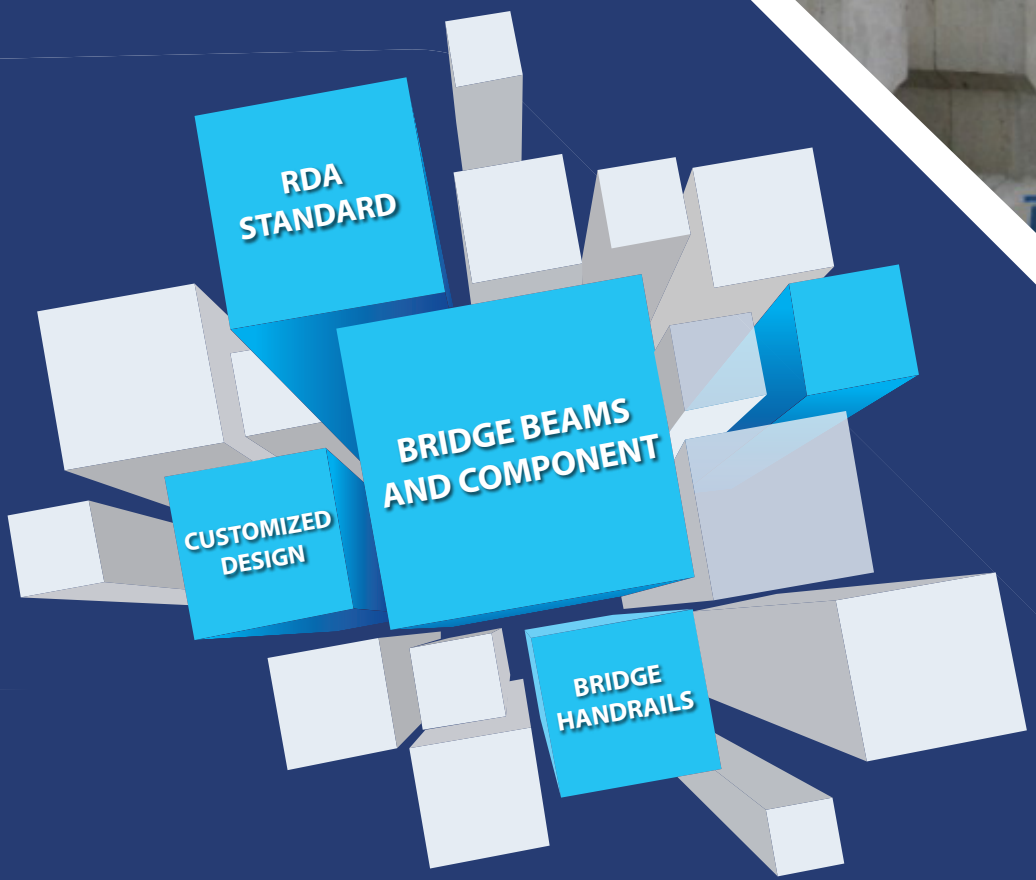
INTERNATIONAL CONSTRUCTION CONSORTIUM (PVT) LTD

PRE-CAST PRODUCTION

PRE-STRESSED, PRE-CAST CONCRETE BRIDGE BEAMS & BRIDGE COMPONENT

DATA SHEET



ICC PRECAST
FAST - QUALITY - INNOVATIVE

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01. INTRODUCTION

International Construction Consortium (Pvt)Ltd is the leading of manufacturer of pre-stressed concrete bridge beams with precast bridge components in Sri Lanka. They are manufactured in accordance with DA standard specifications.

These products are manufactured by maintaining high quality controlling and quality assurance systems under engineering supervisions.

This publication provides the information necessary to specify pre stressed concrete bridge beams and bridge components for all of these applications.

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02. GENERAL SPECIFICATIONS

STANDARD SPECIFICATION

RDA Standard
Project Standard

PRODUCTION SPECIFICATION

Dimensions: Refer the table
Concrete Strength(N/mm²): Grade 25/30/45/50

RAW MATERIAL SPECIFICATION

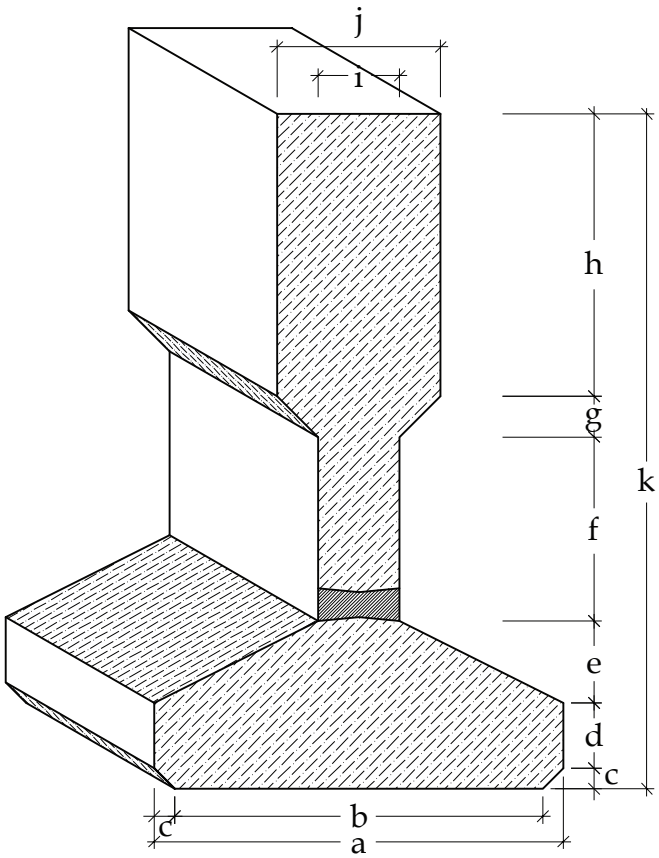
Cement: SLS 107 : 2015
Fine Aggregate: BS 882 - 1992
Coarse Aggregate: BS 882 - 1992
Reinforcement Steel : SLS 375 : 2009 (Mild steel)
Reinforcement Steel : BS 5896/2 (HTS-Strand)
Water : BS 3148 - 1980

03. PRODUCTION RANGE

LENGTH (MM)	RDA DRAWING NO.	
7010	T/B/030	Old Design
9500	T/B/507	New Design
11500	T/B/506	New Design
13500	T/B/505	New Design
14500	T/B/503 A	New Design
15500	T/B/502 A	New Design
16500	T/B/501 A	New Design
17500	T/B/515	New Design
19000	T/B/508 Rev 1	New Design

*Up Right unit
*Hand Rails
*Couplers
*Bridge kerb

04. BEAM SECTION DETAILS - INVERTED T BEAM



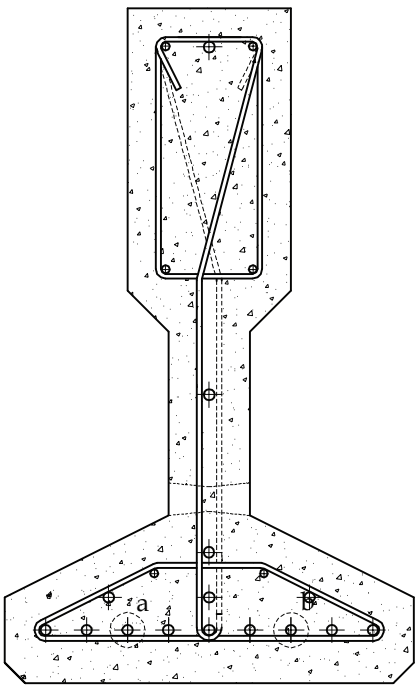


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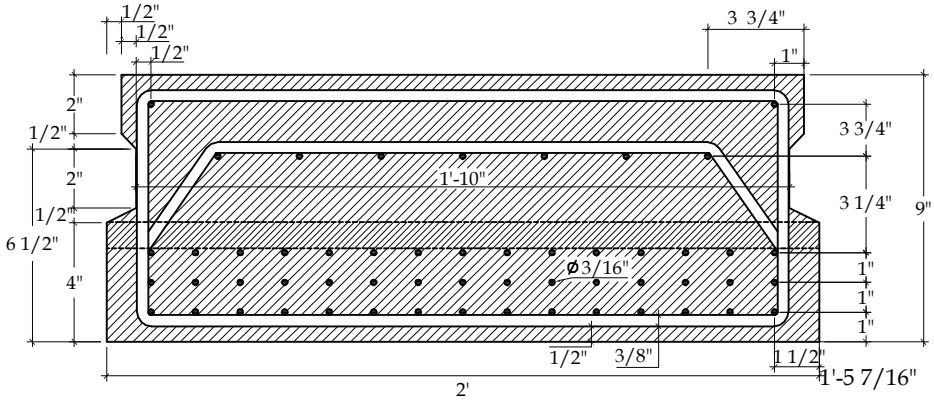
Table 01

Length (MM)	a (mm)	k (mm)	Weight (kg) Avg.	Stacking support distance for either end (mm) - (x)	Max. cantilever length for during the transport (y) (mm)
9500	450	380	2320	190	1000
11500	450	450	3210	190	1000
13500	450	525	4200	190	1000
14500	450	600	4710	190	2000
15500	450	650	5440	190	3000
16500	450	700	6160	190	3000
17500	450	700	6880	190	3000
19000	450	825	8120	230	2000

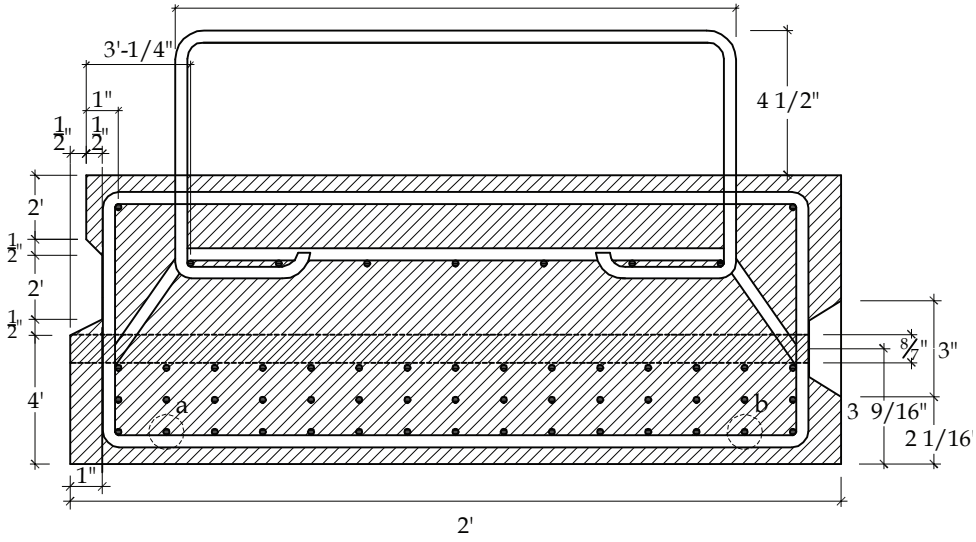
05. BEAM SECTION DETAILS FOR FLAT BEAM-7010MM

(OLD DESIGN)

Intermediat Beam



Edge Beam



Weight of beam : 2300kg/m.

Table 02

Length (MM)	Stacking support distance for either end (mm) - (x)	Max. cantilever length for during the transport (mm)
7010	190	190

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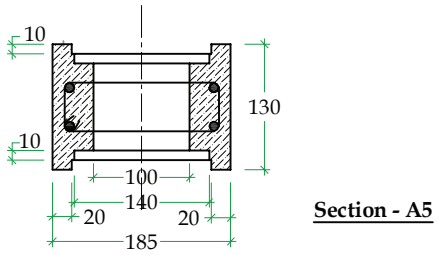
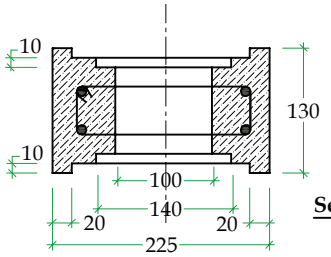
06. PRODUCT DETAILS-BRIDGE COMPONENTS

Up Right unit



Section - A5



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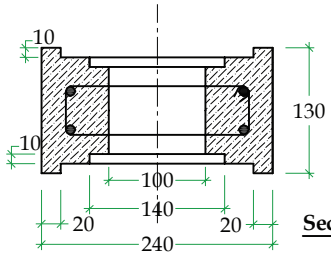

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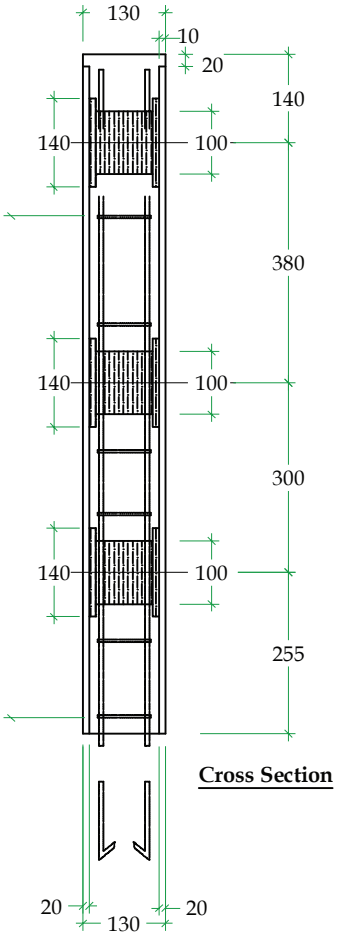
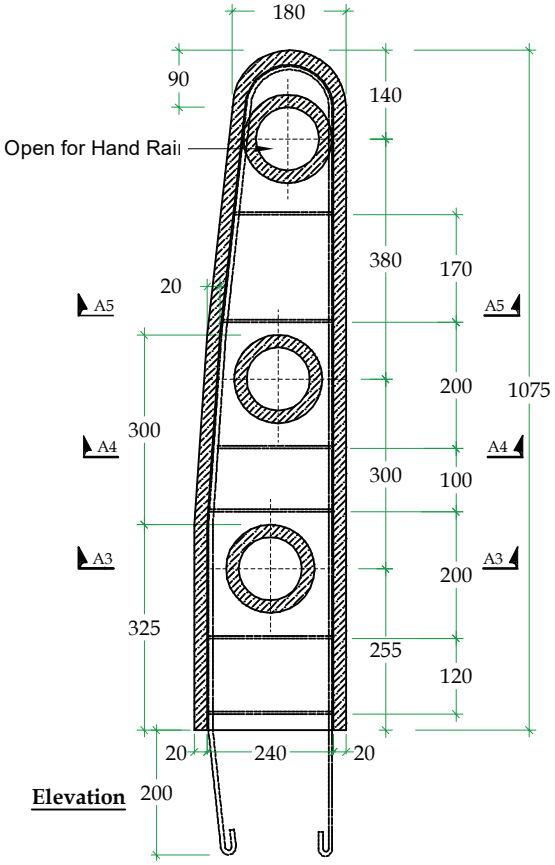
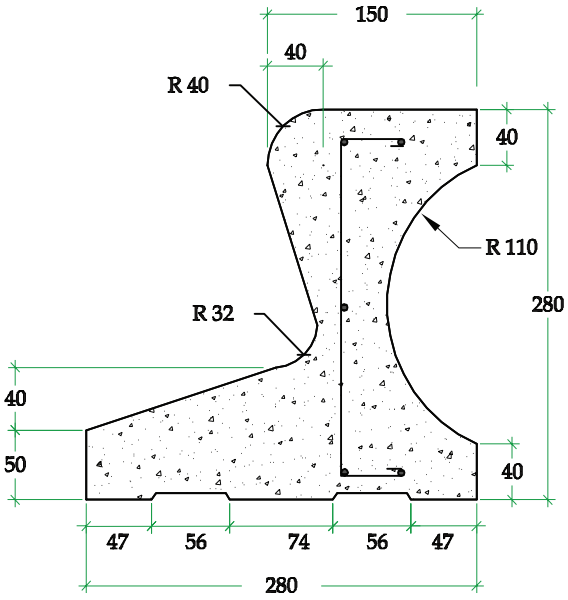


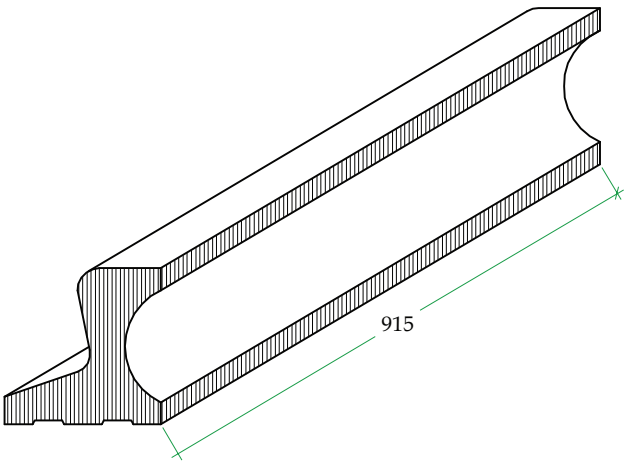
Cross Section



Elevation

Bridge Kerb





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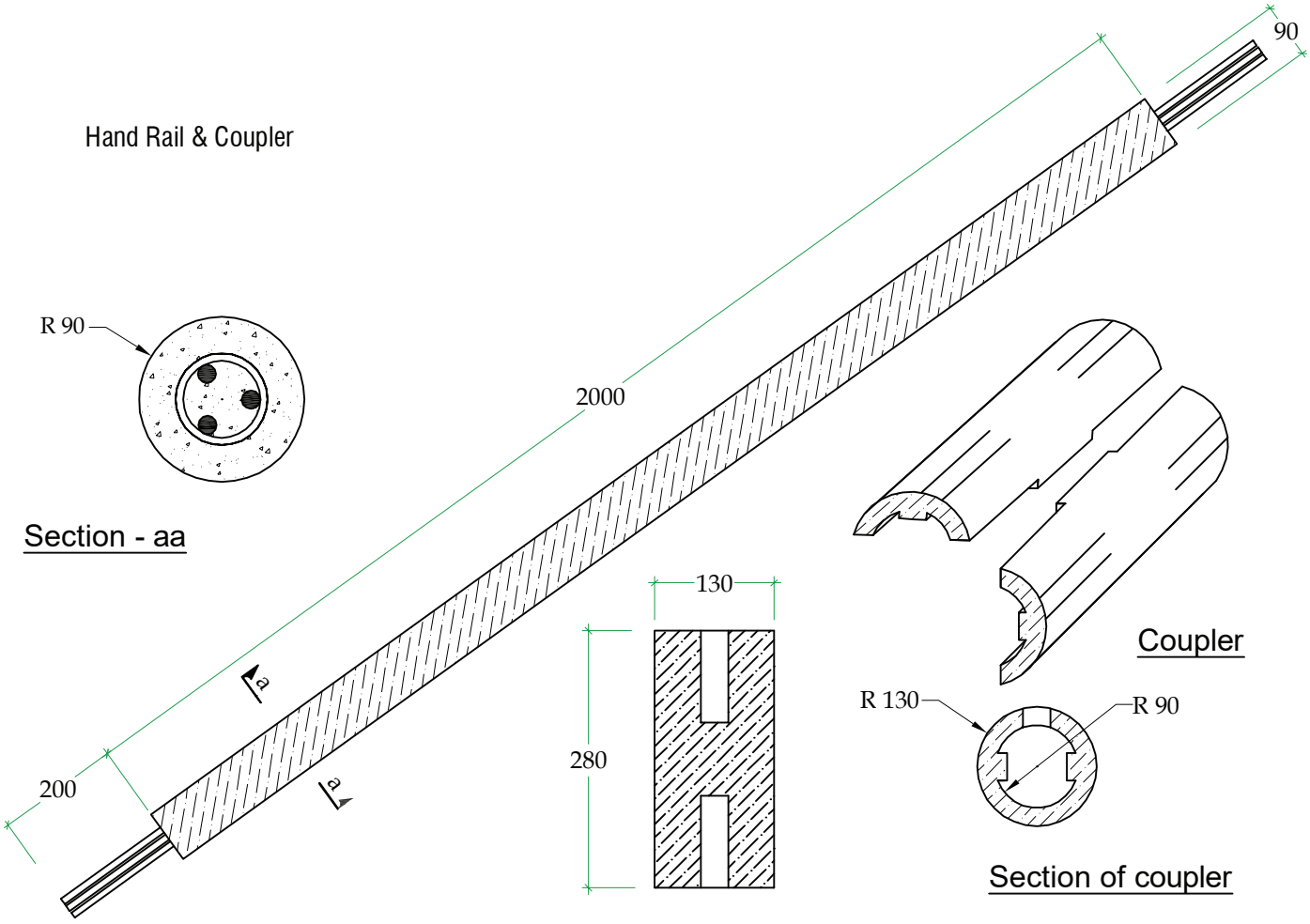
Hand Rail & Coupler

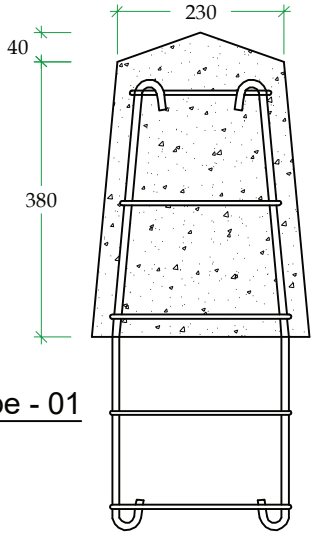


Section - aa

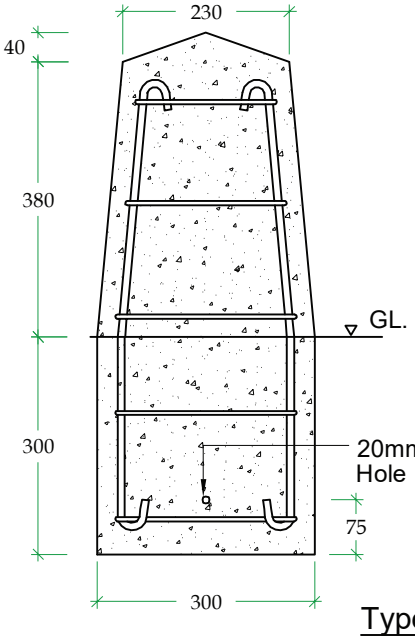
Coupler

Section of coupler

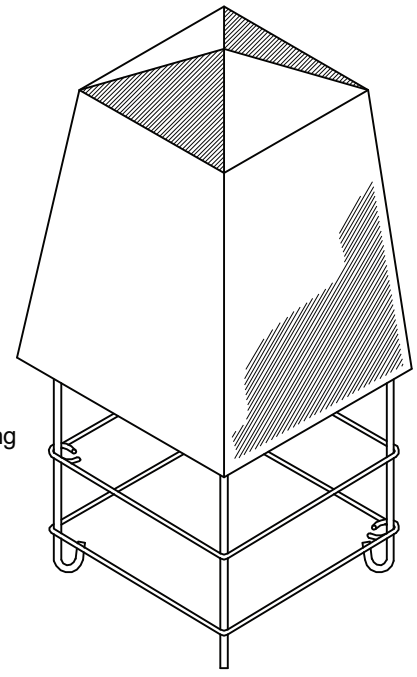
Guard stone

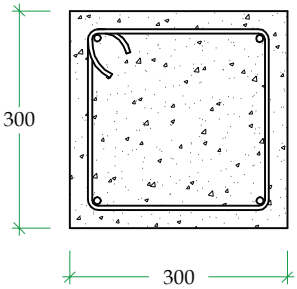


Type - 01



Type - 02





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07. HANDLING AND TRANSPORTATION

Precast bridge beams are transported after 28 days concrete cube strength is achieved.

While the transportation of beams, They should be well tied and recommended maximum height of beam stack is 1500mm. (fig. 01)

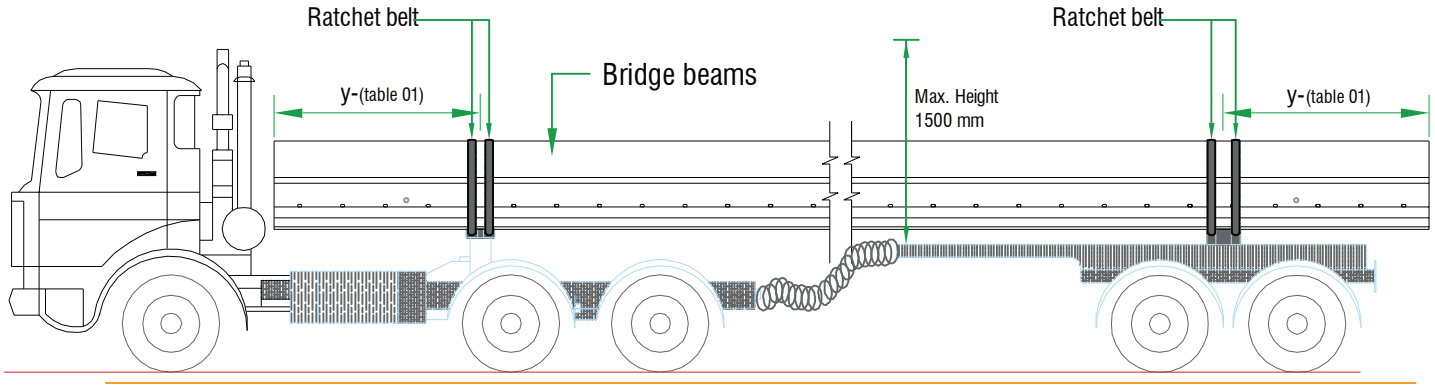

Fig.01 - Correct loading method for transportation.

Stacking should be always on even and firm ground surface.

"h" should be decided by the site conditions such as ground bearing capacity, availability of stacking areas.

"y" should be in accordance with relevant RDA beam drawing.

Put the support wedges vertically in line to avoid possible cracks.(table. 01)

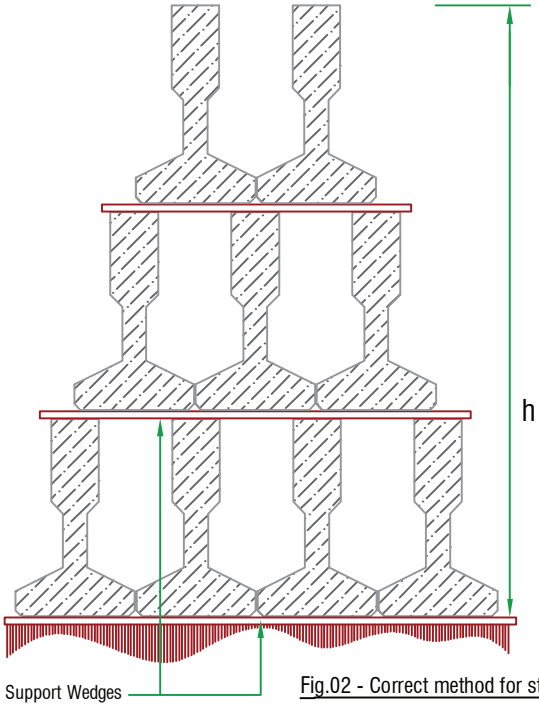

Fig.02 - Correct method for stacking.

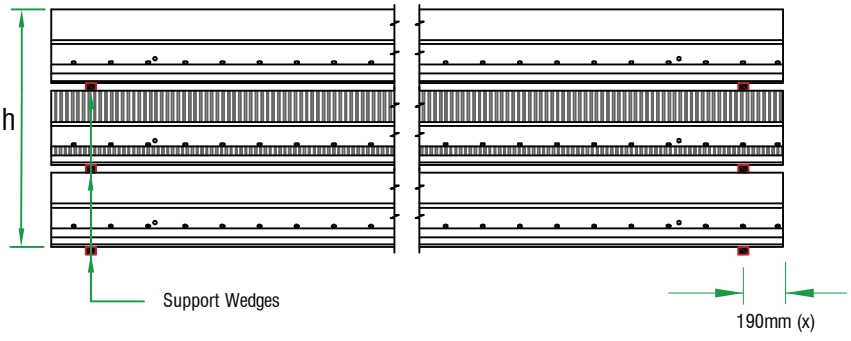

Fig.03 - Correct method for stacking.

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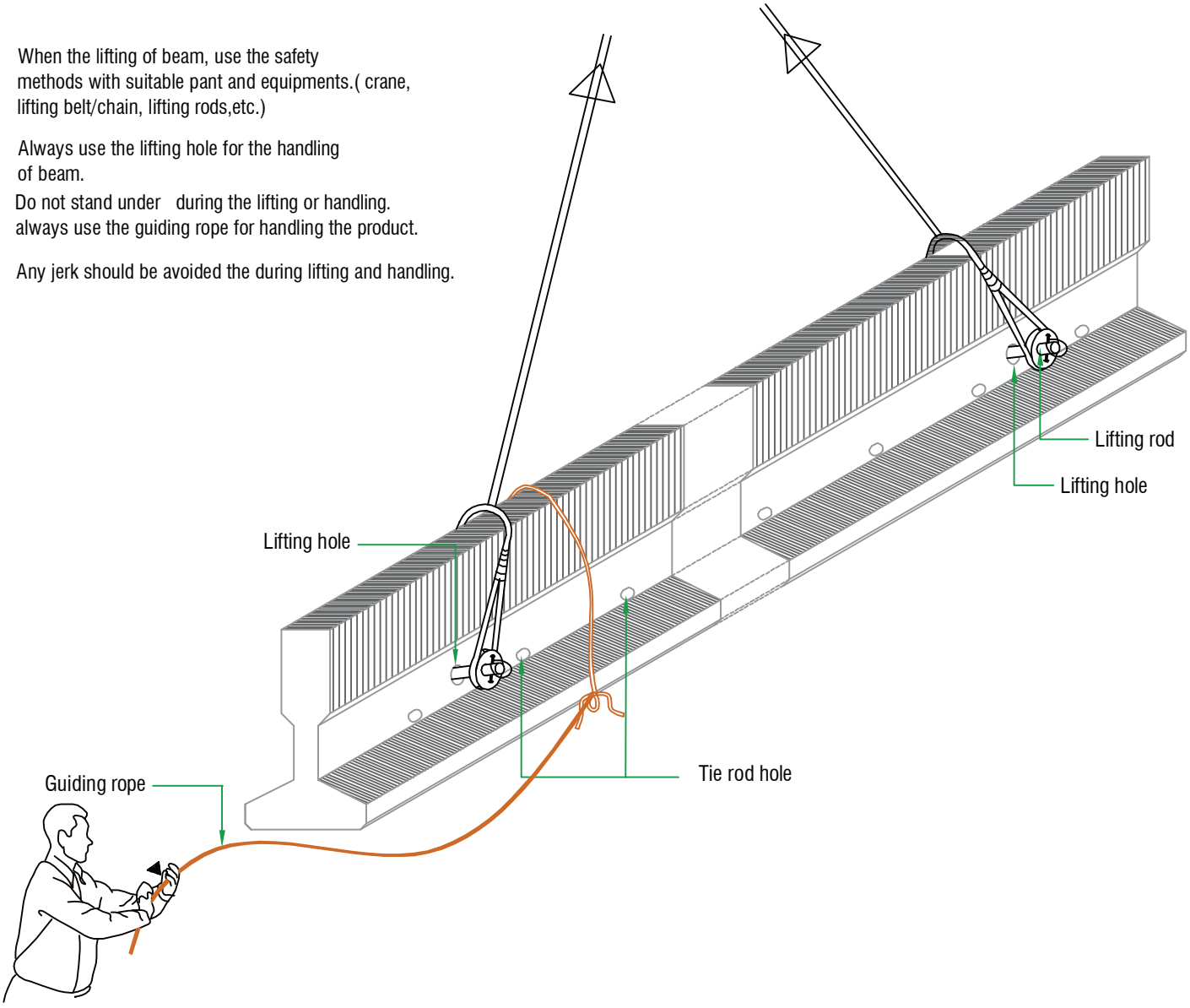
When the lifting of beam, use the safety methods with suitable pant and equipments.(crane, lifting belt/chain, lifting rods,etc.)

Always use the lifting hole for the handling of beam.

Do not stand under during the lifting or handling. always use the guiding rope for handling the product.

Any jerk should be avoided the during lifting and handling.



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Product Item	Ave. Weight per ≈ (kg)
Up Right unit	80.5
Hand Rails	31
Couplers (a pair)	4.7
Bridge kerb	86

All bridge component & road item are to be stacked on even and firm surface in careful manner.

08. HANDLING, STACKING AND TRANSPORTATION

While transportation of bridge components, they should be well tightened with ratchet belts and recommended maximum height of stack is 1200mm.See fig 04

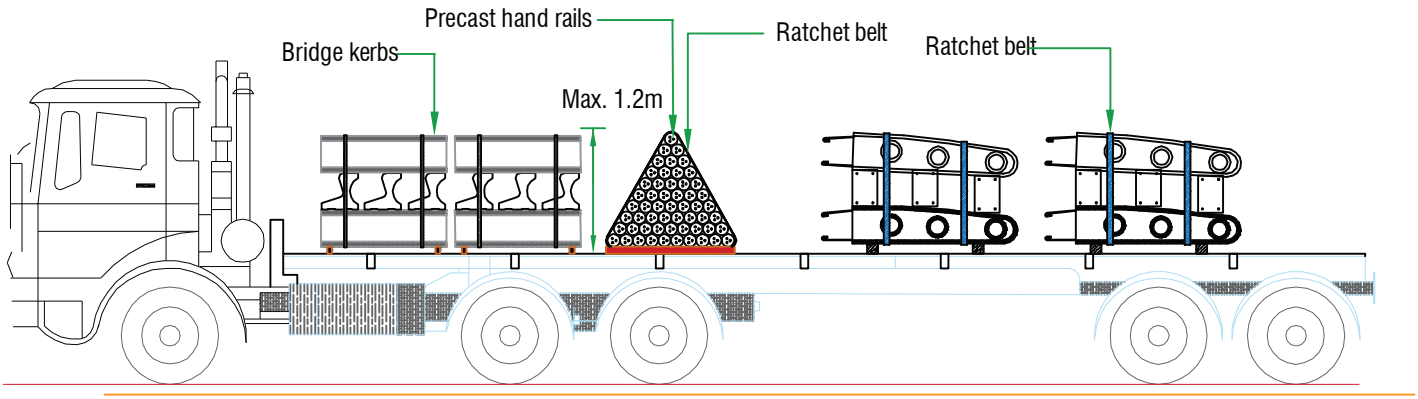

Fig.04 - Correct loading method for transportation.

09. TESTING & INSPECTION

Material test report and mill report
Concrete crushing strength. (test cube strength)
Imposed load test record.

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