

Denotes paired cantilevered steel ladder beams (or 450mm Alloy Beams) installed to support the Niko Lifting Rail System - See Detail B-B.

Denotes a Niko Lifting Rail System installed to lift/support 250kg. Niko Running Rail system selected by Scaffold Contractor.

Double Width/Birdcage Scaffold erected with structural transoms in accordance with the TG20 13 guidance. All structural transoms fixed using 90° couplers connected no greater than 150mm from the standard to ledger node point.

All standards founded on 150x150 steel base plates and timber sole boards on the existing shelf level.

Tie tubes require **plan bracing** back from the butt tube positions back to the standard positions. All **plan bracing** fixed using load bearing couplers. See Drawing 003 for Example Plan Layout.

Denotes scaffold tie locations. Scaffold tied using Band & Plate couplers anchored using self tapping M12 bolts. Bolts embedded to a minimum depth of 90.00mm. NOTE* the Band & Plate couplers must be orientated as shown thus restraining the scaffold away from, and parallel to the tower.

BRIDGED ASTERIX 750mm Deep ALLOY BEAM

- Plan braced **TOP** chord - fixed at 1.00m centres
- Laced **TOP** chord at 1.00m centres
- Laced **BOTTOM** chord at 2.00m centres
- Section braced at 2.00m centres

All connection made using load bearing couplers.

Beam Capacities (Permissible Stress)

Min. Bending Moment Capacity = 41.30kN.m
Min. Shear Force Capacity = 37.50kN

CANTILEVERED ASTERIX 750mm Deep ALLOY BEAM

- Plan braced **Bottom** chord - fixed at 1.00m centres
- Laced **TOP** chord at 2.00m centres
- Laced **BOTTOM** chord at 1.00m centres
- Section braced at 2.00m centres

All connection made using load bearing couplers.

Beam Capacities (Permissible Stress)

Min. Bending Moment Capacity = 41.30kN.m
Min. Shear Force Capacity = 37.50kN

Scaffold fixed to the underside of the existing steel beams thus restraining the scaffold from overturning. Rear standards connected to butt tubes fixed to the bottom flange of the steel using paired girder couplers. Standards fixed to butt tubes using CLASS B 90° couplers with 1no. check fitting below.

Denotes 5no. 750mm Asterix Alloy beams founded on 4no. Adjacently cantilevered 750mm Asterix Alloy beams. All beams connected using puncheons connected with load bearing couplers.

4no. cantilevered 750mm Alloy beams fixed to paired support puncheons using CLASS B 90° couplers at the top and bottom chords with a CLASS B check fitting to the underside of the bottom chord. Cantilevered 750mm Alloy beams laced and braced as per the noted specification.

All standards founded on 150x150 steel base plates and timber sole boards on slab level. Main contractor to ensure the existing ground can support the noted leg loads and that all underground services have been suitably checked.

SECTION A-A
SCALE 1:60

6.00kN LEG LOAD TO DECK LEVEL

APPROVED FOR CONSTRUCTION				
POSITION	NAME	TITLE	SIGNATURE	DATE
DESIGNER	ROBERT PEARCE (BSc Hons)	CRE		07/12/20
CHECKER	MARK ELEY (BSc Hons)	-		07/12/20
APPROVER		CEM		

Scaffold fixed to the underside of the existing steel beams thus restraining the scaffold from overturning. Rear standards connected to butt tubes fixed to the bottom flange of the steel using paired girder couplers. Standards fixed to butt tubes using CLASS B 90° couplers with 1no. check fitting below.

4no. cantilevered 750mm Alloy beams fixed to paired **support puncheons** using CLASS B 90° couplers at the top and bottom chords with a CLASS B check fitting to the underside of the bottom chord. Puncheon fixed to **Lacing transoms** at the top and bottom chords of 5no. Steel Ladder beams - See Section A-A & Detail A.

Denotes 5no. 750mm Asterix Alloy beams founded on 4no. Adjacently cantilevered 750mm Asterix Alloy beams. All beams connected using puncheons connected with load bearing couplers.

4no. Steel ladder beams cut to fit the opening between the existing outer steel beams. Ladder beams founded on the bottom flange of both beams at 200mm centres.

Support puncheons fixed to **Lacing transoms** at the top and bottom chords using CLASS B 90° couplers with 1no. CLASS B check fitting positioned above the primary connection. Puncheons fixed tight to the beam positions (max 100mm from beams).

Support puncheons fixed to **Lacing transoms** at the top and bottom chords using CLASS B 90° couplers with 1no. CLASS B check fitting positioned above the primary connection.

Support puncheons to be continuous tubes only and **MUST NOT** have sleeved joints.

DETAIL A
NTS

61.50kN REACTION LOAD

GENERAL NOTES

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COM Regulations 2015

TAD LTD have understood and confirmed with the responsibilities imposed by the Construction (Design & Management) Regulations 2015. The Contractor should be aware of their duties imposed by the CDM Regulations 2015.

Design Guidance

This drawing has been prepared in accordance with the following Standards and Technical Guidance:

- NASC TG20 13
- BS EN 12811-1
- BS EN 12811-2
- BS EN 12811-3
- BS EN 12811-4
- BS EN 12811-5
- BS EN 12811-6
- BS EN 12811-7
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- BS EN 12811-98
- BS EN 12811-99
- BS EN 12811-100

Platform Loading

Scaffold platform loads are in accordance with BS2462:2009.

Wind Loading

Wind loads have been generated in accordance with BS EN 1991-1-4:2005.

Load Class

Load Class: 2.00kN/m²

Wind Speed

Wind Speed: 0.75kN/m²

No. of Boarded Lifts

No. of Boarded Lifts: 11

Main contractor to ensure the live load allowance is adequate prior to erection.

No alteration to the live load allowance should be made without the written consent of TAD Ltd.

Wind Loading

Wind loads have been generated in accordance with BS EN 1991-1-4:2005.

Peak Velocity Pressure (q_p)

Peak Velocity Pressure (q_p): 0.80kN/m²

Main Contractor to ensure wind loads are adequate.

Log Loads

Log Loads: 6.00kN

Standards founded on steel base plates (150 x 150mm) and 38mm thick soleboards unless stated otherwise.

Main Contractor to ensure the foundations are capable of supporting the leg loads stated.

Where the scaffold is supported or suspended from an additional structure the main contractor must ensure that the structure is capable of supporting the imposed loads.

The Main Contractor is responsible for ensuring the existing structure is capable of supporting the imposed loads.

The Contractor should consult with anchor specialist prior to selection.

Tie selection should be made by the contractor using guidance from TG4:19.

Ties should be tested in accordance with TG4:19.

Main Contractor to ensure that no ties are removed without the written approval of TAD Ltd.

Scaffold Boards

Scaffold boards to comply with BS2462:2009.

Wind Loading

Wind loads to comply with BS2462:2009.

All scaffold boards are to be restrained. See TG12:17 for restraint guidance.

Tie/Fitting

Tie/Fitting materials and fittings are to comply with TG20:13 and BS EN 12811-1.

Scaffold tube has been taken as BS EN 10219 type 4 'new' condition.

All scaffold fittings taken as load bearing CLASS A fittings unless otherwise stated on the drawing.

All proprietary equipment has been designed in accordance with the manufacturers specifications.

PLAN LAYOUT
SCALE 1:75

Steel ladder beams fixed to support standards using CLASS B 90° couplers at top and bottom chords with a check transom fixed tight to the underside of the bottom chord connection.

Cantilevered steel ladder beams laced and braced as per the noted specification.

Denotes a Niko running Rail system fixed to bottom chord structural transoms and max 1.0m centres.

All ledgers and non-board bearing transoms and bracing fixed using load bearing couplers throughout.

LIFTING BEAM
DETAIL B-B
NTS

Rev

15/12/20

Date

Revision Description

R.P

Prepared by

M.E

Checked by

Job Title

Client

Drawing Title

Drawing Number

Rev

A

Prepared by

R.P

Checked by

M.E

Scale @ A1

1:75

Date

07/12/2020

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