



Tests on S6t bunk.

For and only for Implementos Logísticos, Spain .

CONFIDENTIAL

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Attached documents:

1. Force vs deflection diagram.
2. Certificate SS EN ISO 9001
3. Certificate EN ISO 3834-2

Static Testing

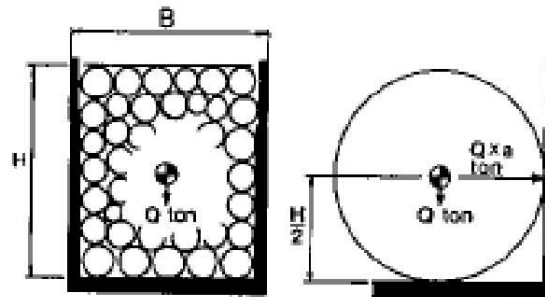
The complete bunk has been tested to its maximum load and breaking point. See attached diagram of deflection of bolster and stake. From top to bottom the lines refers to: Deflection X, permanent deflection X, Deflection Y, and permanent deflection Y. The first couple of millimeters of permanent deflection are due to initial settlement in the material and joints.



Picture: Test bench, not actual product shown.

Dimensioning regulations

Dimensioneringsberäkning:



Rundvirkestrave med vikten Q belastar rullgods och stöttor som en cylinder med vikten Q ton och radien $H/2$ m.

Rullgodsstöttorna skall ha en böjningsstyrka av minst

$$M_b = Q \times a \times H/2 \text{ (tonmeter)}$$

Q = rundvirkestravens vikt (ton)

H = travens höjd (m)

a_h = dimensionerande sidoacceleration som är 0,5 g inom trafikområde

5.5.5-2

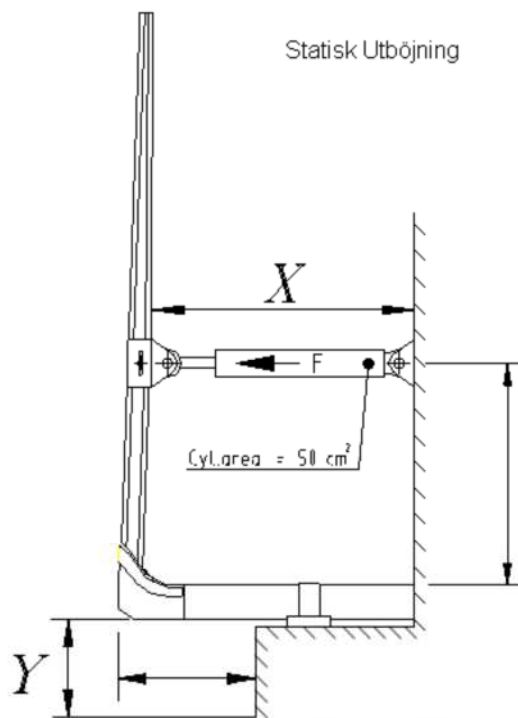
TFK 1998:2

Picture: Calculations for timber bunks.

For S6t the Load is 6 Ton per bunk and for all of Europe $a=0,5g$, which means that the stake should withstand a load of minimum 3 Ton, as showed in attached diagram the S6t stake withstands the regulations with a good margin.

Dynamic testing

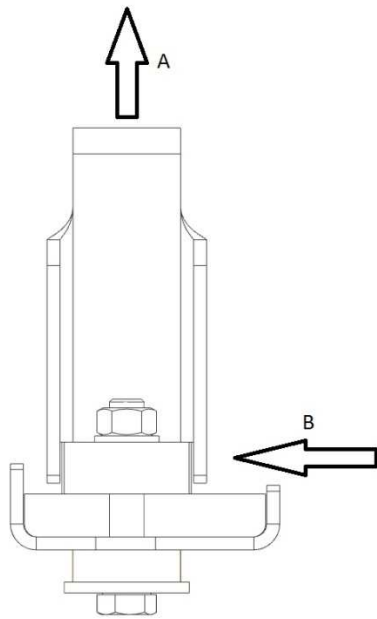
The S4t and S6t bunk has passed ExTes dynamic testing procedure. The testing is done with the bunk set up as in below figure. A force is applied to the stake at 1200mm from the loading surface. The load in this specific case exceeds the force that will be present at normal use of the bunk. The force applied in this test is 2,5 Ton.



The total amount of cycles the bunk should withstand to pass ExTes demand is equivalent of a lifetime of at least 8 years.

Tests on Mounting Attachments

The mounting attachments have been tested in two directions indicated in the picture below. Both direction A and B should withstand a force of at least 6 Ton. The attachment exceeds this required strength in both dimensions. Separate test have been made on the connection of teeth's between the clamping attachment and the bolster, at 6 Ton there is no significant damage to either bolster or clamping attachment. The material in the upper part is made out of high strength steel 650Mpa.



Daniel Karlberg

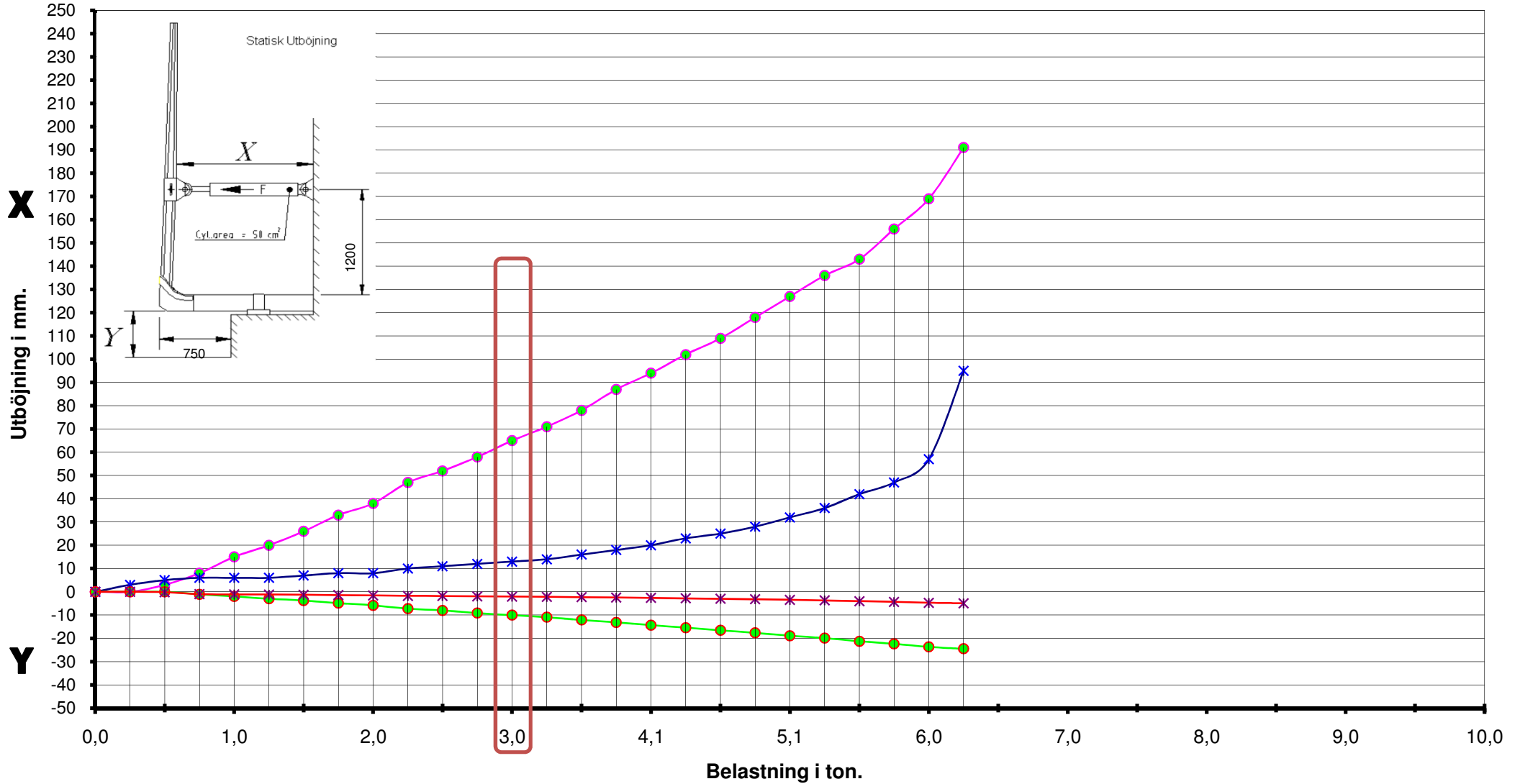
Design Engineer

Färila 14 November 2012

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This drawing is our exclusive property. It may not, without our explicit content, be utilized, copied, shown or given to any other party.

S-141 S6-T 2011-09-05



CERTIFICATE



Management system as per
SS EN ISO 9001 : 2008

In accordance with TÜV NORD CERT's procedures, it is hereby certified that

ExTe

ExTe Fabriks AB
Gundbergsvägen 6
SE-820 41 Färila

applies a management system in line with the above standard for the following scope

Development, manufacturing and marketing for load lashing

Certificate Registration No. 44 100 075289
Audit Report No. 301793

Valid until 2014-01-09
Initial certification 1999

A handwritten signature in black ink, appearing to read "Fredrik Höglund".

TÜV NORD CERT Certification Body
at TÜV NORD CERT GmbH

Göteborg, 2011-01-20

This certification was conducted in accordance with the TÜV NORD CERT's auditing and certification procedures and is subject to regular surveillance audits.

TÜV NORD CERT GmbH Langemarckstrasse 20, D-45141 Essen www.tuev-nord-cert.com



TGA-ZM-07-06-00

CERTIFICATE

The Certification Body for Pressure Equipment
of TÜV NORD Systems GmbH & Co. KG

certifies that the company

ExTe Fabriks AB
SE-820 41 Färila

has been verified and recognized
as welding workshop in the product range of

Bunks, Stakes, Tensioners for securing cargo

based on the requirements of the standard

DIN EN ISO 3834-2 (EN 729-2)

Certificate-no.: 07-202-1326 EN 0832/11

The range of validity and details of the inspection can be seen in our

Report-no.: 1326ST05520

The company is using a quality assurance system,
technical equipment, qualified personnel and procedures for joining processes
for manufacturing and testing of welded products.

This certificate is valid until

October 2014

Hamburg, 10 April 2012



Marrek
Marrek

Certification Body for Pressure Equipment
of TÜV NORD Systems GmbH & Co. KG
(Notified Body, Reg. -No. 0045)