News Release Feb 17, 2016 GS Yuasa Corporation



GS Yuasa Wins Order from Shanghai Zhenhua Heavy Industries for Lithium-ion Battery System for port AGVs

GS Yuasa Corporation (Tokyo Stock Exchange: 6674; "GS Yuasa") announced that it won an order for lithium-ion battery system from Shanghai Zhenhua Heavy Industries Company Limited ("ZPMC") for driving port automatic guided vehicles ("AGVs") to be supplied to Yangshan Port Phase-4 in Shanghai. 50 AGVs installed with GS Yuasa's lithium-ion batteries will start operating from January 2017.

The ordered system uses GS Yuasa's high capacity lithium-ion battery LIM50EN-12, and each port AGV will be installed with a storage battery holding 1,800 cells. Port AGVs are unmanned automatic carriers that transport containers between the container yard, where maritime transport containers are gathered, and the gantry crane, which loads containers on a container ship, and contribute to the streamlining of the port logistics base.

GS Yuasa's lithium-ion batteries can handle wide range of applications requiring high capacity or high input and output performance. The batteries are used in various industrial applications such as large-scale power storage systems and railway cars as well as special applications such as rockets and artificial satellites. Along with the automotive batteries such as those used in hybrid and plug-in hybrid electric vehicles, demand for which has been expanding, GS Yuasa will push to expand applications further in other industrial fields and contribute to energy saving society.

[Overview]

1. Specifications of the lithium-ion batteries installed in ZPMC's AGVs

Module format	LIM50EN-12S2-F2-1 (12 cell module)
Nominal voltage	44.4V
Nominal capacity	50Ah (2200Wh)
Structure	15 connected in series
	10 connected in parallel

[Images]

1. Port AGV (for illustration purpose)



2. Lithium-ion battery module LIM50EN-12

