

HAMANAKA CHAIN MFG. CO., LTD.

<COMPANY PROFILE>

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Website	http://www.hamanaka-chain.co.jp/
Number of employees	70 employees
Capital	¥50,000,000.-
Incorporated on:	October 28, 1950 (Inaugurated on March 21, 1936)
President	Go Hamanaka

<BUSINESS>

Manufacturing and sales of anchor chains for ships, long chains for offshore drilling ships, chains for marine structures, other harbor-related products, and mooring devices for floating structures.

<TECHNOLOGY>

The world's top-notch chain manufacturing technology produces ultra-high strength large chains.



Sparks from flash butt welding



The symbolic chain link displayed at the entrance of the Aboshi factory office



Offshore drilling equipment (semi-submersible drilling rig)

Source: Japan Drilling Co., Ltd.

Hamanaka Chain Mfg. Co., Ltd. (Hamanaka) is a specialist that manufactures chains for ships and marine structures. For instance, every ship size over 10,000 tons is loaded with chains to connect the anchor. Some applications of the Hamanaka-brand high-strength chains include for offshore deep sea drilling facilities in the Gulf of Mexico in the U.S., and the North Sea oil field in Norway. Hamanaka chains are also used to moor 19 GPS wave meters (tsunami observation buoys) located all over Japan. More recently, Hamanaka supplied chains for the Fukushima floating wind farm. In Japan, no companies other than Hamanaka have the technology to manufacture ultra-high strength offshore chains. Hamanaka's commitment to quality and collaboration with Nippon Steel & Sumitomo Metal Corporation, a major steel company of Japan, has led to the development of a world's-first special steel.

Hamanaka's manufacturing technology using flash-butt welding has made it possible to make a high-quality chain for offshore wind farms and GPS equipment. The maximum link size the company can manufacture is 132mm in diameter. Flash-butt welding utilizes the sparks produced by touching two electrically charged lines to each other to weld metal. Hamanaka established the special technology to control the movement during the flash butt welding process down to the millimeter. Working hard to elevate its manufacturing technology, Hamanaka is contributing to the growing field of marine development.

【Behind the scenes of development】

In 1957, the company founder, Jutarō Hamanaka introduced the European-made flash butt welding machine which enabled welding using electricity. Before the introduction of the European welding machine, craftsmen forged anchor chains by hand, which limited production capacity. Flash butt welding enabled the mass production of larger size chains. Since then, Hamanaka has focused on the production of large-scale chains. There are only a few companies in the world which manufacture large-scale chains to moor marine structures. Hamanaka is one of them. There is no other Japanese company operating in this chain manufacturing field.

【Uniqueness】

Hamanaka's competitive edge is in its high-strength chain, which was developed jointly with Nippon Steel. The jointly developed steel material "G3" set the global standard in chain-making when it was developed. The latest type, "R5" was developed by a new technology that only a handful of companies in the world, including Hamanaka, have. In 2013, Hamanaka's advanced technology was highly evaluated and its mooring chain was chosen for the floating wind farm, a national project offshore of Fukushima Prefecture. Hamanaka's distinguished technology is contributing to the industrial world.

【Future perspectives】

Aiming to develop another new high-grade material "R6" which excels over the "R5" that was developed back in 2007, Hamanaka is conducting joint development with a major iron & steel making company. There are high expectations for new chains due to the abundant sea bottom resources buried under the deep seas of Japan. Experimental drilling has already started and the establishment of drilling technology is anticipated. Given that ships are to become more and more environmentally conscious, Hamanaka is proactively developing new technology in view of long-life, reduced CO₂, environmentally friendly anchor chains.

<TOPICS>

All of the mooring chains for the Fukushima offshore floating wind farm project* are provided by Hamanaka!



The demonstration experiments for wind power generation are being conducted offshore of Fukushima prefecture, which was devastated by the Great East Japan Earthquake. Numerous gigantic wind mills and power stations are located floating on top of the sea to generate power. Hamanaka is involved in the project by producing the mooring chains to link the floating structures. Each power station uses four to eight lengths of chains that are approx. 800 meter-long and 132 mm-thick. Hamanaka's chains ensure the wind mills float stably even in severe meteorological conditions, which is the key to the success of the project.

* Fukushima Floating Offshore Wind Farm Demonstration Project

Taking part in the world's largest offshore technology exhibition "Offshore Technology Conference"



For more than 40 years, Hamanaka has been exhibiting its products at the Offshore Technology Conference, held in Houston, Texas every May. Over 2,600 companies take part in this world's largest exhibition of offshore technology for developing marine resources and exchanging their views on the subject. Every year, Hamanaka showcases its world's-finest high-strength chains. Hamanaka continues its challenge of developing new technologies of chain manufacturing.

<HISTORY>

- 1936 Jutaro Hamanaka privately established the "Hamanaka Chain Factory" at Ko-634, Shirahama-cho, Himeji City, Hyogo Prefecture, Japan
- 1942 Designated as a Japanese Imperial Navy factory
- 1950 Approved by Lloyd's Register of Shipping as an approved manufacturer of chain cable for ships and offshore mooring.
Reorganized the business and changed its name to Hamanaka Chain Mfg. Co., Ltd.
- 1952 Accredited as a JIS factory (flash butt welded chains)
- 1957 Supplied Japan's first flash butt welded chains
- 1974 Completed the first phase of the Aboshi factory
- 1993 Approved by the ABS Quality Evaluations Program
- 1996 Acquired the ISO9001 certification
- 2006 Acquired the ISO14001 certification
- 2013 Acquired the OHSAS18001 certification