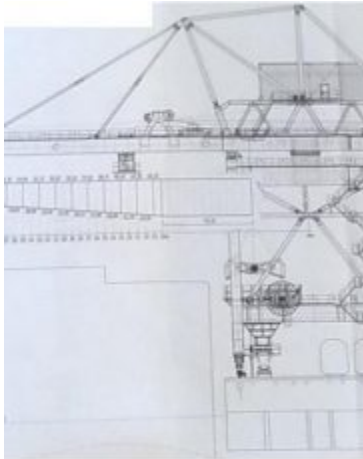


## CRANE - RAW MATERIALS SHIP UNLOADER



### Product Description

Crane unloader is a ship unloader installed on the maritime facilities pier used to unload and stock raw materials used by the Blast Furnace and Coke oven plant.

### TECHNICAL FEATURES

Building year 2003

Revamping year 2007 (limited to engine room)

rail gauge 18,5 m

crane capacity 441,5 Kn

free-digging capacity 1800 t/h

unloaded material Raw materials

handling material when in use as tower 22,5 t bulldozer

lifting/opening grab engines power 2 x 622 KW

at load lifting speed/ no-load grab descent 130/210 m/1'

grab opening/closing speed 210 m/1'

translation engine power and lifting device 200 KW

no-load lifting device translation speed 200 m/1'

Fifth wheel engines power 2 x 3/0,75 KW

Fifth wheel rotating speed 0,125 rpm

Fifth wheel rotating time 90°/ 150 sec

control cabin rolling engine power 2 x 1,1 KW

control cabin rolling speed 50 m/1'

wheel base bars hinges 13.938 mm

hook maximum depth from rails height 19 m

hook maximum height from rails height when in use as unloader 22,5 m

hook maximum height extra stroke) from rails height when in use on the ground 27,5 m

sliding engines power 8 x 7,5 KW

deck sliding speed 20 m/1'

extractor belt engine power 45 KW

extractor belt chain speed 28 m/1'

extraction capacity 1.600 t/h

hopper capacity 100 m<sup>3</sup>

crane maximum height 46,35 m

frames maximum reach at strand quay from loading side 40,53 m

maximum reach over fifth wheel at strand quay from counterweight side 7,38 m

counterweight above fifth wheel 124,5 t

structural and mechanical steel-working total weight 905 t

no-load unloader total weight 1030 t

full load unloader total weight 1075 t

lifting devices

28 m<sup>3</sup> bucket ( $\gamma=0,94$  t/m<sup>3</sup>)-P=18,640 t

12 m<sup>3</sup> bucket ( $\gamma=2,2$  t/m<sup>3</sup>)-P=14,675 t

10 m<sup>3</sup> bucket ( $\gamma=2,85$  t/m<sup>3</sup>)-P=14,675 t

equipment general class

steel-working A8 – UNI-ISO 4301/FEM 1001/87 (REV98)

lifting device M8 – UNI-ISO 4301/FEM 1001/87 (REV98)

tower rotation M7 – UNI-ISO 4301/FEM 1001/87 (REV98)

frame sliding M6 – UNI-ISO 4301/FEM 1001/87 (REV98)

carriers rolling M6 – UNI-ISO 4301/FEM 1001/87 (REV98)

working temperature “-10/50 °C”

building and assembly average temperature “15 °C”

wind operating  $V \leq 72 \text{ Km/h}$

operating with reduced performances  $72 \text{ Km/h} < V < 100 \text{ Km/h}$

off-duty  $V \geq 100 \text{ Km/h}$