

Project-Questionnaire

Material Handling Machines

(Ship unloader, Shredder, Electric, Job site survey)

Please fill out and send to

© SENNEBOGEN LLC, 1957 Sennebogen Trail, Charlotte NC 28164

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or

E-mail: dengels@sennebogenllc.com

Contents

1.) General Conditions

2.) Performance requirements (weight, size etc.)

3.) Site survey

(Port, Scrap, ship size etc.)

4.) Machine requirements

(Power unit "Diesel or Electric", Undercarriage, Cabin, Safety)

5.) General Information

1. General Conditions



Customer:

Date:

Location:

Dealer:

Application:

Operating Conditions

Ambient Temperature

Min.

°C

Max.

°C

Wind speed

Average

m/s or fd/s

Max.

m/s

Humidity

Min.

%

Max.

%

Sea climate painting and protection necessary?

☐ Yes

☐ No

Replacing existing machine:

☐ Yes

☐ No

Manufacturer:

Model:

Years & hours

Attachment:

Carrier:

☐ Crawler

☐ Mobile

☐ Pedestal

☐ Locomotive

Power unit:

☐ Diesel

☐ Electric

Bulk material ☐ Loading ☐ Unloading

Material 1		Density		Required handling capacity	
Material 2		Density		Required handling capacity	

Scrap ☐ Loading ☐ Unloading

Material 1		Density		Required handling capacity	
Material 2		Density		Required handling capacity	

Timber ☐ Loading ☐ Unloading

Length?		Average ø diam. Of logs?	
Material 1		Density	
Material 2		Density	

Other ☐ Loading ☐ Unloading

Material 1		Density	
Material 2		Density	

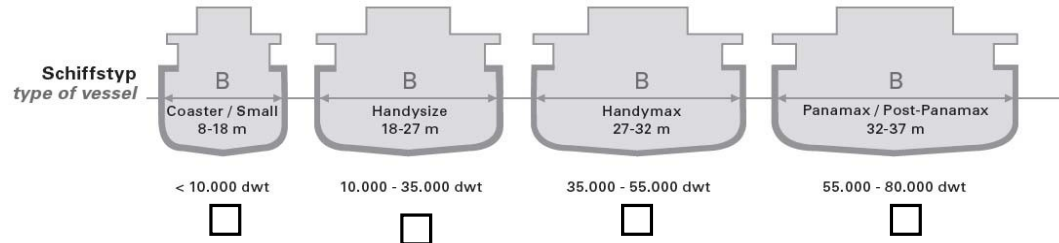
Working requirements:

Operating Hours: per year

Shift : per days

Hours: per shift

Days: per week

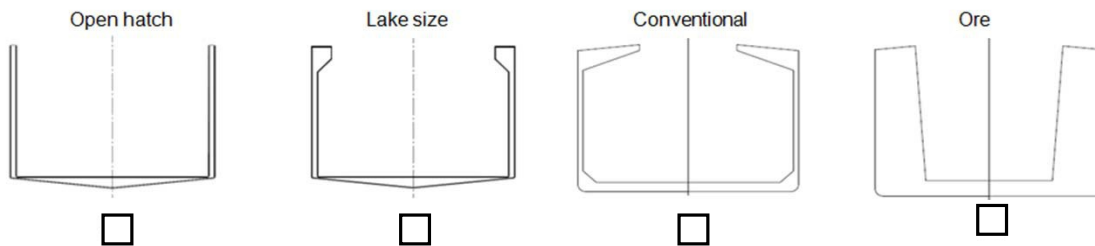


Exact specification

- ☐ Ship type 1: tonnage capacity dwt
- ☐ Ship type 2: tonnage capacity dwt
- ☐ Ship type 3: tonnage capacity dwt

Specification of exact ship dimensions see following pages

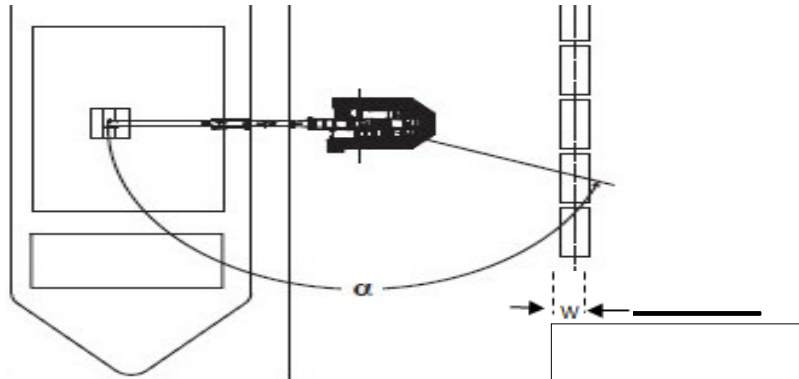
Hatch design



Other Trunk design (please sketch):

2a. Performance requirements - Ocean

A =		N =	
B =		α =	
C =			
D =			
E =			
F =			
G =			
H =			
M =			



Vessel Size / Capacity DWT

Unloading into: ☐ Hopper ☐ Trucks ☐ Rail ☐ Other

Hopper / Truck height:

Maximum Hopper / Truck capacity:

Quantity of Hatches:

Height of Hatch Covers when open:

Weight of Hatch covers:

Type of Material:

Material Density (max):

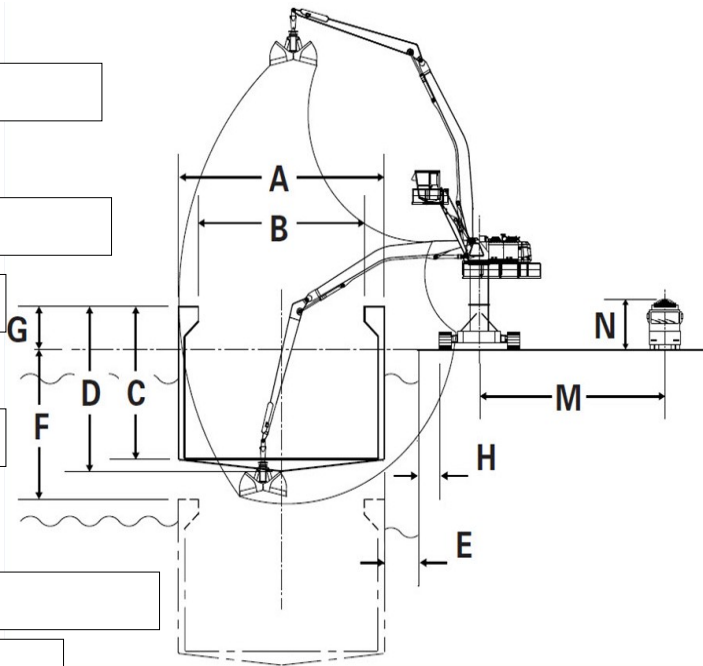
Productivity requirement:
(*Free digging productivity)

Preferred / existing clamshell volume / size:

Time ship move, clean-up time:

Weight clean up equipment:

Distance center of machine to edge of hopper:



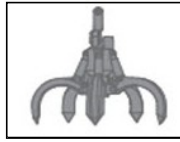
* free digging = unloading rate which can be sustained for reasonable (defined) time interval, when digging from a specified point in the barge. This point is generally located at the horizontal centre of the ship and vertically at the mean low water for the port. In general it represents the mean (or somewhat below mean) situation for unloading rate that would be achieved. This rate is marginally specific to the port and does not consider barge movement, barge cover handling, clean-up, waiting time or any other time loss.

PORT / WATERWAYS FACILITY BARGE UNLOADER SURVEY

The diagram illustrates a barge unloader system. A Sennebogen machine is positioned on a dock, with its boom extending over a barge. The machine is used to unload material from the barge into a hopper. The diagram shows the machine's reach and the various components involved in the unloading process, including the dock, the barge, and the hopper. Key measurement points are labeled A through U, corresponding to the survey data table.

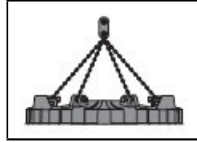
Barge / water level		hopper / dock		productivity		material 1		material 2		clean-up	
A	outside width barge	L	distance center of machine to edge hopper	Q	free-digging* production requirement [tons/hour]	V1	type of material	V2	type of material	X	clean-up equipment
B	inside width hatch / hold	M	hopper opening [truck opening]	R	hourly production requirement [hours/barge]	W1	density of material [max]	W2	density of material [max]	Y	equipment weight
C	distance hatch to edge barge	N	hopper height [truck height]	S	preferred / existing clamshell volume / size					Z	time to lower equipment
D	inside hatch clearance	O	degrees swing barge to hopper	T	existing / new clamshell weight						
E	distance edge dock to edge barge	P	maximum hopper / conveyor capacity	U	time barge move, clean-up, etc.						
F	distance center machine to edge dock										
G	distance dock level to high water level										
H	tide / distance high to low water level										
I	barge capacity / volume										
J	style of barge [deck, hopper, ...]										
K	weight barge covers										

If existing attachment is available please select:



Size

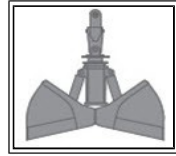
Weight:



Size

Weight:

(Ø dia.)



Size

Weight:



Size

Weight:



Other

Size

Weight:

3. Site Services

Additional attachments:

- > log grapple
- > waste grapple
- > demolition grapple
- > hammer
- > big bag handler
- > coil C hook
- > bale handler
- > contractor grapple

additional cabs

- > fixed raised cab

Attachment tools



scrap grapple



Clamshell



Scrap lifting magnet



mobile scrap shears



pipe handler

Cabins



D270 with maXcab



D300/260 with maXcab



Skylift Type 600 with maXcab



Skylift Type 600 with PortCab



Variants equipment reach from 35' - 115'



Upper carriage



diesel-engine



electro-motor

Options



motorized cable reel



transformer

Undercarriage



Crawler



Rubber tired



Rubber tired



Rail gantry



4-point underframe



Crawler special



Locomotive rail



Elastic mount



Crawler gantry

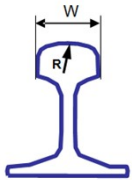


Barge mounted



Gantry type 1

☐ Rail gantry



Existing rails?

☐ Yes
☐ No

Type of rail

Track gauge

Minimum curve radius

Track material

Width of railhead - W

Crowning of railhead, radius - R

Max. inclination during travel

Max. travel path

Travel speed

Tolerance Gage Runways

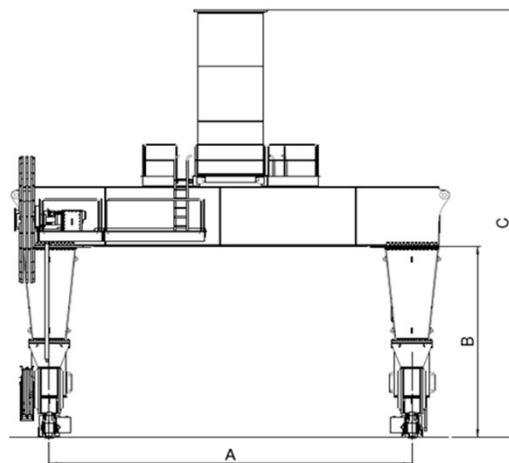
Rail pressure

Dimensions

A =

B =

C =



Safety devices on gantry

☐ Automatic rail clamps

☐ Wind gauge

Limit switch for travel:

☐ Roller switch

☐ Optical switch (contact free)

Emergency-stop buttons

amount of buttons (max. 4)

Location of emergency-stop buttons on gantry

☐ Intercom system

☐ Mechanical pins

Gantry type 2

☐ Crawler gantry

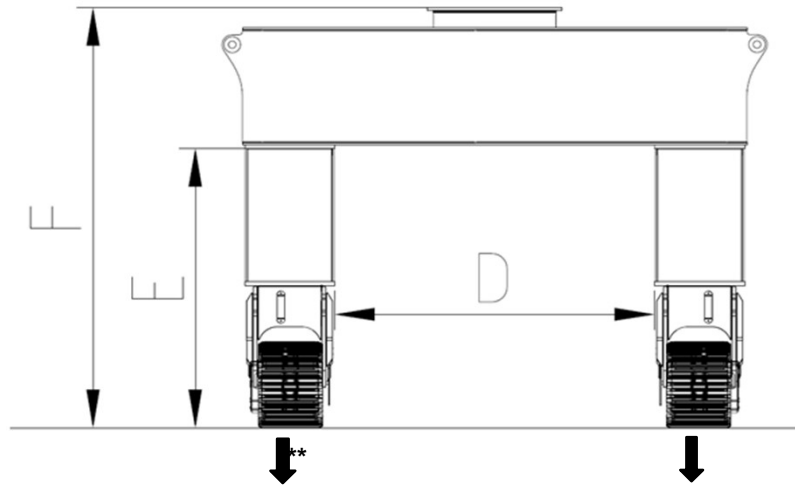
max. inclination

Dimensions

D =

E =

F =



* Ground pressure

Type of pads

☐ Triple-grouser pads

☐ Flat track forged

Gantry type 3

4. Machine requirements



Power Supply

- ☐ 400V / 50 Hz (EU / SA) ☐ 480V / 60 Hz (UL / USA) ☐ 600V / 60 Hz (Canada)
- ☐ Other V Hz ☐ 4160 V ☐ 7200 V ☐ 14600 V

Feed

- ☐ Junction box on undercarriage, customer to connect cable onsite.
- ☐ Motorized Cable Reel with cable guide on undercarriage.

☐ Travel distance

Cable Feed

- ☐ Center feed.
- ☐ Eccentric feed

Additional power supply requirements

- ☐ Power generator V kW Hz.
- ☐ Electric backup system for machine function in case of power loss.

Magnet System

- (☐ Generator ☐ Rectifier)
- ↳ Mechanical (Belt / Hydraulic) ↳ Electric

☐ None

☐ 10 KW ☐ 15 KW

☐ 25 KW ☐ 33 KW

☐ Other:

Possible types

Type A: Discharge lamp - high pressure metal halogen vapor lamp.

Type B: Work lighting, double beam.

Type C: Work lighting, Xenon.

Type D: Work lighting, double beam LED Xenon.

☐ x upper carriage / cab to the front left:	Type ☐ A	☐ B	☐ C	☐ D
☐ x upper carriage to front right:	Type ☐ A	☐ B	☐ C	☐ D
☐ x upper carriage to the left:	Type ☐ A	☐ B	☐ C	☐ D
☐ x upper carriage to the right:	Type ☐ A	☐ B	☐ C	☐ D
☐ x upper carriage to the rear:	Type ☐ A	☐ B	☐ C	☐ D
☐ x travel direction, front:	Type ☐ A	☐ B	☐ C	☐ D
☐ x travel direction, right:	Type ☐ A	☐ B	☐ C	☐ D
☐ x travel direction, left:	Type ☐ A	☐ B	☐ C	☐ D
☐ x travel direction, on rear:	Type ☐ A	☐ B	☐ C	☐ D
☐ x other:	Type ☐ A	☐ B	☐ C	☐ D

Mainly Gantry & Pylon

Other lighting:

Safety equipment

☐ Camera:	
☐ Bullet proof glass:	
☐ Intercom:	
☐ Window guard:	
☐ Visual signal for:	
☐ Acoustic signal for:	
☐ Travel limit switches:	
☐ Position monitoring (e.g. rail tongs):	
☐ Machine access control:	
☐ 24V lighting with emergency operation via additional battery:	
☐ Other:	

Other electric components

> Available for 821/825/830/835/840/850/870/880

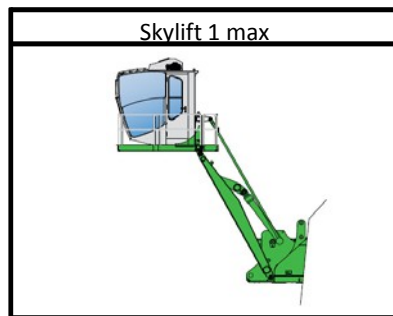
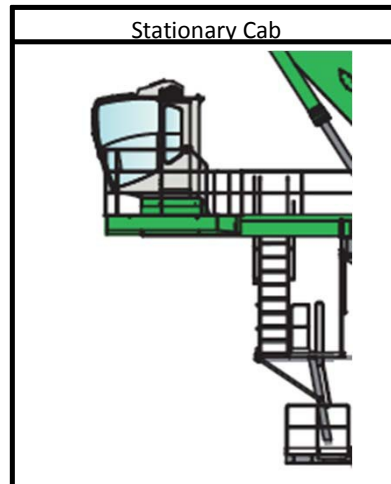
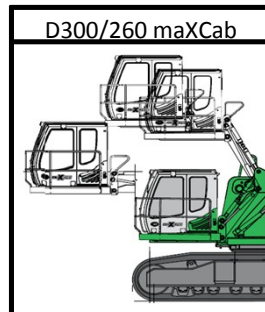
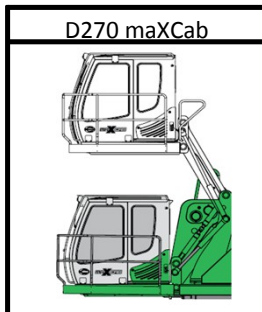
Cab movement & position

- | | |
|--|---|
| ☐ Fix max cab 821-870 | ☐ Fix riser 821-880 |
| ☐ D270 max cab 821-880 | ☐ D300/260 max cab 830-880 |
| ☐ Skylift 1 max 835-880 | ☐ Skylift 1 port cab 835-880 (Fix Port cab, positioned to front) |

Cab options

- ☐ Floor window (max cab only)
- ☐ Remote control via second seat.

Required eye level in feet.



☐ Rubber tired w/pylon (M special)

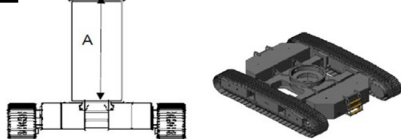


dimensions A

Not available for: 821,825,830

Available for: 835,840,850,860,870 max 4'11" / 880 max 6'6"

☐ Crawler w/pylon (R special)

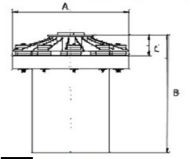


dimensions A

821,830 max 9'10" / 835, 840, 850,860 max 16'5"

870,880 max 19'8" / 880EQ max 26'2"

☐ Pedestal with elastic bearing (A special)

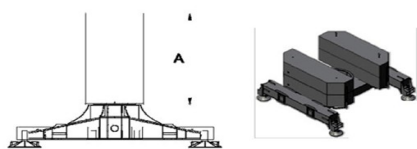


☐ new ☐ existing*

dimensions A B

C D

☐ Pedestal w/ floating structure (A special)



dimensions A

821,830 max 9'10" / 835, 840, 850,860 max 16'5"

870,880 max 19'8" / 880EQ max 26'2"

Locomotive (A special)



existing railcar** ☐ yes ☐ no

If yes model

weight details

drive system

general hydraulic (swivel)*** total ports

electric (swivel)*** total ports

scale car ☐ yes ☐ no

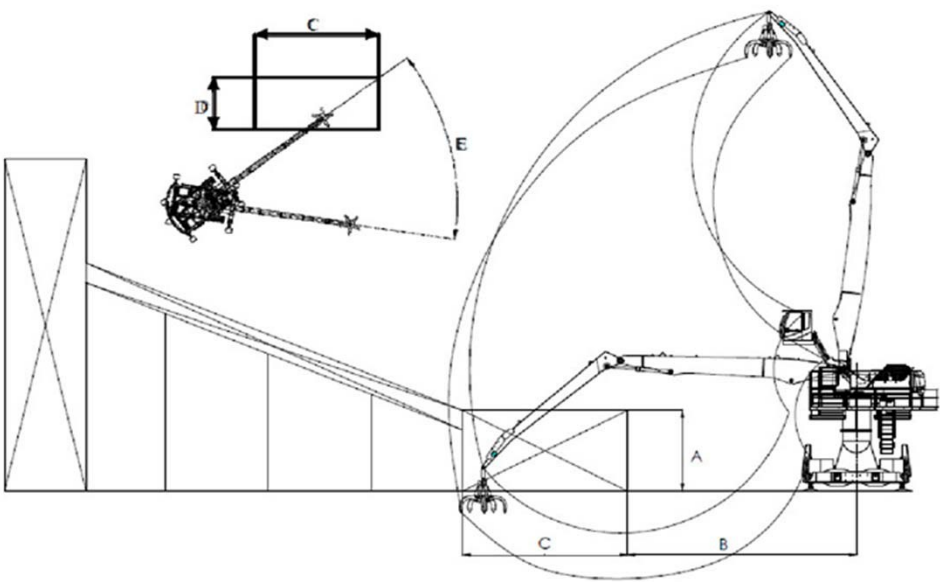
max rail load

outriggers ☐ yes ☐ no

railcar coupler hydraulic ☐ yes ☐ no

* please provide detailed drawings of the existing swing bearing and adapter!
** please provide detailed hydraulic and electric schematics of existing machine!

*** please list and explain every circuit and function on additional page - for hydraulic, flow and pressure - for electric, voltage and current!



Dimensions:

A	
B	
C	
D	
E	

Model:

Size:

Additional information:

This image shows a full page of blank graph paper. The grid consists of small, evenly spaced squares formed by thin gray lines. There are no margins, text, or other markings on the page.

Additional comments:

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