

Large-scale soft impact grab dredger



**Niigata Research and Engineering Office for
Port and Airport, Hokuriku Regional Development Bureau,
MLIT (Ministry of Land, Infrastructure and Transport);**

Number of units possessed by the 1st District Port Construction Bureau

Soft impact grab dredger (0.7m³ model)----- 3 units



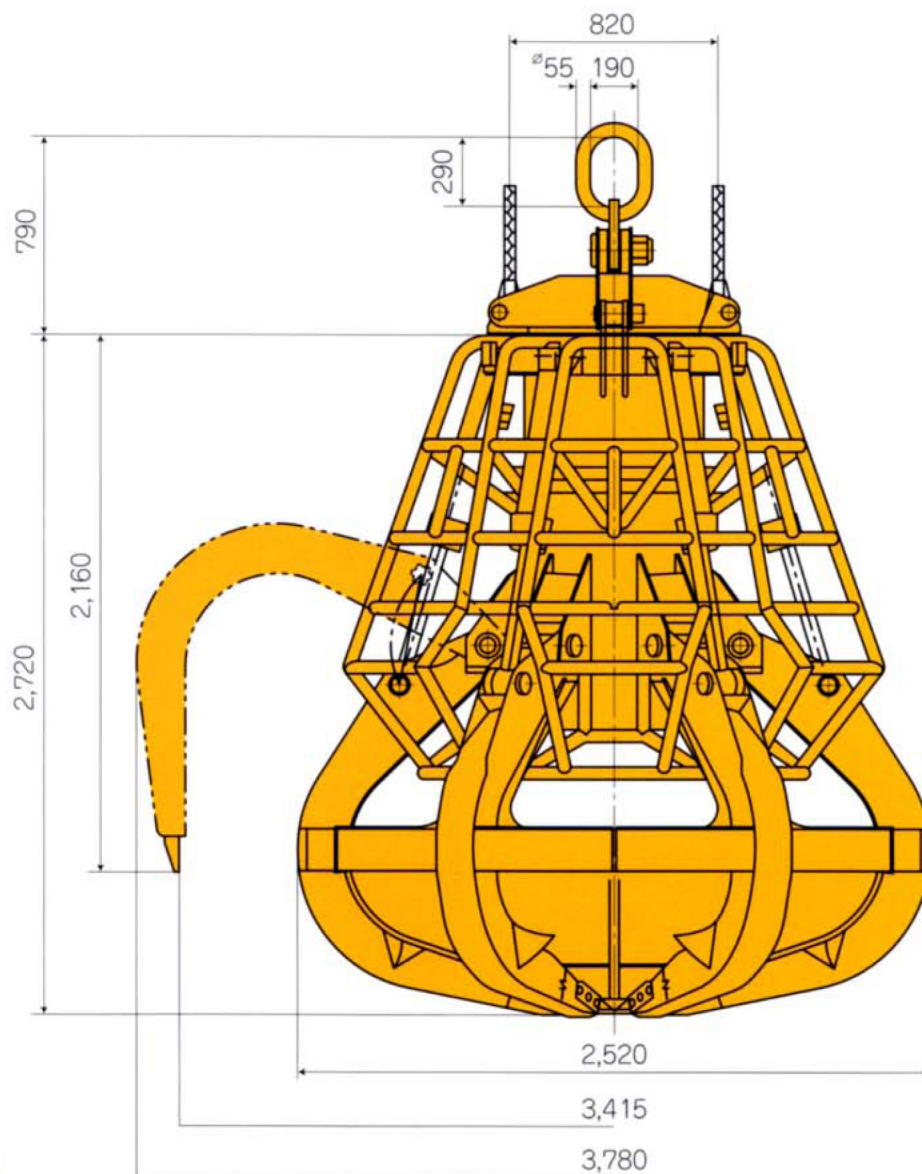
Large-scale soft impact grab dredger (1.4m³ model)----- 1 unit



Specifications of large-scale soft impact grab dredger

● Type	Orange peel type electro-hydraulic grab dredger
● Capacity	Capacity without water 1.4m ³ (Grab closing capacity 2.8m ³)
● Self weight	4 t
● Handling object	Pebble mixed sand and soil
● Electric motor	22kw, 220V 60Hz
● Number of grab claws	6 claws
● Safety device	Protector, Hydraulic sensor and relief valve

Appearance of large-scale soft impact grab dredger



OVERVIEW

The system soft impact grab dredger is developed to remove harbor structures safely and surely in underwater mine remaining water area to the specified depth. This grab dredger system has unique safety structure even the machine's hydraulic unit directly grabs hidden underwater mine, by the function of its hydraulic control mechanism to limit grab force of the claw ends at 4t^(※).

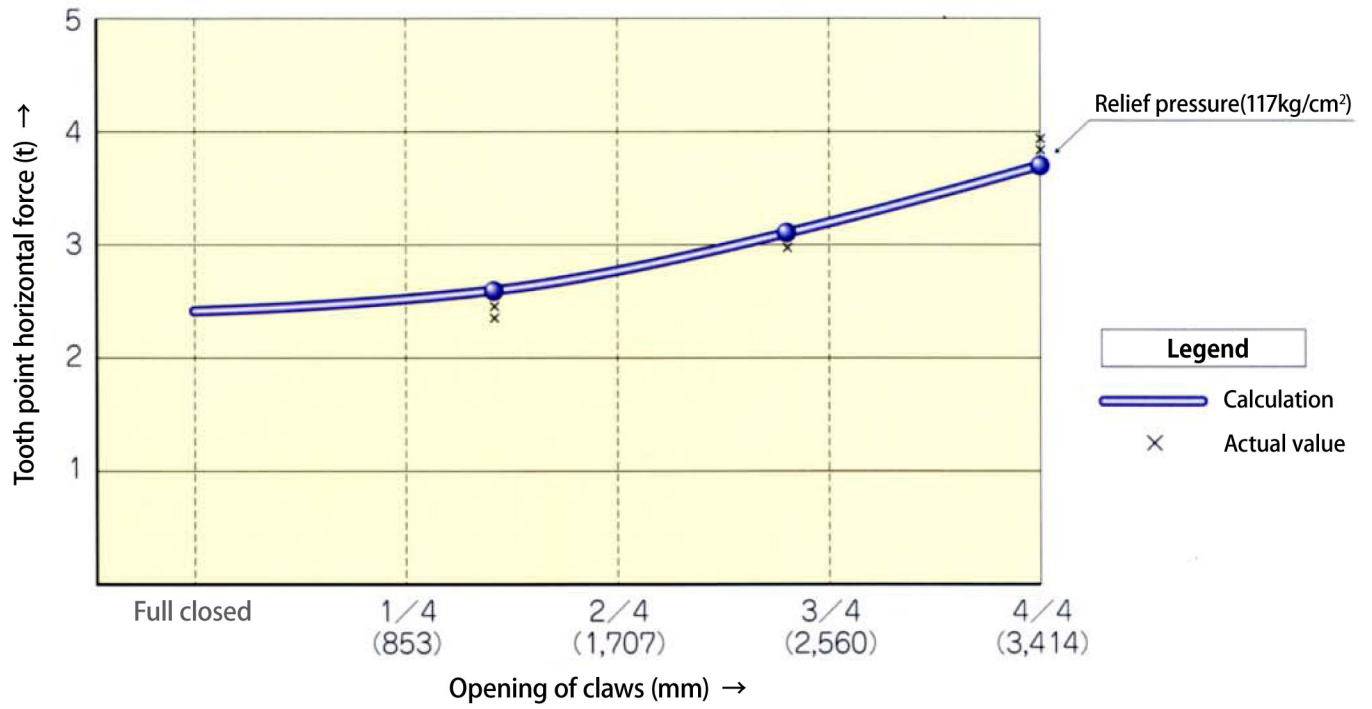
This grab dredger is the scale up model of the original unit of soft impact grab dredger that was developed under collaboration with the Japan Workboat Association in 1980.

※Note

This figure is quoted from the document "Investigation report related to sea bottom metal structure salvage work" prepared by our office in 1973

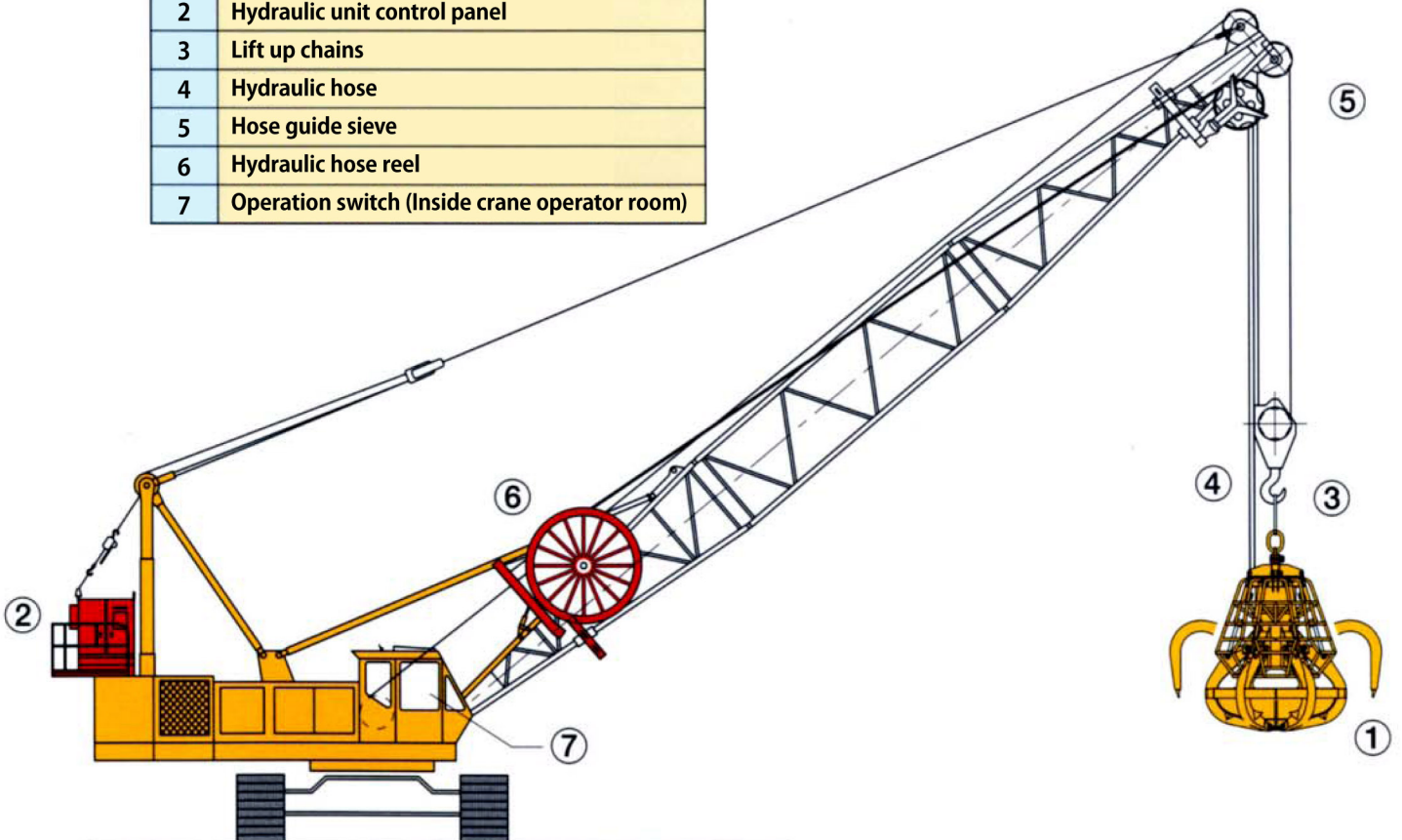


Tooth point horizontal force curve



Parts allocation figure

No.	Parts name
1	Electro-hydraulic bucket
2	Hydraulic unit control panel
3	Lift up chains
4	Hydraulic hose
5	Hose guide sieve
6	Hydraulic hose reel
7	Operation switch (Inside crane operator room)





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