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**CATERPILLAR BUYS ITS WAY INTO THE CHINESE
WHEELED LOADER MARKET**

Caterpillar has announced that it has signed a memorandum of understanding to purchase the shares of Shandong Engineering Machinery (SEM) a major Chinese wheeled loader manufacturer.

With the notable exception of Komatsu, which established a relatively small wheeled loader manufacturing operation (but manufacturing large machines) in 1995, this is the first significant move by a Western manufacturer into the huge Chinese wheeled loader market. At 60,000 units a year, this market has become a tantalising one for international suppliers – but they have been denied entry because of the domination of local manufacturers, who have achieved supremacy through very low pricing. Up to one-third of the typical ‘international’ price.

Caterpillar’s purchase of SEM is another step to its strategic goal in China. It plans to enter more product sectors than which it currently supplies from its Chinese plant (excavators, compaction equipment and crawler dozers), and the acquisition of SEM is an extremely sound move.

The Chinese manufacturer, based in Quingzhou City, Shandong Province, is one of the market leaders in the wheeled loader sector. With a turnover of almost RMB900 million (\$110 million) in 2003, the company is scheduled to sell around 5,000 units this year, giving it a market share of around eight per cent in 2003.

This is a great challenge for Caterpillar, but it is unlikely to be the last acquisition it makes in the Chinese market in the medium term. Caterpillar’s plan is to acquire and to diversify in the rapidly growing Chinese market, and much more may be expected in 2004.

(Full details of the purchase can be found in Off-Highway Research’s Chinese Market Report, December 2003).

AGRITECHNICA – FULL OF INNOVATION AND NEW ENGINES

The arrival of Euro II engines in the power bands affecting much European farm machinery has spurred the tractor manufacturers to bring out a large number of new designs. The Agritechnica show in Hannover in November was an opportunity to view many of them. Some of the interesting sights are noted below.

AGCO

The AGCO stand was covered in new red **Massey Ferguson** models. The arrival of new Tier II engines in the smallest tractors made in the French plant has prompted a revision of the range. The 5400 series runs from 75 to 120 horsepower, with five four cylinder models and one 6 cylinder type. The external appearance now follows the lines of the larger tractors.

The next line up the range, the 6400 series, uses some of the same four cylinder engines to create models with the same horsepower; the crossing over also occurs on the two new ranges of high horsepower Massey Ferguson tractors, 7400 and 8200. The 7400 series now offers the Massey Ferguson version of the Fendt Vario gearbox, called Dyna-VT, in tractors from 128 to 194 horsepower. The 8200 series still uses a Funk 18/8 transmission or the Massey Ferguson 32/32 Dynashift box.

The 7400 series won the prize for 'Machine of the Year' at the show. It has a Continuously Variable Transmission, suspended cab with an internal noise level of only 71 dB(A), a suspended front axle and a top speed of 50 km/hr. To an extent this use of the Fendt transmission signals a change of role for the transmission plant at Beauvais called GIMA, which is shared by AGCO and Renault. The other feature of the 7400 series to note is that the three models from 155 to 185 horsepower have Sisu engines from Valtra, the business that AGCO is in the process of buying.

The stand of the German favourite, **Fendt**, was naturally covered in enthusiastic visitors. The main progressive points were the new 700 Vario models, from 115 to 160 HP and a top of the range 900 Vario with a maximum power rating over 300 HP for the first time. The Fendt plant assembled its 30,000th Vario tractor with CVT in October 2003.

AGCO showed the **Challenger** crawler tractors again. The product has some appeal on the large East German farms but there will be no wheeled tractors in Challenger yellow in Europe, as far as one can see, because of the need to foster the export business of Fendt, whose German dealers can perhaps add a few sales of crawlers each year.

CNH

The tractor stands of CNH at a German show will always have most traffic on the red **Case IH** products, as that is the tractor brand with the largest following, but there were also some interesting new products on the **Steyr** and **New Holland** areas. Steyr carried examples of the

6100 'Profi' series, the CNH platform tractor, and the newest small tractors of 80 to 100 horsepower, the 9000M series. New Holland had the TSA series from Basildon, England not far from the Case IH MXU tractors that share the same platform. The New Holland line-up of five tractors from 101 to 136 horsepower uses the engines developed by New Holland in association with Iveco and Cummins and presents a variety of transmission choices. Case IH dealers will offer a tractor of a different appearance, the MXU Maxxum made in Austria, but for the customer who likes CVT transmission will still have the CVX tractors from the Steyr plant in a similar power range. At the show they could inspect for the first time examples of the JXC series of livestock and market gardening tractors from 59 to 75 horsepower, a few weeks after the launch of the MXU Maxxum.

In total 80 per cent of the Case IH range has been replaced in the last 18 months. This brand represents CNH's best chance of grabbing volume in the German market, but Case IH has not performed as well as it should in the last four years. Trailing at 11 per cent market share is less than impressive, given that it was winning 15 per cent of the market in 1993 to 1998 and still has about 280,000 tractors with its name on the side in the German countryside.

John Deere

The Deere product programme was massively overhauled in 2001 and 2002 but that has not been the end of the change process. The show demonstrated the features of the higher horsepower 7920 series, three models in the 175 to 225 horsepower classes from North America and for the smaller livestock farmer three models of all-purpose lighter compact tractors of 70 to 90 horsepower, the 5020 series. The new 7020 series comes from the USA and features in the European programme the option of a John Deere made stepless transmission, as well as two powershift gearbox types and an AutoQuad transmission which shifts gears automatically according to load.

Kirovets

One of the more unusual sights was a medium-sized tractor on the stand of ATM United Technologies, the model Kirovets 3000 ATM. The company is the Western agent for Kirovets, otherwise known as the St. Petersburg tractor factory. The history of JSC Petersburg Tractor Plant goes back to Putilovsky Zavod, one of the oldest and the most famous machine-building companies of Russia, established as long ago as in 1801. Tractor production began in 1924, when the plant produced the first Fordzon-Putilovets tractors, based on American Fordson. Since

1962, the plant has been manufacturing powerful tractors for agriculture in the K-700, which has found markets in many other industries: oil and gas, extractive industry and construction.

In 1995 the company, together with the German Land und KFZ Technik, developed a new wheel tractor K-744 of 350 horsepower for Western markets and began exports to Germany. More than 460,000 Kirovets tractors have been manufactured in the last 38 years. The new product is in four versions from 140 to 160 horsepower and is conventionally styled, perhaps after gazing at a Case IH model of 1998 for an hour or two. It has Deutz engines, a Valtra gearbox, a Carraro four wheel drive axle and Bosch hydraulics. The prototype was elegantly finished and production will soon begin, in time for a launch in 2004.

Argo Group

The **Landini** stand featured among others an early unit of the Starland 240, the high horsepower tractor made by Buhler Versatile in Canada. This company took over the New Holland Genesis tractor line upon the formation of CNH and has been searching for some time for international sales outlets. Landini has agreed to market the whole range in Europe, while Buhler has been busy creating its own dealer network in North America.

Nearby was the other Argo group member, **McCormick**. Three new high horsepower tractors of 215 to 260 horsepower were exhibited. They will have six-cylinder Cummins QSC electronic fuel injection engines and programmable full powershift transmission with power shuttle. Production of the new range is beginning this autumn at McCormick's plant in Doncaster England.

McCormick excited much interest from visitors, perhaps because in a sense it is making a play to convert the older IHC tractor user to its cause in Germany. Much attention was devoted to the MTX series from 115 to 195 horsepower, where the company has for most of the range forsaken Perkins Engines in favour of a unit from the European Engine Alliance (New Holland/Cummins/Iveco). McCormick is the first tractor manufacturer to use the new engine in its over 105 kW/140 horsepower guise – and it will be the first engine in the company's history to carry the McCormick name. The engine will meet future as well as current exhaust emissions standards. The tractors will also feature the company's first cab suspension, automatic climate control and new instruments in the cab.

The company has decided recently on a change of strategy for its marketing in Germany and has a company subsidiary in Haar, as well as a new importer in Austria.

Same Deutz-Fahr

New products in all four brands of the company reflected the usual attitude of the company in keeping up interest in its products by frequent improvements but also the plain fact of revised engines for the Euro II norms. More startling perhaps, was the offer of extremely low finance rates displayed prominently on the stands – 0.24 per cent per annum for a 24 month loan, 0.36 per cent per annum for a 36 month loan or even 0.48 per cent for a 48 month loan to buy a group product.

Valtra

A large stand again, this time covering more than 1,500 m². Although Valtra has made some good progress in the German market in the last five years, it was not especially well patronised, which was a pity, as the company had several novelties to show. Visitors could use the programme offered by the company to customers wanting to configure their own new tractors (a Valtra feature that has impressed Robert Ratliff of AGCO). The S-series and T-series were new to Agritechnica and the M-series was a world première, four models with turbocharged 4 cylinder engines from 115 to 150 horsepower.

Components

Many component suppliers were present looking for new business and a chance to meet R&D people from potential and existing clients. By general agreement, this was successful, in spite of the large numbers of German farmers and their sons who were passing by the stands. **Poclain Hydraulics** made a major play for their Speed+™ high-speed automatic transmission. This is a stepless transmission designed to offer to other agricultural vehicles the benefits of CVT transmission such as those of Fendt, ZF and Steyr. It will give top speeds of 40 to 65 km/hr to vehicles such as crop sprayers or forage harvesters.

CLAAS TO BUILD A COMBINE HARVESTER PLANT IN RUSSIA

Claas, the €1 billion turnover German manufacturer of farming machinery, will invest €20 million in building a combine harvester factory in Krasnodar located in the Kuban region between the Black and Caspian seas. Claas will, therefore, be the first Western agricultural engineering manufacturer to have its own production facility in Russia.

Initially machines will be assembled from pre-manufactured components supplied from Germany. In the future local suppliers will be more closely integrated in the production process and if the business progresses successfully, the investment could be increased to €30 million within a few years.

It is estimated that Russia currently has only half of the harvest machinery capacity it actually needs and around 80 per cent of these machines will need to be replaced in the next few years. Claas has been active on the Russian market since 1990 and has a fleet of about 3,000 combine harvesters in operation.

DAEWOO CONTINUES DOMINATION OF DOMESTIC MARKET

As predicted by Off-Highway Research in its Multi-Client Study, the Korean construction equipment market enjoyed a good recovery in 2002, driven particularly by the much improved housing market. **Daewoo** brand hydraulic excavators from DHI&M, the reformed Daewoo construction equipment enterprise, continued to dominate their markets in all sizes.

Mini Excavators

Table 1. Korea: Suppliers of Mini Excavators and Their Market Shares, 2002

	Under 5 Tonnes		5-7 Tonnes	
	Units	%	Units	%
Daewoo	180	64	858	42
Volvo	60	21	742	36
Hyundai	-	-	450	22
Others*	40	15	-	-
Total	280	100	2,050	100

* Yanmar, Caterpillar and others

Source: Off-Highway Research

Daewoo was the pioneer of mini excavator production in Korea, having started in 1977 with a licence from Kubota of Japan. In 1994, it replaced it with the Solar range. There are now three small units below the industry standard 5.2/5.3 tonne types on wheels and tracks, although the balance in the machines leaving the Incheon plant was only 25 per cent small machines and 75 per cent over five tonnes. Production has recently been moved to China.

Volvo elected to continue with the production of the five tonne class mini excavators designed by Samsung and launched in 1987. No other size is made but the company is now the largest producer of wheeled mini excavators.

Hyundai brought out a new model at 5.4 tonnes, with a wheeled version at 5.1 tonnes in 1998. From 1989 to 1998, mini excavators were supplied only to the home market from the company's plant in Ulsan but exports have been underway since then.

The importers really only started in 2001, the market being too weak before then. The narrow ViO series of **Yanmar** is pitched against the MR series of **Komatsu**, offered by **Daewoo**. In standard designs excavators both **Bobcat** and **Caterpillar** have decided to try the water but it will be some years before they see results.

Wheeled Excavators

In the wheeled excavator sector, the market more than doubled in 2002. Only three suppliers offer machines.

Table 2. Korea: Suppliers of Wheeled Excavators and Their Market Shares, 2002

	Units	%
Daewoo	1,091	45
Volvo	729	30
Hyundai	602	25
Total	2,422	100

Source: Off-Highway Research

In the early 1990s **Daewoo** led the market and held 55 per cent of the market whilst Samsung had the rest. Daewoo recovered from 40 up to 45 per cent between 2001 and 2002. That **Hyundai** is still in third place shows how conservative construction equipment buyers are, since it entered the market only in 1990.

Crawler Excavators

The market for new crawler excavators has been very restricted since 1997, even if grew by 38 per cent in 2002.

Table 3. Korea: Suppliers of Crawler Excavators and Their Market Shares, 2002

	Units	%
Daewoo	466	39
Hyundai	430	36
Volvo	268	22
Others*	36	3
Total	1,200	100

* Caterpillar and Liebherr

Source: Off-Highway Research

Hyundai overtook **Daewoo** finally in 2001, but the triumph was short-lived and Daewoo was back in first place in 2002. Hyundai made efforts to give the impression that Halla customers would find a natural home in the Hyundai family after the supplier disappeared. **Daewoo** lost a sizeable share of the available business until 2002, when it ended up about seven points ahead of its old pre-1997 market share.

Imports have traditionally had a minuscule role in the excavator market and any imported product is at least 50 per cent dearer than the Korean equivalent. The only successful importer sells **Caterpillar** excavators from Japan but it can never get away entirely from the price problem and the extremely strong desire of most Koreans to buy local products. Another importer sells units of the French-made crawler excavator line of **Liebherr** occasionally.

Wheeled Loaders

Table 4. Korea: Suppliers of Wheeled Loaders and Their Market Shares, 2002

	Units	%
Volvo	125	39
Daewoo	92	29
Hyundai	54	17
Others*	49	15
Total	320	100

* Caterpillar and others

Source: Off-Highway Research

The competitive position in wheeled loaders is unusual. The company with the longest history in the industry, **Halla**, disappeared, having regularly won around 25 per cent of the market. Samsung was the market leader during the late 1980s and all of the 1990s. Volvo Korea reduced

the number of models to two but still won an impressive share of the available business. It has now introduced the Volvo lines, mostly in the latest 'E' versions.

Daewoo introduced its own designs in 1993. The latest Mega wheeled loaders, the Series-V models, were launched in 2001 and succeeded in raising the market share from a lowly 17 per cent to 29 per cent in 2002. It sells a few units of Komatsu loaders in sizes where it has no offering of its own.

The main challenger is **Hyundai**, whose products were launched only in 1991. The company completed its range in the late 1990s and in 2001, for the first time, outsold the longer established Daewoo. Daewoo's progress in 2002, however, cost Hyundai at least five points of market share.

The only successful importer is Hae In, marketing **Caterpillar** products. After 1997 its volume was heavily reduced. 2001, on the other hand, demonstrated remarkable powers of recovery. Caterpillar remains the market leader in sizes over 300 horsepower.

FARM MACHINERY INDUSTRY PROSPERS IN FRANCE

Presenting its economic results for the first half of 2003 and the harvesting machinery figures for the season ended in August 2003, the French farm machinery trade association, SYGMA, was clearly cheerful at its press conference in October. It did not mention too emphatically that it predicted zero growth in 2003 and had underestimated the growth achieved in 2002.

- The farm machinery market has declined by one per cent in the first half of 2003.
- Farm machinery production has increased by 1.3 per cent to €1.59 billion.
- Sales by French manufacturers in France are stable, at €0.73 billion.
- Exports have risen by 3.3 per cent to €0.850 billion.
- Imports are down by 1.3 per cent to €1.3 billion.
- Agricultural tractor registrations are again up in 2002, by 5.4 per cent in the first nine months of 2003. The latest month's data, incidentally, adds an even better result for October, so that 10 months of sales show an increase of 6.1 per cent, to 30,901 units.

There is no doubt that in recent months orders have been much influenced by the arrival of the Tier II engines in medium-sized tractors. Registrations in August 2003, the last month before they became mandatory, were 26 per cent higher than in August 2002. Dealers' orders, however, are 3.6 per cent down in the first nine months of this year, which points to a decline in

registrations by the end of the year of two to three per cent. The second half will be influenced by the persistent drought and fears of further reform of the Common Agricultural Policy and the unknown results of the World Trade Organisation discussions on farm products, which progressed very little in 2003.

The regions associated with livestock farming have shown some recovery in sales in 2002 and 2003. Farmers spent less money on large tractors in some cereal areas in 2003; in other regions, they spent more. The vineyard and narrow agricultural tractors have not had a good year in 2003, with sales six per cent down in 2003. Frost and snow in the spring were very damaging, as were drought and excessive heat in the summer. Grape harvester sales are estimated at 15 per cent below 2003.

The average horsepower bought decreased in the first half of the year by three horsepower, because of the registration of small non-farming tractors as agricultural vehicles. It is becoming popular to register Quad bikes as farm tractors. One consequence is that the industry is now starting to refer even more frequently to 'standard' tractors, meaning four wheels and an engine on a normal wheelbase – thus excluding the bikes, the telescopic handlers and the vineyard/narrow agricultural tractors in the global figure.

The prospects for 2004 are seen as likely to reflect the effects of the difficult year imposed in 2003 by the extraordinary weather. A decline of two to four per cent is predicted. For once, the words of the trade association seem reasonable, in that many farmers have suffered total destruction of some of their crops by the weather, so that higher prices could not compensate them for a bad year – basically they had nothing to sell.

The combine harvester market diminished again in 2003. The 2001/2002 season witnessed 1,459 combine harvester sales, a further 5.3 per cent down. Forage harvesters were up by 11 per cent at 375 units, many of them the big units over 400 horsepower. At the other end of the power scale, the weather had a devastating effect on garden and groundscare machinery. No rain meant no grass and sales fell by at least 25 per cent.

JAPANESE INDUSTRY LOOKS TO EXPORTS AGAIN

CEMA, the Japanese construction equipment trade association, has recently issued its outlook for fiscal 2003, the year ending in March 2004. Once again, it reports stagnation in the domestic market but notes that exports have picked up.

In the full fiscal year, exports could rise by 26 per cent ¥629.6 billion, the third consecutive year of increase; whereas the best that one can see for domestic shipments is a four per cent rise to ¥524.7 billion. The growth forecast for fiscal 2004 is of the order of two per cent in the home market and 15 per cent in exports. This would give a net growth in shipments of nine per cent.

Exports carry some element of risk in that Japanese plants (especially in hydraulic excavators) are currently very busy with orders for China, where overheating is possible but Japan and Europe offer more stable prospects.

MANITOWOC RESTRUCTURES ITS EUROPEAN DISTRIBUTION NETWORK AND ENTERS SUPPLY AGREEMENT WITH KOBELCO

With a view to facilitating the continuing integration of the Grove mobile crane and Potain tower crane businesses into its own organisation, the Manitowoc Crane Group has announced a reorganisation of its sales and marketing operations for the newly formed Central European region and Germany.

Under the new structure the former sales director for Potain's tower crane sales organisation in Germany has been appointed as sales director for Central Europe, and becomes responsible for all the sales activities of the Manitowoc Crane Group in that region. The region encompasses Germany, Austria, Switzerland, Luxembourg, Poland, Czech Republic, Slovakia, Hungary and Turkey. The newly combined headquarters of the Deutsche Grove and Potain companies will be based at Grove's current offices in Langenfeld, Germany and will co-ordinate the activities of four Potain and three Grove regional sales managers. This means that the distribution and sales of all Manitowoc Crane Group products in Central Europe is now centralised in Langenfeld.

As part of the overall distribution restructuring, Deutsche Grove, the name of the original sales company for Grove mobile cranes in Germany, has also appointed a new dealer, Werner GmbH & Co. KG, based in Zweibrücken with responsibility for crane sales in South-West Germany and a large part of East Germany. The new dealer's sales territory includes Rhinland-Palatinate, the Saarland, Baden-Württemberg, Thuringia, Saxony, Saxony-Anhalt, Berlin, Brandenburg and parts of Lower Saxony. In the remaining areas of Germany crane sales will continue to be undertaken by Deutsche Grove's regional sales managers in Bavaria, Northern Germany and North Rhine-Westphalia.

Manitowoc Crane Care, the company's global technical support and customer service organisation, will take over product support for the whole region with specialist staff for all crane

types located in Langenfeld. The extensive workshops in Langenfeld will remain as a central location for the repair and overhaul of used mobile cranes for sale in both the domestic and export markets. Spare parts procurement is from two logistics centres in Lyon, France and Venlo, in the Netherlands.

Manitowoc, which specialises in the manufacture of heavy lift lattice-boom crawler cranes, originally announced its intention to buy Grove Worldwide at the Conexpo show in Las Vegas in March 2002, thereby ending speculation that Terex was about to purchase Grove. With sales of over \$1 billion the sound financial status of Manitowoc meant the end of a long and financially troubled chapter in Grove's history following its disposal by former owner Hanson. Manitowoc had also recently bought Potain, the French manufacturer of tower cranes.

In November 2003, Manitowoc also announced the conclusion of an agreement with Kobelco Construction Machinery Co. of Japan, whereby Kobelco will supply Manitowoc with a range of lattice-boom crawler cranes with lift capacities under 150 US tons to be introduced in mid-2004. The new models will be differentiated from Kobelco's own range and will be supported through Manitowoc's existing dealer and product support network. Kobelco will continue to market its own full line of crawler cranes with lift capacities of 55-250 tons in the Americas.

THE POLISH CONSTRUCTION EQUIPMENT MARKET IN 2002

Table 5. Poland: Sales of Selected Items of Construction Equipment, 1998-2002

(Units)

	No. of Suppliers	1998	1999	2000	2001	2002	Forecast 2003	% Change 1998-2003
Mini Excavators	10	40	59	115	74	45	45	+12
Wheeled Excavators	5	23	21	21	27	20	17	-26
Crawler Excavators	10	95	95	75	43	48	62	-35
Crawler Dozers	5	108	67	65	49	32	30	-72
Crawler Loaders	2	5	2	-	-	2	-	-100
Wheeled Loaders	8	260	213	235	198	143	125	-52
Backhoe Loaders	10	558	569	543	416	471	475	-15
Skid-Steer Loaders	8	106	83	70	60	31	25	-76
Telescopic Handlers	9	29	41	39	90	95	105	+262
Articulated Dump Trucks	2	14	-	3	5	42	9	-36
Rigid Dump Trucks	4	13	11	9	9	-	3	-77
Motor Graders	4	15	13	13	10	9	10	-33
Compaction Equipment	8	120	123	120	77	90	135	+11
Total		1,386	1,297	1,308	1,058	1,028	1,041	
% Change		+13	-6	-	-24	-3	+1	-25

Source: Off-Highway Research

After a strong growth in the second half of the 1990s the Polish construction equipment market fell by 24 per cent in 2001 and a further three per cent in 2002. Falling investment in residential and non-residential construction, very slow progress in motorway building, reduction in public spending and the general environment of high interest rates have been the main reasons for decline in new machinery sales.

In 2002 **Caterpillar**, represented by Bergerat Monnoyeur & Eneria, was the leading supplier and delivered a total of 226 machines including 177 backhoe loaders. **JCB**, represented by Interhandler, was the second largest supplier with a total of 190 machines including 135 backhoe loaders delivered to Polish customers. The Polish manufacturer **HSW** (Huta Stalowa Wola) delivered almost 150 machines divided between wheeled loaders, backhoe loaders and crawler dozers. Finally, **Volvo**, **Komatsu** and **Case** jointly delivered 215 machines in 2002.

There is a considerable demand for second-hand construction machinery in Poland, which is sourced primarily from Germany. It is estimated that in 2002 this market amounted to over 400 machines.

Mini excavators, which topped 40,000 units in Western Europe in 2002, does not represent a very strong market due to the availability of cheap labour and the popularity of backhoe loaders. I-R Bobcat leads the market, followed by Case.

The **wheeled excavator** market remains small and uneventful. Volvo, Caterpillar and Liebherr are the only significant suppliers. Future demand is likely to remain at a low level because of the continuing popularity of backhoe loaders.

Sales of **crawler excavators** declined by 49 per cent compared with 1999. Ten suppliers competed in the market with Caterpillar, Komatsu and Daewoo accounting for 65 per cent of all new sales. 2003 demand looks more optimistic with almost 50 machines delivered in the first nine months.

Crawler dozer sales have mostly been made up by HSW (53 per cent market share in 2002). Komatsu delivered eight machines, 30 per cent up from the previous year, with Caterpillar and Liebherr being the remaining suppliers. Future sales are likely to remain at 20 to 45 units per year.

Wheeled loaders, the second largest equipment market in Poland, declined by 28 per cent compared with 2001. HSW continues to dominate the market with 93 machines delivered.

Volvo delivered 20 machines including 12 units above 80 horsepower. Komatsu was the third largest supplier, followed by Caterpillar.

Backhoe loaders remain the most popular sector of construction equipment in Poland and accounted for 46 per cent of all machines sold in 2002. Caterpillar and JCB were market leaders with a combined market share of 66 per cent. Case, HSW and Komatsu were the other significant suppliers with total sales of 126 machines.

Skid-steer loaders declined to just over 30 units in 2002. I-R Bobcat, distributed through a network of independent importer-dealers remains the market leader. Sales are expected to stay at about 30 to 50 units per year, mainly to customers from the industrial, agricultural and road maintenance sectors.

The **articulated dump truck** market grew strongly in 2002 with Volvo supplying 40 machines on rent to a motorway contractor in southern Poland.

Telescopic handler sales have grown very strongly in the last two years, with JCB and Manitou being the main suppliers. An increase in marketing and promotion of the product to the farming and industrial sectors will inevitably keep the demand at the level of about 100 units per year.

Compaction equipment sales recovered reasonably well in 2002 when several links of the new motorway network were awarded. The large, over 8 tonne tandem and self-propelled rollers were the main beneficiaries of the market expansion with Hamm and Stavostroj being the main suppliers. With plans to build 500 kilometres of new motorways by 2007, sales of large compaction rollers are expected to double within the next two years.

It is expected that the Polish construction equipment market will return to a small growth in 2003 while accession to the EU in May 2004 should provide desperately needed EU structural funds towards improving Poland's infrastructure – particularly the crumbling road network. Therefore, the outlook for the construction equipment sector looks much more secure and with slowly growing business confidence the market is expected to rise by six per cent in 2004 and a further 10-15 per cent in 2005.

Off-Highway Research published a comprehensive report on The Construction Equipment Industry in Poland in September 2002.

EUCLID'S DUMP TRUCK PRODUCTION TO BE REORGANISED

Hitachi Construction Machinery Co. Ltd of Japan and Euclid-Hitachi Heavy Equipment Ltd of Canada have announced a reorganisation plan for the production of rigid dump trucks at the Guelph factory in Canada.

Over the next two years, production of dump truck above 140 tons will be moved from Guelph to a Hitachi facility in the Osaka region of Japan. The change is to enhance Hitachi's mining equipment operations and a new name will be given to the Japanese-produced dump trucks, consistent with the large Hitachi hydraulic excavators, although as yet no official name has been stated.

This will necessitate the four large truck models being transferred to Japan, the EH3000, EH3500, EH4000 and EH4500. This will leave eight models still being produced in Guelph.

Table 6. Euclid-Hitachi: Production of Rigid Dump Trucks in Guelph, 1998-2002

1998	1999	2000	2001	2002
350	275	250	200	175

Source: Off-Highway Research

It is believed that between 15 and 20 per cent of production will fall in the category that is to be transferred to Japan, indicating that Japanese output will be in the region of 40-50 units in the long term.

In a further effort to harmonise production and reduce costs, Euclid-Hitachi is to close all other facilities in the USA and concentrate solely on the Guelph facility.

VALTRA SIGNS DEAL FOR TRACTOR PRODUCTION IN TURKEY

Valtra of Finland has signed a technical collaboration agreement with Hema Endüstri of Cerkezköy, Turkey to enable local assembly of Valtra agricultural tractors at Hema plants in Turkey. Valtra has delivered tractors to Turkey in the past, trying to sell through local dealers, and Hema has made a tractor from a Tümosan engine (the Fiat design) and a Ford gearbox, with the external appearance of an obsolete New Holland tractor.

Hema took over the assembly of Romanian UTB tractors in 2001. The market background has been discouraging, with total sales running far below 20,000 tractors after 2000, compared to 40,000 or even 50,000 in the late 1990s.

Table 7. Turkey: Agricultural Tractor Sales, 1999-2003

(Units)

1999	19,280
2000	27,797
2001	10,125
2002	5,852
2003*	8,700

* Forecast

Source: OSD (Trade Association)

Turkey has two strong manufacturers in the forms of CNH's partner Türk Traktor and the AGCO associate, Uzel. In 2002, Türk Traktor sold 4,254 agricultural tractors in Turkey and 604 in export markets, while Uzel, which makes Massey Ferguson designs, sold 3,068 tractors in Turkey and 3,555 overseas. Uzel will have an even larger role overseas after the closure of the AGCO plant in Coventry, England, as it will take up the supply of some of the lower specification models formerly made in the UK.

Valtra and Hema will try to put into the market tractors between 65 and 90 horsepower, in effect the top third of the market in size terms. The 50 horsepower UTB product aims at the main small farmer sector and will have sales of around 1,400 units in 2003. Hema was established in 1973 and is a leading producer of automotive components, selling to Ford, Fiat, Renault, Perkins Engines, Iveco, John Deere MAN and DaimlerChrysler. It employs 1,500 people and has a turnover of €135 million. Part of the agreement with Valtra concerns the delivery of Hema parts to Valtra. The Turkish partner is strong in the manufacturing of pumps, steering units and other hydraulic parts, as well as in gears, crankshafts and other transmission components.

FINANCIAL RESULTS

FIRST QUARTER

JLG – USA

Table 8. JLG: Financial Highlights, First Quarter, 2002-2003

(\$ Millions)

	3 Months Ending October	
	2002	2003
Revenues		
– Aerial Work Platforms	91.3	89.0
– Telehandlers	27.6	70.8
– Excavators	3.6	7.7
Equipment Revenues	124.5	167.6
– Financial Products	4.4	3.6
– Rentals	1.7	1.5
Total Revenues	130.6	172.7
Operating Income	7.7	9.3

Source: Company Information

JLG reported much improved first quarter figures for the first quarter, which ended in October. Sales were up by 32 per cent over 2002 in the period, and operating income was up from \$7.7 million in the first quarter of 2002 to \$9.3 million in the corresponding quarter.

The \$43 million growth in the first quarter's revenues has largely been generated by very large increase in revenues of its telehandler business. Here sales moved ahead from \$27.6 million to \$70.8 million as a result of the acquisition of Omnicup's products.

SECOND QUARTER

LINDE – GERMANY

The Linde Group, Europe's leading manufacturer of forklift trucks and a major supplier of hydraulic components for mobile machinery, increased sales by 1.2 per cent to €1.167 billion during the first half of 2003. At €3.220 billion, foreign sales reached last year's level (€3.199 billion), while sales in Germany climbed 3.0 per cent to €47 million.

Table 9. Linde AG: Financial Highlights, First Half, 2002-2003

(€Millions)

	6 Months Ended June	
	2002	2003
Sales		
Material Handling	1,442	1,405
Other*	2,676	2,762
Total	4,118	4,167
Operating Income/Loss		
Material Handling	58	52
Other	222	201
Total Operating Income	280	253
Net Income	168	179

*Gas divisions, refrigeration and plant engineering

Source: Company Information

In the Material Handling division, sales fell by 2.6 per cent compared to the same period last year. Although orders received for industrial trucks were slightly above last year's level, the increase was primarily attributable to the high demand for small, low margin warehouse trucks. There was an even more marked decline in sales of forklift trucks, however, as the German market continued to reflect the European trend. At €52 million, operating profit at the Material Handling division was 10.3 per cent below last year's level.

The outlook for the second half of the year offers little prospect for improvement, according to Linde, due to continuing weak domestic demand and export difficulties as a result of a strong euro. However, the Linde Group still expects to see a slight improvement in sales and operating profit before exceptional items.

MANITOU – FRANCE

Turnover fell by seven per cent in the first half of 2003. Exchange rate movements accounted for two percentage points of the decline but a number of other factors depressed sales:

- Order intake fell steeply at the end of 2002.
- The euro increased in value.
- Deliveries were delayed by new product launches.

Table 10. Groupe Manitou: Financial Highlights, 2002-2003

(€Millions)

	6 Months Ended June		%
	2002	2003	Change
Turnover	355.3	329.5	-7
Value Added	86.9	82.5	-5
Gross Profit	42.2	38.2	-9
Operating Profit	35.2	34.3	-3
Net Profit Before Exceptional Items And Taxes	36.6	34.6	-5
Net Profit	22.9	22.5	-2

Source: Company Information

Profits were reduced at the gross level because personnel costs remained unchanged from the 2002 level but lower provisions allowed the operating profit to decline less than the growth profit. The net profit was down by only two per cent, a remarkable achievement, given the problems in the domestic market arising from a cyclical cooling of demand.

The company is maintaining its target of reaching the same level of turnover as 2002 in the full year, excluding foreign exchange effects.

PINGUELY-HAULOTTE – FRANCE

Table 11. Pinguely-Haulotte: Financial Highlights, 2002-2003

(€Millions)

	6 Months		%
	2002	2003	Change
Turnover	97.4	109.5	12
– Domestic	24.6	16.0	-35
– Export	72.8	93.5	28
Earnings Before Interest And Taxes	6.3	7.1	13
Net Profit	4.2	3.9	-7

Source: Company Information

The access platform market has decreased by between 20 and 25 per cent in 2003, according to Pinguely-Haulotte, Europe's leading producer. Given the slide in the French market, it good that the company has established well in many major markets, inside and outside Europe. The international business now furnishes nearly 85 per cent of turnover and grew by 12 per cent in the first six months of this year.

The operating profits in the first half of 2003 equalled 6.5 per cent of turnover, almost the same as in 2002 but the company admits that it is having to work hard on cost reductions and the optimising of facilities to counter the effect of the hardening euro. It confirms that by the end of the year it will close the plant in Chambéry (where it began platform production in 1986) and finalise the buying of the rental company Lev.

THIRD QUARTER

ATLAS COPCO – SWEDEN

Table 12. Atlas Copco: Financial Highlights, Third Quarter, 2002-2003

(SEK Millions)

	3 Months Ended September		9 Months Ended September	
	2002	2003	2002	2003
<u>Revenues</u>				
– Compressor Technique	3,963	4,122	11,787	11,815
– Construction & Mining Technique	1,864	2,075	5,600	5,889
– Industrial Technique	2,928	2,690	8,578	7,743
– Rental Service	3,191	2,793	9,945	7,895
Total	11,873	11,598	35,613	33,146
<u>Operating Profit</u>				
– Compressor Technique	768	766	2,196	2,182
– Construction & Mining Technique	179	198	568	500
– Industrial Technique	268	295	731	714
– Rental Service	217	286	507	602
Total	1,405	1,469	3,875	3,847
Net Profit	774	891	2,035	2,237

Source: Company Information

The order volumes were up by five per cent in the third quarter at Atlas Copco, but currency translation effects had a negative effect of no less than nine per cent, compared to 2002. Revenues increased in volume by five per cent but showed a decrease of 2.3 per cent in terms of Swedish Krona. The net profit increased to SEK891 million, and the operating profit margin increased to 12.7 per cent.

North America was flat but demand in Europe was slightly better, but still mixed in the quarter. Eastern Europe, Russia in particular, continued to experience strong growth in demand, and also some important markets in Western Europe, notably France and Spain, recorded a positive

development. Italy and the Nordic countries were relatively weak. In the European Union, demand from the construction industry remained on a low level. In spite of this, some improvement in orders for portable compressors and generators was noted.

The positive demand development in Asia was emphasised further in the quarter. Growth in China was very strong in all business areas and most other markets in the region recorded favourable demand trends.

CUMMINS – USA

Table 13. Cummins Inc.: Financial Highlights, 2002-2003

(\$ Millions)

	3 Months Ended September		9 Months Ended September	
	2002	2003	2002	2003
<u>Revenues</u>				
– Engines	1,033	942	2,659	2,647
– Power Generation	315	363	902	937
– International Distributor	152	174	421	479
– Filtration & Other	236	255	707	774
– Eliminations	(88)	(100)	(250)	(274)
Total	1,648	1,634	4,439	4,560
<u>Earnings/(Loss) Before Interest And Income Taxes</u>				
– Engines	51	36	50	38
– Power Generation	3	-	(14)	(29)
– International Distributor	10	9	17	27
– Filtration & Other	19	16	66	61
Total	83	61	119	97
Net Profit	44	24	36	7

Source: Company Information

Cummins reported third quarter earnings of \$24 million on sales of \$1.63 billion. This compared poorly to earnings in 2002 of \$44 million on higher sales of \$1.65 billion, caused by buying ahead of the October 2002 emissions deadline. In the first nine months of 2003, Cummins posted a very small net profit of \$7 million.

Total sales for the Engine Business in the third quarter were \$942 million, a nine per cent decrease from sales of \$1.03 billion a year ago. Revenues in automotive markets were 15 per cent lower than the third quarter last year, primarily due to last year's pre-buy ahead of the October 2002 emissions standards change. This decrease was partially offset by increases in the

light-duty automotive business. International heavy-duty truck engine shipments were up nine per cent from a year ago and 38 per cent from the previous quarter. Overall revenue from industrial markets was up 14 per cent year-over-year, with increases in construction, mining and government sales.

Sales in the Power Generation Business for the third quarter were \$363 million dollars, up 15 per cent from third quarter of 2002. In North America, revenues were up two per cent compared with a year ago, with an increased demand in the commercial genset business partially offset by lower pricing. Demand in the consumer business remained strong, with sales 10 per cent higher than the third quarter of 2002. Outside North America, revenues increased across most regions, with significant increases in the Middle East, Mexico, Australia and parts of Asia.

Sales for the International Distributor Business were \$174 million dollars in the third quarter, an increase of 14 per cent compared with sales of \$152 million last year, with improvement across most regions. Sales to the Middle East, particularly in power generation equipment, were also a significant contributor.

The following table shows the shipment record of engines in 2003 and indicates the considerable effect of the emissions legislation on business since October 2002.

Table 14. Cummins Inc.: Shipments of Engines by Type, 2002-2003

(Units)

	3 Months Ended September		9 Months Ended September	
	2002	2003	2002	2003
Engines				
– Mid-Range	71,800	73,800	265,100	209,900
– Heavy-duty	22,700	13,200	57,900	36,700
– High Horsepower	2,200	2,300	8,900	6,200
Total	96,700	89,300	331,900	252,800

Source: Company Information

MANITOWOC – USA

Manitowoc Company, Inc. (owner of the Grove and Potain crane businesses among others) reported net sales of \$422.3 million for the third quarter of 2003, increasing seven per cent from \$394.9 million during the same period last year. The company also reported net earnings of \$7.2 million, or \$0.27 per diluted share, compared with net earnings of \$14.7 million.

Table 15. Manitowoc Co.: Financial Highlights, 2002-2003

(\$ Millions)

	3 Months Ended September		9 Months Ended September	
	2002	2003	2002	2003
Net Sales				
– Cranes	219.7	262.7	491.2	768.4
– Others	175.2	159.6	515.0	466.8
Total	394.9	422.3	1,006.2	1,235.2
Operating Earnings				
– Cranes	19.3	9.0	52.8	25.2
– Others	18.7	14.6	48.9	31.0
Total	39.0	23.6	101.7	56.2
Net Earnings	14.7	7.2	4.6	9.0

Source: Company Information

Excluding the Grove acquisition, third-quarter sales declined nine per cent compared to 2002. The downturn in the US crawler market continues to impact the company's legacy crane business. That decline was partially offset by modest improvement in the tower and mobile hydraulic crane markets in Europe and Asia.

Net sales in the crane segment were \$262.7 million for the quarter, an increase of 20 per cent from \$219.7 million in the same quarter of 2002. Operating earnings were \$9.0 million for the quarter compared with \$19.3 million for the same quarter in 2002. At the end of September, the crane business had a backlog of approximately \$150 million. Excluding the acquisition of Grove, crane segment sales were down eight per cent on 2002 in the third quarter, mainly in the domestic crawler crane operations.

Manitowoc claims to be increasing its international activity and market share with Potain and Grove Worldwide and aggressively protecting its market share elsewhere. Non-US sales now account for about 70 per cent of total crane sales. The company expects crane industry conditions will remain difficult throughout 2004.