

MacGregor gravity systems

Marine Selfunloaders
Coal Barges



MACGREGOR

Designed to perform with the sea

Gravity system

Eight barges that transfer coal along the coast of East Kalimantan, in Indonesia, feature MacGregor gravity-type self-unloading systems

General

From 1992 to 1993, eight sets of MacGregor self-unloading conveyor systems were delivered to Chuan Hup Agencies Pty Ltd, in Singapore.

They were destined for barges – ranging in size between 3,500 dwt and 7,000 dwt – that were specially designed by Singapore-based company Conan Wu & Associates Pte Ltd.

The self-unloading barges are in operation along the coast of East Kalimantan, Indonesia, and shuttle coal between the mines and a new transshipment terminal. Receiving facilities are designed to accommodate four barges in total. Two barges can be discharged simultaneously at a capacity of 2,000t/h each.

System description

The self-unloading barges are flattopped. The large V-shaped hopper on deck provides a gravity flow of coal, via hydraulically-operated basket gates located in the hopper bottom, to the longitudinal conveyor belt.

The entire discharge system is remotely controlled by one operator. The speed of the longitudinal conveyor can be varied to alter the discharge capacity to local conditions.

From the longitudinal conveyor, the coal is transferred to a slewing and hoisting boom for further transport to the shore receiving conveyors. Discharge can be to either the port or starboard side. The boom can be stowed during sea voyages. Electrical switchgear and control equipment, as well as hydraulic power packs, were also supplied.

Barge dimensions

Dead weight	7,000 dwt
	/ 3,500 dwt
Length	106m / 79.2m
Width	22.5m / 20.5m
Depth	6.6m / 5.6m
Draft	4.5m / 3.5m

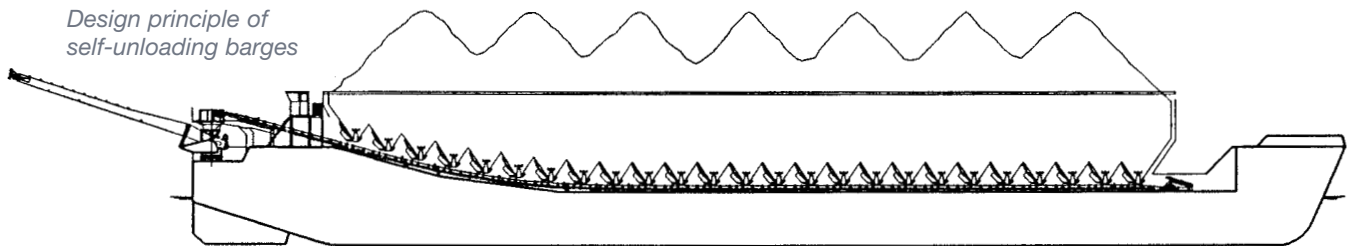
System data

Discharge capacity	2,000t/h or 2,500 m ³ /h
Power consumption at maximum discharge capacity approx.	190kW
Cargo	Coal (also gravel, grain, iron ore)

Boom data

Slewing	150 degrees
Hoisting	max. 18 degrees

Design principle of self-unloading barges



MacGregor shapes the offshore and marine industries by offering world-leading engineering solutions and services with a strong portfolio of MacGregor, Hatlapa, Porsgrunn, Pusnes and Triplex brands.

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