Singapore

Brief Report on Construction Equipment and Machinery

Summary

This report covers the market potential in Singapore for construction equipment and machinery parts used in the construction industry. This covers all types of bulldozers, wheeled/crawler shovels/loaders, hydraulic excavators, and road rollers as well as rock drilling and earth boring machinery and pile-drivers/extractors.

The nature of the construction equipment market in Singapore is such that sub-categories within this market experience different demand and supply configurations. However, it has been established that the growth or decline in the construction equipment market is to a large extent dependent on the state of the construction industry. The market is however increasingly distorted by the use of second-hand or reconditioned machinery.

The economic recovery in Singapore in the last few years has brought about an improvement in the performance of the construction sector. Construction's share of the national GDP has increased in 2006 in view of the stronger projected construction demands for the year. Its contribution to the national GDP is to stabilize at around 5.0 per cent. According to the Building & Construction Authority (BCA), which is a government statutory agency set up in 1984 to oversee the development of the construction industry, 2006 was another good year for the Singapore construction industry. Based on anticipated demand, the industry should see up to US$ 8.28 billion worth of projects awarded by both the public and private sectors in 2006. Private sector demand was the main source of demand generating some US$ 4.91 billion worth of projects. Public sector construction demand hit US$ 3.37 billion in 2006. Based on these, the outlook for the construction industry in 2007 is certainly very encouraging. This means that there is still a tremendous scope for the supply of construction and earthmoving equipment to the local construction industry. This is particularly true since there is limited domestic production of construction equipment and local assembly which translates to a market that is dominated by imports.

Market Demand

This market assessment is based upon the private and public construction sector demand and its impact on the construction equipment market.

Prospects for Construction Demand in 2006

According to the Building & Construction Authority (BCA), 2006 was another good year for the construction industry. BCA's preliminary forecast indicates the total construction demand reache US$ 8 billion (approx.) worth of projects awarded by the public and private sectors. Public construction demand improved slightly to between US$ 2.88 billion and US$ 3.37 billion, fuelled by anticipated expansions in institutional and civil engineering construction demands. The private sector was awarded between US$ 4.48 billion and US$ 4.91 billion worth of projects in 2006.

Public Sector Demand

The public construction demand was anticipated to stay at around US$ 2.88 billion, the same level as 2005. The total public construction orders reached almost US$ 3 billion.

In 2006, public residential construction demand was projected at between US$ 675 million and US$ 798 million. Approximately 40% of the volume was new housing development and about 50% of demand came from the Housing & Development Board's (HDB) continuous effort to upgrade old estates.

Commercial construction demand remained sluggish. The most significant project expected in 2006 was probably the People's Association's new headquarters at Kitchener Road.

Industrial construction demand was expected to moderate in view of JTC's recent announcement to exit from development of ready-built factory space. The majority of its demand was contributed by PUB's (the provider of public utilities services) various building contracts for water works.

Institutional and other public building construction demand was projected to range between US$ 1.04 billion and US$1.35 billion in 2006. The major project was the development of the US$ 245 million Yishun Hospital, catering to the residents in the northern part of Singapore. School upgrading projects as well as development of new schools worth some US$ 123 million remained the Education Ministry's focus in 2006. Apart from the continuous campus upgrading by the National University of Singapore (NUS) and Nanyang Technological University (NTU), other notable educational buildings awarded would include NUS' US$ 92 million medical facility for academic research and the new Arts School at Selegie Road. To prepare for the higher volume of visitor arrivals as envisioned by the Singapore Tourism Board (STB), the Civil Aviation Authority of Singapore (CAAS) has plans for major upgrading at the Changi Airport Terminal 1.

Civil Engineering construction demand increased to over US$ 1 billion in 2006. The fully underground MRT Downtown Extension spanning 3.4 km long with five stations had significant impact on the overall demand. Besides rail construction, the Land Transport Authority (LTA) was also expected to invest close to US$ 307 million in road improvement works. Other major projects expected in 2006 were the Punggol reservoir project along Serangoon/Punggol River and its nearby infrastructure development.

Private Sector Demand

The relaxation of property rules for financing and foreign ownership unveiled by the Government in July 2005 is expected to enhance the private sector building demands. About US$1.66 billion worth of private housing projects were slated for development in 2006. Some of the major upcoming projects included condominiums at West Coast Park, Amber Gardens and Sengkang Central, Ferraria Park condominium at Flora Drive, New Economy condominium at One North Gateway as well as various landed housing projects at Sentosa Cove.

Commercial construction demand was projected to increase significantly to the tune of US$1.04 billion. Major projects in the pipeline included City Square Mall at Kitchener Road, the foundation works for the new Business and Financial Center (BFC), Orchard Turn mega mall, and a new hotel at One-North and the refurbishment of Crown Hotel.

As Singapore's economy moves up the technology ladder, there will be more demand for complex and high specification industrial facilities. Industrial construction orders were expected to reach approximately US$1.6 billion in 2006. Some major projects in the pipeline included Hin Leong Trading's Universal Oil Storage Terminal at Jurong Island, Shell Eastern Petroleum's new cracker plant at Jurong Island, Island Power's new power station, Keppel Sehers Engineering's refuse incineration plant at Tuas, Lonza's biologic manufacturing plant and Lucite International's new technology plant at Jurong Island.

Private institutional and other building construction demand was expected to stabilize at 2005 level. Several recreational facilities expected to be awarded in 2006 are NTUC's food and entertainment mall with a 20 meters Ferris wheel at Pasir Ris, NTUC's beach club at Palawan Beach on Sentosa, Singapore Island Country Club's new recreational clubhouse and Tanglin Club's refurbishment project. The construction of the Ren Ci Hospital was also scheduled to proceed in 2006.

Civil Engineering projects were expected to reach about US$ 307 million in 2006. Various utilities projects by PowerGas and PowerGrid as well as berth facilities to be built by PSA Corporation would continue to dominate in this category.

Prospects for Construction Demand in Medium Term

With sustained economic growth, construction demands were expected to continue over the next two years. According to the BCA's forecast, the total construction demand in 2007 will continue to improve in view of the likely awards of large projects such as the main contracts for the Business Financial Center, the Integrated Resorts, ITE's second regional campus, University of New South Wale's campus, three gardens along Marina Bay, and the conversion of the old Supreme Court into an art museum.

Given the optimistic projection for the growth of the construction industry and the future development by the public and private sectors, there is no doubt that demand for construction and earthmoving equipment will grow in tandem. The importance of Singapore as a regional center also is a major factor, with many Singapore-based contractors covering one or more other markets in this fast developing region. Building projects in the Asian region are estimated to be worth some US$ 1.2 to US$ 1.5 trillion for the next decade.

However, the increasing use of second-hand machinery has somewhat curtailed imports. The use of second-hand/used machinery or reconditioned equipment is due to the following reasons :

(a) equipment is as much as 30-50% less expensive;

(b) the uncertainty of the next construction project for the contractor, and the type of contract work, together with the competitive pricing of projects, have led the contractor to choose the most economical means of carrying out his/her contract work.

(c) equipment is easily available from equipment leasing and rental companies. The advantages of equipment rental are further explained at the "Prospective Buyers profile" below.

Market Data

The following data reflect the market size. There is limited local manufacturing of construction and earthmoving equipment in Singapore. However, Singapore companies assemble and, to a smaller extent, fabricate metal components for integration as a complete system.

Value in US$ million Rock Drilling or Earth Boring Machinery and Pile-Drivers/Extractors	*2003*	*2004*	*2005*	*Est. Annual Growth Rate 2006/2008*
Total Imports	76.1	90.4	87.9	5.0%
Local Production	20.5	21.4	30.6	1.0%
Total Exports	75.8	74.5	83.3	5.0%
Total Markets	20.8	37.3	35.3	5.0%
Imports from US	34.8	41.6	42.5	5.0%

Value in US$ million Mechanical Shovels, Excavators & Shovel Loaders	*2003*	*2004*	*2005*	*Est. Annual Growth Rate 2006/2008*
Total Imports	422.4	676.8	860.1	10.0%
Local Production	88.8	90.1	136.2	2.0%
Total Exports	526.5	714.8	1049.4	10.0%
Total Markets	-15.3	52.1	-53.1	5.0%
Imports from U.S.	76.0	129.1	211.3	10.0%

Value in US$ million Tractors & Concrete or Motor Mixers	*2003*	*2004*	*2005*	*Est. Annual Growth Rate 2006/2008*
Total Imports	31.1	42.3	61.3	10.0%
Local Production	1.3	0.9	1.1	1.0%
Total Exports	31.5	36.7	47.2	10.0%
Total Markets	0.9	6.5	15.2	10.0%
Imports from U.S.	5.6	11.9	27.9	5.0%

	2003	*2004*	*2005*
Exchange Rate Used US$ = S$	1.63	1.63	1.63

Future Inflation Rate Assumed : 2.4%

2005 Import Market Share (% for USA and major competitors) :

Rock Drilling or Earth Boring Machinery and Pile-Drivers/Extractors

a. Interchangeable Rock Drilling or Earth Boring Tools of Cermets USA (46%); Italy (18%); U.K. (10%); Germany (8%); Australia (3%)

b. Interchangeable Rock Drilling or Earth Boring Tools Incl. Parts of Other Material USA (56%); Italy (12%); Netherlands (7%); U.K. (4%); Malaysia (4%)

c. Pile-Drivers & Pile Extractors Netherlands (34%); Japan (30%); Australia (8%); Indonesia (6%); Finland (4%); USA (3%)

Mechanical Shovels, Excavators & Shovel Loaders

a. Self-Propelled Bulldozers Graders Levelers Scrapers Mechanical Shovels Excavators Shovel Loaders, etc. Japan (59%); Germany (11%); USA (11%); U.K. (3%); Indonesia (2%)

b. Buckets Shovels Grabs & Grips For Bulldozers Graders USA (61%); Australia (7%); Malaysia (5%); Japan (4%); China (4%)

c. Bulldozer & Angledozer Blades USA (38%); Japan (13%); China (12%); Korea (7%); Italy (5%)

d. Parts For Pile-Extractors Drivers Tampers Compactors Scrapers Graders Bulldozers Snowplough, etc. USA (33%); Japan (31%); Malaysia (5%); Australia (4%); France (3%)

Tractors & Concrete or Mortar Mixers

a. Concrete Or Mortar Mixers Italy (33%); Venezuela (20%); U.K. (11%); China (11%); France (5%); USA (3%)

b. Tractors Pedestrian Controlled China (82%); Korea (18%); USA (0%)

c. Road Tractors For Semi-Trailers Japan (43%); U.K. (15%); Germany (12%); Brazil (11%); USA (7%)

d. Track-Laying Tractors USA (88%); Brazil (7%); Japan (2%); Belgium (1%); Poland (0.8%)

e. Other Tractors Germany (26%); Japan (26%); USA (15%); France (8%); Brazil (6%)

Best Sales Prospects

According to trade sources, there are good sales opportunities for the following construction and earthmoving equipment :

(1) Bulldozers
(2) Mechanical shovels
(3) Hydraulic excavators
(4) Shovel loaders
(5) Tunneling equipment
(6) Rock drilling and earth boring machinery

Key Suppliers

With limited indigenous manufacture of construction and earthmoving equipment (though there are a few domestic earthmoving equipment assembly operations) and no duties on these imports, the Singapore market is very open. As such, many foreign companies' products are already well established here, and pricing is very competitive. Japanese products are highly regarded in almost all categories of the construction and earthmoving equipment. They are particularly strong in the hydraulic excavators with brand names like Kobelco, Nikko, Mitsubishi, and Hitachi dominating the Singapore market. In the bulldozer category, the US is strongly represented by Caterpillar and, to a smaller extent, by International Harvester, John Deere, and J.I. Case. The main Japanese competitor in the bulldozer category is Komatsu.

The market for excavators and tractors in Singapore is characterized by a large number of manufacturers competing in a small market. It is believed that the market has reached its saturation point both in terms of suppliers and end-users. There are two major suppliers in the market, namely Bomag (Germany) and Sakai (Japan). These two suppliers hold similar shares (around 26% each) of the market. Other popular brands are Ingersoll-Rand (USA) and Vibromax (Germany) as well as Volvo CE (Sweden), Hyundai (Korea), and Doosan Daewoo (Korea).

Third Country Suppliers : The major third country supplier of earthmoving equipment to Singapore is Japan. The Japanese suppliers dominate about 59% of the hydraulic excavator and bulldozer market in Singapore and they are slowly gaining prominence in the road roller segment.

Japan is the second leading supplier of construction and earthmoving equipment to Singapore (after the US), supplying slightly more than 20% of the total imports. In view of their competitiveness, the Japanese market share will likely increase in Singapore.

The Japanese suppliers penetrated the Singapore market by competitively pricing their products and adopting aggressive marketing policies. For example, they provided interest-free credit terms of 3-6 months to the buyers to promote purchases of their products. The present market practice among competitors is to offer a competitive price and favorable financing terms. The Japanese suppliers have already adopted these two factors effectively in the market.

Japan's major product lines are "mechanical shovels and excavators", which constituted about 59% of Singapore's imports of such equipment in 2005. In relation to the other foreign suppliers, Japan has substantially increased its market position in all the equipment sub-categories, except for earth boring machinery and pile-drivers/extractors.

On the other hand, there were no significant changes over the past couple of years in the import market position of Italy, China, Germany and the United Kingdom. However, like most other countries, Germany and the United Kingdom experienced a fall in their aggregate import values.

Prospective Buyers

The principal users of construction and earthmoving equipment can be classified into two groups :

(A) Construction companies and civil engineering contractors :

There are approximately 200 such contractors operating in Singapore. Most major contractors are also members of the Singapore Contractors Association (http://www.scal.com.sg), and can be presumed to represent the principal contractors in the industry.

(B) Construction equipment rental companies :

Because of the capital-intensive nature of the construction industry, most operators tend to rent rather than purchase equipment. This had especially been the case during a widespread slump in the industry in the mid-80s where renting rather than purchasing equipment became advantageous. The practice of renting equipment has continued up to the present day, and the reasons are the following: First, the operator can forego the huge initial cost of buying the equipment. Second, rather than having a number of general-purpose construction equipment, the operator can employ the machine most suited to a specific job. Third, renting puts the larger, expensive construction equipment within the reach of the small operator. Fourth, there are no maintenance and storage problems to the operators. There are about 50 equipment rental companies in Singapore, of which about a dozen are more active than the others.

Market Entry

Many exporters use agents or distributors to serve the Singapore market and other markets in South East Asia. Finding prospective partners presents no problem. Singapore firms are aggressive when it comes to representing new products and usually respond enthusiastically to new opportunities. In addition, most Singaporean companies are open to joint venture proposals, and many are interested in manufacturing under license.

Price, quality and service are the main selling factors in Singapore. Prospective exporters to Singapore should be aware that competition is strong and that buyers expect good after-sales service. Selling techniques vary according to industry or the product involved but they are comparable to the techniques used in any other sophisticated market.

Appointment of Distributor/Agents : There is no special legislation in Singapore covering agency agreements. In the absence of this, the Singapore's Common Law of Practice is deemed to apply.

Methods of Operation for American Companies : The principal methods of operations for American companies in the Singapore market are through :

- A branch of the American firm or an associated company incorporated as a full subsidiary based in Singapore.
- A representative sent out from the United States and stationed permanently in the area. He/She may not be directly responsible for obtaining orders and making sales, but supervises local distributors and/or agents.
- An agent appointed in Singapore. Local firms which act as agents range from small construction equipment companies, working on a small project basis to large system equipment installers representing a number of manufacturers in several categories of construction equipment. Such organizations handle a large share of the construction business and generally have branches throughout the area.
- Direct sales on an open market basis. This method is only successful with a limited range of construction equipment firms with well-established connections.

In view of the competitive nature of the local business environment, it is recommended that any new-to-market a company appoints a local representative. Once business has matured, the establishment of a representative office might be desirable to serve as a launching pad into the region.

Trade promotion and advertising: there are many specialized trade magazines in Singapore and many trade fairs (*http://www.sgmeetings.com*) that can be used as venues to promote construction and earthmoving equipment. The major English language daily newspapers are the Straits Times and the Business Times. They are available at *http://www.asiaone.com*. The business magazine that has the relevant features on construction machinery is "Southeast Asia Construction" published by Trade Link Media Pte Ltd (*http://www.tradelinkmedia.com.sg*). The major Chinese daily is Lianhe Zaobao (*http://www.zaobao.com*). E-Commerce web sites can be found at http://www.ida.gov.sg and at *http://www.sg*. Leads for local advertising and promotional service agencies can be found at *http://www.yellowpages.com.sg*.

Financial : shipments to Singapore are generally made under letters of credit and sight drafts, depending on the exporter's preference and the extent of past dealing with the purchaser. Standard credit terms are generally 30 to 90 days. The foreign departments of most major banks are well equipped to give service and advice on matters of foreign trading and credit.

Quotations should be on a C&F basis whenever possible. The prices given may be either in Singapore or US dollars. Exporters making quotations in Singapore dollars should consult their banks for the prevailing exchange rate. Singapore uses the metric system, so it is often beneficial for price/quantity quotations to be prepared accordingly.

Market Issues & Obstacles

There are excellent opportunities to sell construction and earthmoving equipment into the Singapore market as the country is virtually a free port. There are no duties, taxes or tariffs on imports to Singapore of all types of construction and earthmoving equipment. The challenge is in competing with all the other suppliers from the world since it is such an open economy.

All imported goods meant for local consumption are taxable under the Goods and Services Tax (GST), which is levied at seven percent as of July 1, 2007. Goods kept in a Free Trade Zone are only subject to GST if they are later released for local consumption.

Technical Requirements and Standards : The electrical power supply specifications in Singapore are 230 volts, 50 cycles, single phase and 415 volts, 50 cycles, 3 phase.

There are no Singaporean standards on construction and earthmoving equipment and none are likely to be introduced in the foreseeable future. Internationally recognized standards, such as the American National Standards Institute, are fully acceptable. SPRING Singapore (the Standards, Productivity & Innovation Board) is the government organization that oversees the formulation of industrial standards for almost every sector of industry. Any queries relating to industrial standards should be directed to SPRING Singapore at 2 Bukit Merah Central, Singapore 159835; Tel. : (65) 6279-1847, Fax : (65) 6272-1937, Contact : Ms. Susan Chong, Director, Standardization Division, *E-mail : suchong@spring.gov.sg*.

The Occupational Safety Department (OSD) of the Ministry of Manpower enforces the Factories Act (Chapter 104). Under the Act, all construction and earthmoving equipment used in construction sites shall be of "good construction, sound material, adequate strength and substance, and free from patent defect". The OSD would consider an earthmoving equipment as having complied with the aforesaid requirements if it is designed and constructed in accordance to an acceptable national code, such as those of the American National Standards Institute.

The importation of earthmoving equipment is not subject to any technical requirements by the Land Transport Authority (LTA). However, as a rule, heavy construction equipment is generally not certified by the LTA for movement on Singapore roads. This equipment is allowed only for use in places such as the construction site. The LTA will conduct checks on the earthmoving equipment, upon importation into Singapore, to verify the identity of the machine by authenticating the engine and chassis numbers. The supplier will, therefore, be required to produce documentary proof of the origin of the machine to facilitate the checking process.

Resources & Key Contacts

(A) Government and Statutory Agencies :

A. Building & Construction Authority
5 Maxwell Road #16-00
Tower Block, MND Complex
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Tel. : (65) 6325-7720
Fax : (65) 6325-4800
E-mail : bca_enquiry@bca.gov.sg
Website : http://www.bca.gov.sg

B. Spring Singapore
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E-mail : suchong@spring.gov.sg
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C. Ministry of Manpower
Occupational Safety Department
18 Havelock Road
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Attn. : Mr. TAN Pui Guan
Director
Tel. : (65) 6317-1233
Fax : (65) 6317-1261
E-mail : tan_pui_guan@mom.gov.sg
Website : http://www.mom.gov.sg

D. Land Transport Authority
Vehicle & Transit Licensing Division
10 Sin Ming Drive, VTL Building
Singapore 575701
Attn. : Ms. Maria CHOY
Tel. : (65) 6553-5300
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Website : http://www.lta.gov.sg

(B) Trade Associations :

Real Estate Developers' Association of Singapore (REDAS)
190 Clemenceau Avenue
#07-01 Singapore Shopping Center
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(Source : EEPC Singapore Office)