

Provide Chinese Customers with Better Hydraulic Parts

为中国客户提供优质的液压件

—— A KPM Story in China

—— 记川崎液压在中国

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川崎重工业集团 (KAWASAKI) 成立于1878年, 从造船业起步, 事业涉及摩托车制造、铁路车辆、航空工业、燃气轮机、燃气发动机、能源设备、环境设备以及液压机器、机器人等领域, 产品丰富多样, 是一家横跨海、陆、空的大型跨国企业。经过一个多世纪, 川崎重工以“KAWASAKI”品牌闻名遐迩, 制造工厂遍布全球各地。作为川崎重工集团的下属分公司——“川崎精密机械公司 (KPM)” 1916 年开始了船用机械液压机械的研发和制



造, 经过了近百年的不懈努力, 已拥有在液压行业大型的制造规模和生产设备。从各种液压元件、液压装置, 到精密机械和控制系统, 川崎精密机械公司不断研发并扩大产品种类, 生产以液压泵、液压控制阀、执行机构、液压回转马达等液压产品为主, 同时生产所有机械及成套设备使用的液压装置、液压甲板机械、电动液压操舵机、捕

鱼用液压机械等各种应用液压机械。

久负盛誉逾百年, 回望川崎的发展轨迹。从1916年在原川崎造船所造机工厂, 开始制作回转式径向柱塞泵, 2010年设立川崎精密机械商贸(上海)有限公司, 2012年设立 Wipro Kawasaki Precision Machinery Private LTD. (印度), 到2018年精密机械公司改为精密机械·机器人公司, 并立精密机械事业中心。川崎精密机械主要生产液压动力系统元器件, 包括液压泵、液压马达和液压阀、船舶用装置、产业机械用液压装置、电器控制等, 广泛应用于工程机械、工业设备、船舶机械, 目前在世界挖掘机行业占有较高的份额, 全球生产基地有日本、英国、美国、韩国、中国和印度。

上世纪90年代初, 川崎公司来到中国, 2010年设立川崎精密机械商贸(上海)有限公司。系统地介绍挖掘机流量控制有关的负流量控制方式与原理、总功率控制方式与原理、以及川崎重工公司可提供的挖掘机上所需要的全套液压元件产品的性能、特点。同时将挖掘

机液压系统的清洁度控制国际理念、方式介绍到各挖掘机厂家, 大幅度降低了挖掘机的故障率。从此川崎重工的液压件逐步进入了中国挖掘机行业。

随着中国经济的蓬勃发展, 为工程机械行业带来前所未有的发展机遇, 挖掘机的销量从1993年3000台左右, 达到了2011年近18万台。川崎重工顺应各挖掘机制造企业的要求, 为各企业提供了量身定制的差异化液压系统和液压元件; 功率控制方面, 提供了总功率、无级变量功率的控制方式; 流量控制方面, 提供了负流量、正流量的控制方式; 系统控制方面, 提供了全液压、液压+发动机速度电子监控的控制、全电子控制的控制方式; 产品方面, 为各企业提供了6T~8T小型挖掘机的主泵、先导阀, 13T~70T的全套液压系统及液压元件(行走机构除外)、70T~800T挖掘机的主泵、回转机构、先导阀, 满足了飞速发展的市场需求及迅速壮大的客户需要。

中国经济的日新月异, 为各挖掘机制造企业带来了前所未有的发展空间, 同时对液压元件的迅速稳定的供给也提出了新的要求。川崎重工基于配套件供应商应尽的责任与义务, 于2005年设立了



2018年上海 bauma 展

期提供面向客户的业务培训, 加强川崎在中国的售后服务。

川崎精密机械一直严格遵守中国的法律法规和保护环境, 通过纳税做出社会贡献。公司经常对挖机业界的领先技术进行持续研究与开发, 为顾客提供先进的技术。KHI 液压事业在中国市场发展的新变化——挖掘机迎来了智能化时代, 控制方式从液压力式转换为电气式, 物联网大数据的使用, 进入 ICT 挖掘机时代。所谓 ICT 系统控制, 是指通过在主阀内置电磁比例阀, 实现了阀芯的电控化。在电控手柄中内置角度传感器, 同时对应 CAN 通信和电液切换功能, 使操控更加精准。控制器更是小型化, 耐久性高, 进一步降低了工程机械的油耗, 在为实现高效低油耗和精准操作的同时也全方位支持并响应国家号召, 积极参与环保事业。

从1993年到2018年, 25年在历史长河中是短暂的, 但在中国挖掘机的发展进程中却是从销量3000台走到了20万台的厚重一笔。川崎重工十分荣幸能够参与其中, 并与其共同发展。中国作为世界经济引擎, 为了满足不断提升的城市化需要, 在未来较长一段时间内, 工程机械及挖掘机的强劲需求将继续保持, 川崎重工将一如既往地履行供应商的义务与责任, 为工程机械的蓬勃发展贡献绵薄之力。



日本西神户工厂



2017年度川崎精密机械商贸(上海)有限公司运动会



川崎精密机械商贸（上海）有限公司上虞分公司



川崎精密机械（苏州）有限公司



川崎精密机械（苏州）有限公司



川崎春晖精密机械（浙江）有限公司

Established in 1878, Kawasaki Heavy Industries Group (Kawasaki) is a multinational famous for a great variety of business across land, sea and air, covering many fields, ranging from shipbuilding at its initial step, to later motorcycle manufacturing, railway vehicle, aircraft, gas turbine, gas engine, energy equipment, environmental equipment, hydraulic machine and robot. Over the past century, Kawasaki has been far and widely known and building its plants all over the world. Kawasaki Precision Machinery Group (KPM), a subsidiary of Kawasaki Heavy Industries Group, has been engaged in developing and manufacturing hydraulic parts for marine machinery since 1916. Contributed by one century of unremitting efforts, KPM has developed into a leader with a great scale and a full line of production equipment in the hydraulic industry. KPM insists on developing and broadening new product categories ranging from hydraulic parts and units to precision machinery and control system. It stresses on the main product lines of hydraulic pump, hydraulic control valve, actuator and hydraulic slewing motor while being engaged in hydraulic components for machines and complete sets as well as other hydraulic machinery like hydraulic deck machine, electro hydraulic steering gear and hydraulic fishing machine.



including hydraulic pumps, hydraulic motors, hydraulic valves, hydraulic marine gearing devices and electric controls, which are widely used in engineering machinery, marine machinery and industrial equipment. Its business enjoys a higher share in the global excavator industry, which is powerfully supported by the global manufacturing bases in Japan, England, the United States, South Korea, China and India.

KPM accessed the Chinese market in the early 1990, and established KPM Shanghai in 2010. KPM Shanghai brought in the modes and principles of hydraulic negative control and gross power control applicable to excavators, and was given the property and feature data of full-range hydraulic components necessary for excavators. It also disseminated the international concept and mode of cleanliness control for excavator hydraulic systems to excavator manufacturers, greatly reducing the fault rate of excavator significantly. Since that, KPM's hydraulic parts have penetrated to the Chinese excavator industry.

As the Chinese economy grows vigorously, it boosts unprecedented development opportunities in the engineering machinery industry. The excavator sales increased to nearly 180,000 in 2011, compared with about 3000 in 1993. To better meet excavator manufacturers' demands, Kawasaki provides tailor-made hydraulic systems and components, which all have unique features in multiple aspects: 1) power control: gross power and stepless power modes; 2) flow control: negative and positive flow modes; and 3) system control: fully hydraulic, hydraulic + electronically controlled, and fully electronically controlled modes. In addition, it extends the product lines to main pumps and pilot valves for 6T ~ 8T mini-excavators, full-range hydraulic systems and components (except running gear) for 13T ~ 70T excavators, and main pumps, swinging gears and pilot valves for 70T ~ 800T excavators, coping with the

increasing demands of the growing market and customer group.

The roaring growth of the Chinese economy presents the new requirements for the stable supply of hydraulic components while bringing in an unprecedented development space to excavator manufacturers. Considering the parts and components supply, Kawasaki established Kawasaki Precision Machinery (Suzhou) Co., Ltd. in 2005, which is engaged in

and started domestic manufacturing of excavator hydraulic parts in China. To serve customers better, KPM established the Shangyu branch of KPM Shanghai in Shaoxing, Zhejiang in 2017, which provides customers with regular training service, enhancing the after service of Kawasaki.

KPM has been complying with the laws and regulations of China, stressing on environment protection, and contributing the society by paying tax. It insists on continuous research and development of frontier technologies, and delivers them to customers timely. KHI hydraulic business is facing a new trend in the Chinese market: excavators usher in an age of intellectualization — upgrading from hydraulic control mode to electrical mode and applying IoT and Big Data technologies. Information and Communications Technology (ICT) is also integrated in system control of excavator, via which, master valve is embedded with electromagnetic proportioning valve, realizing electrical control of valve element. Angular transducer is built in electrically controlled handle, and CAN communication and electrical-hydraulic switch are applied to make operation more accurate. Controller is minimized in size and enhanced in durability, further reducing fuel consumption while raising operation accuracy. We actively join in environmental protection as a response to the government's environmental appeal.

From 1993 to 2018, the Chinese excavator industry has experienced an outstanding progress, with the sales volume hike from 3000 to 200,000. Kawasaki is honored to witness such progress and also grows fast with the Chinese excavator industry. As a key engine of the global economy, China will maintain strong demands for construction machinery including excavators in a long time of urbanization. Kawasaki will continue fulfilling its supplier obligation and responsibility as before and contributing generously in the construction machinery industry.



一级代理

manufacturing hydraulic pumps and motors. In response to the initiative "Have Key Parts Made in China" proposed by the Chinese government, Kawasaki launched the negotiation with Zhejiang Chunhui Group in the joint investment for complete-set excavator hydraulic parts. The joint investment project has gained great support from the Department of Commerce, China Construction Machinery Association (CCMA), and the governments at all levels in Zhejiang Province. As an output of the widely supported joint investment, Kawasaki-Chunhui Precision Machinery (Zhejiang) Co., Ltd. was established in 2009