Monkey Tower Maintenance Manual

August 25, 2009

Chapter 1

Technical Publications

Monkey Tower Ltd endeavours to deliver the highest degree of accuracy possible. Continuous improvement of our products is a policy, and therefore, product specifications are subject to change without notice. Readers are encouraged to notify Monkey Tower Ltd of any errors and send in suggestions for improvement. All communications will be carefully considered.

Chapter 2

Contact

Monkey Tower Ltd
North Wing Offices
Ingatestone Hall
Ingatestone, Essex
CM4 9NS, UK
+44 (0)1277 356172
www.monkeytower.co.uk
sales@monkeytower.co.uk

Chapter 3

Safety Rules

3.1 Warning

Failure to obey the instructions and safety rules in this manual and the Monkey Tower Operator's Manual could result in death or serious injury. Many of the hazards identified in the operating instruction manual are also safety hazards for maintenance and repair procedures.

3.2 Requirements to Perform Maintenance

Maintenance should only be performed by trained and qualified persons. Maintainers should read, understand and obey:

- Manufacturer's instructions and safety rules.
- Employer's safety rules and workplace regulations.
- Applicable governmental regulations.

Maintainers should have the appropriate tools, lifting equipment and a suitable workplace.

3.3 Personal Safety

- Any person working on or around a machine must be aware of all known safety hazards.
- Personal safety and the continued safe operation of the machine should be your top priority.
- Read each procedure thoroughly.

Be sure to wear Personal Protective Equipment (Gloves, eye protection, foot protection etc.).

Be aware of potential crushing hazards such as moving parts, free swinging or unsecured components when lifting or placing loads.

3.4 Workplace Safety

Be sure to keep sparks, flames and heat from flammable and combustible materials like battery gases and engine fuels.

Always have an approved fire extinguisher within easy reach.

Be sure that all tools and working areas are properly maintained and ready for use. Keep work surfaces clean and free of debris that could get into machine components and cause damage.

Be sure that your workshop or work area is properly ventilated and well lit.

Be sure any forklift, overhead crane or other lifting or supporting device is fully capable of supporting and stabilizing the weight to

be lifted. Use only chains or straps that are in good condition and of ample capacity.

Be sure that fasteners intended for one time use (i.e., cotter pins and self-locking nuts) are not reused. These components may fail if they are used a second time.

Be sure to properly dispose of old oil or other fluids. Use an approved container. Please be environmentally safe.

3.5 Safety Warning System

This manual and the decals on the machine use signal words to identify the following:

Warning triangle. Alerts personnel to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

Red DANGER sign with warning triangle. Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.

Orange WARNING sign with warning triangle. Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.

Yellow CAUTION sign with warning triangle. Indicates a potentially hazardous situation which, if not avoided, may cause minor or moderate injury.

Green NOTICE sign. Indicates operation or maintenance information.

Chapter 4

Spare Parts

4.1 How To Order Parts

Spare parts can be ordered from Monkey Tower Ltd (see Chapter 2 for contact details) or your local distributor (See Section 4.2).

Please be prepared with the following information when ordering replacement parts for your Monkey Tower:

- Machine model number.
- Machine serial number.
- Part number (See Chapter 8).
- Description.
- Quantity.
- Purchase order number.
- Ship-to address.
- Desired method of shipment.

4.2 Monkey Tower Distributors

An up-to-date list of distributors can be found by contacting Monkey Tower (Section 2).

Chapter 5

Specifications

Dimensions		
Maximum Platform Height	4.5	m
Maximum Working Height	6.5	m
Minimum Working Width	0.94	m
Maximum Working Width	1.32	m
Minimum Width	0.7	m
Towing Width	1.7	m
Minimum Length	2.56	m
Towing Length	3.28	m

Dimensions		
Weight	300	kg
Safe Working Load	250	kg
Lifting Capacity	75	kg

Fastener Torque Specifications 8.8 Specification Bolts		
Size	lbs	Nm
M4	2.4	41
M6	4.07	69
M8	9.88	14
M10	19.6	27.9
M12	34.1	48.6

Chapter 6

Scheduled Maintenance Procedures

6.1 Maintenance Rules

- Maintenance procedures shall be completed by a person competent in the maintenance of this machine.
- Scheduled maintenance procedures shall be completed daily, quarterly and annually as specified on the maintenance inspection report.
- Failure to properly complete each inspection when required could result in death, serious injury or substantial machine damage.
- Immediately tag and remove from service a damaged or malfunctioning machine.
- Repair any machine damage or malfunction before operating machine.
- Keep records of all inspections for three years.
- Be sure supports can withstand machine weight. (See Specifications section for the machine weight).
- Be sure overhead cranes or other lifting devices can handle machine weight. (See Specifications section for machine weight).
- Unless otherwise specified, the machine should be maintained in the following configuration:
  - Machine on a firm, level surface.
  - Platform fully lowered.
  - Legs extended outwards, locked into position and supporting Monkey Tower.
  - Castors locked.

6.2 Maintenance Symbols Legend

The following symbols have been used in this manual to help communicate the intent of the instructions. When one or more of the symbols appear at the beginning of a maintenance procedure, it conveys the meaning below:

 Tools required.

 New parts required.

 Dealer service recommended.

6.3 Pre-Delivery Inspection Report

The pre-delivery inspection report contains checklists for each type of scheduled inspection. Store com-

pleted forms as required.

6.4 Maintenance Schedule

There are three types of maintenance inspections that must be performed according to a schedule-daily, quarterly and annual. The Scheduled Maintenance Procedures Section and the Maintenance Inspection Report have been divided into three subsections — A, B and C.

The procedures required to perform a scheduled inspection are determined by the following chart.

Inspection Checklist	
Daily or every 8 hours	A
Quarterly or every 250 hours	A + B
Annual or every 1000 hours	A + B + C

6.5 Maintenance Inspection Report

The maintenance inspection report is given in Appendix D and contains checklists for each type of scheduled inspection. Make copies of the Maintenance Inspection Report to use for each inspection. Store completed forms for three years.

Chapter 7

Disassembly & Assembly Procedures

7.1 Removal and Replacement of Ladder

Refer to ladder assembly diagrams (Chapter 8)

1. Raise ladder to vertical
2. Raise platform approximately 10cm and remove two M12 nuts & bolts attaching bottom of ladders to Monkey Tower base. (Alternatively remove four M8 nuts / bolts connecting ladder extender to ladder1).
3. Lower platform.
4. Lower ladder to travelling position.
5. Remove split pins from cotter pins and remove cotter pins (alternatively remove 4 m8 nuts / bolts connecting ladder extender to ladder1).
6. Untie or cut bungie cables attached to guy ropes.
7. Lift ladder out. *Ensure proper lifting equipment and technique are used.*

Replacement is the reversal of the removal process. *New split-pins and nyloc nuts should be used.*

7.2 Disassembly and Reassembly of Ladders

1. Lay ladder on flat surface with the shorter ladder section (section 3) on the top.
2. Remove M6 x 35mm cap-head socket bolts from ends of sliders.
3. Ladder section 3 can be slid off ladder section 2.
4. Ladder section 2 can be slid off ladder section 1.
5. Other parts can be unbolted or rivets drilled out. *Use 5mm drill bit to drill out rivets*

Reassembly is the reverse of disassembly. *Use new nyloc lock nuts and remember to replace correct number of washers (2) under M6 x 35mm cap head socket bolts*

7.3 Removal and Replacement of Platform

1. Remove ladder as described in Section 7.1.

2. Unbolt M12 bolt holding diagonal brace to platform (platform may have to be raised slightly)
3. Unbolt four M10 x 30mm bolts connecting platform to slider.
4. Remove platform *Ensure proper lifting equipment and technique are used.*

Refitting is the reversal of the removal process.*New nyloc nuts should be used.*

7.4 Removal and Replacement of Sliders

1. Lock sliders together by attaching m12 x 300 threaded rod, through 12mm holes in top of sliders.
2. Attach lifting equipment to threaded rod inside sliders.
3. Bolt both ends of allthread with M12 bolts.
4. Take weight of sliders with lifting equipment.
5. Unbolt four M10 x 30mm bolts holding sliders to platform.
6. Unbolt four M10 x 80mm bolts holding sliders to base.
7. Lift sliders out from base and lower sliders flat on surface capable of taking weight of sliders.

Refitting is the reversal of the removal process. *New nyloc nuts should be used.*

7.5 Slider Disassembly & Reassembly

1. Remove allthread locking sliders together.
2. Unbolt M6 x 35 bolts holding slider stops on and remove slider stops.
3. Remove the cable retaining fasteners from the winch drum.
4. Remove all of the cable from the winch drum. *Bodily injury hazard. Cables can fray. Always wear adequate hand and eye protection when handling cable.*
5. Slide the topmost slider up to expose the slider stops, attached to the bottom end of the top slider.
6. Remove the fasteners and the slider stops.
7. Remove the slider by sliding it out the bottom of the sliders.
8. Repeat steps 5 through 7 for each remaining slider.

Refitting is the reversal of the removal process. Winch cable will have to be fed through pulleys in correct order.*New lock-nuts should be used.*

7.6 Disassembling the Winch

Bodily injury hazard. Cables can fray. Always wear adequate hand protection when handling cable.

Refer to Chapter 8 for an exploded view of the winch.

1. Fully lower the platform (if winch still attached to Monkey Tower).
2. Remove the cable retaining fastener from the winch drum.
3. Remove the cable from the winch drum.
4. Remove nyloc nuts holding winch handles on.
5. Remove the handles from the pinion shaft.

6. Remove the drum bolt and the drum bolt spacer.

7. Remove the drum, drum gear cover and housing spacer from the winch.

8. Remove the two lock nuts from the pinion shaft by holding the opposite end of the shaft at the flattened portion of the threads. *Component damage hazard. Be careful not to damage the threads while holding the pinion shaft.*

9. Remove the retaining ring from the pinion shaft.

10. Slide the pinion shaft to the right and remove the pinion spacer, pinion plate, ratchet gear and friction disks.

11. Turn the pinion gear counterclockwise and slide it off the left side of the shaft.

12. Remove the pinion shaft from the winch housing.

13. Remove both pinion bushings. Use a soft metal drift equal to the outside diameter of the bushing and tap with a rubber mallet. *Component damage hazard. Place a block in between the walls of the winch housing to prevent the housing from bending while removing the bushings.*

14. Remove the winch housing from the machine.

7.7 Assembling the Winch

1. Place one side of the winch housing over the jaws of a vise. Open the vise until the jaws are wider than the outside diameter of the bushing.

2. Insert a soft metal drift through the opposite bushing hole. Tap the drift with a rubber mallet to push the bushing into place. *Use a piece of bar or wood in between the drift and the bushing to prevent any damage to the bushing.*

3. Repeat steps 1 and 2 to remove the other bushing.

4. Add two drops of 30W oil to both pivot points on each ratchet pawl. *Component damage hazard. Do not allow grease or oil onto the brake disks or the ratchet gear.*

5. Install the winch housing onto the mast. Be sure the winch drum is toward the top.

6. Insert the longer threaded end of the pinion shaft approximately halfway through the left bushing.

7. Apply a small amount of multi-purpose grease to the large threaded section of the pinion shaft, under the gear nut. Screw the pinion gear onto the pinion shaft with the gears toward the left side of the winch housing.

8. Install, in order, a brake disk, a ratchet gear, a brake disk, a pinion plate and a pinion spacer onto the pinion shaft. *Component damage hazard. Do not allow grease or oil onto the brake disks or the ratchet gear. The teeth on the ratchet gear must curve away from the right side of the winch housing. Push the pinion shaft to the right, through the right pinion bushing, and install the pinion shaft retaining ring. Use your fingers to push the ratchet pawls outward while pushing the pinion shaft through the right bushing. Be sure the ratchet pawls are in firm contact with the ratchet gear and that all parts move freely.*

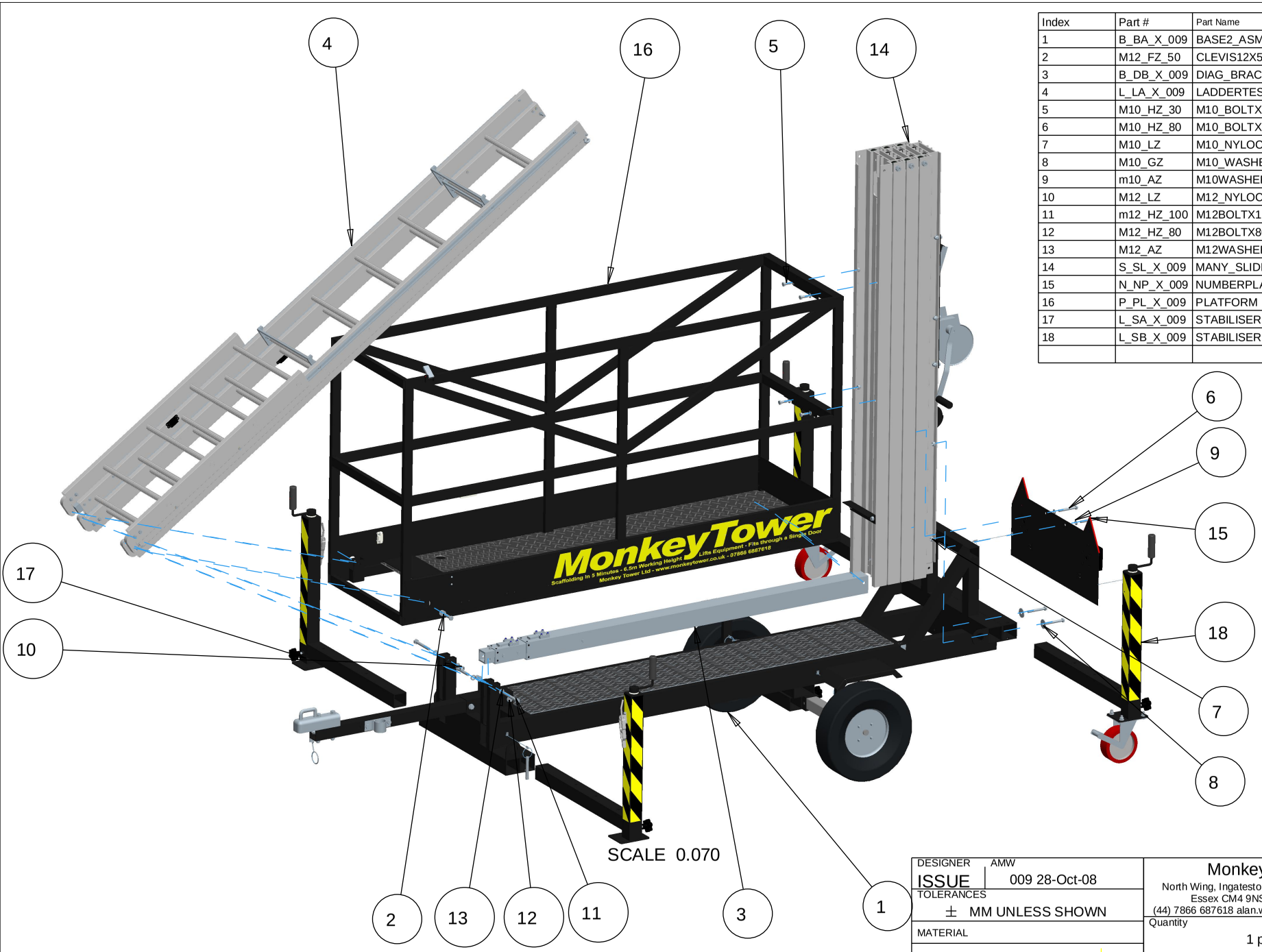
9. Install the two jam nuts to the right side of the pinion shaft one at a time, and tighten.

10. Position both handles on the pinion shaft in opposite directions. Install and tighten the lock nuts.

Chapter 8

Parts List & Assembly Diagrams

8.1 Main Assembly



SCALE 0.070

Index	Part #	Part Name	Quant
1	B_BA_X_009	BASE2_ASM	1
2	M12_FZ_50	CLEVIS12X50	2
3	B_DB_X_009	DIAG_BRACE	1
4	L_LA_X_009	LADDERTEST	1
5	M10_HZ_30	M10_BOLTX30	4
6	M10_HZ_80	M10_BOLTX80	4
7	M10_LZ	M10_NYLOC_NUT	8
8	M10_GZ	M10_WASHER_FORMG	2
9	m10_AZ	M10WASHER_FORM_A	6
10	M12_LZ	M12_NYLOC_NUT	4
11	m12_HZ_100	M12BOLTX100	3
12	M12_HZ_80	M12BOLTX80	1
13	M12_AZ	M12WASHER_FORMA	12
14	S_SL_X_009	MANY_SLIDERS	1
15	N_NP_X_009	NUMBERPLATEBOARD	1
16	P_PL_X_009	PLATFORM	1
17	L_SA_X_009	STABILISER	2
18	L_SB_X_009	STABILISERB	2

DESIGNER AMW

ISSUE 009 28-Oct-08

TOLERANCES

± MM UNLESS SHOWN

MATERIAL

DO NOT SCALE

ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE

Monkey Tower Ltd
North Wing, Ingatestone Hall, Ingatestone
Essex CM4 9NS (44) 1277 356172,
(44) 7866 687618 alan.watt@monkeytower.co.uk

Quantity

1 per tower

Pro/E Drawing File

M_MT_X_009 ASM_MONKEYTOWE

For Manufacture | SCALE 0.014 | SHEET 1 OF 1

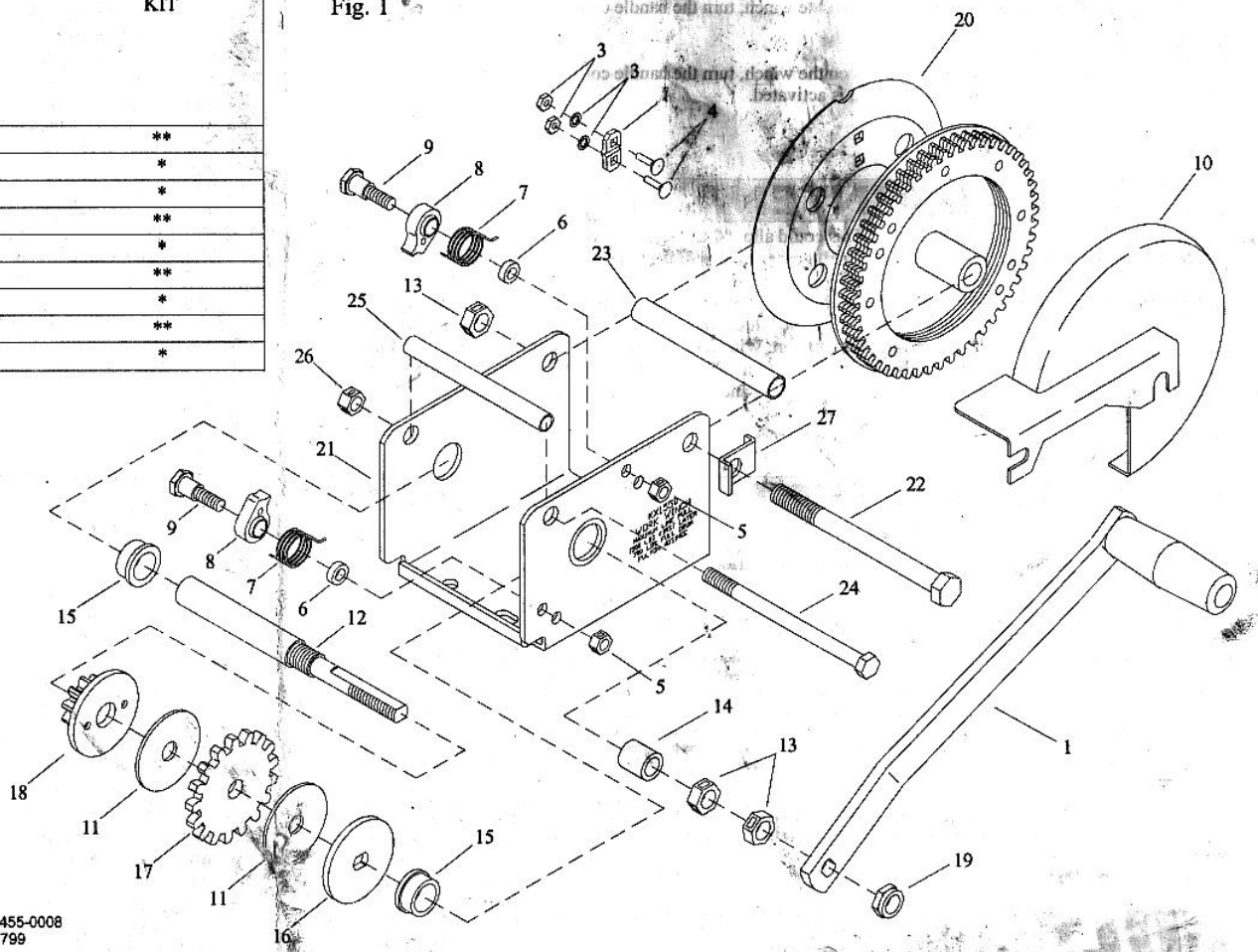
SERVICE PARTS AND ACCESSORIES

ITEM	DESCRIPTION	QUANTITY	K1550	KX1550
1	HANDLE ASSEMBLY	1	2461S01	2461S01
2	CABLE CLAMP	1	5621-01	5621-01
3	LOCKWASHER & NUT	2	CABLE KEEPER	CABLE KEEPER
4	CARRIAGE BOLT	2	KIT	KIT
5	LOCKNUT - 5/16-18	1	6730S00	6730S00
6	RATCHET SPACER	1	RATCHET	RATCHET
7	RATCHET SPRING	1	KIT	KIT
8	RATCHET PAWL	1		(2 REQUIRED)
9	SHOULDER BOLT - 5/16-18	1		
10	COVER ASSEMBLY	1	N/A	12124S01
11	FRICTION DISK KIT	2	1588S00	1558S00
12	INPUT SHAFT	1	1563S01	1564S01
13	LOCKNUT - 1/2-13	2	INPUT SHAFT	INPUT SHAFT
14	SPACER	1	KIT	KIT
15	BUSHING	2		
16	SHAFT BRAKE DISC	1		
17	RATCHET GEAR	1		
18	PINION & DISC ASSEMBLY	1		
19	LOCKNUT - 1/2-13	1	**	**
20	DRUM ASSEMBLY	1	*	*
21	FRAME	1	*	*
22	CAPSCREW - 1/2-13	1	**	**
23	DRUM SPACER	1	*	*
24	CAPSCREW - 3/8-16	1	**	**
25	FRAME SPACER	1	*	*
26	LOCKNUT - 3/8-16	1	**	**
27	BOLT LOCK	1	*	*

* Not Sold Separately
** Standard Hardware - May Be Purchased Locally

When repairing the winch, mark all parts in the order of disassembly to insure proper reassembly.

Fig. 1



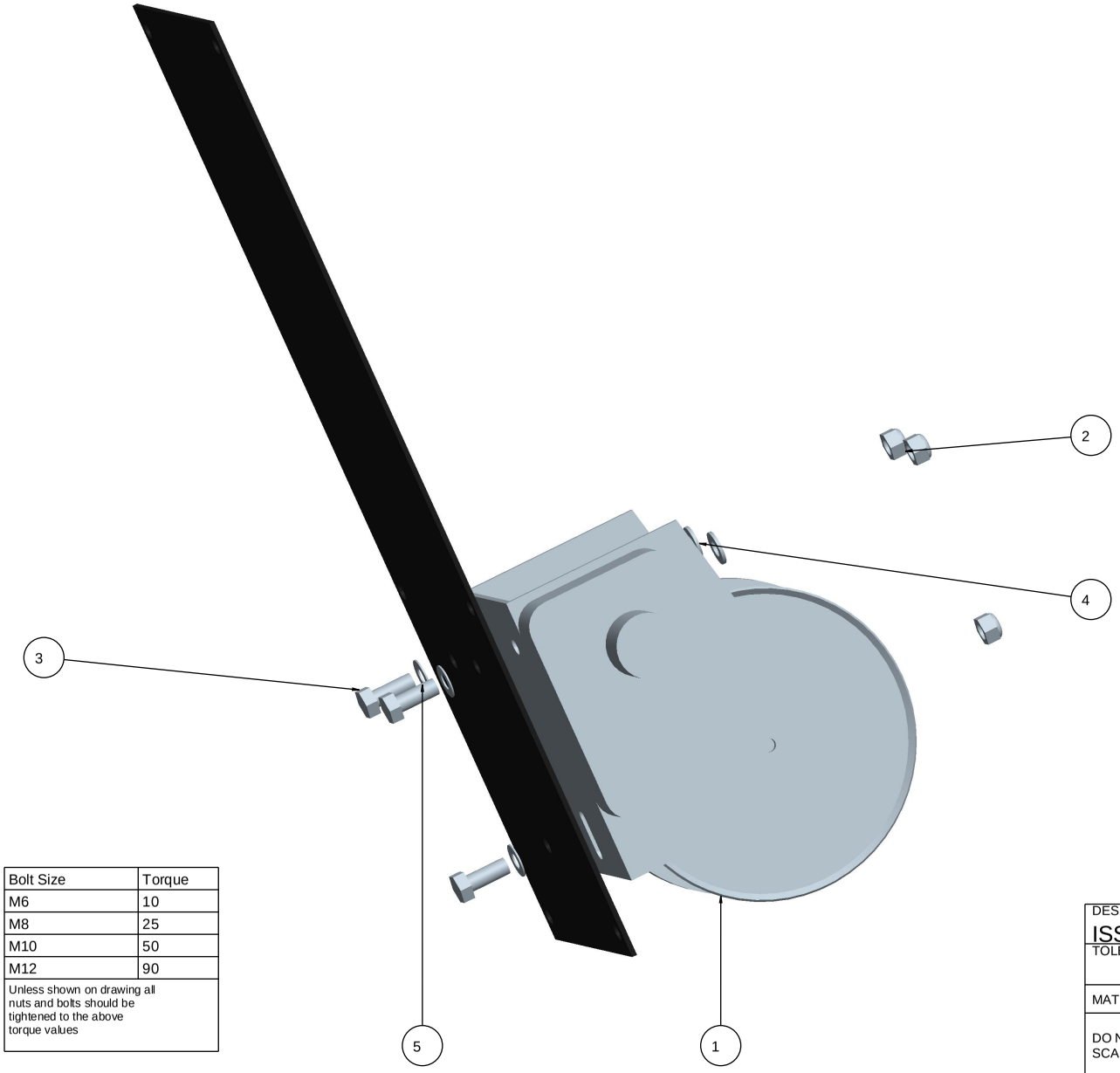
HOW TO ORDER PARTS

Always replace broken, bent or worn parts before using this product. Use only Fulton Performance Products' parts or parts of equal quality for repair. Replacement parts are available through Fulton Performance Products' Customer Service Department, 715-693-1700. Please specify product model number, name of parts, and part number. A two digit year code is stamped into the frame to aid in model identification.

FULTON
Performance Products, Inc.
50 Indianhead Dr., P.O. Box 8 Mosinee, WI 54455-0008
800/604-9466 715/693-1700 Fax 715/693-1799
www.fultonperformance.com
fulton@fultonperformance.com

F1851CE (A-7939) 3/02

Part #	Name	Quant
	BHW_WINCH	1
	M10_NYLOC_NUT	3
	M10BOLTX25	3
	M10WASHER_FORM_A	3
	M10WASHER_FORM_B	3



Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90

Unless shown on drawing all nuts and bolts should be tightened to the above torque values

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ISSUE 9.1 15/Aug/07

TOLERANCES

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MATERIAL

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Monkey Tower Ltd

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Essex CM4 9NS 01277 356172,
07866 687618 alan.watt@monkeytower.co.uk

Quantity

1 per tower

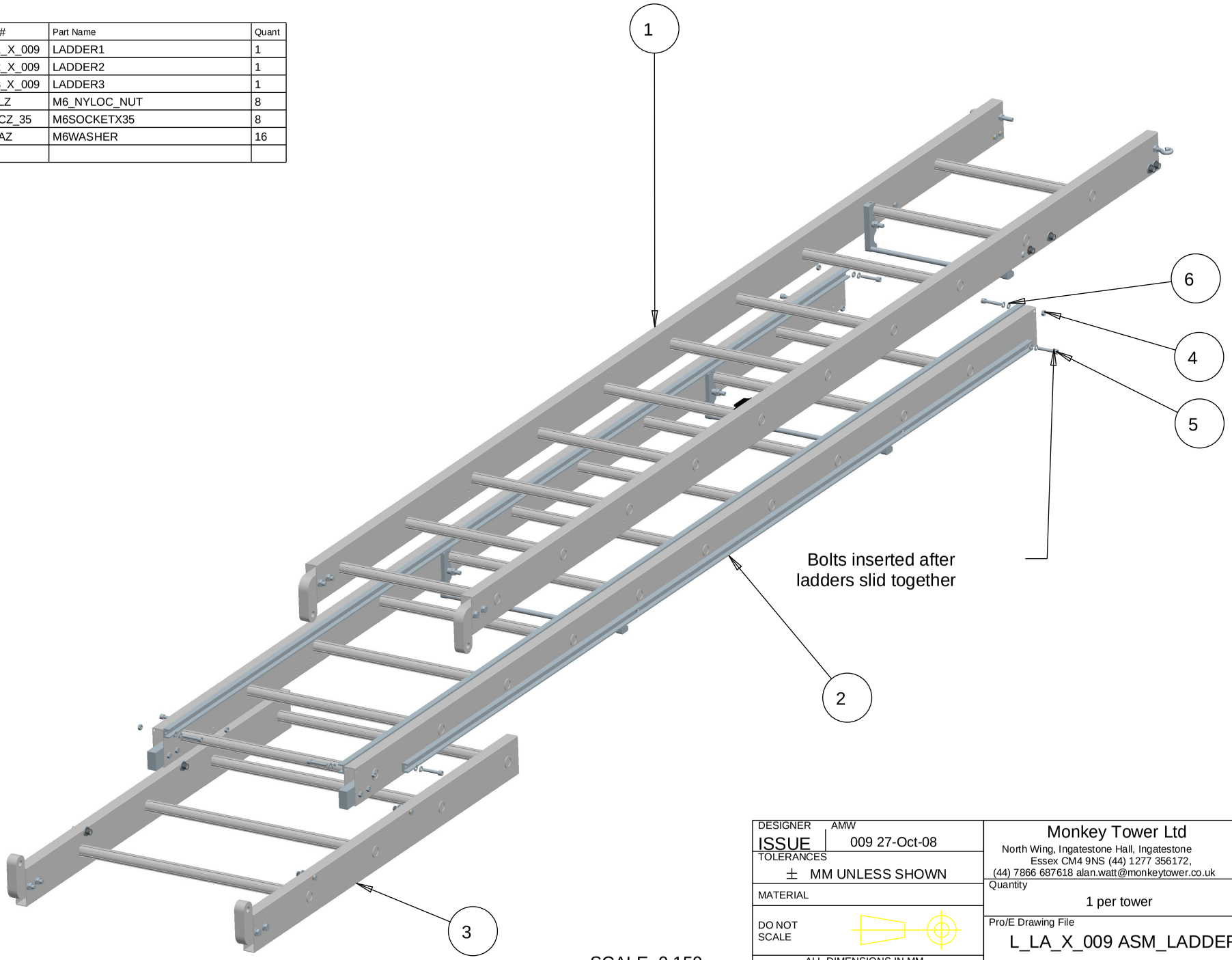
Pro/E Drawing File

ASM_WINCHASM

For Manufacture | SCALE 0.400 | SHEET 1 OF 1

8.2 Ladder Assembly

Index	Part #	Part Name	Quant
1	L_L1_X_009	LADDER1	1
2	L_L2_X_009	LADDER2	1
3	L_L3_X_009	LADDER3	1
4	M6_LZ	M6_NYLOC_NUT	8
5	M6_CZ_35	M6SOCKETX35	8
6	M6_AZ	M6WASHER	16



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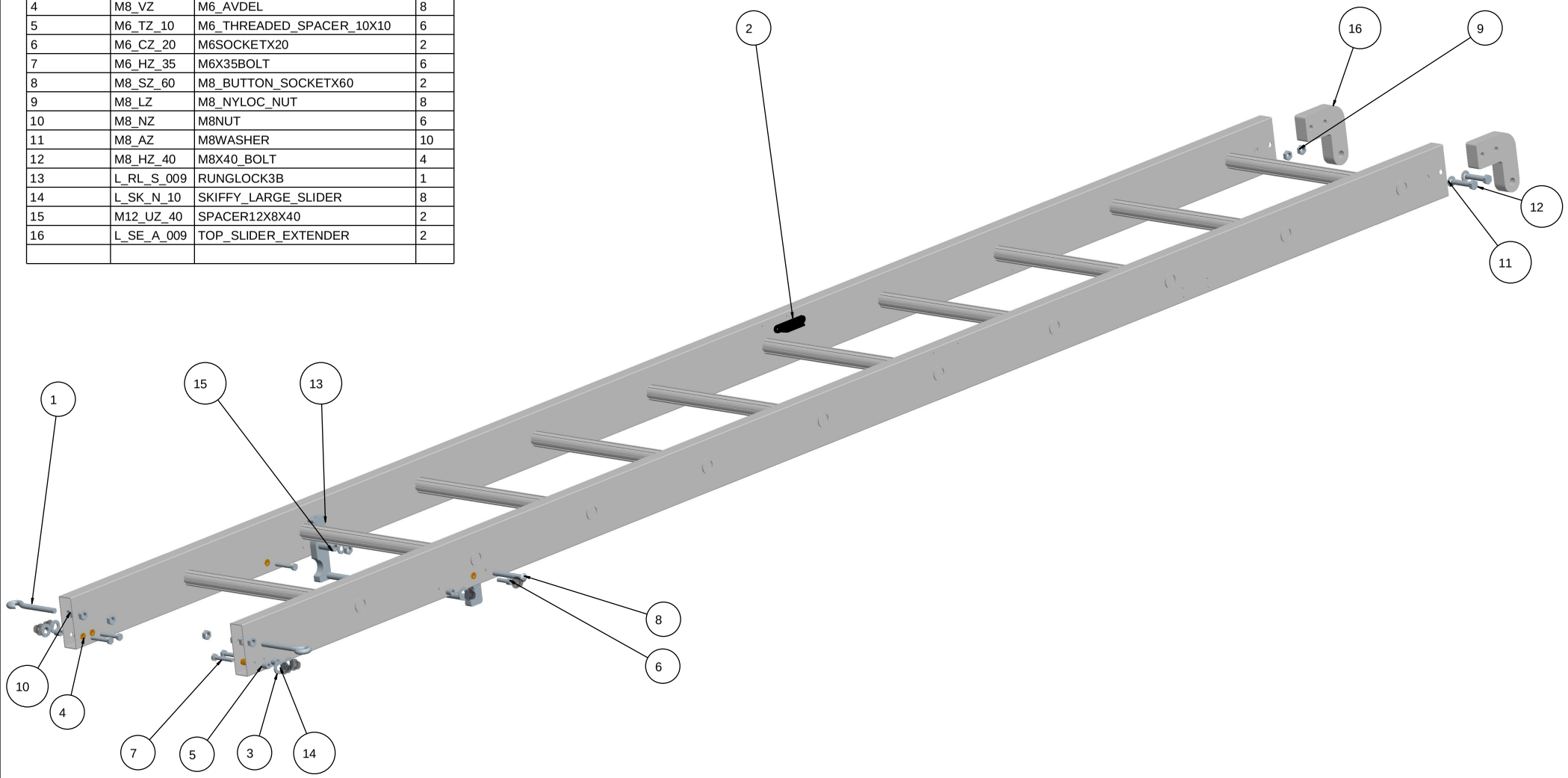
ISSUE 009 27-Oct-08	North Wing, Ingatestone Hall, Ingatestone Essex CM4 9NS (44) 1277 356172, (44) 7866 687618 alan.watt@monkeytower.co.uk
TOLERANCES ± MM UNLESS SHOWN	Quantity 1 per tower
MATERIAL	Pro/E Drawing File L_LA_X_009 ASM_LADDERS
DO NOT SCALE	
ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE	For Manufacture | SCALE 0.032 | SHEET 1 OF 1

Index	Part #	Part Name	Quant
1	M8_EZ_80	EYEBOLT	2
2	L_HJ_N_009	HOLT_JAMB_CLEAT	1
3	m10_AZ	M10WASHER_FORM_A	6
4	M8_VZ	M6_AVDEL	8
5	M6_TZ_10	M6_THREADED_SPACER_10X10	6
6	M6_CZ_20	M6SOCKETX20	2
7	M6_HZ_35	M6X35BOLT	6
8	M8_SZ_60	M8_BUTTON_SOCKETX60	2
9	M8_LZ	M8_NYLOC_NUT	8
10	M8_NZ	M8NUT	6
11	M8_AZ	M8WASHER	10
12	M8_HZ_40	M8X40_BOLT	4
13	L_RL_S_009	RUNGLOCK3B	1
14	L_SK_N_10	SKIFFY_LARGE_SLIDER	8
15	M12_UZ_40	SPACER12X8X40	2
16	L_SE_A_009	TOP_SLIDER_EXTENDER	2



Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90
Unless shown on drawing all nuts and bolts should be tightened to the above torque values	

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Quantity

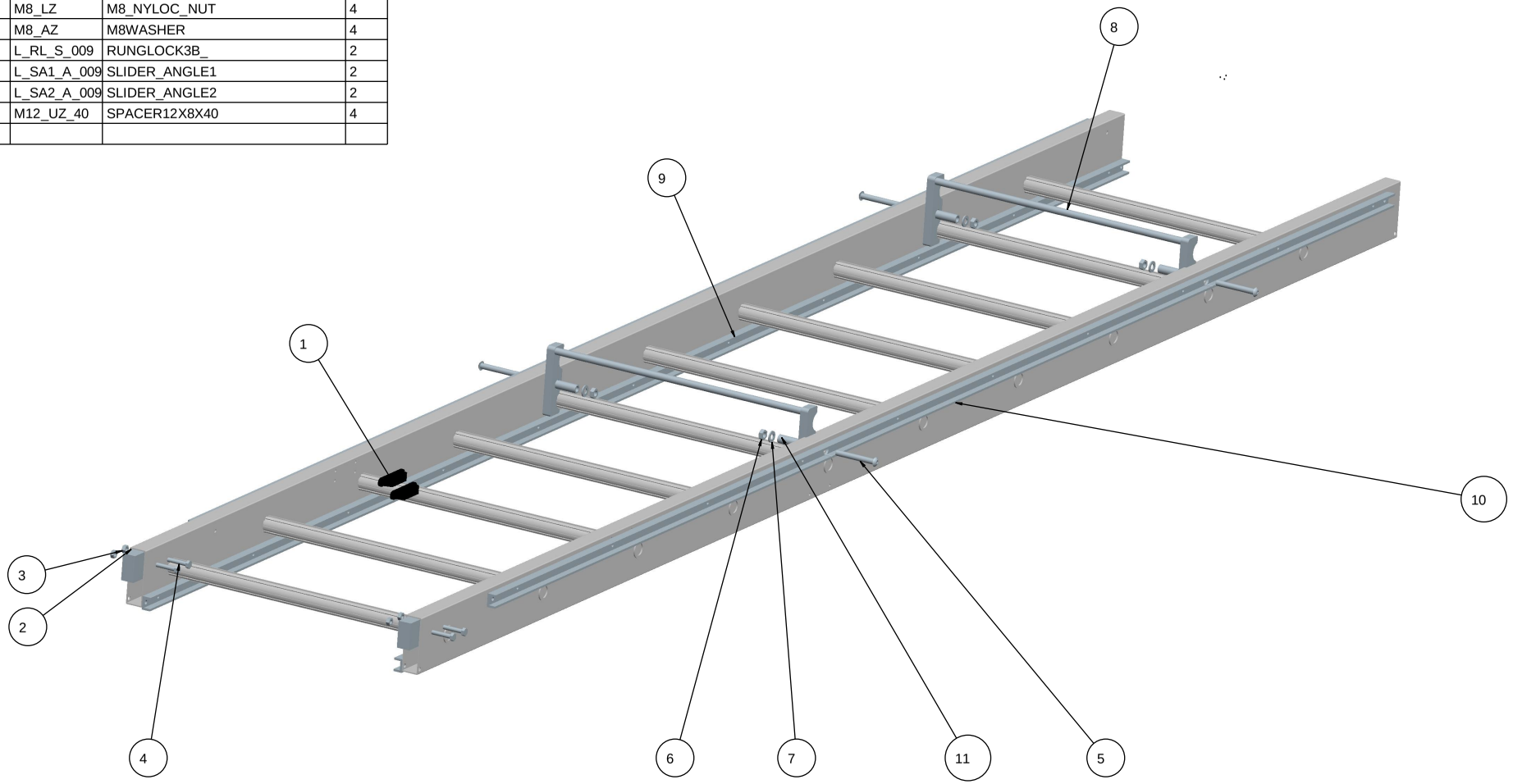
1 per tower

Pro/E Drawing File

ASM_LADDER1

For Manufacture | SCALE 0.180 | SHEET 1 OF 1

Index	Part #	Part Name	Quant
1	L_HJ_N_009	HOLT_JAMB_CLEAT	2
2	L_BS_A_009	LADDER_BOTTOM_SPACER	2
3	M6_LZ	M6_NYLOC_NUT	4
4	M6_HZ_30	M6X30BOLT	4
5	M8_SZ_60	M8_BUTTON_SOCKETX60	4
6	M8_LZ	M8_NYLOC_NUT	4
7	M8_AZ	M8WASHER	4
8	L_RL_S_009	RUNGLOCK3B_	2
9	L_SA1_A_009	SLIDER_ANGLE1	2
10	L_SA2_A_009	SLIDER_ANGLE2	2
11	M12_UZ_40	SPACER12X8X40	4



Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90
Unless shown on drawing all nuts and bolts should be tightened to the above torque values	

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Quantity

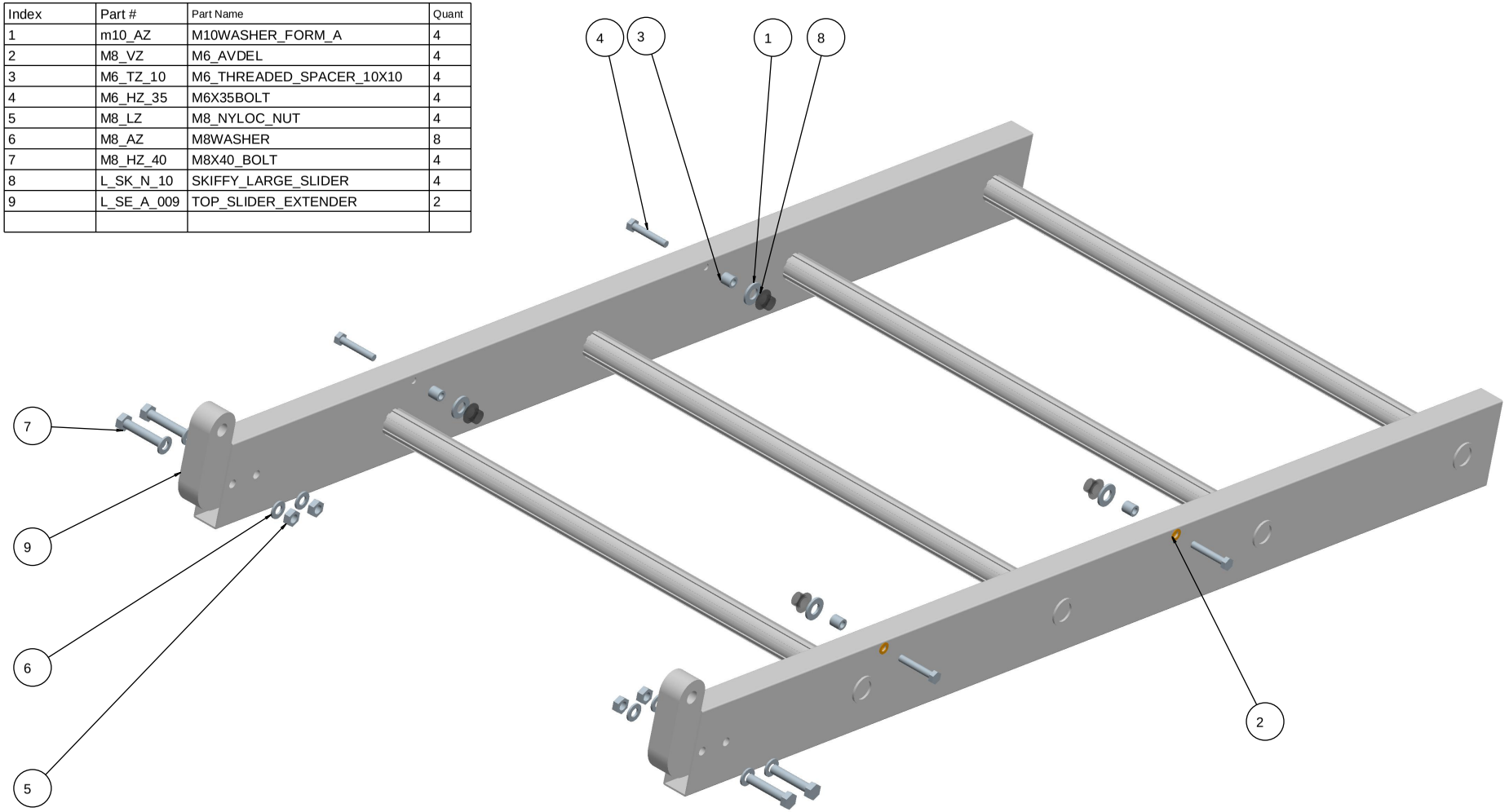
1 per tower

Pro/E Drawing File

ASM_LADDER2

For Manufacture | SCALE 0.180 | SHEET 1 OF 1

Index	Part #	Part Name	Quant
1	m10_AZ	M10WASHER_FORM_A	4
2	M8_VZ	M6_AVDEL	4
3	M6_TZ_10	M6_THREADED_SPACER_10X10	4
4	M6_HZ_35	M6X35BOLT	4
5	M8_LZ	M8_NYLOC_NUT	4
6	M8_AZ	M8WASHER	8
7	M8_HZ_40	M8X40_BOLT	4
8	L_SK_N_10	SKIFFY_LARGE_SLIDER	4
9	L_SE_A_009	TOP_SLIDER_EXTENDER	2



Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90

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Quantity

1 per tower

Pro/E Drawing File

1 ASM_LADDER3

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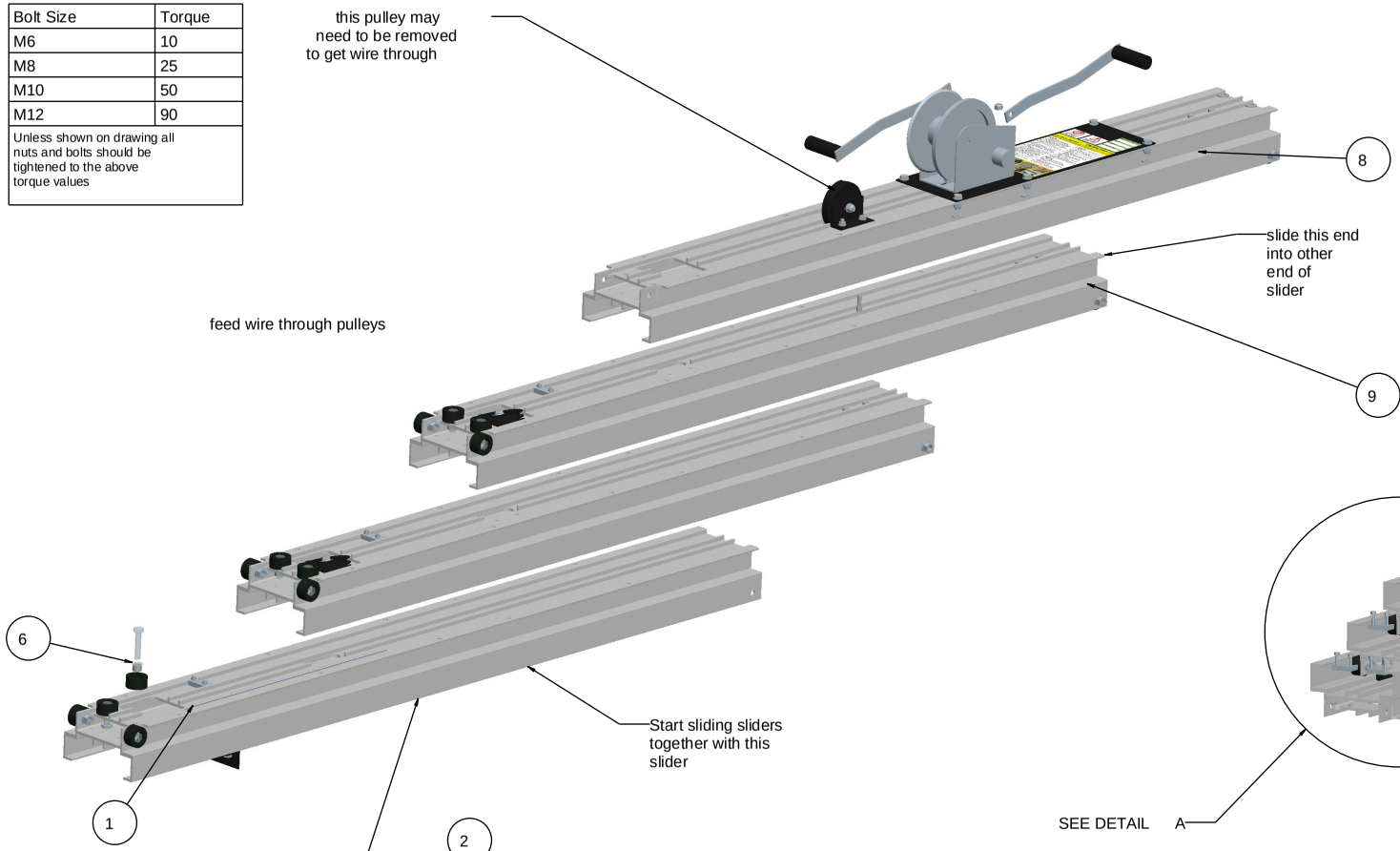
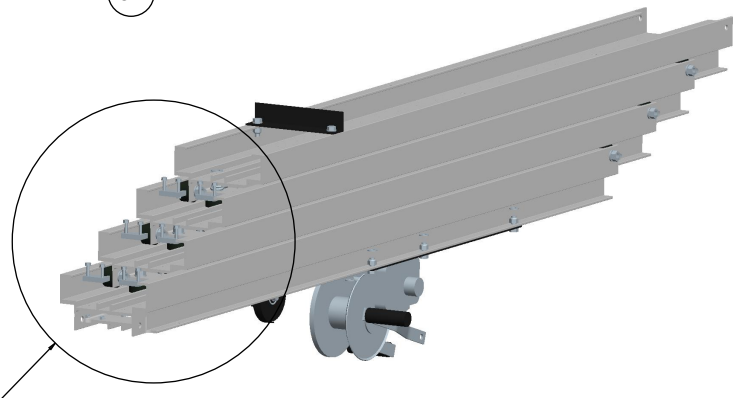
8.3 Slider Assembly

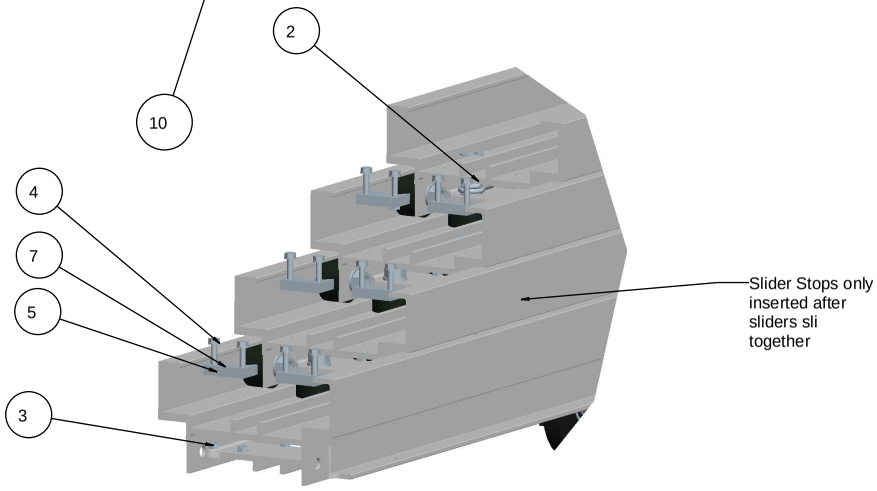
Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90

Unless shown on drawing all nuts and bolts should be tightened to the above torque values

Index	Part #	Part Name	Quant
1	S_WR_G_009	CABLE_THIMBLE	1
2	M12_LZ	M12_NYLOC_NUT	1
3	M6_LZ	M6_NYLOC_NUT	12
4	M6_AZ	M6WASHER	12
5	M6_HZ_30	M6X30BOLT	12
6	S_RO_X_009	ROLLER_LONG	1
7	S_SS_A_009	SLIDER_STOP	6
8	S_S0_X_009	SLIDER0	1
9	S_S1_X_009	SLIDER1	2
10	S_S2_X_009	SLIDER2	1







DETAIL A
SCALE 0.200

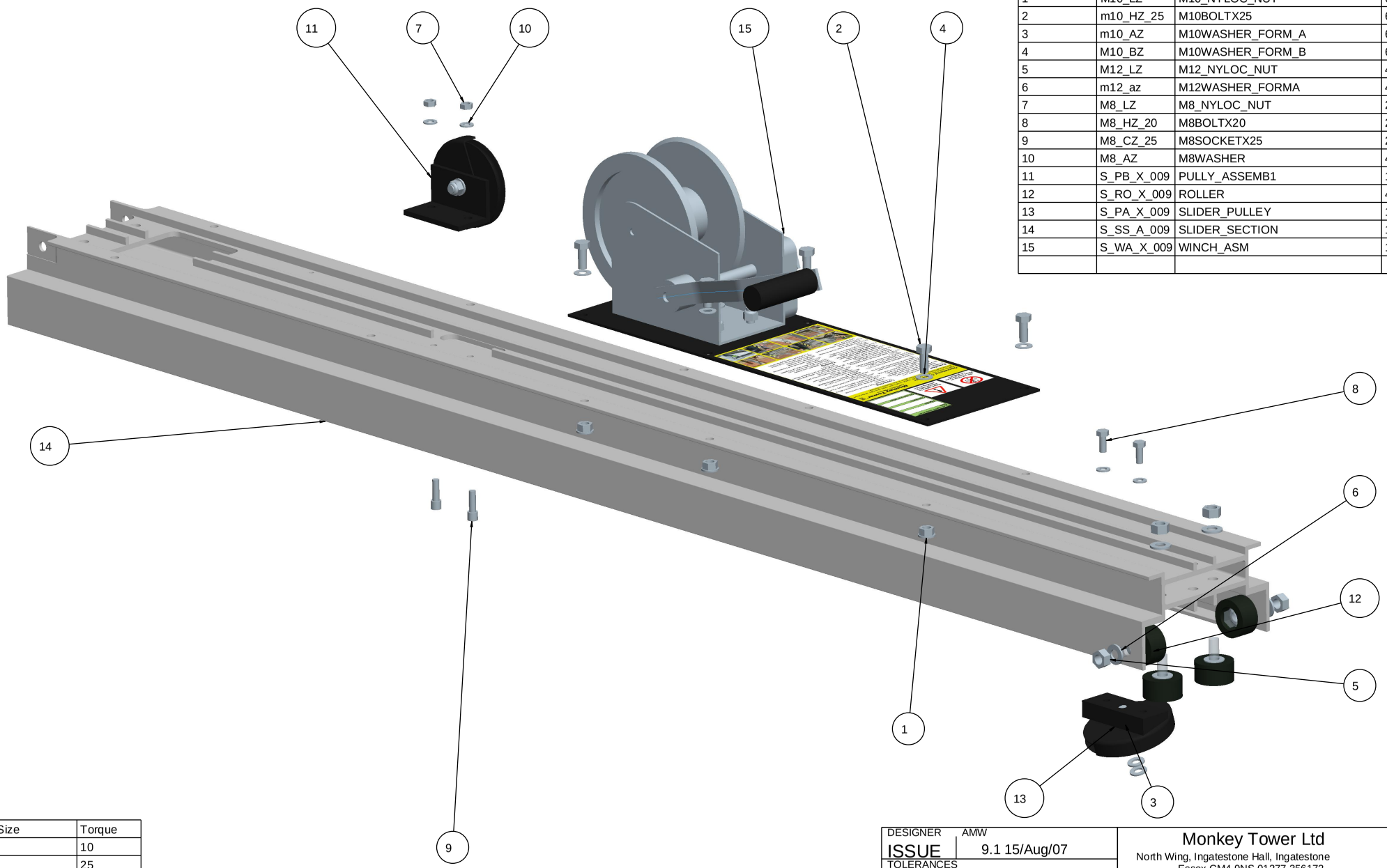
DESIGNER	AMW
ISSUE	9.1 25/Aug/07
TOLERANCES	± MM UNLESS SHOWN
MATERIAL	
DO NOT SCALE	
ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE	

Monkey Tower Ltd
North Wing, Ingatestone Hall, Ingatestone
Essex CM4 9NS 01277 356172,
07866 687618 alan.watt@monkeytower.co.uk

Quantity: 1 per tower

Pro/E Drawing File: ASM_MANYSLIDERS

For Manufacture	SCALE 0.100	SHEET 1 OF 1



Index	Part #	Part Name	Quant
1	M10_LZ	M10_NYLOC_NUT	6
2	m10_HZ_25	M10BOLTX25	6
3	m10_AZ	M10WASHER_FORM_A	6
4	M10_BZ	M10WASHER_FORM_B	6
5	M12_LZ	M12_NYLOC_NUT	4
6	m12_az	M12WASHER_FORMA	4
7	M8_LZ	M8_NYLOC_NUT	2
8	M8_HZ_20	M8BOLTX20	2
9	M8_CZ_25	M8SOCKETX25	2
10	M8_AZ	M8WASHER	4
11	S_PB_X_009	PULLY_ASSEMB1	1
12	S_RO_X_009	ROLLER	4
13	S_PA_X_009	SLIDER_PULLEY	1
14	S_SS_A_009	SLIDER_SECTION	1
15	S_WA_X_009	WINCH_ASM	1

Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90

Unless shown on drawing all nuts and bolts should be tightened to the above torque values

DESIGNER AMW

ISSUE 9.1 15/Aug/07

TOLERANCES

± MM UNLESS SHOWN

MATERIAL

DO NOT SCALE

ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE

Monkey Tower Ltd
North Wing, Ingatestone Hall, Ingatestone
Essex CM4 9NS 01277 356172,
07866 687618 alan.watt@monkeytower.co.uk

Quantity

1 per tower

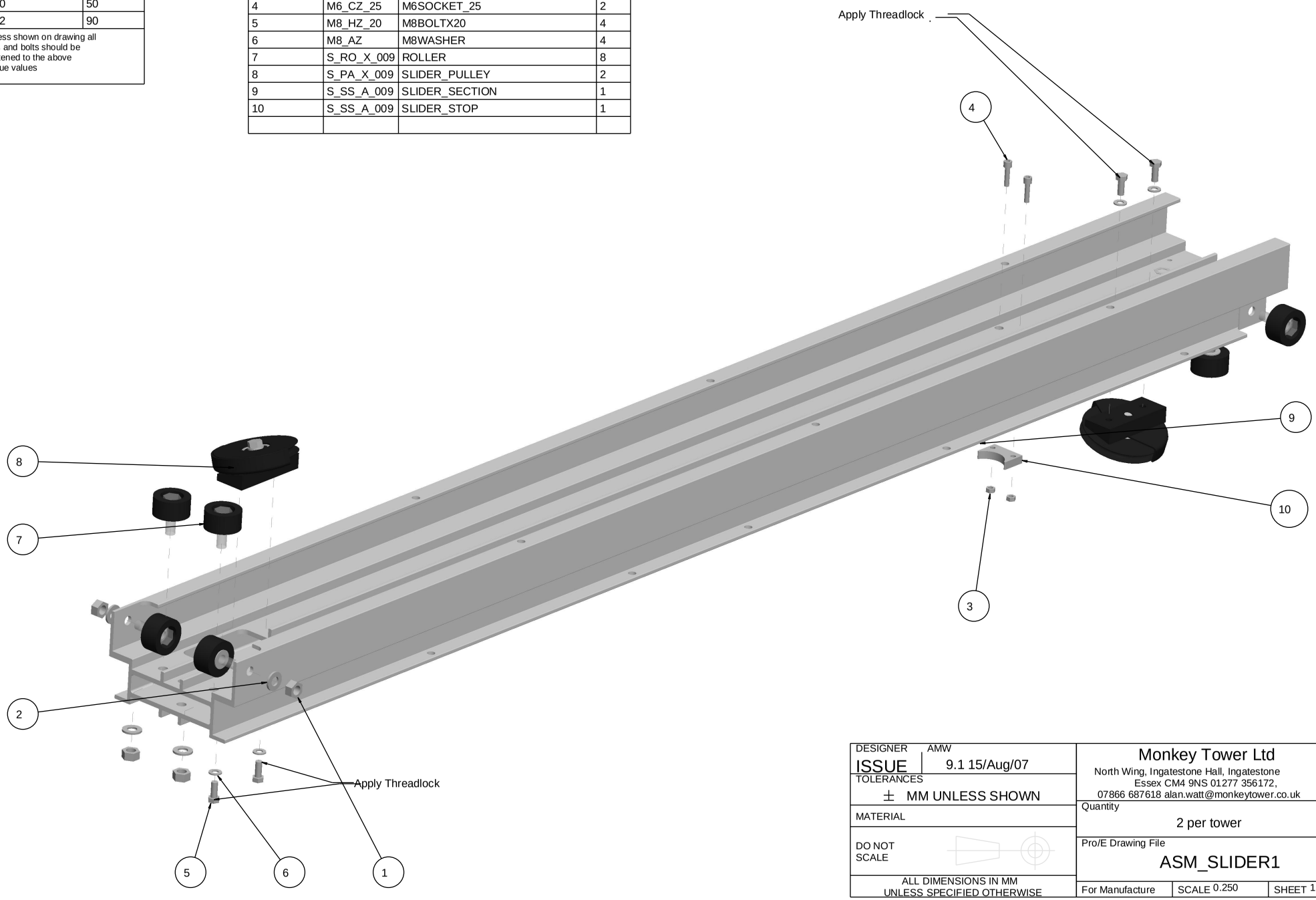
Pro/E Drawing File

ASM_SLIDER0

For Manufacture | SCALE 0.250 | SHEET 1 OF 1

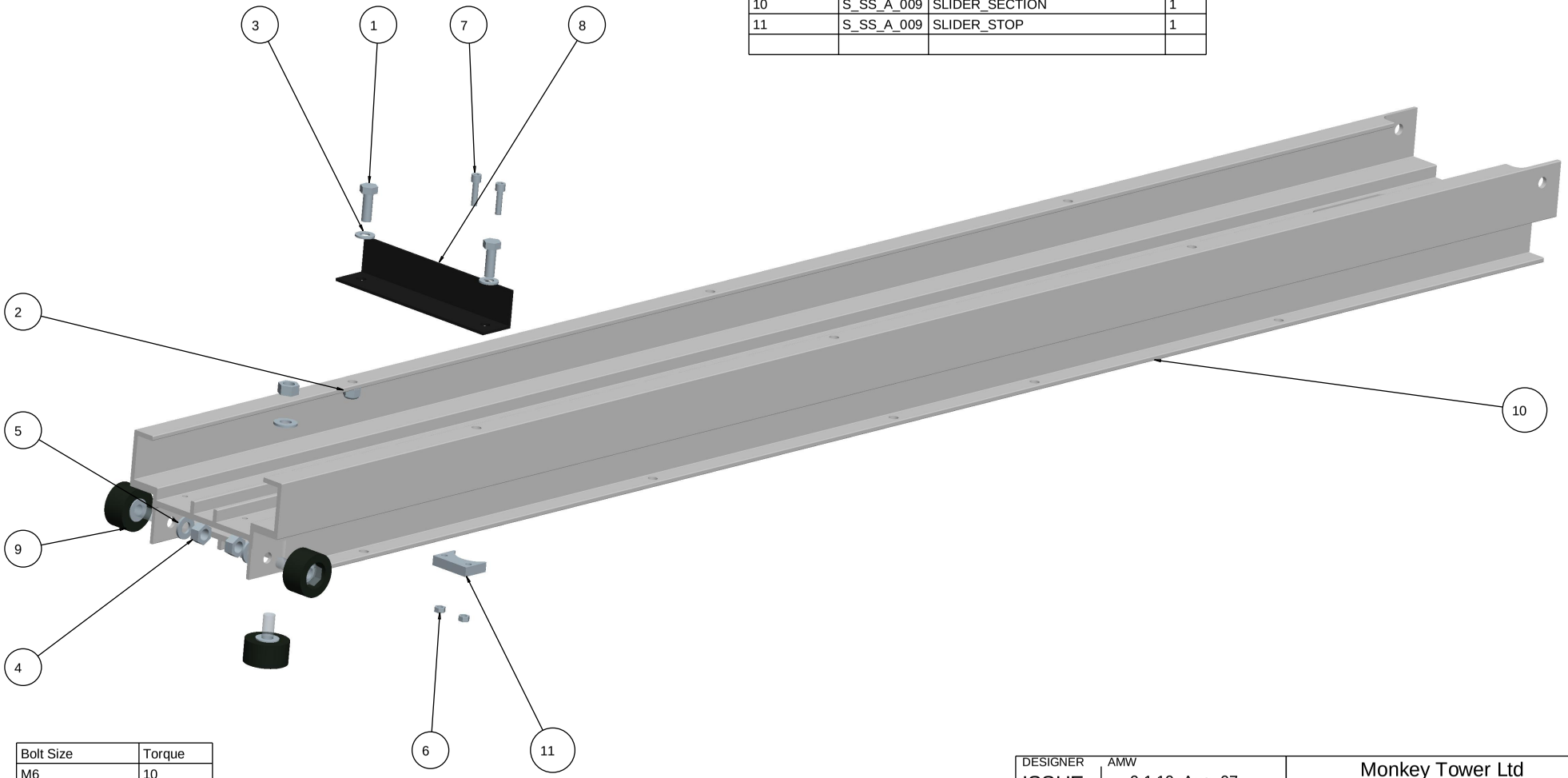
Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90
Unless shown on drawing all nuts and bolts should be tightened to the above torque values	

Index	Part #	Part Name	Quant
1	M12_LZ	M12_NYLOC_NUT	8
2	m12_az	M12WASHER_FORMA	8
3	M6_LZ	M6_NYLOC_NUT	2
4	M6_CZ_25	M6SOCKET_25	2
5	M8_HZ_20	M8BOLTX20	4
6	M8_AZ	M8WASHER	4
7	S_RO_X_009	ROLLER	8
8	S_PA_X_009	SLIDER_PULLEY	2
9	S_SS_A_009	SLIDER_SECTION	1
10	S_SS_A_009	SLIDER_STOP	1



DESIGNER AMW ISSUE 9.1 15/Aug/07 TOLERANCES ± MM UNLESS SHOWN MATERIAL DO NOT SCALE ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE	Monkey Tower Ltd North Wing, Ingatestone Hall, Ingatestone Essex CM4 9NS 01277 356172, 07866 687618 alan.watt@monkeytower.co.uk Quantity 2 per tower Pro/E Drawing File ASM_SLIDER1	
	For Manufacture	SCALE 0.250 SHEET 1 OF 1

Index	Part #	Part Name	Quant
1	M10_HZ_30	M10_BOLTX30	2
2	M10_LZ	M10_NYLOC_NUT	2
3	m10_AZ	M10WASHER_FORM_A	2
4	M12_LZ	M12_NYLOC_NUT	3
5	m12_az	M12WASHER_FORMA	3
6	M6_LZ	M6_NYLOC_NUT	2
7	M6_CZ_25	M6SOCKET_25	2
8	P33	PLATFORM_SLIDER_ATTACH	1
9	S_RO_X_009	ROLLER	3
10	S_SS_A_009	SLIDER_SECTION	1
11	S_SS_A_009	SLIDER_STOP	1



Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90

Unless shown on drawing all nuts and bolts should be tightened to the above torque values

DESIGNER AMW

ISSUE 9.1 19_Aug_07

TOLERANCES

± MM UNLESS SHOWN

MATERIAL

DO NOT SCALE

ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE

Monkey Tower Ltd

North Wing, Ingatestone Hall, Ingatestone
Essex CM4 9NS 01277 356172,
07866 687618 alan.watt@monkeytower.co.uk

Quantity

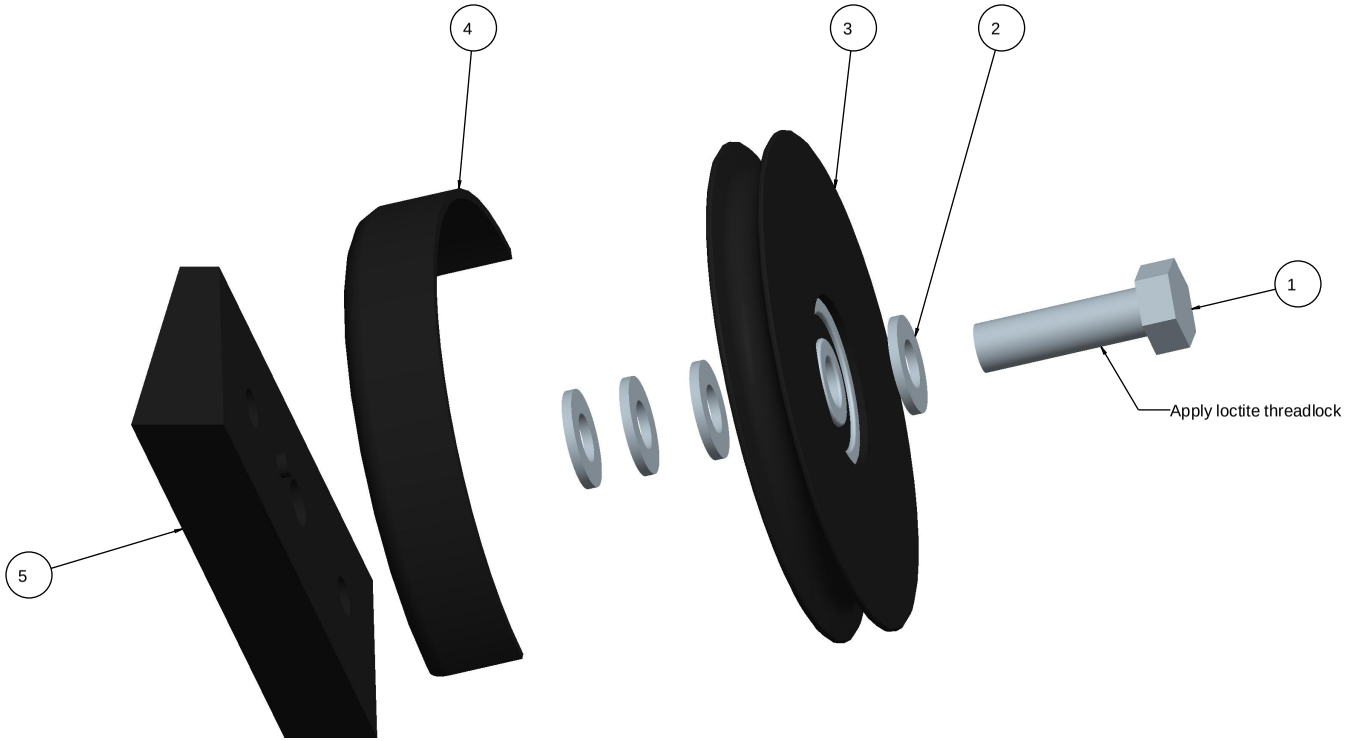
1 per tower

Pro/E Drawing File

ASM_SLIDER2

For Manufacture | SCALE 0.250 | SHEET 1 OF 1

Part #	Name	Quant
	M10_BOLTX35	1
	M10WASHER_FORM_A	4
	PULLEY	1
	PULLEYCOVER_NEW	1
	SLIDER_PULLEY_SUPPORT	1



Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90

Unless shown on drawing all nuts and bolts should be tightened to the above torque values

DESIGNER AMW

ISSUE 9.1 16-Aug-07

TOLERANCES

± MM UNLESS SHOWN

MATERIAL

DO NOT SCALE

ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE

Monkey Tower Ltd

North Wing, Ingatestone Hall, Ingatestone
Essex CM4 9NS 01277 356172,
07866 687618 alan.watt@monkeytower.co.uk

Quantity

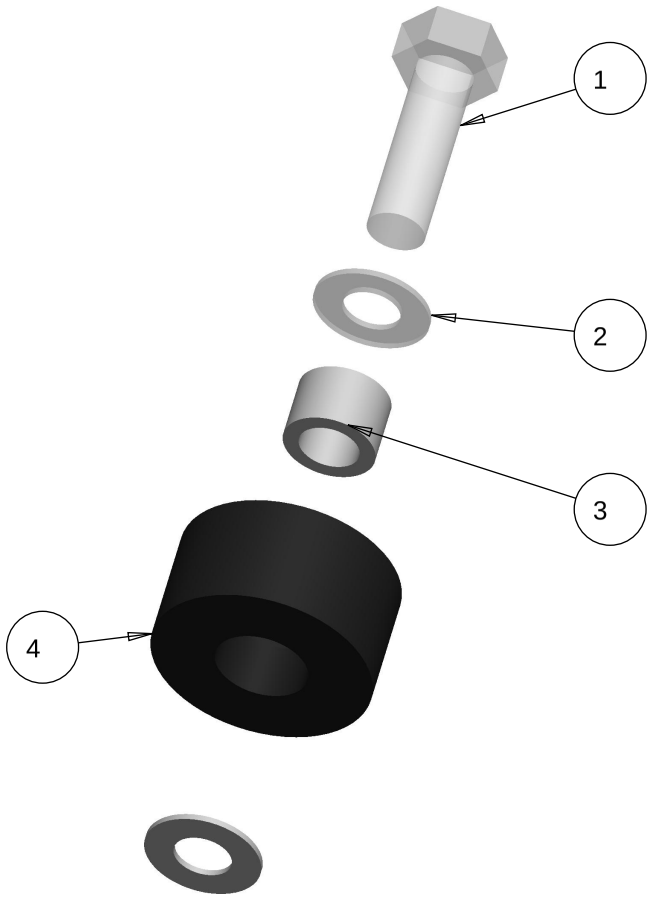
5 per tower

Pro/E Drawing File

ASM_SLIDER_PULLEY

For Manufacture | SCALE 1.000 | SHEET 1 OF 1

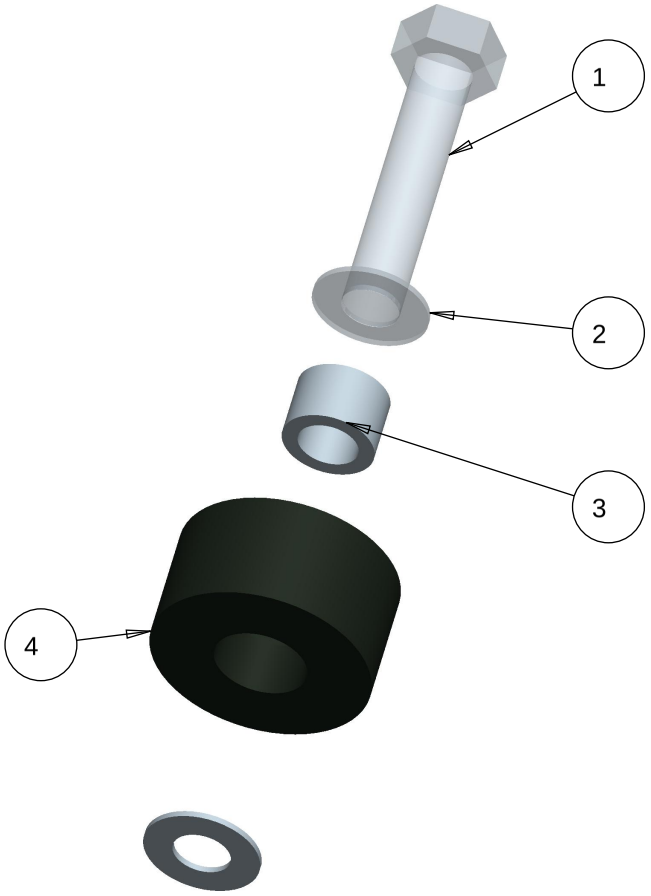
Index	Part #	Part Name	Quant
1	M12_HZ_40	M12BOLTX40	1
2	M12_BZ	M12WASHER_FORMB	2
3	S_RO_A_009	ROLLER	1
4	S_RW_N_009	ROLLER_WHEEL	1



SCALE 1.000

DESIGNER AMW	Monkey Tower Ltd
ISSUE 9c 23-Oct-08	North Wing, Ingatestone Hall, Ingatestone Essex CM4 9NS (44) 1277 356172, (44) 7866 687618 alan.watt@monkeytower.co.uk
TOLERANCES ± MM UNLESS SHOWN	Quantity per tower
MATERIAL	Pro/E Drawing File ASM_ROLLERASM
DO NOT SCALE	For Manufacture | SCALE 0.500 | SHEET 1 OF 1
ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE	

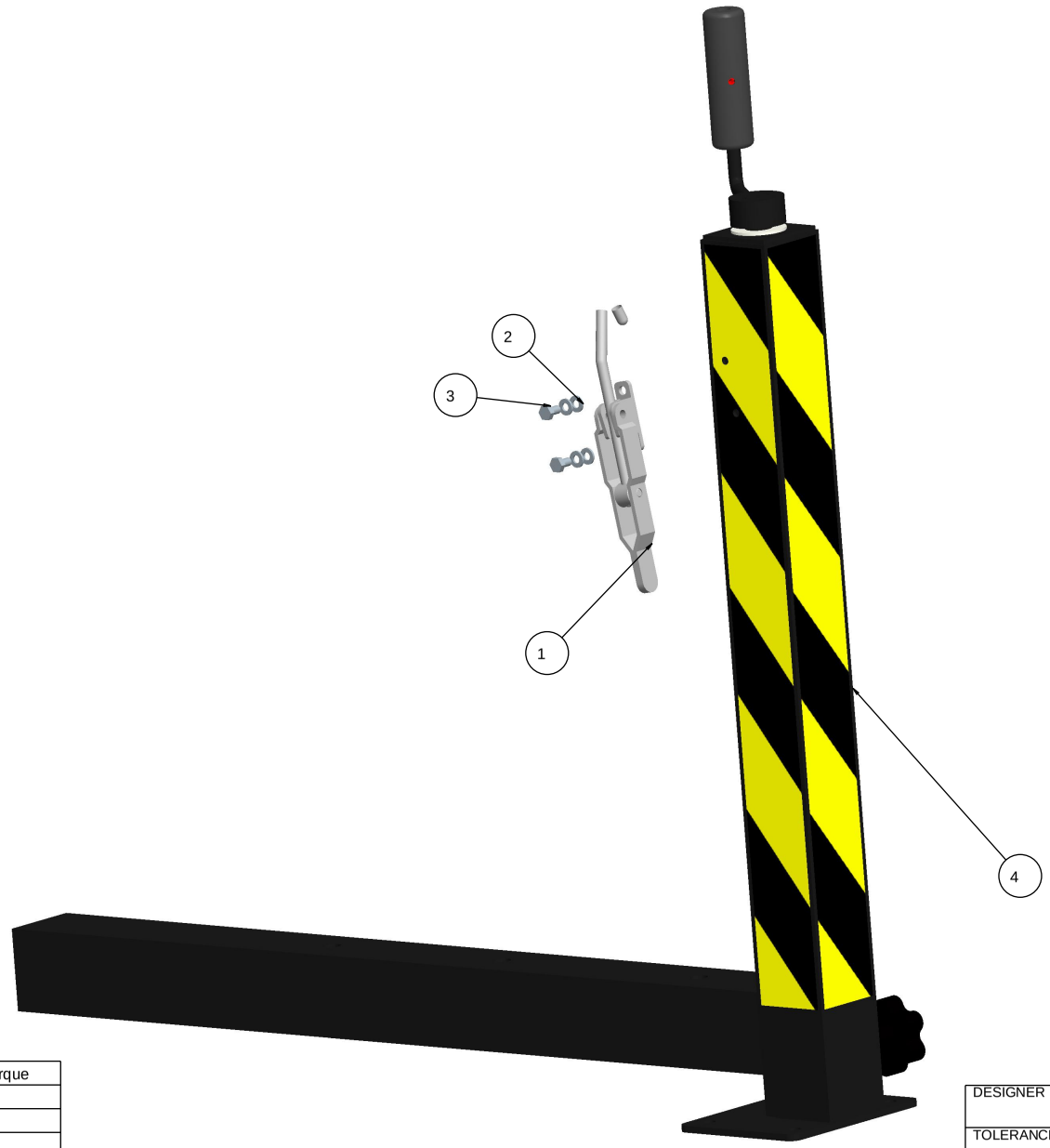
Index	Part #	Part Name	Quant
1	M12_HZ_60	M12BOLTX60	1
2	M12_BZ	M12WASHER_FORMB	2
3	S_RO_A_009	ROLLER	1
4	S_RW_N_009	ROLLER_WHEEL	1



DESIGNER AMW ISSUE 23-Oct-08 TOLERANCES ± MM UNLESS SHOWN MATERIAL DO NOT SCALE ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE	Monkey Tower Ltd North Wing, Ingatestone Hall, Ingatestone Essex CM4 9NS (44) 1277 356172, (44) 7866 687618 alan.watt@monkeytower.co.uk Quantity 1 per tower Pro/E Drawing File S_RO_X_009 ASM_ROLLERLONG	
	For Manufacture	SCALE 1.000 SHEET 1 OF 1

8.4 Leg Assembly

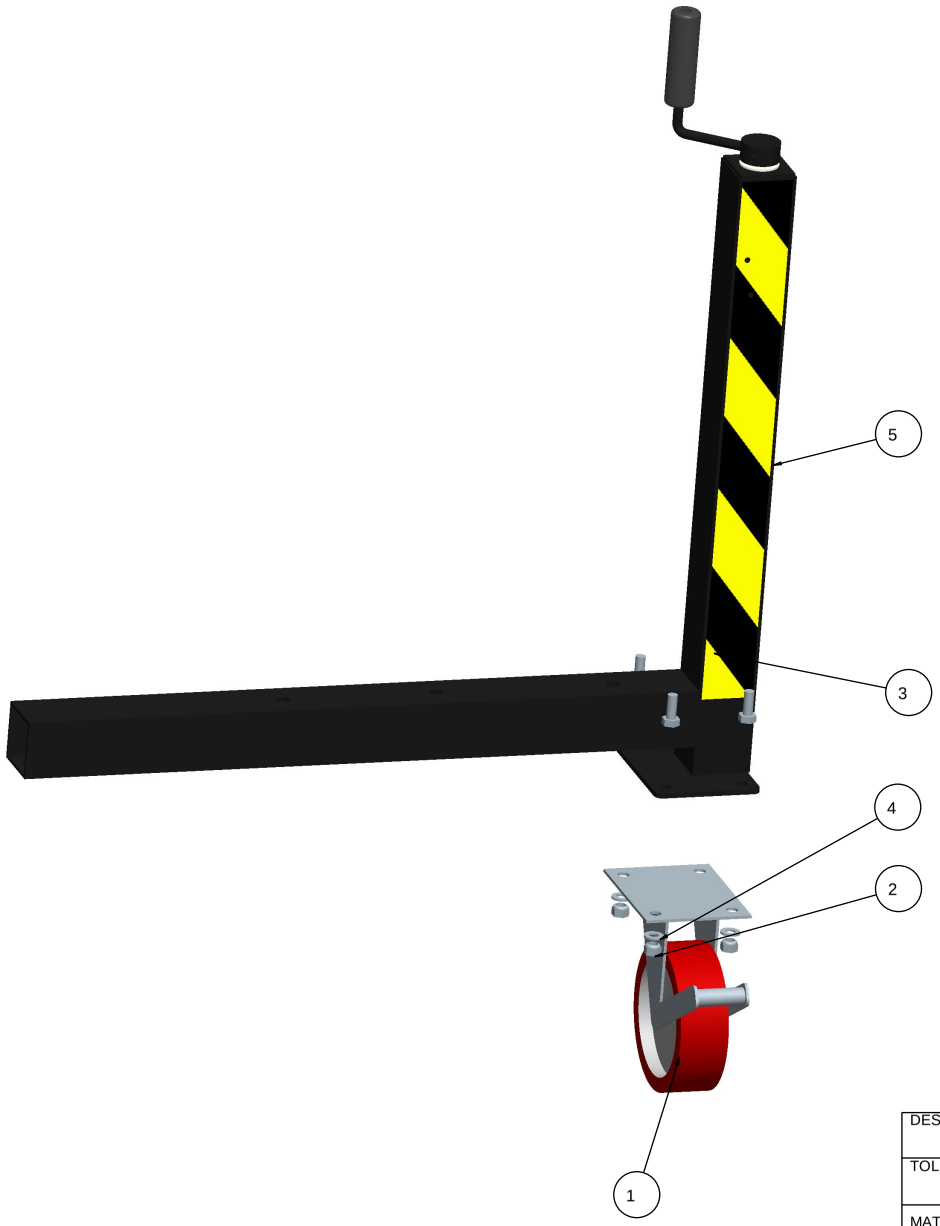
Part #	Name	Quant
1	GH_452_	1
2	M6WASHER	4
3	M6X10BOLT	2
4	STABILISER_CH	1



Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90
Unless shown on drawing all nuts and bolts should be tightened to the above torque values	

DESIGNER 15-Aug-07 AMW	Monkey Tower Ltd 32 Hgh St, Stock Essex, CM4 9BA 01277 840221, alan.watt@monkeytower.co.uk
TOLERANCES ± MM UNLESS SHOWN	Quantity 2 per tower
MATERIAL	
DO NOT SCALE	Pro/E Drawing File ASM_STABILISER_A
ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE	For Manufacture | SCALE 0.300 | SHEET 1 OF 1

Part #	Name	Quant
1	AUT_SCAFFOLD_CASTOR	1
2	M10_NYLOC_NUT	4
3	M10BOLTX25	4
4	M10WASHER_FORM_A	4
5	STABILISER_CH	1



Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90

Unless shown on drawing all nuts and bolts should be tightened to the above torque values

DESIGNER 15-Aug-07
AMW

TOLERANCES
± MM UNLESS SHOWN

MATERIAL

DO NOT SCALE

ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE

Monkey Tower Ltd
32 Hgh St, Stock Essex, CM4 9BA
01277 840221, alan.watt@monkeytower.co.uk

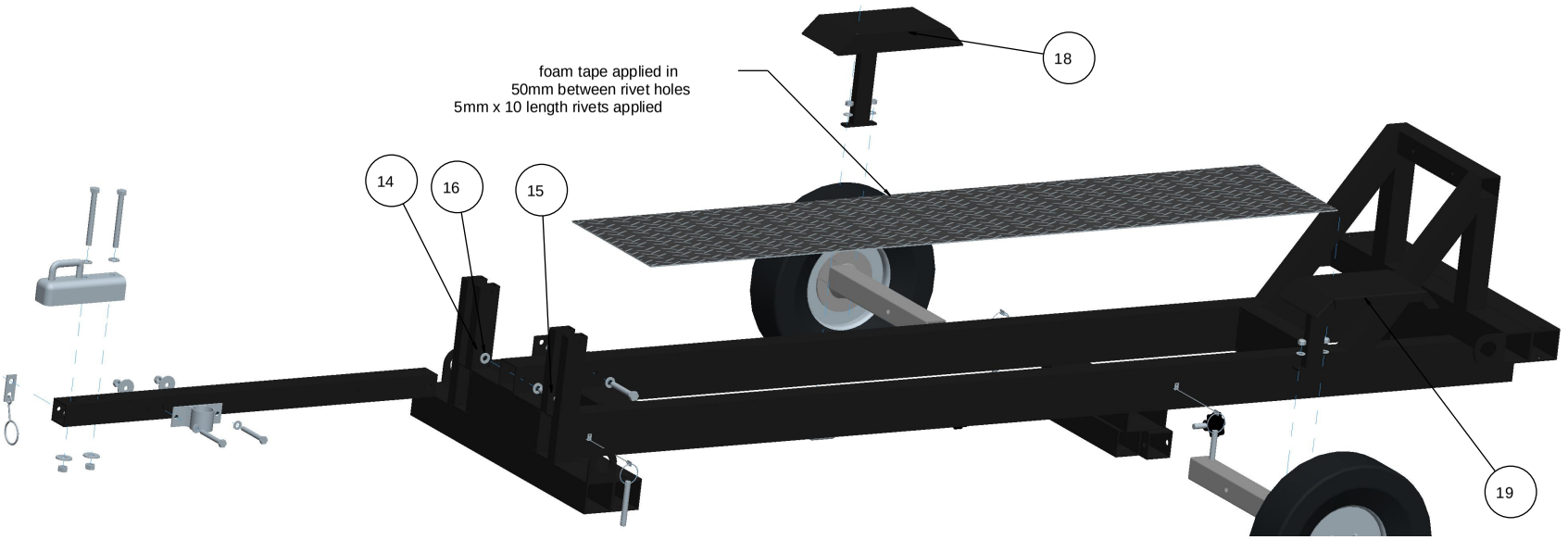
Quantity
2 per tower

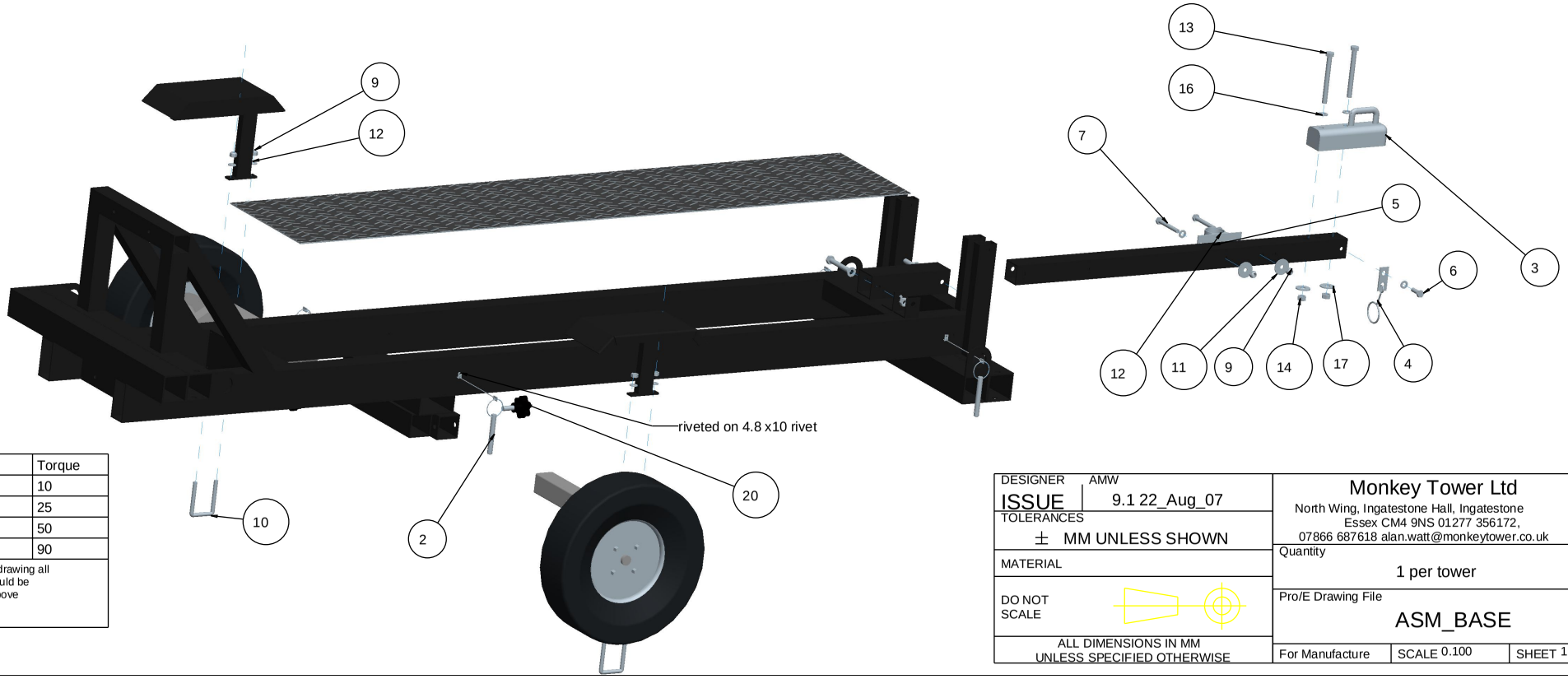
Pro/E Drawing File
ASM_STABILISERB

For Manufacture | SCALE 0.200 | SHEET 1 OF 1

8.5 Base Assembly

Part #	Name	Quant
1	8INCHWHEEL	2
2	DETENTPIN	4
3	HITCH	1
4	HITCH_RELEASE	1
5	JOCKEYCLAMP	1
6	M10_BOLTX30	1
7	M10_BOLTX80	2
8	M10_NUT	2
9	M10_NYLOC_NUT	5
10	M10_UBOLT	2
11	M10_WASHER_FORMG	2
12	M10WASHER_FORM_A	7
13	M12_BOLTX120	2
14	M12_NYLOC_NUT	4
15	M12BOLTX80	2
16	M12WASHER_FORMA	6
17	M12WASHER_FORMG	2
18	MUDGUARD	1
19	MUDGUARD2	1
20	STARWHEEL	2
21	SUSPENSION2	1
22	SUSPENSION2_	1
20	RIVET 4.8MM DIA 6MM GRIP	18





Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90

Unless shown on drawing all nuts and bolts should be tightened to the above torque values

DESIGNER AMW

ISSUE 9.1 22_Aug_07

TOLERANCES

± MM UNLESS SHOWN

MATERIAL

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ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE

Monkey Tower Ltd

North Wing, Ingatestone Hall, Ingatestone
Essex CM4 9NS 01277 356172,
07866 687618 alan.watt@monkeytower.co.uk

Quantity

1 per tower

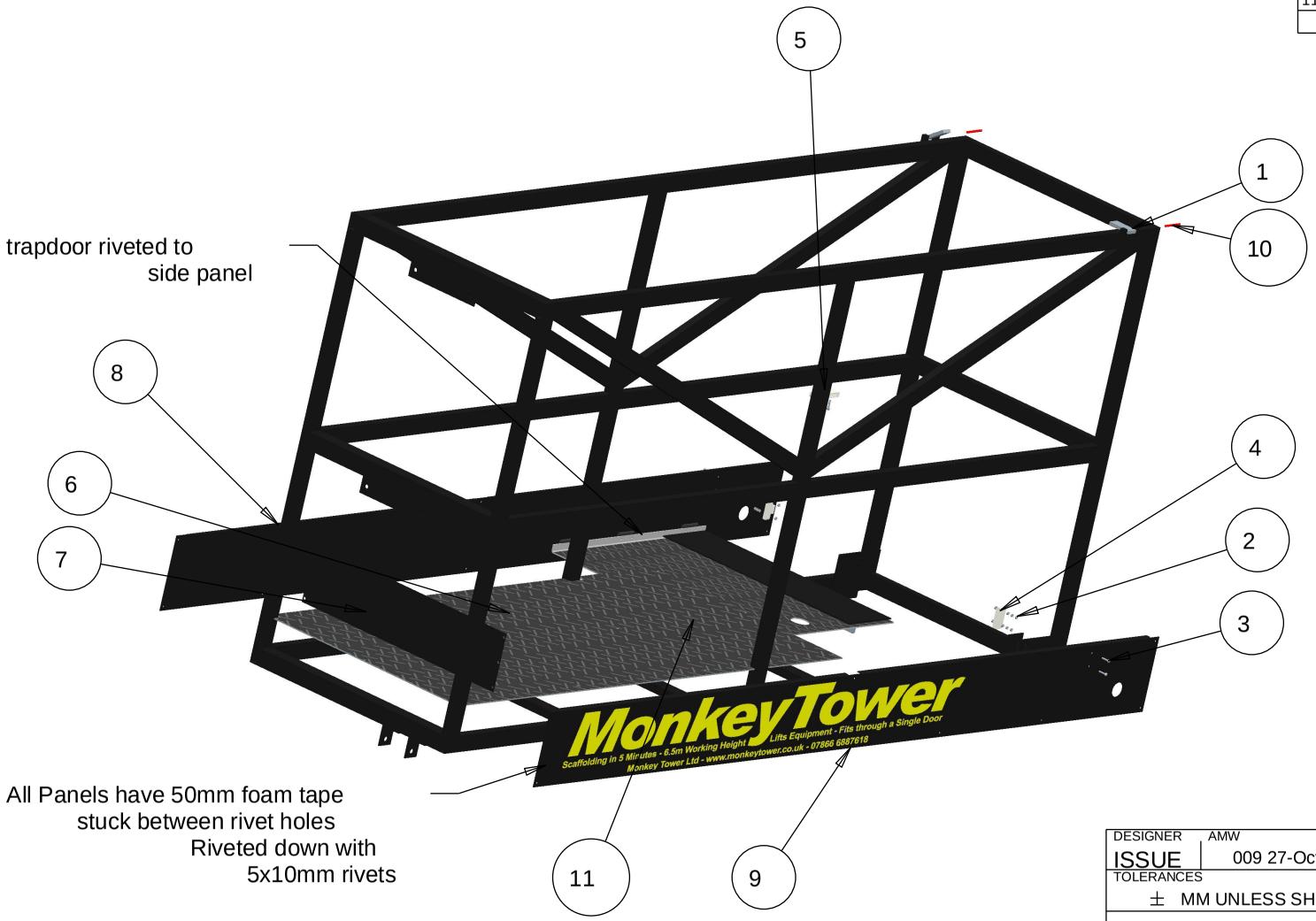
Pro/E Drawing File

ASM_BASE

For Manufacture | SCALE 0.100 | SHEET 1 OF 1

8.6 Platform Assembly

Index	Part #	Part Name	Quant
1	M1	BRACE_STOP2B	2
2	M4_NZ	M4_NUT	16
3	M4_HZ_20	M4BOLTX20	6
4	P_M1_N_009	MAGNETIC_CATCH	2
5	P_M2_N_009	MAGNETIC_CATCH_LARGE	1
6	p20	PLATFORM_BASE	1
7	p22	PLATFORM_KICKBOARD2	1
8	p23	PLATFORM_SIDE_KICKSTRIP	1
9	p23b	PLATFORM_SIDE_KISCKSTRIP2	1
10	sp50	SPLIT_PIN_5X50	2
11	P_TR_X_009	TRAPDOOR	1



DESIGNER	AMW
ISSUE	009 27-Oct-08
TOLERANCES	± MM UNLESS SHOWN
MATERIAL	
DO NOT SCALE	
ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE	

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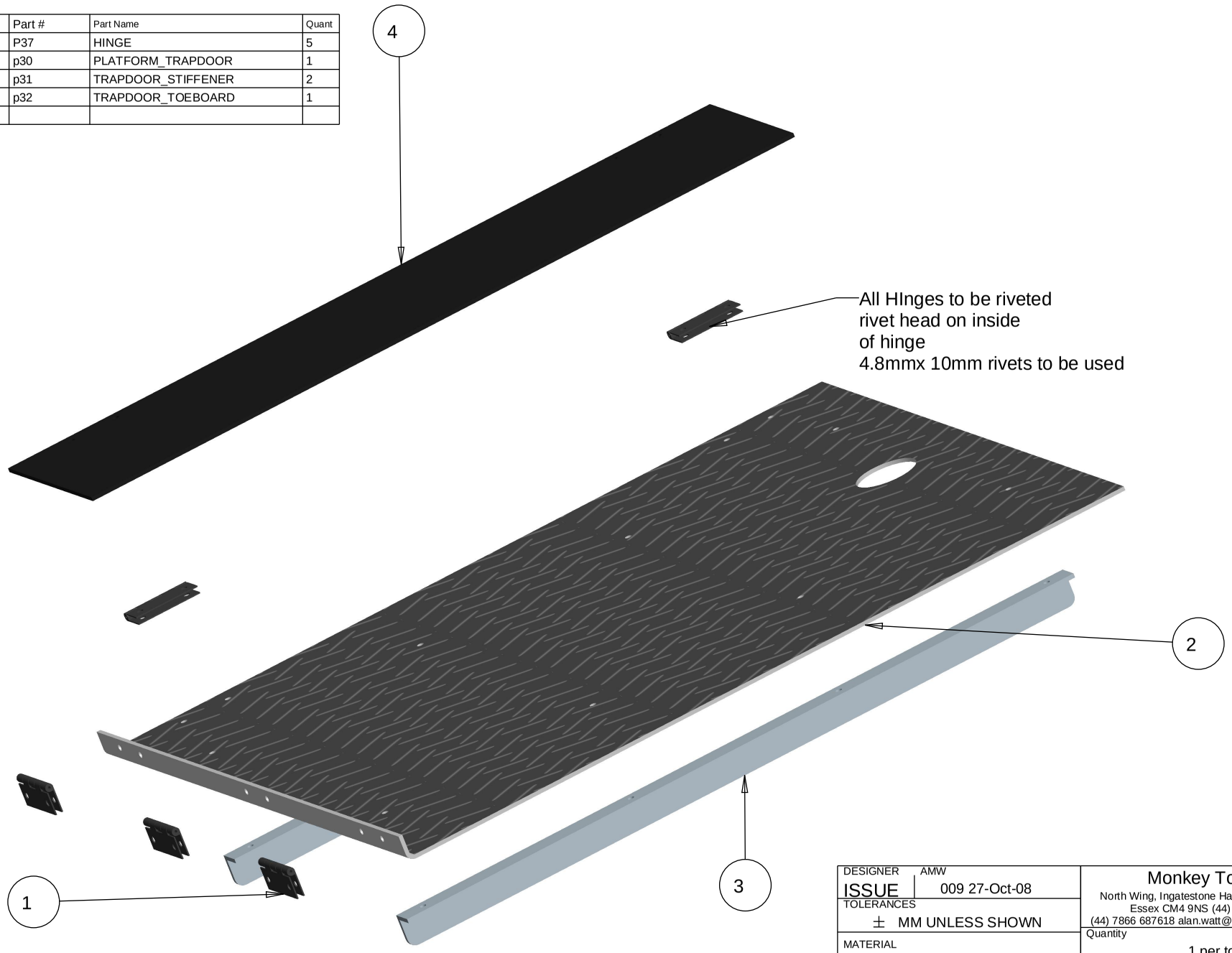
Essex CM4 9NS (44) 1277 356172,
(44) 7866 687618 alan.watt@monkeytower.co.uk

Quantity
1 per tower

Pro/E Drawing File
P_PA_X_009 ASM_PLATFORM

For Manufacture	SCALE 0.040	SHEET 1 OF 1

Index	Part #	Part Name	Quant
1	P37	HINGE	5
2	p30	PLATFORM_TRAPDOOR	1
3	p31	TRAPDOOR_STIFFENER	2
4	p32	TRAPDOOR_TOEBOARD	1

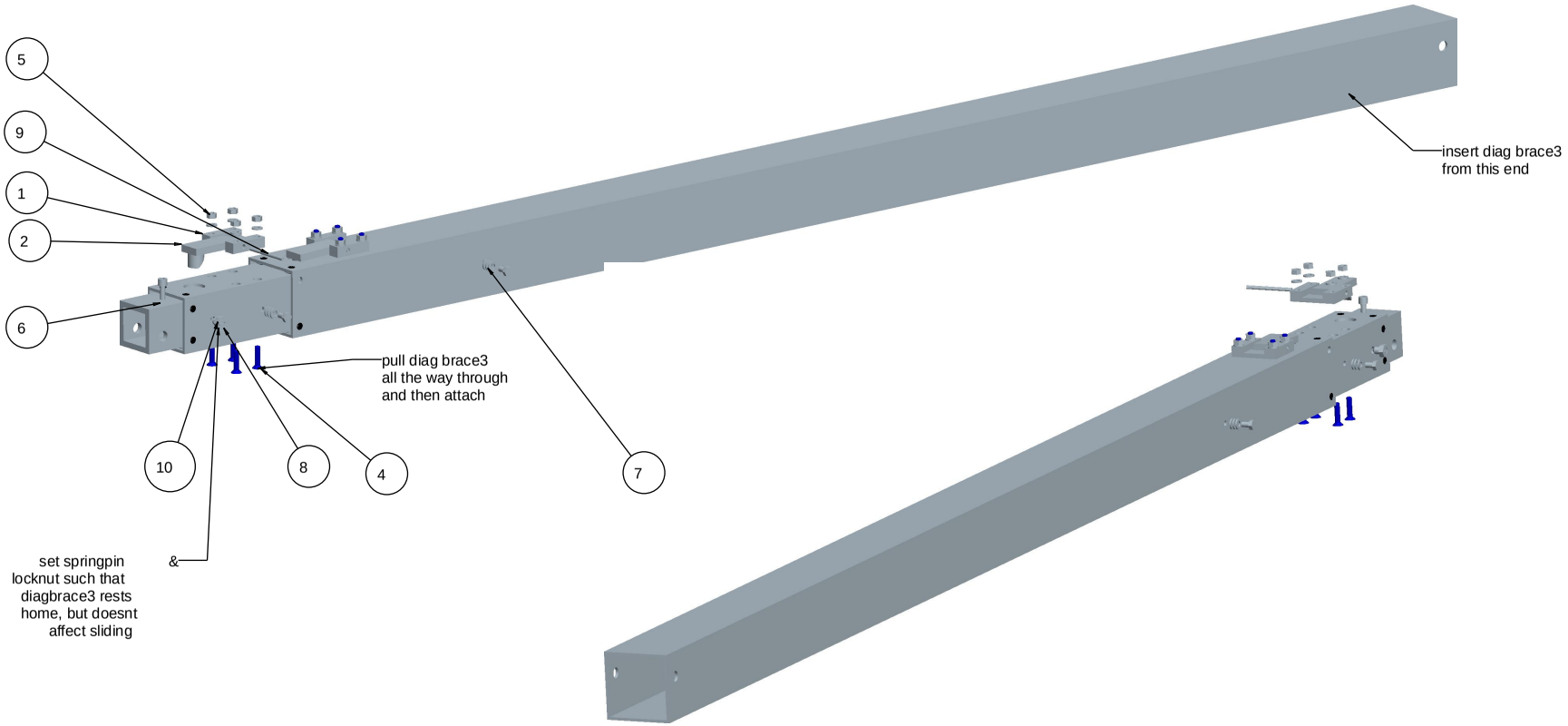


SCALE 0.400

DESIGNER AMW	Monkey Tower Ltd North Wing, Ingatestone Hall, Ingatestone Essex CM4 9NS (44) 1277 356172, (44) 7866 687618 alan.watt@monkeytower.co.uk
ISSUE 009 27-Oct-08	
TOLERANCES ± MM UNLESS SHOWN	Quantity 1 per tower
MATERIAL	
DO NOT SCALE	Pro/E Drawing File P_TR_X_009 ASM_TRAPDOOR
ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE	For Manufacture | SCALE 0.125 | SHEET 1 OF 1

8.7 Diagonal Brace Assembly

Index	Part #	Part Name	Quant
1	D_BS_A_009	BRACE_STOP	1
2	D_BS2S_009	BRACE_STOP2	1
3	D_D1_X_009	DIAG_BRACE1	1
4	m6_RZ_30	M6_COUNTERSUNKSOCKETX30	4
5	M6_LZ	M6_NYLOC_NUT	5
6	M6_CZ_20	M6SOCKETX20	1
7	M6_AZ	M6WASHER	4
8	M8_LZ	M8_NYLOC_NUT	2
9	4_PB_55	SPLITPIN4X55	1
10	M8_US_12	SPRINGROLLERPIN	2
11	D_D23X_009	DIAG_BRACE23	



Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90
Unless shown on drawing all nuts and bolts should be tightened to the above torque values	

DESIGNER AMW

ISSUE 9.1 20_Aug_07

TOLERANCES

± MM UNLESS SHOWN

MATERIAL

DO NOT SCALE

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Monkey Tower Ltd

North Wing, Ingatestone Hall, Ingatestone
Essex CM4 9NS 01277 356172,
07866 687618 alan.watt@monkeytower.co.uk

Quantity

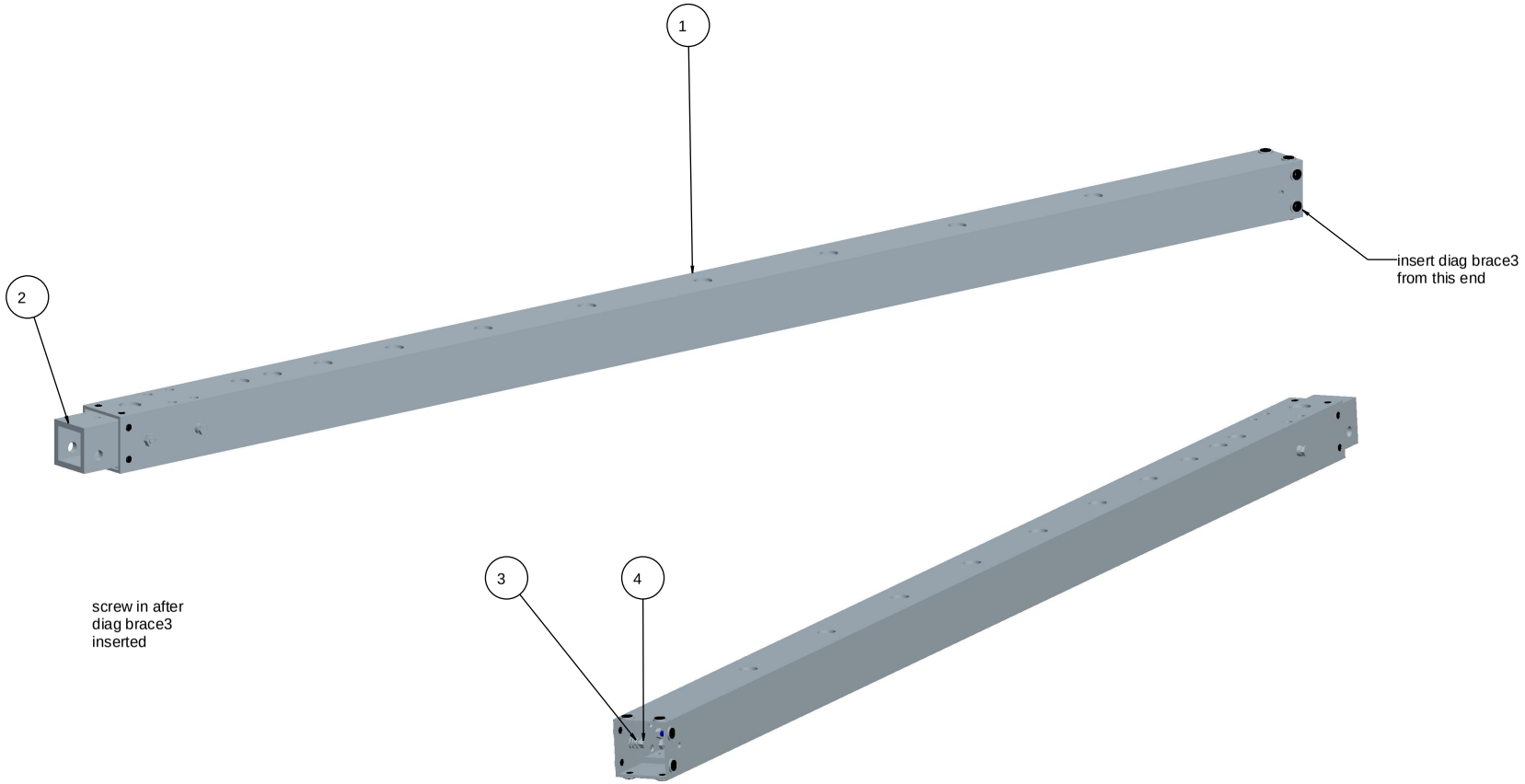
1 per tower

Pro/E Drawing File

ASM_DIAGBRACE123

For Manufacture | SCALE 0.200 | SHEET 1 OF 1

Index	Part #	Part Name	Quant
1	D_D2_X_009	DIAG_BRACE2	1
2	D_D3_X_009	DIAG_BRACE3	1
3	M6_AZ	M6WASHER	6
4	M6_HZ_10	M6X10BOLT	2



Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90

Unless shown on drawing all nuts and bolts should be tightened to the above torque values

DESIGNER AMW

ISSUE 9.1 20_Aug_07

TOLERANCES

± MM UNLESS SHOWN

MATERIAL

DO NOT SCALE

ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE

Monkey Tower Ltd

North Wing, Ingatestone Hall, Ingatestone
Essex CM4 9NS 01277 356172,
07866 687618 alan.watt@monkeytower.co.uk

Quantity

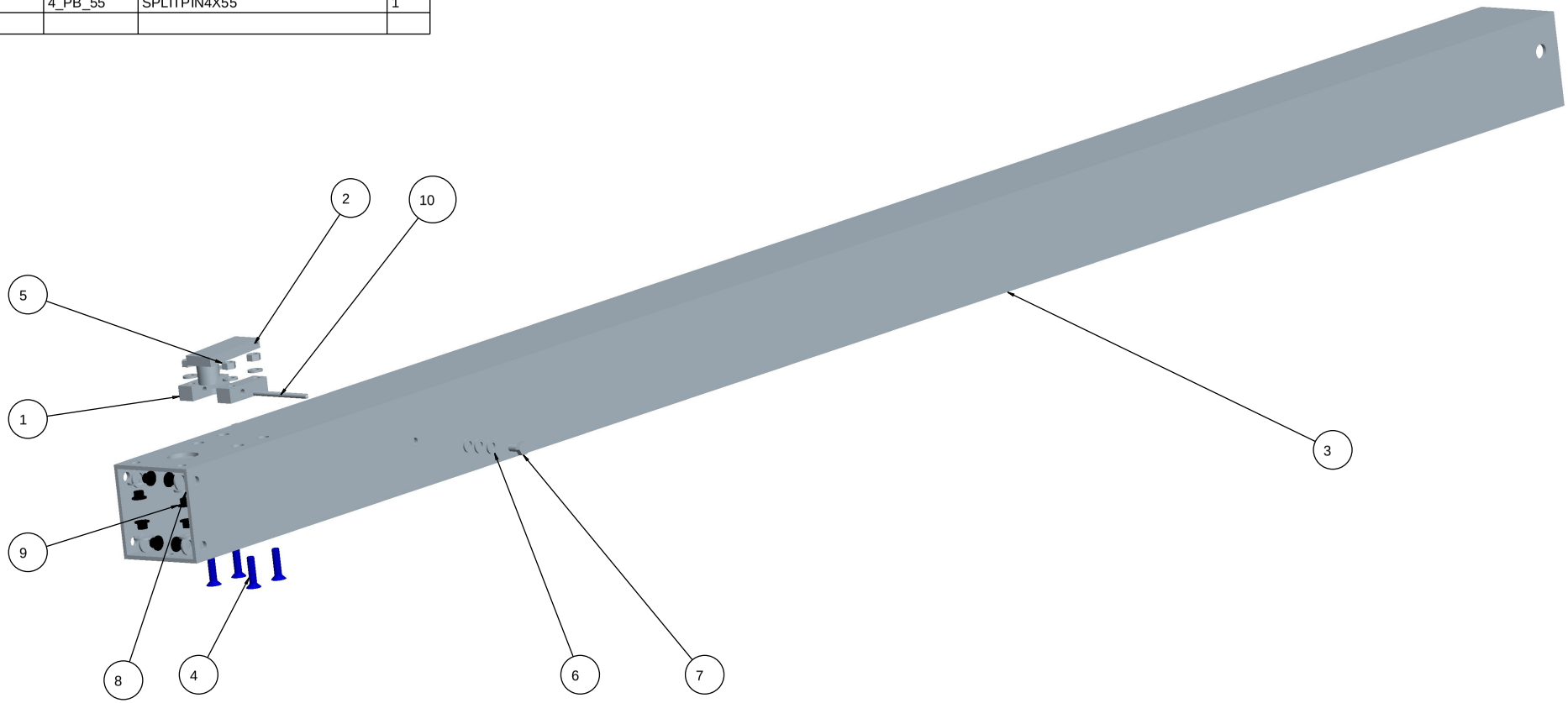
1 per tower

Pro/E Drawing File

ASM_DIAGBRACE23

For Manufacture | SCALE 0.200 | SHEET 1 OF 1

Index	Part #	Part Name	Quant
1	D_BS_A_009	BRACE_STOP	1
2	D_BS2S009	BRACE_STOP2	1
3	D_D1_A_009	DIAG_BRACE1	1
4	m6_RZ_30	M6_COUNTERSUNKSOCKETX30	4
5	M6_LZ	M6_NYLOC_NUT	4
6	M6_AZ	M6WASHER	10
7	M6_HZ_10	M6X10BOLT	2
8	M8_AZ	M8WASHER	8
9	D_SB_N_009	SKIFFY_BEARING1	8
10	4_PB_55	SPLITPIN4X55	1



Bolt Size	Torque
M6	10
M8	25
M10	50
M12	90

Unless shown on drawing all nuts and bolts should be tightened to the above torque values

DESIGNER AMW

ISSUE 9.1 20_Aug_

TOLERANCES

± MM UNLESS SHOWN

MATERIAL

DO NOT SCALE

ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE

Monkey Tower Ltd

North Wing, Ingatestone Hall, Ingatestone
Essex CM4 9NS 01277 356172,
07866 687618 alan.watt@monkeytower.co.uk

Quantity

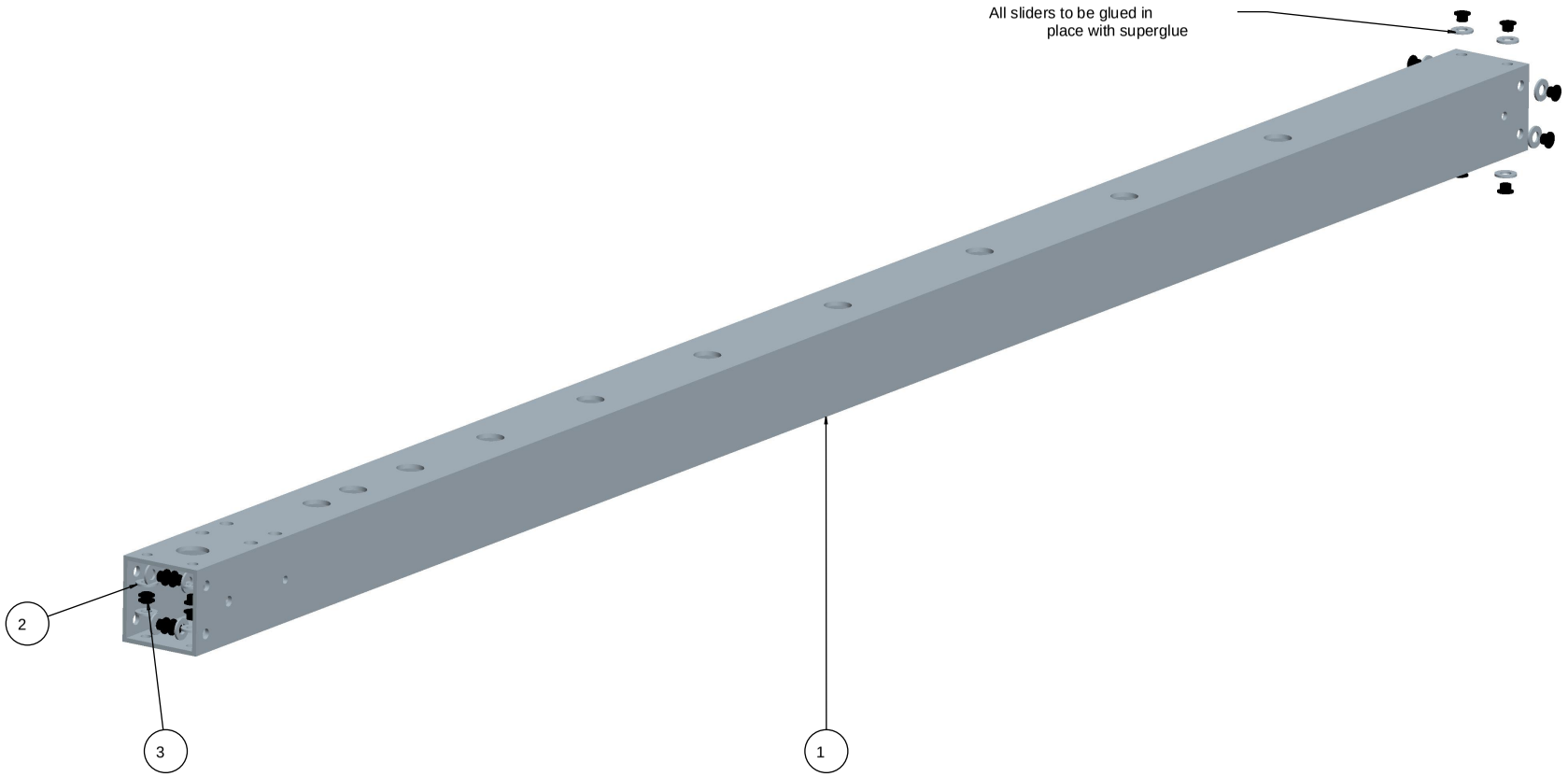
1 per tower

Pro/E Drawing File

ASM_DIAGBRACE1

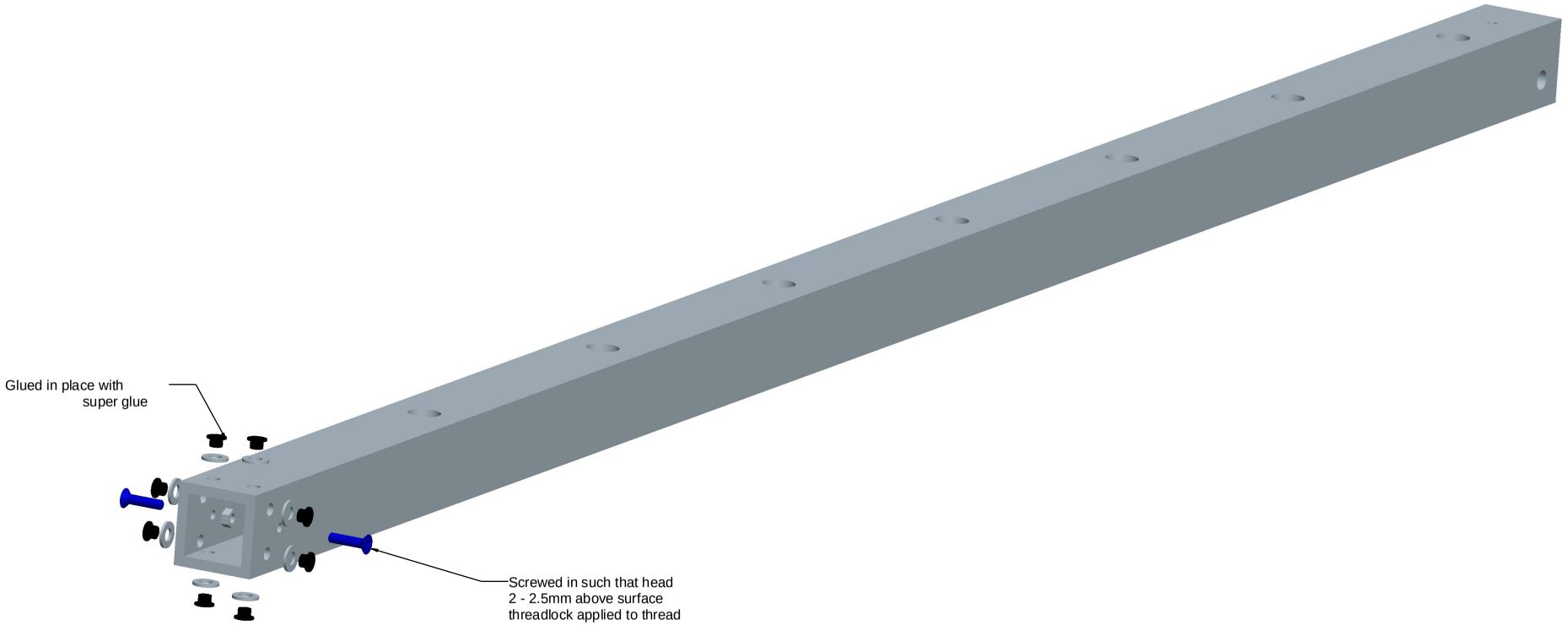
For Manufacture | SCALE 0.300 | SHEET 1 OF 1

Index	Part #	Part Name	Quant
1	D_D2_A_009	DIAG_BRACE2	1
2	M8_AZ	M8WASHER	16
3	D_SB_N_009	SKIFFY_BEARING1	16



DESIGNER AMW	Monkey Tower Ltd
ISSUE 9.1 20_Aug_07	North Wing, Ingatestone Hall, Ingatestone Essex CM4 9NS 01277 356172, 07866 687618 alan.watt@monkeytower.co.uk
TOLERANCES ± MM UNLESS SHOWN	Quantity 1 per tower
MATERIAL	Pro/E Drawing File ASM_DIAGBRACE2
DO NOT SCALE	
ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE	For Manufacture | SCALE 0.300 | SHEET 1 OF 1

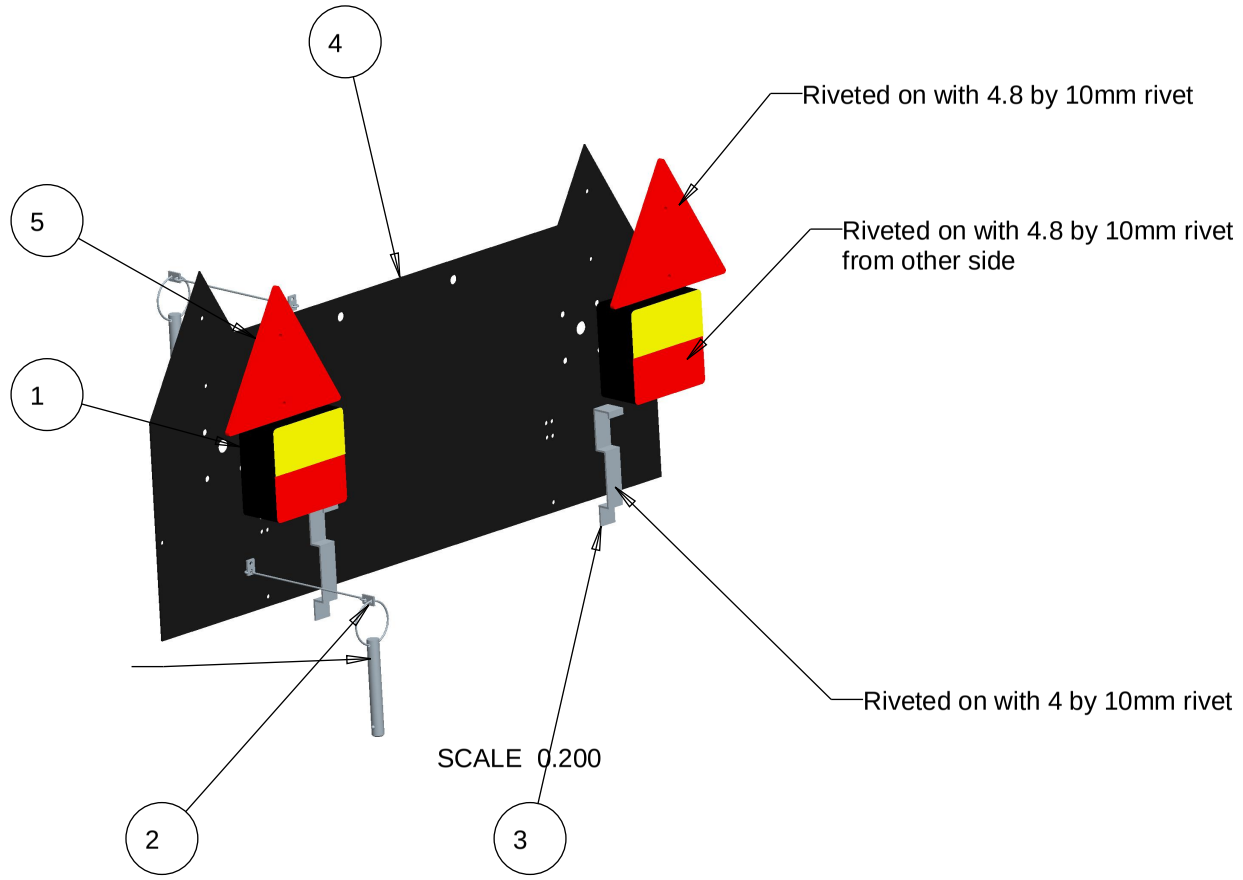
Index	Part #	Part Name	Quant
1	D_D3_A_009	DIAG_BRACE3	1
2	m6_RZ_20	M6_COUNTERSUNKSOCKET6X20	2
3	M6_LZ	M6_NYLOC_NUT	2
4	M8_AZ	M8WASHER	8
5	D_SB_N_009	SKIFFY_BEARING1	8



DESIGNER AMW	Monkey Tower Ltd
ISSUE 9.1 20_Aug_07	North Wing, Ingatestone Hall, Ingatestone Essex CM4 9NS 01277 356172, 07866 687618 alan.watt@monkeytower.co.uk
TOLERANCES ± MM UNLESS SHOWN	Quantity 1 per tower
MATERIAL	Pro/E Drawing File ASM_DIAGBRACE3
DO NOT SCALE	
ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE	For Manufacture | SCALE 0.400 | SHEET 1 OF 1

8.8 Lighting Board Assembly

Index	Part #	Part Name	Quant
1	N_BL_P_009	BASE_LIGHT	2
2	B_DP_Z_009	DETENTPIN	2
3	N_NC_Z_009	NUMBERPLATE_CLIP	2
4	b72	NUMBERPLATESURROUND	1
5	N_RT_P_009	REFLECTIVE_TRIANGLE	2



DESIGNER AMW ISSUE 009 28-Oct-08 TOLERANCES ± MM UNLESS SHOWN MATERIAL DO NOT SCALE ALL DIMENSIONS IN MM UNLESS SPECIFIED OTHERWISE	Monkey Tower Ltd North Wing, Ingatestone Hall, Ingatestone Essex CM4 9NS (44) 1277 356172, (44) 7866 687618 alan.watt@monkeytower.co.uk Quantity 1 per tower Pro/E Drawing File N_NP_X_009 NUMBERPLATE_BOAR	For Manufacture SCALE 0.091 SHEET 1 OF 1

Appendix A

Checklist A Procedures - Daily Pre-operation Inspection

Completing a Daily Pre-operation Inspection is essential to safe machine operation. The Pre-operation Inspection is a visual inspection performed by the operator prior to each work shift. The inspection is designed to discover if anything is apparently wrong with a machine before the operator performs the function tests. The Pre-operation Inspection also serves to determine if routine maintenance procedures are required. Complete information to perform this procedure is available in the appropriate operator's manual. Refer to the Operator's Manual on your machine.

A.1 Operators Manual Present

Be sure that the operator's manual is complete, legible and readily accessible by users.

A.2 Decals Present

Be sure that all decals are legible and in place. The decals and their location can be seen in Figure **??**.

A.3 Damage, Dirt, Missing Parts, Corrosion & Unauthorised Changes

Check the following components or areas for damage, excessive dirt or contamination, improperly installed or missing parts and unauthorised modifications:

- Winch and related components.
- Base components.
- Platform Components
- Ladders
- Levelling jacks.
- Sliders.
- Wheels.
- Castors.
- Nuts, bolts and other fasteners.

A.4 Cable Condition and Direction

Check the visible portion of the winch cable is in good condition with no frays, worn or flat spots. Check

that cable is neatly wound on cable drum. Check that cable is wound in correct direction such that winding winch in up direction results in cable being wound onto winch (a loud clicking noise should be heard from the ratchet when winding tower up).

A.5 Stabiliser Leg Function

Extend each leg horizontally and lock into position with the leg pins. *Legs should slide out easily and the leg pins should fit into place without significant force.*

Loosen star-knobs on levelling jacks. *Star-knobs must be in place and tighten and loosen easily*

Lower the levelling jacks equally until the road wheels are clear from the ground. *Levelling jacks should operate smoothly and without significant force.*

Lock the castors by pushing castor-lock down with foot. *Castors must lock into place*

A.6 Bubble Function

Check that both bubble levels are in place and are undamaged with small bubble present. Bubbles should both read in the centre when machine is levelled.

A.7 Ladder lifting / locking

- Check ladder lifts easily in to position.
- Check ladder locks engage automatically and secure ladder in position.
- Check ladder locks disengage easily.

A.8 Runglock Function

- Check runglock elastic cables (3) are in good condition without excessive wear.
- Check runglocks (3) flip down on releasing runglock elastic cable.
- Check runglocks (3) flip up on applying tension to runglock elastic cable.

A.9 Synchronisation on Raising

- Check short ladder section raises fully before longer middle ladder section raises.
- Check outer diagonal brace section raises fully before middle diagonal brace section raises.
- Check sliders raise in correct sequence with sliders nearest platform fully raising before sliders nearest winch.

A.10 Magnet Operation

- Check trapdoor securely held open by magnet.
- Check trapdoor toeboards securely held by magnets.

A.11 Tyre Pressure / Condition

Check tyres in good condition with no tears or imbedded objects and at least 1.6mm of tread on the entire tyre.

Check tyres inflated to rated pressure.

A.12 Lighting Function

Check indicators, brake lights, side lights and number plate lights all function correctly.

A.13 Guy Rope Tension

With platform raised above 3m level and legs in 2nd hole check operation of guy rope tensioners. Guy ropes should be taught without excessive force required to operate.

Appendix B

Checklist B Procedures - Monthly

The following procedures should be followed once monthly (more often if conditions require). These procedures should be followed in addition to the Checklist A procedures.

B.1 Inspect and Clean the Sliders

Clean sliders are essential to good machine performance and safe operation. Extremely dirty conditions may require that the sliders be cleaned more often.

1. Raise platform and lock at a suitable height for inspecting the sliders (following operating instructions in Operators Manual).
2. Visually inspect the inner and outer channels of the sliders for debris or foreign material.
3. If necessary, use a mild cleaning solvent to clean the sliders.

B.2 Lubricate Machine

- Fully lower each stabiliser leg and apply 3 pumps of automotive grease to grease nipples.
- Apply one pump of automotive grease to grease nipples on wheel bearings.
- Apply light coating of silicon spray to inner and middle diagonal brace members.
- Apply light coating of silicon spray to inner surfaces of ladder sliders.
- Apply automotive grease to winch pinion.
- Apply oil to winch ratchet pawl *Do not get oil or grease on winch brake disks*
- Apply oil to winch castors

B.3 Inspect Welds

Visually inspect all welds for cracks or corrosion.

Appendix C

Checklist C Procedures - Annual Inspection & Maintenance Including Loler

C.1 Inspect and Lubricate the Winch

1. Carefully lubricate the following areas with automotive grease:

   - Cable drum gear
   - Teeth on the pinion gear that mesh with the cable drum gear
   - Threads on the pinion shaft, under the pinion gear.
   - Do not apply grease to brake friction disks or ratchet gear.

2. Measure each friction disk for wear. Replace the friction disk if it measures less than specification. *See Repair procedure 3-1 How to Disassemble a Winch.*

Friction disk specification	
Minimum thickness	1.5 mm 1/16 inch

3. Measure both shaft bushings for wear. Replace the bushings if the wall thickness measurements are less than specification.

Pinion shaft bushing specification	
Minimum wall thickness	3 mm 1/8 inch

4. Lubricate the surface of the frame drum spacer with a thin layer of lithium grease.

5. Tighten the drum bolt to 20 ft-lbs / 27 Nm. Do not over-tighten.

C.2 Inspect Ladders

1. Remove ladders (see ladder removal procedure).

2. Separate ladder sections (see ladder separation procedure).

3. Check ladder rollers for any damage and wear. *Rollers should have a diametrical thickness of greater than 1.7mm mm and a flange thickness of greater than 0.7mm.*

4. Inspect ladders for wear.

5. Check all rivet connections for tightness and damage.

6. Remove runglock rollers. Check for wear, (*Rollers should have a diametrical thickness of greater than 1.7mm mm and a flange thickness of greater than 0.7mm.*) grease and replace.
7. Check runglock bungee cords for wear.
8. Check runglock bungee latches for wear.
9. Check runglocks for wear and correct function.
10. Reassemble ladder sections (see ladder reassembly procedure).
11. Refit ladders (see ladder refitting procedure).

C.3 Inspect Sliders

- Inspect the top of each slider for clearance between the roller wheel and the adjacent column surface. *There should be a gap of less than 0.062 inch / 1.57 mm between the roller wheel and the column.*
- Inspect the bottom of each slider for clearance between the roller wheel and the adjacent column surface. *There should be a gap of less than 0.062 inch / 1.57 mm between the roller wheel and the column.*
- Dissasemble sliders (See slider dissasembly procedure)
- Check pulleys for damage or excessive free play.
- Check sliders for damage or wear.
- Check rollers for exessive free play.
- Check slider cable for kinks, frays or corrosion.
- Reassemble sliders checking that sliders slide easily and that cable is correctly routed.

C.4 Inspect Diagonal Brace

1. Remove diagonal braces from machine.
2. Check thickness of diagonal brace sliders (*replace if flange of sliders less than 0.7mm*).
3. Remove split pins from diagonal brace locks, check for rust or damage and replace.
4. Remove and replace ball plungers and check for wear.
5. Check correct synchronisation of diagonal braces.

C.5 Castor Inspection

1. Visually inspect each castor for cuts, cracks or unusual wear.
2. Move the machine on a flat smooth surface and check that the casters and wheels roll smoothly, free of hesitation and binding.
3. Check brake operation by applying and releasing brakes.
4. Check brakes prevent movement and rotation of castors.
5. Pump Lithium based grease into the caster until it can been seen coming out of the bearing gap.

Extremely dirty conditions may require that the casters and wheels be inspected and lubricated more often.

C.6 50mm Ball Head Coupling Inspection (if fitted)

- Check ball head locks properly and that it is in tolerance.
- Grease ball socket and any moving parts with automotive grease.

C.7 Jockey Wheel Inspection

- Check jockey wheel raises and lowers smoothly.
- Check wheel for damage.
- Check wheel rotates smoothly.
- Grease any moving parts.

C.8 Wheel Hub-Bearing Inspection

Raise machine on stabilizer legs such that wheels are clear of the ground.

- Rotate the hub slowly there should be no roughness or restriction.
- Rotate the hub rapidly there should be no rumble, rattle or high-pitched noises.
- Rock the wheel while holding at the top and the bottom to detect essential bearing endplay. The maximum movement should be 2mm measured at the Wheel Rim.
- If bearing requires replacement castellated nut should be done up finger tight and split-pin inserted.
- Pump bearing full of automotive grease.

Appendix D

Maintenance Inspection Report

1. Select the appropriate checklist(s) for the type of inspection to be performed.
2. Place a check in the appropriate box after each inspection procedure is completed.
3. Use the step-by-step procedures in the Maintenance Inspection section to learn how to perform these inspections.
4. If any inspection receives an "N", tag and remove the machine from service, repair and re-inspect it.
5. After repair and retest, place a check in the "R" box.

Monkey Tower Inspection Record

Serial Number:

Date																					
Inspection Type (A, B or C)																					
Operators Manual Present	a1																				
Decals Present	a2																				
Damage, Dirt, Missing Parts, Corrosion, Unauthorised Changes	a3																				
Cable Condition & Direction	a4																				
Stabiliser Leg Function	a5																				
Bubble Function	a6																				
Ladder lifting / locking	a7																				
Runglock Function	a8																				
Synchronisation on Raising	a9																				
Magnet Operation	a10																				
Tyre Pressure / Condition	a11																				
Lighting Function	a12																				
Guy Rope tension	a13																				
Inspect & Clean the Sliders	b1																				
Lubricate Machine	b2																				
Inspect Welds	b3																				
Inspect Winch	c1																				
Inspect Ladders	c2																				
Inspect Sliders & Wire	c3																				
Inspect Diagonal Brace	c4																				
Inspect Castors	c5																				
Hitch Inspection	c6																				
Inspect Jockey Wheel	c7																				
Name																					
Signed																					