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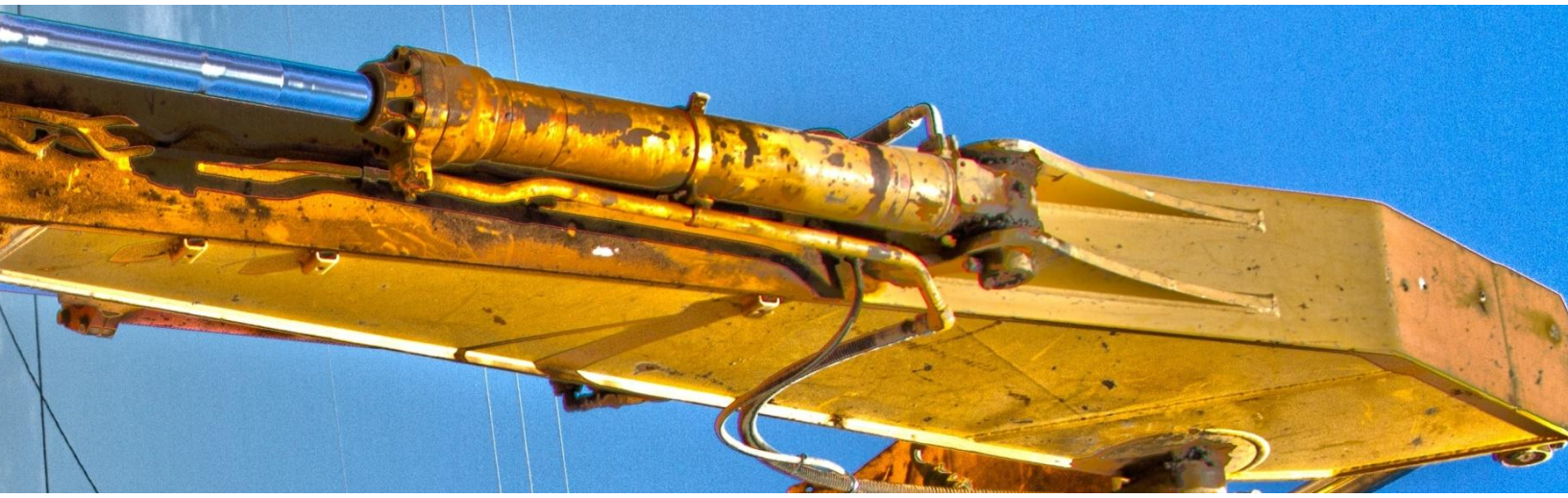

Hydraulic Cylinders Industry Report

July 2013

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Executive Summary

Power and reliability, coupled with low operating costs make hydraulic cylinders the preferred choice for a host of mobile and industrial applications. Although potentially challenged by alternative technologies such as pneumatic and electrical drives, hydraulic cylinders remain the most efficient method for maximizing output particularly in high pressure applications such as metal stamping and forming and heavy mobile equipment applications.

The North American hydraulic cylinders market is mature with limited growth potential in all major segments. In response to the global economic decline, the manufacturing sector limited capital investment in North America and Europe. However, the massive installed base of aging hydraulic cylinders has provided some offsetting opportunity for equipment replacement sales. The gradual economic recovery in the U.S. and promising growth markets in Asia-Pacific ("APAC") present significant opportunities for North American hydraulic cylinder manufacturers.

Key Findings

- Some manufacturers are increasingly offering integrated hydraulic cylinder systems and complete solutions to differentiate themselves in a mature market and obtain profitable maintenance and aftermarket service contracts. Customers are embracing such solutions to simplify their supply channel management and reduce overall operational costs.

- The trend in the hydraulics industry to combine hydraulic cylinders and electronics has led to increased accuracy, enhanced functionality, improved ease-of-use and controlled performance. This integration has expanded the scope of applications and helped stave off competition from alternative technologies.

- To reduce costs and tap into emerging market demand, companies in North America are outsourcing some of their less engineered and lighter weight hydraulic cylinder production to low-cost countries, including China and India, which have abundant skilled labor and less environmental regulation. This outsourcing trend has included large multinational corporations building their own manufacturing plants in these locations.

- Hydraulic cylinder manufacturers in North America face competition from low cost imports but quality issues continue to impede broad acceptance by U.S. OEMs. Nonetheless, U.S. imports of hydraulic cylinders reached nearly $1 billion in 2012, up from $761 million in 2008.

- Exports present a potential new growth opportunity for North American hydraulic cylinder manufacturers. U.S. exports of hydraulic cylinders witnessed a robust CAGR of 22% over the past five years, reaching $586 million in 2012, up from $264 million in 2008. Overseas demand for high quality and heavy-duty hydraulic cylinders has been an important driver of these exports.

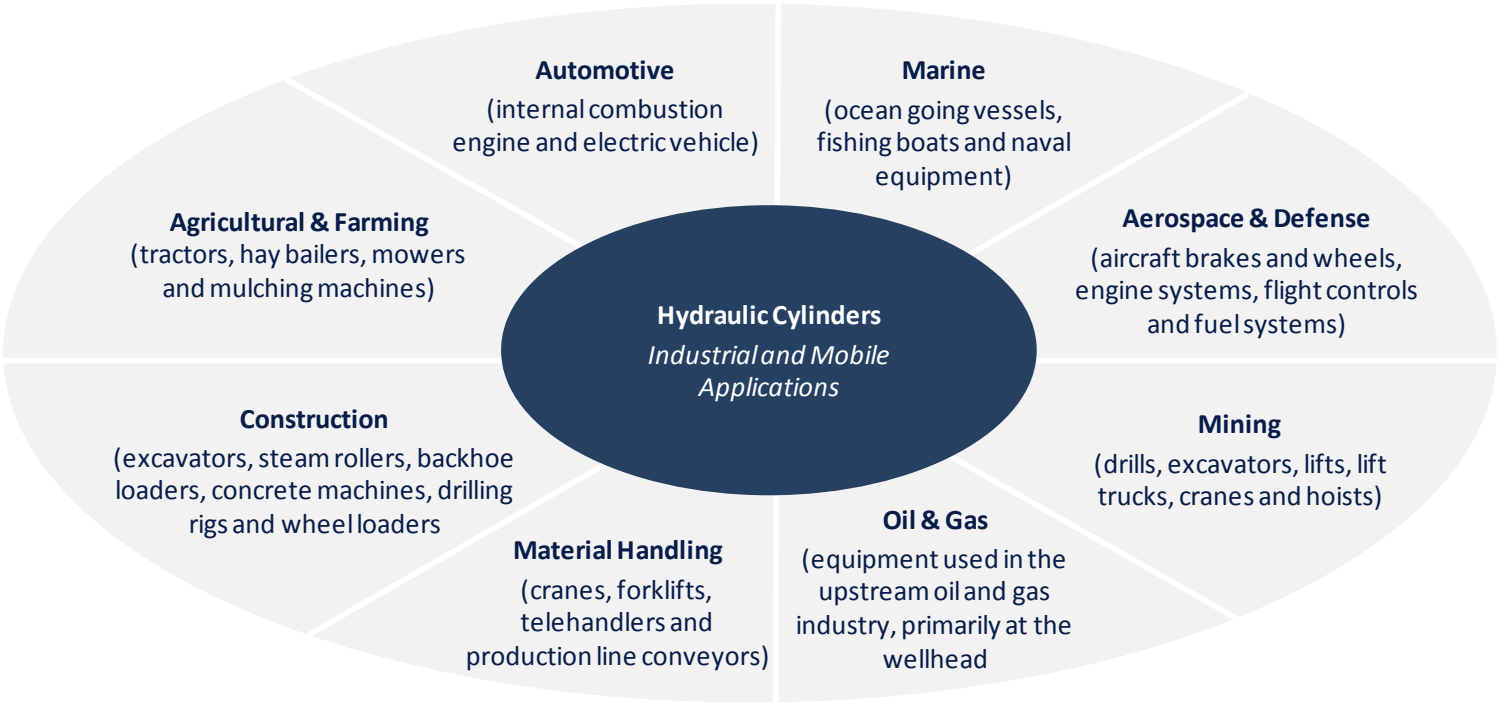
- The hydraulic cylinders market is poised to benefit from expected growth in the overall economy and industrial production. After registering a 3.1% decline during 2009, the U.S. GDP registered 2.4% growth in 2010 and growth has been hovering around the 2% mark over the past two years. Current expectations are for the U.S. economy to grow 1.9% in 2013 and 3.0% in 2014. As such, the North American hydraulic cylinders industry is expected to grow to $3.6 billion by 2018, a compounded annual growth rate ("CAGR") of 4.6%.

Hydraulic Cylinders – Introduction

Meaning and Definition

Hydraulic equipment relies on the efficient conversion of hydraulic energy into mechanical energy. Over the past several decades, the importance of and demand for hydraulic equipment in mobile and industrial applications has witnessed a considerable boost due to the ability of hydraulics to accomplish work with only a small amount of input force.

Applications



Types of Hydraulic Cylinders – According to Function

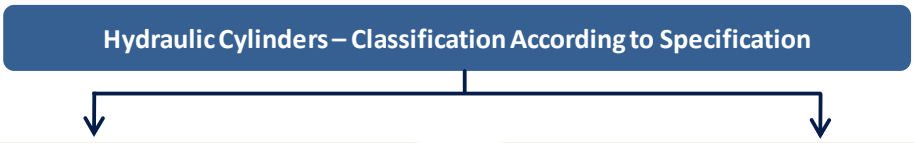
Single Acting Cylinders

- A hydraulic actuator that applies force in a single direction due to a pressure build up of the oil
- Since the fluid is pressurized from only one side of the cylinder during both the expansion as well as the retraction process, these cylinders rely on an external force such as a spring, load or even gravity to return it back to its original position

Double Acting Cylinders

- In the more commonly used double acting cylinders, the hydraulic fluid provides pressure in both directions thus allowing them to work at any angle and provide exceptional control over the rate of travel in both directions
- Double acting cylinders are comprised of various types such as differential cylinders, double rod cylinders, tandem cylinders, rapid traverse cylinders and telescopic cylinders

Types of Hydraulic Cylinders – According to Specification



Tie-rod Cylinders

- These types of hydraulic cylinders make use of high-strength threaded steel tie-rods, on the exterior of the cylinder to provide additional stability
- These are mainly used in agricultural and industrial factory applications and are made of fixed bore sizes and stroke lengths

Welded Cylinders

- Welded cylinders feature a heavy-duty welded cylinder housing with a barrel, welded directly to the end caps. They require no tie rods
- These dominate the mobile hydraulic equipment market such as construction, material handling and mining equipment

Global Hydraulic Cylinders Industry – Market Size and Forecasts

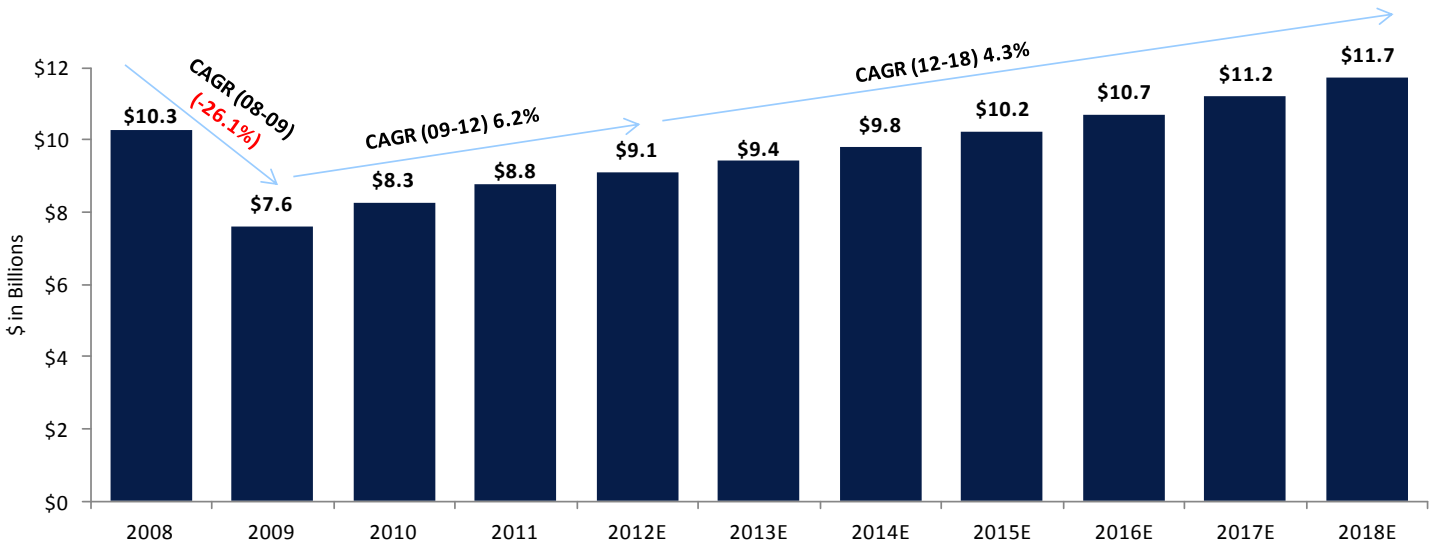
Market Size

The global hydraulic cylinders market was estimated at $9.1 billion in 2012 and is forecast to reach $11.7 billion by 2018, representing a CAGR of 4.3%. Despite the steady growth trend, the market is not forecasted to return to 2008 levels until 2015. Increased investment in material handling, aerospace & defense equipment and infrastructure in developing countries are key factors driving the global market.

North America is the largest subsector with a 30% market share in 2012, followed by Europe at 28%. As economically sensitive companies have postponed their new equipment purchases, retrofits remain a key contributor to these mature markets. The European market, which continues to experience particularly sluggish economic expansion, is expected to witness muted growth of 2.5% through 2018.

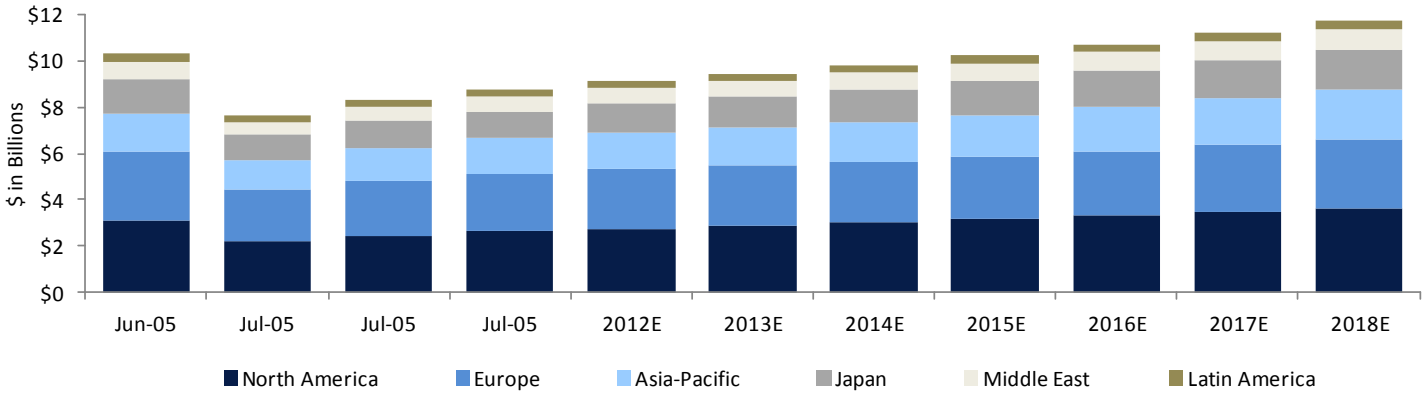
The Asia-Pacific market is the third largest with an 18% market share and is forecast to have the greatest rate of growth, approximately 5.4% over the 2012-2018 period. China and India, with their skilled and low-cost labor, have become outsourcing hubs for some global hydraulic cylinder manufacturers. Low-cost imports from Asia-Pacific countries are now impacting the competitiveness of businesses in North American and Europe.

Global Hydraulic Cylinders Market



Source: Global Industry Analyst Inc.

Global Hydraulic Cylinders Market by Geographic Region



Source: Global Industry Analyst Inc.

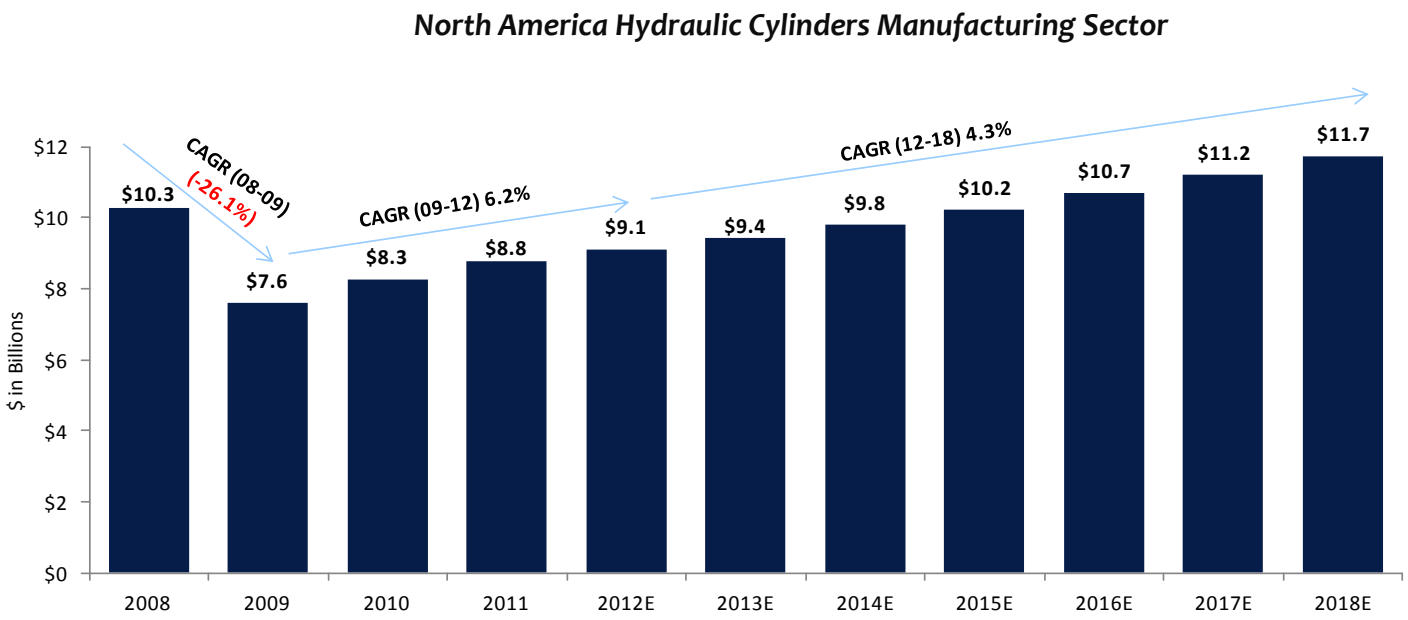
North America Hydraulic Cylinders Industry

Market Dynamics

Growth in the hydraulic equipment industry depends on overall economic expansion and, in particular, growth in industrial production. Similar to other industrial segments, the hydraulic cylinders industry experienced a significant downturn during the 2008-2009 economic recession but has gradually recovered. With fears of another recession subsiding, growth prospects for 2013 and beyond look promising and have been corroborated by recent GDP growth, industrial production and consumer confidence data. In fact, the North American hydraulic cylinders market generated revenue of an estimated $2.8 billion in 2012 and is forecast to reach $3.6 billion by 2018, a 4.6% CAGR.

Experts believe the positive outlook in certain end user markets such as material handling equipment and construction machinery is a promising sign that the industry will achieve a steady growth rate. Also, the industry is poised to benefit from the huge export potential for farm, agricultural and aerospace equipment to the Asia-Pacific region. Adoption of mechanized agriculture and increased spending on infrastructure in developing countries such as China and India will likely benefit North American equipment vendors who have the capability to cater to these markets.

Despite the promising outlook, the industry is facing significant challenges from low cost imports which are beginning to penetrate the agriculture, food & beverage and machine tools industries.



Source: Global Industry Analyst Inc.

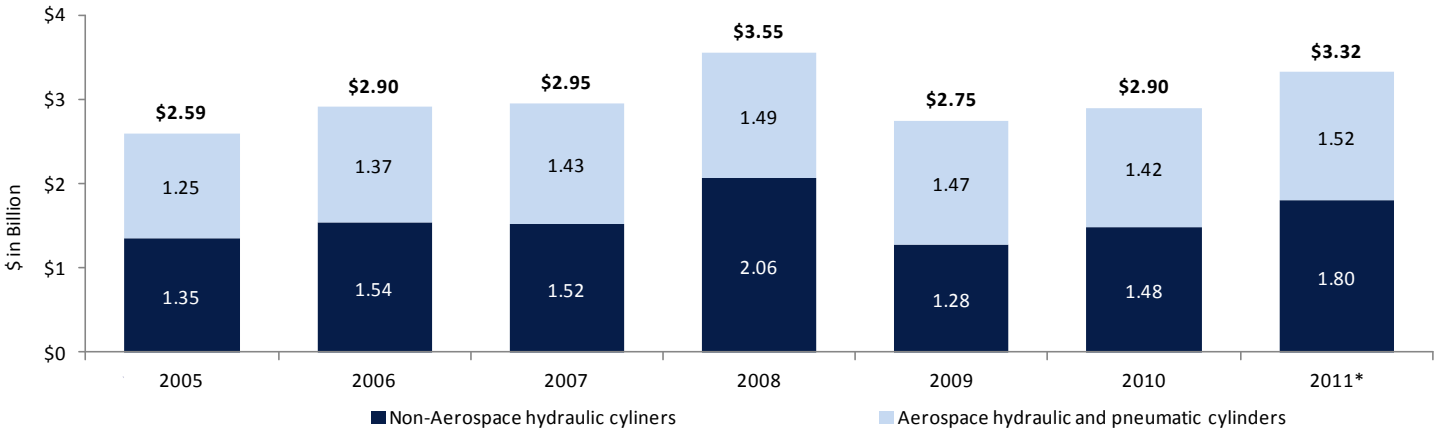
U.S. Shipments – Industrial and Aerospace Segments

Although data more recent than 2011 is not available, we believe the breakdown between the industrial and aerospace market segments is insightful.

Interestingly, the shipments of non-aerospace hydraulic cylinders in the U.S. have been far more volatile than those used for aerospace end markets. For example, while non-aerospace revenue declined from $2.06 billion in 2008 to $1.28 billion in 2009, aerospace hydraulic applications remained relatively flat, declining from a peak of $1.49 billion in 2008 to $1.42 billion in 2010. We believe these performance characteristics have remained relatively unchanged, with the possible exception of the negative impact of U.S. defense expenditure reductions on military aircraft production.

Also noteworthy, in 2010 the total shipments of non-aerospace hydraulic cylinders were an estimated 3.5M units representing an average per unit price of $424. Total shipments of aerospace hydraulic cylinders were an estimated 3.9M units translating into an average per unit price of $683.

Historical U.S. Shipments (2005 – 2011)



Source: U.S. Census Bureau

**2011 data is unadjusted*

End Market Segmentation

Agriculture & Farming

Hydraulic equipment is broadly used in the production of agricultural equipment, including tractors, combine harvesters, loaders, hay balers, mulching machines and lawn & garden equipment such as mowers.

In 2011, the U.S. was slightly ahead of China as the largest producer of farm machinery with industry shipments of $23.1 billion. The replacement of old farming equipment, which normally follows a 7-8 year cycle and was due in 2008-2009, was postponed by the uncertain economic outlook caused by the financial crisis. However, farming equipment purchases surged in 2010 and 2011. Hence, certain sales expected for the early phase of the next replacement cycle commencing after 2016 are expected by some forecasters to be below-average. Consequently, the demand for hydraulic cylinders used in farm equipment could be sluggish.

Offsetting a slower North American market, there is opportunity for U.S. vendors to tap the growing demand for mechanized agriculture in the Asia-Pacific and South America regions led by China, India and Brazil. The Chinese agricultural equipment manufacturing sector is expected to expand rapidly through 2016 and will overtake the U.S. to become the biggest manufacturer of farm machinery in the world. Industry shipments in 2016 are expected to be 70%[1] more than shipments in the U.S.

[1]*World Agricultural Equipment to 2016 Report from reportsnreports.com*

Construction Machinery

The construction end-market includes vehicles such as excavators, steam rollers, backhoe loaders, concrete machines, drilling rigs, and wheel loaders used during the construction of infrastructure such as roads, bridges, buildings or tunnels.

The demand for construction equipment is highly dependent on the state of the U.S. economy, which was heavily impacted during the financial crisis in 2009. Equipment sales between 2010 and 2012 have increased but are still behind 2006 levels. As most of the crisis issues in the U.S. have now passed, there is growing optimism for 2013 and beyond, albeit with caution. U.S. vendors can also tap the growth in demand for hydraulic equipment from emerging markets. An increase in the number of commercial and infrastructure projects in China, India, Brazil and Middle East, coupled with slow but encouraging improvement in construction activity in the U.S., is fuelling significant demand for hydraulic excavators.

Material Handling

The material handling hydraulic cylinder market is dependent upon equipment such as cranes, forklifts, telehandlers and production line conveyors.

New orders for material handling equipment grew 7.2% in 2012 and are forecasted to grow 5-6% in 2013 and 10% or more in 2014. Shipments grew 9.8% in 2012 and are forecasted to grow 3.5% in 2013 and 9.1% in 2014. This strong forecast indicates good growth prospects for the demand of hydraulic cylinders used in the manufacturing of material handling equipment.

Oil & Gas

This segment consists of all hydraulic dependent equipment used in the upstream oil & gas industry, primarily at the wellhead. The equipment includes jacking systems used to raise and lower oil well drilling and service platforms, excavators, off-road dump trucks and rigs.

The demand for equipment used in the oil & gas industry declined during the recession, which ultimately negatively impacted the demand for hydraulic cylinders. However, since 2010 the industry has witnessed reasonable growth from the pent-up demand for cylinders. Although expected to face competition from electrical equipment, the higher power-to-size ratio of hydraulic components like cylinders, actuators and pumps, as compared to electrical systems, will ensure hydraulics maintain their significant market share leadership. For example, the small and compact form of hydraulic cylinders and pumps enables the effective utilization of powerful, heavy-duty, yet lightweight and small equipment, to conduct narrow hole drilling and efficient pipe handling.

Hydraulic Press

This segment includes components for light, medium and heavy hydraulic presses used for metal forming, including die casting, forging, extrusion, drawing, and pressing machines.

Hydraulic presses are widely used in a variety of industrial applications where the end purpose is transforming raw metal (e.g., sheet, bar, wire, powder) into forms that are generally subject to secondary finishing processes. The

benefits of using hydraulic presses in industrial applications are well known and widely applied across many industries, including automotive, building products, and defense. With industrial production continuing to grow in North America, the demand for presses is expected to thrive.

Aerospace

This end market includes hydraulic equipment used in aircraft (e.g., landing gears, engines, ramp, door actuation, brakes and wheels, flight controls and fuel systems). It also includes ground handling equipment, baggage handling equipment and specialty aircraft repair equipment.

The aerospace segment consumes approximately 40% of the total hydraulic and pneumatic cylinders manufactured in the U.S. and the total value of shipments amounted to $1.42 billion in 2010. The aerospace segment has always been a major consumer of heavy duty hydraulic cylinders, and this segment held steady for manufacturers even during the recession period. Some negative impact of the current and planned reduction in military expenditures is likely but unclear at this time.

Mining

The global mining equipment market is divided into six sub-segments, namely mining drills and breakers; crushing, pulverizing and screening equipment; mineral processing machinery; surface mining equipment; underground mining machinery; and other mining equipment.

The demand for mining equipment in North America has increased in recent years, and it is expected that by 2015, demand will grow to $11.1 billion (from $8.3 billion in 2010). Demand for hydraulic cylinders used in mining equipment is linked directly to overall mining equipment growth in North America as well as in APAC. Asia-Pacific is expected to be the fastest growing region in the coming years, fueled by increasing mining production and related machinery sales in India, China and Indonesia. In 2012 Asia-Pacific was the largest regional market for mining equipments, accounting for $42.9 billion (i.e., 60% of the $71.5 billion global mining equipment market). China alone accounts for almost 50% of the mining equipment market.

This relatively robust outlook may be undermined by increasing U.S. government initiatives to reduce carbon emissions, thereby reducing the production of coal and the demand for related mining equipment.

Defense

The defense segment consists of all military equipment utilizing hydraulic mechanisms. This includes armored personnel carriers, aircraft material handlers, cranes and loaders, hooklifts, track adjusters and truck-mounted bridge layers.

The U.S. has the largest military budget in the world, but the country is faced with the task of reducing its spending on defense-related equipment. Consequently, defense spending is forecasted to decline at an average of 3.7% annually between 2010 and 2016. Naturally, this contraction in spending will also impact the demand for hydraulic equipment in North America.

Machine Tools

Hydraulic equipment is used as components in machinery dealing with metal cutting, including lathes, milling, drilling, shaping, grinding, and shearing machines.

The market is highly sensitive to the state of the broader economy. Changes in production capacity utilization, capacity expansions, and the level of business confidence strongly influence demand in the marketplace.

The machine tool industry is closely aligned with the motion control industry, its largest end market. North American sales to the machine tool sector increased by 4.8% in 2012 and are expected to grow by 3.5% in 2013. Unfortunately, the machine tool market in the Americas is much smaller than that of Europe, Asia or Japan, and accounts for only 10% of the global sales of motion control products.

Trends

Integrated Solutions and Services

Manufacturers are increasingly offering integrated hydraulic cylinder systems and solutions to differentiate themselves in a mature market. Such an offering also allows them to develop profitable maintenance and aftermarket service contracts. For users, this translates into more efficient design, engineering and purchasing solutions and, ideally, lower overall operational costs. Hydraulic cylinders are a critical component for most applications, and customers are inclined to react favorably to solutions offering better outcomes and enhanced performance of the overall equipment.

As part of an integrated solution, all components for assembling a hydraulic system (e.g., cylinders, valves, filters, hoses, connectors, and pumps) are sold to end users. Manufacturers that are horizontally integrated and have a complete hydraulic equipment product line benefit from this trend.

Electro-hydraulic Cylinders Expanding Application Scope

A major trend in the hydraulics industry to combine hydraulic cylinders and electronics has led to increased accuracy, enhanced functionality, improved ease-of-use and controlled performance. This has not only expanded the scope of applications, but also helped stave off competition from alternative technologies such as electric drives.

Electro-hydraulic cylinders incorporate servo valves and electronic controls such as transducers to provide rod position feedback and to ensure efficient machine operations. This enables sophisticated control of speed and position of loads in several applications ranging from machine tools and material handling to steel mill actuators, nuclear power plant controls and elevators. Integration with electronics has also expanded hydraulic cylinder applications for entertainment simulators and markets in renewable energy such as wind and solar.

Cost Constraints Driving Replacement Market

In the short- to medium-term, soft capital investment in North America and Europe is expected to lead to increased activity in the replacement market. Since end markets are currently hesitating to make capital investments in new

equipment, eventually they will be forced to spend on replacements and/or upgrades and services to ensure optimal performance of existing systems. Hydraulic equipment has a large installed base in North America, which must be replaced or repaired within appropriate timeframes. In the aerospace industry, sophisticated hydraulic equipment has extensive applications in both defense and commercial aircraft. Often governed by safety guidelines, such equipment must be replaced regularly to offset wear and tear – in some cases even after only several hours of flying. In the agricultural industry, one of the largest end-markets for hydraulic equipment, the large installed base of aging equipment, presents significant replacement opportunities.

Technology Research and Energy Efficiency

Rising energy costs and regulations in the U.S. and EU are driving the popularity and rise in demand for energy-efficient hydraulic cylinders. In the U.S., the Center for Compact and Efficient Fluid Power (CCEFP), a National Science Foundation engineering research center, was established in 2006 to encourage and support research in the fluid power industry. The U.S. Department of Energy's Industrial Program also partners with the National Fluid Power Association (NFPA) to fund research projects that encourage more efficient practices among industrial users of hydraulic equipment.

To meet environmental regulations, some companies have developed niche water-based hydraulic systems. Although water costs less compared to oil, high costs associated with corrosion-resistant materials and reduced lifetime of seals are factors inhibiting their widespread adoption. In terms of technological innovations in hydraulic cylinder design, black nitride is a recent alternative to hard-chrome plated cylinder rod as it offers longer service life (three times chrome), longer seal life and comparable cost.

Increasing use of E-Commerce

Companies are increasingly adopting E-commerce and website enhancements to increase their customer base. Online selling is particularly suitable for standard hydraulic cylinders with relatively low technical complexity and for those where customers need minimal customization. The role of distributors and online shopping sites such as Ebay and Amazon is also on the rise for such type of standard products. Companies like Bailey International, Best Metal Products, American Cylinders and Bernell Hydraulics already provide customers well-developed online shopping alternatives through their respective websites.

Recent online activities in the hydraulic cylinders space include American Cylinders' launch in January 2013 of a new website featuring a 3D product configurator with CAD download capabilities. This allows engineers to quickly find and configure the products they need – all conveniently located within the American Cylinder website. In November 2012 Bernell Hydraulics launched a new E-commerce store that enables customers to order hydraulic cylinders online. Similarly, Best Metal Products launched a new website in August 2012 showcasing their custom hydraulic cylinders.

Growth Drivers

Increased Adoption of Material Handling Equipment

A key factor driving growth in hydraulic cylinders is the expanded number of applications for material handling equipment. Material handling equipment such as electronic overhead travelling cranes, level luffing cranes and stackers are being increasingly used across a range of industries including oil refineries, power & energy, food & beverage, and retail.

Outsourcing and Investments in Developing Countries

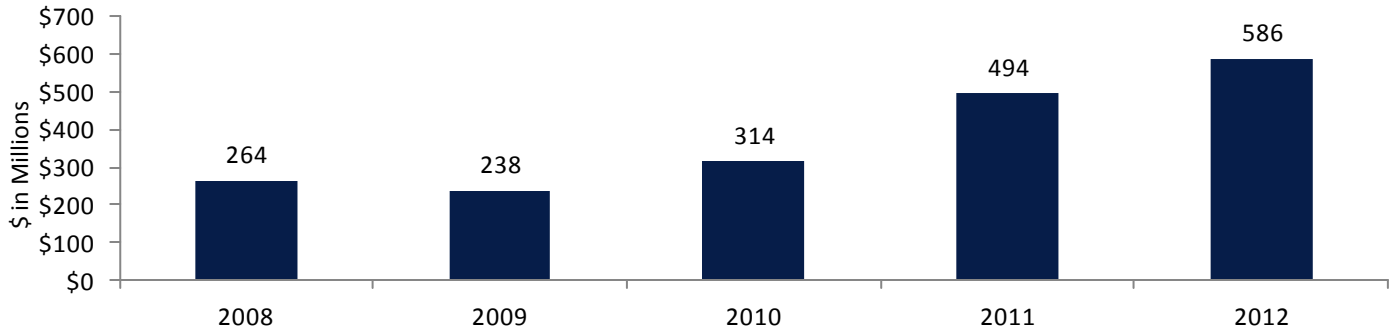
Companies in North America and Europe are increasingly outsourcing their hydraulic cylinder manufacturing to low-cost countries, such as China and India, which have abundant skilled labor and fewer environmental regulations. Large multinational corporations are also investing directly in manufacturing plants in these developing nations. This contributes to a reduction in the costs for exported products and helps companies enhance their local presence in these fast growing markets. As an example, Weber-Hydraulik, one of the world's largest manufacturers of hydraulic cylinders, invested $4 million in a greenfield manufacturing plant in Pune, India that became operational in late 2012.

Export Potential

Exports appear to present a new growth opportunity for North American hydraulic cylinder manufacturers. U.S. exports of hydraulic cylinders reached $586 million in 2012, up from $264 million in 2008.

Overseas demand for high quality and heavy-duty hydraulic cylinders is driving U.S. exports. Consequently, average export prices of hydraulic cylinders are higher ($937 per unit in 2010) than domestic prices ($683 per unit).

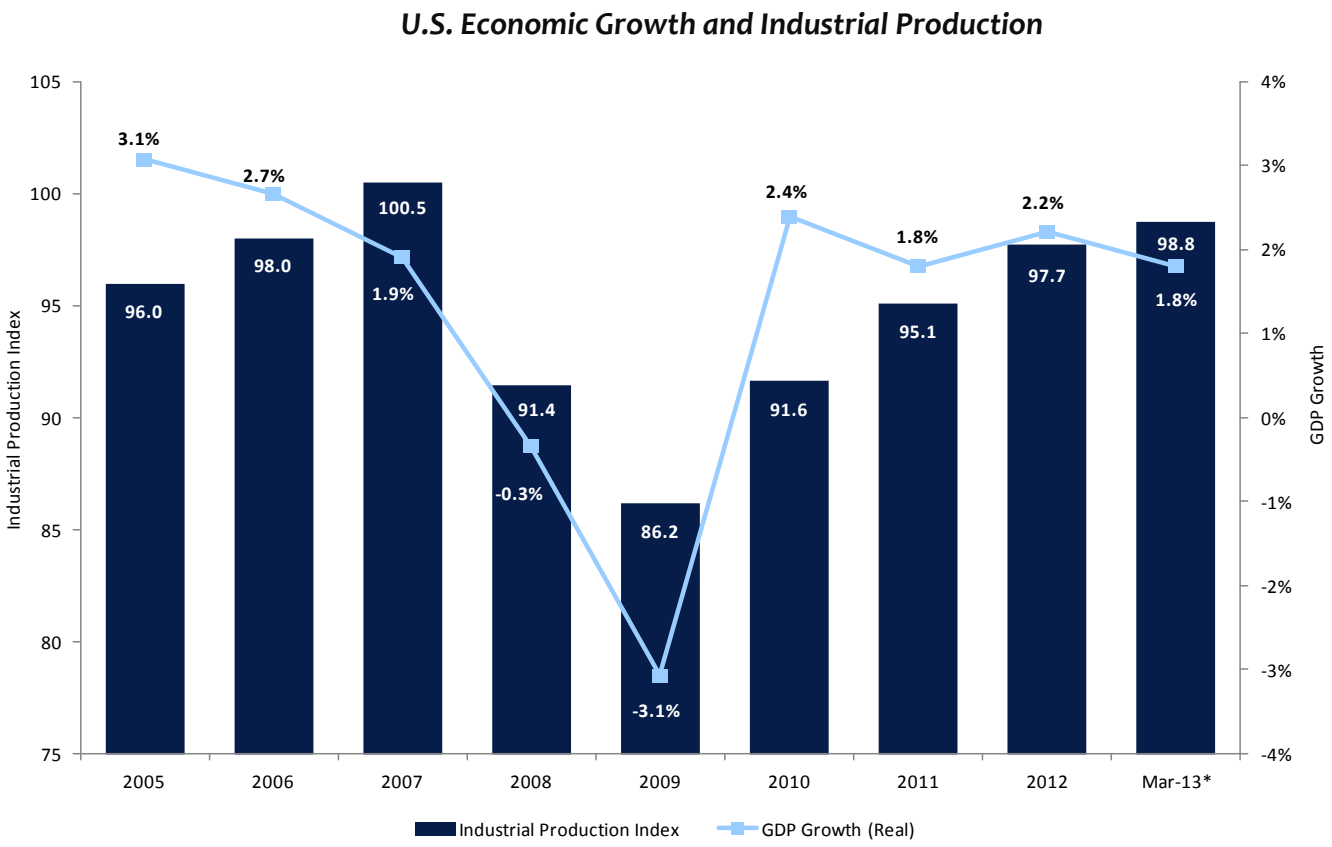
U.S. Exports of Hydraulic Cylinders



Source: U.S. Census Bureau

Reviving U.S. Economy

U.S. overall economic growth and industrial production have been on a steady uptrend since the 2008/2009 recession and have helped coax growth in the hydraulic cylinders industry. After registering a 3.1% contraction in 2009, U.S. GDP grew 2.4% in 2010 and has been growing around 2% per year for the past two years. GDP grew 1.8% year-over-year in the first quarter of 2013 and the Industrial Production Index reached 97.7 in 2012, from lows of 91 and 86 in 2008 and 2009, respectively. The U.S. economy is expected to grow 1.9% in 2013 and 3.0% in 2014.



Source: Industrial output – Federal Reserve, Base year for Industrial Output index is 2007 GDP Growth - Bureau of Economic Analysis

** March 2013 data is year-over-year change*

Healthy Outlook for Oil & Gas

The oil & gas industry in North America continues to exhibit a sustained rebound, driven by rapid proliferation of shale gas production. This bodes well for the hydraulic equipment market. Although hydraulic systems face competition from electrical systems, their beneficial power-to-size ratio is expected to allow hydraulics to continue to dominate the drilling applications in the oil & gas sector.

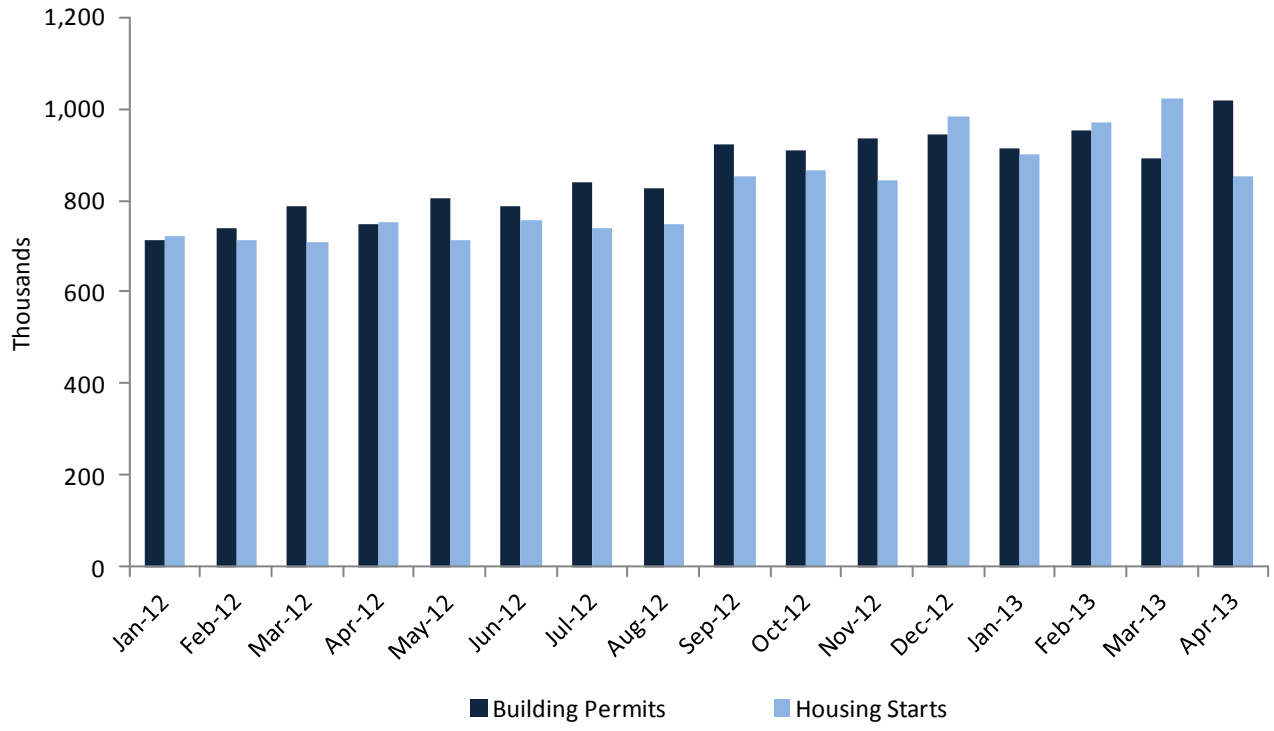
Mechanization of Agriculture Driving Mobile Hydraulic Cylinders

Mechanization of agriculture aimed at improving farm and land productivity and reducing production costs is driving mobile hydraulics. High-performance hydraulic cylinders and control systems, and electro-hydraulic load sensing systems are being increasingly used in agricultural machines to meet rising demand for crop/produce management.

Rebound in Construction Activity

Slow but steady improvement in the U.S. construction sector is driving demand for hydraulic excavators and other construction-related equipment. New residential starts continue to drive the U.S. construction sector. In March 2013, housing starts topped the one million mark for the first time since 2008. Building permits reached 1.02 million, the most since June 2008.

U.S. Economic Growth and Industrial Production



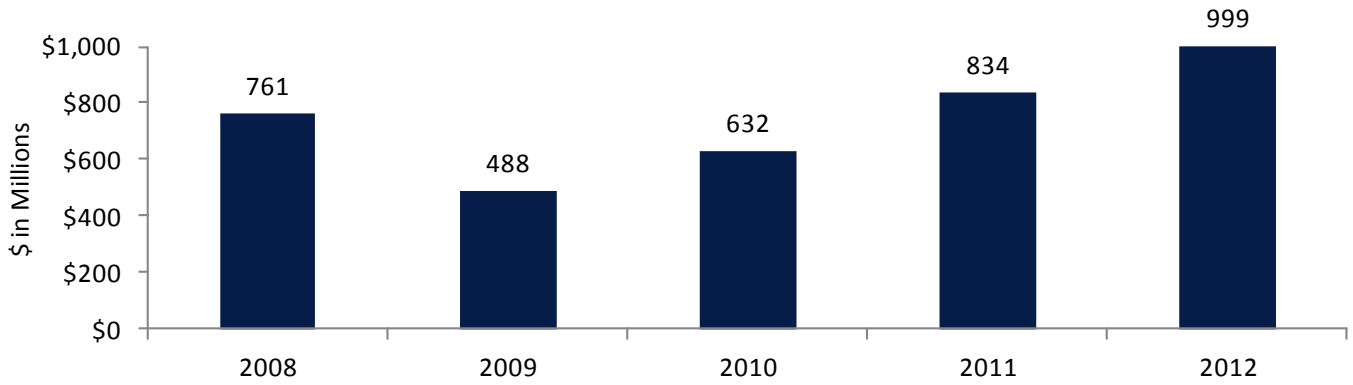
Source: U.S. Residential Construction: U.S. Census and Department of Housing and Urban Development

Threats

Growing Market Penetration of Low-Cost Imports

Hydraulic cylinder manufacturers in North America and Europe are facing increased competition from low cost imports from developing countries. Imports of hydraulic cylinders reached nearly $1 billion in 2012, from $761 million in 2008, representing a CAGR of 7%. The average price of imported hydraulic cylinders is about 1/7th ($112 per unit in 2010) of domestic manufactured products ($819 per unit). This vast difference in price is likely linked to the type of hydraulic cylinder being imported. Often, such imports from developing countries consist of smaller, low-quality units for less demanding applications. Conversely, exports from the U.S. consist of larger heavy-duty units designed to take on more complex and demanding tasks.

U.S. Imports of Hydraulic Cylinders



Source: U.S. Census Bureau

Lack of Product Differentiation

Hydraulic cylinder technology is mature, and the basic design and construction has undergone minimal changes. Lack of effective product differentiation could pose a challenge to future market growth and profit margins. Although integrated solutions are increasingly being used as product differentiation, further technology innovation is necessary to sustain a healthy growth rate and expand market share in the future.

Advent of Electric Drives

Rapid technological development in other motion control technologies such as electric drives could impact the application of hydraulic cylinders in the future. Electric drives offer a clean and environmentally-friendly solution by eliminating the need for oil. Some companies are developing longer lasting electric drives using innovative technology.

Exlar's electro-mechanical actuators are engineered around planetary roller screw technology and offer a viable alternative to hydraulic cylinders for certain applications. Mechanized processes will likely see increased use of electrically-operated drives and motors that offer accurate performance and reprogrammable digital control and settings. Electric drives may also replace hydraulics in other industrial applications in the long term, owing to their efficiency, cost, environmental-friendliness and availability on shorter lead times. Fortunately, integration of hydraulic equipment with electronics has expanded the scope of hydraulic applications to include new markets (e.g., renewable energy sectors) and has helped stave off competition from electric drives to an extent.

Competitive Landscape

Highly Consolidated Marketplace

The hydraulic cylinders market in North America is highly consolidated with a few large players accounting for the majority of total revenue. The remaining market is highly fragmented with a large number of small and mid-size players. Product performance, service and cost are the key competitive factors impacting the market. However, given large customer requirements for quality, a single source supplier with a complete hydraulic product offering (e.g., cylinders, valves, pumps) would seem to be at a distinct competitive advantage. Wipro Infrastructure Engineering claims to be the leader in the global hydraulic cylinders market with a 6% market share, assuming a $7 billion market in 2011. Weber hydraulics, which acquired Hyco International in 2011, also ranks among the top five players globally. In the high-end hydraulic cylinders for the aerospace industry, Parker Hannifin, Ligon Industries, Bosch Rexroth and Eaton Corp. dominate the market with significant market shares.

Competition Increasing with Entry of International Players and Low-cost Imports from Developing Countries

Competition is intensifying in the North American hydraulic cylinders market with the entry of international players like Wipro Infrastructure and Taiyo. Recently, Wipro Infrastructure Engineering opened a plant in Chambersburg, PA to manufacture hydraulic cylinders for construction and earthmoving applications. Taiyo, a reputable Japanese hydraulic cylinder manufacturer and a subsidiary of Parker Hannifin, is the only Japanese hydraulic cylinder manufacturer that has a production base in the U.S. with a plant in St. Marys, Ohio.

Rising pricing pressure triggered primarily by competitive, low-cost, imports from developing countries is capable of placing pressure on domestic players.

Consolidation and Geographic Expansion

Although there has been consolidation in the industry, it is still fragmented. As such, a rising level of M&A activity can be expected in future years. We believe the desire for expanded geographic presence, broader product lines, more diversified industry coverage, deeper engineering support, enhanced purchasing power and a more diversified customer base will continue to drive consolidation.

Vendor Offering Matrix – According To End Use Markets *(Estimated)*

End User Industry / Players	Agriculture & Farm Equipment	Construction Machinery	Material Handling Equipment	Defense	Aerospace	Oil & Gas	Mining	Automotive	Hydraulic Presses
Aggressive Hydraulics	✗	✓	✓	✗	✗	✓	✓	✗	✗
Bailey Intl.	✓	✓	✗	✗	✗	✗	✗	✓	✗
Best Metal Products	✓	✓	✓	✗	✓	✗	✓	✓	✗
Bosch Rexroth	✗	✓	✓	✗	✓	✓	✗	✗	✓
Caterpillar	✓	✓	✓	✓	✗	✓	✓	✗	✗
Eaton Corp.	✓	✓	✓	✗	✓	✓	✗	✓	✓
Enerpac	✗	✗	✓	✗	✗	✗	✗	✗	✓
Hannon Hydraulics	✗	✗	✗	✗	✗	✓	✓	✗	✗
Hyco Intl.	✓	✓	✓	✓	✗	✓	✓	✗	✗
Ligon Industries	✓	✓	✓	✓	✓	✓	✓	✓	✗
Parker Hannifin	✗	✗	✓	✓	✓	✓	✓	✗	✓
Perfection Hydraulics	✓	✓	✗	✓	✗	✗	✓	✗	✗
Precision Hydraulics	✓	✗	✓	✗	✗	✗	✗	✗	✗
Prince Manufacturing	✓	✓	✓	✓	✗	✗	✓	✗	✗
Texas Hydraulics	✗	✓	✓	✓	✗	✓	✓	✗	✗
United Hydraulics	✓	✓	✓	✓	✗	✓	✓	✗	✓
Wipro Infrastructure	✗	✓	✗	✗	✓	✗	✗	✗	✗

Source: Company websites

Appendix

Key Player Profiles

Company	Manufacturing Plant Locations	Financial Highlights (Est. USD$ in Millions)	Business Description
Aggressive Hydraulics, Inc. (Privately held) *www.aggressivehydraulics.com* Headquarters: Blaine, MN (US) President: Paul Johnson Employees: 43	> Cedar, MN	Revenue: $20M EBITDA: n/a	> Aggressive Hydraulics provides hydraulic cylinders for mobile and industrial applications > The Company's cylinders are used in construction, defense, demolition & scrap, energy, forestry, industrial, marine & offshore, mining, quarry & aggregates, on-highway transportation, railway and waste management equipment and machinery > The Company's customers include OEMs and equipment users
Bailey International LLC (Portfolio company of Pfingsten Partners) *www.baileynet.com* Headquarters: Knoxville, TN (US) CEO: Kevin Bailey Employees: 110	> Knoxville, TN	Revenue: n/a EBITDA: n/a	> Bailey International engages in the manufacture and distribution of hydraulic cylinders and related hydraulic components > The Company sells its cylinders under the Chief and Maxim brands > The Company also offers hydraulic motors, hydraulic power units, directional control valves, gear pumps and other mobile products > The Company serves consumers, repair shops, dealers, distributors and large OEMs, such as Volvo-USA and Caterpillar > Sourcing and distribution facility in India; distribution facility in Reno, NV
Best Metal Products Company, Inc. (Privately held) *www.bestmetalproducts.com* Headquarters: Grand Rapids, MI (US) CEO: Milt Kuyers Employees: 115	> Grand Rapids, MI	Revenue: n/a EBITDA: n/a	> Best Metal Products engages in the manufacture of custom welded hydraulic cylinders for OEMs in the mobile and industrial markets > The Company offers double acting hydraulic cylinders, mobile hydraulic cylinders, telescopic cylinders, piggyback cylinders single acting hydraulic rams and cylinders, and fluid power cylinders > The Company's products are used in truck equipment, municipal vehicles, snow removal equipment, lifts (aerial, boom, and scissor), lawn and garden equipment, and material handling equipment

Company	Manufacturing Plant Locations	Financial Highlights (Est. USD$ in Millions)	Business Description
Bosch Rexroth AG (Subsidiary of Robert Bosch Gmbh) *www.boschrexroth.com* Headquarters: Lohr am Main, Bavaria (Germany) CEO: Berend Bracht Employees: 18,300 Rexroth Bosch Group	> n/a	Revenue: n/a EBITDA: n/a	> Bosch Rexroth AG develops, produces and sells drive and control technology products > The Company manufactures products for various industries categorized under mobile applications, machinery and engineering application, factory automation and renewable energies > The Company is a prominent player in the manufacturing of hydraulic cylinders for industrial and mobile applications > The Company manufactures mill type cylinders, and tie rod cylinders, as well as heavy duty hydraulic cylinders used in civil engineering, metallurgy, pressing and forming, marine, offshore and bulk material handling
Caterpillar Inc. (NYSE:CAT) *www.caterpillar.com* Headquarters: Peoria, IL (US) CEO: Douglas Oberhelman Employees: 124,874 CAT	> n/a	Revenue: $63,104M EBITDA: $10,423M	> Caterpillar Inc. manufactures and sells construction and mining equipment, diesel and natural gas engines, industrial gas turbines, and diesel-electric locomotives worldwide > The Company also manufactures heavy duty hydraulic cylinders used in various types of industrial and mobile applications, and sells hydraulic cylinders under the CAT brand > The Company's cylinders are used in a diverse set of applications including agricultural and farming, construction, oil & gas, material handling, and defense equipment
Eaton Corporation plc (NYSE:ETN) *www.eaton.com* Headquarters: Dublin (Ireland) CEO: Alexander Cutler Employees: 103,000 EATON	> 339 manufacturing locations in 42 countries	Revenue: $17,661M EBITDA: $2,317M	> Eaton is a diversified power management company that provides energy-efficient solutions to help its clients manage electrical, hydraulic and mechanical power > The Company offers a wide range of standard and custom-engineered industrial cylinders to meet the needs of numerous applications, such as agricultural, construction, material handling, aerospace, and automotive equipment, and for such demanding applications as offshore drilling, steel mills oil & gas, and machine tools > It offers standard industrial tie rod, threaded, welded, mill duty, and custom pneumatic, hydraulic, and electro-hydraulic cylinders > The Company sells its cylinders under the Vickers and Hydrowa brands > The Company has operations in 50 countries, and sells products to customers in 175 countries

Company	Manufacturing Plant Locations	Financial Highlights (Est. USD$ in Millions)	Business Description
Enerpac Corp. (Subsidiary of Actuant Corporation) *www.enerpac.com* Headquarters: Menomonee Falls, WI (US) President: Mark Sefcik Employees: 1,000 ENERPAC	> 20 facilities around the globe	Revenue: n/a EBITDA: n/a	> Enerpac operates as a manufacturer of high-force hydraulic tools and equipment used in industrial markets > The Company manufactures hydraulic cylinders catering to various applications such as lifting, pushing, pulling, bending or holding in most industrial and commercial work environments > The Company offers hundreds of different configurations of mechanical and hydraulic cylinders > The Company offers general purpose cylinders, high tonnage construction cylinders, hollow plunger cylinders, long stroke / high cycle cylinders etc > The Company also offers an extensive line of hydraulic presses, available in a wide range of sizes and capacities
Hannon Hydraulics, LLC (Privately held) *www.hannonoffshore.com* Headquarters: Irving, TX (US) CEO: Wade Reed Employees: 90 HANNON OFFSHORE DRILLING EQUIPMENT	> Houston, TX > San Antonio, TX	Revenue: $20M EBITDA: n/a	> Hannon Hydraulics d/b/a Hannon Offshore Drilling Equipment, manufactures hydraulics equipment for offshore drilling companies > The Company also offers hydraulic cylinders and hydraulic actuators for oil drilling, mining and steel mills > The Company has expertise in fabrication, rebuilding, repairing, modifying, re-manufacturing and re-certifying the world's biggest industrial, heavy-duty and large bore hydraulic cylinders and actuators
Hyco International, Inc. (Subsidiary of Weber-Hydraulik GmbH) *www.hycointernational.com* Headquarters: Atlanta, GA (US) CEO: Ronald Whitaker Employees: 1,200 HYCO HYCO INTERNATIONAL INC	> Arab, Alabama > Quebec, Canada > Ontario, Canada > Hausach, Germany > Eschwege, Germany > Caxias do Sul, Brazil	Revenue: $200M+ EBITDA: n/a	> Hyco International designs, manufactures, and supplies hydraulic cylinders for the mobile equipment market worldwide > The Company is one of the world's largest manufacturers of hydraulic cylinders, with approximately 5%-6% of the global market > The Company's cylinders are used in a diverse set of applications ranging from forestry and construction machinery, material handling, equipment, dump trucks to oil and gas field installations and cranes, as well as mining, marine, rail road and agricultural equipment

Company	Manufacturing Plant Locations	Financial Highlights (Est. USD$ in Millions)	Business Description
Ligon Industries, LLC (Privately held) *www.ligonindustries.com* Headquarters: Birmingham, AL (US) CEO: Leon Nolen Employees: 2,155 LIGON HYDRAULIC CYLINDER GROUP	> Monticello, IA (Energy Mfg. Co.) > Hampton, IA (Seabee) > Fresno, CA (Hydratech) > Laurens, IA (Fisher Hydraulics) > Tonawanda, NY (HDM Hydraulics) > Galion, OH (Hydraulic Technologies) > Great Bend, KS (Great Bend Industries) > Spencer, WI (Ramrod Industries)	Revenue: $200M EBITDA: n/a	> Ligon Hydraulic Cylinders Group is a portfolio of eight hydraulic cylinder manufacturing companies acquired by Ligon Industries in the past few years > Ligon Hydraulic Cylinders Group manufactures a variety of small bore to large bore, welded hydraulic and pneumatic cylinders that are sold to OEMs for installation in their products > The Company manufactures cylinders that are used in a diverse set of mobile, industrial and aerospace applications > The Company is a world leader in hydraulic cylinder manufacturing further aided by the recent acquisition of Energy Manufacturing Co
Parker-Hannifin Corporation (NYSE:PH) *www.parker.com* Headquarters: Cleveland, OH (US) CEO: Donald Washkewicz Employees: 59,331 Parker	> Des Plaines, IL (Industrial Cylinders) > Youngstown, OH (Mobile Cylinders) > Osaka, Japan (Taiyo Ltd. subsidiary)	Revenue: $13,000M EBITDA: $1,768M	> Parker Hannifin is the world's leading diversified manufacturer of motion and control technologies and systems, providing precision-engineered solutions for a wide variety of mobile, industrial and aerospace markets > The Company offers cylinders for hydraulic, pneumatic, electric and aerospace systems in single rod, double rod or rod-less designs > The Company offers a wide-range of standard cylinder designs for a variety of markets including oilfield, mining, military, truck, refuse and material handling
Perfection Hydraulics (Privately held) *www.perfhyd.com* Headquarters: Evansville, IN (US) President: Stephen Klamer Employees: n/a Perfection Hydraulics Inc. Made in U.S.A.	> Evansville, IN	Revenue: n/a EBITDA: n/a	> Perfection Hydraulics specializes in the manufacture and distribution of high-quality hydraulic components for mobile and industrial applications in the government and commercial sector > The Company also services, rebuilds and remanufactures all types of hydraulic cylinder components > The Company has a long-standing association with the US military in manufacturing and remanufacturing pumps, cylinders and hydraulic systems for the US Army and NATO military equipment

Company	Manufacturing Plant Locations	Financial Highlights (Est. USD$ in Millions)	Business Description
Precision Hydraulic Cylinders, Inc. (Portfolio company of BB&T Capital Partners) *www.phc-global.com* Headquarters: Beulaville, NC (US) CEO: Chris Barclay Employees: 230	> Beulaville, NC > Wallace, NC > Cramlington, UK > Chennai, India	Revenue: n/a EBITDA: n/a	> Precision Hydraulic Cylinders specializes in the supply of hydraulic cylinders to many of the leading global OEM's in the lift-truck, material handling and mobile equipment markets > The Company specializes in offering hydraulic cylinders used in the material handling equipment, off-highway vehicles and agricultural vehicles > The Company also supplies a full range of castings, forgings, and machined component parts to meet the manufacturing needs of its customers
Prince Manufacturing Corporation (Privately held) *www.princehyd.com* Headquarters: North Sioux City, SD (US) CEO: George Sully Employees: 350	> Brookings, SD (Dakota Mobile Hydraulics) > Yankton, SD (Lewis and Clark Hydraulics) > Sioux City, IA (Prince Hydraulics Company) > Hartington, NE (Hydraulic Component Industries) > North Sioux City, SD (Omahaline Hydraulics Company)	Revenue: $31M EBITDA: n/a	> Prince Manufacturing is a manufacturer of hydraulic components specializing in cylinders, mobile valves, gear pumps and motors > The Company offers hydraulic cylinders and components for the construction, mining, forestry, marine, demolition, military, material handling, agriculture, truck and trailer, utility and waste management industries > It offers welded cylinders, tie-rod cylinders, telescopic cylinders, custom cylinders, stack valves, mono-block valves, loader valves, relief valves, flow control valves, SP gear pumps, PTO pumps and accessories > The Company also sells hydraulic cylinders through its online portal
Texas Hydraulics, Inc. (Subsidiary of Dover Corporation) *www.texashydraulics.com* Headquarters: Temple, TX (US) CEO: Pat Gerard Employees: 1,000	> Temple, TX (two cylinder plants) > Spring City, PA (swivel/rotary manifolds) > Waco, TX (chrome plating)	Revenue: $35M EBITDA: n/a	> Texas Hydraulics, Inc. manufactures fluid power components for OEMs in the U.S. > The Company offers single and double-acting welded and custom welded hydraulic cylinders; and construction grade, integrated, piggyback, and standard hydraulic cylinders, as well as piston sensing and valve integrated hydraulic cylinders > The Company's cylinders are used in general construction, material handling, military, aerial work platform, mining, utility, fire and emergency, municipal, waste and refuse, environmental, wreckers and road building applications

Company	Manufacturing Plant Locations	Financial Highlights (Est. USD$ in Millions)	Business Description
United Hydraulics (Privately held) *www.unitedhydraulics.com* Headquarters: Wickliffe, OH (US) President: Matt Viric Employees: n/a UNITED HYDRAULICS, INC.	> Wickliffe, OH	Revenue: n/a EBITDA: n/a	> United Hydraulics specializes in manufacturing high-capacity mobile and mill-type hydraulic cylinders > The Company offers telescopic hydraulic cylinders, mobile & mill type single & double > The Company's hydraulic cylinders are used in military, off-highway construction, press service, marine, nuclear, agricultural, oil field, and aviation applications > The Company also designs and produces swivels, directional control and auxiliary valves, and related accessories
Wipro Infrastructure Engineering Limited (Subsidiary of Wipro Ltd.) *www.wiproinfra.com* Headquarters: Bengaluru, Karnataka (India) President: Pratik Kumar Employees: 1,700 WIPRO	> Chambersburg, PA > Piracicaba, Brazil > Ljungby, Sweden > Bispgarden, Sweden > Ostersund, Sweden > Skelleftea, Sweden > Rm Valcea, Romania > Pernio, Finland > Bangalore, India > Chennai, India > Hindupur, India > Changzhou, China	Revenue: $350M EBITDA: n/a	> Wipro Infrastructure Engineering manufactures precision-engineered hydraulic cylinders, components and solutions > The Company specializes in a broad portfolio of double-acting cylinders, single-acting cylinders, telescopic cylinders and their components for a wide range of applications > The Company's hydraulic cylinders cater to a wide range of applications operating within diverse segments like material & cargo handling, construction & earthmoving, farm & agriculture, aerospace & defense, mining and truck hydraulics > Today the Company boasts of commanding 7%-8% of the global hydraulic cylinders market with manufacturing of 1 million cylinders annually

Precedent North American M&A Transactions

Date Announced	Target	Acquirer	Target Description
05/01/13	Energy Manufacturing Company, Inc.	Ligon Industries, LLC	Energy Manufacturing Company engages in the design and manufacture of hydraulic cylinders and fluid power components and systems
02/01/13	Hydraulic Energy Products	Motion and Flow Control Products	Hydraulic Energy Products, Inc. sells and services new and remanufactured hydraulic components
10/31/12	Logan Industries International	Doedijns Group International	Logan Industries offers hydraulic power units, winches, scrap spoolers, cylinders, riser tensioners, drill line spoolers, coiled tubing spoolers, pipe tensioners, launch and recovery systems, carousel handlers, umbilical reelers, and heave compensators
10/19/12	Fluid Power Service Corporation	Airline Hydraulics Corporation	Fluid Power Service Corporation designs, manufactures, and repairs hydraulic cylinders. It also offers hydraulic cylinder reconditioning and servicing, including hard chrome plating. In addition, the Company designs and fabricates hydraulic power units and control systems
09/06/12	Monarch Industries Limited	Merit Capital Partners	Monarch Industries Limited manufactures hydraulic cylinders, custom metal castings, and mixers. It offers raw and machined castings, and tie rods and welded cylinders
04/18/12	Bailey International LLC	Pfingsten Partners	Bailey International engages in the manufacture and distribution of hydraulic cylinders and related components
10/17/11	Rapids Hydraulic and Machine	PetroChoice	Rapids Hydraulic and Machine, Inc. specializes in the sale, service, and repair of hydraulic and pneumatic cylinders, valves, pumps, motors, hoses and hose assemblies
07/22/11	Hyco International, Inc.	Weber-Hydraulik GmbH	Hyco International, Inc. designs, manufactures, and supplies hydraulic cylinders for the mobile equipment market worldwide
04/22/11	PneumaTrek National	Bearing Distributors	PneumaTrek offers hydraulic, pneumatic, and vacuum components. The company provides pumps, motors, cylinders, accumulators, ball screen and belt drive slides, ball and safety check valves, cabinets and workstations, regulators, lubricators, flow meters, gauges and thermometers, grippers, heat exchangers, hydrostatic drives, intensifiers, and manifolds.

Source Listing

Global Industry Analysts Inc.
6150 Hellyer Avenue
San Jose, CA 95138
+1 408.528.9966
www.strategyr.com

Material Handling Equipment Manufacturing Forecast
8720 Red Oak Boulevard, Suite 201
Charlotte, NC 28217-3996
+1 704.676.1190
www.mhi.org

U.S. Census Bureau
4600 Silver Hill Road
Washington, DC 20233
+1 301.763.4636
www.census.gov

International Monetary Fund
700 19th Street, N.W.
Washington, DC 20431
+1 202.623.7000
www.imf.org

Recent InterOcean Transaction

May 2013

Energy Manufacturing Company, Inc.

a portfolio company of
Eastport Partners and PNC Erieview Capital

has been acquired by

Ligon Industries, LLC

Securities offered through StillPoint Capital LLC, member FINRA/SIPC

Energy Manufacturing Company, Inc. ("Energy Mfg.") is a leading designer and manufacturer of engineered hydraulic cylinders, tie rod cylinders, hydraulic valves and other related products sold to customers in agricultural, construction, lawn & garden, refuse compaction, forestry and medical end markets. Customers include mobile and stationary equipment manufacturers and distributors.

Ligon Industries, LLC is the largest independent manufacturer of hydraulic cylinder products in North America with operations throughout the U.S.

InterOcean Advisors served as the exclusive financial advisor to Energy Mfg., Eastport Partners and PNC Erieview Capital.

Terra Corporate Finance Alliance

InterOcean is the sole U.S. member of Terra Corporate Finance Alliance, a growing international alliance of investment banks with operations in North America, South America, Europe, the Middle East and Asia. Through this network, InterOcean has developed a global reach uncommon for a middle market investment bank and can offer enhanced access to, and identification of, potential transaction parties across the globe.

www.terra-alliance.com

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