<b>1,240.6</b>	<b>53</b>
<b>Operating Income</b>			
Wheeled Loaders	127.0	169.1	33
Others*	1.0	4.3	306
<b>Total</b>	<b>128.1</b>	<b>173.4</b>	<b>35</b>
<b>Net Profit</b>	<b>34.2</b>	<b>54.1</b>	<b>58</b>

\* Primarily machine tools

Source: Company Information

The growth of sales in value terms, 53 per cent, is relatively modest, reflecting the influence of continually lower market prices for wheeled loaders. Operating income increased by 33 per cent, due to the greatly expanded sales volume, while the net profit trend was even better, up by 58 per cent.

### **XUGONG SCIENCE & TECHNOLOGY CO., LTD.**

XuGong reported total sales of RMB1,844.2 million for the first half of 2003, up 77 per cent over the same period last year. The most remarkable growth lay in the earthmovers, now its largest business, with wheeled loader sales growing from 1,840 units to 3,811 units and its market share improving from 8.9 per cent to 11.7 per cent. Output of crawler dozers, moving up from 15 units to 60, also helped the growth of this sector.

Compaction equipment sales witnessed a year-on-year growth from 1,810 units to 2,719 units, or in terms, value by 49 per cent. The sales of paving machines for asphalt mixtures and stabilised soil grew from 119 units to 167 units and revenues recorded a growth of 82 per cent. The road machinery sales were 203 motor graders and 70 soil stabilisers compared with 103 units and 53 units in the same period of 2002; or in value terms, both together improved by 48 per cent. Due

to the transfer of the concrete pump business to Xuzhou Heavy Machinery, only piling machinery remains in the sector, which therefore reported a decrease in sales and operating income. The 'others' refer to the sales of steels, engines and spare parts, and recorded substantial improvement.

**Table 15. XuGong Science & Technology: Financial Highlights, First Half, 2002-2003**  
(RMB Millions)

	Six Months Ending June		
	2002	2003	% Change
<b>Turnover</b>			
Earthmovers	334.6	673.1	101
Compaction Equipment	426.3	637.1	49
Paving Machinery	112.5	205.2	82
Road Machinery	79.2	117.5	48
Concrete/Piling Machinery	23.5	7.0	-70
Others	66.5	204.0	207
<b>Total</b>	<b>1,042.9</b>	<b>1,844.2</b>	<b>77</b>
<b>Operating Income</b>			
Earthmovers	34.1	79.0	131
Compaction Equipment	87.3	112.1	28
Paving Machinery	20.9	43.5	108
Road Machinery	16.9	20.8	23
Concrete/Piling Machinery	6.1	0.2	-96
Others	3.6	17.7	384
<b>Total</b>	<b>169.1</b>	<b>273.5</b>	<b>62</b>
<b>Net Profit</b>	<b>45.0</b>	<b>67.7</b>	<b>50</b>

Source: Company Information

The operating incomes from the combination of the various sectors together amounted to RMB273.50 million, moving up by 62 per cent over the same period of 2002. However, due to the reduction of investment earnings from Xuzhou Liebherr, in which XuGong has a 50 per cent share, and an increase in income tax, the improvement of profitability was restricted to 50 per cent.