COMPANY PROFILE:
JCB
AUGUST 2002

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INTRODUCTION

JCB was last profiled in Off-Highway Research's European Service in 1998. The purpose of this profile is to identify major changes since the last publication, highlight the company's relative strengths and weaknesses, and to offer an appraisal of the likely fortunes which face JCB in the medium term.

The profile covers the major product areas of backhoe loaders, hydraulic excavators, mini excavators, wheeled loaders, rough terrain lift trucks, skid-steer loaders and agricultural tractors. There is also an appreciation of the company's components and power pack divisions, as well as the recently introduced range of industrial lift trucks and articulated dump trucks.

JCB is one of the few British-owned construction equipment manufacturers which has truly global operations, and whilst the emphasis of the study will be on the company's manufacturing operations and the distribution of its products within Europe, brief analyses of its operations in North America and the Far East are included.

SUMMARY

Table 1. JCB: Statistical Summary, 1981-2001

	1981	1985	1988	1992	1996	1997	2000	2001
Turnover (£ Mn)	120	170	395	350	750.3	773.5	889.4	807
Profit (£ Mn)	3.5	22	42	10	103.4	80.3	41.6	20
Employees	1,500	1,300	1,500	1,300	3,359	3,617	3,850	4,000
Production (Units)								
– Backhoe Loaders	4,750	7,000	10,500	7,000	11,500	13,000	13,000	10,500
– Rough Terrain Lift Trucks	400	1,300	3,600	2,100	5,400	6,000	7,750	6,400
– Wheeled Loaders	175	500	950	1,000	1,300	1,350	1,400	1,250
– Crawler Excavators	400	450	800	-	800	975	1,500	1,650
– Wheeled Excavators	-	-	-	-	200	190	350	350
– Mini Excavators	-	-	-	1,000	2,200	2,300	4,000	4,000
– Skid-Steer Loaders	-	-	-	-	700	1,000	1,100	1,000
– Agricultural Tractors	-	-	-	400	1,300	1,500	700	850
– Articulated Dump Trucks	-	-	70	25	-	-	45	100
– Teletruk	-	-	-	-	-	-	500	550
Total Production	**5,725**	**9,250**	**15,920**	**11,525**	**23,400**	**26,313**	**30,345**	**26,650**

Source: Off-Highway Research

HISTORICAL DEVELOPMENT

The history of JC Bamford Excavators (or JCB as it commonly known) is one of the better documented stories in the construction equipment industry. In 1945, after a family disagreement, Joseph Cyril Bamford (JCB) left the family agricultural concern and set up his own business building agricultural trailers in a rented garage in Uttoxeter, less than 10 miles from the site of the company's current premises in Rocester.

Joe Bamford then moved his fledgling company to a small farm in Rocester in 1950 and today, over 40 years later, the company owns over 2,000 fully landscaped acres on which the plant operates. 1953 saw Mr Bamford develop his first backhoe attachment which was fitted with a hydraulic loader to a farm tractor, and in the same year the JCB logo first appeared.

The early machines were not very successful, but in 1954 JCB launched the first true backhoe loader, whereby the loader and backhoe were attached to a separate, rigidly constructed chassis, rather than being directly mounted on a tractor unit. Thus the future mainstay of the company was launched, and throughout the 1950s and 1960s the company prospered upon the success of its JCB 3, JCB 3C and JCB 4 backhoe loaders.

The early 1960s saw the company's first attempt to diversify its product range with the introduction of a range of small dumpers and the JCB 1 digger dozer, but it was in 1965 that JCB launched its first crawler excavator, the JCB 7. The company's product diversification programme had begun, a process that continues today with great momentum. In 1968 JCB acquired Northrop, the manufacturer of the Chaseside range of wheeled loaders, and within six months all production of these machines had been moved from its original home in Blackburn, Lancashire to Rocester. This purchase was unique for JCB, in that it was the only time that it has sought expansion by acquiring a competitor. The preferred option is to grow the company by expanding and developing its own products; if JCB is to achieve its stated goal of being the world's second largest producer of equipment it is likely that some time in the future acquisitions will be considered.

In 1972 JCB launched a range of hydrostatic crawler loaders but due to rapidly declining demand for the product in its domestic market and an inability to compete in export markets, viable sales targets were unable to be met. The product range was phased out in 1979, and together with the articulated dump truck launched a decade later, was one of the very few commercial failures in what has been an unqualified success story.

The early 1970s saw the company update its range of excavators and wheeled loaders and in 1975, the company's founder, Joe Bamford, retired and handed over control to his son, Anthony. The change in leadership could have had a dramatic effect upon the company's progress after such a long period of leadership by an ebullient, forthright entrepreneur. However, utilising his expertise in finance and marketing, Sir Anthony Bamford has led the company to nearly 30 years of unparalleled growth.

In 1977 product expansion continued with the introduction of its range of telescopic rough terrain lift trucks, which JCB calls Loadalls. As the 1970s drew to an end the company faced its first major potential problem. The construction industry was heading towards recession, the crawler loader was being phased out, and the backhoe loader had reached a stage where major improvements were necessary if it were to remain commercially competitive.

Despite its earlier product diversification, the backhoe loader in 1979 was still the backbone of the company's progress and success, and the JCB 3C had been synonymous with the backhoe loader over the 15 years since its introduction. The product was maintaining market share despite shrinking volumes, and was still proving very popular with customers. However, in the very competitive conditions of the late 1970s and with an overvalued currency, JCB realised it needed to radically reduce its manufacturing costs to maintain competitiveness. The decision was taken to initiate a £24 million investment programme which resulted in an entirely new range of backhoe loaders.

The risk the company was taking was large. Company profits fell to £25,000 in 1980 and if there had been any major problems with the launch of the new machines, it would have put a severe financial strain on the company. The risk, however, proved worthwhile and the product was a success. The reduced costs enabled the company to increase turnover and profitability every year since then, and laid the foundation for the increased number of product launches in the 1990s.

In 1983 JCB first entered the mini excavator sector. In a departure from normal practice it did not develop the product entirely itself but utilised components and technology from Kubota, the Japanese market leader. The move was a mistake that led to the company leaving the sector in 1985, but the lessons were learnt and in 1989 JCB re-entered the market with its own designed and built product.

In 1988 JCB entered the small size articulated dump truck market with its 712 model. The decision caught many commentators by surprise but it was aimed at developing a product sector where competition was limited. Unfortunately the recession in the UK resulted in limited demand and four years later JCB withdrew from the market. It was essential that all products had to achieve significant volumes to ensure that they would be commercially viable – or they would be dropped. In a surprise move in 1999, the company announced that it was once again to enter the articulated dump truck sector. In 2000 it launched the 714, followed in 2000 by the 718 model. Both machines, like their forerunners are smaller in size than the standard articulated dump truck sold throughout the world. They can only be considered niche products but are considered by many as the prelude to the launch of a larger articulated dump truck in the near future.

In 1990 JCB announced it was to enter the agricultural tractor market with a high speed versatile machine aimed at the needs of the farmer in the 1990s. After a slow start the product, called the Fastrac, has established a strong position in the JCB product range.

In 1991 JCB announced that it was entering a joint venture with Sumitomo Heavy Industries of Japan to produce a range of crawler excavators in the UK for sale throughout Europe. The crawler excavator had been part of the JCB product range since 1965, but outside the UK market had limited success. The introduction by competitors of new Japanese-designed machines built in Europe was also having a serious impact upon the company's performance in its domestic market. The company had always wished to be a prominent player in the large volume excavator European market and the joint venture was the best method for this to be quickly established.

Initially the product was imported fully built up in JCB livery, but by 1993 the company was building machines in Uttoxeter from imported components. The agreement was heralded as a major breakthrough for JCB in its efforts to become a major player in the excavator market throughout Europe and not just in the UK. The new JCB-SCM range gave JCB a more modern, competitive product range of crawler excavators with which to develop new markets outside the UK, and thus it came as a shock when, at the beginning of 1998, Sumitomo announced it had entered a new world-wide relationship with Case. The company formally announced its split with Sumitomo in September 1998 and JCB Heavy Products was formed to replace the JCB-SCM joint venture company.

JCB retained the model range it built as part of the joint venture agreement but replaced the two models it imported from Japan with the JZ70 and JS460.

In 1993 the company developed its own wheeled excavator based on the superstructure of the crawler excavator and its own design of undercarriage, so JCB had a full hydraulic excavator range with which to launch its attack on the European markets.

In 1993 the company also announced its launch of another new product, the skid-steer loader. This market entry initially caused some surprise among industry observers, but there was logic in the move as the skid-steer loader completed the company's range in the large volume, small sized product categories. The initial design was revolutionary, with the use of a single arm and a Peugeot engine. Some say that the design was too revolutionary for the market, but with some changes the new skid-steer loader range is now gaining acceptance in the more important markets.

In 1995 the company opened a new factory in Cheadle, and is a replica of the main factory in Rocester, 16 kilometres away. This factory, which is known as Cheadle 1 is the source of all compact equipment, including mini and midi excavators, skid-steer loaders, rough terrain lift trucks, the Teletruck range, and compact telescopic handlers.

In 1999 the company opened an adjacent factory, which was originally called Cheadle 2 and is now known as JCB Earthmovers. Here are built JCB's wheeled loaders, articulated dump trucks and, more recently, the Fastrac.

In mid-1997 it announced its entry into the industrial lift truck market with the Teletruk, another machine based around a revolutionary design. While this sector falls outside the construction equipment industry, there are many similarities. The sector is perceived as being conservative and mature, but offers high volumes, and JCB believes it is a market that is vulnerable to new dynamic initiatives. JCB's history of success suggests that it might well be right, even though its concept will take time to be fully embraced by the conservative lift truck industry.

2000 was a monumental year for the company when it opened its first factory in the US, in Savannah, Georgia. This is the first wholly owned overseas factory and is intended to be the springboard for future expansion in the North and Latin American markets.

2001 saw the death of the founder Mr Joe Bamford. In the 56 years since the founding of the company the three letters JCB have become synonymous with marketing excellence and engineering expertise. The company has undertaken an extensive programme of product diversification, particularly in the last ten years. It does not rely on past successes, and in future is likely to continue its diversification programme as it seeks to carry on the growth pattern of the last twenty years. The rate of growth is unlikely to be as spectacular, 100 per cent in the last ten years alone, but very importantly JCB is no longer dependent upon a single product, the backhoe loader, with which its name will always be associated.

COMPANY STRUCTURE

JCB is a family owned and controlled company and the Bamford family provides over half the directors on the boards of the consistent companies within the organisation. The current Chairman and Managing Director is Sir Anthony Bamford who succeeded his father, Joe, in 1976. JCB is nominally a Dutch company, in that the ultimate holding company is Transmission and Engineering Services Netherlands BV. Off-Highway Research understands that this is to ensure an orderly transfer of ownership of the company between family members.

As the section on the historical development of the company has shown, JCB does not rely on past achievements alone, but firmly believes that it must evolve and change rapidly in line with those developments that are taking place in the market.

The basic structure of the company has remained unchanged since the early 1990s when JCB decided to divisionalise its product groups. It was decided to establish each group under a separate management team, which would be responsible for all facets of the product from its design to its product management. The management decided upon this move to increase operating flexibility and to focus attention on individual products, for it was felt at the time that there was too much emphasis on the backhoe loader, at the expense of other products.

The foresight shown by this strategy has proven to be very successful, not only by the improved trading position of the company, but the ease with which new products have been assimilated into the corporate structure without affecting existing ones. The articulated dump truck and industrial fork lift are the latest such examples.

Within each constituent company the organisational structure is constantly evolving in response to market conditions, and depending upon where in the product life cycle the machine might be. JCB responds quickly to initiate change should the need arise and this applies equally to successful products such as the backhoe loader as well as some of the lower volume products.

The companies which make up JCB are as follows:

JC Bamford Excavators Ltd: the company which lies at the heart of JCB. It is responsible for the development, manufacture and marketing of JCB backhoe loaders, wheeled loaders and telescopic rough terrain lift trucks. The company is located at the main JCB plant in Rocester.

JCB Compact Products Ltd: this company represents the growth area of the company. Previously known as Special Products, this division is responsible for the mini excavator, masted rough terrain lift trucks, skid-steer loaders, and the new industrial lift trucks.

JCB Heavy Products Ltd: this is a relatively new company set up in 1999 following the demise of the joint venture with Sumitomo. The division has also been given the added responsibility of the Cheadle 2 factory, where the new articulated dump truck and wheeled loaders are also manufactured.

JCB Hydrapower Ltd: located in Rugeley, it is responsible for the development and manufacture of cabs. The company was originally set up to be responsible for JCB's power packs and mini excavators.

JCB Transmissions Ltd: based in Wrexham, North Wales, this company is responsible for the development, manufacture and marketing of gearboxes, axles and power transmission systems. Founded in 1978 to sell components to JCB, it now sells its equipment to other manufacturers through a subsidiary called International Transmissions Ltd.

JCB Landpower Ltd: the company has recently moved to the JCB Earthmovers factory in Cheadle, and is responsible for designing, manufacturing and marketing the JCB Fastrac, the innovative high speed tractor, as well as marketing the complete range of JCB agricultural equipment.

JCB Sales Ltd: based at Rocester it is responsible for worldwide sales and marketing, and the supply of JCB products and controls the two subsidiary trading companies, which manage the distribution system.

JCB Research: an unlimited company based at Cheadle that sells researched (and tested) designs to JC Bamford Excavators for production.

JCB Service: an unlimited company, responsible for the supply and marketing of parts, attachments and hand held tools, technical publications and customer care. The company is supported by four parts distribution centres.

JCB Credit Ltd: an associate company of JCB based in Rocester, but not on the main factory site. The company is partly owned by JCB, and partly by Ulster and Lombard (part of the

National Westminster banking group). The company is self financing and can only supply retail credit.

JCB Insurance Services Ltd: based in Rocester, but not at the same premises as JCB Credit. It works with JCB Credit to give the customer complete support both before and after the sale of the machine. The wholly owned subsidiary provides a comprehensive insurance broking system to JCB customers for machines supplied by the company.

FINANCIAL DATA

The 1990s were a period of rapid development for the company, although the early years of the decade saw a deep recession and resulted in JCB's sales and profits both falling. The recovery since 1992 has been impressive and while JCB is not immune from the problems of the industry as a whole, it would appear to be very astute at exploiting conditions when they are favourable, and protecting itself when conditions deteriorate.

Table 2. JCB: Financial Highlights, 1982-2000
(£ Mn)

Year	Turnover	Profit	Year	Turnover	Profit
1982	109	5	**1992**	350	10
1983	128	16	**1993**	397	27
1984	154	20	**1994**	564	73
1985	198	24	**1995**	705	103
1986	231	31	**1996**	750	100
1987	290	35	**1997**	774	80
1988	395	42	**1998**	786	84
1989	450	45	**1999**	833	91
1990	425	40	**2000**	889	42
1991	400	20	**2001**	807	20

Source: Off-Highway Research

As a private company JCB is not under any obligation to publish full and detailed financial accounts, but as a result of information available from the company, the above accurately reflects the financial development of the company.

Table 2 shows that turnover in 2000 was an historic high, but fell back in 2001. Profits were halved in both years, although they remained at or above industry averages for the period under review. The recent fall in profits can be attributed to a number of factors. The strength of sterling has reduced the margins on all sales outside the UK while the company has invested heavily in new facilities in the USA and the new World Parts Centre, the benefits of which will emerge in future years. The company's high level of profitability comes from its ability to keep production costs under tight control. This is achieved not only in-house but the company ensures that components bought outside are done so at the best possible commercial advantage. JCB is able to achieve this because of its purchasing power.

And finally, the world markets have slowed down in the last 12 months, and most major manufacturers have suffered as a result.

The broadening of the product range has enabled the company to increase its turnover significantly, but equally important is its ability to exploit the differing market conditions throughout the world. Its ability to adjust production levels to reflect sudden changes in market demand is one of the major reasons for JCB's success.

It is JCB's ability to react rapidly to meet changing market conditions that is one of its major assets. The fact that the company is privately owned and not susceptible to the demands of institutional shareholder pressure, is considered by many to be one of its fundamental strengths, and enables it to take a long term view of its prospects. This is borne out by the decision to continue spending on research and development throughout the recessions at the beginning of the 1980s and 1990s. The company spends on average 4 per cent of its turnover each year on research and development.

The task ahead is to maintain its current levels of sales and profits at a time when the strength of sterling is still affecting its competitiveness in export markets. In Europe, which JCB sees as its home market and accounts for approximately 65 per cent of its sales, sterling has risen 33 per cent against the major currencies since mid-1996. Obviously JCB cannot sustain a constant decline in profitability and still continue its product development at present rates, but neither will it take a stance of retrenchment. Should the strength of sterling be maintained in the long term then JCB will doubtless review its manufacturing strategy, and decide whether it will source more of its machines from overseas plants.

The extended product range opens many new opportunities for JCB but the trading conditions will be more competitive than ever. It has shown its adaptability to changing conditions in the past, and in the long term JCB will overcome the current problems to increase both turnover and profitability. In 1998, JCB stated its goal was to reach annual production (excluding industrial lift trucks) of 30,000 units, and to achieve a turnover of £1 billion by the year 2000. The company just failed to reach both goals at a time when some major markets were in decline and its source currency was at its strongest. However, this does show JCB's ability to react to changing conditions and achieve success.

MANUFACTURING FACILITIES

The JCB product range continues to grow, and recently it has made some changes in manufacturing facilities. The three significant changes have been the opening of the second factory in Cheadle, the new factory in Savannah, Georgia in North America and the new World Parts Centre located near Uttoxeter.

Table 3. JCB: Manufacturing Facilities, 2002

Rocester	Head Office Main Parts Facility **Production:** Backhoe loaders, telescopic handlers, except TM200 and 270
Cheadle, Harewood Estate **Cheadle 1 – Compact Division** **Cheadle 2 – Heavy Products**	JCB Research **Production:** Mini and midi excavators, Skid-steer loaders. Teletrucks, masted rough terrain lift trucks, and compact telescopic handlers **Production:** Articulated dump trucks, wheeled loaders, Fastrac
Uttoxeter	**Production:** Crawler and wheeled excavators.
Rugeley	**Production:** Cabs.
Wrexham	**Production:** Gearboxes, axles and transmissions.
Faridabad	Joint venture with Escorts **Production:** Backhoe loaders, wheeled loaders, telescopic rough terrain lift trucks
Savannah	**Production:** Backhoe loaders for the North American market
São Paulo	**Assembly:** Backhoe loaders for South American market

Source: Off-Highway Research

JCB retains six production sites in the United Kingdom, and all of them, with the exception of Wrexham, are located within a 25 kilometre radius of the main factory at Rocester. This was a deliberate policy to enable the smaller satellite factories to be able to take advantage of the centralised facilities at Rocester, yet maintain a degree of independence. Each factory is autonomous within the overall company structure in terms of design and manufacture, but their proximity allows close collaboration if necessary. The exception is Wrexham, which is almost 100 kilometres from the main site, but this has not proved a logistical problem in delivering major components.

JCB has a policy of manufacturing in the UK unless the feasibility of overseas production is overwhelming. In the last three years it has increased the number of overseas facilities from one to three. The original overseas manufacturing site was in **Faridabad**, India, a joint venture with its Indian partner, Escorts. The decision to build in India was driven by the local market conditions, which dictated that equipment had to be bought from local sources. Since then the laws have been relaxed, but JCB has not reduced its domestic manufacturing presence, and indeed has expanded it by building telescopic rough terrain lift trucks there as well as backhoe loaders and wheeled loaders. The company has increased its shareholding in the joint venture from 40 to 60 per cent and, should the opportunity arise, is likely to increase this further.

The two new facilities overseas are in North and South America. The US factory located on the Atlantic coast in **Savannah**, Georgia, was a major departure for the company and is an indication of the company's desire to be a more prominent player in this major market. The factory was opened in 2000 and currently is manufacturing only backhoe loaders. Its opening has coincided with a severe downturn in US demand, although JCB sees North America as a major growth opportunity and will seek to expand its production output and model range. The task in the short term will be to decide what production it can afford to lose from UK sources to bolster its US operations. In the long term, Savannah is likely to play a very prominent role in the company's aspirations to attain a 10 per cent share of the world market by 2005, compared to the seven per cent it currently holds.

The US factory's design and appearance are similar to the main JCB factories in Rocester and Cheadle. The factory comprises 4,500 m^2 on a site encompassing 400 hectares. The result of a \$62 million investment, it has an annual capacity of 10,000 machines and if JCB can reach close to full production at the factory it will have achieved its twin objectives of success in North America and a 10 per cent market share globally.

The latest JCB factory is in **São Paulo**, Brazil. Opened in the summer of 2001, it assembles backhoe loader kits which are currently shipped from the UK. The factory is expected to quickly integrate locally-sourced componentry into the backhoe loader so that the product can compete equally with other locally produced machines in this important South American market.

JCB's main manufacturing facility is at **Rocester,** a small village between the midland cities of Derby and Stoke. The original factory has been developed extensively since the company moved there in 1950, and today consists of over 70 hectares, of which approximately 150,000 m^2 is under cover. It is well landscaped and has won awards for design excellence and employee concern.

Production at the factory has increased significantly in recent years, despite models being moved to other factories within the group. Approximately 20,000 machines a year are now manufactured at the site, compared to 9,000 units ten years ago. The company still has excess capacity at Rocester but it is unlikely that other products will be built there, beyond the current core products of backhoe loaders and telescopic handlers. Current excess capacity will be taken up by the anticipated increased sales of these products.

JCB's second major production facility is the new factory at **Cheadle**. The company has two factories on the same site. The older factory housing the compact products, and known as Cheadle 2 is just over five years old, whilst the newer JCB Earthmovers operation houses the heavy products division and was opened in August 1999. The two factories are on a greenfield site just outside the town of Cheadle, approximately 16 kilometres from the main factory in Rocester. The site has been designed as a scaled down version of the main factory. The two buildings each comprise an area of 23,000 m^2.

The growth in demand for compact machines, and the extension of the JCB product range, has meant that the rise in production at the site has been extraordinary. The Cheadle site now annually produces almost 6,000 construction machines as well as the industrial lift truck.

Cheadle 2 was originally expected to be the new home of the Fastrac machine, but production levels never reached anticipated levels and the site instead became the source of the wheeled loaders and new articulated dump truck. Ironically, in August 2001, the decision was taken to close the Cecilly Mills factory in Cheadle, approximately two miles from the new greenfield home and the Fastrac was moved to Cheadle 2.

The company's hydraulic excavator factory in **Uttoxeter**, 10 kilometres from the main Rocester site, is one with a long association with the Bamford family. JCB purchased the site in 1989, but it is interesting to note that the factory was the original base of the Bamford family agricultural business that Joe Bamford left in 1945 to start his own company.

The factory was initially the base for Special Products, but in 1991 it was decided that it should also be the source of the new range of crawler excavators to be built as part of the joint venture with Sumitomo. The first crawler excavator was built in December 1992, since when production numbers have steadily increased. In 1994 the wheeled excavator was added but it should be remembered that this machine was not part of the original joint venture – instead it is a JCB designed and built product.

The increasing production level of both excavators and compact equipment began to put a strain on the capacity of the Uttoxeter factory, and in 1995 Special Products moved to the new site in Cheadle. The Uttoxeter factory has received a high level of investment in the last three years enabling a complete transformation of both the site and production systems. The factory now produces almost twice the output it did three years ago and has sufficient space to increase production by a further 50 per cent should the market demand.

Rugeley, 25 kilometres to the south of the main factory, was the site of the JCB Hydrapower operation and the first location of mini excavator production. The site was originally the source of JCB powerpacks but these were moved across the road from the main site to a purpose built factory unit. They have since been transferred to the site of the World Parts Centre.

The original 3,700 m^2 factory was extended in 1996, when the decision was taken to dedicate the site solely to the production of mini excavators. Over £4 million was spent on the extension and new tooling for the site, and this has allowed production capacity to double to over 4,000 machines. Production never reached full capacity and the opening of the new Cheadle facilities enabled the company to move mini excavator production to Cheadle 1. This allowed the Rugeley facility to become the source of JCB's cab production. In 1999 the company felt it would be in the long term interests of the company to create, where feasible, in-house cab production, so that costs of this important component could be controlled more easily.

The other main factory is at **Wrexham**, North Wales, where JCB Transmissions has its base, approximately 100 kilometres from the main factory in Rocester. The factory was built to supply JCB with transmissions and axles for its backhoe loaders, wheeled loaders and rough terrain lift trucks.

The success of the company has not only been achieved through supplying the expanding JCB product range, but also through selling to other equipment manufacturers through its subsidiary, International Transmissions. The Wrexham plant is the first large engineering factory in the UK to be designed for computer integrated manufacturing; it operates on a fully automatic door-to-door system, with raw materials and components being received at one end and the finished product coming off the assembly line at the other.

Separate computers control the various machines and process the work transportation system; each of these computers is linked to one another and to the main control computer, allowing instant re-programming and thereby meeting any change in demand for differing products throughout the Group. In 1996 JCB invested heavily in the Wrexham facility. This investment allowed an extension of 23,000 m^2 to be built on the factory making 43,250 m^2 in all, and allowing capacity to be doubled if required.

JCB is Wrexham's major customer but International Transmissions Ltd is expanding sales outside the JCB company. It is encouraged by the parent company to decrease the dependence upon JCB and is beginning to create products especially for other customers.

Finally, in 2001 JCB opened its new World Parts Centre, alongside the main road linking the two major motorways in the UK, the M1 and M6. The building is another clone of the main factory in Rocester, eight kilometres away, and allows JCB to improve its support of its growing population of machines around the world.

CORPORATE STRATEGY

Since the late 1960s JCB has had a strategy of product diversification, but on the proviso that the programme should be based upon the historical strength of the company, the backhoe loader. This policy remains true today, although the dependence of the company upon the backhoe loader is waning. This product now accounts for less than 50 per cent of JCB's total production, even though volumes are now double what they were a decade ago, a testament to the scale of diversification that has taken place.

The company has expanded its product range extensively in the last five years and this policy is likely to continue in the future. The strategy is likely to see JCB producing a wider range of compact equipment, as well as medium to large size machines in the future. Other complementary but non-construction machines, such as the Teletruk, are also probable but it is unlikely that JCB would seek to produce a full line of construction equipment and move into areas such as mining where it has little expertise.

The long term aim of the company is to improve its position in the global market from a medium sized company into one of the leading three suppliers of construction equipment in the world. This is a long term goal which is likely to be achieved not only by an extension of the current production range through organic growth, but also through the acquisition of other companies that would give it a leading position in new products and markets.

At the beginning of 2001 JCB announced to its dealers that its strategy was to increase sales to reach 10 per cent share of the world market in which it competes. This will necessitate a 65 per cent increase in current volumes but targets, however difficult they may seem, have never been an obstacle to JCB. Targets have been met throughout the last twenty years and used as stepping stones in the continuing evolution of the company.

In its efforts to reach the given sales targets the company has stated that expansion should be profitable as opposed to expansion at any cost, a route others have tried and lived to regret later. It has also said that any growth would probably be organic and not through acquisition, a policy that has proved very successful over the last thirty years.

The company would also like to see increased dealer service support to the customer at every level so that the name JCB is synonymous with the best in the industry. This will be most important in markets where JCB is not strong at the moment, and where it will need to improve performance to achieve its sales targets.

The company has firmly stated that it will not become directly involved in the rental business in the future, ensuring that rental companies remain as customers and that they should not view JCB as a competitor. This does not, however, preclude JCB dealers becoming involved in small-scale rental operations.

The company wishes to remain in private ownership and the shareholders rule out the possibility of a future sale or partnership with a third party. Remaining a private company has enabled JCB to make long term strategic decisions without having to worry about shareholder reaction. At the same time it is also able to react more quickly to unforeseen events or changes in demand, thereby reaping the benefits of the upturn in market demand more quickly.

The key to realising many of these ambitions lies in JCB achieving success in North America. The opening of the US factory now allows the company to compete more equally with the domestic suppliers while at the same time it is now less vulnerable to fluctuations in currency exchange. Most importantly it is seen as a domestic manufacturer there, neatly summed up in the opening of the Savannah factory as “JCBuilt in the USA”.

In order to implement thee strategies, JCB has invested heavily in strengthening its management team since 1998. The company has appointed a number of new executive directors in key areas, particularly in finance, marketing and heavy products.

EQUIPMENT ANALYSES

BACKHOE LOADERS

Production and Sales

The name of JCB is synonymous with the backhoe loader, which has traditionally been the largest volume product at the Rocester factory, and still accounts for just under 50 per cent of all units manufactured by the company. This level has gradually declined over the last 10 years. While this is more of a reflection of the diversification of the JCB product range, in many European markets the popularity of the backhoe loader is now in decline.

Production of the backhoe loader is concentrated on two sites. The 1CX and 2CX models and their derivatives are built at the Special Products factory in Cheadle, while all other models are built at the main Rocester facility.

Table 4. JCB: Backhoe Loader Production, 1990-2001

Year	Units	% of JCB Production
1990	8,750	59
1991	7,000	59
1992	7,000	61
1993	7,500	58
1994	9,500	51
1995	11,400	50
1996	11,500	49
1997	13,000	49
1998	13,000	48
1999	12,750	44
2000	13,000	44
2001	10,500	39

Source: Off-Highway Research

In spite of the success of other products which have been launched in recent years, the backhoe loader remains the backbone of JCB's business, although the company is not as dependent upon the product as it was in 1980 when it launched the 3CX. While the product's concept may now be 50 years old and the current range has its roots in the 1980 model, the whole range has been constantly updated and extended to reflect the changing demands of the market.

The backhoe loader range now comprises four basic models, which can be extended to nine in total with a wide variety of derivatives, which allows JCB to adapt the backhoe loader to the particular needs of a customer. The introduction of the 1CX is a prime example of JCB's versatile approach to the market – by taking its Robot skid-steer loader and adapting it into the 1CX, it created the smallest backhoe loader available, and one which is ideal for working in confined spaces.

The competitiveness of the CX range in specification and prices together with the ability of JCB to expand production when demand increases, have enabled the company to benefit enormously in terms of profitability and market share.

Table 5. JCB: Market Shares in Selected European Backhoe Loader Markets, 1999-2001

	1999			2000			2001		
	Industry	JCB	%	Industry	JCB	%	Industry	JCB	%
France	3,725	1,248	36	4,430	1,500	34	3,758	1,217	32
Germany	252	85	34	278	119	43	253	81	32
Italy	3,200	1,029	32	3,114	1,071	34	3,351	1,080	32
Spain	3,847	1,449	38	3,330	1,297	39	3,204	1,203	38
UK	2,900	1,800	62	2,600	1,750	67	2,500	1,580	63
Rest of Europe	3,810	1,386	36	3,809	1,378	36	3,658	1,215	33
Total Europe	**17,734**	**6,997**	**39**	**17,561**	**7,115**	**41**	**16,724**	**6,376**	**38**

Source: Off-Highway Research

Outlook

The company has traditionally had a commanding position in backhoe loaders throughout Europe, and is market leader in the most important volume markets of France, Italy, Spain and United Kingdom. Together these four countries account for around 75 per cent of European demand. While the company will continually seek to improve its position throughout Europe, further growth in these markets is probably limited, so it is likely that the company will seek to focus its energies on other markets. The enormous North American market is an obvious target but demand is currently falling there and gaining increased volumes will be difficult in the short term. Here it has yet to achieve more than 10 per cent penetration (compared to almost 40 per cent in Europe), and this region therefore offers the greatest potential of all.

The North American market is two-thirds bigger than that of Europe, and while JCB has been selling the backhoe loader there for over 25 years, it has so far failed to exceed a 10 per cent market share. The company is competing with very strong domestic suppliers and will doubtless hope that the recent opening of the new US factory will boost the company's image and enable it to compete more forcefully in this sector.

The backhoe loader itself is now quite mature, as indeed are many of the markets it serves, so it is unlikely that there will be any genuinely radical future developments of the machine. However, JCB will doubtless seek to keep its product at the forefront of the sector and will continue with its development, particularly in the areas of operator control and comfort.

Table 6. JCB: Backhoe Loader Product Range, 2002

Model	Engine		Operating
	HP	Manufacturer	Weight (Tonnes)
1CX	50	Perkins	2.6
2CX	65	Perkins	5.1
2CXU Groundmaster	75	Perkins	5.1
2CX Airmaster	75	Perkins	5.2
3CX	75	Perkins	7.6
3CX Sitemaster	75	Perkins	7.6
3CX Contractor	100	Perkins	7.6
3CX Super	90	Perkins	7.6
4 CX Sitemaster	100	Perkins	8.6
4CX Super	100	Perkins	8.6
4CX	100	Perkins	8.4

Source: Off-Highway Research

Production of the backhoe loader has now stabilised at around 13,000 units a year and unless significant gains are made in North America, the goal of exceeding 15,000 units per annum is unlikely to be reached. The backhoe loader will continue to play a pivotal role in the development of the company's fortunes, but paradoxically its relative status in the company will diminish as other products grow to maturity.

ROUGH TERRAIN LIFT TRUCKS

Production and Sales

JCB launched its first rough terrain lift truck in 1977, and in keeping with the company's tradition for product innovation, it had a telescopic boom rather than the traditional rigid mast. In fact it was not until 1985 that JCB produced a conventional masted rough terrain lift truck.

JCB was correct twenty years ago when it predicted that the future of the rough terrain lift truck lay with the telescopic boom, but it is unlikely that the company itself would have forecast the phenomenal growth of the product in the 1990s and the potential for the machine in the future.

Table 7. JCB: Rough Terrain Lift Truck Production, 1990-2001

Year	Units	% of JCB Production	% Telescopic Machines
1990	3,500	23	80
1991	2,550	21	84
1992	2,100	18	86
1993	2,250	17	84
1994	4,000	20	87
1995	5,100	22	80
1996	5,400	23	85
1997	6,000	23	83
1998	6,700	25	82
1999	8,000	28	88
2000	7,750	26	90
2001	6,400	24	94

Source: Off-Highway Research

The rough terrain lift truck is one of several JCB products which serve in both the agricultural and construction sectors; each market has its different cyclical patterns of demand, which results in production remaining relatively stable, allowing the company to capitalise on growth in both markets.

Table 8. JCB: Market Shares in Selected European Telescopic Rough Terrain Lift Truck Markets, 1999-2001

	1999			2000			2001		
	Industry	JCB	%	Industry	JCB	%	Industry	JCB	%
France	6,558	1,095	17	7,300	1,300	18	6,920	1,250	18
Germany	1,255	186	15	1,518	216	14	1,258	159	13
Italy	1,241	209	17	1,760	232	13	2,070	262	13
Spain	1,310	245	19	1,435	245	17	1,350	160	12
UK	4,435	1,780	40	4,775	2,100	44	5,320	2,270	43
Rest of Europe	2,736	738	27	3,245	974	30	3,261	857	26
Total Europe	**17,535**	**4,253**	**24**	**20,033**	**5,067**	**25**	**20,179**	**4,958**	**25**

Source: Off-Highway Research

The telescopic rough terrain lift truck has enjoyed phenomenal growth in recent years. The causes have been the rapid expansion of demand in the agricultural sector, particularly in the UK and in France, and the versatility of the machine on building sites. This rapid rate of growth is now slowing, largely because of the problems affecting livestock agriculture, but the long-term outlook is still very positive.

The demise of the masted rough terrain lift truck has been predicted for the last few years. Although the high volumes of the 1970s are a feature of the past, there is still a significant market; with fewer participants in the sector now it is a market that can be well exploited by JCB.

Table 9. JCB: Market Shares in Selected European Masted Rough Terrain Lift Truck Markets, 1999-2001

	1999			2000			2001		
	Industry	JCB	%	Industry	JCB	%	Industry	JCB	%
France	500	10	2	300	10	3	325	25	8
Germany	283	13	5	249	9	4	228	13	6
Italy	135	7	5	145	32	22	121	11	9
Spain	340	10	3	350	10	3	810	10	1
UK	525	275	52	500	300	60	200	65	32
Rest of Europe	246	10	4	317	40	13	277	25	9
Total Europe	**2,029**	**325**	**16**	**1,861**	**401**	**22**	**1,961**	**149**	**8**

Source: Off-Highway Research

Outlook

The rough terrain lift truck market has been the real growth sector of the last decade, particularly for the telescopic type where total sales grew by 300 per cent in Europe. The outlook for the product is still very positive. The agricultural sector has not yet been fully developed in any market throughout Europe, with the possible exception of the UK, and while developments will be irregular over the next few years, and much will depend upon EU regulations, sales of telescopic rough terrain lift trucks should increase significantly throughout Europe.

The masted rough terrain lift truck does not offer nearly the same potential as the telescopic variety, and most sales are made to construction. Currently JCB is producing fewer than 1,000 units per year, for sale mainly in the UK and USA. JCB will probably maintain its current volumes in the future, but this will largely be determined by the progress the company makes in the North American market.

The masted rough terrain lift truck is a mature product, and future developments will be largely restricted to operator comfort and control. On the other hand, prospects for the telescopic truck are much brighter, for the machine is still evolving with industry standards still to be determined as to weight and reach. Future JCB development is likely to concentrate on the telescopic machine, and if the company can be as successful in developing the next generation of machines, then it should see volumes rise to match those of its backhoe loaders.

Table 10. JCB: Rough Terrain Lift Truck Product Range, 2002

Model	Type	Capacity (Tonnes)	Engine HP	Engine Manufacturer	Max. Lift Height (metres)
926	Mast	2.6	76	Perkins	6.5
930	Mast	3.0	76	Perkins	6.5
940	Mast	4.0	106	Perkins	6.5
520	Tele	2.0	75	Perkins	5.5
520S	Tele	2.0	75	Perkins	5.5
520-50	Tele	2.0	75	Perkins	5.0
525-50	Tele	2.5	75	Perkins	5.0
526	Tele	2.6	75	Perkins	5.5
526S	Tele	2.6	75	Perkins	5.6
528S	Tele	2.6	75	Perkins	5.6
530-70	Tele	3.0	76/106	Perkins	7.0
535-95	Tele	3.5	106	Perkins	9.5
540-70	Tele	4.0	106	Perkins	7.0
532-120	Tele	3.2	76/106	Perkins	12.0
537-135	Tele	3.7	76/106	Perkins	13.5
540-170	Tele	4.0	76/106	Perkins	16.8
TM200	Tele	2.0	92	Perkins	4.35
TM270	Tele	2.7	102	Perkins	5.0

Source: Off-Highway Research

HYDRAULIC EXCAVATORS

Production and Sales

The hydraulic excavator represents one of the largest volume equipment sectors in Europe, but also one of the most competitive. To be successful, companies really need to have a global view of the excavator market, which JCB has only relatively recently begun to achieve.

It first realised the importance of this in 1965, and the crawler excavator was the company's first attempt at product diversification away from the backhoe loader. While the product was very successful in its domestic market, it could not compete overseas. The situation was made even worse in the mid-1980s when the influx of Japanese designed and built machines began to enter European markets, with the accent on price, productivity, and value for money. These elements changed the face of the European excavator market forever.

JCB's response to the situation was to enter into a joint venture with Sumitomo Heavy Industries of Japan to build a range of crawler excavators in the UK. The move caught many industry observers by surprise because of the company's opposition to the business practices of Japanese companies in Europe. JCB had not been involved in a UK-based joint venture before this, although it has a successful joint venture in India with Escorts.

Table 11. JCB: Hydraulic Excavator Production, 1990-2001

(Units)

Year	Crawler	Wheeled	Total	% of JCB Production
1990	450	-	**450**	3
1991	175	-	**175**	1
1992	-	-	**-**	-
1993	200	-	**200**	2
1994	750	150	**900**	5
1995	900	200	**1,100**	5
1996	800	200	**1,000**	4
1997	975	190	**1,165**	5
1998	1,150	350	**1,500**	6
1999	1,475	300	**1,775**	6
2000	1,500	350	**1,850**	6
2001	1,650	350	**2,000**	8

Source: Off-Highway Research

The joint venture announcement was made in 1991, although production of the new JCB-SCM models did not begin until December 1992. The agreement was heralded as a major breakthrough for JCB in its efforts to become a major player in the excavator market throughout Europe and not just in the UK. The new JCB-SCM range gave it a more modern, competitive product range of crawler excavators with which to develop new markets outside the UK, and thus it came as a surprise when, at the beginning of 1998, Sumitomo announced it had entered a new world-wide relationship with Case. JCB formally announced its split with Sumitomo in September 1998, and JCB Heavy Products was formed to replace the JCB-SCM joint venture.

JCB retained the model range it built as part of the joint venture agreement, but replaced the two models it imported from Japan with the JZ70 and JS460. The nomenclature of the model range has remained very similar, but the whole product range has undergone many minor changes over the last three years. The modern JCB range now bears little resemblance to that of the former JCB-SCM offering and, more importantly for JCB customers, to the Case-Sumitomo machines now available from Case dealers.

The wheeled excavator models produced by JCB were not part of its agreement with Sumitomo, for the Japanese company does not manufacture this type of machine. The combination of a Sumitomo superstructure and a JCB undercarriage allowed the company to launch its two wheeled excavator models, which were strategically aimed at the important German market, in 1994. In the last three years the range has been extended to five models. The only totally new machine is the JS200W, as the JS145W and JS175W are derivatives of the JS130W and JS160W machines.

Table 12. JCB: Market Shares in Selected European Crawler Excavator Markets, 1999-2001

	1999			2000			2001		
	Industry	**JCB**	**%**	**Industry**	**JCB**	**%**	**Industry**	**JCB**	**%**
France	2,470	186	8	3,160	223	7	3,365	233	7
Germany	3,052	69	2	2,887	58	2	2,210	40	2
Italy	3,157	138	4	3,467	161	5	4,087	194	5
Spain	863	30	3	986	38	4	970	38	4
UK	3,075	540	18	3,100	540	17	3,480	600	17
Rest of Europe	5,276	209	4	5,719	213	4	5,433	198	4
Total Europe	**17,893**	**1,172**	**7**	**19,319**	**1,233**	**6**	**19,545**	**1,303**	**7**

Source: Off-Highway Research

Table 13. JCB : Market Shares in Selected European Wheeled Excavator Markets, 1999-2001

	1999			2000			2001		
	Industry	**JCB**	**%**	**Industry**	**JCB**	**%**	**Industry**	**JCB**	**%**
France	1,530	71	5	1,940	73	4	1,800	71	4
Germany	3,986	59	1	4,150	74	2	2,753	40	1
Italy	463	20	4	530	20	4	491	22	4
Spain	790	50	6	771	50	6	789	46	6
UK	260	30	12	285	31	11	330	17	5
Rest of Europe	1,957	46	2	2,300	86	4	2,139	75	4
Total Europe	**9,186**	**276**	**3**	**9,976**	**334**	**3**	**8,302**	**271**	**3**

Source: Off-Highway Research

The introduction of the new excavator range has improved JCB's position in the excavator market, but the improvement has been marginal and the company will be looking for greater penetration in all markets in the coming years.

JCB was a relatively late entrant to the market with a competitive product and it is still working on attracting the dealers outside the UK necessary to improve sales. The company has established a significant foothold in all markets but is hampered in extending its business by the value of sterling compared to the euro.

Outlook

The company now has an extensive excavator range and has spent the last three years completely updating the one it inherited from the joint venture. It has invested a significant level of money in the factory in Uttoxeter to reduce costs in order to make the product more competitive outside the UK as well as improving the production process.

The ending of the joint venture has opened the huge North American market to the company, but the basis of the future success of the product will be increasing sales to Europe.

Table 14. JCB: Hydraulic Excavator Product Range, 2002

Model	Type	Weight (Tonnes)	Engine	
			HP	Manufacturer
JZ70LC	Crawler	8.0	58	Isuzu
JS130LC	Crawler	13.6	85	Isuzu
JS160LC	Crawler	16.9	96	Isuzu
JS180LC	Crawler	18.5	96	Isuzu
JS200LC	Crawler	21.2	128	Isuzu
JS210LC	Crawler	21.5	128	Isuzu
JS220LC	Crawler	23.7	128	Isuzu
JS240LC	Crawler	25.2	160	Isuzu
JS260LC	Crawler	26.3	160	Isuzu
JS330LC	Crawler	32.6	219	Isuzu
JS460LC	Crawler	46.6	170	Isuzu
JS130W	Wheeled	14.9	92	Isuzu
JS145W	Wheeled	14.9	100	Isuzu
JS160W	Wheeled	17.8	100	Isuzu
JS175W	Wheeled	17.9	128	Isuzu
JSS200W	Wheeled	21.8	128	Isuzu

Source: Off-Highway Research

WHEELED LOADERS

Production and Sales

In the mid-1990s JCB undertook a complete overhaul of this product, which now meets a much wider range of applications, especially in the higher horsepower sectors, and is considered to be an internationally acceptable machine.

JCB has always been a supplier of small to medium wheeled loaders, specialising in the material-handling sector, but the company is now seeking to expand the range. The 446 and 456 models have taken the company into the quarrying sector for the first time, and the new range has been designed to better meet the needs of international markets. The small compact models are all hydrostatic, to meet the demands of Germany, a market which almost totally dominates the under 80 horsepower sector in Europe.

The 411, launched at Bauma 1998, is a hydrostatic model to complement the standard version already available, while models are also available in the HT version. This designates that the model has High Torque and is a pure material handling machine. The ZX version has Z Bar linkage, making the machine an ideal digging tool.

Table 15. JCB: Wheeled Loader Production, 1990-2001

Year	Units	% of JCB Production
1990	1,200	8
1991	1,000	8
1992	1,000	9
1993	850	7
1994	900	5
1995	1,100	5
1996	1,300	6
1997	1,350	5
1998	1,350	5
1999	1,230	4
2000	1,400	5
2001	1,250	5

Source: Off-Highway Research

The range has also been given an updated look with a new cab at the front on the B series machines, which allows the operator greater comfort and ease of operation. The new models now give the company a very competitive range suitable for all the volume sectors. It still lacks models in the high horsepower categories to be totally competitive in the extractive industry sector, but volumes in this sector are small and their absence will not limit the company from being more competitive in an increasingly wide range of applications.

Previously production was split between two sites. The compact range, up to the 410 model, was built in the original Cheadle facility, while the main factory at Rocester was the site for the other models. In August 1999 wheeled loader production was located in the new factory at the

Cheadle site and known as JCB Earthmovers. The new facility, employing 180 people, covers an area of 23,000 m^2 and cost £12 million to build.

The JCB model range was overhauled in the mid-1990s and in the last three years the only new models have been the 416S, an agricultural machine launched in mid-1999, and the 426S, an agricultural version of the 426 construction model.

The company is aware that while its range is now more extensive than at any other time, it is still limited compared to those available from the leading international suppliers.

Table 16. JCB: Market Shares in Selected European Wheeled Loader Markets, 1999-2001

	1999			2000			2001		
	Industry	**JCB**	**%**	**Industry**	**JCB**	**%**	**Industry**	**JCB**	**%**
France	2,048	120	6	2,800	145	5	2,714	135	5
Germany	10,138	281	3	10,447	302	3	7,847	216	3
Italy	1,767	59	3	1,673	54	3	1,986	70	4
Spain	1,144	65	6	1,235	73	6	1,148	41	4
UK	850	120	14	800	130	16	965	108	11
Rest of Europe	4,571	220	5	4,957	198	4	4,614	193	4
Total Europe	**20,518**	**865**	**4**	**21,912**	**902**	**4**	**19,274**	**763**	**4**

Source: Off-Highway Research

Traditionally, JCB has always been seen as a manufacturer of small to medium size material handling machines, and while it has been successful here, its image has always restricted its ability to compete equally with Volvo and Caterpillar in Europe in the heavier, more arduous applications. However, the new facility allows the company to extend its range upwards if required, which should enable JCB to be seen as one of the few wheeled loader manufacturers able to offer a complete range.

The UK remains the company's prime market, although the new models have enabled it to become more successful elsewhere. However, it is the German market and the new hydrostatic models, which hold the key to JCB's aim of significantly increasing its European sales. Although sales have increased almost 50 per cent since 1994, its share of the market remains static.

Outlook

The company now has a very competitive range of smaller loaders. As well as the 407 and 409 models it is also able to offer a wheeled loader version of its 2CX backhoe loader. In the medium sizes it offers four specialist agricultural wheeled loaders, the 412 and 414 Farmmaster models together with the 416S and 426S. The 412 and 414 have low profile cabs, six speed transmissions and limited slip differential. The 416 is a development of the 414 model with the same driveline but with a counterweight allowing the machine to be used as a standard wheeled loader.

Table 17. JCB: Wheeled Loader Product Range, 2002

Model	Bucket Capacity (m^3)	Weight (Tonnes)	Engine	
			HP	Manufacturer
2CXL	0.6	5.5	58	Perkins
407BZX	0.7	4.5	63	Perkins
408BZX	0.8	4.7	63	Perkins
409BZX	0.9	5.1	70	Perkins
410BZX	1.0	6.9	76	Perkins
411BHT	1.6	7.6	80	Perkins
411BZX	1.2	7.4	90	Perkins
412S Farmmaster	1.0	7.2	110	Perkins
414S Farmmaster	1.4	8.7	150	Perkins
416BHT	1.6	8.8	95-104	Perkins
426BHT	2.7	11.0	125-132	Perkins
426BZX	2.6	11.2	125-132	Perkins
436BHT	2.6	13.5	142-145	Perkins
436BZX	2.6	14.2	142-145	Perkins
446BHT	2.6	15.0	162	Cummins
446BZX	2.6	15.0	162	Cummins
456BZX	3.1	18.4	197	Cummins

Source: Off-Highway Research

The new range is now well suited to the European markets and elsewhere in the world, but the wheeled loader sector is very conservative and market improvement is likely to be slow.

MINI EXCAVATORS

Production and Sales

JCB began producing its own range of mini excavators in 1989. The mini excavator was originally built at the Rugeley factory of JCB Hydrapower, a wholly separate company within the

JCB organisation. It shared the site with JCB's hand-held tools, but these have now been transferred to the JCB Attachments division.

In 2000 production was moved from the Rugeley facility to one of the two factories at Cheadle. The Rugeley factory is now the source of all JCB cab production.

Table 18. JCB: Mini Excavator Production, 1990-2001

Year	Units	% of JCB Production
1990	950	6
1991	1,000	8
1992	1,000	9
1993	1,150	9
1994	1,900	10
1995	2,380	10
1996	2,200	9
1997	2,300	9
1998	2,450	9
1999	3,200	11
2000	4,000	13
2001	4,000	15

Source: Off-Highway Research

The new factory is a modern facility that allows the company to minimise production costs and make its product very price competitive. The new factory covers an area of approximately 28,000 m^2 and also houses the skid-steer loader and compact wheeled loader production.

Production levels have almost doubled since the publication of Off-Highway Research's previous report in 1998, to approach 4,000 units per year, but can rise at any time for short periods to meet sudden surges in demand. This flexibility gives JCB a major advantage over many of its competitors, particularly in its domestic market.

Initially the company produced a single model, the 801, which was aimed primarily at the domestic market. The project was a success, and in 1992 the 803 model was added to the range. The mini excavator has been a major growth area for the company, with production expanding rapidly over the last eight years. The product offering has increased from six to nine models and ranges from 1.5 to 6.0 tonnes.

Table 19. JCB: Market Shares in Selected European Mini Excavator Markets, 1999-2001

	1999			2000			2001		
	Industry	JCB	%	Industry	JCB	%	Industry	JCB	%
France	5,540	386	7	7,150	440	6	7,960	432	5
Germany	9,541	181	2	10,003	302	3	8,029	301	4
Italy	8,780	730	8	9,417	929	10	11,064	1,000	9
Spain	494	34	7	846	95	11	810	91	11
UK	5,260	1,375	26	6,375	1,444	23	7,325	1,380	19
Rest of Europe	5,948	243	4	6,992	332	5	6,844	374	5
Total Europe	**35,563**	**2,949**	**8**	**40,783**	**3,542**	**9**	**42,032**	**3,578**	**9**

Source: Off-Highway Research

European demand for mini excavators has grown enormously in the last five years. JCB has been able to keep pace with market growth and has seen its sales grow 58 per cent since 1998, although there must be disappointment that IT has continued to underperform in Germany.

Outlook

Table 20. JCB: Mini Excavator Product Range, 2002

	Weight	Engine	
Model	(Tonnes)	HP	Manufacturer
801.5	1.625	16	Perkins
801.6	1.665	19	Perkins
801.7	1.745	19	Perkins
801.8	1.751	19	Perkins
802	2.455	23	Perkins
803	2.987	31	Perkins
804	3.543	32	Perkins
805.2	5.200	45	Perkins
8060	6.000	60	Perkins

Source: Off-Highway Research

The mini excavator represents one of the largest volume sectors within the construction equipment industry, with a customer base very similar to that of the backhoe loader and skid-steer loader; thus JCB is able to offer its dealers a strong package for existing customers, and one which assists in the search for potential new ones. The company should also benefit from the trend amongst end-users to using the mini excavator alongside a telescopic rough terrain lift truck, since it is also a leading supplier of those machines.

JCB manufactures a high proportion of its mini excavator in-house, which gives it significant advantages in terms of controlling costs and flexibility in its production volumes.

SKID-STEER LOADERS

Production and Sales

JCB's first skid-steer loader was launched under the name of the Robot at the beginning of 1993, and was seen by many as a further departure from its core business. In fact it was the final element that completed the essential diversification into offering a full range of compact equipment.

Table 21. JCB: Skid-Steer Loader Production, 1993-2001

Year	Units	% of JCB Production
1993	500	4
1994	600	3
1995	600	3
1996	700	3
1997	1,000	4
1998	1,300	5
1999	1,350	5
2000	1,100	4
2001	1,000	4

Source: Off-Highway Research

Entry into the market was seen as an opportunity to complement its already comprehensive range of compact equipment, and to take advantage of a worldwide increase in demand for small machinery. Launched in January 1993, the range originally comprised three models: the 150, 165 and 185, the second and third numbers of the model code indicating the operating capacity of the machine. At the Bauma exhibition in 1998, JCB launched a fourth Robot model, the 1105. The new model enables the company to offer a complete range and plays a role in its attempts to try and penetrate the North American market, where machines of this size are growing in popularity. However, the new machine is likely to have a minimal impact upon the company’s position in the UK market. In the last two years, JCB has upgraded the two smaller models and renamed them the 160 and 170.

JCB's late entry into the market was chiefly borne out of concerns regarding the safety of the design of the skid-steer loader. The company's intention has been to design the world's safest skid-steer loader, and the marketing focus was heavily orientated towards this aim. The company felt that the conventional front entry access to the cab was intrinsically unsafe. Consequently it took the innovative step of designing a machine with a single loader arm, thereby allowing side access to the cab. This design has yet to gain full acceptance from the market, and so far no other manufacturer has sought to follow a similar path.

JCB Special Products, a subsidiary company of JCB Excavators, manufactures the skid-steer loader range. Originally housed in the Uttoxeter factory, which it shared with the JCB-SCM hydraulic excavator subsidiary, Special Products was relocated in 1995 to a new purpose-built factory at Cheadle, some 20 kilometres away. The new factory covers an area of approximately 28,000 m^2 and was a result of JCB's continued expansion of both its compact equipment and excavator ranges.

The skid-steer loader market is divided into small customer niches, and the companies that are successful are those that have the necessary distribution network to exploit them. JCB has the network to be successful and while the company is seeking a greater share of the European market, it is the huge North American market, six times the size of that of Europe, which is the immediate and medium term goal.

Table 22. JCB: Market Shares in Selected European Skid-Steer Loader Markets, 1999-2001

	1999			2000			2001		
	Industry	**JCB**	**%**	**Industry**	**JCB**	**%**	**Industry**	**JCB**	**%**
France	1,440	62	4	1,680	72	4	1,700	59	3
Germany	1,078	32	3	1,079	34	3	739	22	3
Italy	4,250	313	7	4,660	349	7	4,977	336	7
Spain	2,032	163	8	2,015	141	7	2,035	120	6
UK	835	120	14	865	100	12	1,020	50	5
Rest of Europe	2,583	86	3	2,396	70	3	2,399	73	3
Total Europe	**12,218**	**776**	**6**	**12,695**	**766**	**6**	**12,870**	**660**	**5**

Source: Off-Highway Research

Since 1998 the company has achieved a modest increase of market share in Europe, but has yet to achieve significant penetration in North America.

Table 23. JCB: Skid-Steer Loader Product Range, 2002

Model	Operating Capacity (Kg)	Engine HP	Engine Manufacturer
160	600	47	Perkins
170	700	50	Perkins
190	900	70	Perkins
T190	900	70	Perkins
T1110	1,100	75	Perkins
1110	1,050	75	Perkins

Source: Off-Highway Research

AGRICULTURAL TRACTORS

Production and Sales

JCB has been a producer of agricultural tractors since 1991. The Fastrac is a vehicle combining the technologies of the farm tractor and the on-highway truck in an unusual way. The concept is to make a four wheel drive tractor, which can adequately perform a transport function on the highway at speeds that correspond to those of the truck industry. Away from the fields, high speeds are possible and the limit is set according to the legislation of the different markets in which it is sold. In the UK it is 75 kilometres/hour, although since 1993 it has been possible to order a 65 kilometres/hour version with high traction tyres on 30 inch wheels. Steering and turning circles were radically improved on the smaller models in 1996 with a multi-mode four wheel steering system.

Table 24. JCB: Fastrac Production, 1991-2001

Year	Units	% of JCB Production
1991	100	1
1992	400	3
1993	500	4
1994	750	4
1995	1,000	4
1996	1,300	6
1997	1,000	4
1998	780	3
1999	750	3
2000	700	2
2001	850	3

Source: Off-Highway Research

Since 1998 the two ranges have been grouped as the 2000 and 3000 series. The smaller models have a lighter cab, familiar to those who know JCB's backhoe loaders, and three of them feature optional four wheel steering. The four models have outputs of 115, 125, 135 and 148 horsepower DIN from Perkins 1000 series engines. The larger models have engines of 150 and 170 horsepower and have an updated version of the original cab. The relaunch in 1998 brought better engine performance and some uprating in the area of the hydraulics, but the product is largely as it has been for the last nine years.

The machines are now assembled in the Heavy Products factory at Cheadle. Assembly was moved from the smaller Cecilly Mills site to the main production facility in Cheadle in 2001. This was because many of the components used on the Fastrac are common to the new articulated dump truck, and so it made commercial sense to produce both products in the same factory. Production rose to 1,300 units in 1996, only to be depressed severely by the crisis in British agriculture. The Fastrac has won a following in the UK but it has not sold abroad in large numbers so far, except in Germany, France and Australia.

While one of the product's attractions is that there is a wide range of potential customers, the drawback is that they are not the usual users of traditional JCB machines. The company overcame this problem by establishing a separate company, JCB Landpower, to both produce and sell the product. JCB Landpower developed a separate dealer organisation alongside the existing network.

Table 25. JCB: Agricultural Tractors Available, 2002

	Engine	
Model	**HP**	**Manufacturer**
2115	115	Perkins
2125	125	Perkins
2135	135	Perkins
2150	148	Perkins
3155	150	Perkins
3185	170	Perkins

Source: Off-Highway Research

The Fastrac has been sustained by a network that also offers the telescopic rough terrain lift truck, Farmmaster wheeled loaders and skid-steer loader to this sector. As with construction, it is important to offer the dealers a catalogue of products to sell.

ARTICULATED DUMP TRUCKS

Production and Sales

JCB originally launched two machines in 1988, at the height of the last economic boom, in the 11-16 tonne sector. Initially production levels were above 100 units, but the downturn in demand in the early 1990s, allied to the restriction on production space at the Rocester factory caused by the introduction of other new machines, meant that the product became only of marginal interest. Production levels declined and in 1992 the company decided to withdraw it from the market.

In May 2000 the company announced the launch of two models with a capacity of 12 and 16 tonnes. This came as a surprise to many industry observers, given the previous experience and the fact that this segment of the market had not grown significantly in the intervening eight years. However, the launch of these two machines is believed to be the prelude to the introduction of further models that will take JCB to the heart of the volume sectors of the articulated dump truck market.

The new models are built at Cheadle alongside the wheeled loader and Fastrac models.

Table 26. JCB: Articulated Dump Trucks Available, 2002

Model	Capacity (Tonnes)	Engine	
		HP	Manufacturer
714	12.0	129	Perkins
718	16.0	174	Perkins

Source: Off-Highway Research

INDUSTRIAL LIFT TRUCKS

Production and Sales

The Teletruk industrial lift truck, with a single telescopic arm, was unveiled in 1997 and caused much interest in the traditional industrial lift truck industry. In fact it is just the latest extension of the JCB product range, in much the same way the Fastrac was in 1991.

Here the company has identified a sector that, while being separate from the construction industry, has similarities with a number of other sectors supplied by existing JCB products. It is a large volume market, and one with a small number of high profile suppliers. It is also a market where product innovation has been limited over a long period of time. The company believes that its highly innovative new product will capture a significant share of the market.

The model range is currently limited, compared with those offered by the competition, but the company has identified a particular niche where it believes its direct sales method and after care support are well suited.

The product design, based on JCB's knowledge of the telescopic rough terrain lift truck market, is completely new to the conservative industrial lift truck sector, where the masted lift truck dominates. This mirrors the situation in 1977 when JCB launched its telescopic rough terrain lift truck into a sceptical marketplace. Twenty years later the company is a world leader and the sector is now totally dominated by the telescopic variety. It anticipates a similar situation will take place in certain sectors of the industrial lift truck market. The company naturally hopes the change will not take as long but it is committed to the new product and realises the long-term benefits of being successful. The product has the potential to be the largest selling machine within the whole range, but it still remains at the stage of selling the concept to a wide audience of sceptics.

The product is built at the Cheadle factory but if it achieves its anticipated volumes, probably in excess of 5,000 units per year, then either a new factory, or an extension to the existing site solely for the Teletruk is likely to be required.

Table 27. JCB: Industrial Lift Trucks Available, 2002

Model	Lift Capacity* (metres)	Engine HP	Engine Manufacturer
TLT20D	2.0	48	Perkins
TLT20G	2.0	60	GM
TLT25D	2.5	48	Perkins
TLT25G	2.5	60	GM
TLT30	3.0	48	Perkins

* Lifting 1 tonne

Source: Off-Highway Research

The product range currently consists of three sizes that are available in either diesel or LPG variants. The unique forward reaching boom allows a quick hitch attachment system to be used which enables the machine to work in a wider variety of applications than the traditional industrial forklift. The machine also has a unique transmission that can have hydrostatic drive or torque converter responses memorised in the programme, so the operator can select the exact requirements for the operation being carried out.

COMPONENT SUPPLY

One of JCB's main manufacturing strategies is to increase its component commonality across its full range of equipment. As the product range has expanded this strategy has become increasingly difficult to achieve, but it has succeeded in supplying a very high proportion of its machines with similar components. The policy has reduced unit costs by purchasing in high volumes, and as a result it has given the company one of the most competitive product ranges in the industry.

Each individual group is responsible for its own design and the sourcing of componentry. While there is no centralised purchasing of components, each product group is aware of the commercial advantages of single sourcing its componentry wherever possible. However, even where it would appear that similar components are being used, such as the engine, there are small differences, such as brackets, even if the horsepower rating is similar.

JCB has standardised where possible on the Perkins engine, because of its acceptance within the industry and its suitability to the rest of the package in each machine. The move by JCB towards larger sizes of machines has meant that it has had to look to alternative suppliers, and Cummins was chosen for its largest wheeled loaders. The only other exception is for hydraulic excavators, where the Isuzu engine is used. This is partly because the Isuzu unit is integral to the original design, but also because it has been well received by customers.

As mentioned earlier, JCB has its own subsidiary company producing axles and transmissions. The individual product groups are not obliged to source from JCB Transmissions but the alternative would have to be a significant improvement in terms of performance and price. Where the JCB option is not utilised, it is because the requirement is either outside the range currently produced in Wrexham, or the volume required is not sufficient to make it viable. JCB Transmissions is highly automated and very efficient, and now supplies many other OEMs.

The standards required in quality, reliability and costs are exacting but the time taken by JCB to ensure they get the result right first time is shown by the very few changes in component suppliers since the publication of Off-Highway Research's previous profile on the company four years ago.

Table 28. JCB: Major Component Suppliers, 2002

	Engines	Transmissions	Axles	Hydraulics	Cabs	Undercarriages	Tracks
Backhoe Loaders	Perkins	JCB	JCB	Hamworthy, Husco	Airflow	-	-
Rough Terrain Lift Trucks	Perkins	JCB	JCB	Ultra, Commercial, Sauer Danfoss	Airflow, TIM	-	-
Wheeled Loaders	Perkins, Cummins	JCB, Graziano, Spicer	JCB, ZF, Spicer	Ultra, Husco, Rexroth	Airflow, TIM	-	-
Crawler Excavators	Isuzu	Sumitomo	-	Sumitomo	JCB	Sumitomo	Berco
Wheeled Excavators	Isuzu	ZF	ZF	Sumitomo	JCB	-	-
Mini Excavators	Perkins	-	-	Ultra, Nachi	JCB	JCB	Bridgestone
Articulated Dump Trucks	Perkins					-	-
Agricultural Tractors	Perkins, Cummins	Eaton, JCB	JCB	Bosch, Weber	GKN	-	-
Industrial Lift Trucks	Perkins	Sauer Danfoss	JCB	Ultra, Rexroth		-	-
Skid-Steer Loaders	Perkins	Sauer Danfoss	-	Sauer Danfoss, Commercial	-	-	-

Source: Off-Highway Research

Table 28 shows the major components used within the JCB product range, but equally important to the overall component cost reduction are the number of similar fuel filters, hoses and electrical components that are used throughout the range.

MARKETING AND DISTRIBUTION

In the key markets of Europe, JCB operates sales subsidiaries to control the dealer network and to ensure a high quality level of service. These have been established in Belgium, France, Germany, Italy, Netherlands and Spain. Since the last report in 1998, JCB has closed its regional office in Scandinavia and relocated its responsibilities to the UK. Likewise the responsibilities for the Middle East, Latin America and Central and Eastern Europe are located in Rocester. The French West Indies and French African markets are controlled from the Paris office of JCB France.

The sales companies are the focal points of the company's overseas promotion, and are located in all large volume markets. The sales subsidiaries are controlled by JCB Sales in Rocester, and where JCB does not have a sales subsidiary it has an independent dealer to represent the company. There are two sales subsidiaries outside Europe: JCB Inc. in Savannah, Georgia, USA, at its new factory, and JCB Sales Asia, Pacific Pte Ltd., in Singapore. The latter is a relatively new operation opened in 1996, and was established to take into account the growing sales potential in the developing markets of the Far East at the time. Previously the operation had been located in Australia.

The American operation was established in 1971 and was originally located in Maryland before the new Savannah factory was opened in 2000. Its geographical responsibilities include the USA, Canada and the developing markets of Latin America.

JCB has a joint venture in India with Escorts Ltd of Faridabad. Due to earlier import controls JCB needed a joint venture partner to take advantage of the rapidly growing demand for backhoe loaders, and JCB originally took a 40 per cent share of Escorts JCB. In 2000 JCB increased its share to a controlling 60 per cent and, should conditions allow, will increase its share further. The easing of restrictions on the import of construction equipment into India in recent years has meant that the range of JCB machines sold into India has increased, and the volume of local production has grown markedly. In 1996 Escorts JCB produced a total of 1,781 units – 47 wheeled loaders, 11 telescopic rough terrain lift trucks and 1,716 backhoe loaders. By 1998 it produced a total of 10,000 machines and by 2000 had increased production to 2,844 units – 98 wheeled loaders and 2,746 backhoe loaders.

Since the last profile JCB has closed various regional offices, concentrating its efforts on its dealer network supported by sales personnel located in Singapore, Paris and Rocester.

While JCB has over 700 outlets throughout the world, it is the European market that is the most important to the company, accounting for approximately 65 per cent of the company's business.

EUROPEAN SALES AND DISTRIBUTION

Table 29. JCB: Sales in Europe, 2001

	Backhoe Loaders			Telescopic Rough Terrain Lift Trucks			Masted Rough Terrain Lift Trucks			Crawler Excavators		
Country	**Total**	**JCB**	**%**	**Total**	**JCB**	**%**	**Total**	**JCB**	**%**	**Total**	**JCB**	**%**
Austria	167	82	49	67	8	12	30	-	-	594	10	2
Belgium	160	73	46	615	147	24	75	-	-	650	47	7
Denmark	510	130	25	330	72	22	7	-	-	185	2	1
Finland	165	37	22	75	28	37	1	-	-	446	9	2
France	3,758	1,217	32	6,920	1,250	18	325	25	8	3,365	233	7
Germany	253	81	32	1,258	159	13	228	13	6	2,210	40	2
Ireland	430	191	44	875	257	29	10	2	20	500	37	7
Italy	3,351	1,080	32	2,070	262	13	121	11	9	4,087	194	5
Netherlands	24	15	63	500	160	32	33	18	55	770	46	6
Norway	10	2	20	49	3	6	2	-	-	727	4	1
Portugal	2,002	675	34	530	141	27	100	5	5	690	34	5
Spain	3,204	1,203	38	1,350	160	12	810	10	1	970	38	4
Sweden	185	10	5	89	29	33	-	-	-	337	8	4
Switzerland	5	-	-	131	12	9	19	-	-	534	1	2
United Kingdom	2,500	1,580	63	5,320	2,270	43	200	65	33	3,480	600	17
Total	**16,724**	**6,376**	**38**	**20,179**	**4,958**	**25**	**1,961**	**149**	**8**	**19,545**	**1,303**	**7**

	Wheeled Excavators			Mini Excavators			Wheeled Loaders			Skid-Steer Loaders		
Country	**Total**	**JCB**	**%**	**Total**	**JCB**	**%**	**Total**	**JCB**	**%**	**Total**	**JCB**	**%**
Austria	193	3	2	416	7	2	404	14	3	183	13	7
Belgium	320	27	8	980	96	10	545	31	6	435	12	3
Denmark	26	-	-	970	117	12	370	12	3	285	13	5
Finland	101	-	-	188	8	4	425	28	7	133	7	5
France	1,800	71	4	7,960	432	5	2,714	135	5	1,700	59	3
Germany	2,753	40	1	8,029	301	4	7,847	216	3	739	22	3
Ireland	40	1	3	540	63	12	245	50	20	110	4	4
Italy	491	22	4	11,064	1,000	9	1,986	70	4	4,977	336	7
Netherlands	705	39	6	1,300	42	3	905	27	3	220	2	1
Norway	125	-	-	509	4	1	316	1	-	98	1	1
Portugal	92	-	-	241	14	6	273	-	-	660	20	3
Spain	789	46	6	810	91	11	1,148	41	4	2,035	120	6
Sweden	262	5	2	400	23	6	744	28	4	158	1	1
Switzerland	275	-	-	1,300	-	-	387	2	1	117	-	-
United Kingdom	330	17	5	7,325	1,380	19	965	108	11	1,020	50	5
Total	**8,302**	**271**	**3**	**42,032**	**3,578**	**9**	**19,274**	**763**	**4**	**12,870**	**660**	**5**

Source: Off-Highway Research

Table 29 shows the European sales performance in 2001. As can be seen, the performance of the company has been quite exceptional in some products, whilst in others it has been more modest, particularly in hydraulic excavators, skid-steer loaders, and wheeled loaders. However, these apparent weaknesses are being rectified by recent product launches and increased marketing efforts.

The following pages give a brief profile of the JCB dealer network in Europe, and its relative successes over the last three years.

JCB has a very positive marketing profile and to sustain it the company relies heavily upon a strong, successful and loyal dealer network. In the key European markets JCB has its own sales subsidiary so that it can control events more directly, while in other markets it uses independent dealers – all of whom are acutely aware of the importance of promoting the strength of the JCB marque.

AUSTRIA

Dealer: **TERRA**

Address: Terra Baumaschinen GmbH
Dr. Robert Firneis Straße 6-8
A-2331 Vösendorf

Tel: +43 (0) 1 690 01-0
Fax: +43 (0) 1 690 01-229

Ownership: Terra was originally a subsidiary company of the large Strobl group of companies. In April 2000 it was sold together with Zeidler, the Nissan fork-lift truck dealer, to Industrie Holding GmbH, part of the Austrian Hainzl group.

Sales: Terra remains market leader in backhoe loaders, JCB's core product, although it has faced increasing competition from Fermec in recent years. The declining popularity of the backhoe loader in Austria in favour of midi excavators will be of concern to Terra. Despite a wide product range, it has yet to achieve a significant volume in other sectors, although its market share in most sectors increased in 2000.

Table 30. JCB: Sales in Austria, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	25	-	-	-	-	-
Articulated Dump Trucks	-	-	-	-	-	-
Backhoe Loaders	121	45	93	42	82	49
Crawler Excavators	15	2	28	4	10	2
Mini Excavators	8	1	23	4	7	2
RTLTs-Masted	-	-	-	-	-	-
RTLTs-Telescopic	3	7	15	25	8	12
Skid-Steer Loaders	11	5	11	6	13	7
Wheeled Excavators	7	3	12	4	3	2
Wheeled Loaders	23	5	20	4	14	3

Source: Off-Highway Research

Distribution: There is a full network of sales and service branches situated in Vienna, Graz, Wels and Kematen.

In addition to the Austrian sales companies, Terra has established subsidiary companies in neighbouring Central European countries.

- Terramet – Czech Republic: JCB and Ingersoll-Rand.
- Terrastroj – Slovakia: JCB, Potain and Ingersoll-Rand.
- Terra JCB – Slovenia: JCB.
- Terra Jaska – Croatia: JCB.
- Terra Jntrex – Bosnia: JCB.

BELGIUM

Dealer: **JCB BELGIUM NV/SA**

Address Betekomseseteenweg 120-122
3200 Aarschot

Tel: + 32 (0) 16 567 437
Fax: + 32 (0) 16 569 053

Ownership: JCB Belgium is a wholly owned subsidiary of JCB Sales.

Personnel: The company employs 28 people in Aarschot.

Sales: In terms of units sold, JCB is the leading brand in the country with 12 per cent of total sales. 2000 was a good year but the strength of Sterling has made life more difficult for the company. It has nevertheless retained its market leadership in the backhoe loader sector and a prominent position in the rough terrain lift truck market. In other sectors the company has maintained a stable presence, which will slightly disappoint but external factors have made the market more difficult for JCB in the excavator sectors.

Table 31. JCB: Sales in Belgium, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	23	1	26	1	15	-
Articulated Dump Trucks	-	-	-	-	2	2
Backhoe Loaders	65	39	86	46	73	46
Crawler Excavators	49	7	31	4	47	7
Mini Excavators	57	6	84	8	96	10
RTLTs-Masted	-	-	21	24	-	-
RTLTs-Telescopic	193	26	249	32	147	24
Skid-Steer Loaders	16	3	15	3	12	3
Wheeled Excavators	19	6	14	4	27	8
Wheeled Loaders	27	6	38	7	31	6

Source: Off-Highway Research

Distribution: The company continues to operate with its nine-dealer network, while the Aarschot depot also operates as a direct sales operation in its own locality. In addition, the company has two dealers in Luxembourg, controlled from Aarschot. The opening of the new enlarged Aarschot premises at the end of 1995 gave the company a much stronger marketing presence in the country, and the last five years have been very successful.

It is one of the few companies in the country to operate a dealer network, and this has enabled the company to introduce many new products relatively easily. The introduction of six specialist agricultural dealers has made a great difference to JCB's performance in the rough terrain lift truck sector as well as the Fastrac. Three of the nine construction equipment dealers also operate in the agricultural sector.

DENMARK

Dealer: **NICOLAISEN AND LARSEN AS**

Address: Holmegade 58-60
6990 Ulfborg

Tel: +45 (0) 97 49 16 00
Fax: +45 (0) 97 49 26 70

Employees: 65.

Ownership: Family owned by brother and sister Susanne and Peder Nicolaisen.

Sales: Nicolaison and Larsen have kept up the momentum seen three years ago when significant gains in the market were made.

The company is very strong in the backhoe loader, telescopic rough terrain lift truck and mini excavator sectors but it will be disappointed with its performance in the standard excavator market, where JCB is still a minor player. However, it was a late entrant to the market and the high value of sterling in the last two years has not helped the company in this very competitive sector.

Table 32. JCB: Sales in Denmark, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	5	-	4	-	20	-
Articulated Dump Trucks	-	-	-	-	-	-
Backhoe Loaders	155	28	148	28	130	25
Crawler Excavators	10	5	4	2	2	1
Mini Excavators	52	5	56	6	117	12
RTLTs-Masted	-	-	-	-	-	-
RTLTs-Telescopic	70	23	102	26	72	22
Skid-Steer Loaders	11	2	8	2	13	5
Wheeled Excavators	-	-	1	2	-	-
Wheeled Loaders	20	6	14	4	12	3

Source: Off-Highway Research

Distribution: The dealer's main office is located in Ulfborg, in the north-west part of Jutland. The company has very modern premises in quite a remote part of Denmark, but in the last five years has developed an extensive network to ensure complete country coverage. In 1990 it opened a sales and service centre in Ringsted on Zealand, approximately 50 kilometres from Copenhagen, in addition to the service centre at Vissenbjerg on the island of Funen. The premises in Vissenbjerg are completely new, replacing the former site in the town, which is now a depot. The new facilities enable the Funen site to cover the whole of south Jutland and Funen.

The additional premises were required as the JCB product range developed, and the company now has a network as competitive as any other company in the country.

FINLAND

Dealer: **MATEKO OY**

Address Laukaantie 1
40320 Jyvaskyla

Tel: +358 (0) 14 334 9433
Fax: +358 (0) 14 334 9445

Ownership: Mateko Oy was formed in December 1996 to import JCB construction equipment to Finland. The ownership of the company is equally divided between Mr Juha Niemela, its managing director, and his partner Mr Jouko Heinonnoiki.

Personnel: 23.

Sales: There are at least 1,000 JCB machines operating in Finland. Its strongest markets have always been in the backhoe loader sector where the 4CX and 4CN models are the most popular. The last three years have seen the dealer expand the appeal of the JCB product range, but Finland is not the best market for compact equipment and sales volumes are unlikely to be large.

Table 33. JCB: Sales in Finland, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	-	-	-	-	-	-
Articulated Dump Trucks	-	-	-	-	-	-
Backhoe Loaders	57	26	61	27	37	22
Crawler Excavators	16	3	11	2	9	2
Mini Excavators	5	5	11	8	8	4
RTLTs-Masted	-	-	-	-	-	-
RTLTs-Telescopic	12	22	17	27	28	37
Skid-Steer Loaders	6	6	11	9	7	5
Wheeled Excavators	1	1	-	-	-	-
Wheeled Loaders	26	5	27	6	28	7

Source: Off-Highway Research

Distribution: All products are distributed through a network of six branches in Vantaa, Turku, Lahti, Oulu, Mikkeli and Tampere. In addition, there are three sub-dealers selling JCB products, while all services and technical support are provided by more than 20 sub-contracted service stations throughout Finland.

FRANCE

Dealer: **JCB FRANCE SA**

Address: 3 rue du Vignolle
Parc Industriel
95842 Sarcelles Cedex

Tele: +33 (0) 1 34 29 20 20
Fax: +33 (0) 1 39 90 93 66

Ownership: A sales subsidiary of JCB Sales Ltd.

Sales: From the time JCB France was formed in 1970, the country has been one of the most important export markets for the company. In 1998 it regained its position as the company's most important European export market, from Italy. The base for the company's success is built upon the backhoe loader, where the company is market leader, but in recent years its performance in the telescopic rough terrain lift truck market has improved significantly, and the company is now a strong second to the leading domestic supplier, Manitou.

Table 34. JCB: Sales in France, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	-	-	-	-	-	-
Articulated Dump Trucks	-	-	-	-	-	-
Backhoe Loaders	1,248	34	1,500	34	1,217	32
Crawler Excavators	186	8	223	7	233	7
Mini Excavators	386	7	440	6	432	5
RTLTs-Masted	10	2	10	3	25	8
RTLTs-Telescopic	1,095	17	1,330	18	1,250	18
Skid-Steer Loaders	62	4	72	4	59	3
Wheeled Excavators	71	5	73	4	71	4
Wheeled Loaders	120	6	145	5	135	5

Source: Off-Highway Research

The extension of the product range initially caused problems for the company, for many of its dealers were multi-franchise holders who had established successful brands which were in direct competition to the new JCB machines. However, the last few years have seen JCB establishing a dedicated franchise network, which is still built upon its original strengths of the backhoe loader and telescopic rough terrain lift truck.

Whilst France has been a successful market for JCB, it will still be trying to increase its sales in its more recently established products, particularly in the large volume excavator sectors. A successful performance in France is very important to the company's export strategy, and this country will continue to be the object of much marketing promotion in the future.

Distribution: JCB currently has a construction equipment network of 34 dealers, plus an agreement to sell the telescopic rough terrain lift truck and the Fastrac tractor through Renault's agricultural tractor dealer network.

GERMANY

Dealer: **JCB BAUMASCHINEN UND INDUSTRIEMASCHINEN GMBH**

Address: Postfach 90 06 07
51116 Koln

Tele: +49 (0) 2203 92620
Fax: +49 (0) 2203 926 2260

Ownership: A sales subsidiary of JCB Sales Ltd.

Sales: Whilst it has traditionally represented the largest construction equipment market in Europe, JCB has never been successful in developing Germany to meet its potential. The reason is simple – it is not a backhoe loader market, so the company had difficulty in establishing a quality dealer network to represent its full line. The extension of the product range, however, in recent years has given the company the opportunity to develop a much more dedicated network than in the past. Nevertheless, apart from the modest backhoe loader sector the company has been unable to expand its share of the market.

Table 35. JCB: Sales in Germany, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	270	1	255	1	-	-
Articulated Dump Trucks	-	-	-	-	1	-
Backhoe Loaders	85	34	119	43	81	32
Crawler Excavators	69	2	58	2	40	2
Mini Excavators	181	2	302	3	301	4
RTLTs-Masted	13	5	9	4	13	6
RTLTs-Telescopic	186	15	216	14	159	13
Skid-Steer Loaders	32	3	34	3	22	3
Wheeled Excavators	59	1	74	2	40	1
Wheeled Loaders	281	3	302	3	216	3

Source: Off-Highway Research

While the company has now established a base and its presence is growing steadily, Germany is dominated by its own domestic suppliers in all the volume sectors, and any progress by JCB will be very hard fought for.

Distribution: The company is constantly reappraising its network as it develops new product sectors. It currently has 39 dealers selling construction equipment, and 18 dealers selling the Fastrac tractor and other equipment into the agricultural sector.

IRELAND

Dealer: **ECI JCB LTD**

Address: John F Kennedy Drive
Naas Road
Dublin 12

Tel: + 353 01 450 2777
Fax: + 353 01 450 2041

Ownership: A privately owned company.

Personnel: 50.

The company has been the JCB dealer since 1984, when it took over from Blackwood Hodge Ireland. ECI's history goes back to the mid-1970s, when McCormick, the Caterpillar dealer, sold off its non-Caterpillar businesses to Chris Fitzpatrick of JS Lister group. The present MD and owner of ECI was brought in from Blackwood Hodge Ireland to run the new company, named ECI, Equipment Company of Ireland. In 1984 Blackwood Hodge Ireland was a victim of the corporate changes going on within the company and JCB approached ECI to take on the franchise.

In the 1990s when the JCB product range expanded considerably, ECI committed itself to becoming a single franchise company.

Sales: The JCB name in Ireland was built on the success of the backhoe loader. Throughout the 1970s and 1980s this was the largest volume selling machine in the country. The extension of the product range has increased sales substantially, particularly with the telescopic rough terrain lift truck, which has now become the biggest selling product in the country.

The volume of wheeled loaders has declined as the agricultural sector, where JCB is dominant, declined. Sales of mini excavators have risen but the competition has increased significantly, although the company still enjoys a prominent position in the market.

Table 36. JCB: Sales in Ireland, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	10	-	-	-	-	-
Articulated Dump Trucks	-	-	-	-	2	2
Backhoe Loaders	240	56	220	58	191	44
Crawler Excavators	30	8	47	9	37	7
Mini Excavators	30	17	65	14	63	12
RTLTs-Masted	-	-	5	50	2	20
RTLTs-Telescopic	180	30	300	35	257	29
Skid-Steer Loaders	-	-	-	-	4	4
Wheeled Excavators	1	3	6	15	1	3
Wheeled Loaders	50	26	40	18	50	20

Source: Off-Highway Research

Distribution: ECI originally started in Cork and has maintained a depot there since 1977, and in 1990 the head office was opened in Dublin.

ITALY

Dealer: **JCB SPA**

Address: Via Enrico Fermi 16
20090 Assago
Milano

Tel: +39 (0) 2 488 0374
Fax: +39 (0) 2 488 0378

Ownership: A sales subsidiary of JCB Sales Ltd.

Sales: Italy is an excellent market for JCB's products. It dominates the backhoe loader sector but increasing competition from both domestic manufacturers and importers has meant that overall its share of the market has fallen slightly despite a 21 per cent increase in sales.

Italy is the second most important export market for JCB after France, and with an increasing demand for compact equipment in the country, the company will try to increase its sales even further.

Italy is the one export market where the skid steer loader has a significant share of the market despite strong competition from domestic suppliers.

Table 37. JCB: Sales in Italy, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	-	-	-	-	-	-
Articulated Dump Trucks	-	-	-	-	-	-
Backhoe Loaders	1,029	32	1,071	34	1,080	32
Crawler Excavators	138	4	161	5	194	5
Mini Excavators	730	8	929	10	1,000	9
RTLTs-Masted	7	5	32	22	11	9
RTLTs-Telescopic	209	17	232	13	262	13
Skid-Steer Loaders	313	7	349	7	336	7
Wheeled Excavators	16	3	20	4	22	4
Wheeled Loaders	59	3	54	3	70	4

Source: Off-Highway Research

Distribution: The company utilises a network of 32 independent dealers located throughout the country.

NETHERLANDS

Dealer: **JCB NV**

Address: Zandweistraat 16
NL 4181 CG Waardenburg

Tel: +31 (0) 418 65 46 54
Fax: +31 (0) 418 65 29 75

Ownership: The company is a wholly owned subsidiary of JCB.

Personnel: JCB NV employs a total of 45 people, 35 of whom are at the new premises in Waardenburg, and 10 at the original premises in Ullestraten.

Sales: The extension of the JCB product range in the last few years has increased the opportunities for the company, and this is beginning to be reflected in an improvement in sales.

In unit terms the company is now the third largest supplier of construction equipment in the country. The biggest growth has occurred in the telescopic rough terrain lift truck sector, where sales have grown 50 per cent in a rapidly expanding market. The company retains its dominant position in the small volume backhoe loader sector aided in 2000 by a number of machines bought in the Netherlands but destined for the USA or even the United Kingdom.

Table 38. JCB: Sales in Netherlands, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	11	-	9	-	15	1
Articulated Dump Trucks	-	-	4	3	2	3
Backhoe Loaders	18	64	48	91	15	63
Crawler Excavators	46	7	53	7	46	6
Mini Excavators	61	5	67	5	42	3
RTLTs-Masted	10	59	6	40	18	55
RTLTs-Telescopic	149	37	158	35	160	32
Skid-Steer Loaders	7	3	9	3	2	1
Wheeled Excavators	31	5	43	7	39	6
Wheeled Loaders	32	4	29	3	27	3

Source: Off-Highway Research

Holland has a history of liking Japanese-designed and built excavators and JCB has benefited from this. The decision of Sumitomo to join forces with Case has so far had no impact upon the market perception of the JCB product, and further growth is anticipated.

The company was hopeful that sales gained in the skid-steer loader sector would compensate for declining backhoe loader sales, but this has proved difficult to achieve and the product has not been as successful as had been anticipated. Growth is more likely to come from sales of mini excavators, but again this sector is very price competitive, and a UK-sourced product is currently at a disadvantage because of the strength of sterling.

Distribution: The biggest change in the last five years has been the change of location of JCB Netherlands from Ullestraten, near Maastricht in the south-west, to Waardenburg, near S'Hertendenbosch in the centre of the country. The new location has given the company a higher profile in the country, and this is reflected in the improved sales. JCB NV, unlike most other subsidiaries, both retails and wholesales construction equipment. The addition of smaller sizes of equipment in recent years has meant that the company now utilises a network of five dealers to sell its full line of construction equipment. These are: Broekveldt de Groeve BV based in the north-east; Nijland Service BV based in the east; Asjes BV based in the north-west; Eshuis BV based in the south-west and ELM Bleiswijk based midway between Amsterdam and Rotterdam, near the Hague. In addition it has four agricultural dealers to sell the Fastrac and other JCB products to agricultural customers.

NORWAY

Dealer: **AL MASKIN**

Address: Industrieven 8
PO Box 54
2020 Skedsmokorset

Tele: +47 6483 6900
Fax: +47 6483 6999

Ownership: Private Company.

Sales: Norway is a difficult market for all importers, but particularly so for JCB because the arduous terrain makes the country unsuitable for the small to medium size equipment, which has been the mainstay of JCB's sales in the past.

Table 39. JCB: Sales in Norway, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	-	-	-	-	-	-
Articulated Dump Trucks	-	-	-	-	-	-
Backhoe Loaders	1	9	2	13	2	20
Crawler Excavators	13	2	10	1	4	1
Mini Excavators	4	1	9	2	4	1
RTLTs-Masted	-	-	-	-	-	-
RTLTs-Telescopic	3	6	5	8	3	6
Skid-Steer Loaders	-	-	-	-	1	1
Wheeled Excavators	-	-	1	1	-	-
Wheeled Loaders	4	1	5	1	1	-

Source: Off-Highway Research

The company appointed a new dealer in 2000 to try and rectify the situation but it is only the crawler excavator range that offers potential volume sales for JCB in Norway's difficult terrain.

PORTUGAL

Dealer: **MOTIVO SA**

Address: EN 249, Lote 12
Trajouce
2775 San Domingo de Rana

Tel: + 351 2 1 445 9600
Fax: + 351 2 1 445 9696

Ownership: Motivo has two main shareholders and has been selling JCB products since 1981. It owns the JCB dealership in Galicia, Spain which it founded when JCB created a new network there.

Employees: The headcount has recently been reduced from 90 to 75, a reflection of the decision to outsource the workforce of mechanics who repair machines in the country. They are now trained by Motivo and supplied with spare parts but are working independently. Over 50 of them work with Motivo, which still retains a nucleus of technical personnel to work as inspectors of the jobs done by the mechanics.

Sales: Motivo retains a share of the crucial backhoe loader market which is always over 30 per cent and it is always in first place. This success is mainly due to the standard machine, the 3CX, but some of the volume goes to the larger 4CX.

Table 40. JCB: Sales in Portugal, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	-	-	-	-	-	-
Articulated Dump Trucks	-	-	-	-	-	-
Backhoe Loaders	703	37	710	36	675	34
Crawler Excavators	14	3	24	4	34	5
Mini Excavators	9	7	10	4	14	6
RTLTs-Masted	-	-	8	5	5	5
RTLTs-Telescopic	96	24	100	22	141	27
Skid-Steer Loaders	30	6	10	2	20	3
Wheeled Excavators	-	-	-	-	-	-
Wheeled Loaders	2	1	2	1	-	-

Source: Off-Highway Research

In other earthmoving products the crawler excavators have been disappointing in not significantly increasing volume and market share and only the telescopic rough terrain lift truck achieves volume sales.

Distribution: The four main branches are in:

- Lisbon
- Faro
- Oporto
- Pombal

There are associated companies in Guarda and the Azores. The branch in Albergaria has been closed, as its territory overlapped with branches to the north and south, and five sub-dealers now work with Motivo. The structure is much reduced, the long-term plan of creating over 15 branches now being recognised as unrealistic. The branch network is centrally operated to avoid duplicating functions, most of which are carried out in Lisbon.

SPAIN

Dealer: **JCB MAQUINARIA**

Address: Edificio Berlin
Parque Empresarial de San Fernando
Cta. de Barcelona Km 17.200
28830 San Fernando de Henares

Tel: +34 91 677 0429
Fax: +34 91 677 4563

Ownership: A wholly owned subsidiary of JCB of the UK. In 1992 JCB set up its own sales company, following the collapse of its former importer, Ofirex. It does not have a retail territory, unlike some companies in a similar position. The HQ is a suite of offices near Madrid airport.

Personnel: 23.

Sales: The company achieved the aim of winning back first place in the backhoe loader market in 1994 and since then has improved to retain an average 35 per cent market share. The secret is to present the machines with as much variety as possible. Thus there are three best-selling versions of the 3CX but also a third of sales arises from other models, from the skid-steer loader-type 1CX to the high horsepower 4CX.

Table 41. JCB: Sales in Spain, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	-	-	-	-	-	-
Articulated Dump Trucks	-	-	-	-	-	-
Backhoe Loaders	1,449	38	1,297	39	1,203	38
Crawler Excavators	30	3	38	4	38	4
Mini Excavators	34	7	95	11	91	11
RTLTs-Masted	10	1	10	1	10	1
RTLTs-Telescopic	245	19	245	17	160	12
Skid-Steer Loaders	163	8	141	7	120	6
Wheeled Excavators	37	5	50	6	46	6
Wheeled Loaders	65	6	73	6	41	4

Source: Off-Highway Research

JCB has progressed further in its wheeled loader business since the last report, but has not had as much success in crawler excavators as one would have anticipated three years ago. Concentrating rather on smaller machines since the establishment of the company, it has also made good progress in the skid-steer loader and telescopic handler markets.

Distribution: JCB Maquinaria has 15 dealers and one service workshop at present.

SWEDEN

Dealer: No single importer but three regional dealers importing directly from the UK. The three dealers are GT Center, JNS Anluggingsmaskiner and Hellansvenska Material + Maskin.

Sales: Sweden has not been a particularly successful market for JCB, because the harsh terrain has meant that it never favoured backhoe loaders, while the excavator and wheeled loader sectors have traditionally been dominated by the domestic supplier Volvo. The change in JCB's dealership was brought about in 2000 by the extension of the product ranges, thus bringing them into competition with the Komatsu and Atlas Weyhausen brands already held by the previous dealer, SMA.

The earlier weaknesses of JCB’s performance in Sweden have been recognised by the company, which believes that the introduction of three new and dedicated dealers, backed up by the regional office located in Sweden, will increase JCB's position in the country, and should lead to increased sales in the future.

Table 42. JCB: Sales in Sweden, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	-	-	-	-	-	-
Articulated Dump Trucks	-	-	-	-	-	-
Backhoe Loaders	22	9	6	3	10	5
Crawler Excavators	16	4	5	1	8	2
Mini Excavators	16	7	7	2	23	6
RTLTs-Masted	-	-	-	-	-	-
RTLTs-Telescopic	17	24	13	24	29	33
Skid-Steer Loaders	3	2	4	3	1	1
Wheeled Excavators	4	1	7	2	5	2
Wheeled Loaders	31	4	13	2	28	4

Source: Off-Highway Research

SWITZERLAND

Dealer: **JAQUET SA**

Address: La Combettaz
1337 Vallorbe

Tel: +41 (0) 21 843 22 11
Fax: +41 (0) 21 843 2854

Ownership: A family owned company.

Sales: JCB changed dealers in 1996 after it expressed dissatisfaction with the performance of the previous dealer, Schaller. The new dealer also holds the franchises for Kobelco crawler excavators and Gehl skid-steer loaders, and has stated that he will not sell competing JCB machines against them. This will naturally limit JCB's potential in this small volume market, in which backhoe loaders and telescopic rough terrain lift trucks have very limited appeal.

Table 43. JCB: Sales in Switzerland, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	-	-	-	-	-	-
Articulated Dump Trucks	-	-	-	-	-	-
Backhoe Loaders	4	67	4	44	-	-
Crawler Excavators	-	-	-	-	1	-
Mini Excavators	1	50	-	-	-	-
RTLTs-Masted	-	-	-	-	-	-
RTLTs-Telescopic	15	22	15	17	12	9
Skid-Steer Loaders	2	1	2	1	-	-
Wheeled Excavators	-	-	2	1	-	-
Wheeled Loaders	5	1	10	2	2	1

Source: Off-Highway Research

Distribution: The company has one branch in Sierre, and uses an independent service dealer in Porrentruy. All the locations are in the French speaking area of the country.

UNITED KINGDOM

Dealer: JCB Sales Ltd

Address: Rocester
Staffordshire ST14 5JP

Tel: +44 (0) 1889 593602
Fax: +44 (0) 1889 591222

Sales: The UK is JCB's most important single market by some considerable margin. Here it is market leader in the backhoe loader, telescopic rough terrain lift truck and mini excavator sectors, whilst in almost all other construction equipment sectors it is among the three leading suppliers. The exception is the wheeled excavator market where the company has gained a significant share of the market in a relatively short period of time.

While JCB enjoys an outstanding reputation in its domestic market, it is constantly seeking to improve its performance. It is important that JCB maintains its current position in the UK market despite increased competition and the high value of sterling, for the UK is the platform upon which its export success is based. Without achieving the high volumes in its domestic market, its competitiveness abroad would be difficult to sustain.

Table 44. JCB: Sales in United Kingdom, by Product, 1999-2001

	1999		2000		2001	
	Units	Market Share (%)	Units	Market Share (%)	Units	Market Share (%)
Agricultural Tractors	289	2	275	2	350	3
Articulated Dump Trucks	-	-	30	6	40	7
Backhoe Loaders	1,800	62	1,750	67	1,580	63
Crawler Excavators	540	18	540	17	600	17
Mini Excavators	1,375	26	1,444	23	1,380	19
RTLTs-Masted	275	52	300	60	65	33
RTLTs-Telescopic	1,780	40	2,100	44	2,270	43
Skid-Steer Loaders	120	14	100	11	50	5
Wheeled Excavators	30	12	31	11	17	5
Wheeled Loaders	120	14	130	16	108	11

Source: Off-Highway Research

Distribution: The company sells its construction products through a network of 10 independent dealers, which have a total of over 40 outlets located throughout the country. JCB Landpower has a separate dealer organisation to sell the Fastrac tractor and other JCB products (primarily the telescopic handler) to agricultural customers, and in this sector there are currently 32 independent dealers with over 50 separate outlets.