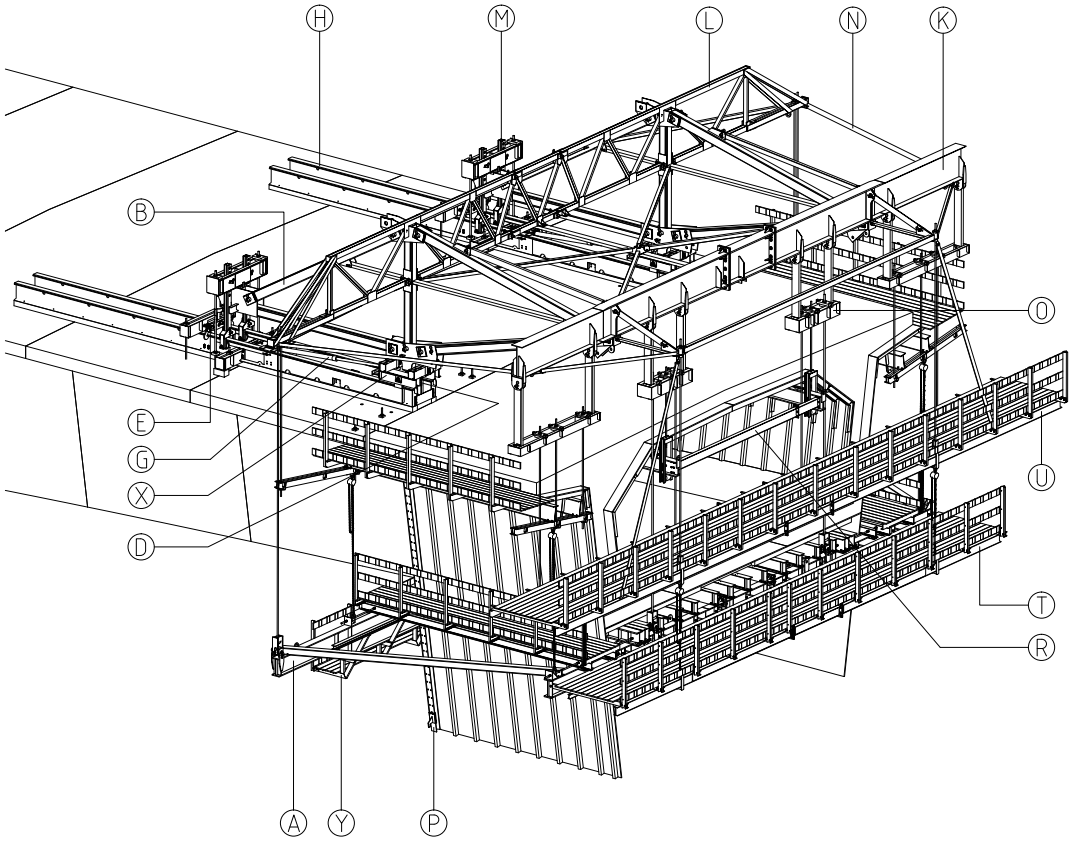
OVERHEAD FORM TRAVELLER

CAST IN SITU

strukturas

www.strukturas.com

The Form Traveller is a Temporary support structure supporting the weigh of the bridge and viaduct deck segments cas in situ built by the cantilever method from the pierhead to the center of the span, and generally consisting of the following components: main steel structure, internal and external formwork for shape in situ the concrete segment, working platforms and ladders, anchor system to the previous casted segments and hydraulic equipment used to launch, level and ajust.



Form Travellers

Excellent cost-effective solution!

The STRUKTURAS Form Travellers includes a main support structure equiped with a formwork being completed by several launching and adjusting hydraulic systems.

MAIN COMPONENTS:

A- Boxtom slab platform
B- Main frame
D- Main cylinder
E- Pull-down cylinder
G- Launching device
H- Main rail
Y- Rear working platform
K- Front beam
L- Rear truss
M- Rear bogie
N- Wind bracing
O- Transverse beams
P- External formwork
R- Internal formwork
T- Lower working platform
U- Upper working
X- Front Bogie

Only one concept

Many different applications

The STRUKTURAS Form Travellers are usually made to max. 5m lenght segments, but may in special cases be made to measure.

The segment weights typically range in between 80ton and 550ton

MAIN ADVANTAGES

-Easily adjustable to the segment lenght variations, cross section height, web thickness, deck width, can fit almost any deck cross section.

-Reduced weight, saving prestressing in the deck construction phase.

-Easy to transport

-Easy to assemble

-Reduced deformations

-Easy to ajust to the curves

Typical weights of the STRUKTURAS Form Travelles

Steel components	Wooden components
- 120 ton segment – 32 ton de steel	- 10 ton of wood
- 180 ton segment – 43 ton de steel	- 15 ton of wood
- 220 ton segment – 50 ton de steel	- 18 ton of wood
- 300 ton segment – 68 ton de steel	- 25 ton of wood
- 450 ton segment – 96 ton de steel	- 35 ton of wood
- 550 ton segment – 105 ton de steel	- 40 ton of wood

The weights above are per Form Traveller and must be multiplied by 2 for the pair.
The approximate weights listed above are based on deck standart cross sections, with up to 18m wide and 5m segment lenght.
The wooden beams can be partially replaced by aluminiym beams.
The wooden weights also include the film faced plywood.

ASSEMBLING OF THE FORM TRAVELLERS ON THE PIERHEAD

ASSEMBLING WITH CROSS-SUPPORT

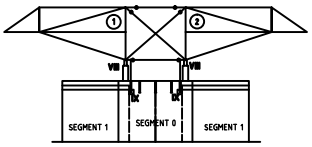
The cross-support is an auxiliary structure specially design to permit completion of the two Form Travellers assembling, on top of the pier head of reduced dimensions.

The use of the cross-support alows to build the pierhead segment as short as possible, leading to savings on the formwork, since it need not be installed with big brackets cantilevering from the columns external surface.

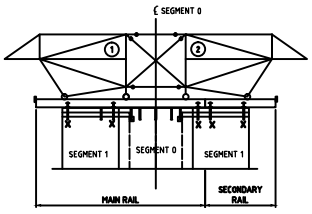
NON SYMMETRICAL ASSEMBLY

As an alternative to the use of the cross-support on the pierhead the STRUKTURAS Form Travellers can also be installed in a non symetricall assembly

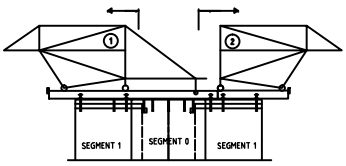
After first segment is casted at one site of the pierhead first Form Traveller is launched allowing free space required for the installation of the second Form Traveller.



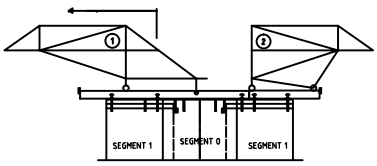
1 - SEGMENT 1 CONCRETING 1:50



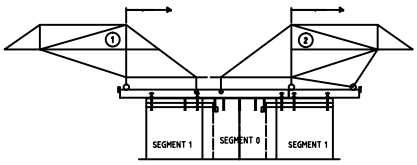
2 - CROSS-SUPPORT DISMANTLING 1:50



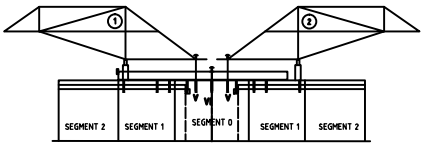
3 - CROSS-SUPPORT DISMANTLING 1:50



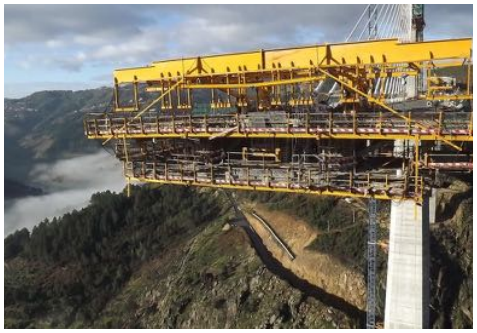
4 - CROSS-SUPPORT DISMANTLING 1:50



5 - FT LAUNCHING 1:50



6 - SEGMENT 2 CONCRETING 1:50



Corgo

Segment weight 264 ton
Segment length 6,00m
Deck width 28m

Form Travellers arriving to the closing segment

Form Traveller main structure

Pre cast concrete structs outsite of the deck

Form Traveller overview showing detail of the precast concrete struts outside of the deck

Constantine

Segment weight 170 ton
Segment lenght 3,50m
Deck width 30m

Form Traveller overview and transversal diaphragms existing at every two segments

Aerial view of the Form Traveller main structure

Transversal diaphragm details close to the pierhead.

Mondego

Segment weight 225 ton
Segment length 5,00m
Deck width 18,2m

Rebar and blockouts for anchoring

Form Traveller boxtom view

Main frame and rear bogie view

Salamanca

Segment weight 100 ton
Segment length 4,10m
Deck width 11,30m

Cross-support side view

General view of the cros support assembling

Main frame and rear bogie view

Form Traveller lateral view safety sets

Cycle General Description

In a very general terms a Form Traveller utilization cycle consists of the following operations:

-Form Traveller is launched together or not with the internal formwork, to its position at the new segment.

-External formwork is ajusted and fixed

-The rebar at boxtom slab and webs is installed

-The internal formwork is launched or in case that has already been launched together with the Form Traveller, it is just closed

-Segment is casted

-Main rail is launched and anchored

-Asa the concrete attained the required strength

-The formwork is open, and Form Travell is launched to the next segment

In most cases the execution cycle of a pair of segments is weekly.

There are even cases where 5 to 7 segment pairs are builted in one month!

The minimization of the construction cycles depends on the segment geometry, the rebar design, the concrete quality and techniques for assessing its strenght.

Our services include:
-tender stage quotation preparation
-design, fabrication, delivery and technical assistance to the new equipment
-rebuilt design regarding existing equipments delivered by us, for use in different conditions of the original

Ask for out reference list!

Mr. Aquilino Raimundo
Marketing and Sales Manager
Strukturas as
Clarksgt. 5, 3970 Langesund, Norway

Mobile *(+351) 932 255 374*
E-mail ar@strukturas.no
Web www.strukturas.com