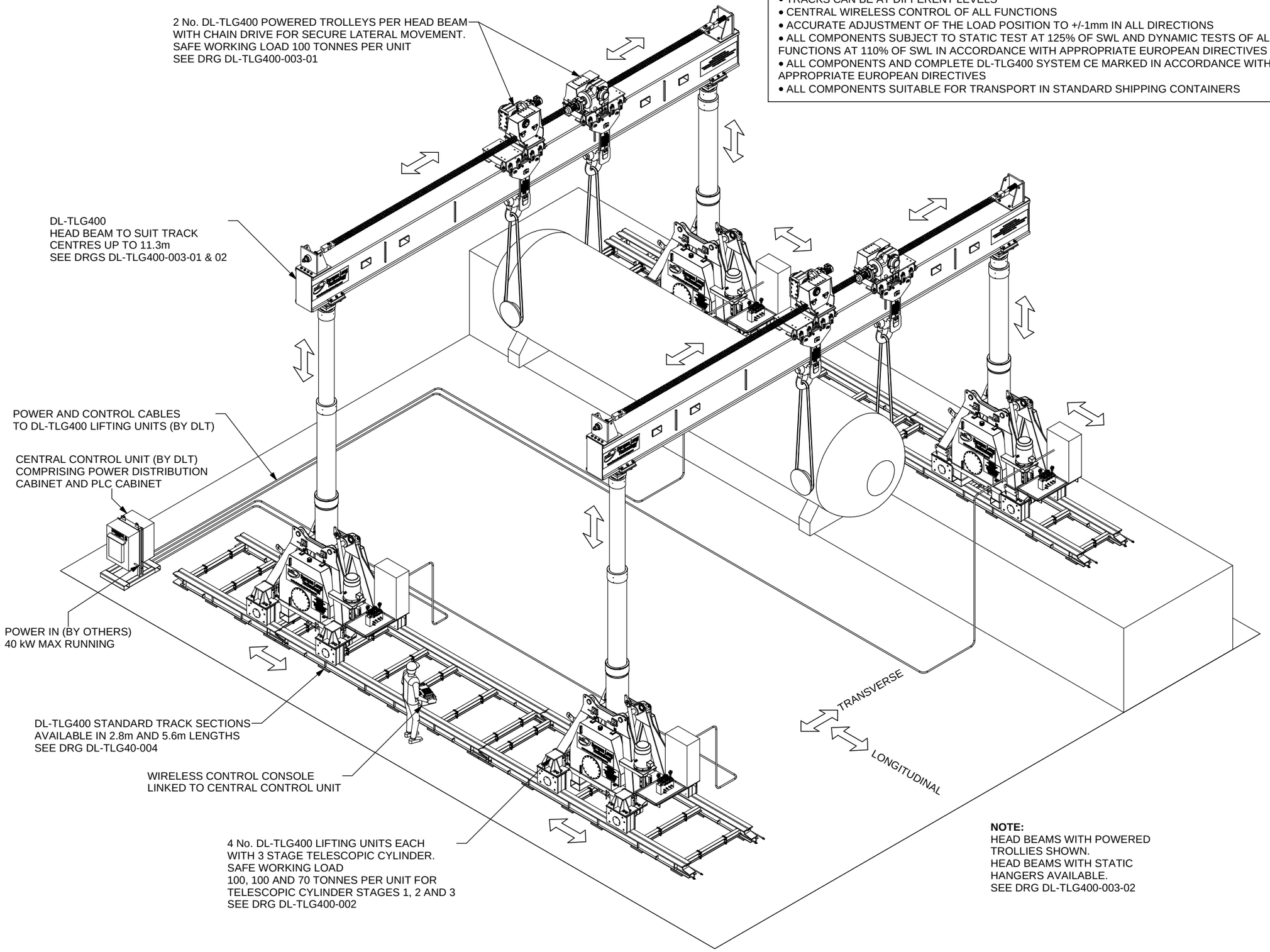
DO NOT SCALE

MAIN FEATURES

- 400 TONNES LIFTING CAPACITY ON FOUR LIFTING UNITS
- 100 TONNES LIFTING CAPACITY PER LIFTING UNIT
- HIGH HORIZONTAL LOAD CAPACITY
- ADJUSTABLE TRACK WIDTH FOR INCREASED STABILITY
- TRACKS CAN BE AT DIFFERENT LEVELS
- CENTRAL WIRELESS CONTROL OF ALL FUNCTIONS
- ACCURATE ADJUSTMENT OF THE LOAD POSITION TO +/-1mm IN ALL DIRECTIONS
- ALL COMPONENTS SUBJECT TO STATIC TEST AT 125% OF SWL AND DYNAMIC TESTS OF ALL FUNCTIONS AT 110% OF SWL IN ACCORDANCE WITH APPROPRIATE EUROPEAN DIRECTIVES
- ALL COMPONENTS AND COMPLETE DL-TLG400 SYSTEM CE MARKED IN ACCORDANCE WITH APPROPRIATE EUROPEAN DIRECTIVES
- ALL COMPONENTS SUITABLE FOR TRANSPORT IN STANDARD SHIPPING CONTAINERS



NOTE:
HEAD BEAMS WITH POWERED TROLLIES SHOWN.
HEAD BEAMS WITH STATIC HANGERS AVAILABLE.
SEE DRG DL-TLG400-003-02

NOTES

SPECIFICATION FOR DL-TLG400, 4-POINT LIFT SYSTEM

- MAXIMUM SAFE WORKING LOAD (SWL) AT TOP OF TELESCOPIC CYLINDERS
STAGE 1 = 400 TONNES @ 83 BAR WORKING PRESSURE
STAGE 2 = 400 TONNES @ 120 BAR WORKING PRESSURE
STAGE 3 = 280 TONNES @ 120 BAR WORKING PRESSURE
SEE DRAWINGS DL-TLG400-005-01 AND 02 FOR LIFTING ARRANGEMENTS AND DUTY CHARTS

- STATIC TEST LOAD = 1.25 x SWL + MAXIMUM HORIZONTAL LOAD (TESTS CARRIED OUT AT FULL EXTENSION FOR EACH TELESCOPIC CYLINDER STAGE)
- DYNAMIC TEST LOAD = 1.10 x SWL (TESTS CARRIED OUT FOR EACH TELESCOPIC CYLINDER STAGE AND FOR ALL FUNCTIONS)

- MAXIMUM HORIZONTAL LOAD = 5% OF VERTICAL LOAD IN ANY DIRECTION (SEE OPERATION AND MAINTENANCE MANUAL FOR DETAILS)

- MAXIMUM SLOPE OF TRACK = 1% IN ANY DIRECTION (BOTH TRACKS AT SAME SLOPE WITHIN TOLERANCES SPECIFIED IN OPERATION AND MAINTENANCE MANUAL)

- MAXIMUM TRANSVERSE SLOPE OF HEAD BEAM = +/- 1%

- MAXIMUM WHEEL LOAD = 53 TONNES

- LIFTING AND LOWERING SPEED OF TELESCOPIC CYLINDER = 0.5 m/minute (FAST) AND 0.1 m/minute (SLOW) - CONSTANT FOR ALL TELESCOPIC CYLINDER STAGES

- LONGITUDINAL MOVEMENT SPEED OF DL-TLG400 LIFTING UNITS = 3.0 m/minute (FAST) AND 1.0 m/minute (SLOW)

- TRANSVERSE MOVEMENT SPEED OF DL-TLG400 POWERED TROLLEYS = 0.5 m/minute

- POWER SUPPLY = 380-420 VOLTS AT 50 Hz OR 440-480 VOLTS AT 60 Hz, 3 PHASE + EARTH
- MAXIMUM POWER CONSUMPTION = 10 kW RUNNING PER DL-TLG400 LIFTING UNIT

- CONTROL FOR ALL FUNCTIONS = CENTRAL WIRELESS CONTROL CONSOLE OR CONTROL PANEL AT THE CENTRAL CONTROL UNIT OR LOCAL CONTROL PANEL AT EACH DL-TLG400 LIFTING UNIT

- OPERATING TEMPERATURE = -20 TO +45 °C
SUBJECT TO HYDRAULIC OIL GRADE USED

- ALL COMPONENTS OF DL-TLG400 SYSTEM SUITABLE FOR TRANSPORT IN STANDARD SHIPPING CONTAINERS

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Project
DL-TLG400
TELESCOPIC LIFTING GANTRY

Drawing Title
4 POINT TELESCOPIC LIFTING GANTRY
GENERAL ARRANGEMENT AND SPECIFICATION

Design Eng:	JM	Checking Eng:	PD
Drawn by:	SG	Project Eng:	SAB

Scales (At A3): AS SHOWN
Original Drawing size: A3
Drawing Status: INFORMATION

Drawing No.: DL-TLG400-001
Rev.: N1

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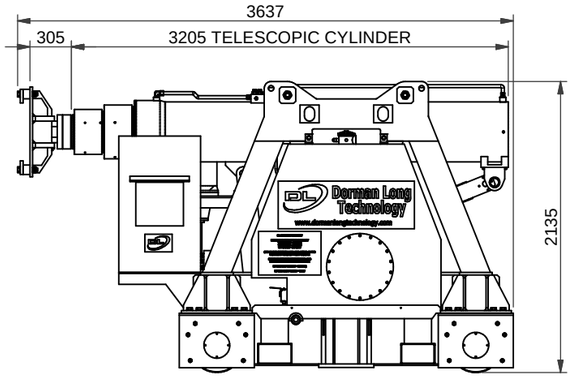
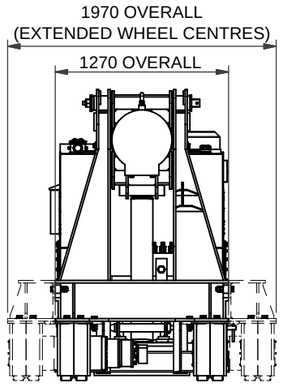
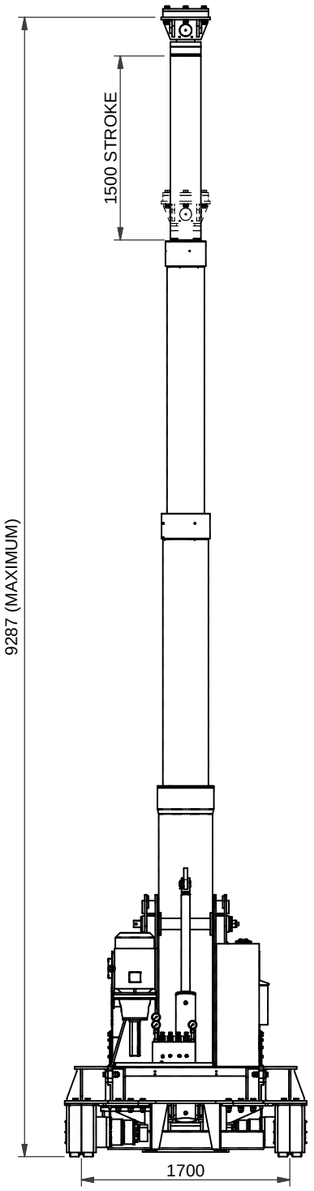
DO NOT SCALE

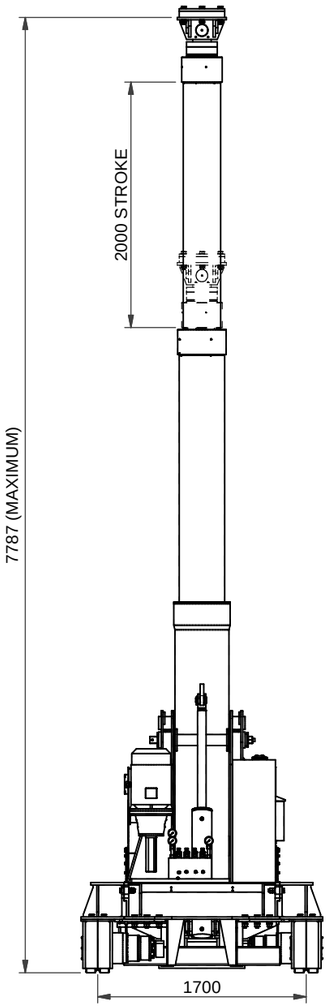




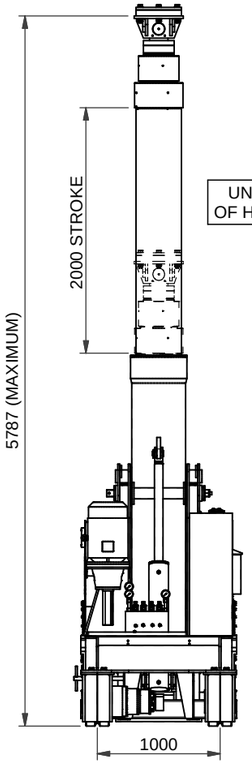
DIMENSIONS FOR TRANSPORT



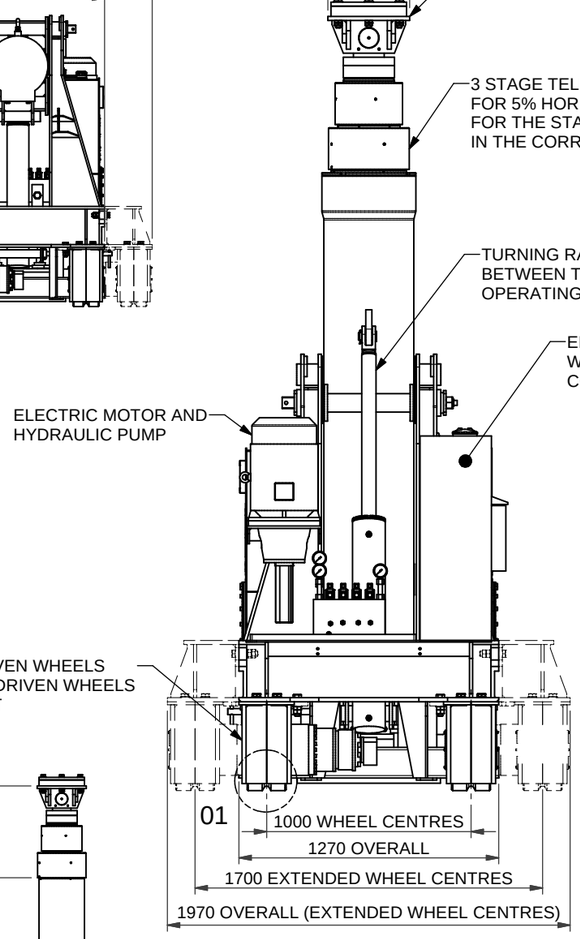
STAGE 3
CAPACITY: 70 Tonnes (EACH UNIT)
MAX % TIPPING = 61%

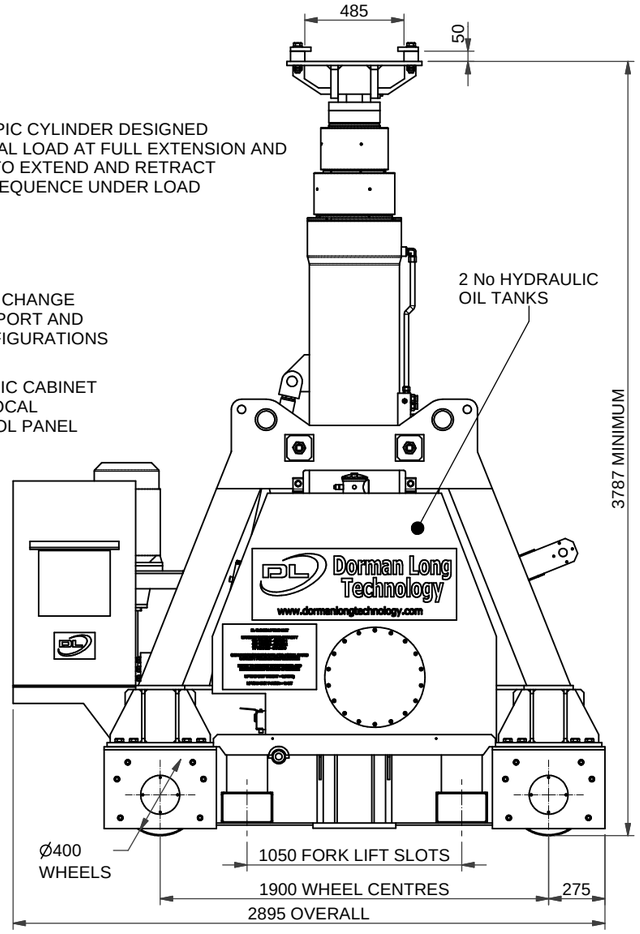


STAGE 2
CAPACITY: 100 Tonnes (EACH UNIT)
MAX % TIPPING = 50%

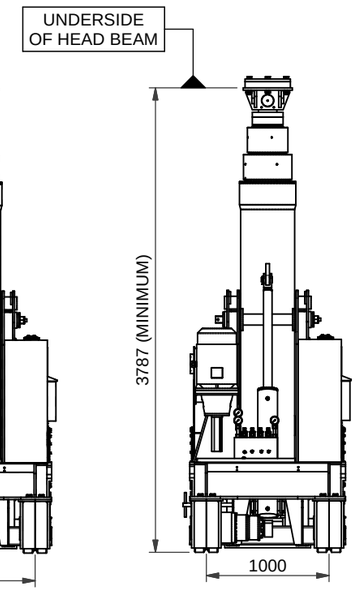


STAGE 1
CAPACITY: 100 Tonnes (EACH UNIT)
MAX % TIPPING = 61%

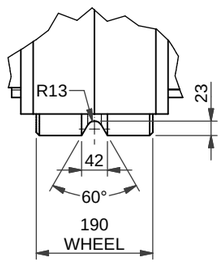




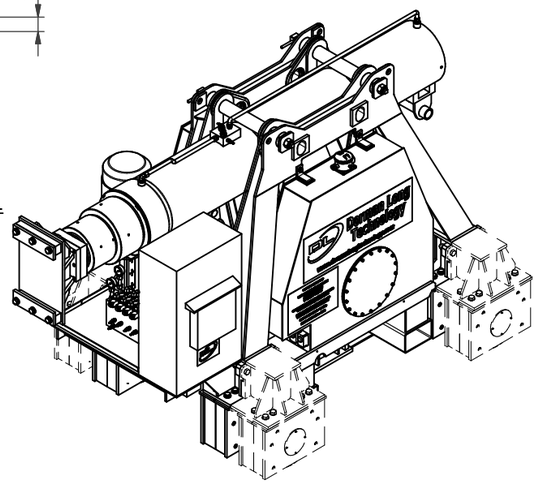
DIMENSIONS FOR OPERATION



STAGE 0



DETAIL 01
WHEEL DETAIL



UNIT FOLDED FOR TRANSPORT

NOTES

SPECIFICATION FOR DL-TLG400 TELESCOPIC LIFTING UNIT

- MAXIMUM SAFE WORKING LOAD (SWL) AT TOP OF TELESCOPIC CYLINDER
STAGE 1 = 100 TONNES @ 83 BAR WORKING PRESSURE
STAGE 2 = 100 TONNES @ 120 BAR WORKING PRESSURE
STAGE 3 = 70 TONNES @ 120 BAR WORKING PRESSURE
SEE DRAWINGS DL-TLG400-005-01 AND 02 FOR DETAILS OF LIFTING ARRANGEMENTS AND DUTY CHARTS
- TELESCOPIC CYLINDER WORKING PRESSURE ON RETRACT = 70 BAR
- STATIC TEST LOAD = 1.25 x SWL + MAXIMUM LATERAL LOAD (TESTS CARRIED OUT AT FULL EXTENSION FOR EACH TELESCOPIC CYLINDER STAGE)
- DYNAMIC TEST LOAD = 1.10 x SWL (TESTS CARRIED OUT FOR EACH TELESCOPIC CYLINDER STAGE AND FOR ALL FUNCTIONS)
- MAXIMUM HORIZONTAL LOAD = 5% OF VERTICAL LOAD IN ANY DIRECTION (SEE OPERATION AND MAINTENANCE MANUAL FOR DETAILS).
- MAXIMUM SLOPE OF TRACK = 1% IN ANY DIRECTION (BOTH TRACKS AT SAME SLOPE WITHIN TOLERANCES SPECIFIED IN OPERATION AND MAINTENANCE MANUAL)
- THE MAXIMUM % TIPPING FIGURES GIVEN FOR STAGES 1, 2 AND 3 ASSUME 5% LATERAL LOAD AT THE ROCKER JOINT PLUS 1% TRANSVERSE SLOPE OF THE TRACK
- MAXIMUM WHEEL LOAD = 53 TONNES
- LIFTING AND LOWERING SPEED OF TELESCOPIC CYLINDER = 0.5 m/minute (FAST) AND 0.1 m/minute (SLOW) - CONSTANT FOR ALL TELESCOPIC CYLINDER STAGES
- LONGITUDINAL MOVEMENT SPEED OF DL-TLG400 LIFTING UNITS = 3.0 m/minute (FAST) AND 1.0 m/minute (SLOW)
- POWER SUPPLY = 380-420 VOLTS AT 50 Hz OR 440-480 VOLTS AT 60 Hz, 3 PHASE + EARTH
- MAXIMUM POWER CONSUMPTION = 10 kW RUNNING PER DL-TLG400 LIFTING UNIT
- CONTROL FOR ALL FUNCTIONS = CENTRAL WIRELESS CONTROL CONSOLE OR CONTROL PANEL AT THE CENTRAL CONTROL UNIT OR LOCAL CONTROL PANEL AT EACH DL-TLG400 LIFTING UNIT
- OPERATING TEMPERATURE = -20 TO +45 °C
SUBJECT TO HYDRAULIC OIL GRADE USED
- TELESCOPIC CYLINDER FOLDS AS SHOWN SO THAT COMPLETE DL-TLG400 LIFTING UNIT (WITH BOGIE EXTENSION PIECES) IS SUITABLE FOR TRANSPORT IN A STANDARD SHIPPING CONTAINER
- WEIGHTS

BASE UNIT - STEEL FRAME AND PINS	= 2,645 kg
BASE UNIT - DRIVEN BOGIES (2 x 425 kg)	= 850 kg
BASE UNIT - UN-DRIVEN BOGIES (2 x 265 kg)	= 530 kg
BASE UNIT - OTHER EQUIPMENT	= 800 kg
TELESCOPIC CYLINDER	= 2,670 kg
ROCKER JOINT ASSEMBLY	= 205 kg
HYDRAULIC OIL	= 650 kg
TOTAL	= 8,350 kg

- HYDRAULIC OIL TANK SIZE = 2 x 350 litres = 700 litres

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Project
DL-TLG400
TELESCOPIC LIFTING GANTRY

Drawing Title
DL-TLG400 TELESCOPIC LIFTING UNIT
GENERAL ARRANGEMENT AND SPECIFICATION

Design Eng:	PD	Checking Eng:	JM
Drawn by:	AW	Project Eng:	SAB

Scales (At A3): AS SHOWN
Original Drawing size: A3
Drawing Status: INFORMATION

Drawing No.: DL-TLG400-002
Rev.: N1

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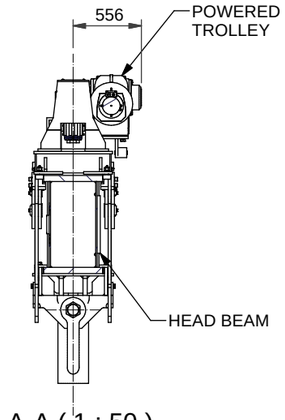

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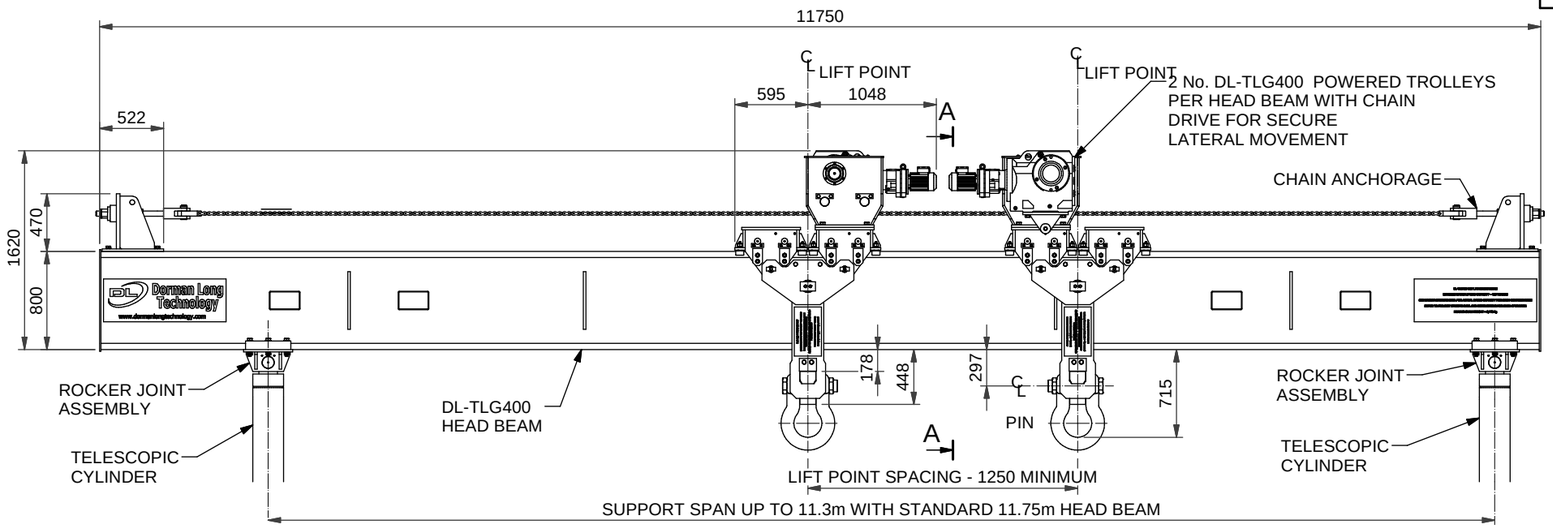
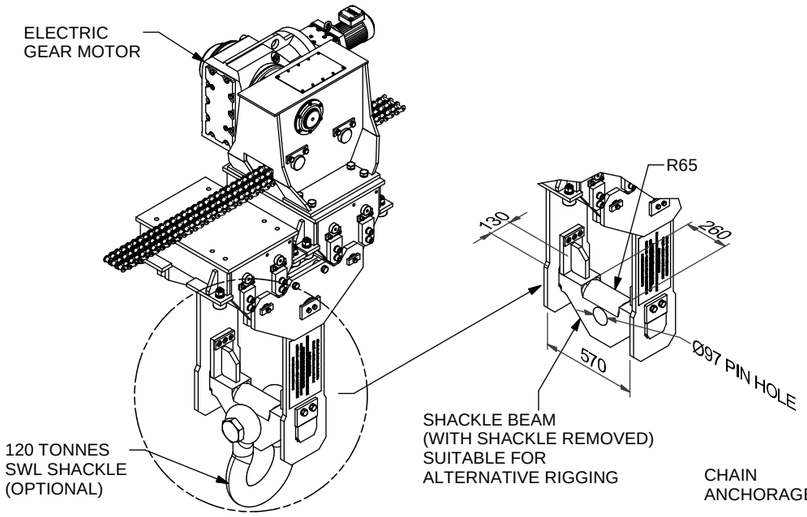


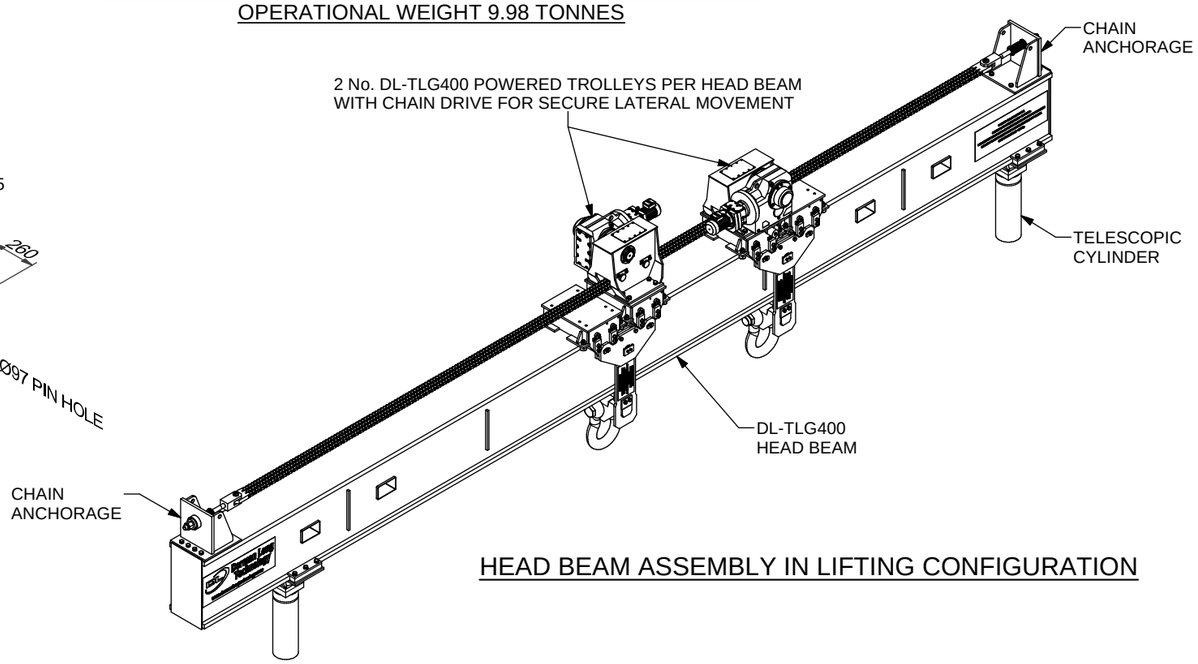
HEAD BEAM ASSEMBLY IN LIFTING CONFIGURATION

OPERATIONAL WEIGHT 9.98 TONNES

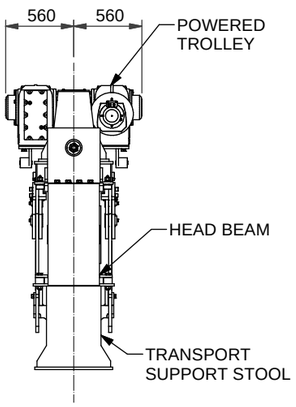


POWERED TROLLEY

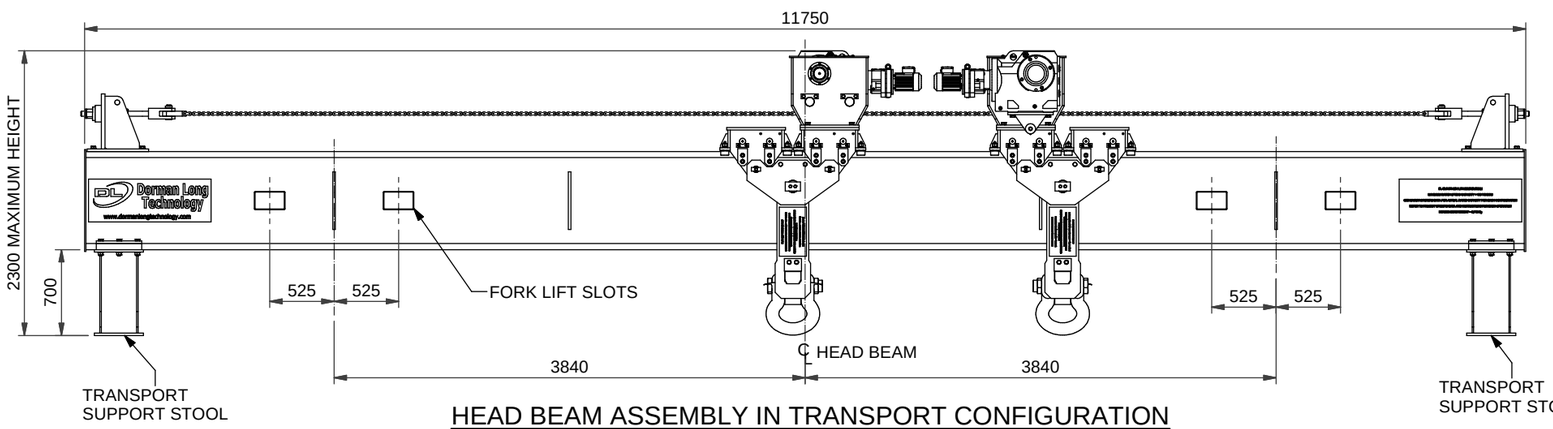
(HEAD BEAM OMITTED FOR CLARITY)



HEAD BEAM ASSEMBLY IN LIFTING CONFIGURATION



END ELEVATION (1 : 50)



HEAD BEAM ASSEMBLY IN TRANSPORT CONFIGURATION

TRANSPORT WEIGHT 10.40 TONNES

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DLT Engineering shall not be liable for the use of any information contained on this drawing for any purpose other than that for which it was specifically prepared and provided.

Should there be any doubt regarding the interpretation of any information given on this drawing, enquiries should be directed to DLT Engineering at the address given below before executing such part of the works.

NOTES

SPECIFICATION
DL-TLG400 HEAD BEAM AND
DL-TLG400 POWERED TROLLEYS

- MAXIMUM SAFE WORKING LOAD (SWL)
= 100 TONNES PER LIFT POINT
= 190 TONNES PER HEAD BEAM
SEE DRAWINGS DL-TLG400-005-01 AND 02 FOR LIFTING ARRANGEMENTS AND DUTY CHARTS

- MAXIMUM HORIZONTAL LOAD = 5% OF VERTICAL LOAD IN ANY DIRECTION

- MAXIMUM TRANSVERSE SLOPE OF HEAD BEAM = +/- 1%

- TRANSVERSE MOVEMENT SPEED OF DL-TLG400 POWERED TROLLEYS = 0.5 m/minute

- POWER SUPPLY = 380-420 VOLTS AT 50 Hz OR 440-480 VOLTS AT 60 Hz, 3 PHASE+EARTH
- MAXIMUM POWER CONSUMPTION = 0.5 kW RUNNING PER DL-TLG400 POWERED TROLLEY

- CONTROL FOR ALL FUNCTIONS = CENTRAL WIRELESS CONTROL CONSOLE OR CONTROL PANEL AT THE CENTRAL CONTROL UNIT OR LOCAL CONTROL PANEL AT EACH DL-TLG400 LIFTING UNIT

- OPERATING TEMPERATURE = -20 to +45°C

- DL-TLG400 HEAD BEAM SUPPORTED ON 2 No. SUPPORT STOOL ASSEMBLIES AND COMPLETE WITH ALL EQUIPMENT IS SUITABLE FOR TRANSPORT IN A STANDARD 40' SHIPPING CONTAINER

- WEIGHTS

DL-TLG400 HEAD BEAM	= 6,270 kg
POWERED TROLLEY	= 2x1,635 kg
CHAIN AND CHAIN ANCHORAGES	= 440 kg
TRANSPORT SUPPORT STOOLS	= 2 x 210 kg
TOTAL OPERATING WEIGHT	= 9,980 kg
TOTAL TRANSPORT WEIGHT	= 10,400 kg

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Project
DL-TLG400
TELESCOPIC LIFTING GANTRY

Drawing Title
DL-TLG400 HEAD BEAM AND
DL-TLG400 POWERED TROLLEYS
GENERAL ARRANGEMENT AND SPECIFICATION

Design Eng:	JM	Checking Eng:	PD
Drawn by:	SG	Project Eng:	SAB

Scales (At A3): AS SHOWN
Drawing Status: INFORMATION
Original Drawing size: A3

Drawing No.: DL-TLG400-003-01
Rev.: N1

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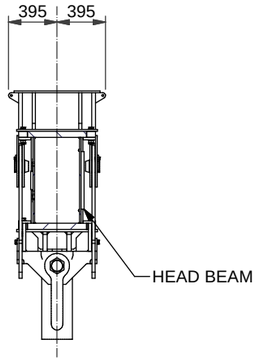

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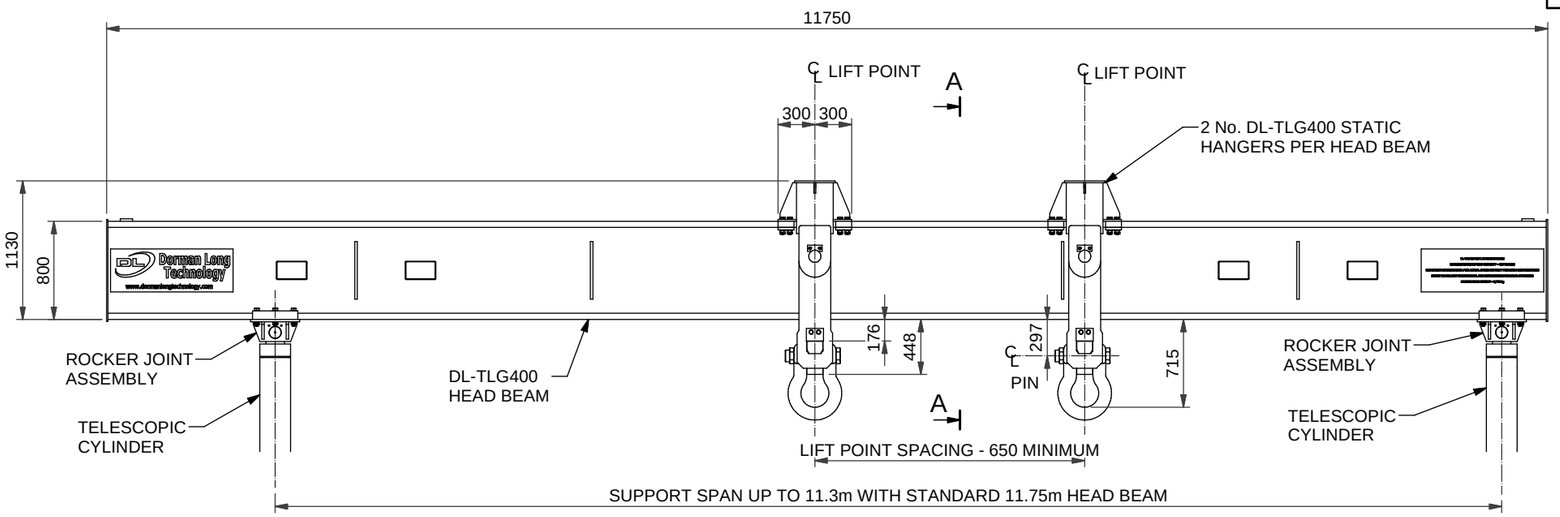
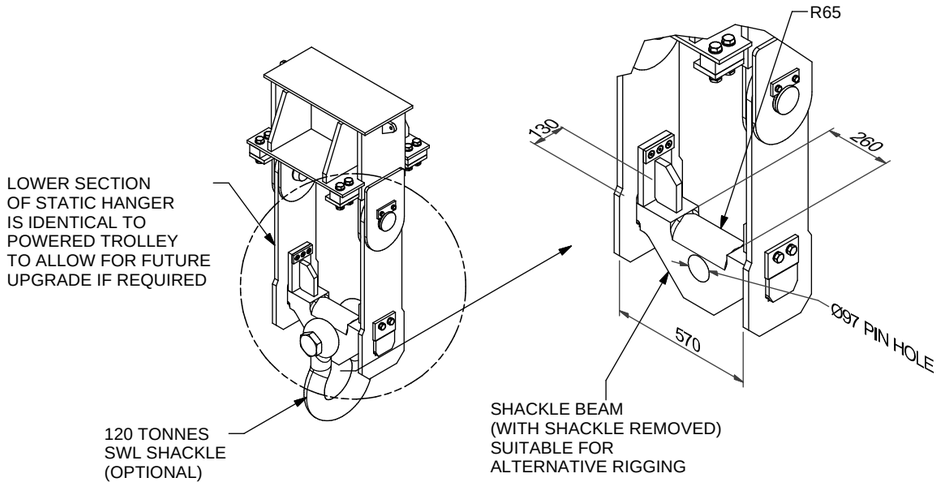
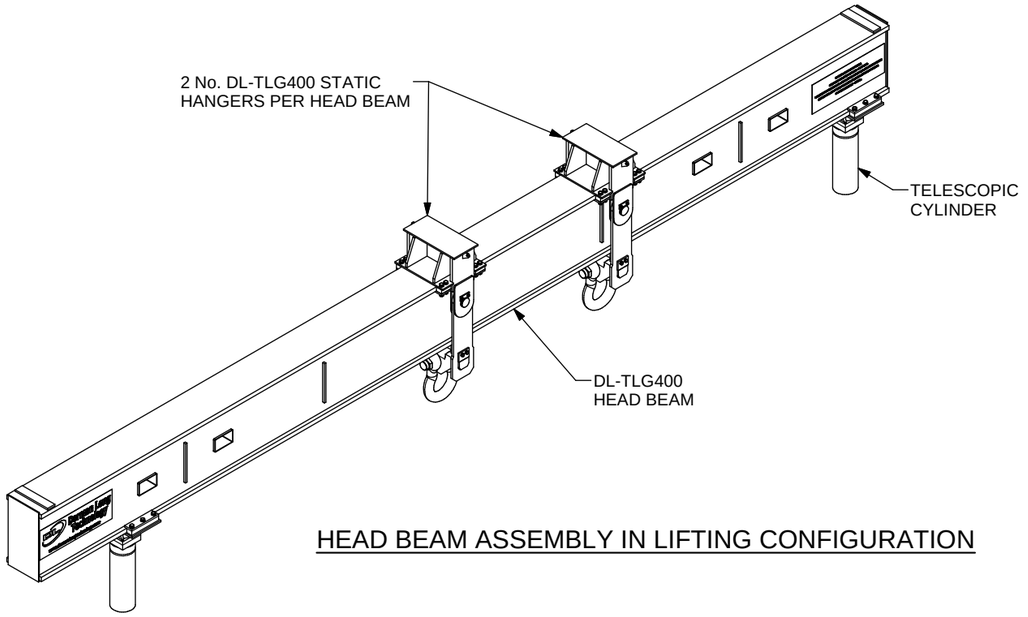


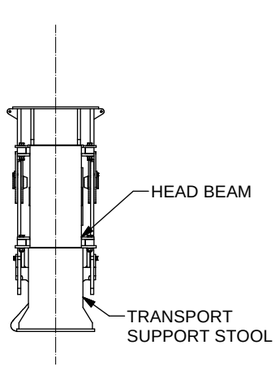
HEAD BEAM ASSEMBLY IN LIFTING CONFIGURATION
OPERATIONAL WEIGHT 7.570 TONNES



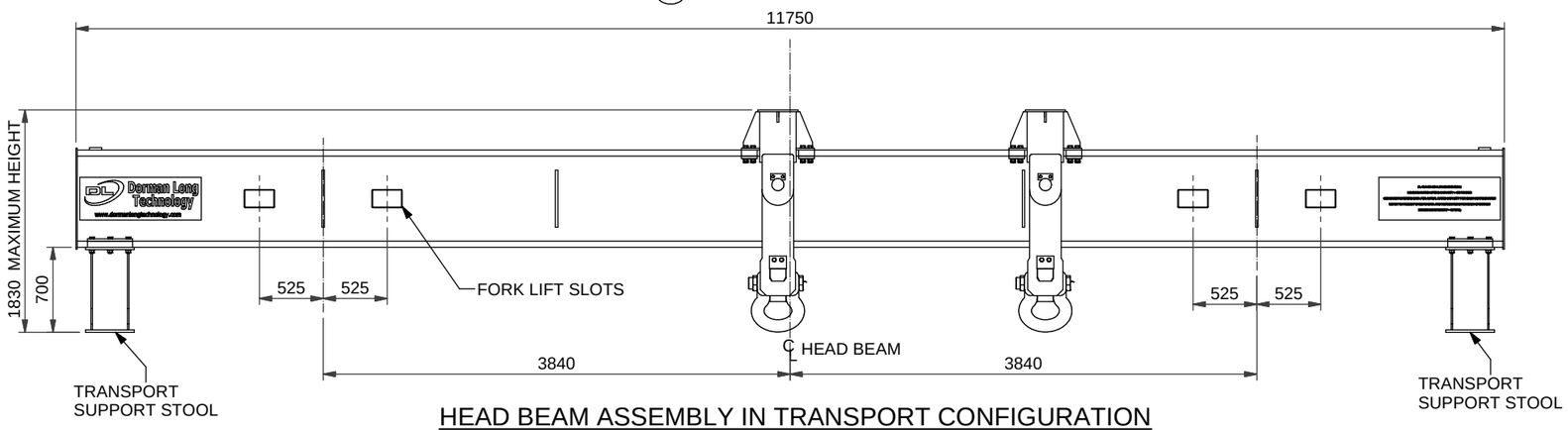
STATIC HANGER
(HEAD BEAM OMITTED FOR CLARITY)



HEAD BEAM ASSEMBLY IN LIFTING CONFIGURATION



END ELEVATION (1 : 50)



HEAD BEAM ASSEMBLY IN TRANSPORT CONFIGURATION
TRANSPORT WEIGHT 7.990 TONNES

NOTES

SPECIFICATION
DL-TLG400 HEAD BEAM AND
DL-TLG400 STATIC HANGERS

- MAXIMUM SAFE WORKING LOAD (SWL)
= 100 TONNES PER LIFT POINT
= 192 TONNES PER HEAD BEAM
SEE DRAWINGS DL-TLG400-005-01 AND 02 FOR LIFTING ARRANGEMENTS AND DUTY CHARTS

- MAXIMUM HORIZONTAL LOAD = 5% OF VERTICAL LOAD IN ANY DIRECTION

- MAXIMUM TRANSVERSE SLOPE OF HEAD BEAM = +/- 1%

- OPERATING TEMPERATURE = -20 to +45°C

- DL-TLG400 HEAD BEAM SUPPORTED ON 2 No. SUPPORT STOOL ASSEMBLIES AND COMPLETE WITH ALL EQUIPMENT IS SUITABLE FOR TRANSPORT IN A STANDARD 40' SHIPPING CONTAINER

- WEIGHTS

DL-TLG400 HEAD BEAM	= 6,270 kg
STATIC HANGER ASSEMBLY	= 2x 650 kg
TRANSPORT SUPPORT STOOLS	= 2 x 210 kg
TOTAL OPERATING WEIGHT	= 7,570 kg
TOTAL TRANSPORT WEIGHT	= 7,990 kg

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Project
DL-TLG400
TELESCOPIC LIFTING GANTRY

Drawing Title
DL-TLG400 HEAD BEAM AND
DL-TLG400 STATIC HANGERS
GENERAL ARRANGEMENT AND SPECIFICATION

Design Eng:	JM	Checking Eng:	PD
Drawn by:	SG	Project Eng:	SAB

Scales (At A3): AS SHOWN
Original Drawing size: A3
Drawing Status: INFORMATION

Drawing No.: DL-TLG400-003-02
Rev.: N1

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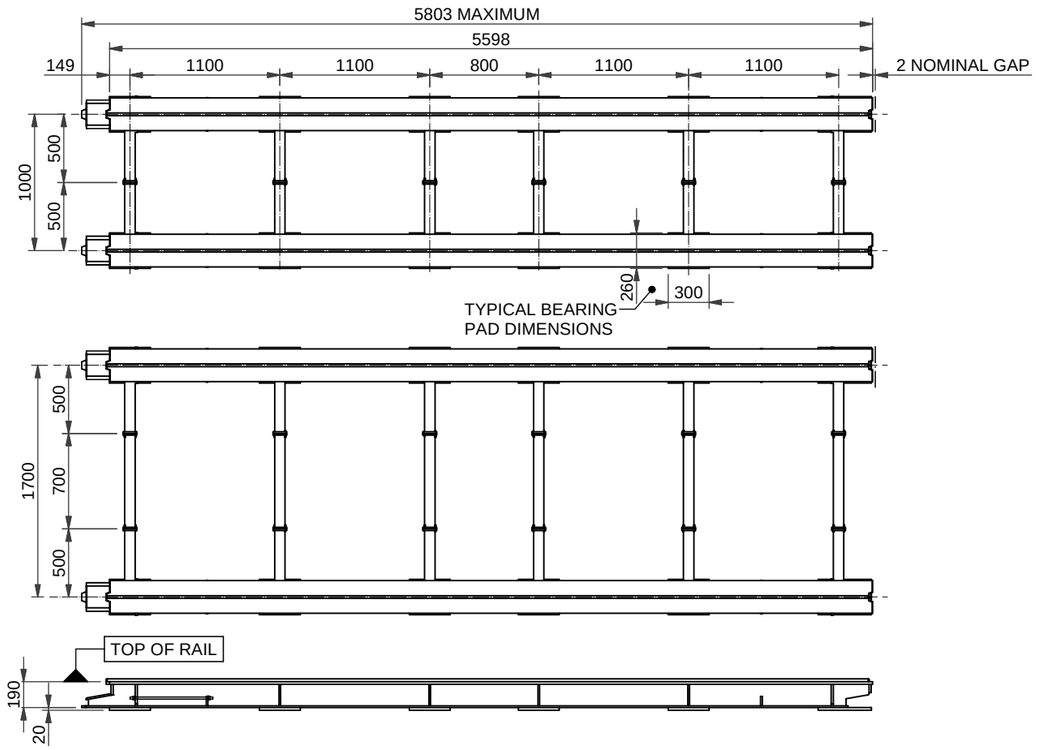
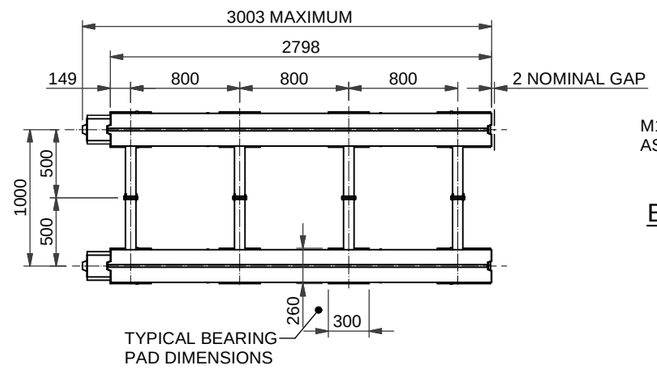
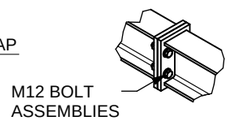
DO NOT SCALE



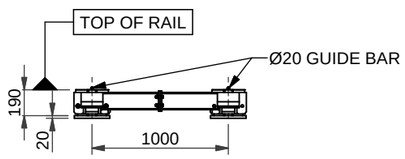
5.6m STANDARD TRACK SECTION - 1.0m AND 1.7m RAIL CENTRES



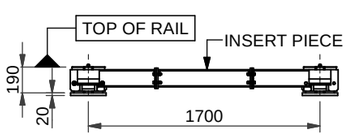
2.8m STANDARD TRACK SECTION 1.0m AND 1.7m RAIL CENTRES



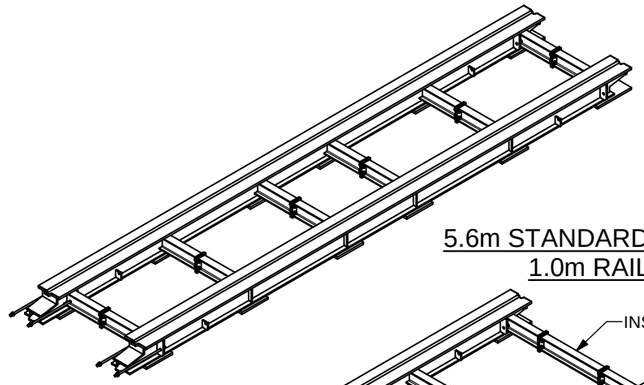
CONNECTION DETAILS BETWEEN RAIL SECTIONS AND INSERT PIECES



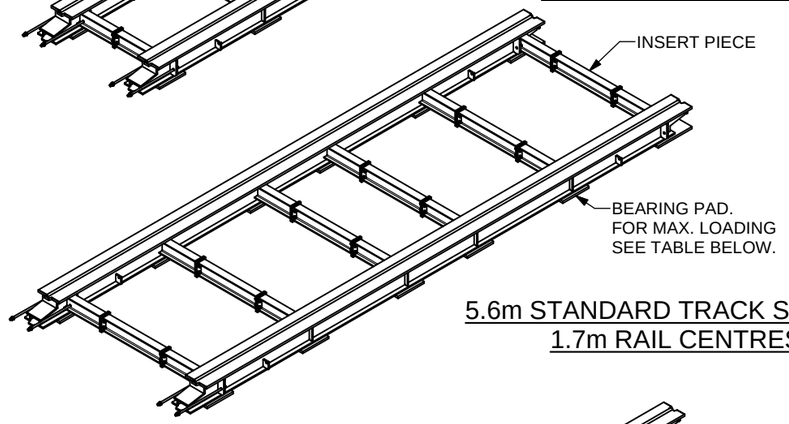
TYPICAL END VIEW 1.0m RAIL CENTRES



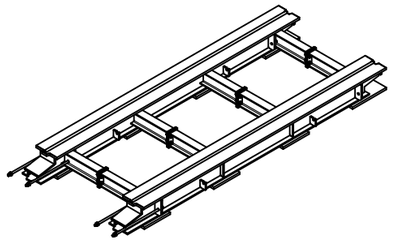
TYPICAL END VIEW 1.7m RAIL CENTRES



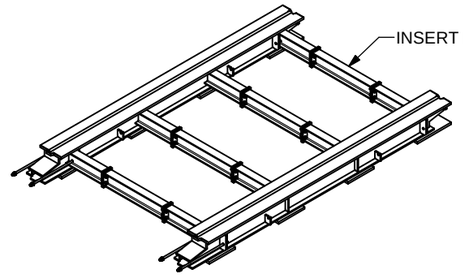
5.6m STANDARD TRACK SECTION 1.0m RAIL CENTRES



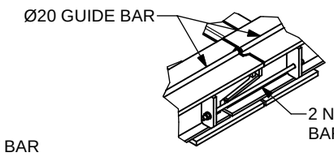
5.6m STANDARD TRACK SECTION 1.7m RAIL CENTRES



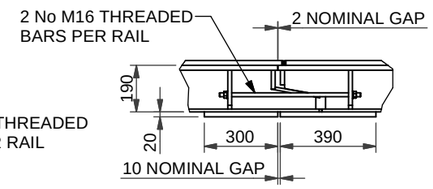
2.8m STANDARD TRACK SECTION 1.0m RAIL CENTRES



2.8m STANDARD TRACK SECTION 1.7m RAIL CENTRES



CONNECTION DETAILS BETWEEN RAIL SECTIONS



CONNECTION DETAILS BETWEEN RAIL SECTIONS SIDE ELEVATION

THE MAXIMUM WHEEL LOADS AND BEARING PAD LOADS AND PRESSURES TABULATED BELOW ASSUME 5% HORIZONTAL LOAD PLUS 1% SLOPE OF THE TRACK, BOTH AT 45 DEGREES ORIENTATION.
THE PROJECT SPECIFIC VALUES WILL DEPEND ON THE ACTUAL LOADS TO BE APPLIED TO THE SYSTEM.
SEE OPERATION AND MAINTENCE MANUAL FOR FURTHER INFORMATION.

DL-TLG400 Standard Track - Maximum Loads

	Telescopic Cylinder Stage 1 1.0m Rail Centres	Telescopic Cylinder Stage 2 1.7m Rail Centres	Telescopic Cylinder Stage 3 1.7m Rail Centres
Maximum Wheel Load on Track	53.1 Tonnes	52.7 Tonnes	40.1 Tonnes
Maximum Load on each Bearing Pad	53.5 Tonnes	53.1 Tonnes	40.3 Tonnes
Maximum Average Bearing Pressure under each Bearing Pad	6.7 MPa	6.7 MPa	5.1 MPa
Maximum Peak Bearing Pressure under each Bearing Pad	9.1 MPa	9.0 MPa	6.4 MPa

NOTES

SPECIFICATION FOR DL-TLG400 STANDARD TRACK SECTIONS

- STANDARD TRACK SECTIONS SUPPLIED IN LENGTHS GIVING EFFECTIVE TRACK LENGTHS OF 5.6m AND 2.8m (OVERALL LENGTHS OF 5,803mm AND 3,003mm)
- STANDARD TRACK SECTIONS SUPPLIED WITH RAILS AT 1.0m CENTRES AND WITH INSERT PIECES TO INCREASE RAILS TO 1.7m CENTRES
- MAXIMUM SLOPE OF TRACK = 1% IN ANY DIRECTION (BOTH TRACKS AT SAME SLOPE WITHIN TOLERANCES SPECIFIED IN OPERATION AND MAINTENANCE MANUAL)
- SEE TABLE FOR MAXIMUM WHEEL LOADS AND BEARING PAD LOADS AND PRESSURES
- OPERATING TEMPERATURE = -20 TO +45°C
- FULLY ASSEMBLED STANDARD TRACK SECTIONS ARE SUITABLE FOR TRANSPORT IN STANDARD SHIPPING CONTAINERS
- WEIGHTS

5.6m LONG x 1.0m RAIL CENTRES = 1,400 kg
5.6m LONG x 1.7m RAIL CENTRES = 1,470 kg
2.8m LONG x 1.0m RAIL CENTRES = 760 kg
2.8m LONG x 1.7m RAIL CENTRES = 810 kg

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Project
DL-TLG400
TELESCOPIC LIFTING GANTRY

Drawing Title
DL-TLG400 STANDARD TRACK SECTIONS
GENERAL ARRANGEMENT AND SPECIFICATION

Design Eng:	PD	Checking Eng:	JM
Drawn by:	AW	Project Eng:	SAB

Scales (At A3): AS SHOWN
Drawing Status: INFORMATION
Original Drawing size: A3

Drawing No.: DL-TLG400-004
Rev.: N1

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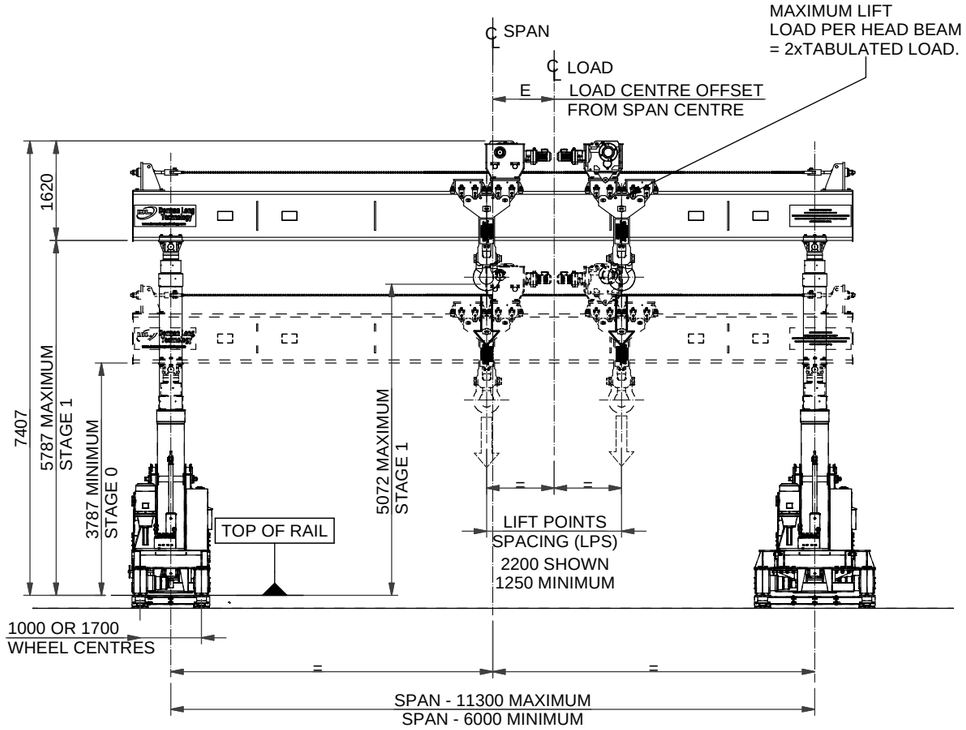
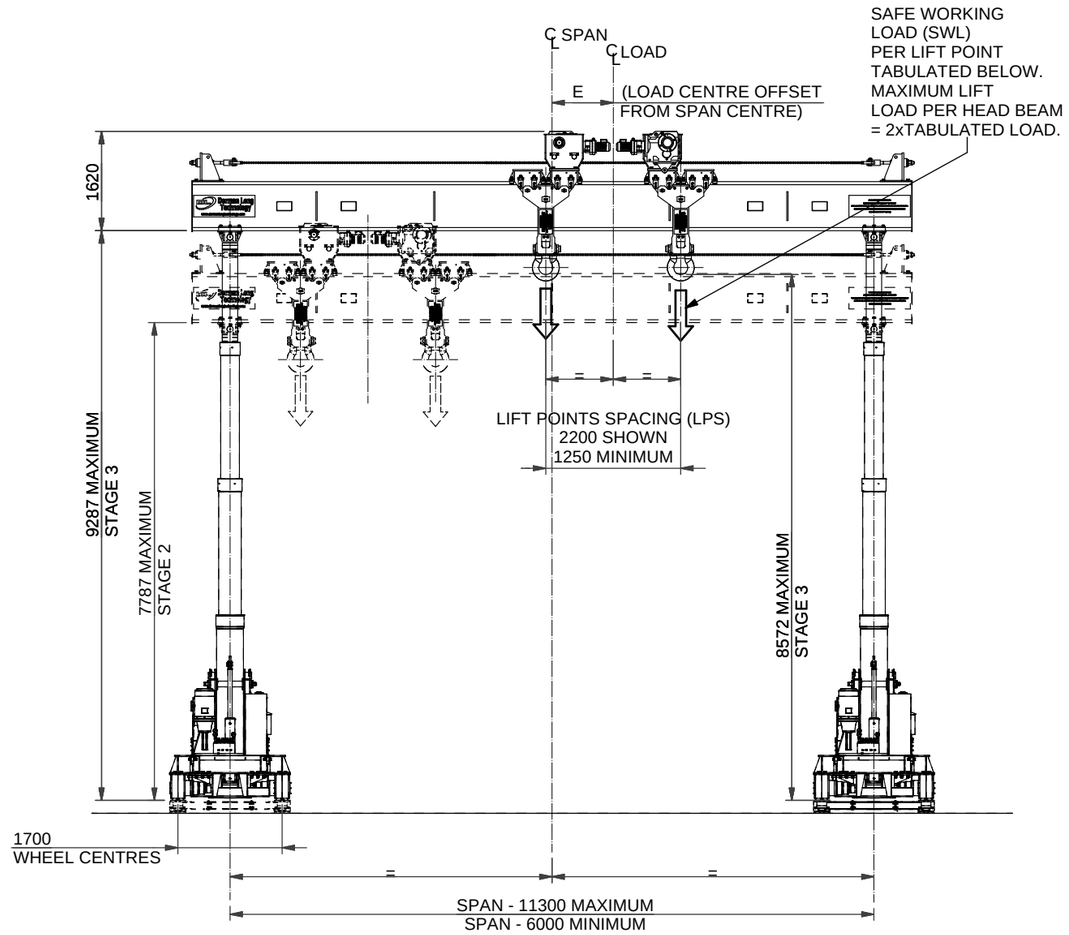
DO NOT SCALE





STAGE 1 : HEAD BEAM IN OPERATIONAL RANGE FROM LEVEL 3787 TO LEVEL 5787

SPAN 11.30m
SAFE WORKING LOAD (SWL) PER LIFT POINT [TONNES]

STAGE	LIFT POINTS SPACING LPS [m]	LOAD CENTRE OFFSET E [m] FROM SPAN CENTRE 0.00	1.00	2.00	3.00	4.00
1	1.25	62.5	63.4	69.7	61.5	55.0
2		62.5	63.4	69.7	61.5	55.0
3		62.5	55.0	47.6	41.9	37.4
1	2.00	68.0	68.0	69.8	61.5	
2		68.0	68.0	69.8	61.5	
3		65.1	55.0	47.6	41.9	
1	3.00	76.7	75.0	69.8	61.5	
2		76.7	75.0	69.8	61.5	
3		65.1	55.0	47.6	41.9	
1	4.00	87.9	80.5	69.8		
2		87.9	80.5	69.8		
3		65.1	55.0	47.6		
1	5.00	95.1	80.5	69.8		
2		95.1	80.5	69.8		
3		65.1	55.0	47.6		
1	6.00	95.1	80.5			
2		95.1	80.5			
3		65.1	55.0			
1	7.00	95.1	80.5			
2		95.1	80.5			
3		65.1	55.0			
1	8.00	95.1				
2		95.1				
3		65.1				
1	9.00	95.1				
2		95.1				
3		65.1				

SPAN 10.00m
SAFE WORKING LOAD (SWL) PER LIFT POINT [TONNES]

STAGE	LIFT POINTS SPACING LPS [m]	LOAD CENTRE OFFSET E [m] FROM SPAN CENTRE 0.00	1.00	2.00	3.00
1	1.25	72.5	73.9	67.4	58.8
2					
3		65.1	53.9	46.0	40.1
1	2.00	79.8	78.9	67.4	58.8
2		79.8	78.9	67.4	58.8
3		65.1	53.9	46.0	40.1
1	3.00	91.9	78.9	67.4	58.8
2		91.9	78.9	67.4	58.8
3		65.1	53.9	46.0	40.1
1	4.00	95.1	78.9	67.4	
2		95.1	78.9	67.4	
3		65.1	53.9	46.0	
1	5.00	95.1	78.9	67.4	
2		95.1	78.9	67.4	
3		65.1	53.9	46.0	
1	6.00	95.1	78.9		
2		95.1	78.9		
3		65.1	53.9		
1	7.00	95.1	78.9		
2		95.1	78.9		
3		65.1	53.9		
1	8.00	95.1			
2		95.1			
3		65.1			
1	9.00	95.1			
2		95.1			
3		65.1			

SPAN 9.00m
SAFE WORKING LOAD (SWL) PER LIFT POINT [TONNES]

STAGE	LIFT POINTS SPACING LPS [m]	LOAD CENTRE OFFSET E [m] FROM SPAN CENTRE 0.00	1.00	2.00	3.00
1	1.25	82.5	77.5	65.3	56.4
2		82.5	77.5	65.3	56.4
3		65.1	52.9	44.5	38.4
1	2.00	91.9	77.5	65.3	56.4
2		91.9	77.5	65.3	56.4
3		65.1	52.9	44.5	38.4
1	3.00	95.1	77.5	65.3	
2		95.1	77.5	65.3	
3		65.1	52.9	44.5	
1	4.00	95.1	77.5	65.3	
2		95.1	77.5	65.3	
3		65.1	52.9	44.5	
1	5.00	95.1	77.5		
2		95.1	77.5		
3		65.1	52.9		
1	6.00	95.1	77.5		
2		95.1	77.5		
3		65.1	52.9		
1	7.00	95.1			
2		95.1			
3		65.1			
1	8.00	95.1			
2		95.1			
3		65.1			

STAGE 2 : HEAD BEAM IN OPERATIONAL RANGE TO LEVEL 7787
STAGE 3 : HEAD BEAM IN OPERATIONAL RANGE TO LEVEL 9287

SPAN 8.00m
SAFE WORKING LOAD (SWL) PER LIFT POINT [TONNES]

STAGE	LIFT POINTS SPACING LPS [m]	LOAD CENTRE OFFSET E [m] FROM SPAN CENTRE 0.00	1.00	2.00
1	1.25	95.1	75.7	62.8
2		95.1	75.7	62.8
3		65.1	51.7	42.8
1	2.00	95.1	75.7	62.8
2		95.1	75.7	62.8
3		65.1	51.7	42.8
1	3.00	95.1	75.7	62.8
2		95.1	75.7	62.8
3		65.1	51.7	42.8
1	4.00	95.1	75.7	
2		95.1	75.7	
3		65.1	51.7	
1	5.00	95.1	75.7	
2		95.1	75.7	
3		65.1	51.7	
1	6.00	95.1		
2		95.1		
3		65.1		
1	7.00	95.1		
2		95.1		
3		65.1		

SPAN 7.00m
SAFE WORKING LOAD (SWL) PER LIFT POINT [TONNES]

STAGE	LIFT POINTS SPACING LPS [m]	LOAD CENTRE OFFSET E [m] FROM SPAN CENTRE 0.00	1.00	2.00
1	1.25	95.1	73.6	59.9
2		95.1	73.6	59.9
3		65.1	50.2	40.8
1	2.00	95.1	73.6	59.9
2		95.1	73.6	59.9
3		65.1	50.2	40.8
1	3.00	95.1	73.6	
2		95.1	73.6	
3		65.1	50.2	
1	4.00	95.1	73.6	
2		95.1	73.6	
3		65.1	50.2	
1	5.00	95.1		
2		95.1		
3		65.1		
1	6.00	95.1		
2		95.1		
3		65.1		

SPAN 6.00m
SAFE WORKING LOAD (SWL) PER LIFT POINT [TONNES]

STAGE	LIFT POINTS SPACING LPS [m]	LOAD CENTRE OFFSET E [m] FROM SPAN CENTRE 0.00	1.00
1	1.25	95.1	70.9
2		95.1	70.9
3		65.1	48.4
1	2.00	95.1	70.9
2		95.1	70.9
3		65.1	48.4
1	3.00	95.1	70.9
2		95.1	70.9
3		65.1	48.4
1	4.00	95.1	
2		95.1	
3		65.1	
1	5.00	95.1	
2		95.1	
3		65.1	

INTERPOLATION BETWEEN TABULATED VALUES PERMISSIBLE
SEE ALSO OPERATION AND MAINTENANCE MANUAL

NOTES

DUTY CHARTS ASSUME THE FOLLOWING:-

- STANDARD DL-TLG400 COMPONENTS WITH DL-TLG400 HEAD BEAM
- 2 No. LIFT POINTS EQUALLY LOADED PER HEAD BEAM
- MAXIMUM HORIZONTAL LOAD = 5% OF VERTICAL LOAD IN ANY DIRECTION
- MAXIMUM SLOPE OF TRACK = 1% IN ANY DIRECTION (BOTH TRACKS AT SAME SLOPE WITHIN TOLERANCES SPECIFIED IN OPERATION AND MAINTENANCE MANUAL)
- MAXIMUM TRANSVERSE SLOPE OF HEAD BEAM = +/- 1%
- DL-TLG400 STANDARD TRACK SECTIONS USED WITH 1.0m RAIL CENTRES FOR TELESCOPIC CYLINDER STAGE 1 AND 1.7m RAIL CENTRES FOR TELESCOPIC CYLINDER STAGES 2 AND 3
- TABULATED LOADS APPLIED TO SHACKLE OR, IF SHACKLE NOT USED, TO SHACKLE BEAM

IF THE DL-TLG400 TELESCOPIC LIFTING GANTRY IS TO BE USED IN A CONFIGURATION NOT SHOWN ON THIS DRAWING, CONTACT DLT ENGINEERING FOR SPECIFIC SAFE WORKING LOADS AND ANY SPECIAL CONDITIONS THAT MAY APPLY

DLT Engineering
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Midland Road, Higham Ferrers
Northamptonshire, NN10 8DN
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Tel: +44 (0) 1933 319133

www.dlteng.com

Project
DL-TLG400
TELESCOPIC LIFTING GANTRY

Drawing Title
LIFTING ARRANGEMENT AND DUTY CHARTS
2 No. LIFT POINTS LOADED PER HEAD BEAM

Design Eng:	JM	Checking Eng:	PD
Drawn by:	SG	Project Eng:	SAB

Scales (At A3): AS SHOWN
Original Drawing size: A3
Drawing Status: INFORMATION

Drawing No.: DL-TLG400-005-01
Rev.: N1

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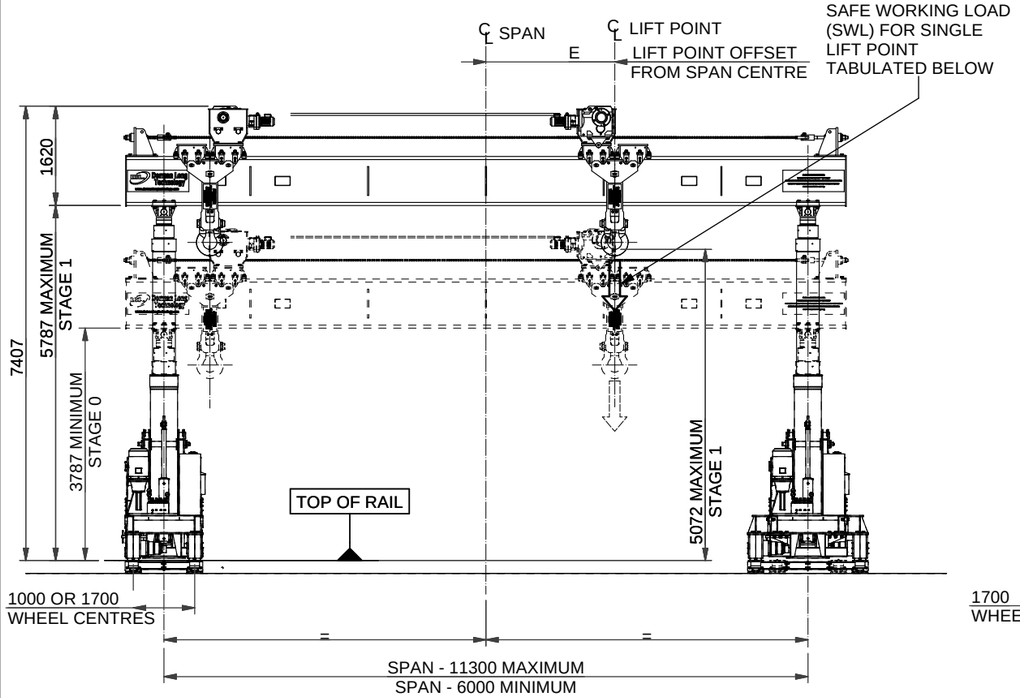
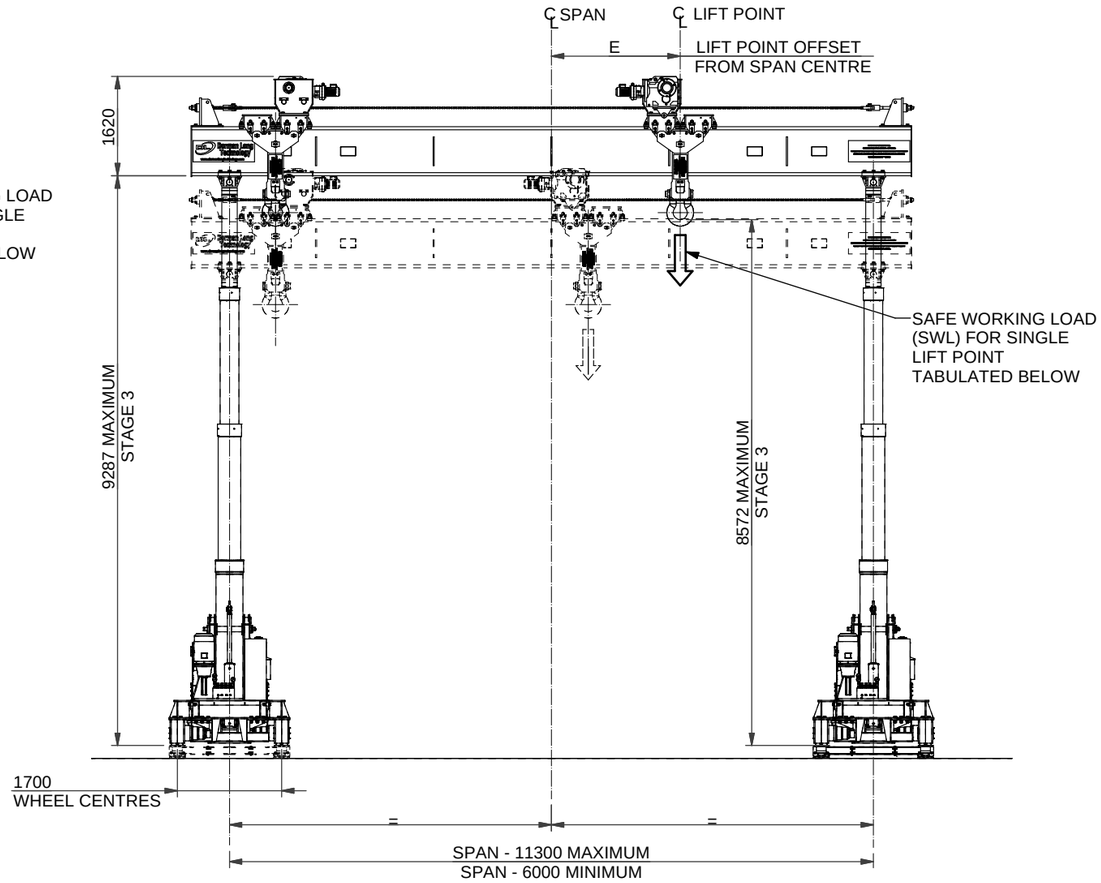
DO NOT SCALE



STAGE 1 : HEAD BEAM IN OPERATIONAL RANGE
FROM LEVEL 3787 TO LEVEL 5787



STAGE 2 : HEAD BEAM IN OPERATIONAL RANGE TO LEVEL 7787
STAGE 3 : HEAD BEAM IN OPERATIONAL RANGE TO LEVEL 9287

SPAN 11.30m
SAFE WORKING LOAD (SWL)
PER LIFT POINT [TONNES]
SINGLE LIFT POINT LOADED

	LIFT POINT OFFSET E [m] FROM SPAN CENTRE				
STAGE	0.00	1.00	2.00	3.00	4.00
1 AND 2	100.0	100.0	100.0	100.0	100.0
3	100.0	100.0	94.7	83.6	76.3

SPAN 10.00m
SAFE WORKING LOAD (SWL)
PER LIFT POINT [TONNES]
SINGLE LIFT POINT LOADED

	LIFT POINT OFFSET E [m] FROM SPAN CENTRE				
STAGE	0.00	1.00	2.00	3.00	4.00
1 AND 2	100.0	100.0	100.0	100.0	100.0
3	100.0	100.0	91.4	79.8	72.4

SPAN 9.00m
SAFE WORKING LOAD (SWL)
PER LIFT POINT [TONNES]
SINGLE LIFT POINT LOADED

	LIFT POINT OFFSET E [m] FROM SPAN CENTRE				
STAGE	0.00	1.00	2.00	3.00	4.00
1 AND 2	100.0	100.0	100.0	100.0	100.0
3	100.0	100.0	88.6	78.3	68.9

SPAN 8.00m
SAFE WORKING LOAD (SWL)
PER LIFT POINT [TONNES]
SINGLE LIFT POINT LOADED

	LIFT POINT OFFSET E [m] FROM SPAN CENTRE			
STAGE	0.00	1.00	2.00	3.00
1 AND 2	100.0	100.0	100.0	100.0
3	100.0	100.0	85.3	74.5

SPAN 7.00m
SAFE WORKING LOAD (SWL)
PER LIFT POINT [TONNES]
SINGLE LIFT POINT LOADED

	LIFT POINT OFFSET E [m] FROM SPAN CENTRE			
STAGE	0.00	1.00	2.00	3.00
1 AND 2	100.0	100.0	100.0	100.0
3	100.0	99.8	83.1	70.1

SPAN 6.00m
SAFE WORKING LOAD (SWL)
PER LIFT POINT [TONNES]
SINGLE LIFT POINT LOADED

	LIFT POINT OFFSET E [m] FROM SPAN CENTRE		
STAGE	0.00	1.00	2.00
1 AND 2	100.0	100.0	100.0
3	100.0	96.2	78.2

INTERPOLATION BETWEEN TABULATED VALUES PERMISSIBLE
SEE ALSO OPERATION AND MAINTENANCE MANUAL

NOTES

DUTY CHARTS ASSUME THE FOLLOWING:-

- STANDARD DL-TLG400 COMPONENTS WITH DL-TLG400 HEAD BEAM
- 1 No. LIFT POINT LOADED PER HEAD BEAM
- MAXIMUM HORIZONTAL LOAD = 5% OF VERTICAL LOAD IN ANY DIRECTION
- MAXIMUM SLOPE OF TRACK = 1% IN ANY DIRECTION (BOTH TRACKS AT SAME SLOPE WITHIN TOLERANCES SPECIFIED IN OPERATION AND MAINTENANCE MANUAL)
- MAXIMUM TRANSVERSE SLOPE OF HEAD BEAM = +/- 1%
- DL-TLG400 STANDARD TRACK SECTIONS USED WITH 1.0m RAIL CENTRES FOR TELESCOPIC CYLINDER STAGE 1 AND 1.7m RAIL CENTRES FOR TELESCOPIC CYLINDER STAGES 2 AND 3
- TABULATED LOADS APPLIED TO SHACKLE OR, IF SHACKLE NOT USED, TO SHACKLE BEAM

IF THE DL-TLG400 TELESCOPIC LIFTING GANTRY IS TO BE USED IN A CONFIGURATION NOT SHOWN ON THIS DRAWING, CONTACT DLT ENGINEERING FOR SPECIFIC SAFE WORKING LOADS AND ANY SPECIAL CONDITIONS THAT MAY APPLY

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Project
DL-TLG400
TELESCOPIC LIFTING GANTRY

Drawing Title
LIFTING ARRANGEMENT AND DUTY CHARTS
SINGLE POINT LOADED PER HEAD BEAM

Design Eng:	JM	Checking Eng:	PD
Drawn by:	SG	Project Eng:	SAB

Scales (At A3): AS SHOWN
Original Drawing size: A3
Drawing Status: INFORMATION
Drawing No.: DL-TLG400-005-02
Rev.: N1

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