

MDWS DIAMOND WIRE SAW

OPERATION & MAINTENANCE MANUAL

COVERING MODELS

MDWS620

MDWS1638

MDWS3660

Version History

All Enerpac documentation is quality controlled and audited in accordance with **BS EN ISO 9001:2008**; the scope of which covers design, manufacture and repair of in-situ machine tools.

Version No.	Implemented By	Revision Date	Approved By	Approval Date	Comments
13	STH	14/08/2019	DMS	14/08/2019	Added drawings MDWS1638-7 and MDWS1638-7a
14	STH	02/09/2019	DMS	02/09/2019	Added minimum sling lengths (section 6.2)
15	STH	25/03/2021	DRB	25/03/2021	Added drg MDWS1638-2
16	STH	04/2021	-	-	Enerpac Rebrand

Operation & Maintenance Manual Approval

The undersigned acknowledge they have reviewed this Machine Operation & Maintenance Manual and agree with the approach it presents. Changes to this Operation & Maintenance Manual will be coordinated with, and approved by, the undersigned or their designated representatives.

Approver 1

Signature:



Date:

09/09/2014

Print Name:

Richard Barlow

Title:

Operations Manager

Approver 2

Signature:



Date:

09/09/2014

Print Name:

David Cochrane

Title:

Design Manager

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1. Introduction

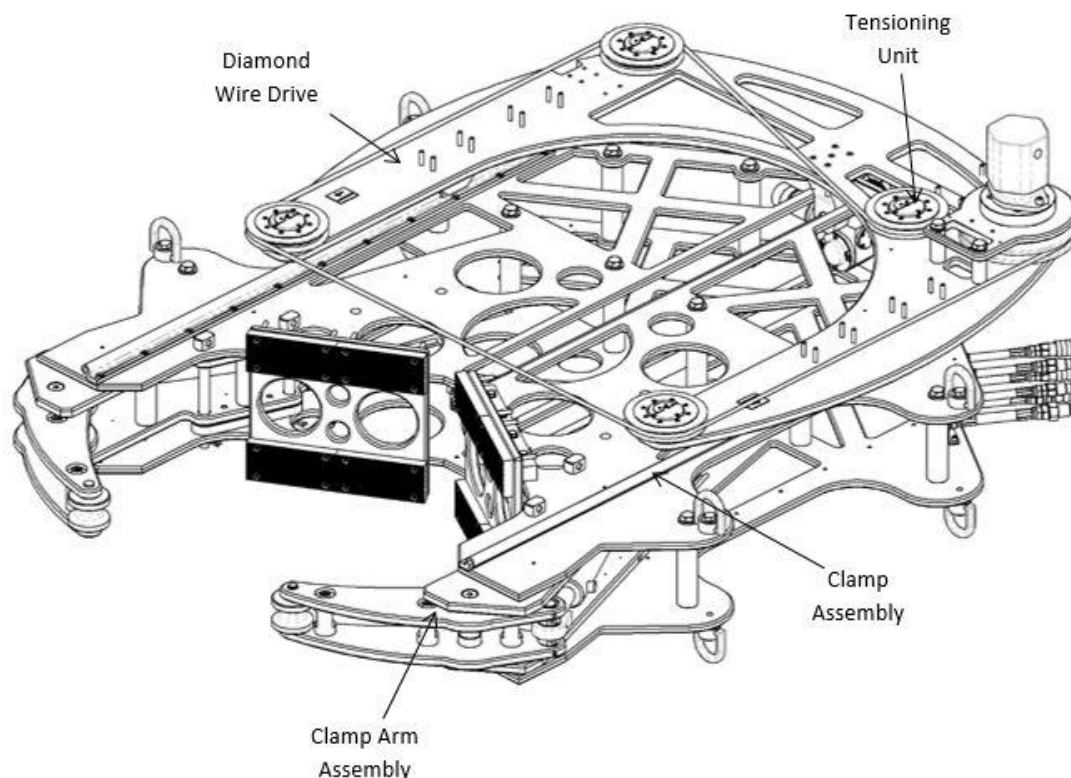
1.1. Overall Equipment Description

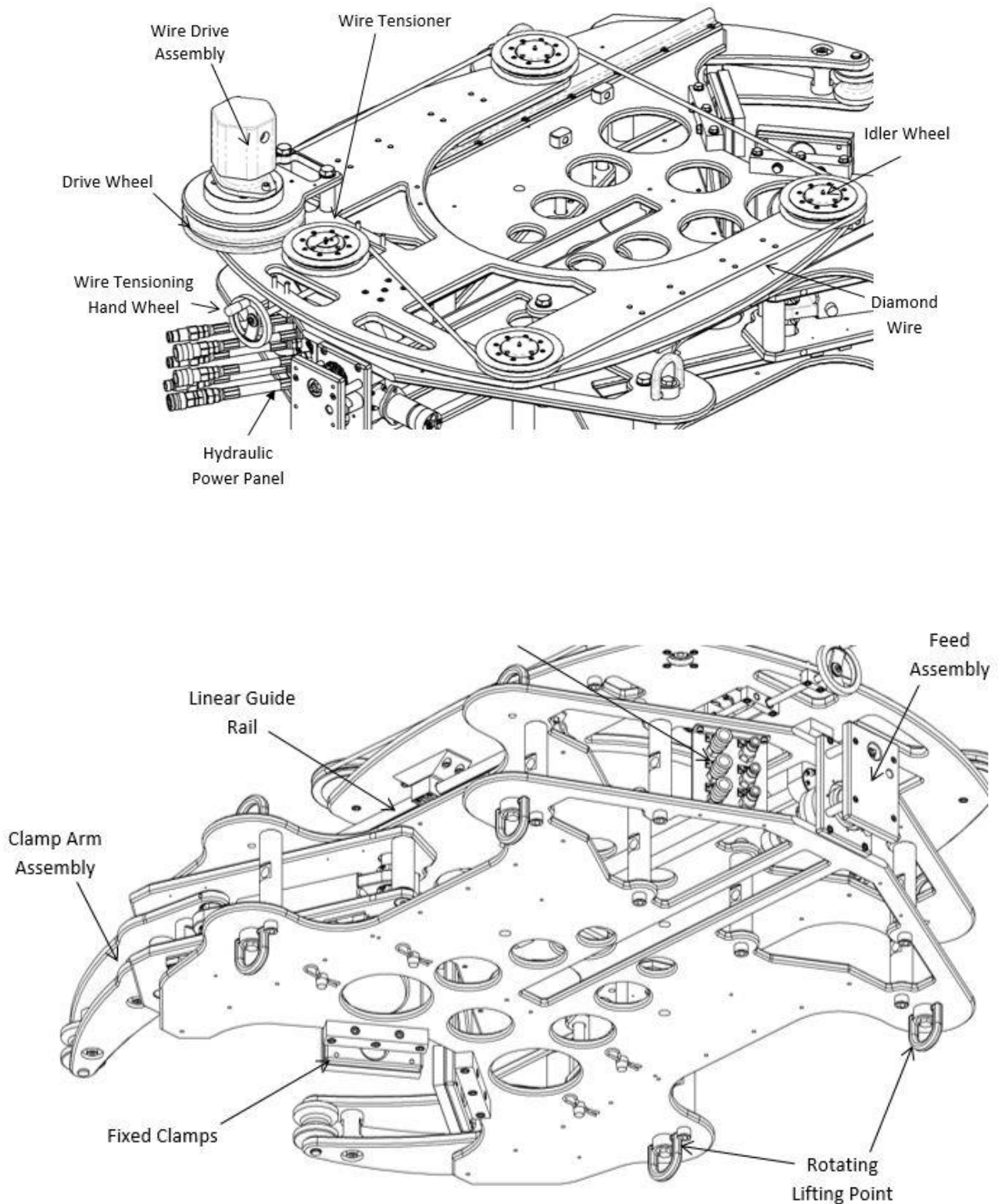
The MDWS range has been specifically designed for 'Subsea' pipe cutting operations of varying materials & thicknesses.

The saw uses a continuous loop, diamond cutting wire together with a hydraulic drive & feed system to advance the wire into the work piece.

The advantage of using a cutting wire instead of a blade is that a work piece made up of differing materials & thicknesses has little effect on cutting performance when compared to using a conventional bandsaw blade. The wire is also less likely to bind if the work piece bends or pinches the cutting wire.

The MDWS range has been specifically designed for subsea cutting applications where wire cooling is not an issue however it can be used for non- subsea applications if an adequate coolant supply & additional machine support is available.





2. Machine Warranty

TBC

3. Health and Safety

Enerpac has made every effort to ensure that the Information given in this Operation & Maintenance manual, and other publications relating to this machine is correct and understandable. However it is acknowledged that there may be errors or omissions in this publication.

The company also reserves the right not to provide updates, corrections or amendments to this publication but will endeavour to keep its customers up to date with all changes that may affect the machine operation or safety.

3.1. Mandatory Safety Signs (for the purpose of trials at Enerpac)

ISO 7010 SYMBOL	SAFETY DESCRIPTION
	WEAR EYE PROTECTION
	EAR PROTECTION MUST BE WORN
	HARD HATS MUST BE WORN
	PROTECTIVE GLOVES MUST BE WORN
	PROTECTIVE FOOTWEAR MUST BE WORN
	OVERALLS MUST BE WORN
	MACHINE GUARDS MUST BE USED

3.2. Machine Hazards Signs

ISO 7010 SYMBOL	HAZARD DESCRIPTION
	DANGER HIGH VOLTAGE
	WARNING MOVING MACHINERY
	CAUTION MOVING MACHINERY
	WARNING KEEP HANDS CLEAR

3.3. Safety Procedures

Detailed in this chapter is a list of good Health and Safety practices that Enerpac advise users to adhere to. Due to the nature of portable machine tools, not every eventuality can be catered for and the following is not exhaustive, as such Enerpac strongly advise that the user carries out their own risk assessments based on the machining and environment in which they intend to use the machinery.

3.3.1. Pre-Operational Safety Checks

1. Always read safety signs / labels
2. Ensure no slip / trip hazards are present in workspaces and walkways
3. Locate and ensure you are familiar with the operation of the ON / OFF starter and E-Stop (*if fitted*)
4. Do not leave equipment on top of the machine
5. Ensure each tool is in good condition and securely mounted
6. Secure / Remove loose items
7. Faulty equipment must not be used. **Immediately report any suspect machinery**

3.4. Operational Safety Checks

1. Operator is fully conversant and trained in use of equipment
2. Keep clear of moving machine parts
3. Never leave the machine running unattended
4. Follow correct clamping procedures - keep overhangs as small as possible and check work piece is secure
5. Set the correct speed to suit the tool, the depth of cut and the material
6. Before making adjustments and measurements or before cleaning swarf accumulations, switch off and bring the machine to a complete standstill

3.4.1. Housekeeping

1. Switch off the machine
2. Remove milling cutters, drill attachments and tap attachments and store them safely (if applicable)
3. Leave the machine and work area in a safe, clean and tidy state

3.4.2. Potential Hazards

1. Sharp cutters
2. Moving components – hair / clothing entanglement
3. Eye injury
4. Skin irritation
5. Metal splinters and burrs
6. Flying debris

4. Handling

Customers, users and operators of the machines must be aware of the nature of the equipment supplied.

Although inherently robust, the machine is a precision tool and may be damaged by poor handling, tipping and falling, inadequate transport arrangements over e.g. rough terrain, misuse by operators and use outside its design specification.

Such poor handling may result in either broken or damaged parts or disturbance to fine settings resulting in an inability to meet the specified machining tolerances and capabilities.

5. Machine Specification

The Enerpac MDWS Diamond Wire Saw has been modularly designed for accurate in-situ machining of work surfaces, to this end the constituent parts are easily manipulated by hand or crane.

Pipe Cutting Capacity		
Machine	Min Pipe Diameter	Max Pipe Diameter
MDWS620	6" (152mm)	20" (508mm)
MDWS1638	16" (406mm)	38" (965mm)
MDWS3660	36" (914mm)	60" (1524mm)

Basic Dimensions							
Machine	Max Length	Min Length	Width	Width when split.	Height	Net Machine Weight (all components)	Packing Weight (Net machine weight + box weight).
MDWS620	2273mm (89.5")	1851mm (72.9")	1520mm (59.8")	N/A	800mm (31.5")	440kg (970lb)	643kg (1418lb)
MDWS1638	2582mm (101.7")	2291mm (90.2")	1910mm (75.2")	N/A	800mm (31.5")	550kg (1213lb)	790kg (1742lb)
MDWS3660	3912mm (154")	3330mm (131.1")	2670mm (105.1")	1585mm (62.4")	740mm (29.1")	1132kg (2496lb)	860kg & 980kg (1896lb & 2161lb)

*Note: Larger versions are supplied in two halves; 'split width' dimension quoted is for one half only.
Net machine weights quoted are subject to specific customer requirement therefore are a guideline only.*

Drive Motor Information			
Motor Series	SAE 101 (B-Frame)		
SAE Ports and Mounting	2-Bolt Side Mounted		
Theoretical Displacement	41.6 cm ³ / rev		2.54 in ³ / rev
Pressure (PSI)	Cont: 2000	Max Inter: 2400	Max Trans: 3000
Speed (rpm)*	Min: 30		Max: 3000
Port Type	SAE 12 Straight Thread		
Shaft Type	Short, Single End		
Case Drain	Internal		
Shaft Seal Material	Nitrile		

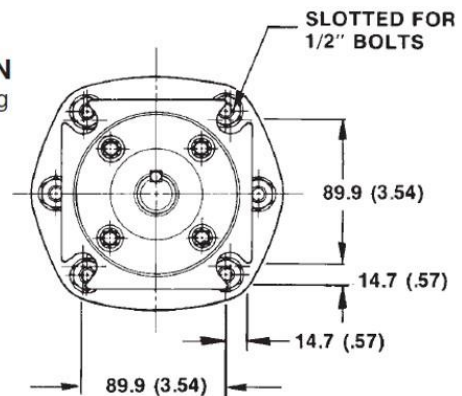
*Minimum speeds indicated are based upon constant load

The motor features bi-directional operation as well as built in checks which internally relieve high pressure from the shaft seal. High pressure shaft seals allow backpressure to 400 PSI without the requirement of a case drain.

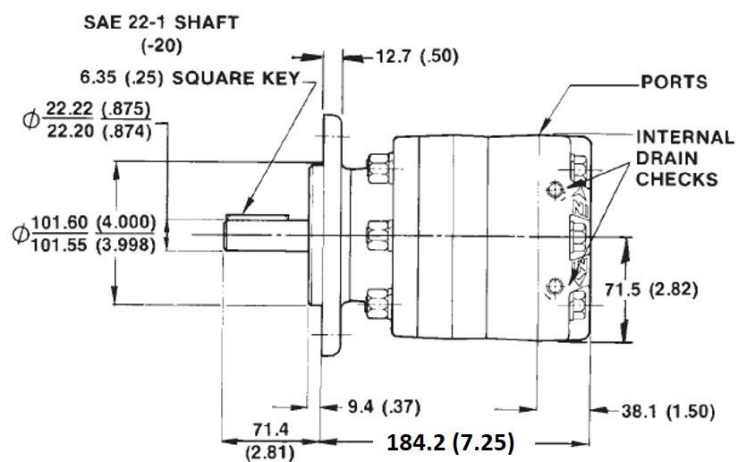
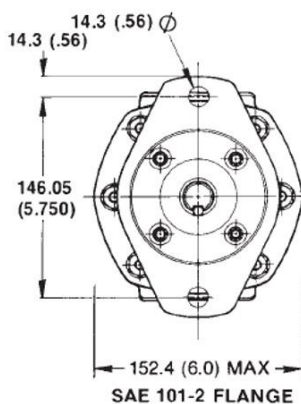
Mounting Data

Dimensions are shown in millimeters.
Dimensions within () are in inches.

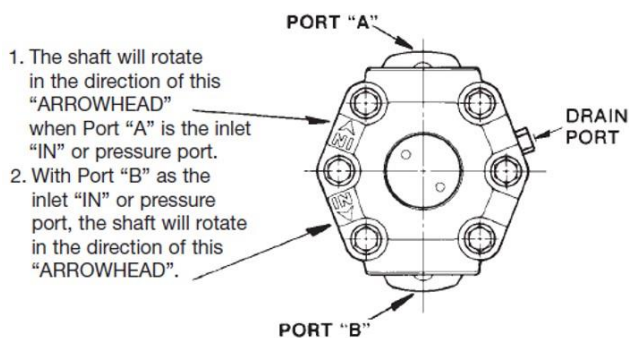
FLANGE OPTION SAE 101-4 Mounting



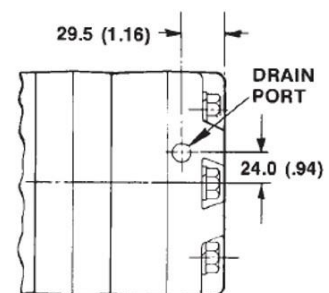
DIMENSIONS



PORT LOCATION



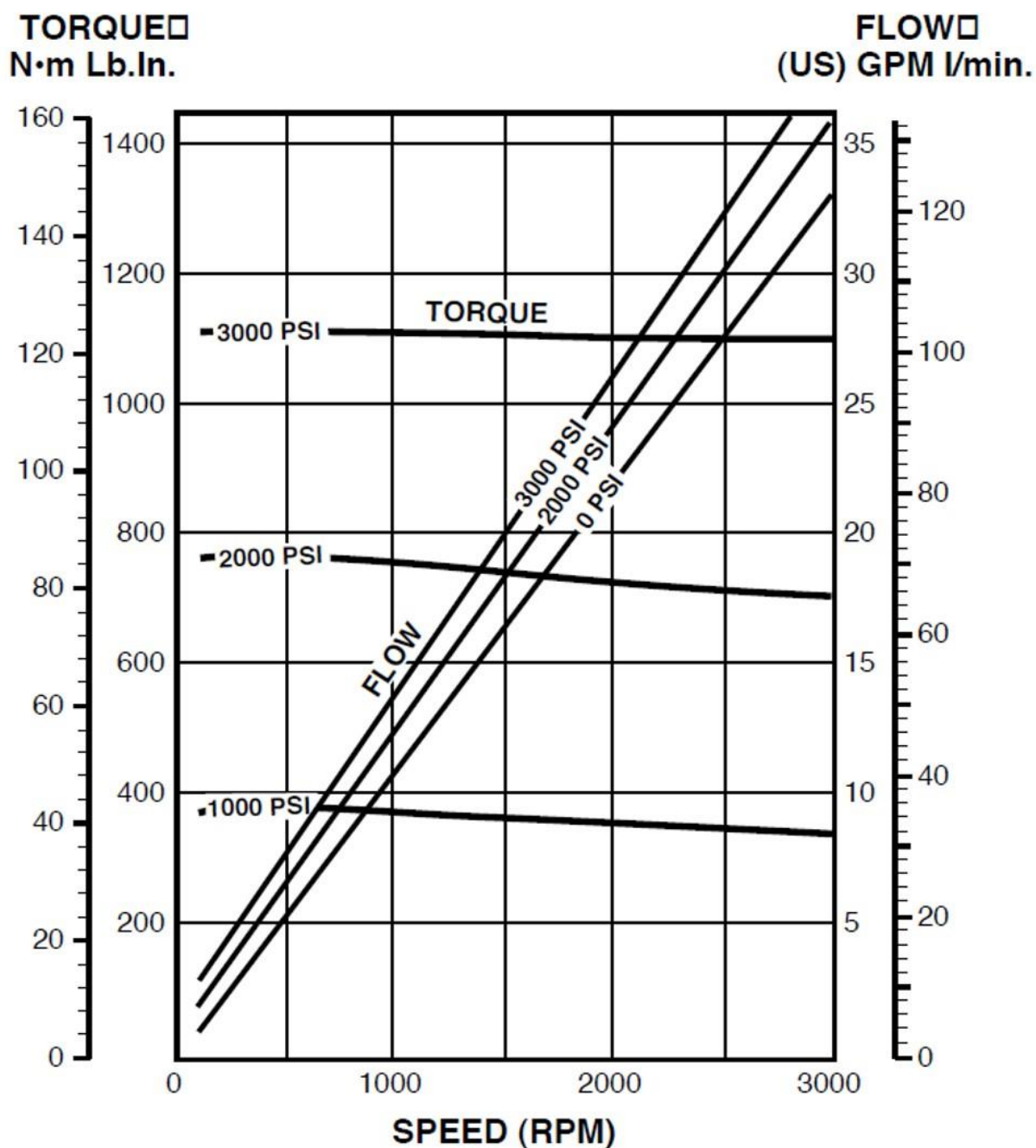
DRAIN PORT



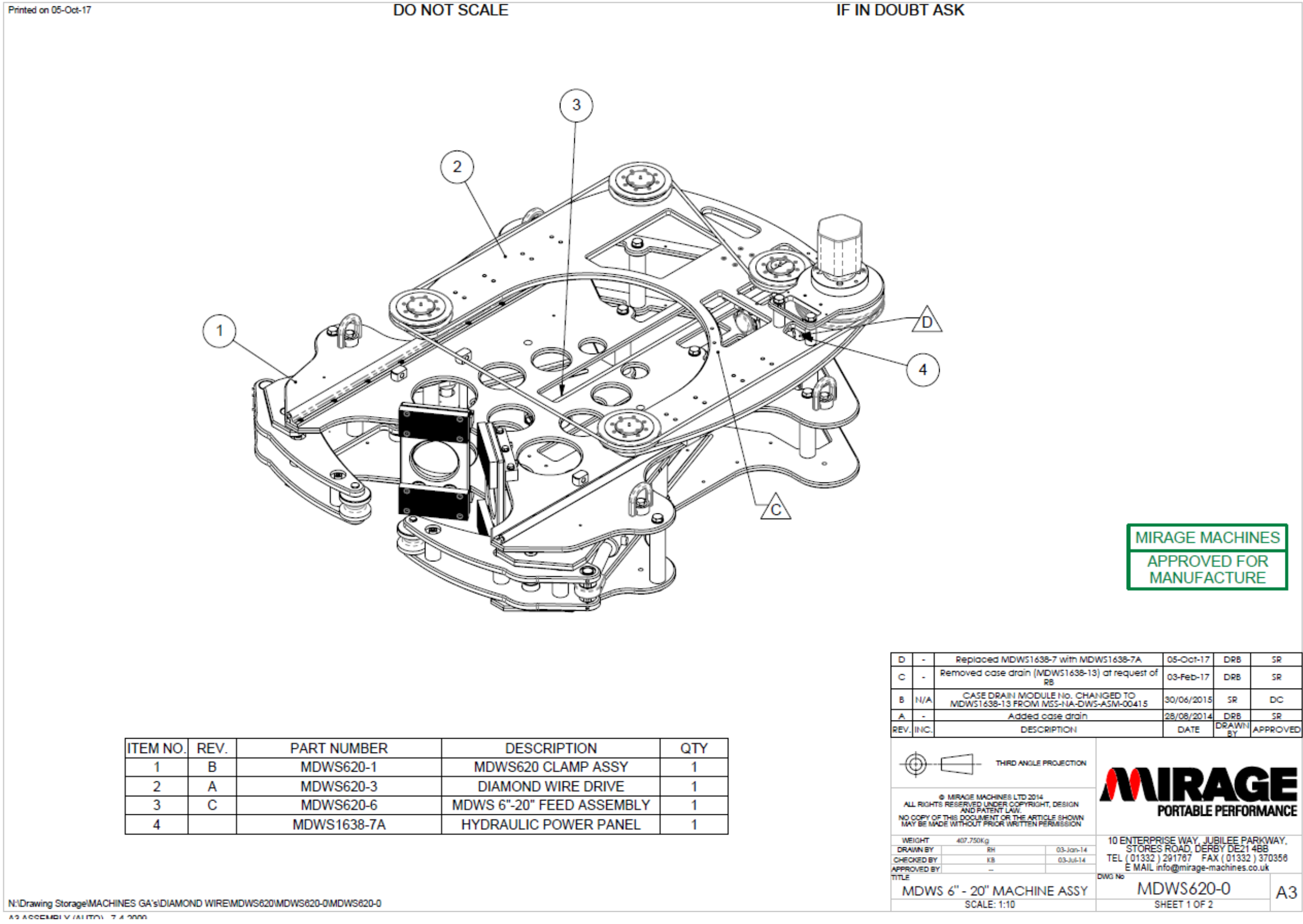
Drain Port Will Be:

1. No. 6-SAE for the SAE ported motors.

Thermal Shock Warning: If the motor is operated by fluid which is 80°F higher or more above the operating environment temperature, consult Enerpac.



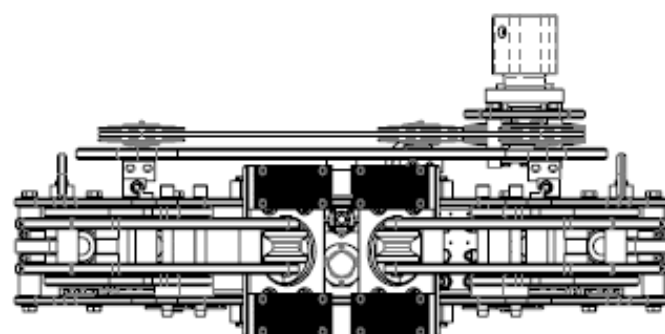
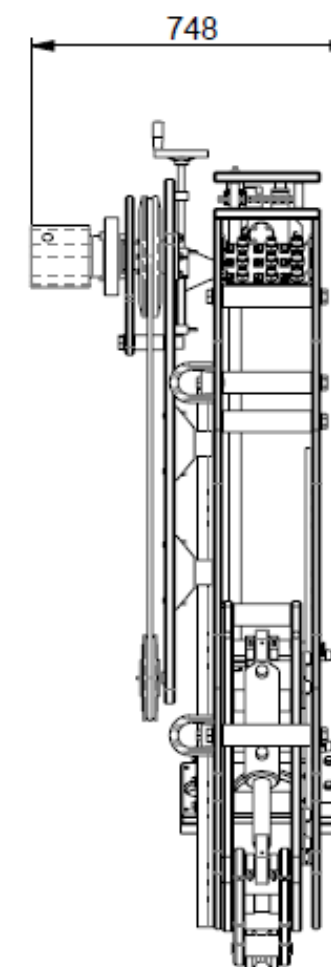
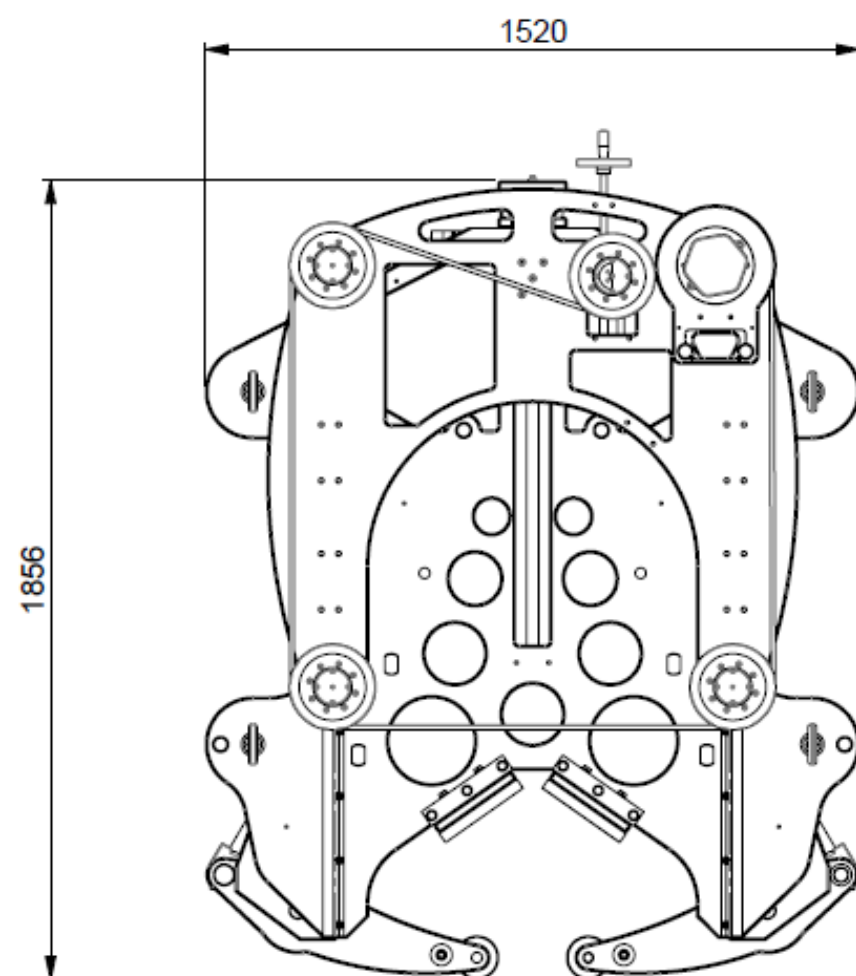
5.1. General Assembly Drawings



Printed on 05-Oct-17

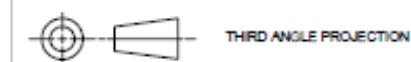
DO NOT SCALE

IF IN DOUBT ASK



MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

D	-	Replaced MDWS1638-7 with MDWS1638-7A	05-Oct-17	DRB	SR
C	-	Removed case drain (MDWS1638-13) at request of RB	03-Feb-17	DRB	SR
B	N/A	CASE DRAIN MODULE No. CHANGED TO MDWS1638-13 FROM MSS-NA-DWS-ASM-00415	30/06/2015	SR	DC
A	-	Added case drain	28/08/2014	DRB	SR
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT	407.750Kg
DRAWN BY	RH
CHECKED BY	KB
APPROVED BY	--
TITLE	

MDWS 6" - 20" MACHINE ASSY
SCALE: 1:10

MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291787 FAX (01332) 370358
E MAIL info@mirage-machines.co.uk

DWG No
MDWS620-0
SHEET 2 OF 2

A3

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Doc: MML265

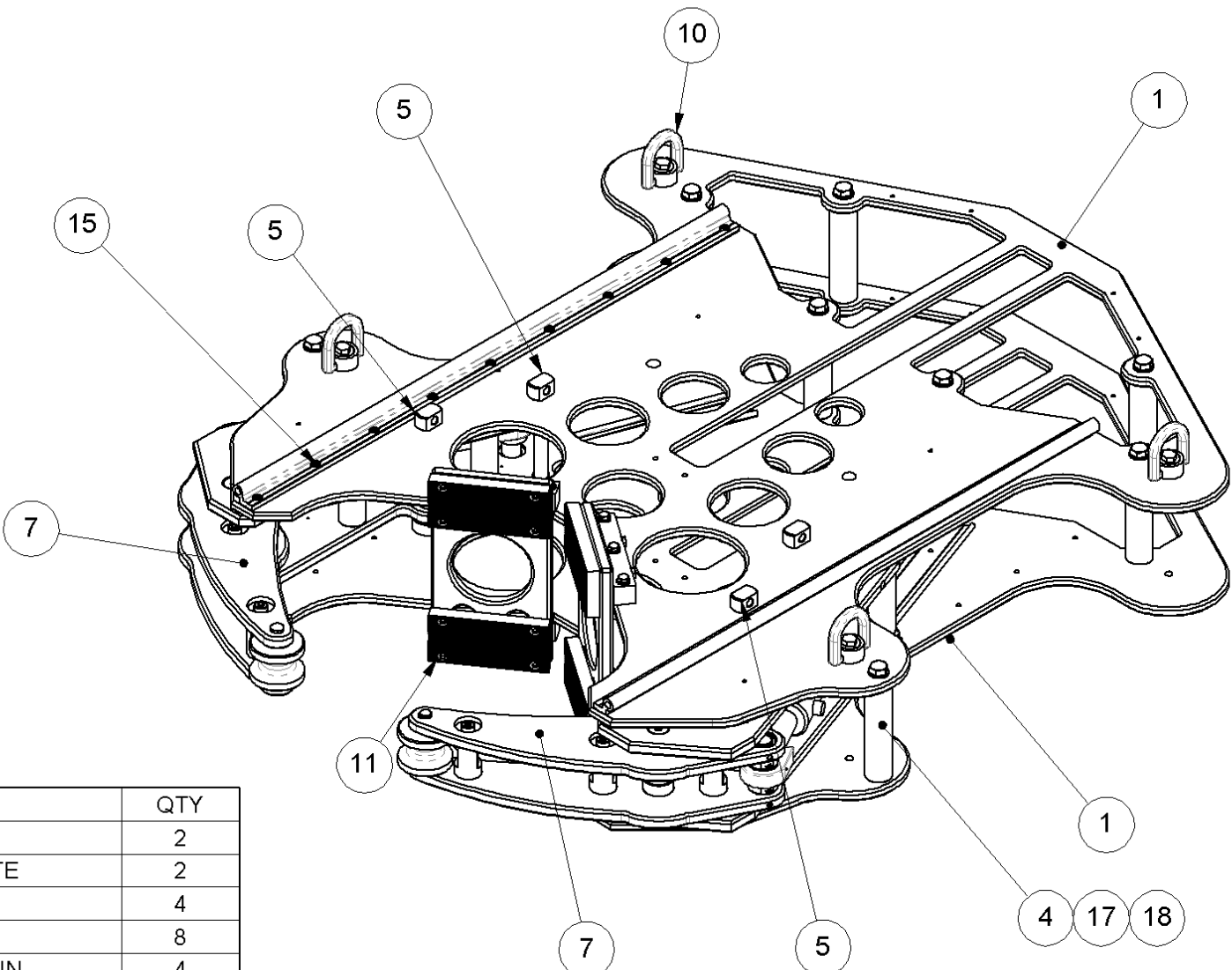
Issue: 007

Issue Date: 30-Aug-16

Printed on 03/12/2015

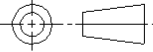
DO NOT SCALE

IF IN DOUBT ASK



ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY
1		MDWS620-1-001	MAIN MACHINE PLATE	2
2		MDWS620-1-002	FIXED CLAMP BACKPLATE	2
3	A	MDWS620-1-003	FIXED FOOT MOUNT	4
4	B	MDWS1638-1-004	CLAMP SUPPORT	8
5	C	MDWS1638-1-005	CLAMP ASSY LOCTING PIN	4
6		MDWS1638-1-006	CLAMP ARM SUPPORT BLOCK	2
7	C	MDWS1638-2	CLAMP ARM ASSEMBLY	2
8		WW-10-80-10	DRYLIN W GUIDE BLOCK	4
9		WS-10-80-SL-1000	DRYLIN LINEAR GUIDE SYSTEM	2
10		RLP-M16-10	ROTATING LIFTING POINT	8
11		OB3665	jaw plate	4
12		WS-25-1250	DRYLIN W ROUND RAIL	2
13		M12 x 35	Hex Socket Head - BS EN ISO 4762	16
14		M16 x 30	Hex Socket Head - BS EN ISO 4762	4
15		M10 x 25	Hex Socket Button Head - BS EN ISO 7380	18
16		89104	Ø5 RETAINING PIN S/STEEL	4
17		M20 x 50	Hex Screw Grade AB - BS EN 24017	16
18		M20	WASHER (FORM A)	16
19		M12 x 60	Hex Screw Grade AB - BS EN 24017	20
20		M12	WASHER (FORM A)	20

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B		M12 x 45 and M20 x 50 cap head screws replaced with hex head	16/10/2014	BC	DC
A		Ø5 RETAINING PIN ADDED	09/04/2014	RH	DC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
 THIRD ANGLE PROJECTION					
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WEIGHT 317.817kg					
DRAWN BY	RH	17/12/2013			
CHECKED BY	PW	06/01/2014			
APPROVED BY	--				
TITLE			DWG No		
MDWS620 CLAMP ASSY			MDWS620-1		
SCALE: 1:10			SHEET 1 OF 3		
			A3		

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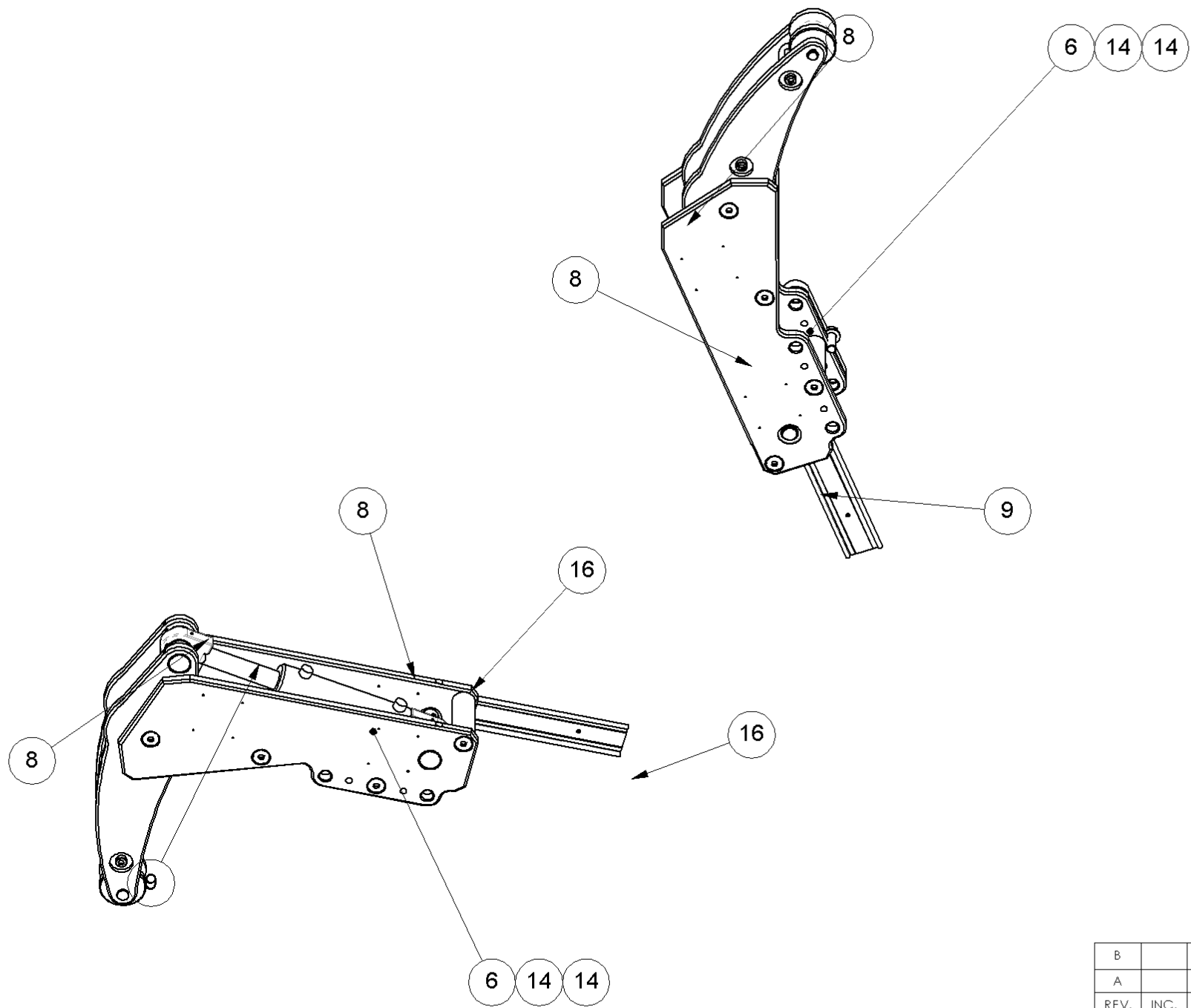
Issue: 007

Issue Date: 30-Aug-16

Printed on 03/12/2015

DO NOT SCALE

IF IN DOUBT ASK



PRODUCTION NOTE:
NOTE THE ARRANGEMENT OF PARTS TO HAND MDWS1640-2
ASSEMBLY TO MAKE RIGHT AND LEFT HAND VARIANTS

MIRAGE MACHINES
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MANUFACTURE

B		M12 x 45 and M20 x 50 cap head screws replaced with hex head	16/10/2014	BC	DC
A		Ø5 RETAINING PIN ADDED	09/04/2014	RH	DC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT	317.817Kg
DRAWN BY	RH
CHECKED BY	PW
APPROVED BY	--
TITLE	

MDWS620 CLAMP ASSY
SCALE: 1:10

MIRAGE
PORTABLE PERFORMANCE

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E MAIL info@mirage-machines.co.uk

DWG No MDWS620-1
SHEET 2 OF 3

A3

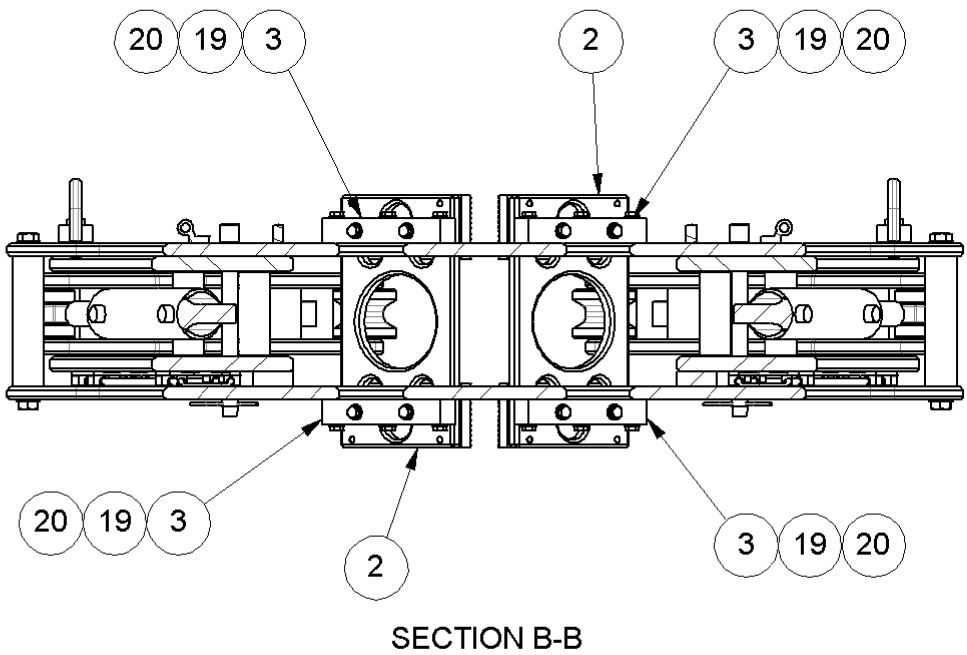
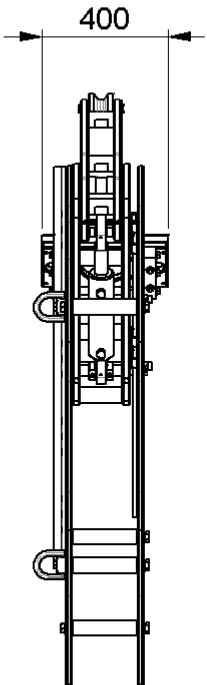
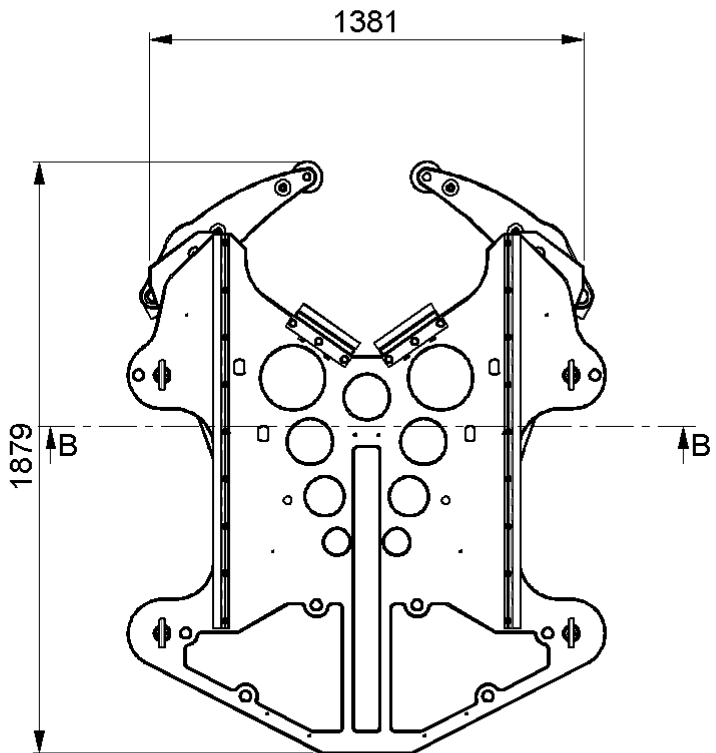
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Printed on 03/12/2015

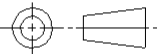
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SECTION B-B

MIRAGE MACHINES
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MANUFACTURE

B	M12 x 45 and M20 x 50 cap head screws replaced with hex head		16/10/2014	BC	DC
A	Ø5 RETAINING PIN ADDED		09/04/2014	RH	DC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
 THIRD ANGLE PROJECTION			 10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB TEL (01332) 291767 FAX (01332) 370356 E MAIL info@mirage-machines.co.uk		
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WEIGHT 317.817kg					
DRAWN BY RH 17/12/2013					
CHECKED BY PW 06/01/2014			DWG No		
APPROVED BY --					
TITLE					
MDWS620 CLAMP ASSY					
SCALE: 1:10			MDWS620-1		A3
			SHEET 3 OF 3		

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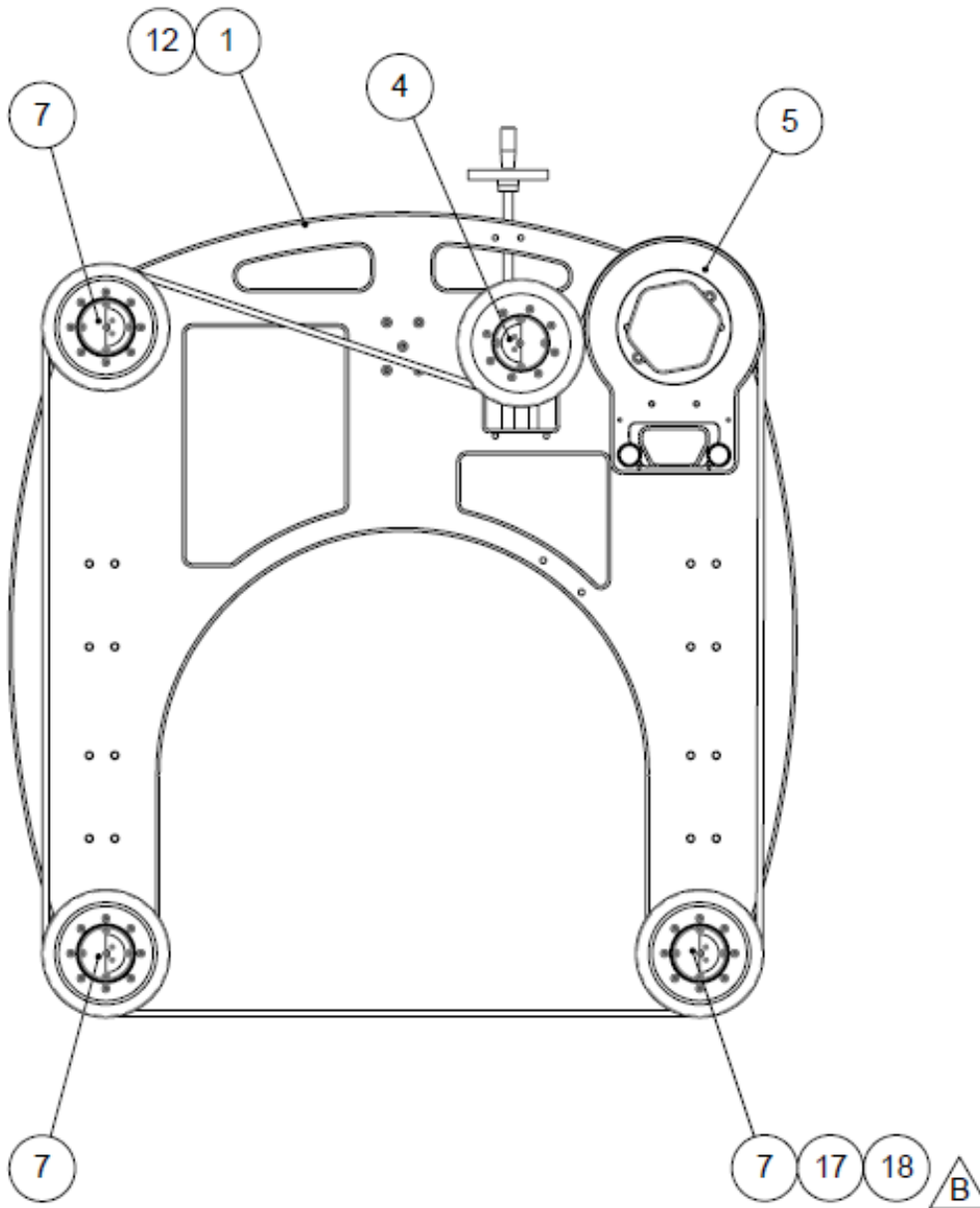
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Issue Date: 30-Aug-16

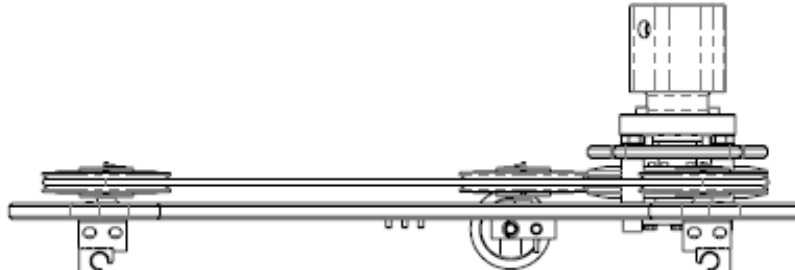
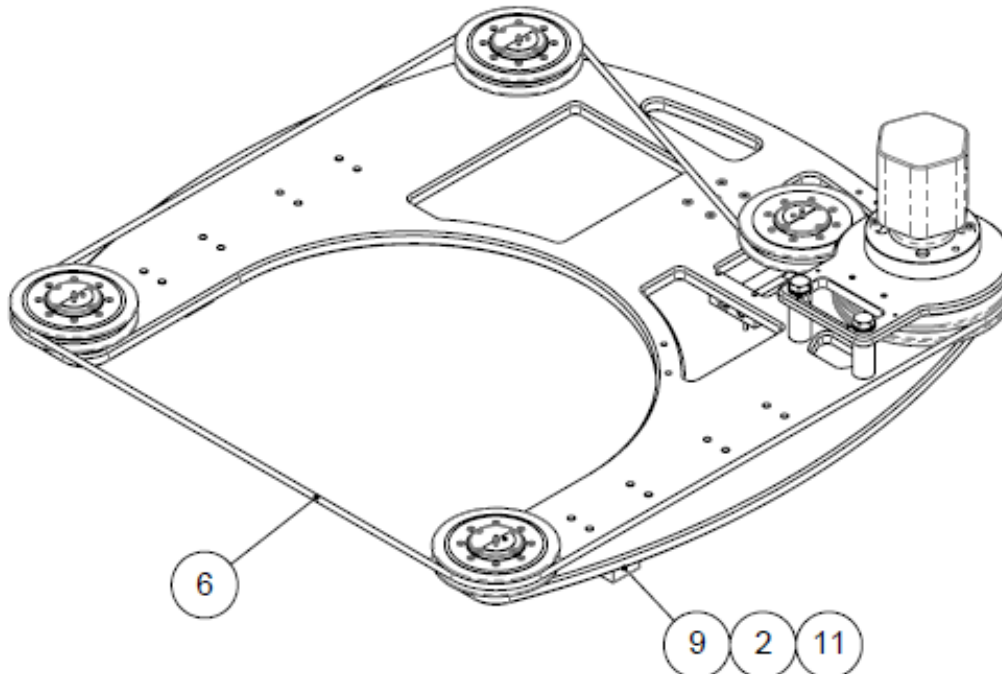
Printed on 17-Oct-17

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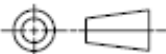
IF IN DOUBT ASK



ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY.
1	C	MDWS620-3-001	MAIN DRIVE PLATE	1
2		MDWS1638-3-002	MOUNTING BLOCK	4
3	B	MDWS1638-3-005	DRIVE MOTOR BEARING PLUG	1
4	A	MDWS1638-4	MDWS TENSIONING UNIT 5" STROKE	1
5	F	MDWS1638-5	MDWS WIRE DRIVE ASSY	1
6		MDWS620-3-003	DWM-S ELECTROPLATED WIRE	1
7		MDWS1638-15	IDLER PULLEY	3
8		WJ200UM-01-25-LL	DRYLIN W CARRIAGE FLOATING	2
9		WJ200UM-01-25	DRYLIN W CARRIAGE FIXED	2
10		OR4505000	O-RING	1
11		M12 x 40	Hex Socket Head - BS EN ISO 4762	19
12		M8 x 30	Hex Socket Head	5
13		M20 x 40	Hex Socket Head - BS EN ISO 4762	2
14		M8 x 50	SOCKET BUTTON HEADS	8
15		M10	WASHER (FORM A)	4
16		M10 x 35	Hex Screw Grade AB - BS EN 24014	4
17		MDWS1638-15-002	Traffolyte label	3
18		M3 x 5	Hex Socket Head - BS EN ISO 4762	6



B	-	Added MDWS1638-15-002 and M3x5 screws	17-Oct-17	DRB	AMC
A	2569	PARTS MDWS1638-3-005 & OR4505000 ADDED.	24/11/2014	SR	BC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT	95.529Kg		
DRAWN BY	RH	02-Jan-14	
CHECKED BY	PW	06-Jan-14	
APPROVED BY	--		

TITLE

DIAMOND WIRE DRIVE

SCALE: 1:1



10 ENTERPRISE WAY, JUBILEE PARKWAY,
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E MAIL info@mirage-machines.co.uk

DWG No	MDWS620-3	A3
	SHEET 1 OF 2	

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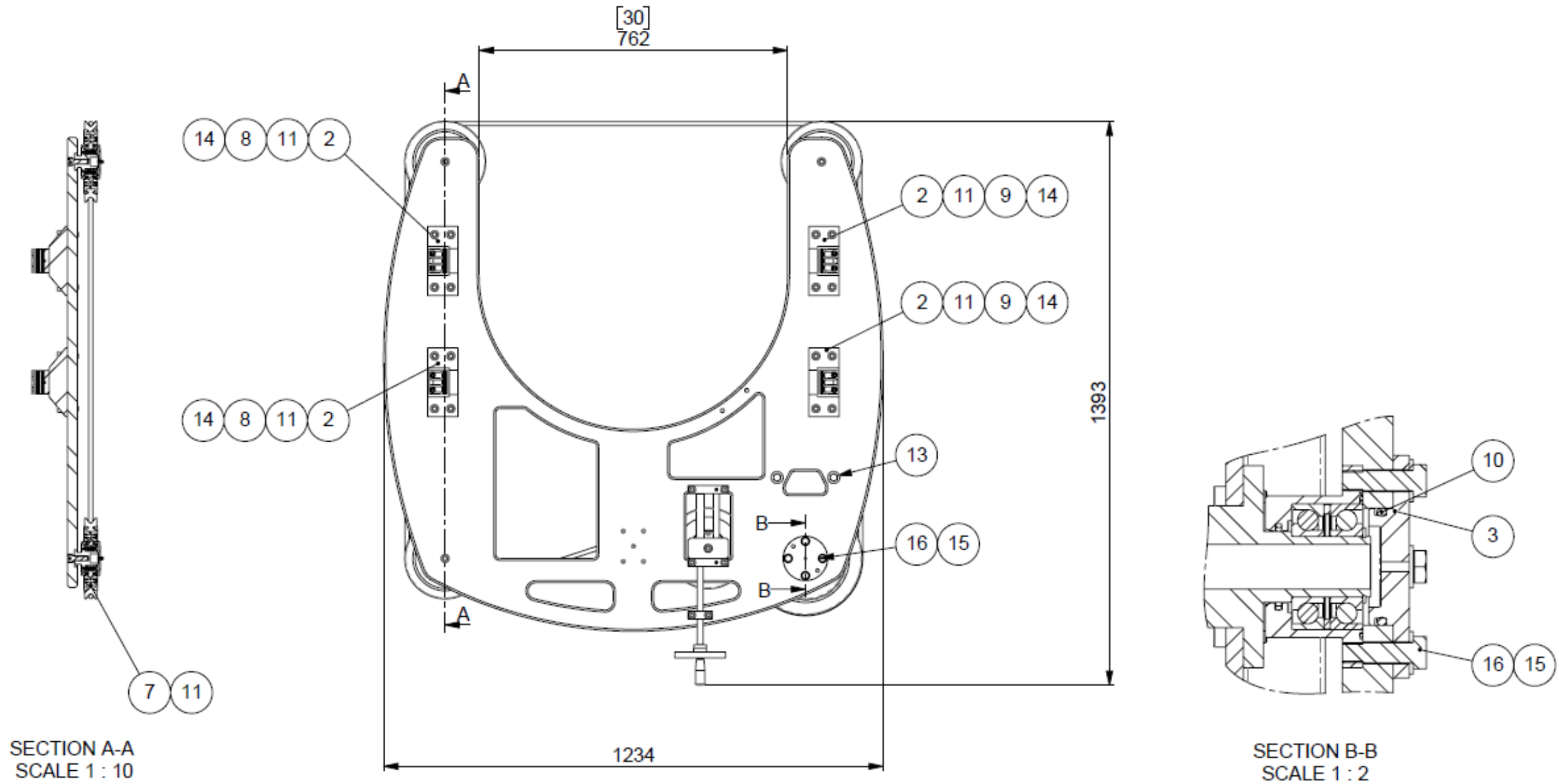
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Doc: MML265 Issue: 007 Issue Date: 30-Aug-16

Printed on 17-Oct-17

DO NOT SCALE

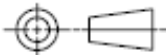
IF IN DOUBT ASK



SECTION A-A
SCALE 1 : 10

SECTION B-B
SCALE 1 : 2

B	-	Added MDWS1638-15-002 and M3x5 screws	17-Oct-17	DRB	AMC
A	2569	PARTS MDWS1638-3-005 & OR4505000 ADDED.	24/11/2014	SR	BC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT	95.529kg	
DRAWN BY	RH	02-Jan-14
CHECKED BY	PW	06-Jan-14
APPROVED BY	--	

TITLE

DIAMOND WIRE DRIVE

SCALE: 1:1



MIRAGE
PORTABLE PERFORMANCE

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E MAIL info@mirage-machines.co.uk

DWG No

MDWS620-3

SHEET 2 OF 2

A3

MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS620\MDWS620-3\MDWS620-3

Doc: MML265

Issue: 007

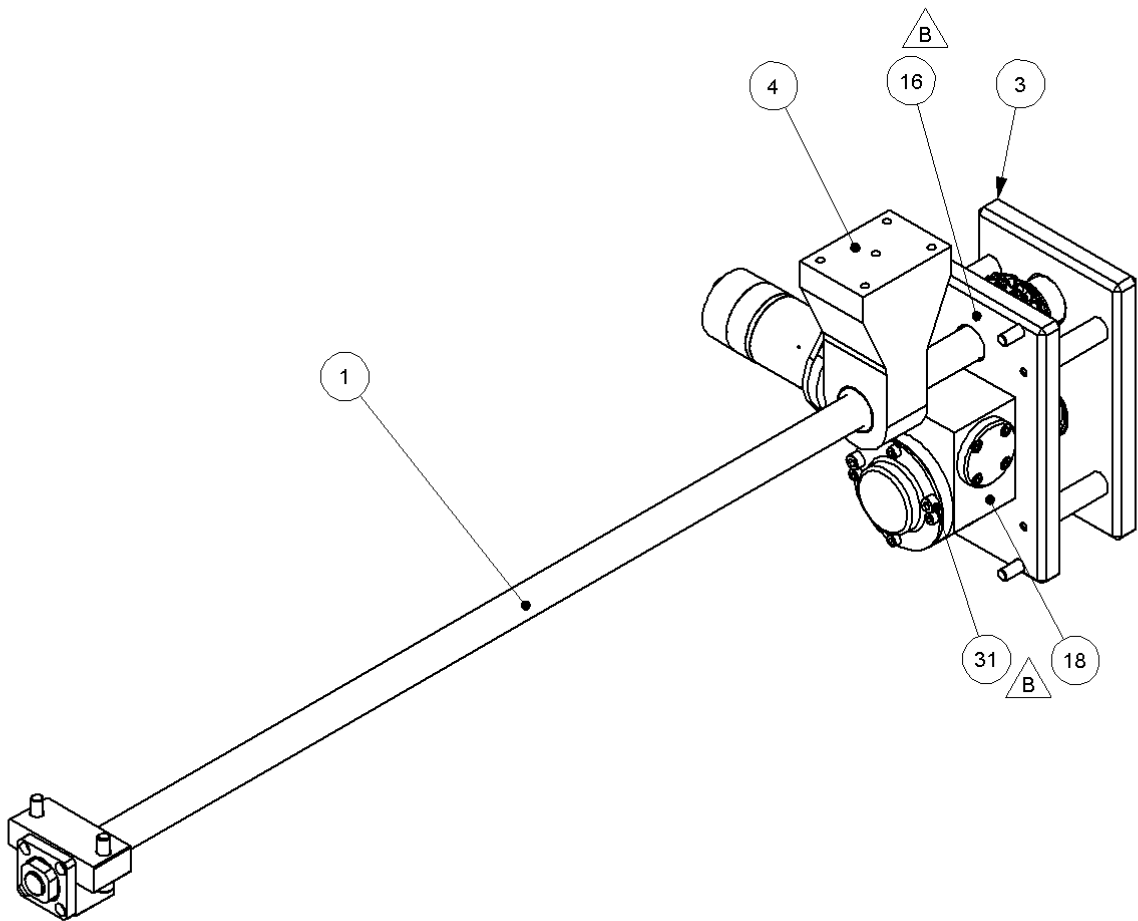
Issue Date: 30-Aug-16

Printed on 03/12/2015

DO NOT SCALE

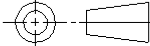
IF IN DOUBT ASK

ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY
1		MDWS620-6-004	MDWS620 LEADSCREW	1
2		06B1HS	SIMPLEX ROLLER CHAIN 42 LINKS	1
3		MDWS1638-6-002	FEED GEARBOX SUPPORT PLATE	1
4		MDWS620-6-003	BALLNUT CARRIER	1
5		MDWS1638-6-005	FEED PLATE SPACER	4
6		MDWS1638-6-020	RETAINING WASHER	1
7		MDWS1638-6-019	CLUTCH MECH MOUNT	1
8		MDWS1638-6-008	22T LEADSCREW DRIVER	1
9		MDWS1638-6-009	17T MOTOR SPROCKET	1
10		MDWS1638-6-010	PRESSURE PAD TYPE 1	1
11		MDWS1638-6-011	SPROCKET MOUNTING BUSH	1
12		MDWS1638-6-012	PRESSURE PAD TYPE 2	1
13		MDWS1638-6-013	DRIVE GEAR SPACER 1	1
14		MDWS1638-6-014	DRIVE GEAR SPACER 2	1
15		MDWS1638-6-022	FEED DRIVE OUTPUT SHAFT	1
16		MDWS1638-6-017	FEED GEARBOX MOUNT PLATE	1
17		MDWS1638-6-021	FEED CHAIN TENSIONER	1
18		HYM0200-6	30:1 Subsea reduction box	1
19		H370FM-2023-21	'Iglidur' H370 Flanged Bearing	1
20		1000-065-2000	BELLEVILLE DISC SPRINGS	4
21		JFRM-3846TR28X5	IGLIDUR J LEAD NUT RH	1
22		KK5-20SSA	TYPE A KEY	1
23		EK20-C7N	SUPPORT UNIT	1
24		7204 BEP	SINGLE ROW ANGULAR CONTACT BEARING	1
25		KK8-7-18A	TYPE A KEY	1
26		MB5	LOCKING WASHER	1
27		KM5	LOCK NUT	1
28		M6 X 16	Hex Socket CTSK Head - BS EN ISO 10642	1
29		M6 x 25	Hex Socket Head - BS EN ISO 4762	6
30		M8x90	Socket Head Cap Screw	1
31		M8x100	Socket Head Cap Screw	6
32		M10 x 35	Hex Socket Head - BS EN ISO 4762	5
33		M10 x 40	Hex Socket Head - BS EN ISO 4762	2
34		M8 X 25	Hex Flange Bolt - BS EN ISO 4162	1
35		151 G 0211	OMM 50 MOTOR FLANGE	1
36		151 G 0037	OMM50 MOTOR END PORT	1



MIRAGE MACHINES

APPROVED FOR
MANUFACTURE

C	2757	Replaced parts (MDWS1638-6-006, 007, 018, 016 with parts (MDWS1638-6-020, 019, 022, 021) D3	14/05/2015	DRB	BC
B	~	MDWS1638-6-017 WAS MDWS1638-6-001, MDWS1638-6-018 WAS MDWS1638-6-015, HYM0200-6 WAS 154B7476 (RR65DF), 1 off M8x90 ADDED, 6 off M8x100 WAS 4 off, 8 off M6x80 REMOVED	12/02/2015	KB	DC
A	2423	REVISION LEVEL OF MDWS1638-6-016 UPDATED	21/05/14	BC	SR
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
THIRD ANGLE PROJECTION © MIRAGE MACHINES LTD 2014 ALL RIGHTS RESERVED UNDER COPYRIGHT, DESIGN AND PATENT LAW. NO COPY OF THIS DOCUMENT OR THE ARTICLE SHOWN MAY BE MADE WITHOUT PRIOR WRITTEN PERMISSION WEIGHT24.729Kg DRAWN BYRH19/12/2013 CHECKED BYPW20/1/14 APPROVED BY-- TITLE MIRAGE PORTABLE PERFORMANCE 10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB TEL (01332) 291767 FAX (01332) 370356 E MAIL info@mirage-machines.co.uk DWG No					
MDWS 6"-20" FEED ASSEMBLY			MDWS620-6		A3
SCALE: 1:1			SHEET 1 OF 2		

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS620\MDWS620-6\MDWS620-6

A3 ASSEMBLY (AUTO) - 7-4-2009

Doc: MML265

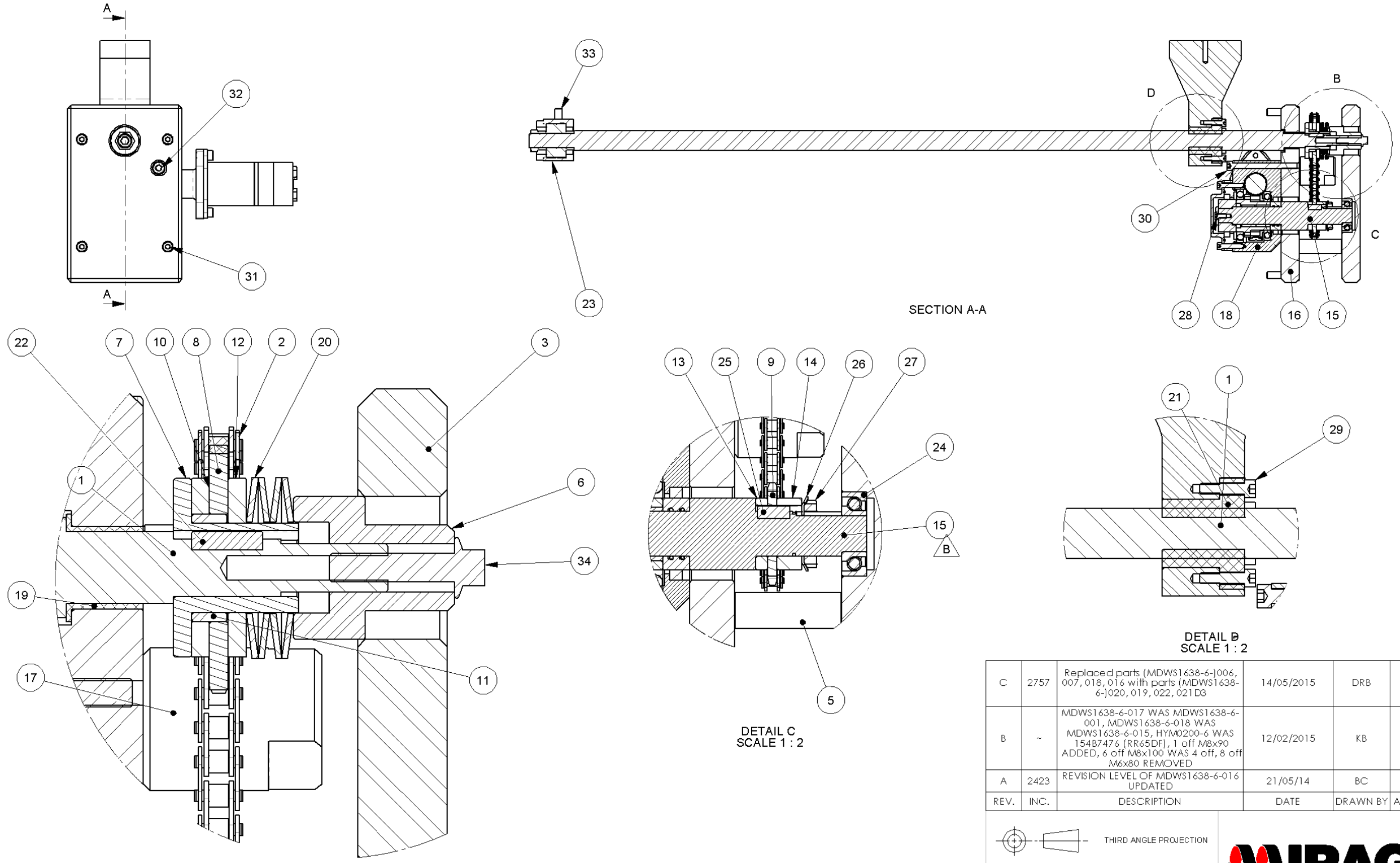
Issue: 007

Issue Date: 30-Aug-16

Printed on 03/12/2015

DO NOT SCALE

IF IN DOUBT ASK



DETAIL B
SCALE 1 : 1

DETAIL C
SCALE 1 : 2

DETAIL D
SCALE 1 : 2

C	2757	Replaced parts (MDWS1638-6-006, 007, 018, 016 with parts (MDWS1638-6-020, 019, 022, 021D3	14/05/2015	DRB	BC
B	~	MDWS1638-6-017 WAS MDWS1638-6-001, MDWS1638-6-018 WAS MDWS1638-6-015, HYM0200-6 WAS 154B7476 (RR65DF), 1 off M8x90 ADDED, 6 off M8x100 WAS 4 off, 8 off M6x80 REMOVED	12/02/2015	KB	DC
A	2423	REVISION LEVEL OF MDWS1638-6-016 UPDATED	21/05/14	BC	SR
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT	24.729Kg		
DRAWN BY	RH	19/12/2013	
CHECKED BY	PW	20/1/14	
APPROVED BY	--	--	
TITLE			

SCALE: 1:5



10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

DWG No MDWS620-6

A3

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS620\MDWS620-6\MDWS620-6

A3 ASSEMBLY (AUTO) - 7-4-2009

Doc: MML265

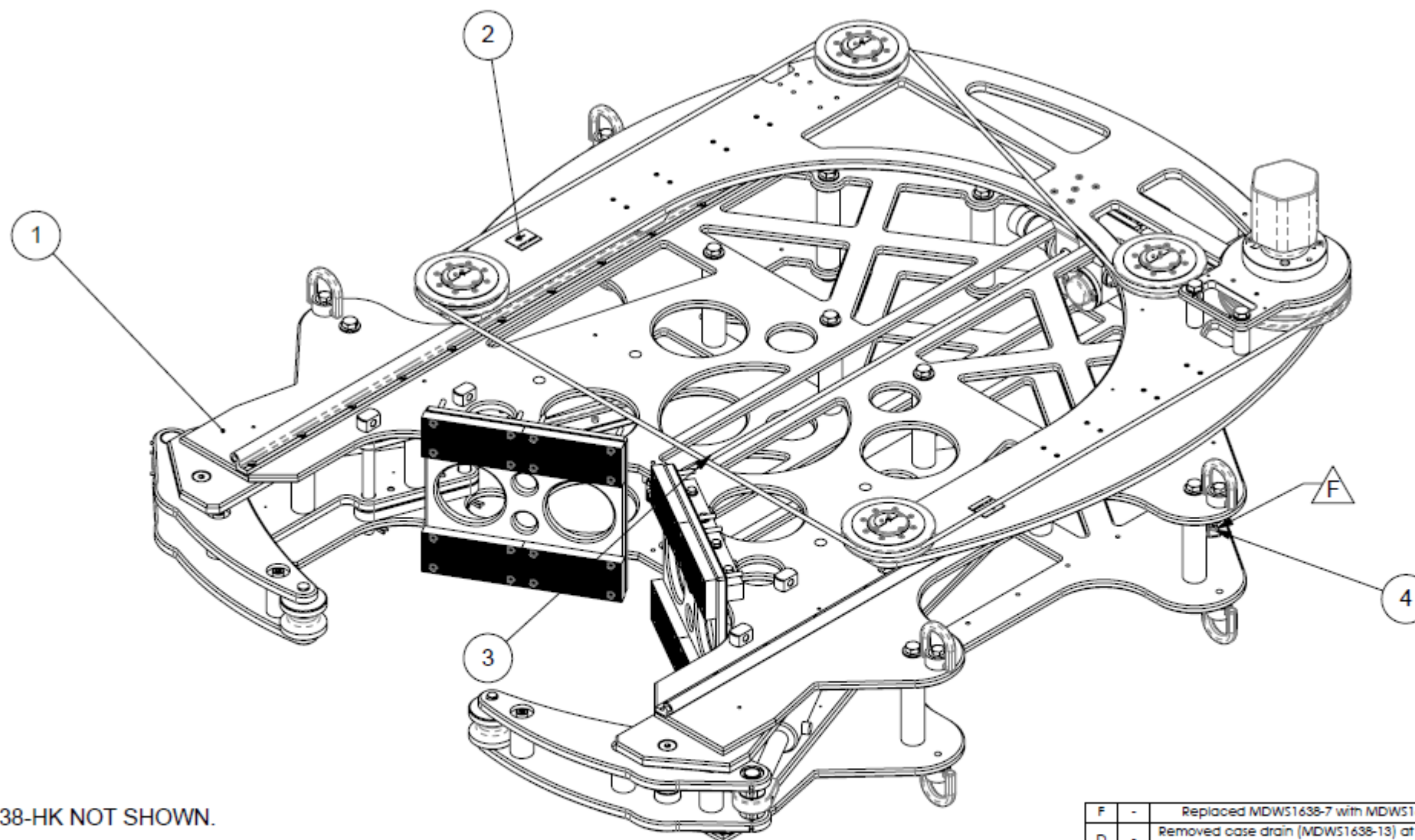
Issue: 007

Issue Date: 30-Aug-16

Printed on 05-Oct-17

DO NOT SCALE

IF IN DOUBT ASK



NOTE: MDWS1638-HK NOT SHOWN.

ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY
1		MDWS1638-1	MDWS1638 CLAMP ASSY	1
2	B	MDWS1638-3	DIAMOND WIRE DRIVE	1
3	C	MDWS1638-6	MDWS 16\"-38\" FEED ASSEMBLY	1
4		MDWS1638-7A	HYDRAULIC POWER PANEL	1
5		MDWS1638-HK	MDWS1638 HOSE KIT	1

F	-	Replaced MDWS1638-7 with MDWS1638-7A	05-Oct-17	DRB	SR
D	-	Removed case drain (MDWS1638-13) at request of RB	03-Feb-17	DRB	SR
C	N/A	CASE DRAIN MODULE CHANGED FROM MDWS1638-13 TO -13A & REPOSITIONED. MDWS1638-HK ADDED.	30/06/2015	SR	KB
B	N/A	CASE DRAIN MODULE No. CHANGED TO MDWS1638-13 FROM M55-NA-DWS-ASM-00415	30/06/2015	SR	KB
A	-	Added case drain	28/08/2014	DRB	SR
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



THIRD ANGLE PROJECTION

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WEIGHT	501.528kg
DRAWN BY	RH
CHECKED BY	--
APPROVED BY	--
TITLE	--

MDWS 16\"- 38\" MACHINE ASSY
SCALE: 1:10

MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
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E MAIL info@mirage-machines.co.uk

DWG No
MDWS1638-0
SHEET 1 OF 2

A3

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS1638\MDWS1638-0

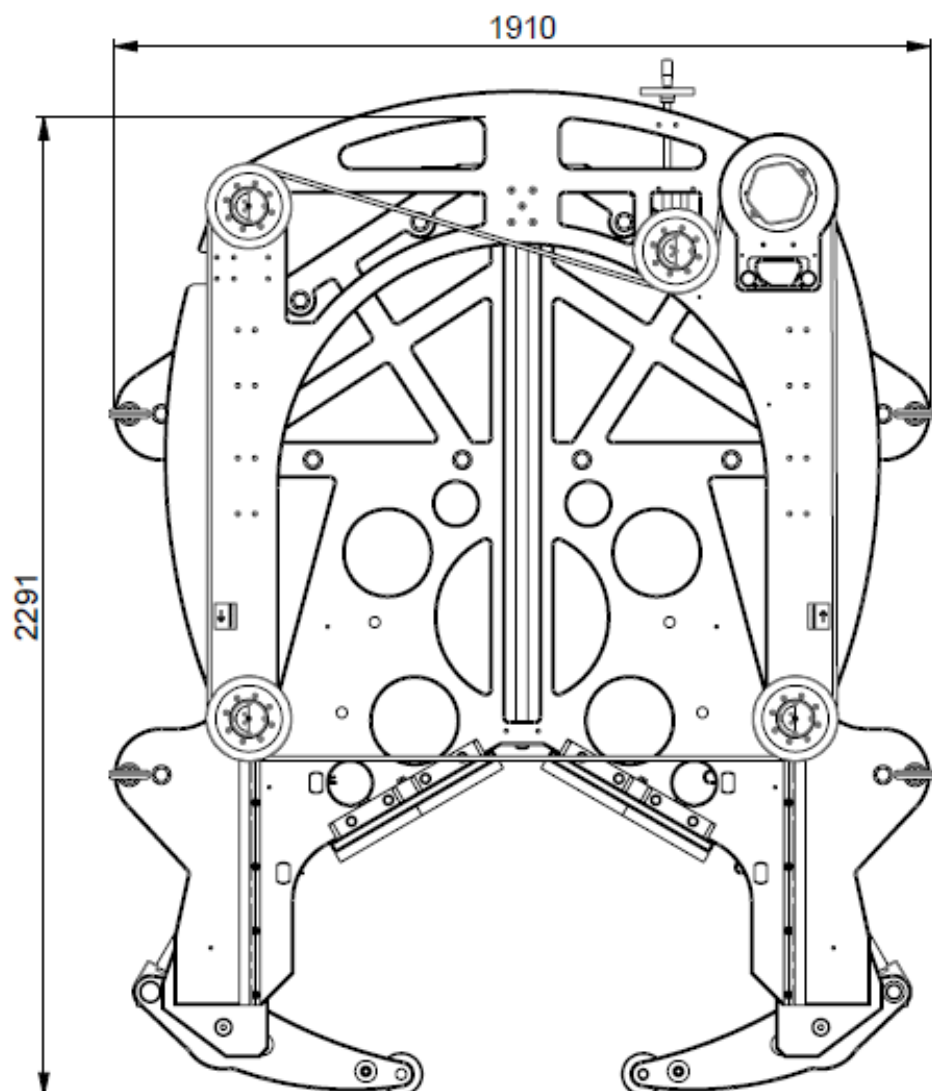
Doc: MML265

Issue: 007

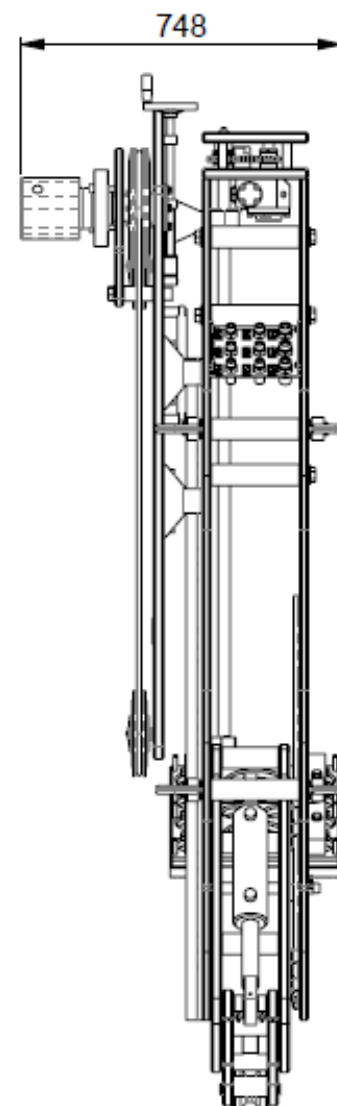
Issue Date: 30-Aug-16

Printed on 05-Oct-17

DO NOT SCALE

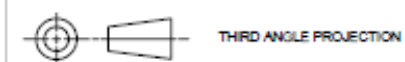


IF IN DOUBT ASK



MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

F	-	Replaced MDWS1638-7 with MDWS1638-7A	05-Oct-17	DRB	SR
D	-	Removed case drain (MDWS1638-13) at request of RB	03-Feb-17	DRB	SR
C	N/A	CASE DRAIN MODULE CHANGED FROM MDWS1638-13 TO -13A & REPOSITIONED. MDWS1638-HK ADDED.	30/06/2015	SR	KB
B	N/A	CASE DRAIN MODULE No. CHANGED TO MDWS1638-13 FROM MSS-NA-DWS-ASM-00415	30/06/2015	SR	KB
A	-	Added case drain	28/08/2014	DRB	SR
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT 501.528kg
DRAWN BY RH 03-Jan-14
CHECKED BY -- --
APPROVED BY -- --
TITLE

MDWS 16" - 38" MACHINE ASSY
SCALE: 1:10

MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

DWS No
MDWS1638-0
SHEET 2 OF 2
A3

in Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS1638\MDWS1638-0

Doc: MML265

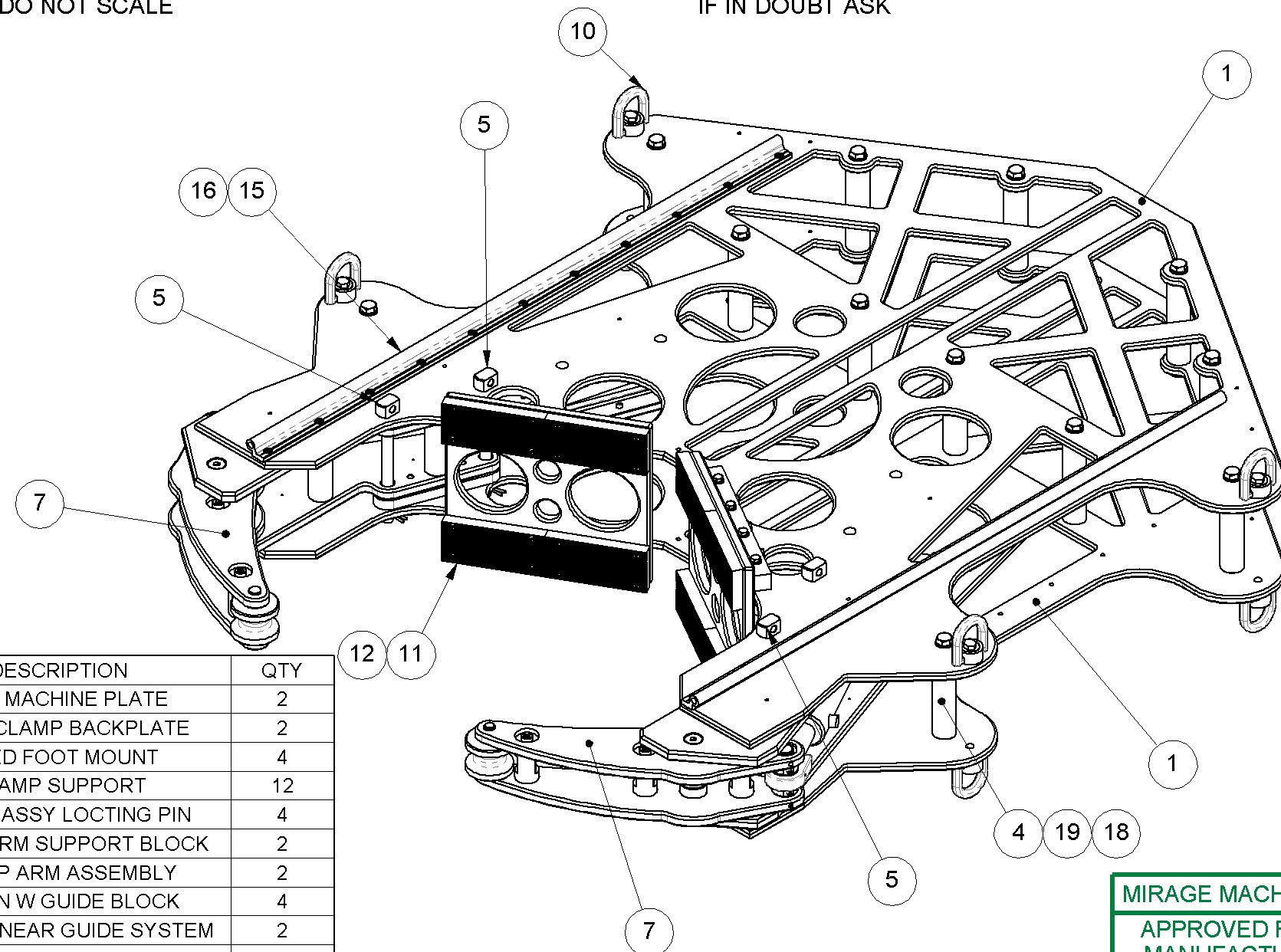
Issue: 007

Issue Date: 30-Aug-16

Printed on 03/12/2015

DO NOT SCALE

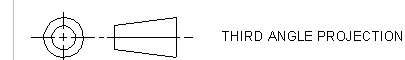
IF IN DOUBT ASK



ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY
1	C	MDWS1638-1-001	MAIN MACHINE PLATE	2
2		MDWS1638-1-002	FIXED CLAMP BACKPLATE	2
3		MDWS1638-1-003	FIXED FOOT MOUNT	4
4	B	MDWS1638-1-004	CLAMP SUPPORT	12
5	C	MDWS1638-1-005	CLAMP ASSY LOCKING PIN	4
6		MDWS1638-1-006	CLAMP ARM SUPPORT BLOCK	2
7	C	MDWS1638-2	CLAMP ARM ASSEMBLY	2
8		WW-10-80-10	DRYLIN W GUIDE BLOCK	4
9		WS-10-80-SL-1000	DRYLIN LINEAR GUIDE SYSTEM	2
10		RLP-M16-10	ROTATING LIFTING POINT	8
11		OB3665	jaw plate	8
12		M12 x 35	Hex Socket Head - BS EN ISO 4762	32
13		M8 x 30	Hex Socket Head - BS EN ISO 4762	6
14		M16 x 30	Hex Socket Head - BS EN ISO 4762	4
15		WS-25-1550	DRYLIN W ROUND RAIL	2
16		M10 x 25	Hex Socket Button Head - BS EN ISO 7380	22
17		89104	Ø5 RETAINING PIN S/STEEL	4
18		M20	WASHER (FORM A)	24
19		M20 x 50	Hex Screw Grade AB - BS EN 24017	24
20		M12 x 60	Hex Screw Grade AB - BS EN 24017	27
21		M12	WASHER (FORM A)	27

MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

B		M12 x 45 cap heads replaced with M12 x 60 hex heads. M20 x 50 cap heads replaced with M20 x 50 hex heads	16/10/2014	BC	DC
A		Ø5 RETAINING PIN ADDED	09/04/2014	RH	DC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT	394.935Kg
DRAWN BY	RH
CHECKED BY	PW
APPROVED BY	--
TITLE	

MDWS1638 CLAMP ASSY
SCALE: 1:10

MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

DWG No
MDWS1638-1
SHEET 1 OF 3

A3

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A3 ASSEMBLY (AUTO) - 7-4-2009

Doc: MML265

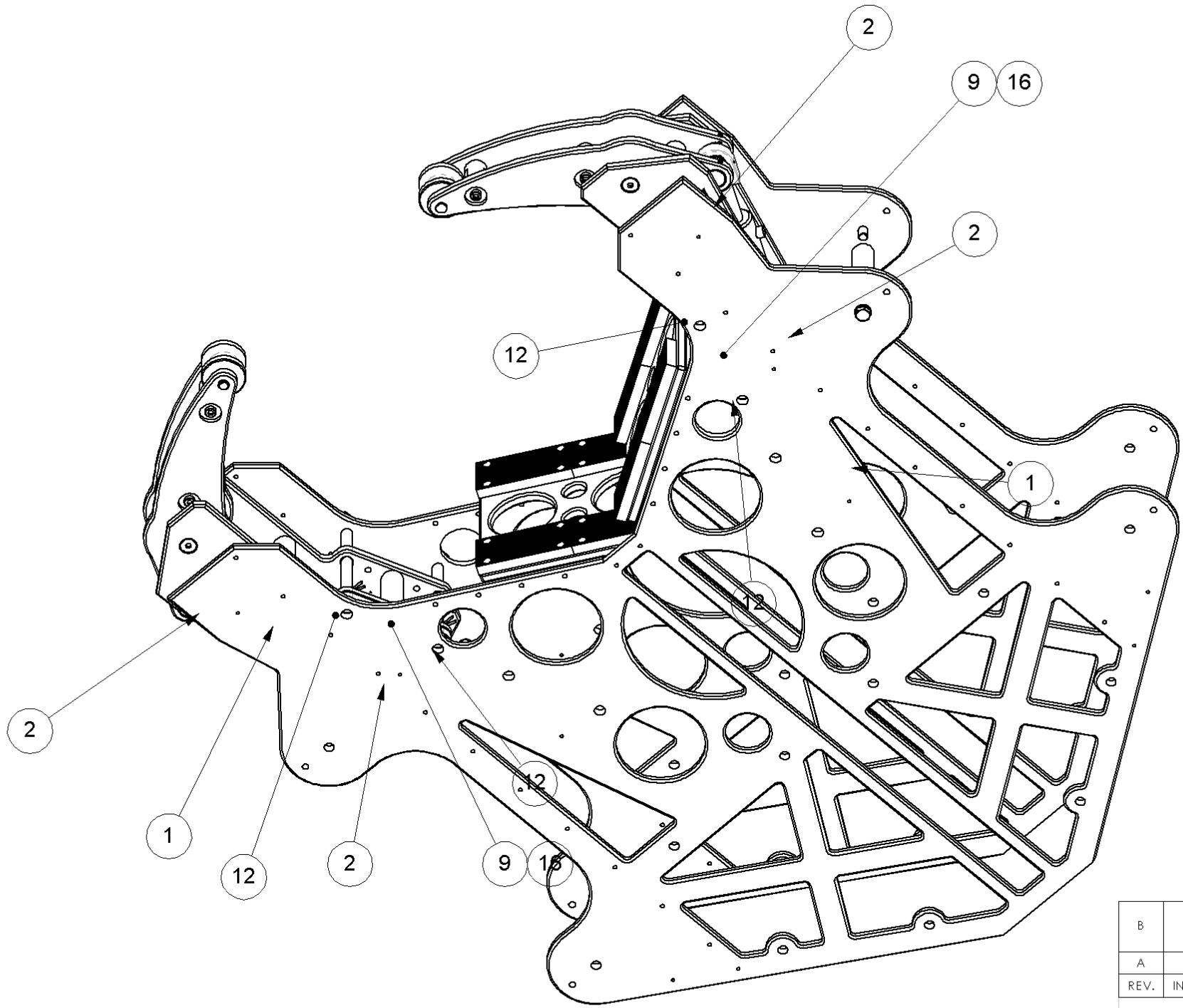
Issue: 007

Issue Date: 30-Aug-16

Printed on 03/12/2015

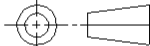
DO NOT SCALE

IF IN DOUBT ASK



MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

PRODUCTION NOTE:
NOTE THE ARRANGEMENT OF PARTS TO HAND MDWS1640-2
ASSEMBLY TO MAKE RIGHT AND LEFT HAND VARIANTS

B		M12 x 45 cap heads replaced with M12 x 60 hex heads. M20 x 50 cap heads replaced with M20 x 50 hex heads	16/10/2014	BC	DC
A		Ø5 RETAINING PIN ADDED	09/04/2014	RH	DC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
 THIRD ANGLE PROJECTION			 10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB TEL (01332) 291767 FAX (01332) 370356 E MAIL info@mirage-machines.co.uk		
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WEIGHT	394.935Kg				
DRAWN BY	RH	17/12/2013			
CHECKED BY	PW	06/01/2014			
APPROVED BY	--				
TITLE			MDWS1638-1		
MDWS1638 CLAMP ASSY			A3		
SCALE: 1:10			SHEET 2 OF 3		

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A3 ASSEMBLY (AUTO) - 7-4-2009

Doc: MML265

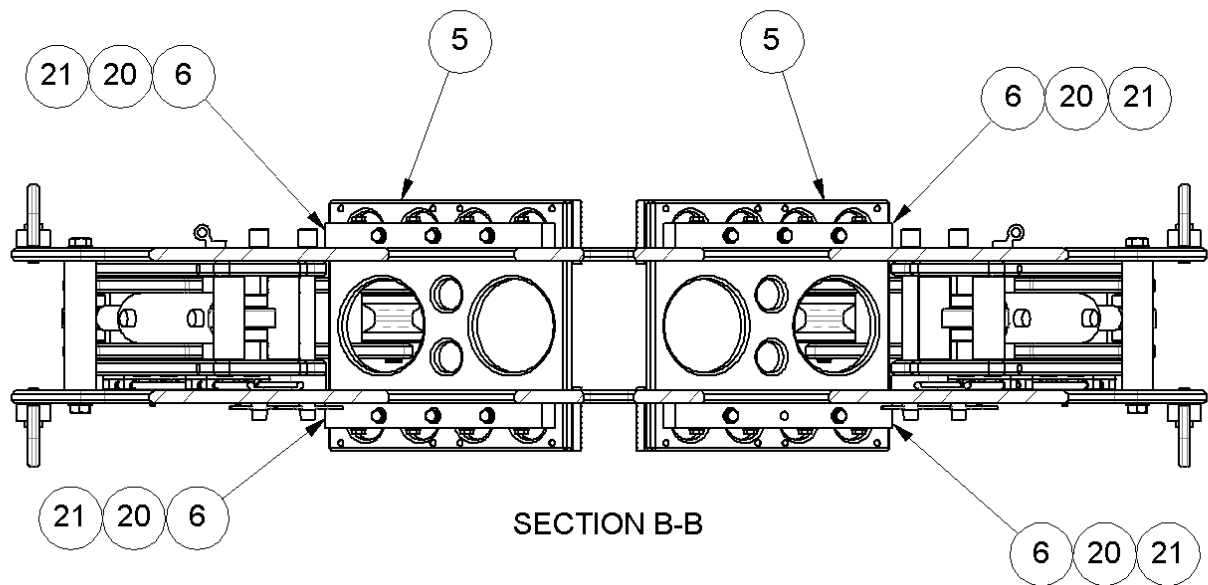
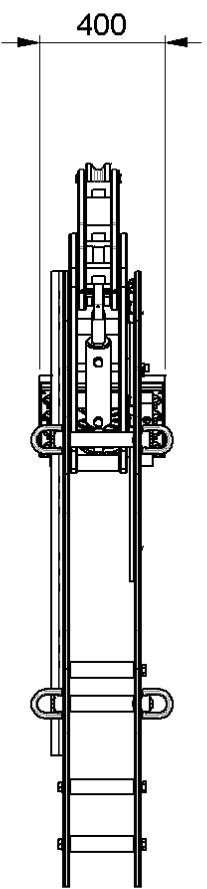
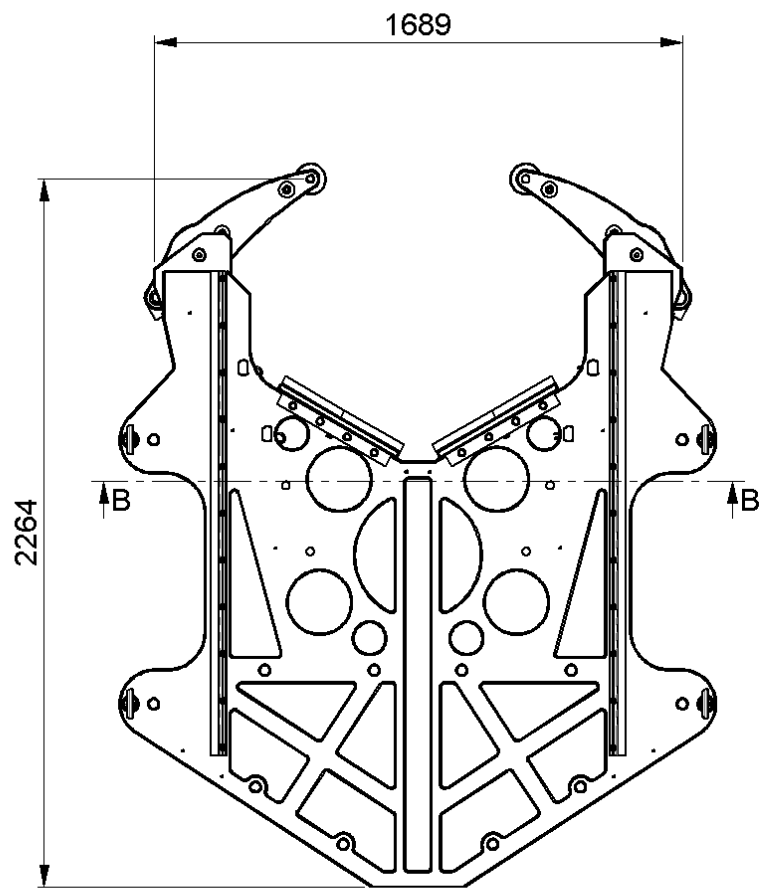
Issue: 007

Issue Date: 30-Aug-16

Printed on 03/12/2015

DO NOT SCALE

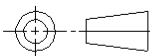
IF IN DOUBT ASK



SECTION B-B

MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

B		M12 x 45 cap heads replaced with M12 x 60 hex heads. M20 x 50 cap heads replaced with M20 x 50 hex heads	MANUFACTURE		
			16/10/2014	BC	DC
A		Ø5 RETAINING PIN ADDED	09/04/2014	RH	DC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



THIRD ANGLE PROJECTION

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WEIGHT	394.935Kg				
DRAWN BY	RH	17/12/2013	 10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB TEL (01332) 291767 FAX (01332) 370356 E MAIL info@mirage-machines.co.uk		
CHECKED BY	PW	06/01/2014			
APPROVED BY	--				
TITLE					

MDWS1638 CLAMP ASSY

SCALE: 1:10

DWG No

MDWS1638-1

SHEET 3 OF 3

A3

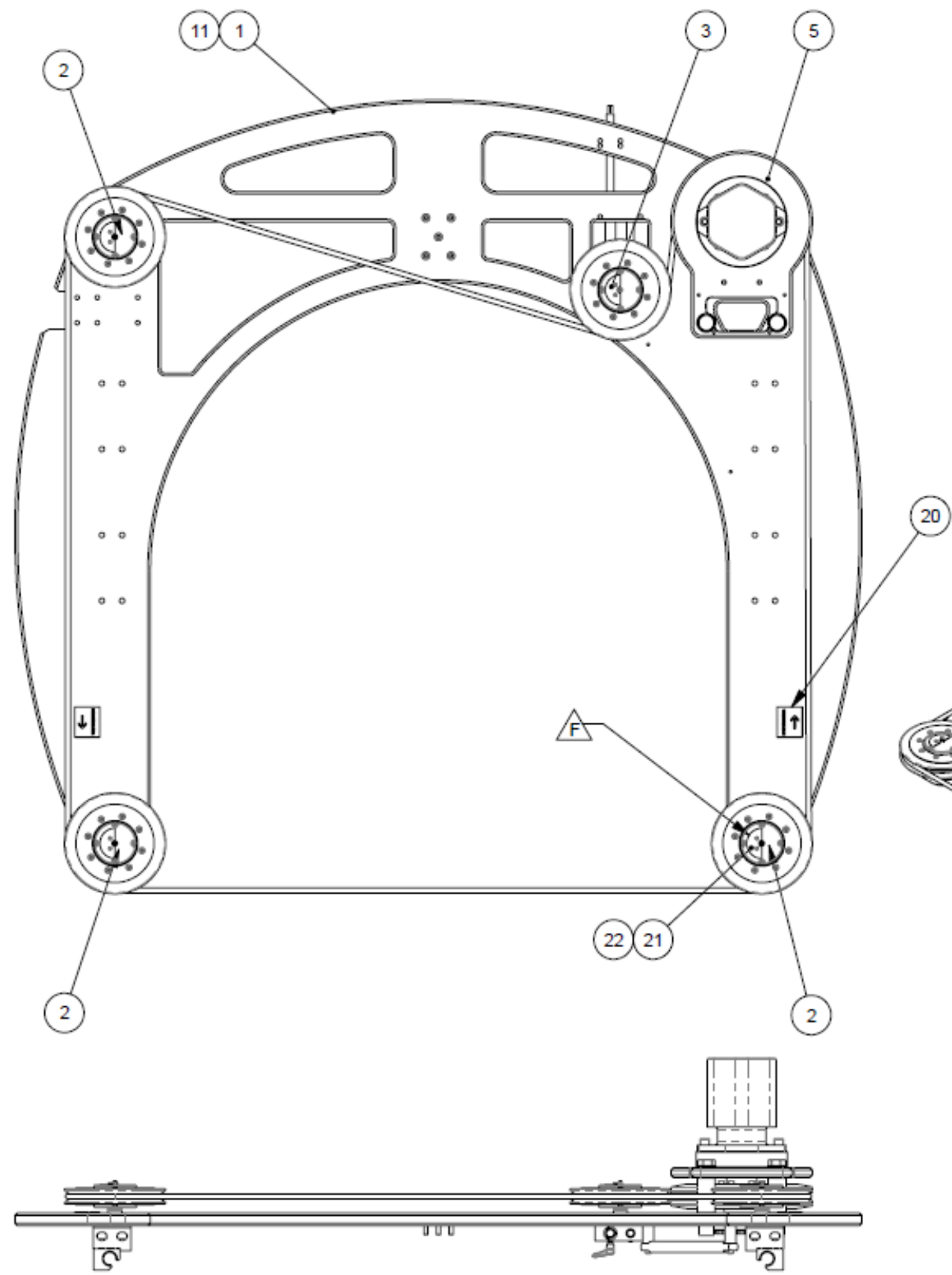
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A3 ASSEMBLY (AUTO) - 7-4-2009

Printed on 21/11/2019

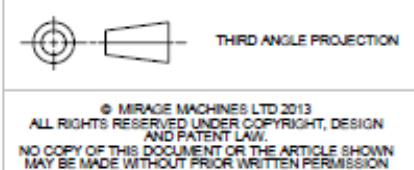
DO NOT SCALE

IF IN DOUBT ASK



ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY
1	G	MDWS1638-3-001	MAIN DRIVE PLATE	1
2		MDWS1638-15	IDLER PULLEY	3
3	A	MDWS1638-4	MDWS TENSIONING UNIT 5" STROKE	1
4		MDWS1638-3-002	MOUNTING BLOCK	4
5	F	MDWS1638-5	MDWS WIRE DRIVE ASSY	1
6	C	MDWS1638-3-005	DRIVE MOTOR BEARING PLUG	1
7		WJ200UM-01-25-LL	DRYLIN W CARRIAGE FLOATING	2
8		WJ200UM-01-25	DRYLIN W CARRIAGE FIXED	2
9		OR4505000	O-RING	1
10		M10 x 75	Hex Socket Head - BS EN ISO 4762	3
11		M8 x 35	Hex Socket Head	5
12		M20 x 40	Hex Socket Head - BS EN ISO 4762	2
13		M8 x 50	SOCKET BUTTON HEADS	8
14		M10-WASHER	WASHER (FORM A)	4
15		MDWS1638-3-006	Hydraulic support	2
16		MDWS1638-3-007	Hydraulic support	1
17		M8 x 60	Hex Socket Head - BS EN ISO 4762	2
18		M10 x 35	Hex Screw Grade AB - BS EN 24014	4
19		M6	STRAIGHT GREASE NIPPLE	1
20		MDWS1638-3-008	Traffolyte Label	2
21		MDWS1638-15-002	Traffolyte label	3
22		M3 x 5	Hex Socket Head - BS EN ISO 4762	6
23		M12 x 35	Hex Socket Head - BS EN ISO 4762	16
24		MDWS1638-3-003	DWM-S ELECTROPLATED WIRE	1

G	3744	Added MDWS1638-3-003 to drawing BoM	21/11/2019	DRB	RH
F	-	Added MDWS1638-15-002 and M3x5 screws at request of ST+RB	18-Nov-16	DRB	DC
E	-	Added M6 grease nipple and x2 labels	14-Nov-16	DRB	DC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



WEIGHT	105.258kg
DRAWN BY	RH
CHECKED BY	PW
APPROVED BY	
TITLE	DIAMOND WIRE DRIVE
SCALE	1:1

10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB TEL (01332) 291787 FAX (01332) 370356 E MAIL info@mirage-machines.co.uk	DWG NO MDWS1638-3	SHEET 1 OF 2
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MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

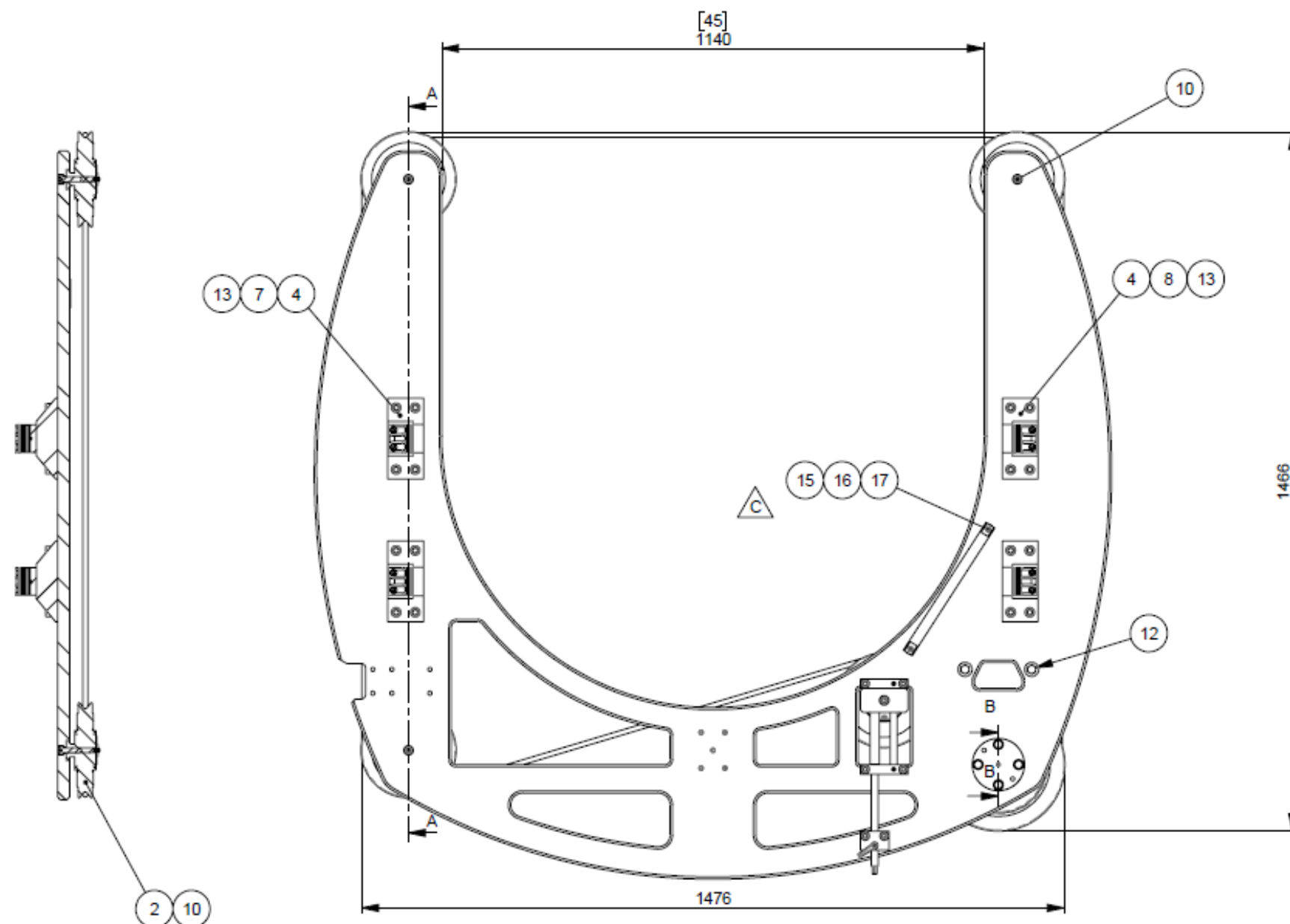
Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS1638\MDWS1638-3

Doc: MML265 Issue: 007 Issue Date: 30-Aug-16

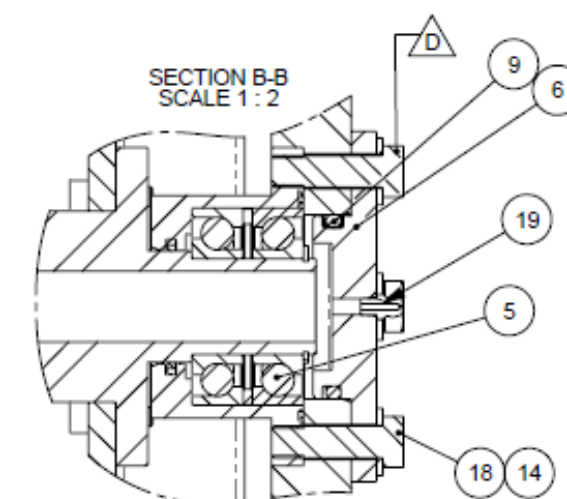
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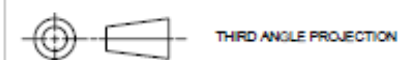
IF IN DOUBT ASK



SECTION A-A
SCALE 1 : 10



G	3744	Added MDWS1638-3-003 to drawing BoM	21/11/2019	DRB	RH
F	-	Added MDWS1638-15-002 and M3x5 screws at request of ST+RB	18-Nov-16	DRB	DC
E	-	Added M6 grease nipple and x2 labels	14-Nov-16	DRB	DC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



THIRD ANGLE PROJECTION

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WEIGHT	105.258kg
DRAWN BY	RH
CHECKED BY	PW
APPROVED BY	---
TITLE	DIAMOND WIRE DRIVE

SCALE: 1:1

MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370358
E MAIL info@mirage-machines.co.uk

DWG No
MDWS1638-3
SHEET 2 OF 2

A3

MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

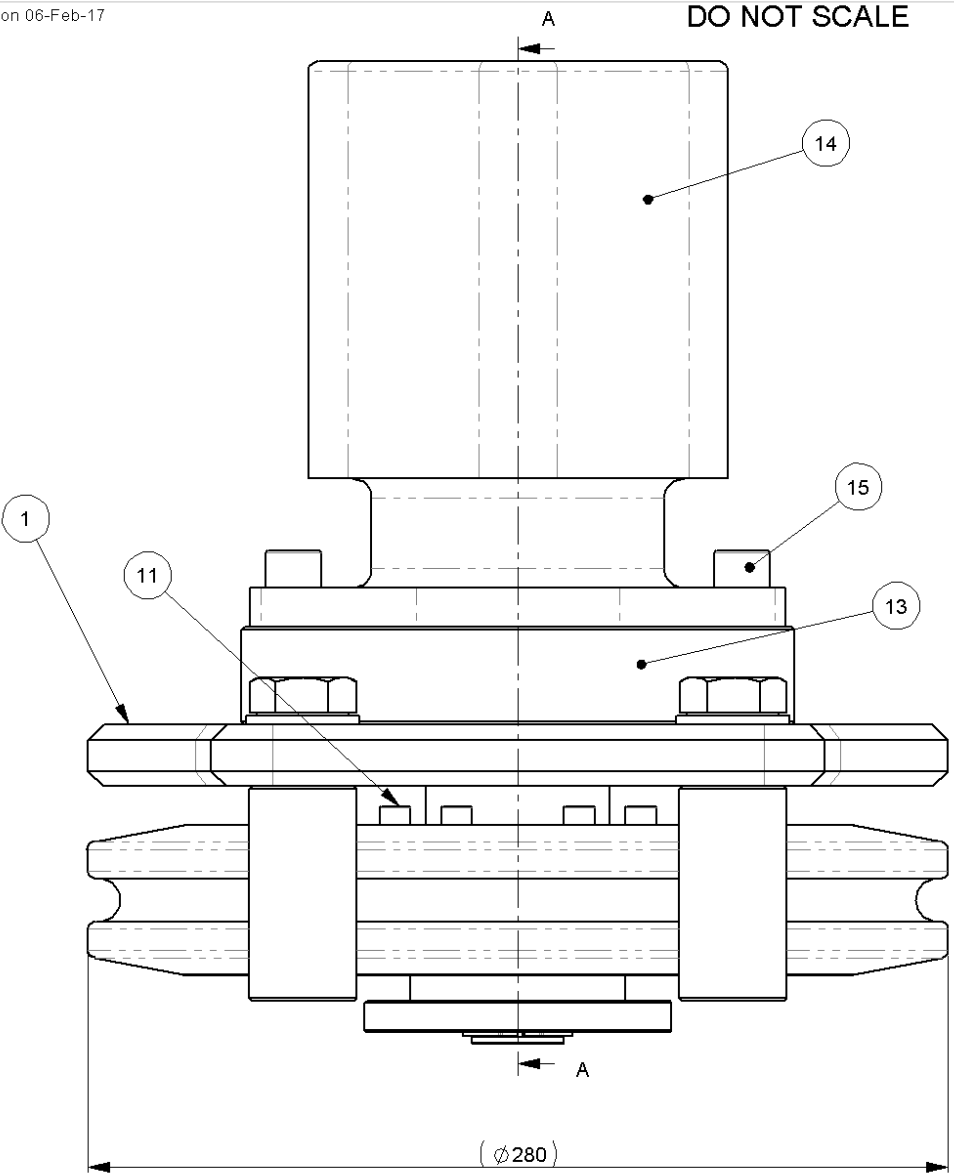
Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS1638\MDWS1638-3

Doc: MML265

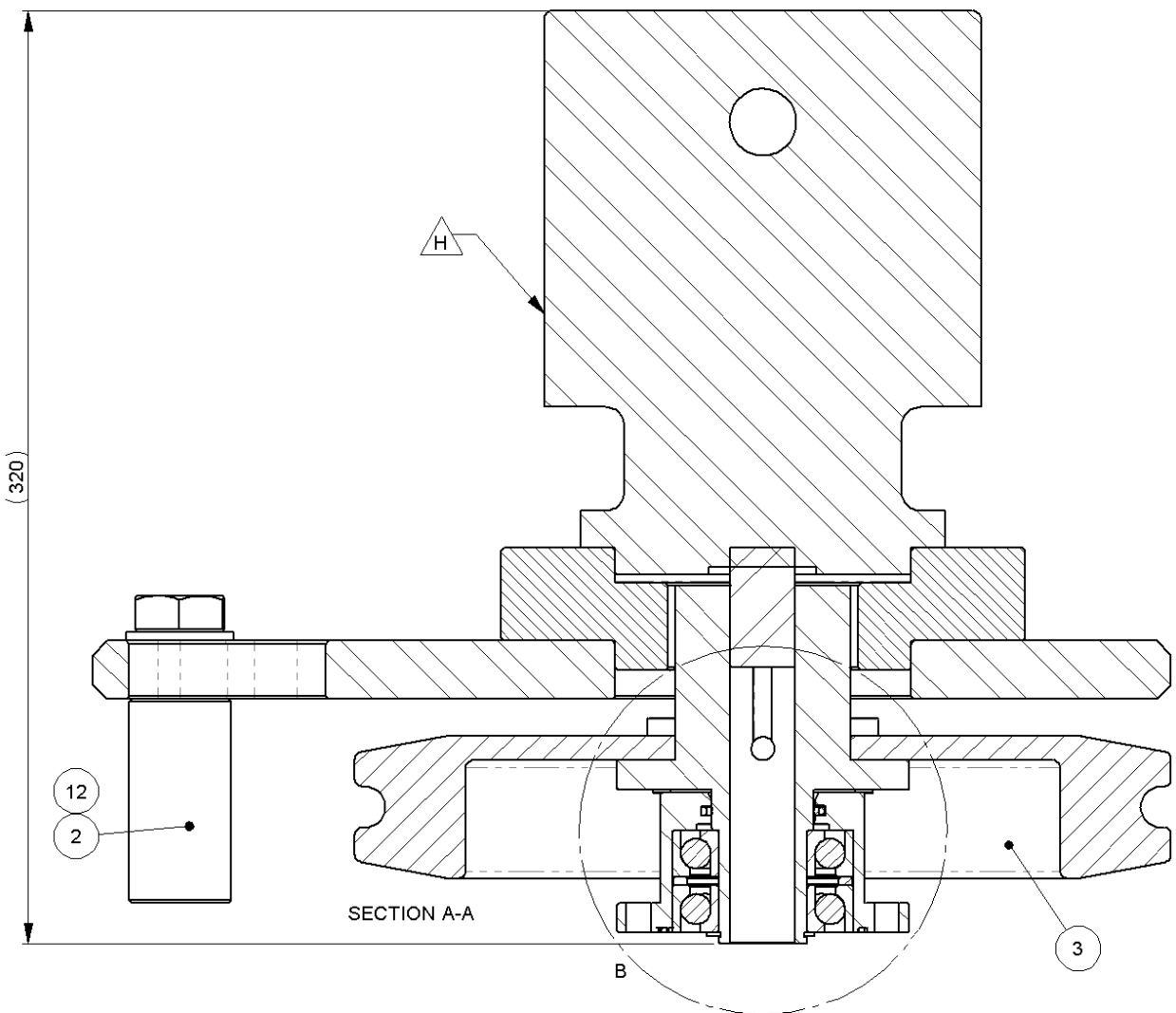
Issue: 007

Issue Date: 30-Aug-16

Printed on 06-Feb-17



IF IN DOUBT ASK



H	-	Replaced Sunfab motor with Parker M2 motor, MDWS1638-5-012 with MDWS1638-5-013, and added MDWS1638-5-014 at request of RB	03-Feb-17	DRB	SR
G	3208	General BoM fixes, screw sizes glitched and needed correcting	06-Oct-16	DRB	DC
F	N/A	ASSEMBLY NOTE ADDED TO SHEET 3 DETAILING MOTOR ORIENTATION.	30/06/2015	SR	KB
E	N/A	MDWS1638-5-HK RIGID HOSE KIT DELETED.	03/06/2015	SR	KB
D	2569	PARTS TRQ1D0350-4V012 & D1300-0520 REMOVED, TG5100350-752N & OR2006500 ADDED.	28/11/2014	SR	KB
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



THIRD ANGLE PROJECTION

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WEIGHT	31.229Kg
DRAWN BY	RH
CHECKED BY	KB
APPROVED BY	--
TITLE	MDWS WIRE DRIVE ASSY

SCALE: 1:2



10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

DWG No
MDWS1638-5

A3

SHEET 1 OF 3

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS1638\MDWS1638-5
A3 ASSEMBLY (AUTO) - 7-4-2009

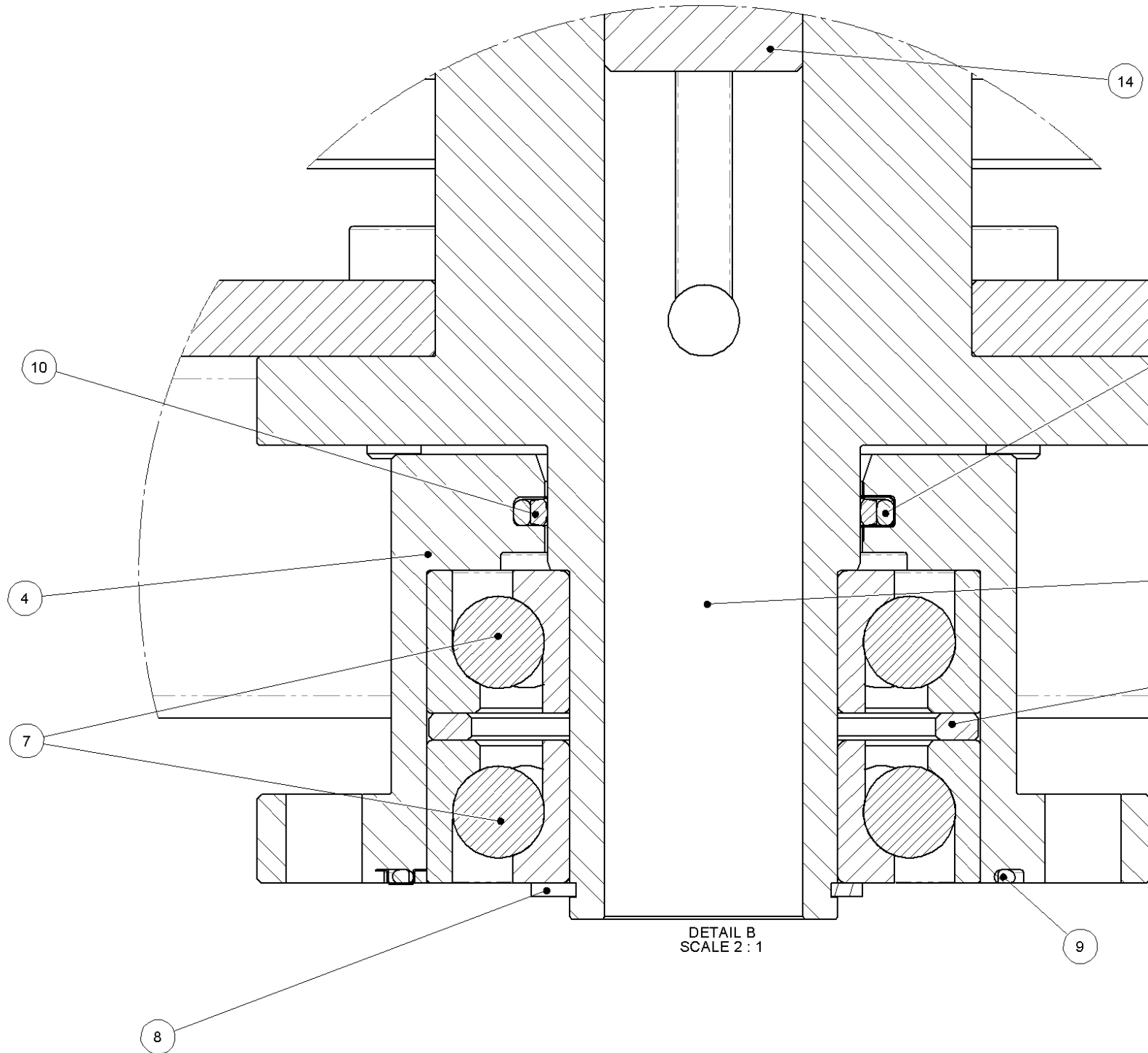
MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

Doc: MML265 Issue: 007 Issue Date: 30-Aug-16

Printed on 06-Feb-17

DO NOT SCALE

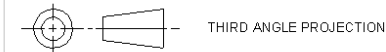
IF IN DOUBT ASK



NOTE:
COMPRESS ZURCON ROTO GLYD RING INTO KIDNEY SHAPE WITH NO SHARP BENDS, PLACE THE SEAL RING IN COMPRESSED FORM INTO THE GROOVE AND RETURN TO ORIGINAL SHAPE, IF SEAL IS DAMAGED ON INSTALLATION FIT A NEW ONE.

DETAIL B
SCALE 2 : 1

H	-	Replaced Sunfab motor with Parker M2 motor, MDWS1638-5-012 with MDWS1638-5-013, and added MDWS1638-5-014 at request of RB	03-Feb-17	DRB	SR
G	3208	General BoM fixes, screw sizes glitched and needed correcting	06-Oct-16	DRB	DC
F	N/A	ASSEMBLY NOTE ADDED TO SHEET 3 DETAILING MOTOR ORIENTATION.	30/06/2015	SR	KB
E	N/A	MDWS1638-5-HK RIGID HOSE KIT DELETED.	03/06/2015	SR	KB
D	2569	PARTS TRQ1D0350-4V012 & D1300-0520 REMOVED, TG5100350-Z52N & OR2006500 ADDED.	28/11/2014	SR	KB
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT	31.229Kg
DRAWN BY	RH
CHECKED BY	KB
APPROVED BY	--
TITLE	MDWS WIRE DRIVE ASSY

SCALE: 1:2

MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

DWG No
MDWS1638-5
SHEET 2 OF 3

A3

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A3 ASSEMBLY (AUTO) - 7-4-2009

Doc: MML265

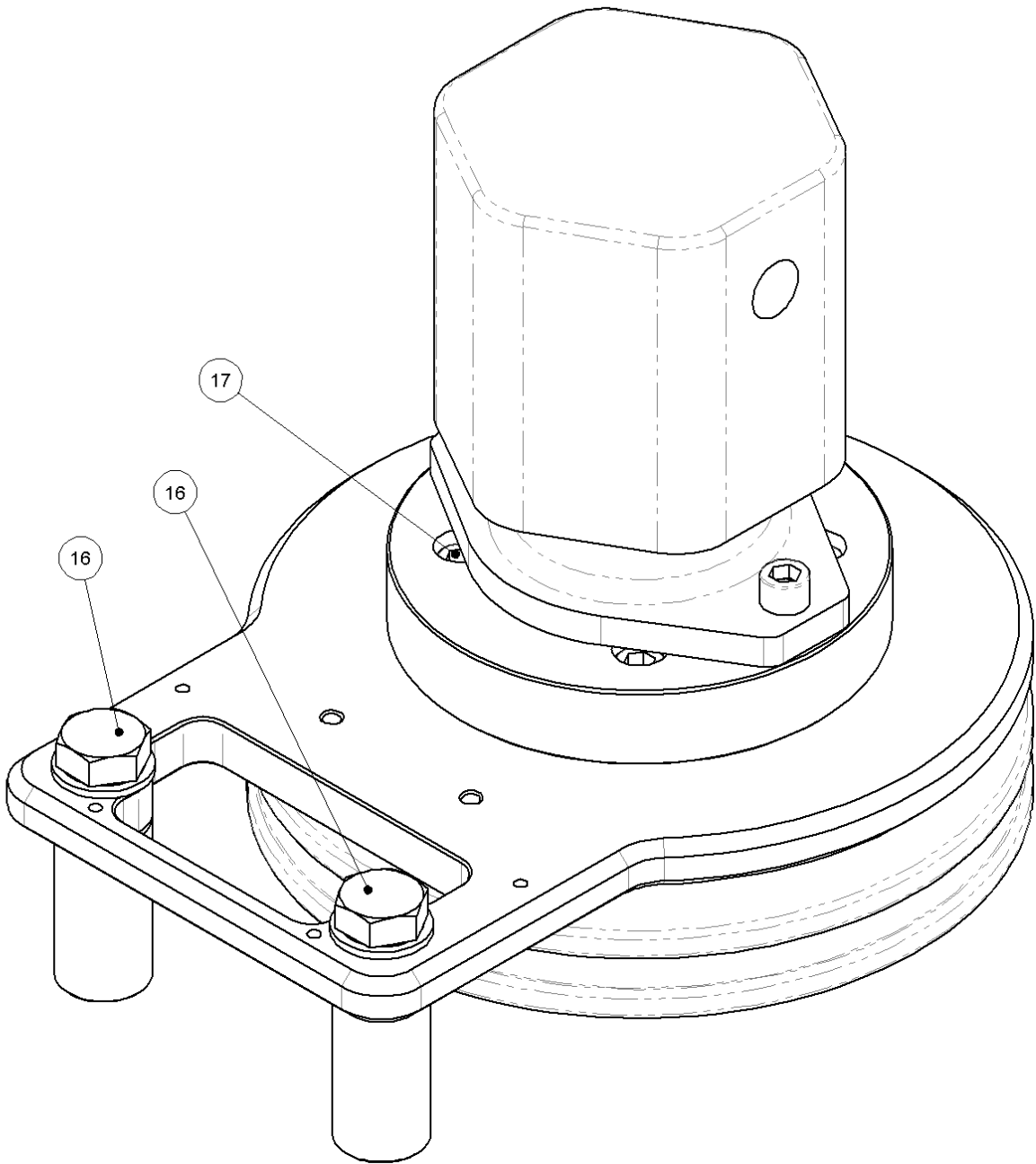
Issue: 007

Issue Date: 30-Aug-16

Printed on 06-Feb-17

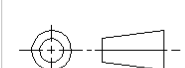
DO NOT SCALE

IF IN DOUBT ASK



ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY.
1	D	MDWS1638-5-002	MOTOR MOUNT PLATE	1
2	A	MDWS1638-5-005	DRIVE UNIT SPACER	2
3		MDWS1638-5-006	MODIFIED DRIVE WHEEL	1
4	B	MDWS1638-5-010	DRIVE WHEEL BEARING HOUSING	1
5		MDWS1638-5-011	BEARING SPACER	1
6		MDWS1638-5-013	DRIVE SPIGOT	1
7		7206	ANGULAR CONTACT BALL BEARING	2
8		D1400-0300	DIN 471 EXTERNAL CIRCLIP	1
9		65x2	NITRILE O-RING	1
10		TG5100350-Z52N	ZURCON ROTO GLYD RING S	1
11		M6 x 20	Hex Socket Head - BS EN ISO 4762	6
12		M20	WASHER (FORM A)	2
13		MDWS1638-5-014	PARKER MOTOR SPACER	1
14		M2B25412S30NB	HYDRAULIC MOTOR	1
15		M12 x 30	Hex Socket Head - BS EN ISO 4762	2
16		M20 x 40	Hex Screw Grade AB - BS EN 24017	2
17		M12 x 35	Hex Socket Head - BS EN ISO 4762	4

H	-	Replaced Sunfab motor with Parker M2 motor, MDWS1638-5-012 with MDWS1638-5-013, and added MDWS1638-5-014 at request of RB	03-Feb-17	DRB	SR
G	3208	General BoM fixes, screw sizes glitched and needed correcting	06-Oct-16	DRB	DC
F	N/A	ASSEMBLY NOTE ADDED TO SHEET 3 DETAILING MOTOR ORIENTATION.	30/06/2015	SR	KB
E	N/A	MDWS1638-5-HK RIGID HOSE KIT DELETED.	03/06/2015	SR	KB
D	2569	PARTS TRQ1 D0350-4V012 & D1300-0520 REMOVED, TG5100350-Z52N & OR2006500 ADDED.	28/11/2014	SR	KB
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT	31.229Kg	
DRAWN BY	RH	24-Dec-13
CHECKED BY	KB	12-Jan-14
APPROVED BY	--	



MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

DWG No	MDWS1638-5	A3
MDWS WIRE DRIVE ASSY		
SCALE: 1:2		
SHEET 3 OF 3		

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS1638\MDWS1638-5
A3 ASSEMBLY (AUTO) - 7-4-2009

Printed on 05/01/2021

DO NOT SCALE

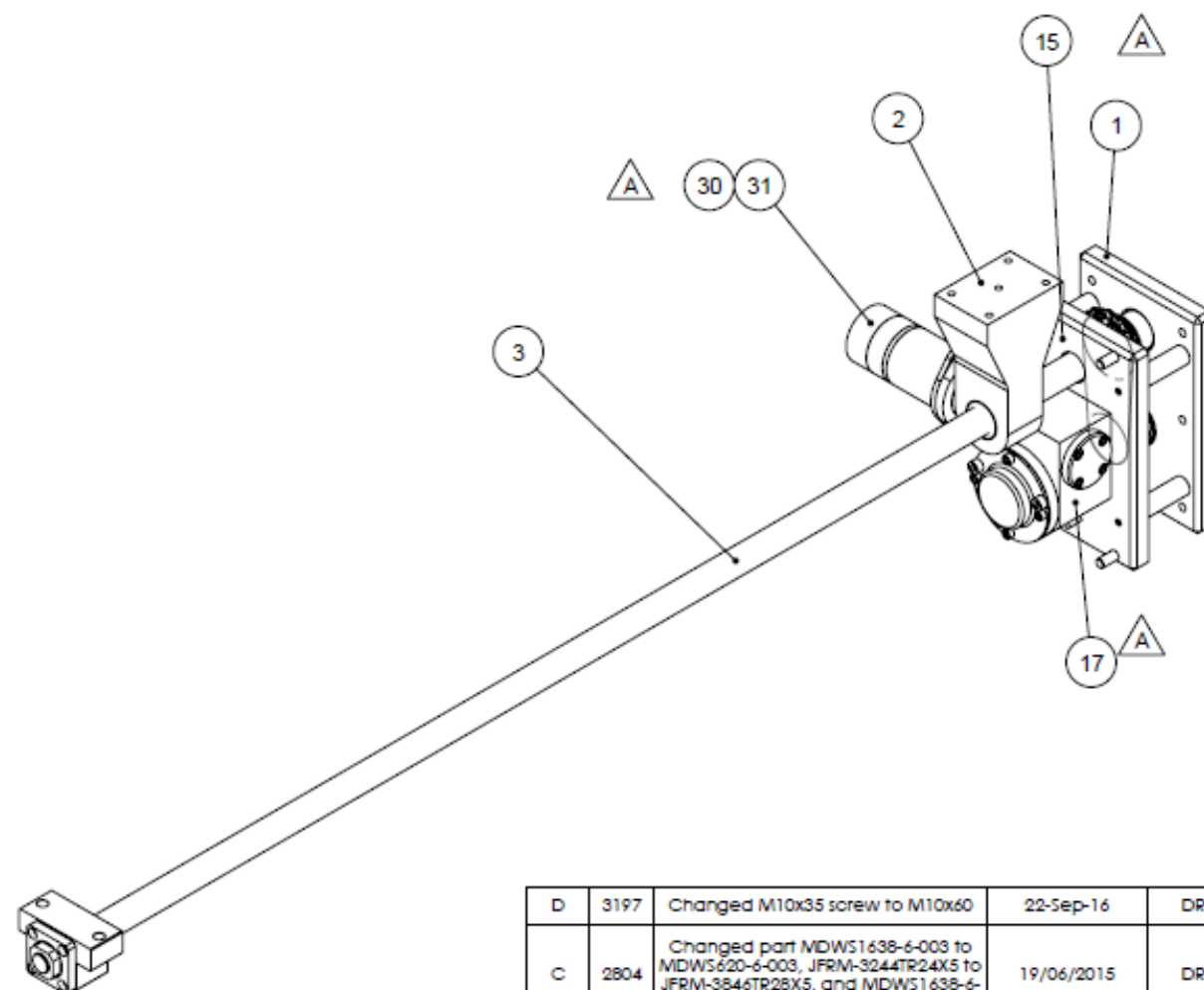
IF IN DOUBT ASK

ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY
1	A	MDWS1638-6-002	FEED GEARBOX SUPPORT PLATE	1
2		MDWS620-6-003	BALLNUT CARRIER	1
3		MDWS1638-6-023	MDWS1638 LEADSCREW	1
4		MDWS1638-6-005	FEED PLATE SPACER	4
5		MDWS1638-6-022	FEED DRIVE OUTPUT SHAFT	1
6		MDWS1638-6-021	FEED CHAIN TENSIONER	1
7		MDWS1638-6-008	22T LEADSCREW DRIVER	1
8		MDWS1638-6-009	17T MOTOR SPROCKET	1
9		MDWS1638-6-010	PRESSURE PAD TYPE 1	1
10		MDWS1638-6-011	SPROCKET MOUNTING BUSH	1
11		MDWS1638-6-012	PRESSURE PAD TYPE 2	1
12		MDWS1638-6-013	DRIVE GEAR SPACER 1	1
13		MDWS1638-6-014	DRIVE GEAR SPACER 2	1
14		MDWS1638-6-020	RETAINING WASHER	1
15		MDWS1638-6-017	FEED GEARBOX MOUNT PLATE	1
16		MDWS1638-6-019	CLUTCH MECH MOUNT	1
17		HYM0200-6	30:1 Subsea reduction box	1
18		H370FM-2023-21	'Iglidur' H370 Flanged Bearing	1
19		1000-065-2000	BELLEVILLE DISC SPRINGS	4
20		JFRM-3846TR28X5	IGLIDUR J LEAD NUT RH	1
21		KK5-20SSA	TYPE A KEY	1
22		EK20	SUPPORT UNIT	1
23		KK8-7-18A	TYPE A KEY	1
24		06B1HS	SIMPLEX ROLLER CHAIN 42 LINKS	1
25		KM5	LOCK NUT	1
26		MB5	LOCKING WASHER	1
27		7204-BEP	SINGLE ANGULAR ROLLER BEARING	1
28		M8x90	Socket Head Cap Screw	1
29		M8x100	Socket Head Cap Screw	6
30		151 G 0211	OMM 50 MOTOR FLANGE	1
31		151 G 0037	OMM50 MOTOR END PORT	1
32		M6 x 25	Hex Socket Head - BS EN ISO 4762	6
33		M10 x 35	Hex Socket Head - BS EN ISO 4762	4
34		M8 X 25	Hex Flange Bolt - BS EN ISO 4162	1
35		M10 x 60	SOCKET HEAD CAP SCREW	1
36		M6 X 16	Hex Socket CTSK Head - BS EN ISO 10642	1

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MANUFACTURE

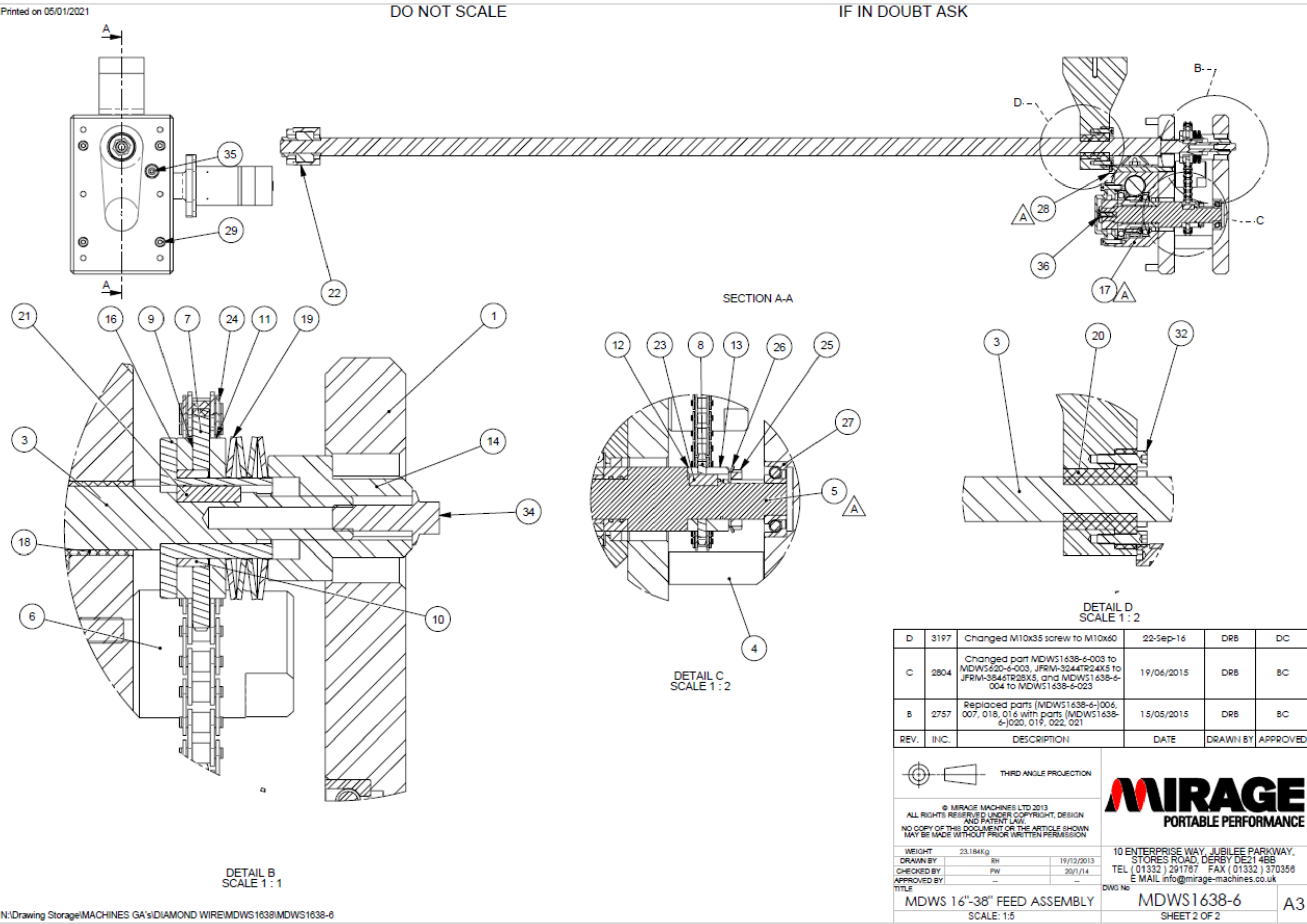
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REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
D	3197	Changed M10x35 screw to M10x60	22-Sep-16	DRB	DC
C	2804	Changed part MDWS1638-6-003 to MDWS620-6-003, JFRM-3244TR24X5 to JFRM-3846TR28X5, and MDWS1638-6-004 to MDWS1638-6-023	19/06/2015	DRB	BC
B	2757	Replaced parts (MDWS1638-6-006, 007, 018, 016 with parts (MDWS1638-6-020, 019, 022, 021	15/05/2015	DRB	BC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
THIRD ANGLE PROJECTION © MIRAGE MACHINES LTD 2013 ALL RIGHTS RESERVED UNDER COPYRIGHT, DESIGN AND PATENT LAWS. NO COPY OF THIS DOCUMENT OR THE ARTICLE SHOWN MAY BE MADE WITHOUT PRIOR WRITTEN PERMISSION WEIGHT 23.184kg DRAWN BY RH 19/12/2013 CHECKED BY PW 20/1/14 APPROVED BY -- -- TITLE MDWS 16'-38" FEED ASSEMBLY SCALE: 1:1					
				MIRAGE PORTABLE PERFORMANCE 10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB TEL (01332) 291787 FAX (01332) 370358 E MAIL info@mirage-machines.co.uk	
DWG No				MDWS1638-6	A3
				SHEET 1 OF 2	

Doc: MML265

Issue: 007

Issue Date: 30-Aug-16



D	3197	Changed M10x35 screw to M10x60	22-Sep-16	DRB	DC
C	2804	Changed part MDWS1638-6-003 to MDWS620-6-003, JFRM-3244TR24X5 to JFRM-3844TR28X5, and MDWS1638-6-004 to MDWS1638-6-023	19/06/2015	DRB	BC
B	2757	Replaced parts (MDWS1638-6-006, 007, 018, 016 with parts (MDWS1638-6-020, 019, 022, 021	15/05/2015	DRB	BC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED

THIRD ANGLE PROJECTION

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WEIGHT	23.184Kg	
DRAWN BY	RH	19/12/2013
CHECKED BY	PW	20/1/14
APPROVED BY		
TITLE	MDWS 16"-38" FEED ASSEMBLY	
	SCALE: 1:5	

MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291787 FAX (01332) 370358
E MAIL info@mirage-machines.co.uk

DWG No
MDWS1638-6

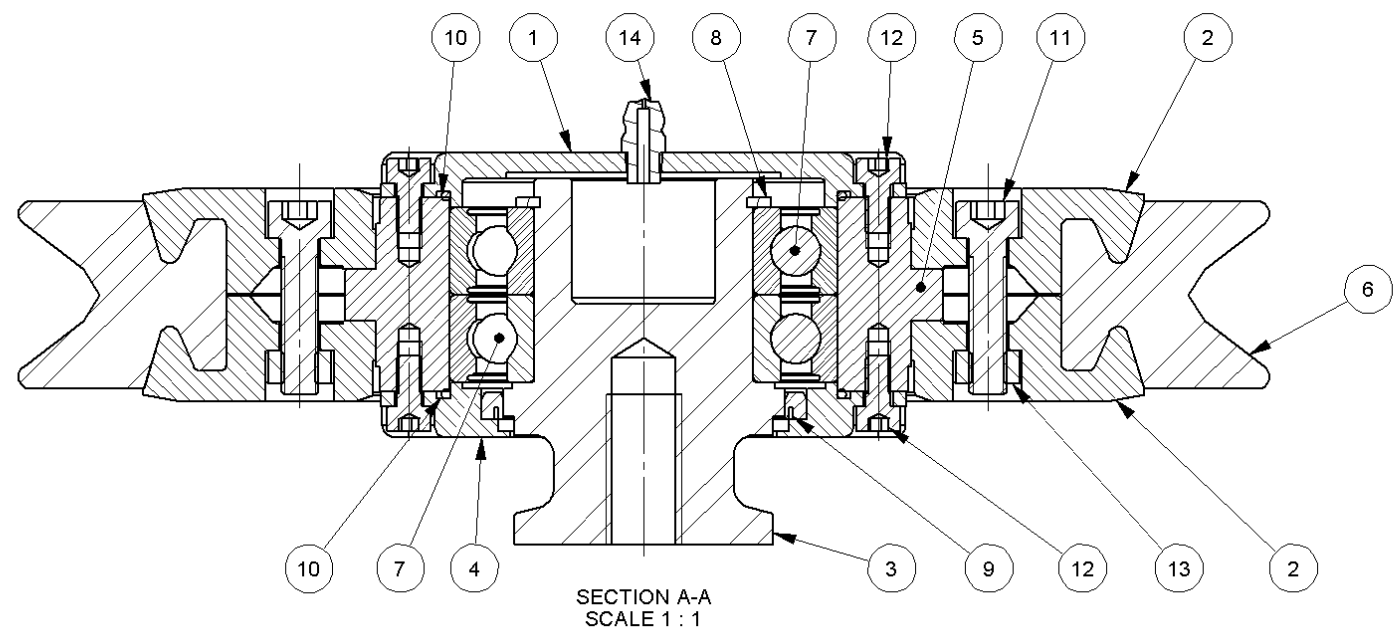
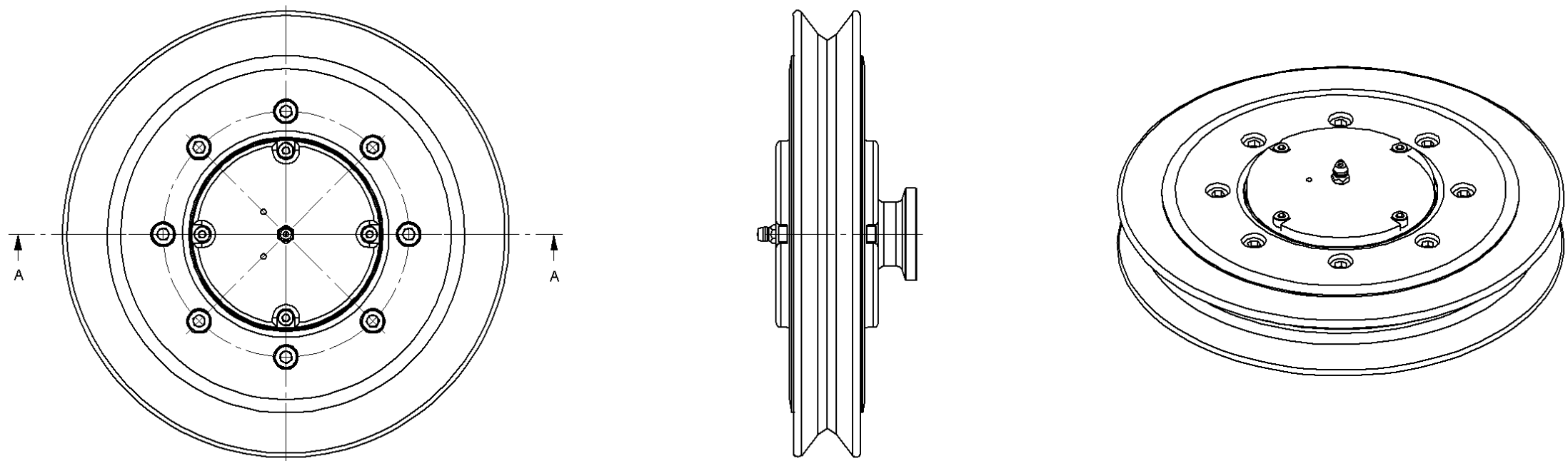
SHEET 2 OF 2

A3

Printed on 06-Feb-17

DO NOT SCALE

IF IN DOUBT ASK

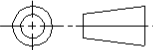


Notes:

1. Strip wheel on arrival and remove both bearings (6007-2RS)
2. Replace cover with MDWS1638-15-001
3. Replace bearings with 6007 Bearings (no seals) 
4. Module to be packed with Shell Gadus S3 V220C Grease.

MIRAGE MACHINES
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ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY
1		MDWS1638-15-001	FRONT COVER	1
2		964209	8" WHEEL HUB	2
3		964210	BUSHING	1
4		964212	REAR COVER	1
5		964213	PULLEY HUB	1
6		977529	LINING 200mm	1
7		6007	SINGLE ROW DEEP GROOVE BALL BEARING	2
8		D1400 0350	DIN 471 EXTERNAL CIRCLIP	1
9		VG 45 52 4	SEAL	1
10		Ø62 x 1.5	O-RING	2
11		M6 x 25	Hex Socket Head - BS EN ISO 4762	8
12		M4 x 8	Hex Socket Head - BS EN ISO 4762	8
13		M6	Hex Nut Style 1 - BS EN 24277	8
14		M6	STRAIGHT GREASE NIPPLE	1

A	-	Changed note for rebuild	02-Feb-17	DRB	DC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
 THIRD ANGLE PROJECTION			 MIRAGE PORTABLE PERFORMANCE		
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WEIGHT 2.331kg					
DRAWN BY		DC	22-Aug-16	10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB	
CHECKED BY		--	--	TEL (01332) 291767 FAX (01332) 370356	
APPROVED BY		--	--	E MAIL info@mirage-machines.co.uk	
TITLE		IDLER PULLEY	DWG No	MDWS1638-15	
		SCALE: 1:2		SHEET 1 OF 1	
				A3	



10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE214BB
TEL (01332) 291767 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

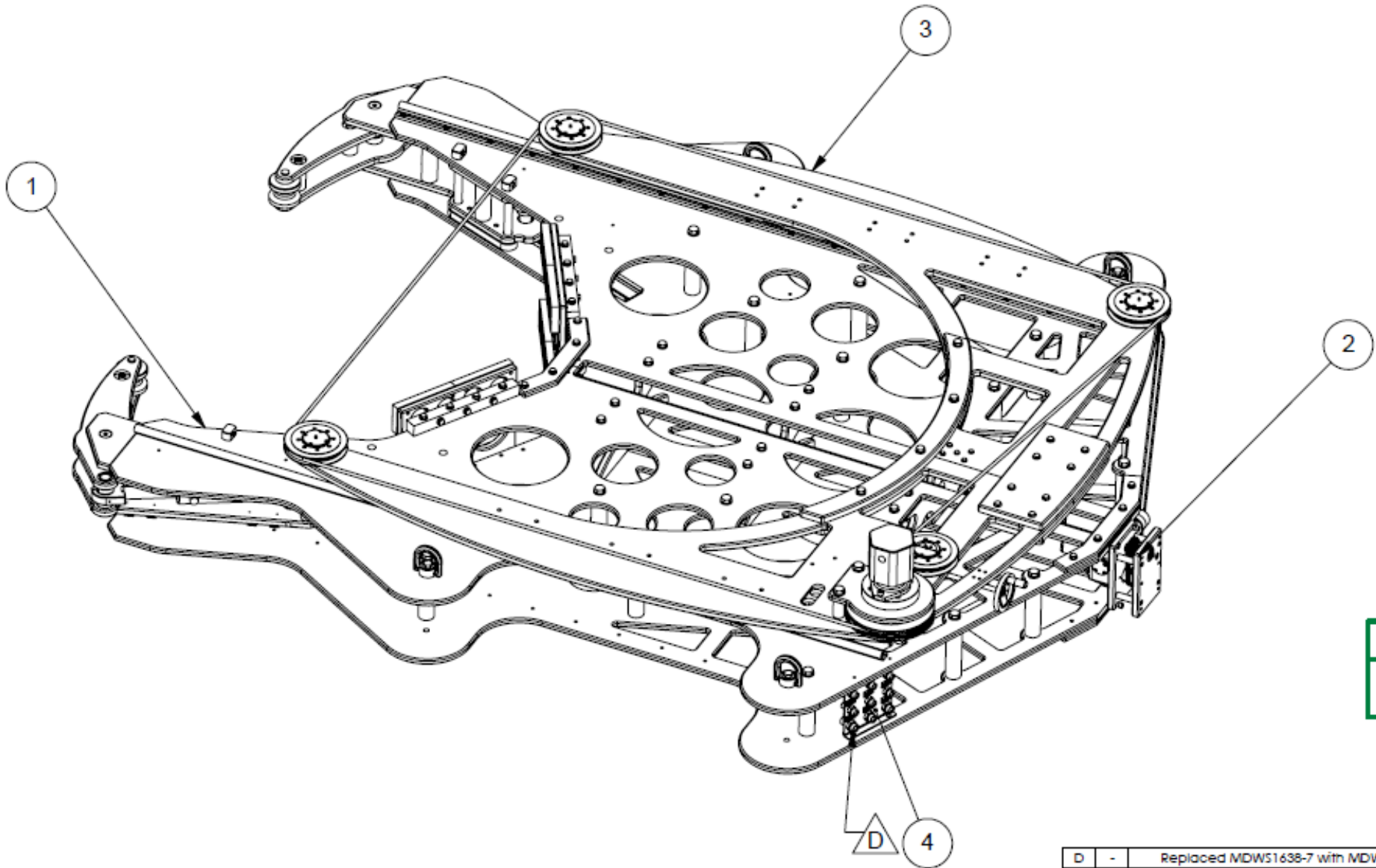
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A3 ASSEMBLY (AUTO) - 7-4-2009

Doc: MML265 Issue: 007 Issue Date: 30-Aug-16

Printed on 05-Oct-17

DO NOT SCALE

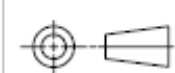
IF IN DOUBT ASK



MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

ITEM NO.	REV.	PART NUMBER	DESCRIPTION	Default/Qty
1		MDWS3660-1	MDWS3660 CLAMP ASSY	1
2	A	MDWS3660-6	MDWS3660 FEED ASSEMBLY	1
3	B	MDWS3660-3	DIAMOND WIRE DRIVE	1
4		MDWS1638-7A	HYDRAULIC POWER PANEL	1

D	-	Replaced MDWS1638-7 with MDWS1638-7A	05-Oct-17	DRB	SR
C	-	Removed case drain (MDWS1638-13) as per request from RB	03-Feb-17	DRB	SR
B	N/A	CASE DRAIN MODULE No. CHANGED TO MDWS1638-13 FROM MSS-NA-DWS-ASM-00415	30/06/2015	SR	DC
A	-	Added case drain	28/08/2014	DRB	KB
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT 851.427Kg

DRAWN BY	BC	30-Apr-14
CHECKED BY	RH	30-Apr-14
APPROVED BY	--	

TITLE

MDWS3660 FINAL ASSY

SCALE: 1:20



MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291787 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

DWG No

MDWS3660-0

SHEET 1 OF 2

A3

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS3660\MDWS3660-0

Doc: MML265

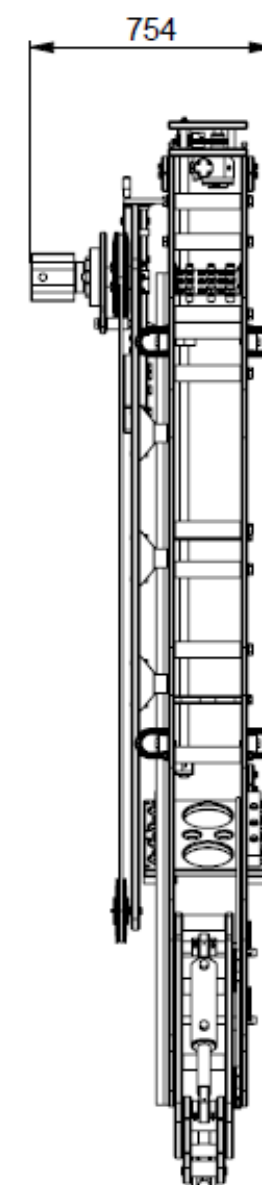
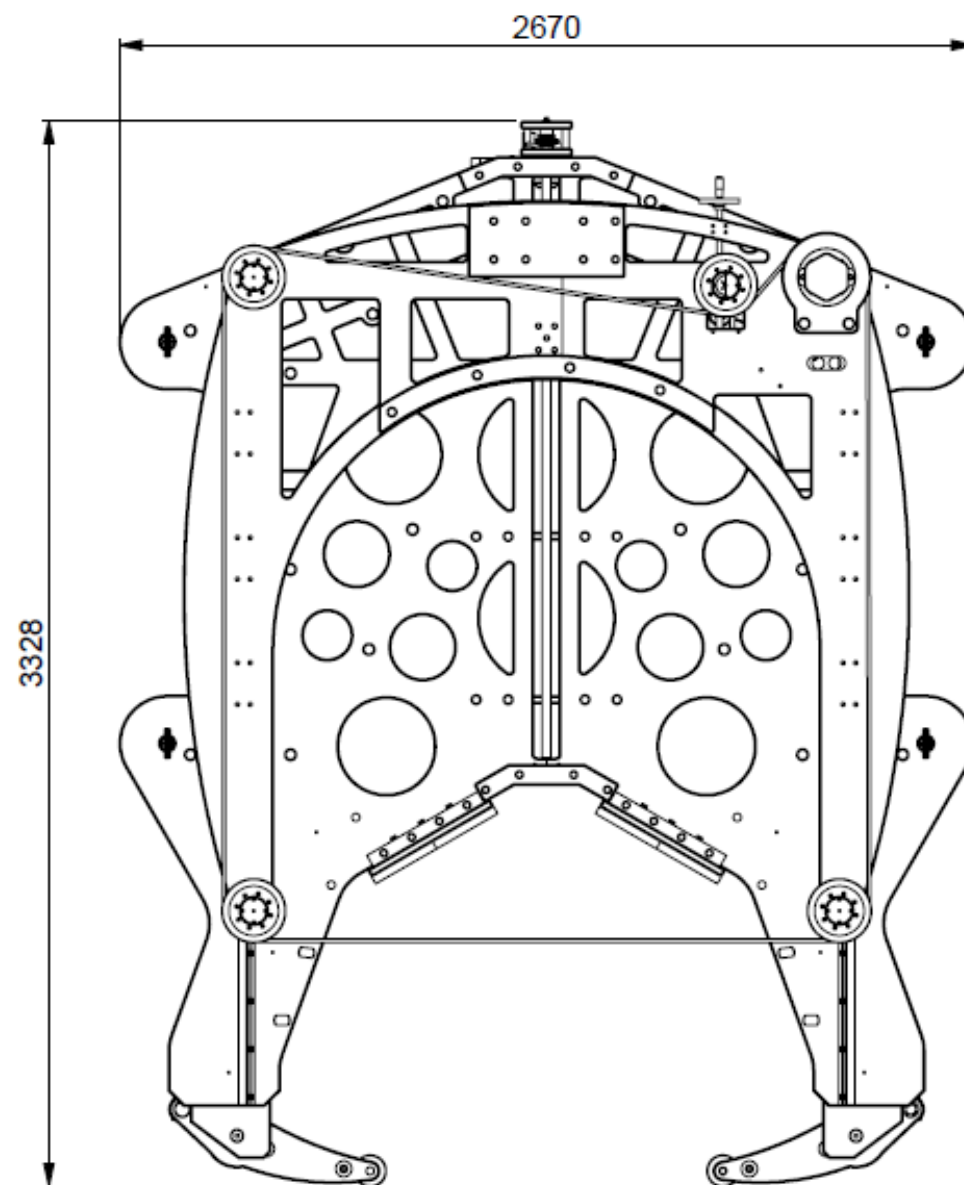
Issue: 007

Issue Date: 30-Aug-16

Printed on 05-Oct-17

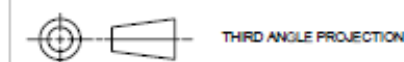
DO NOT SCALE

IF IN DOUBT ASK



MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

D	-	Replaced MDWS1638-7 with MDWS1638-7A	05-Oct-17	DRB	SR
C	-	Removed case drain (MDWS1638-13) as per request from RB	03-Feb-17	DRB	SR
B	N/A	CASE DRAIN MODULE No. CHANGED TO MDWS1638-13 FROM MS5-HA-DWS-ASM-00415	30/06/2015	SR	DC
A	-	Added case drain	28/08/2014	DRB	KB
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT	851.427kg
DRAWN BY	BC
CHECKED BY	RH
APPROVED BY	--
TITLE	MDWS3660 FINAL ASSY

SCALE: 1:20

MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

DWG No
MDWS3660-0
SHEET 2 OF 2

A3

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS3660\MDWS3660-0

Doc: MML265

Issue: 007

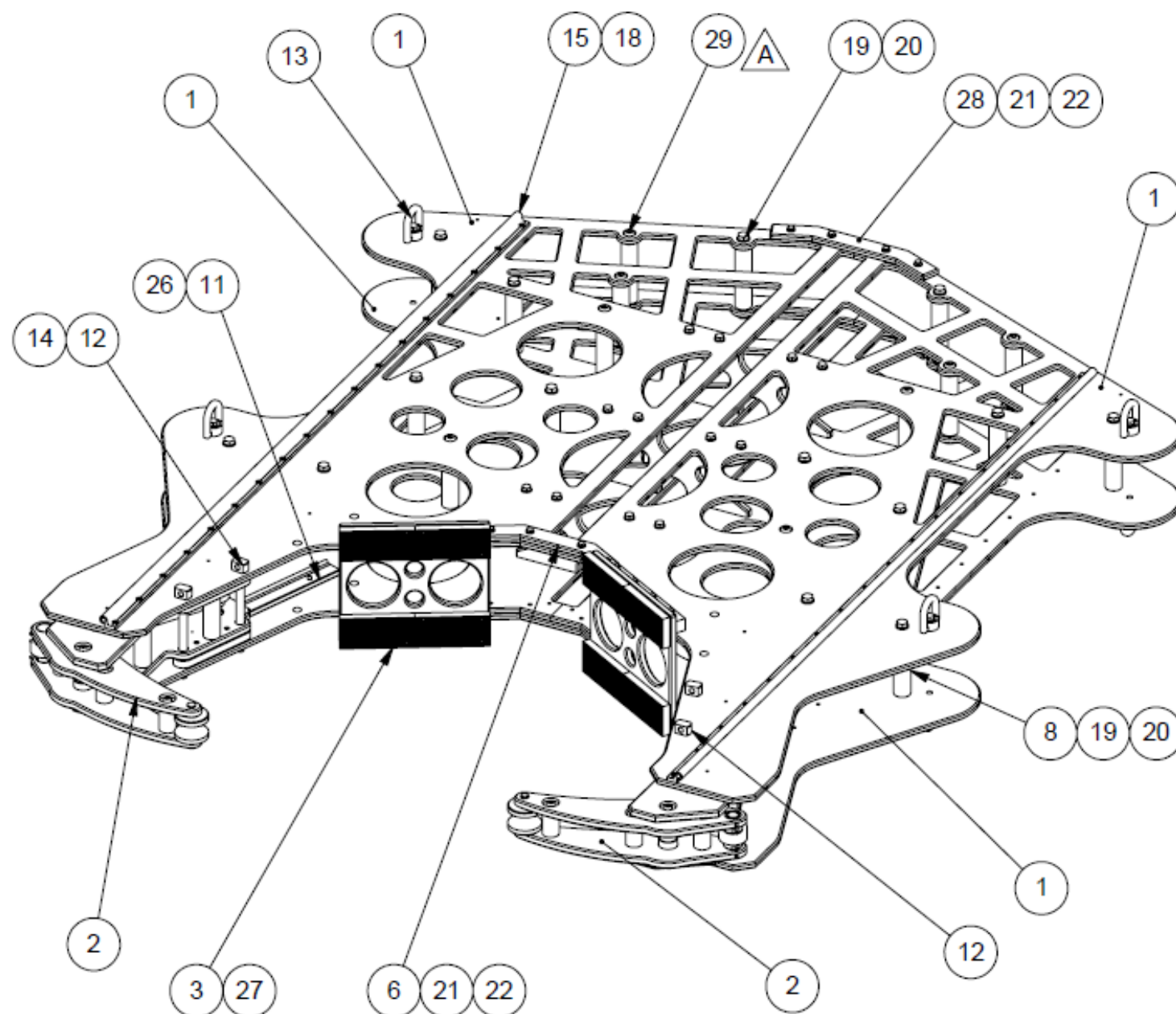
Issue Date: 30-Aug-16

Printed on 20-Nov-17

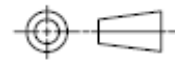
DO NOT SCALE

IF IN DOUBT ASK

ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY.
1	A	MDWS3660-1-001	MAIN MACHINE PLATE	4
2	C	MDWS1638-2	CLAMP ARM ASSEMBLY	2
3		OB3665	jaw plate	8
4		MDWS1638-1-002	FIXED CLAMP BACKPLATE	2
5		MDWS1638-1-003	FIXED FOOT MOUNT	4
6		MDWS3660-1-002	JOINING STRIP	2
7		MDWS3660-1-003	CROSS BRACE	3
8	A	MDWS1638-1-004	CLAMP SUPPORT	22
9	A	MDWS1638-1-006	CLAMP ARM SUPPORT BLOCK	2
10		WW-10-80-10	DRYLIN W GUIDE BLOCK	4
11		WS-10-80-SL-1000	DRYLIN LINEAR GUIDE SYSTEM	2
12	B	MDWS1638-1-005	CLAMP ASSY LOCKING PIN	4
13		RLP-M16-10	ROTATING LIFTING POINT	8
14		89104	Ø5 RETAINING PIN S/STEEL	4
15		WS-25-2600	DRYLIN W ROUND RAIL	2
16		M16 x 30	Hex Socket Head - BS EN ISO 4762	4
17		M4 x 35	Hex Socket Head - BS EN ISO 4762	16
18		M10 x 25	Hex Socket Button Head - BS EN ISO 7380	36
19		M20 x 50	Hex Screw Grade AB - BS EN 24017	28
20		M20	WASHER (FORM A)	28
21		M12 x 40	Hex Screw Grade AB	16
22		Bright washer BS 4320 - M12	WASHER (FORM A)	44
23		M16 x 40	Hex Screw Grade AB	24
24		M16	WASHER (FORM A)	24
25		M12 x 60	Hex Screw Grade AB - BS EN 24014	28
26		M8 x 25	Hex Socket Head - BS EN ISO 4762	6
27		M12 x 35	Hex Socket Head - BS EN ISO 4762	32
28		MDWS3660-1-004	JOINING STRIP - MOTOR END	2
29		M20x60	Low Head Cap Screw	16



MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

A	3410	Added M20x60 lowhead cap screws	20-Nov-17	DRB	SM
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
 THIRD ANGLE PROJECTION © MIRAGE MACHINES LTD 2014 ALL RIGHTS RESERVED UNDER COPYRIGHT, DESIGN AND PATENT LAW. NO COPY OF THIS DOCUMENT OR THE ARTICLE SHOWN MAY BE MADE WITHOUT PRIOR WRITTEN PERMISSION WEIGHT 632.052Kg DRAWN BY BC 29-Apr-14 CHECKED BY RH 30-Apr-14 APPROVED BY TITLE MDWS3660 CLAMP ASSY SCALE: 1:20					
 PORTABLE PERFORMANCE 10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB TEL (01332) 291787 FAX (01332) 370358 E MAIL info@mirage-machines.co.uk			DWG No MDWS3660-1 SHEET 1 OF 3 A3		

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS3660\MDWS3660-1

Doc: MML265

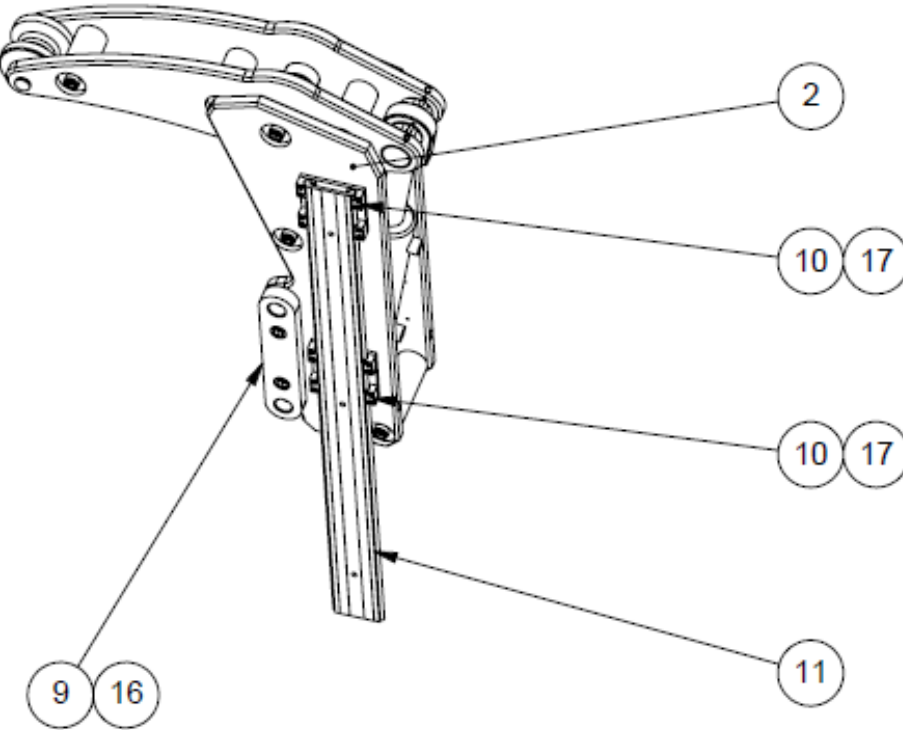
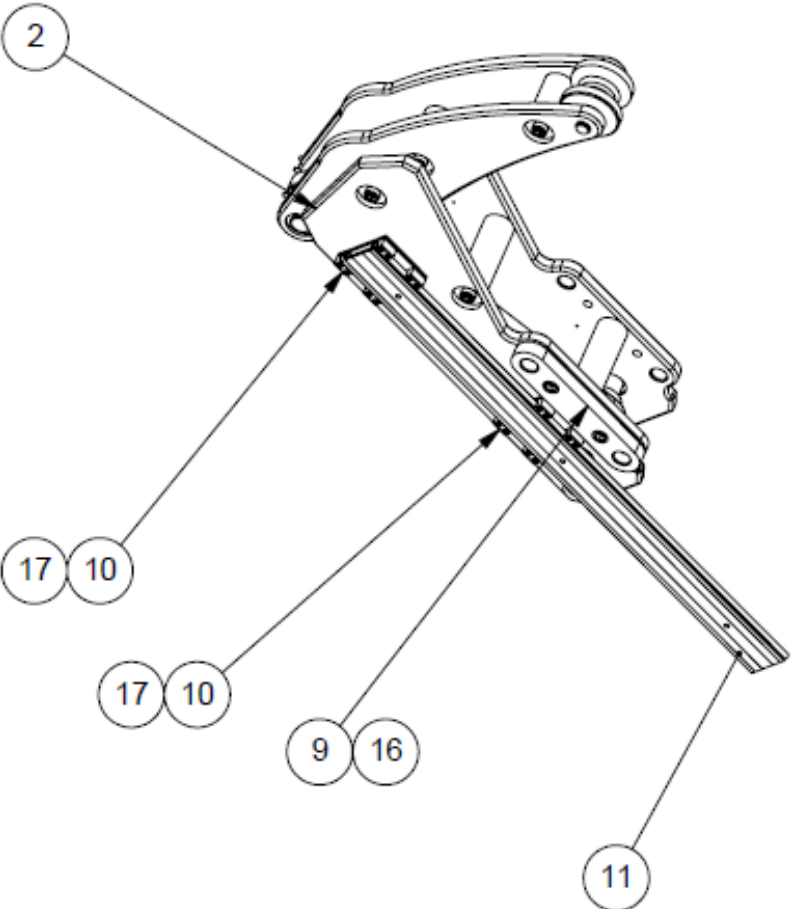
Issue: 007

Issue Date: 30-Aug-16

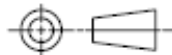
Printed on 20-Nov-17

DO NOT SCALE

IF IN DOUBT ASK



NOTES:
NOTE THE ARRANGEMENT OF PARTS TO HAND MDWS1638-2
ASSEMBLY TO MAKE RIGHT AND LEFT HAND VARIANTS

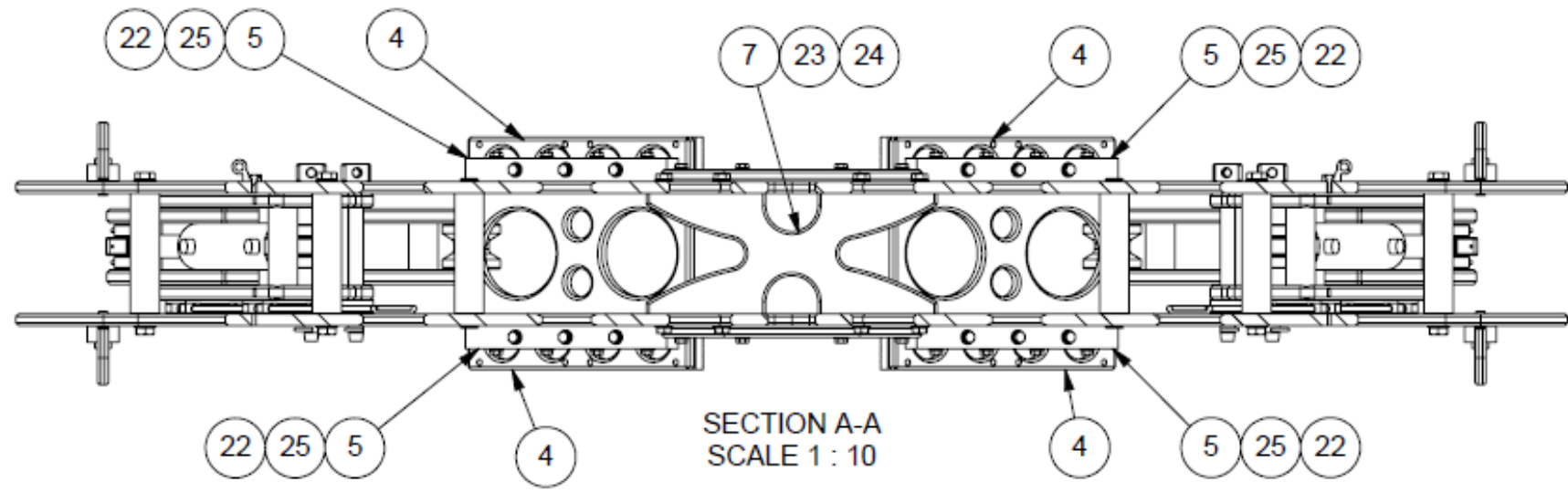
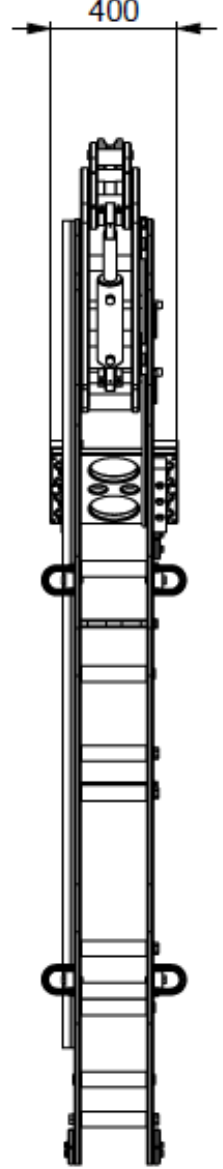
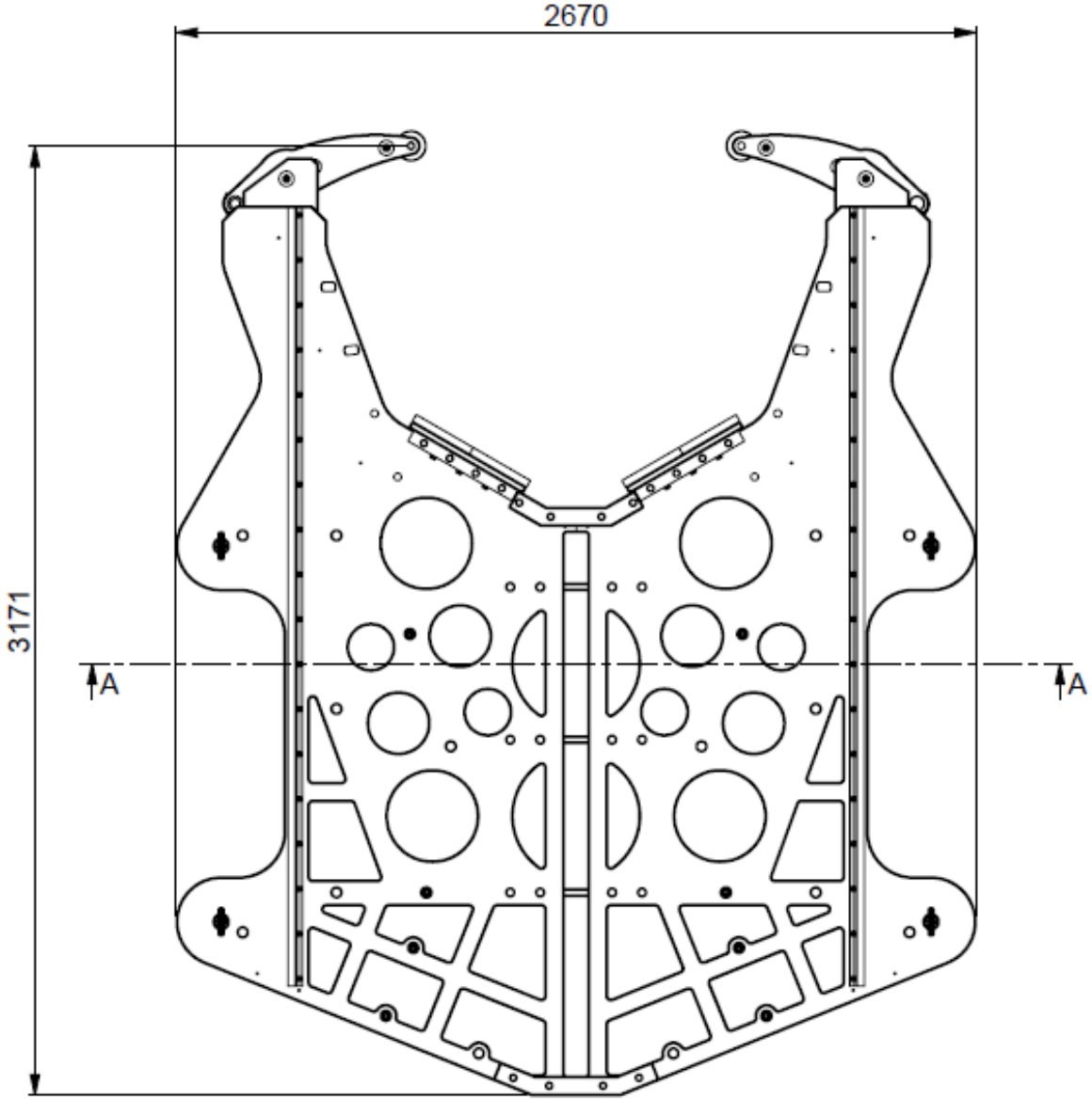
 THIRD ANGLE PROJECTION		 MIRAGE PORTABLE PERFORMANCE	
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WEIGHT	632.052Kg		
DRAWN BY	BC 29-Apr-14		
CHECKED BY	RH 30-Apr-14	10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB TEL (01332) 291767 FAX (01332) 370356 E MAIL info@mirage-machines.co.uk	
APPROVED BY	--		
TITLE	MDWS3660 CLAMP ASSY		
SCALE: 1:20		DWG No MDWS3660-1	A3
		SHEET 2 OF 3	

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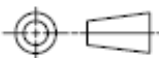
Printed on 20-Nov-17

DO NOT SCALE

IF IN DOUBT ASK



SECTION A-A
SCALE 1 : 10

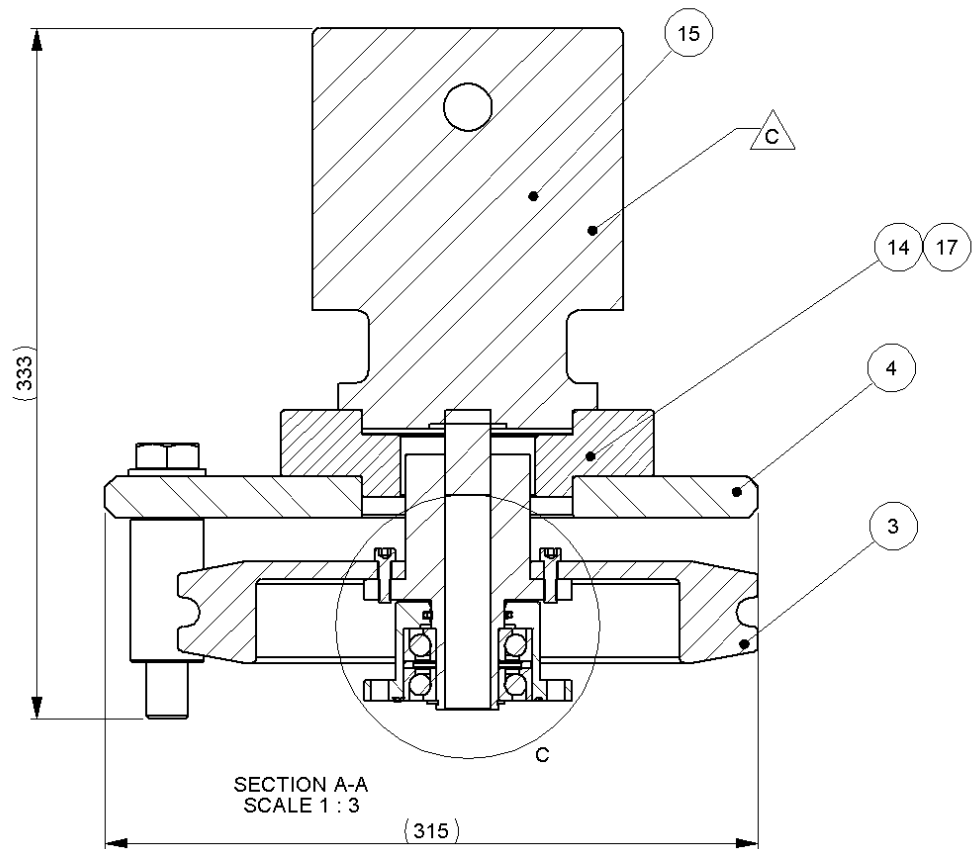
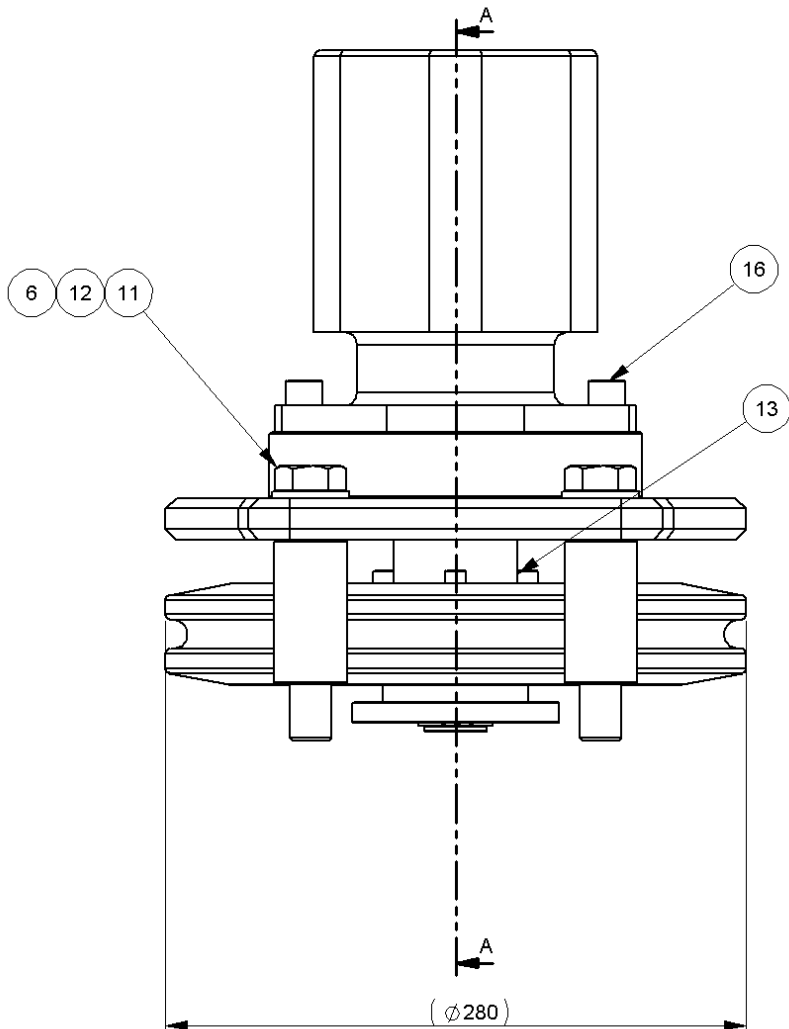
 THIRD ANGLE PROJECTION		 PORTABLE PERFORMANCE	
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WEIGHT	632.052kg		
DRAWN BY	BC 29-Apr-14		
CHECKED BY	RH 30-Apr-14	10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB TEL (01332) 291767 FAX (01332) 370356 E MAIL info@mirage-machines.co.uk	
APPROVED BY	--		
TITLE	MDWS3660 CLAMP ASSY		
SCALE: 1:20		DWG No MDWS3660-1	A3
		SHEET 3 OF 3	

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS3660\MDWS3660-1

Printed on 06-Feb-17

DO NOT SCALE

IF IN DOUBT ASK



ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY.
1	B	MDWS1638-5-010	DRIVE WHEEL BEARING HOUSING	1
2		MDWS1638-5-013	DRIVE SPIGOT	1
3		MDWS1638-5-006	MODIFIED DRIVE WHEEL	1
4		MDWS3660-5-002	MOTOR MOUNT PLATE	1
5		MDWS1638-5-011	BEARING SPACER	1
6		MDWS3660-5-001	DRIVE PLATE SPACER	2
7		7206	ANGULAR CONTACT BALL BEARING	2
8		D1400 - 30	EXTERNAL CIRCLIP	1
9		65x2	NITRILE O-RING	1
10		TG5100350-Z52N	ZURCON ROTO GLYD RING S	1
11		M20 x 120	Hex Screw Grade AB - BS EN 24017	2
12		M20	WASHER (FORM A)	2
13		M6 x 20	Hex Socket Head - BS EN ISO 4762	6
14		MDWS1638-5-014	PARKER MOTOR SPACER	1
15		M2B25412S30NB	HYDRAULIC MOTOR	1
16		M12 x 40	Hex Socket Head - BS EN ISO 4762	2
17		M12 x 35	Hex Socket Head - BS EN ISO 4762	4

C	-	Replaced Sunfab motor with Parker M2 motor, MDWS1638-5-012 with MDWS1638-5-013, and added MDWS1638-5-014 at request of RB	03-Feb-17	DRB	SR
B	2569	PARTS TRQ1D0350-4V012 & D1300-0520 REMOVED, TG5100350-Z52N & CR2006500 ADDED.	28/11/2014	SR	KB
A	2569	PARTS MDWS1638-5-010, MDWS1638-5-011 & MDWS1638-5-012 WERE MDWS1638-5-001, MDWS1638-5-003 & MDWS1638-5-004. PARTS TRQ1D0350-4V012 & D1300-0520 ADDED.	25/11/2014	SR	BC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT	31.458Kg
DRAWN BY	BC
CHECKED BY	KB
APPROVED BY	--
TITLE	MDWS WIRE DRIVE ASSY

SCALE: 1:10

MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

DWG No MDWS3660-5

A3

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS3660\MDWS3660-5

A3 ASSEMBLY (AUTO) - 7-4-2009

Doc: MML265

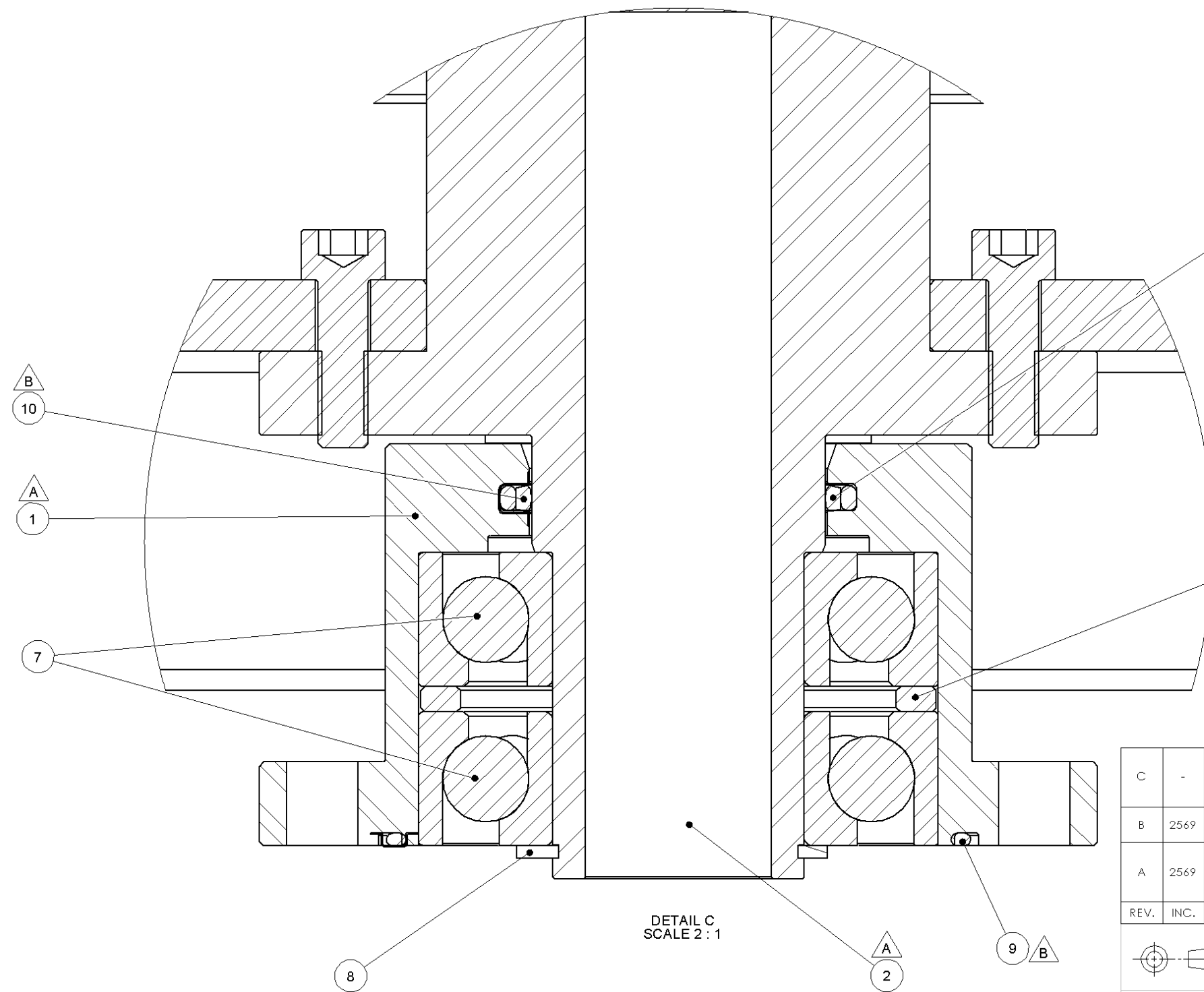
Issue: 007

Issue Date: 30-Aug-16

Printed on 06-Feb-17

DO NOT SCALE

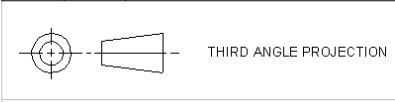
IF IN DOUBT ASK



NOTE:
COMPRESS ZURCON ROTO GLYD RING INTO KIDNEY
SHAPE WITH NO SHARP BENDS, PLACE THE SEAL RING
IN COMPRESSED FORM INTO THE GROOVE AND RETURN
TO ORIGINAL SHAPE, IF SEAL IS DAMAGED ON
INSTALLATION FIT A NEW ONE.

MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

C	-	Replaced Sunfab motor with Parker M2 motor, MDWS1638-5-012 with MDWS1638-5-013, and added MDWS1638-5-014 at request of RB	03-Feb-17	DRB	SR
B	2569	PARTS TRQ1D0350-4V012 & D1300-0520 REMOVED, TG5100350-Z52N & OR2006500 ADDED.	28/11/2014	SR	KB
A	2569	PARTS MDWS1638-5-010, MDWS1638-5-011 & MDWS1638-5-012 WERE MDWS1638-5-001, MDWS1638-5-003 & MDWS1638-5-004. PARTS TRQ1D0350-4V012 & D1300-0520 ADDED.	25/11/2014	SR	BC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT	31.458Kg
DRAWN BY	BC
CHECKED BY	KB
APPROVED BY	--
TITLE	

MDWS WIRE DRIVE ASSY
SCALE: 1:10

MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

DWG No
MDWS3660-5

A3

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A3 ASSEMBLY (AUTO) - 7-4-2009

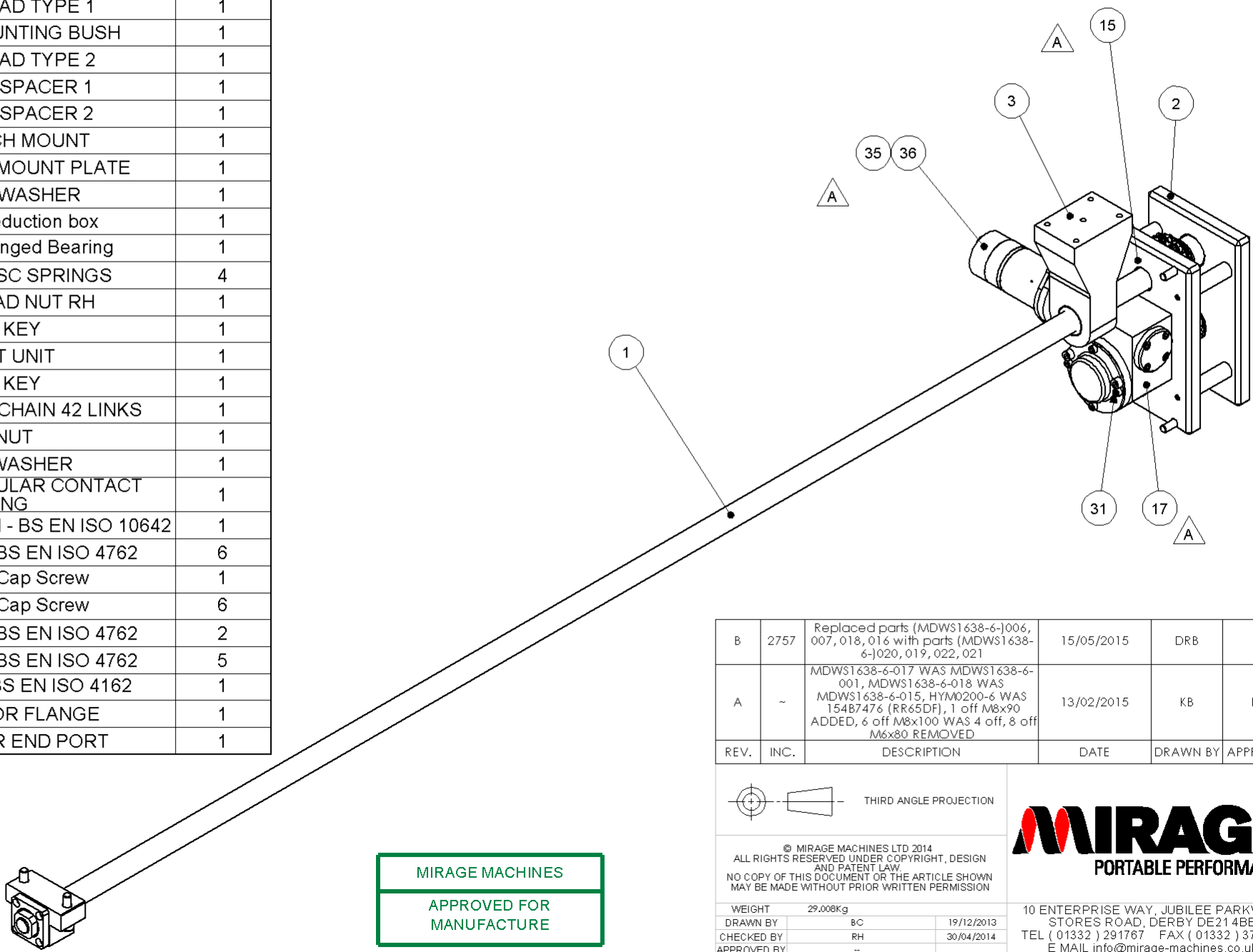
Doc: MML265 Issue: 007 Issue Date: 30-Aug-16

Printed on 03/12/2015

DO NOT SCALE

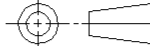
IF IN DOUBT ASK

ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY
1		MDWS3660-6-001	MDWS3660 LEADSCREW	1
2		MDWS1638-6-002	FEED GEARBOX SUPPORT PLATE	1
3		MDWS620-6-003	BALLNUT CARRIER	1
4		MDWS1638-6-005	FEED PLATE SPACER	4
5		MDWS1638-6-022	FEED DRIVE OUTPUT SHAFT	1
6		MDWS1638-6-021	FEED CHAIN TENSIONER	1
7		MDWS1638-6-008	22T LEADSCREW DRIVER	1
8		MDWS1638-6-009	17T MOTOR SPROCKET	1
9		MDWS1638-6-010	PRESSURE PAD TYPE 1	1
10		MDWS1638-6-011	SPROCKET MOUNTING BUSH	1
11		MDWS1638-6-012	PRESSURE PAD TYPE 2	1
12		MDWS1638-6-013	DRIVE GEAR SPACER 1	1
13		MDWS1638-6-014	DRIVE GEAR SPACER 2	1
14		MDWS1638-6-019	CLUTCH MECH MOUNT	1
15		MDWS1638-6-017	FEED GEARBOX MOUNT PLATE	1
16		MDWS1638-6-020	RETAINING WASHER	1
17		HYM0200-6	30:1 Subsea reduction box	1
18		H370FM-2023-21	'Iglidur' H370 Flanged Bearing	1
19		1000-065-2000	BELLEVILLE DISC SPRINGS	4
20		JFRM-3846TR28X5	IGLIDUR J LEAD NUT RH	1
21		KK5-20SSA	TYPE A KEY	1
22		EK20-C7N	SUPPORT UNIT	1
23		KK8-7-18A	TYPE A KEY	1
24		06B1HS	SIMPLEX ROLLER CHAIN 42 LINKS	1
25		KM5	LOCK NUT	1
26		MB5	LOCKING WASHER	1
27		7204 BEP	SINGLE ROW ANGULAR CONTACT BEARING	1
28		M6 X 16	Hex Socket CTSK Head - BS EN ISO 10642	1
29		M6 x 25	Hex Socket Head - BS EN ISO 4762	6
30		M8x90	Socket Head Cap Screw	1
31		M8x100	Socket Head Cap Screw	6
32		M10 x 40	Hex Socket Head - BS EN ISO 4762	2
33		M10 x 35	Hex Socket Head - BS EN ISO 4762	5
34		M8 X 25	Hex Flange Bolt - BS EN ISO 4162	1
35		151 G 0211	OMM 50 MOTOR FLANGE	1
36		151 G 0037	OMM50 MOTOR END PORT	1



MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

B	2757	Replaced parts (MDWS1638-6-006, 007, 018, 016 with parts (MDWS1638-6-020, 019, 022, 021	15/05/2015	DRB	BC
A	~	MDWS1638-6-017 WAS MDWS1638-6-001, MDWS1638-6-018 WAS MDWS1638-6-015, HYM0200-6 WAS 154B7476 (RR65DF), 1 off M8x90 ADDED, 6 off M8x100 WAS 4 off, 8 off M6x80 REMOVED	13/02/2015	KB	DC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



THIRD ANGLE PROJECTION

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WEIGHT	29.008Kg				
DRAWN BY	BC	19/12/2013	 10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB TEL (01332) 291767 FAX (01332) 370356 E MAIL info@mirage-machines.co.uk		
CHECKED BY	RH	30/04/2014			
APPROVED BY	--				
TITLE	MDWS3660 FEED ASSEMBLY				
SCALE: 1:1			MDWS3660-6		A3
			SHEET 1 OF 2		

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A3 ASSEMBLY (AUTO) - 7-4-2009

Doc: MML265

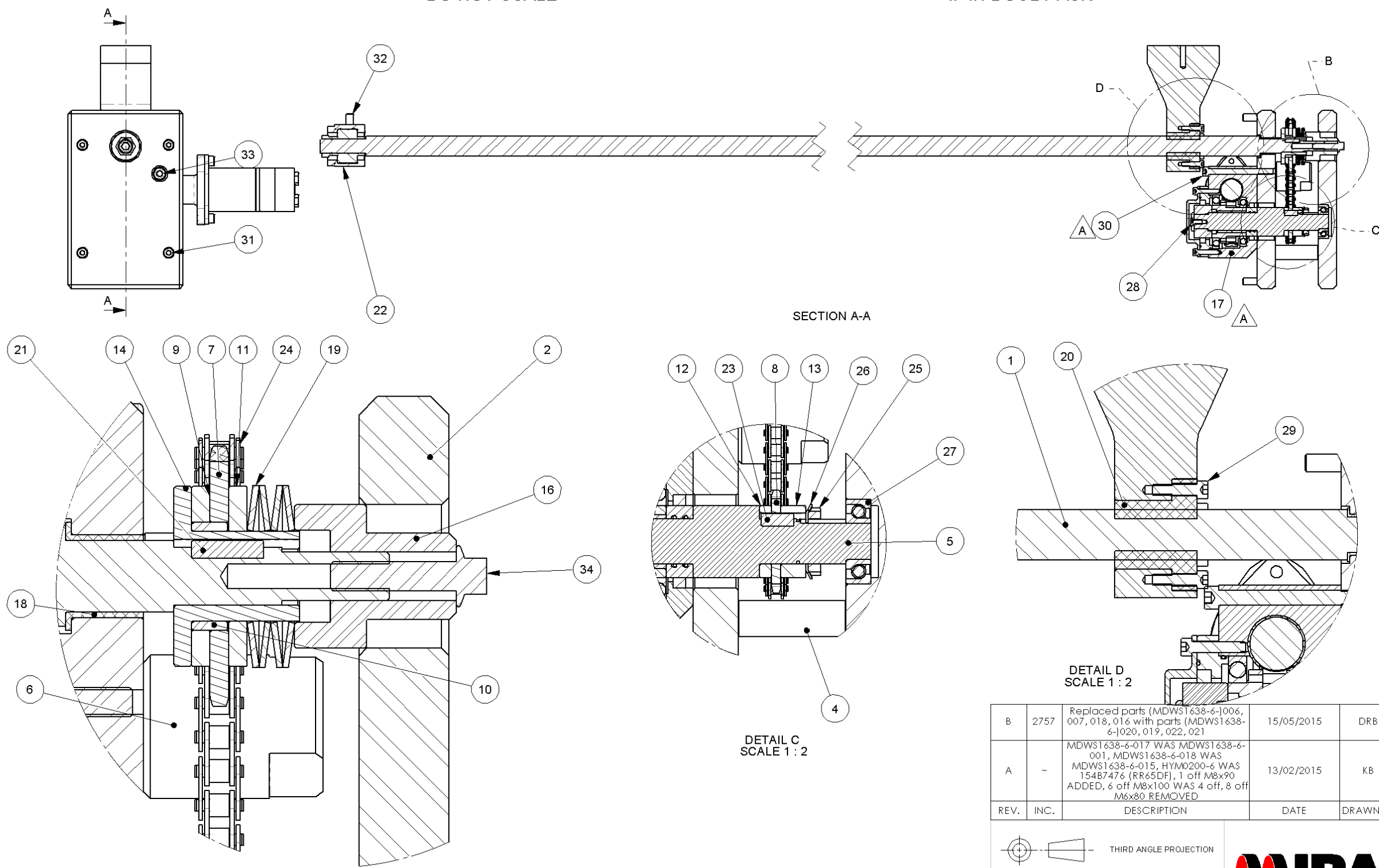
Issue: 007

Issue Date: 30-Aug-16

Printed on 03/12/2015

DO NOT SCALE

IF IN DOUBT ASK



DETAIL B
SCALE 1 : 1

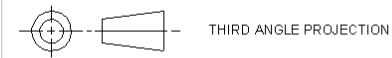
DETAIL C
SCALE 1 : 2

DETAIL D
SCALE 1 : 2

SECTION A-A

MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

B	2757	Replaced parts (MDWS1638-6-1006, 007, 018, 016 with parts (MDWS1638-6-1020, 019, 022, 021	15/05/2015	DRB	BC
A	~	MDWS1638-6-017 WAS MDWS1638-6-001, MDWS1638-6-018 WAS MDWS1638-6-015, HYMD200-6 WAS 154B7476 (RR65DF), 1 off M8x90 ADDED, 6 off M8x100 WAS 4 off, 8 off M6x80 REMOVED	13/02/2015	KB	DC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



THIRD ANGLE PROJECTION

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WEIGHT	29.008Kg
DRAWN BY	BC
CHECKED BY	RH
APPROVED BY	--
TITLE	MDWS3660 FEED ASSEMBLY

SCALE: 1:5

MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

DWG No
MDWS3660-6

A3

SHEET 2 OF 2

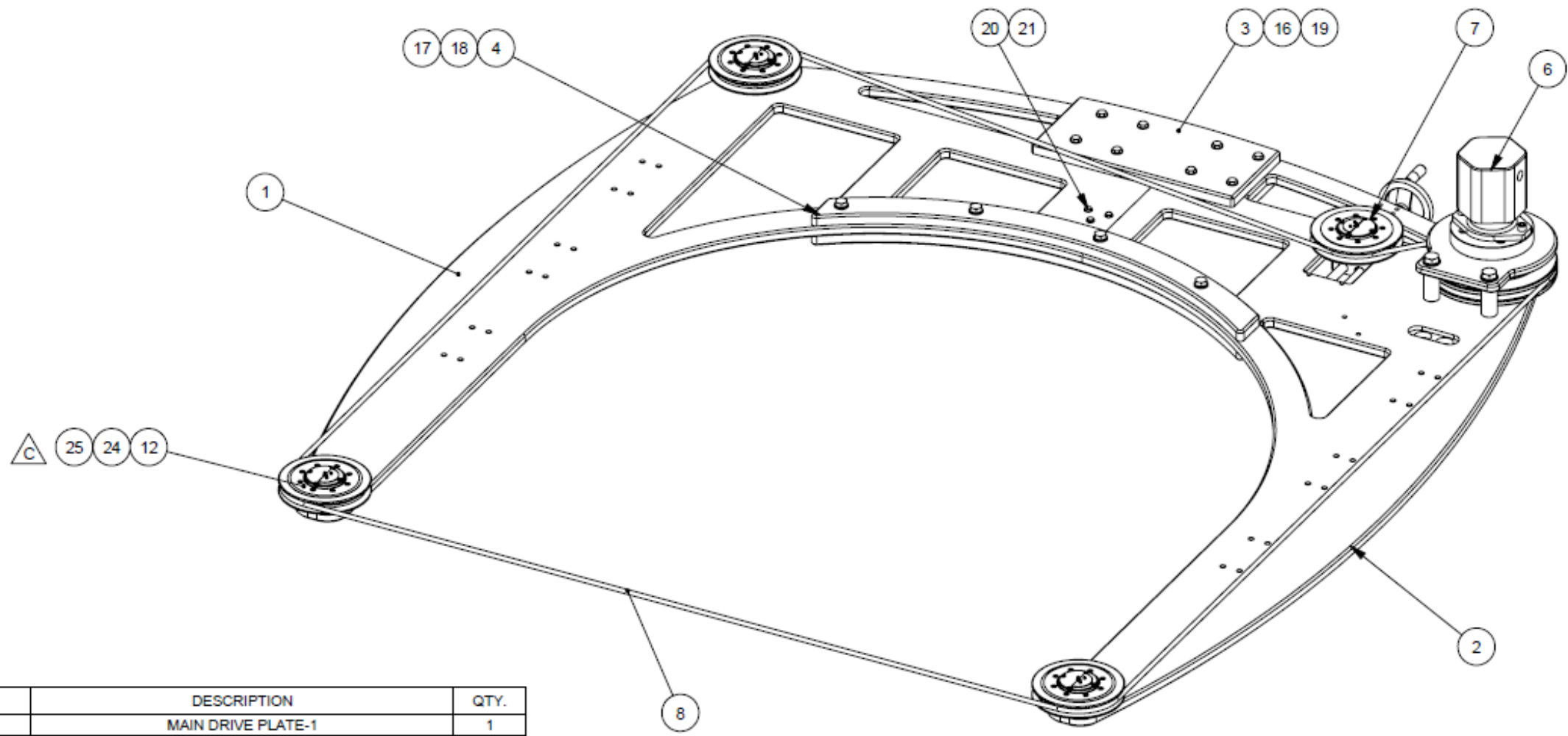
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A3 ASSEMBLY (AUTO) - 7-4-2009

Doc: MML265 Issue: 007 Issue Date: 30-Aug-16

Printed on 17-Oct-17

DO NOT SCALE

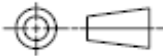
IF IN DOUBT ASK



ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY.
1	B	MDWS3660-3-001	MAIN DRIVE PLATE-1	1
2	B	MDWS3660-3-002	MAIN DRIVE PLATE-2	1
3		MDWS3660-3-004	JOINING PLATE	2
4		MDWS3660-3-005	ARC JOINING STRIP	2
5		MDWS1638-3-002	MOUNTING BLOCK	6
6	B	MDWS3660-5	MDWS WIRE DRIVE ASSY	1
7	A	MDWS1638-4	MDWS TENSIONING UNIT 5" STROKE	1
8		MDWS3660-3-003	DWM-S ELECTROPLATED WIRE	1
9	B	MDWS1638-3-005	DRIVE MOTOR BEARING PLUG	1
10		WJ200UM-01-25-LL	DRYLIN W CARRIAGE FLOATING	2
11		WJ200UM-01-25	DRYLIN W CARRIAGE FIXED	4
12		MDWS1638-15	IDLER PULLEY	3
13		OR4505000	O-RING	1
14		M12 x 40	Hex Socket Head - BS EN ISO 4762	24
15		M8 x 50	SOCKET BUTTON HEADS	12
16		M12 x 45	Hex Screw Grade AB - BS EN 24017	19
17		M16 x 50	Hex Screw Grade AB - BS EN 24017	8
18		M16	WASHER (FORM A)	8
19		Bright washer BS 4320 - M12	WASHER (FORM A)	19
20		M8 x 50	Hex Screw	5
21		M8	WASHER (FORM A)	5
22		M10	WASHER (FORM A)	4
23		M10 x 35	Hex Screw Grade AB - BS EN 24014	4
24		MDWS1638-15-002	Traffolyte label	3
25		M3 x 5	Hex Socket Head - BS EN ISO 4762	6

MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

C	-	Added MDWS1638-15-002 and M3x5 screws	17-Oct-17	DRB	AMC
B		M8x50 button heads were M8x40	10-Oct-16	DRB	DC
A	2569	PARTS MDWS1638-3-005 & OR4505000 ADDED.	25/11/2014	SR	BC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



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WEIGHT	194.843kg		
DRAWN BY	BC		30-Apr-14
CHECKED BY	RH		30-Apr-14
APPROVED BY	--		

TITLE

DIAMOND WIRE DRIVE

SCALE: 1:50



10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370358
E MAIL info@mirage-machines.co.uk

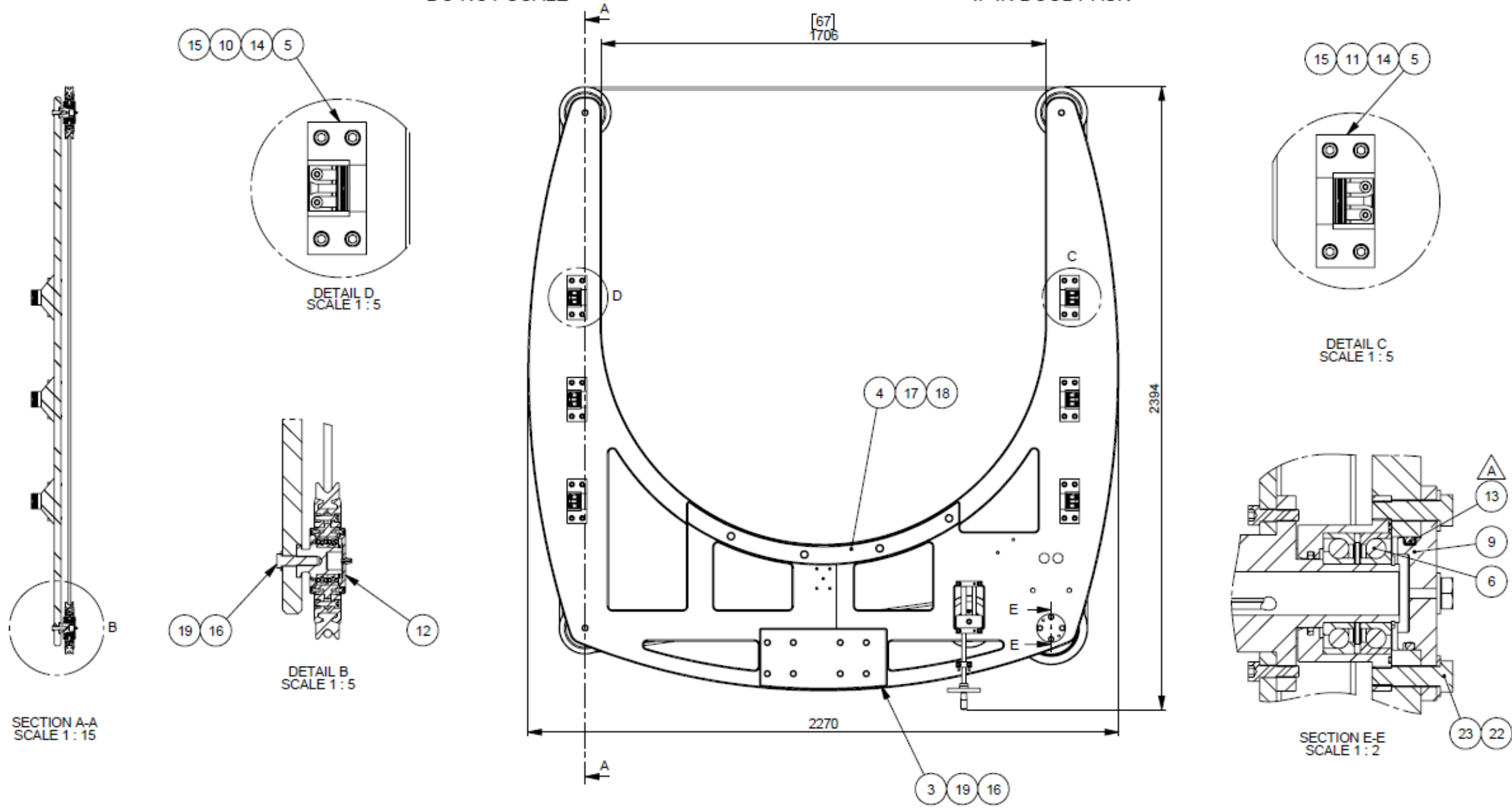
DWG No	MDWS3660-3	A3
	SHEET 1 OF 2	

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS3660\MDWS3660-3

Printed on 17-Oct-17

DO NOT SCALE

IF IN DOUBT ASK



C	-	Added MDWS1638-15-002 and M3x5 screws	17-Oct-17	DRB	AMC
B		M8x50 button heads were M8x40	10-Oct-16	DRB	DC
A	2569	PARTS MDWS1638-3-005 & OR4505000 ADDED.	25/11/2014	SR	BC
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED



THIRD ANGLE PROJECTION

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WEIGHT	194.843kg	
DRAWN BY	BC	30-Apr-14
CHECKED BY	RH	30-Apr-14
APPROVED BY	--	

TITLE

DIAMOND WIRE DRIVE

SCALE: 1:50



MIRAGE
PORTABLE PERFORMANCE

10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291787 FAX (01332) 370358
E MAIL info@mirage-machines.co.uk

DWG No

MDWS3660-3

SHEET 2 OF 2

A3

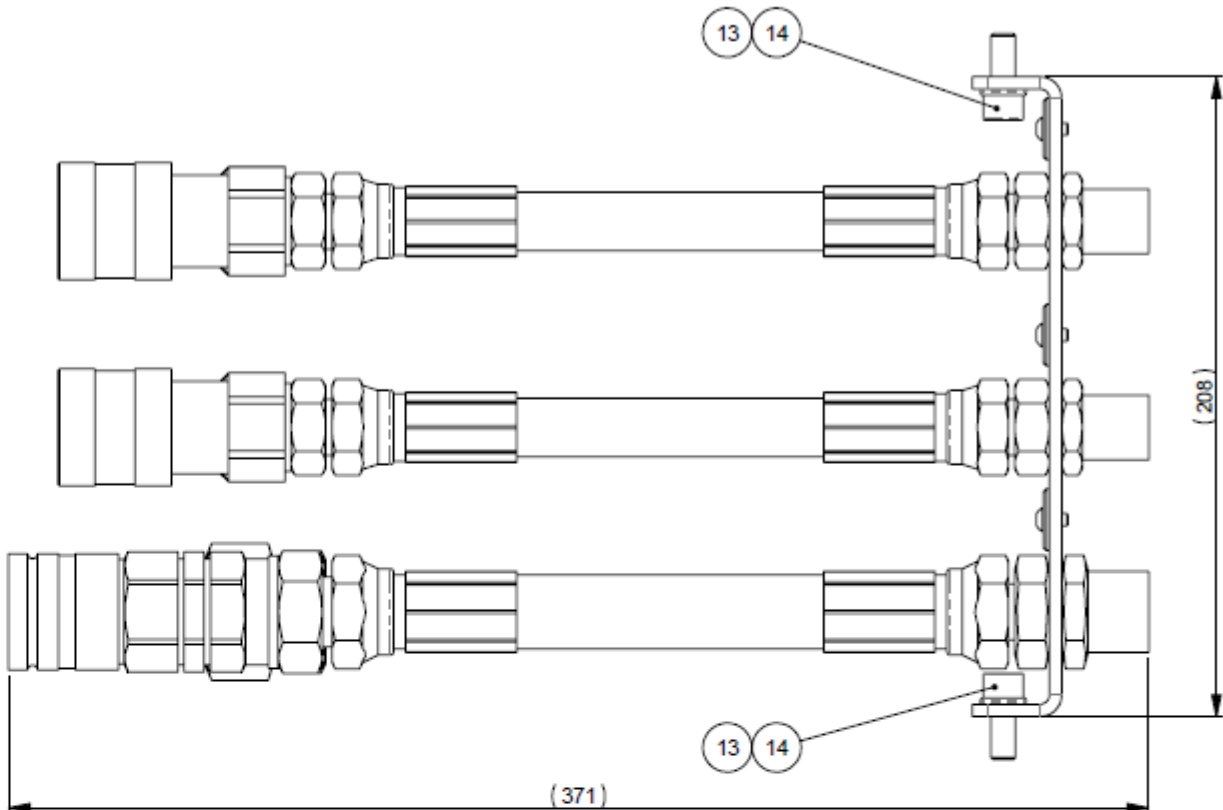
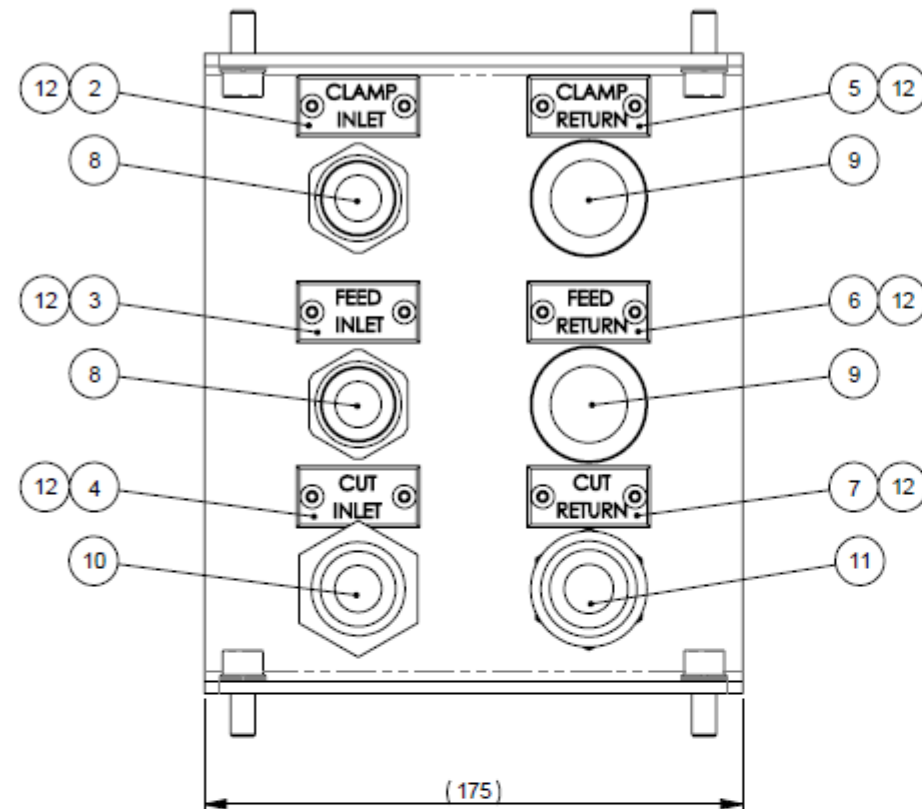
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Doc: MML265 Issue: 007 Issue Date: 30-Aug-16

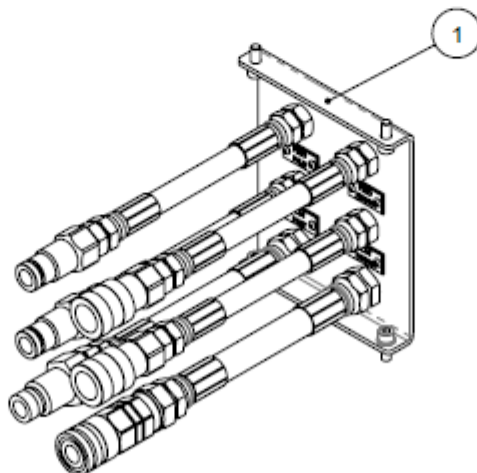
Printed on 01/12/2014

DO NOT SCALE

IF IN DOUBT ASK



ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY
1	A	MDWS1638-7-001	HYDRAULIC CONNECTION PANEL	1
2		MDWS1638-7-002	FEED INLET LABEL	1
3		MDWS1638-7-003	FEED INLET LABEL	1
4		MDWS1638-7-004	CUT INLET LABEL	1
5		MDWS1638-7-005	CLAMP RETURN LABEL	1
6		MDWS1638-7-006	FEED RETURN LABEL	1
7		MDWS1638-7-007	CUT RETURN LABEL	1
8		MDWS1638-9	1/2" MALE HOSE ASSEMBLY	2
9		MDWS1638-10	1/2" FEMALE HOSE ASSEMBLY	2
10		MDWS1638-11	3/4" MALE HOSE ASSEMBLY	1
11		MDWS1638-12	3/4" MALE HOSE ASSEMBLY	1
12		M4 x 8	Hex Socket Button Head - BS EN ISO 7380	12
13		M8	Rectangular section spring washer BS 4464 - 8 (Type B)	4
14		M8 x 20	Hex Socket Head - BS EN ISO 4762	4



MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

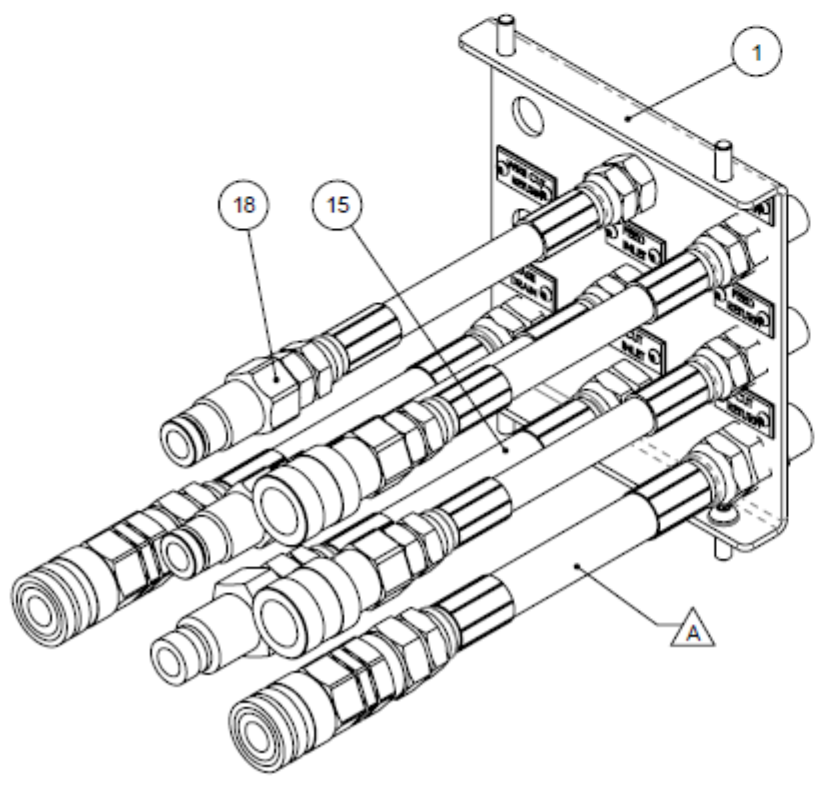
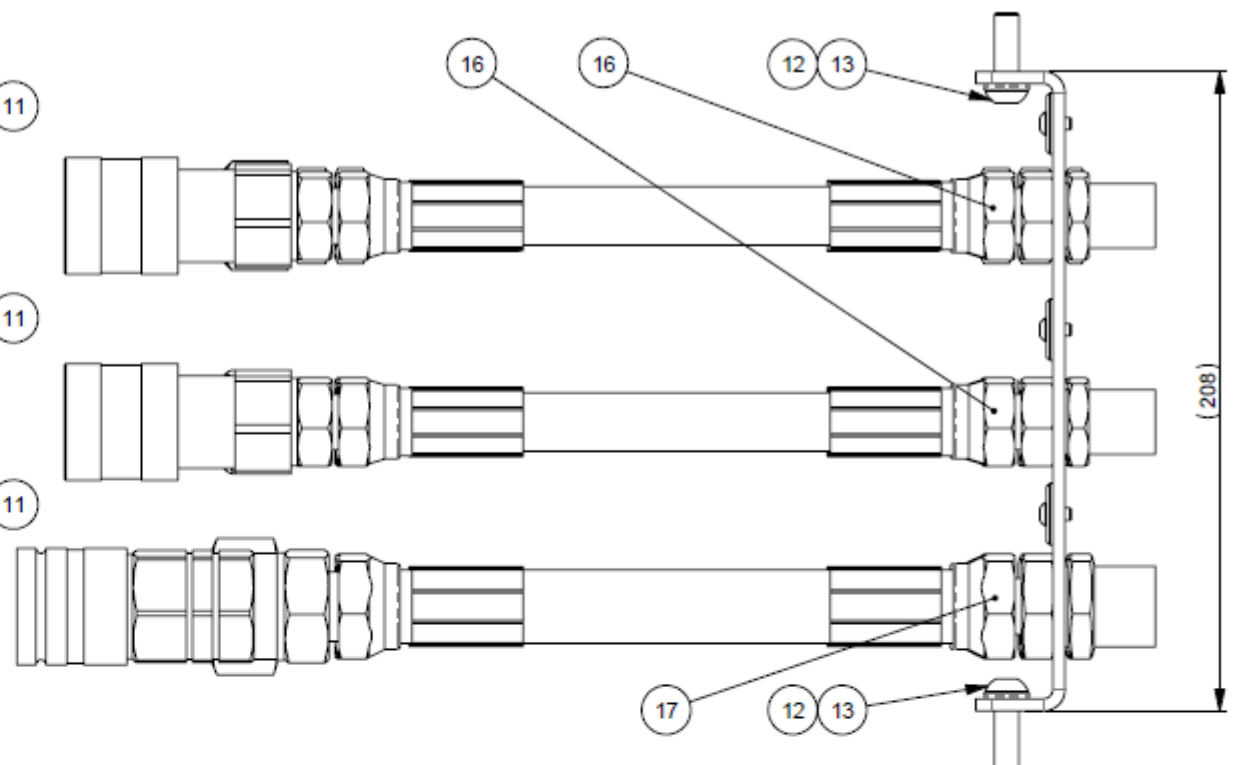
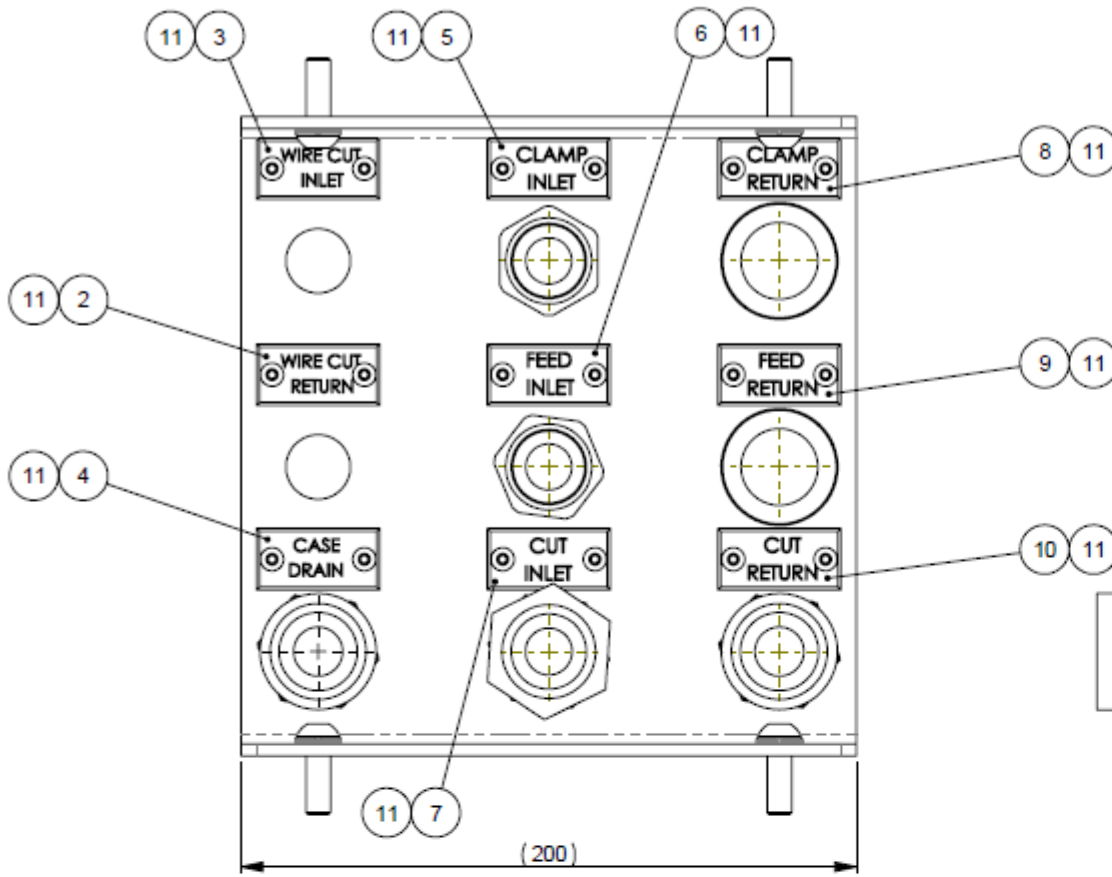
B	2572	INDIVIDUAL HYDRAULIC COMPONENTS REMOVED, HOSE SUB-ASSEMBLIES ADDED, MDWS1638-9, MDWS1638-10, MDWS1638-11 & MDWS1638-12. 3/4" FITTINGS FOR DRIVE MOTOR WERE AT TOP OF PANEL.	01/12/2014	SR	KB
A	2572	FLY LEADS ADDED, 2 HOSES CHANGED FROM 1/2" TO 3/4", RELEVANT CONNECTORS & DOWTY WASHERS ADDED.	26/11/2014	SR	KB
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
		THIRD ANGLE PROJECTION			
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WEIGHT		3.966Kg			
DRAWN BY		RH	04/03/2014		
CHECKED BY		KB	03/04/2014		
APPROVED BY					
TITLE		HYDRAULIC POWER PANEL			
		SCALE: 1:2			
			10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB TEL (01332) 291787 FAX (01332) 370358 E MAIL info@mirage-machines.co.uk		
			DWG No		
			MDWS1638-7		
			SHEET 1 OF 1		
					A3

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS1638\MDWS1638-7

Printed on 06-Oct-17

DO NOT SCALE

IF IN DOUBT ASK



MIRAGE MACHINES
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ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY
1	A	MDWS1638-7A-001	HYDRAULIC CONNECTION PANEL	1
2		MDWS1638-7A-002	WIRE CUT RETURN LABEL	1
3		MDWS1638-7A-003	WIRE CUT INLET LABEL	1
4		MDWS1638-7A-004	CASE DRAIN LABEL	1
5		MDWS1638-7-002	FEED INLET LABEL	1
6		MDWS1638-7-003	FEED INLET LABEL	1
7		MDWS1638-7-004	CUT INLET LABEL	1
8		MDWS1638-7-005	CLAMP RETURN LABEL	1
9		MDWS1638-7-006	FEED RETURN LABEL	1
10		MDWS1638-7-007	CUT RETURN LABEL	1
11		M4 x 8	Hex Socket Button Head - BS EN ISO 7380	18
12		M8	Rectangular section spring washer BS 4464 - 8 (Type B)	4
13		M8 x 25	Hex Socket Button Head - BS EN ISO 7380	4
18		MDWS1638-9	1/2" MALE HOSE ASSEMBLY	2
15		MDWS1638-11	3/4" MALE HOSE ASSEMBLY	1
16		MDWS1638-10	1/2" FEMALE HOSE ASSEMBLY	2
17		MDWS1638-12	3/4" FEMALE HOSE ASSEMBLY	2

A		Replaced 5-08-08 Bulkheads with MDWS1638-9, -10, -11, and -12 assemblies		06-Oct-17	DRB	SR
REV.	INC.	DESCRIPTION		DATE	DRAWN BY	APPROVED
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WEIGHT		4.713kg				
DRAWN BY		DC		15-Aug-16		
CHECKED BY		DB		16-Aug-16		
APPROVED BY		--				
TITLE		HYDRAULIC POWER PANEL		SCALE: 1:2		
DWG No		MDWS1638-7A		A3		
SHEET 1 OF 1						

MIRAGE
PORTABLE PERFORMANCE

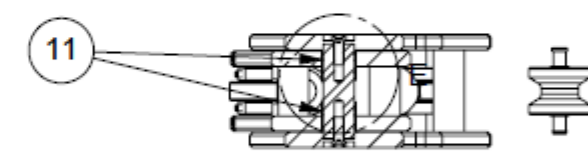
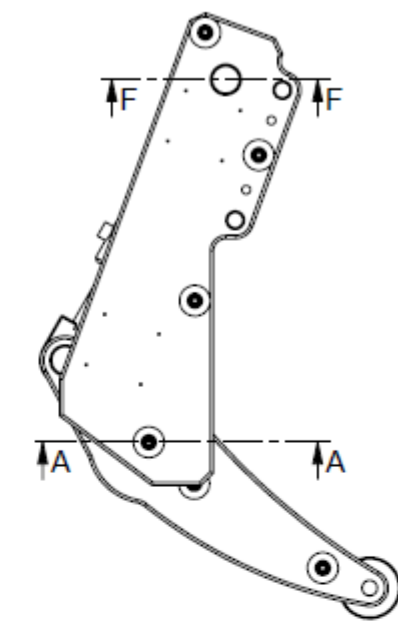
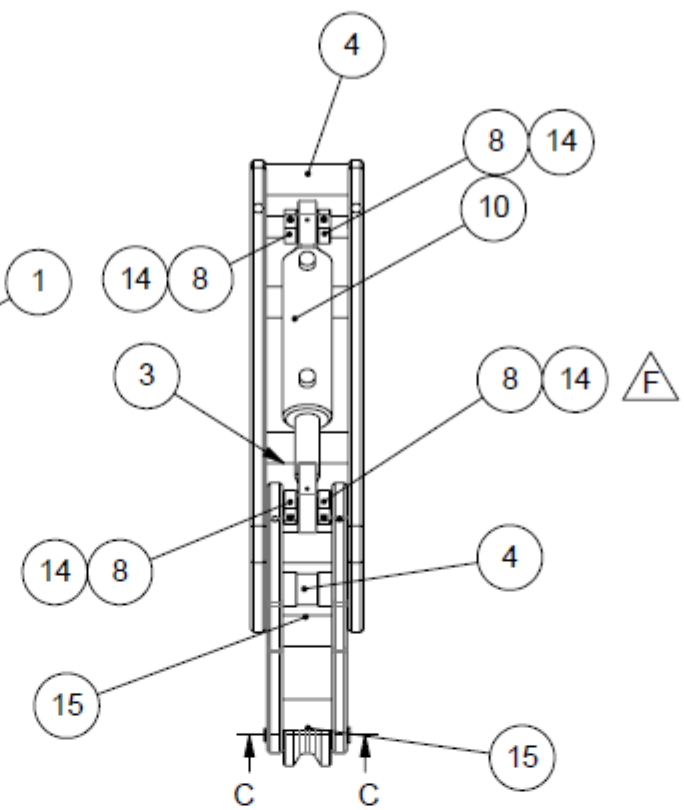
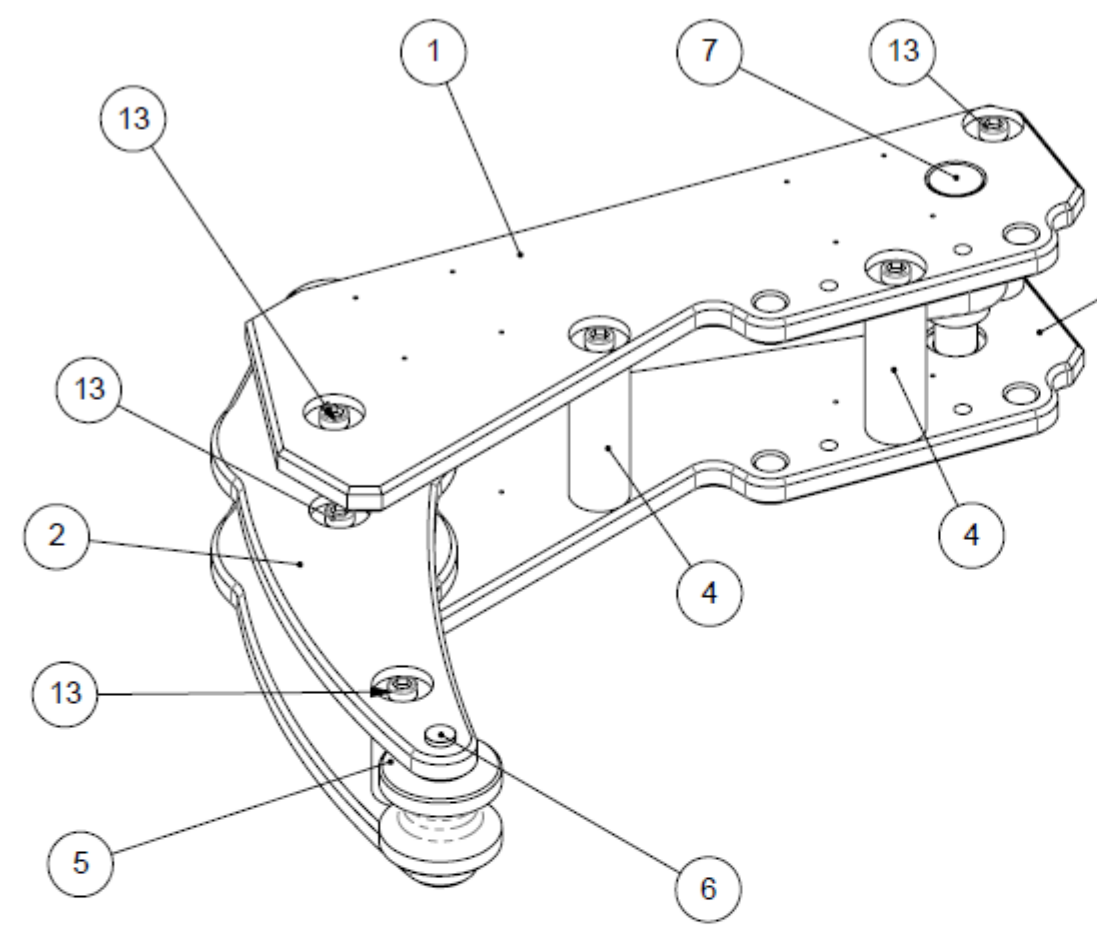
10 ENTERPRISE WAY, JUBILEE PARKWAY,
STORES ROAD, DERBY DE21 4BB
TEL (01332) 291767 FAX (01332) 370356
E MAIL info@mirage-machines.co.uk

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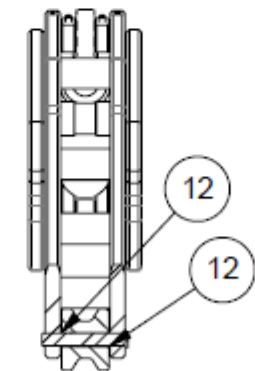
Printed on 22/03/2021

DO NOT SCALE

IF IN DOUBT ASK



SECTION A-A
SCALE 1 : 10



SECTION C-C
SCALE 1 : 10

ITEM NO.	PART NUMBER	DESCRIPTION	QTY
1	MDWS1638-2-001	CLAMP ARM PLATE	2
2	MDWS1638-2-002	16"-40" CLAMP ARM	2
3	MDWS1638-2-007	ROLLER PIVOT PIN	1
4	MDWS1638-2-005	CLAMP ARM PIVOT	4
5	MDWS1638-2-004	CLAMP ROLLER	1
6	MDWS1638-2-006	CYLINDER PIVOT PIN	1
7	MDWS1638-2-008	CYLINDER PIVOT PIN	1
8	MDWS1638-2-009	CYLINDER CLAMP RING	4
9	MDWS1638-2-010	CYLINDER MOUNT SPACER	4
10	18840	70BX40RX155 ST HYD CYL	1
11	H370FM-5055-50	'IGLIDUR' H370 FLANGED BEARING	2
12	H370FM-2023-21	'IGLIDUR' H370 Flanged Bearing	2
13	M16 x 40	Lowhead Cap Screws	14
14	M10 X 20	Socket Set Screw Cup Point - BS 4168-5	6
15	MDWS1038-2-003	CLAMP ARM SUPPORT	3
16	D1400-0200	DIN 471 EXTERNAL CIRCLIP	1

MIRAGE MACHINES
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MANUFACTURE

F	I.D.	Corrected cup point screw sizes to	22/03/2021	DRB	EM
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
		THIRD ANGLE PROJECTION			
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WEIGHT		62.127Kg			
DRAWN BY		RH	28/11/2013		
CHECKED BY		PW	20/1/14		
APPROVED BY					
TITLE		CLAMP ARM ASSEMBLY			
SCALE		SCALE: 1:5			
DWG No		MDWS1638-2			
SHEET		SHEET 1 OF 2			
A3					

N:\Drawing Storage\MACHINES GA's\DIAMOND WIRE\MDWS1638\MDWS1638-2

Doc: MML265

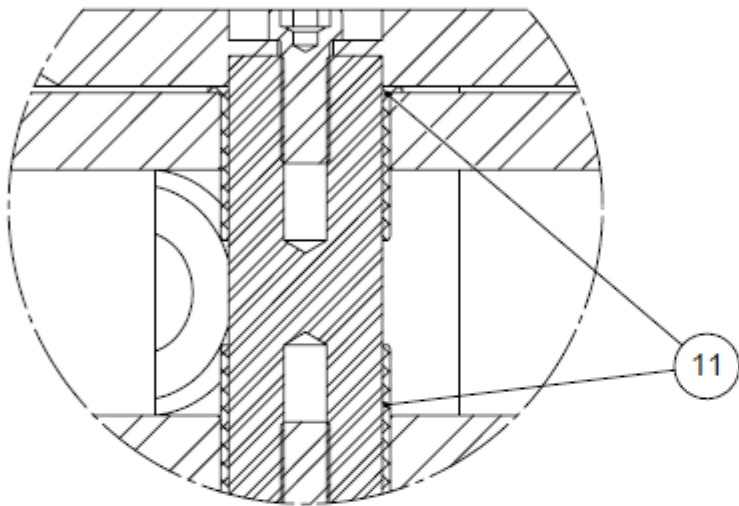
Issue: 007

Issue Date: 30-Aug-16

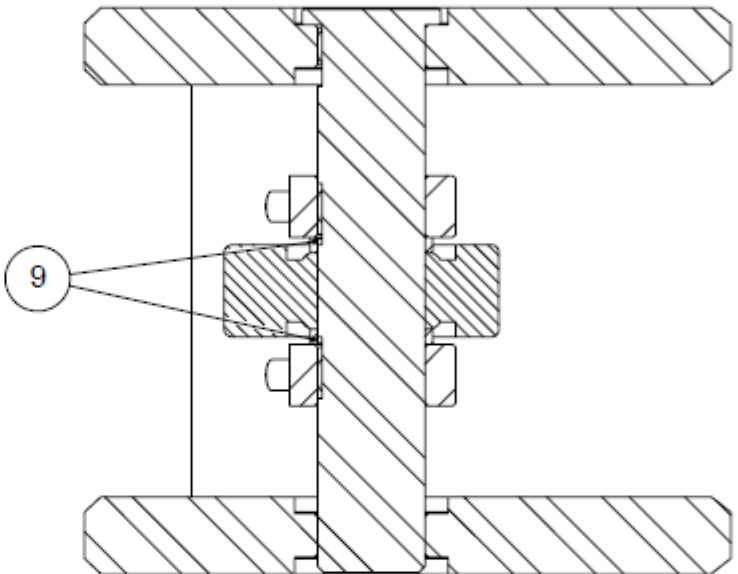
Printed on 22/03/2021

DO NOT SCALE

IF IN DOUBT ASK

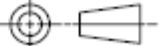


DETAIL E
SCALE 1 : 2



SECTION F-F
SCALE 1 : 2

MIRAGE MACHINES
APPROVED FOR
MANUFACTURE

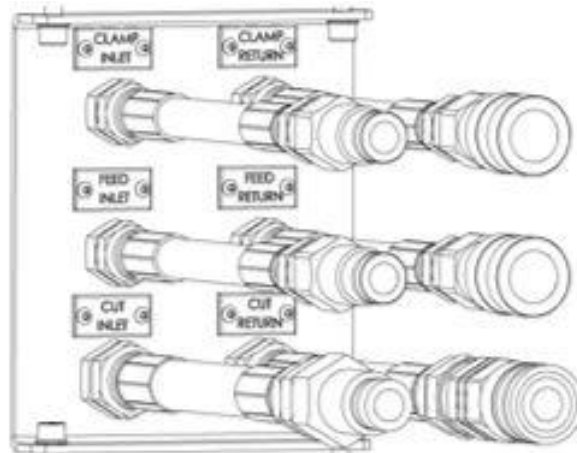
F	I.D.	Corrected cup point screw sizes to	22/03/2021	DRB	EM
REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
 THIRD ANGLE PROJECTION					
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WEIGHT	62.127kg				
DRAWN BY	RH	28/11/2013			
CHECKED BY	PW	20/1/14			
APPROVED BY	--	--			
TITLE	CLAMP ARM ASSEMBLY				
	SCALE: 1:5				
			 PORTABLE PERFORMANCE		
			10 ENTERPRISE WAY, JUBILEE PARKWAY, STORES ROAD, DERBY DE21 4BB TEL (01332) 291787 FAX (01332) 370358 E MAIL info@mirage-machines.co.uk		
			DWG No	MDWS1638-2	A3
			SHEET 2 OF 2		

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6. Installation

6.1. *Connecting MDWS to Hydraulic Supply*

All MDWS machines have three separate hydraulic circuits, each requiring their own hydraulic supply; these are 'Cut', 'Feed' & 'Clamp' as can clearly be seen on the 'Hydraulic Power Panel' (shown below) which is located at the rear of all the MDWS machines. Note that the panel incorporates fly leads for easy pipe connections.



It is recommended that the MDWS's are purchased with the Enerpac approved hydraulic power pack & control panel which have been specifically designed for this range of machines, their specifications can be found below.

1. Connect the single feed pipe from the power pack to the control panel.
2. Connect the six hoses from the control panel to the 'Hydraulic Power Panel' on the machine. Refer to the labels on the control panel & the hydraulic power panel to ensure the correct hose is connected to its respective fitting on the power panel.

Power Pack Specification

The system consists of a 4 cylinder Hatz diesel engine silent pack rated at 37Kw @ 2000rpm continuous, 12v DC control, driving a Sauer Danfoss Load Sensing variable displacement axial piston pump. The Variable output flow range is up to 90lpm and up to 190bar. The pump will supply the stand alone control panel which in turn will allow the operator to operate all the machine functions from the control panel.

System comprises

- 250 litre oil reservoir.
- Stainless steel fuel tank.
- Pressure and return filters.
- 24v DC oil cooler.
- Battery operated start function with basic fault monitoring.
- Local buttons for safe operation.
- Fully CE marked.
- 10 meter hoses included.

The complete system is built into a substantial mechanical lifting frame with removable guards. It is designed to be lifted via a fork truck or by 4 corner shackles; lifting certification is included with this unit.

As stated, this power pack will provide a variable hydraulic flow up to 90 LPM and 190 bar.

Control Panel Specification

Functions that are available at the control panel include:

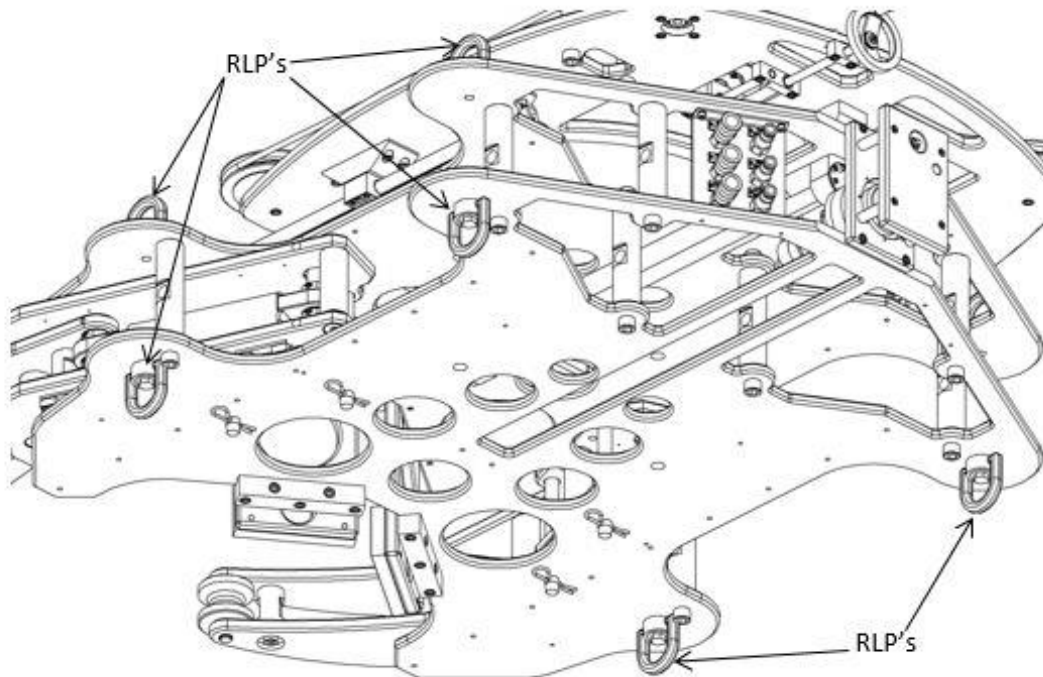
- System pressure reading.
- Cutter speed control.
- Machine clamp & un-clamp.
- Pressure gauge for clamp pressure.
- Pressure adjuster for clamp pressure.
- Wire feed in & out.
- Feed in speed control.
- Feed in pressure gauge.
- Feed out pressure gauge.
- Fully CE marked

The control panel is mounted in a fully certificated lifting frame.

6.2. Machine Lifting

Due to the relatively large size of the MDWS range they must be lifted with suitable lifting equipment. All machine weights are listed in 'Section 5' of this machine manual.

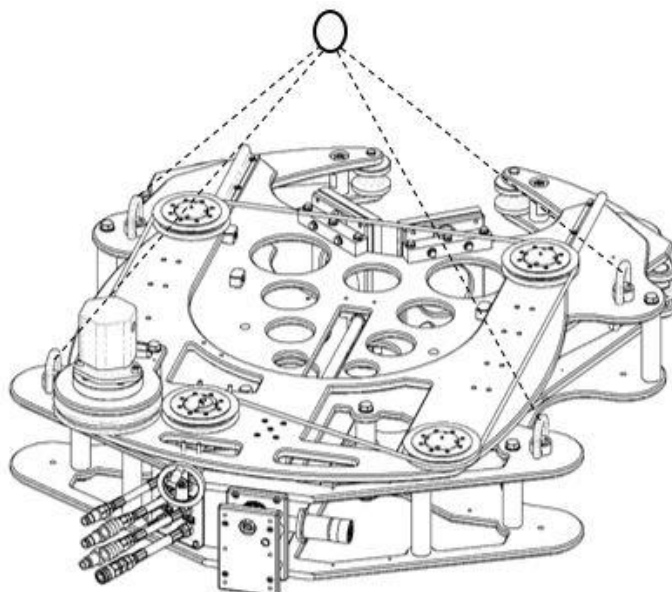
All MDWS machines are supplied with 8 rotating lifting points (RLP's), 4 on each side of the machine.



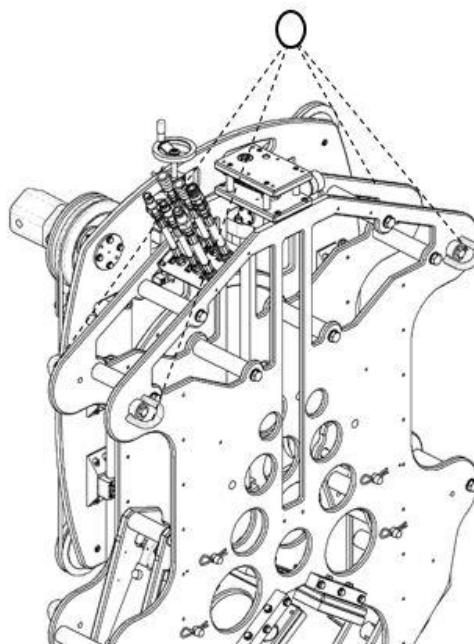
Points to consider before lifting the machine

- Are all RLP's fastened securely?
- Are the correct RLP's being used for the desired lift & machine orientation?
- Is all lifting equipment suitable for the desired lift?
- Is all lifting equipment in good working order?
- Are there any obstructions in close proximity to the machine that could become an issue when the machine is lifted?
- Are any hydraulic hoses orientated so that they do not become entangled with the machine when it is lifted?

When lifting the machine in a horizontal orientation, use all four RLP's on one side of the machine. The machine can be used as shown below or upside down.



When lifting the machine in a vertical orientation, use 4 RLP's at the rear end of the machine as shown below.



Minimum Sling lengths		
Machine	Horizontal orientation	Vertical orientation
MDWS620	1325mm	1325mm
MDWS1638	1900mm	1900mm
MDWS3660	2400mm	2400mm

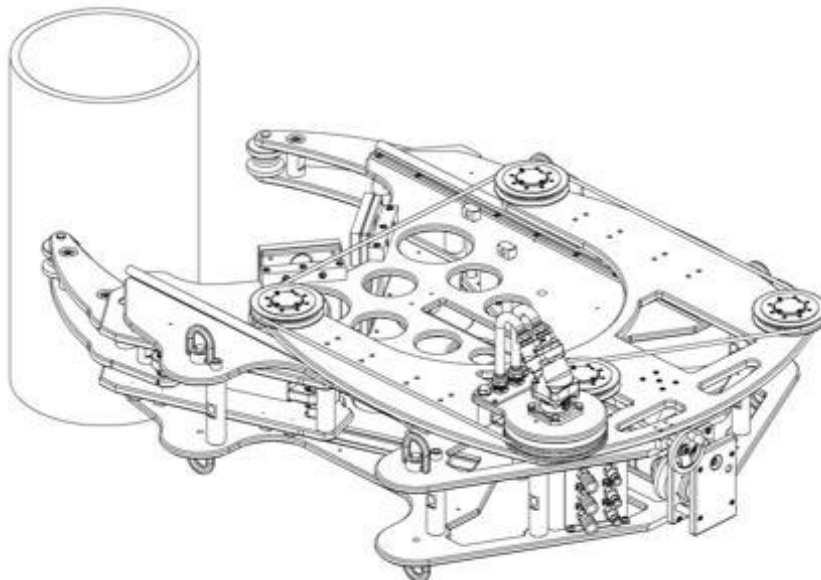
6.3. Clamping to Work Piece

The MDWS range use hydraulically operated 'Clamp Arm Assemblies' to clamp onto work pieces. This allows each machine to be used on a range of different diameter work pieces within their operating range. These assemblies are controlled by hydraulic rams mounted within their frames; these rams are powered via the 'Hydraulic Power Pack' & controlled at the 'Control Panel'.

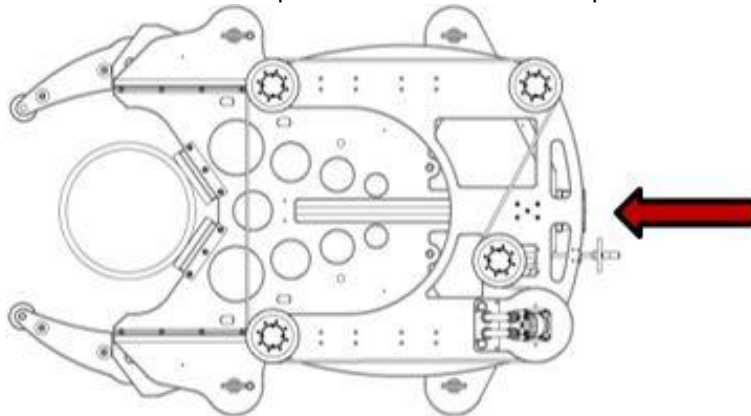
Note: When operating 'subsea' no additional support for the machine is required once the 'Clamp Arm Assemblies' are fully engaged. However if operating 'topside' (not submerged in water) it is recommended that the MDWS3660 is supported via the two rear RLP's & suitable lifting equipment.

It is assumed that at this stage the machine has all its hydraulic hoses connected correctly & the machine is supported by suitable lifting equipment, ready to be installed onto the work piece.

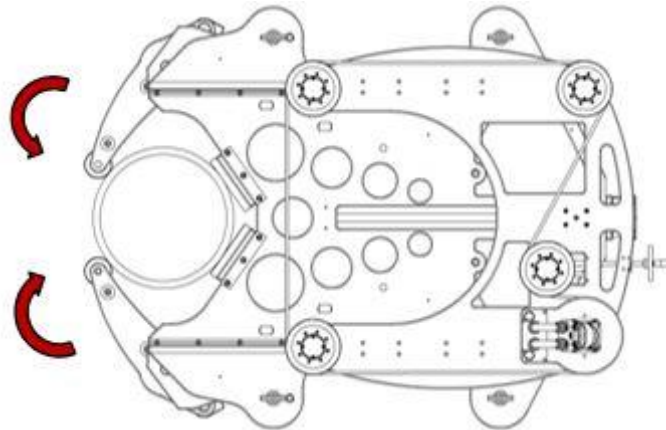
1. Open the 'Clamp Arm Assemblies' by adjusting the appropriate control lever on the 'Control Panel'.



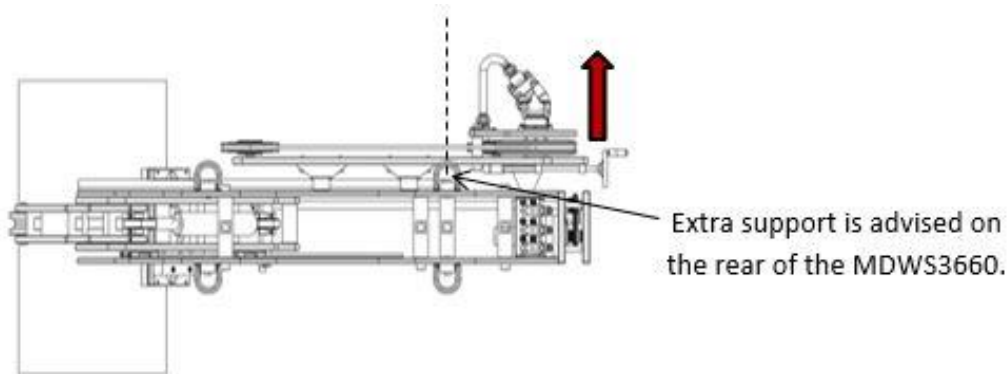
2. Move the machine towards the work piece until the 'Fixed Clamps' touch the work piece.



3. Close the 'Clamp Arm Assemblies' until the hydraulic pressure within the rams builds & the machine is securely mounted to the pipe.



If the machine is being mounted 'Topside' then it is advised that lifting equipment is retained via the two, rear RLP's to provide further support during the cutting process.



The pressure within the hydraulic clamping rams should be monitored periodically during the time when the machine is secured to the work piece; if the pressure reading drops then re-engage the clamping cylinders to re-establish pressure.

6.4. **Personnel**

As a specialist portable machine the minimum standard for an operator is to be:

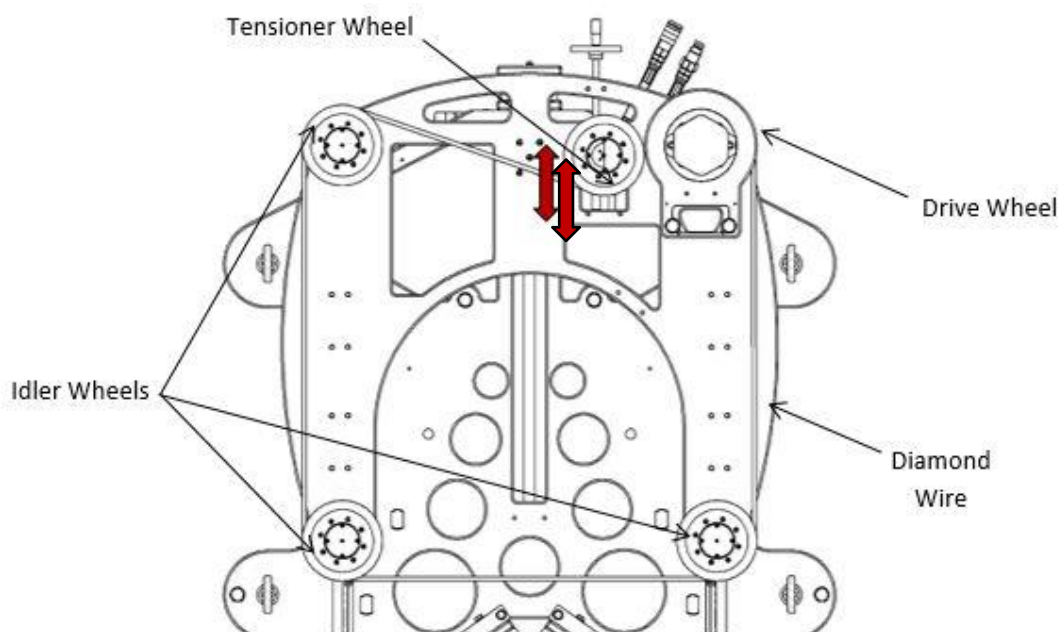
- The operator must be trained and conversant with the Enerpac MDWS's
- The operator to be able to identify the correct and incorrect use of static or portable machines.
- Comply with all local and internationally recognised safe use of powered machines.

7. Setting

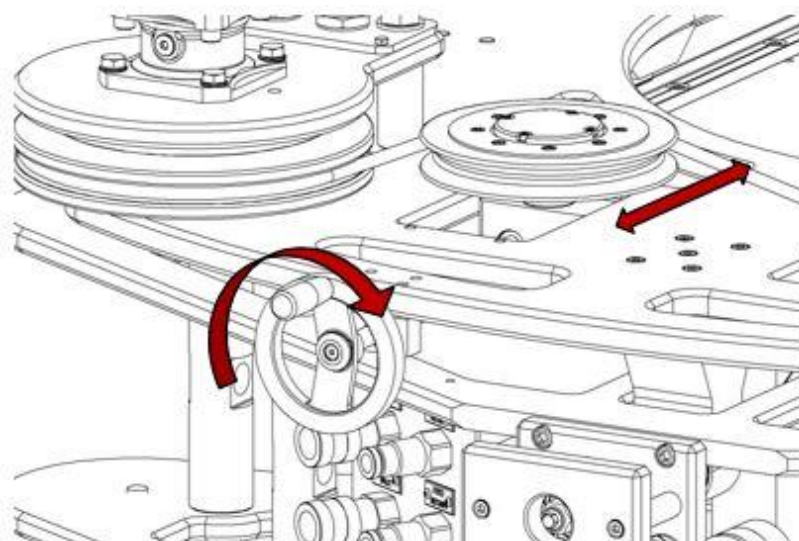
7.1. Setting & Fitting the Diamond Wire

Start by ensuring that the wire is correctly installed in its groove on all 3 idler wheels, the tension adjusting wheel & the drive wheel. Ensure the wire is routed as per the image below. If fitting a brand new wire, retract the tension adjusting wheel before fitting the new wire by turning the hand wheel clockwise as far as it will go & then adjust to the correct tension.

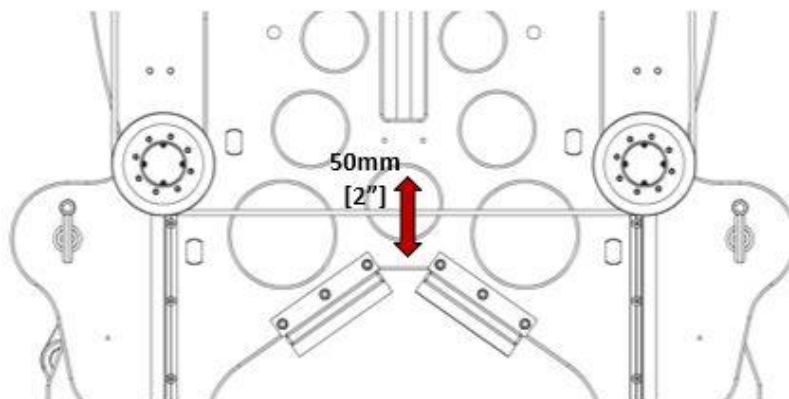
Note: When fitting a new diamond wire check for its correct direction of rotation. Different brands of wire have different markings to indicate the cutting direction. Look at the new wire closely to determine its correct direction & fit it to ensure that the arrows point in the direction of travel.



To adjust the tension of the diamond wire, simply turn the 'Hand Wheel' clockwise to make the wire slack or counter-clockwise to make the wire tight.



The correct tension is achieved when the wire has 50mm [2"] of movement backwards & forwards between the two forward idler wheels.

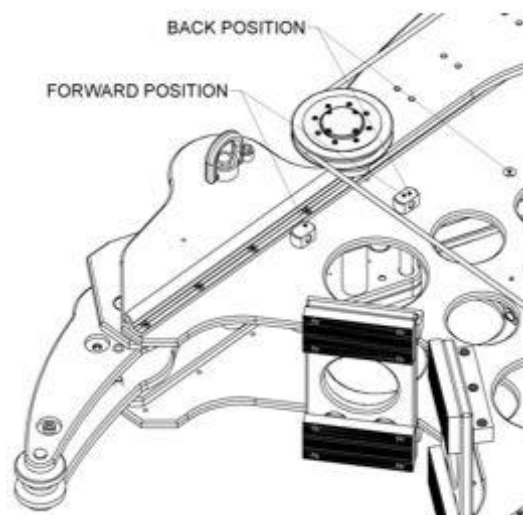
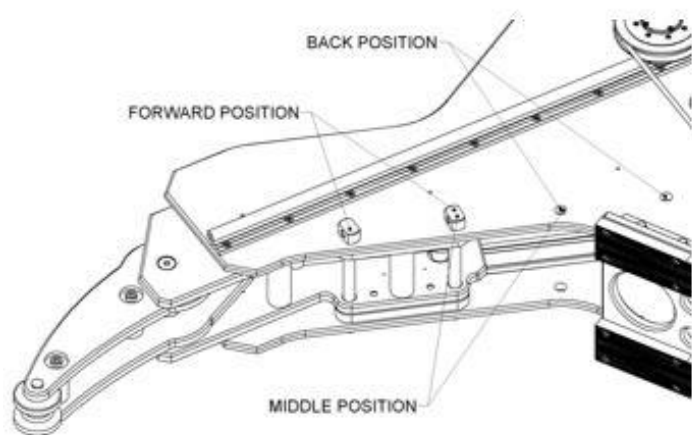


7.2. Setting the Clamp Arm Assemblies

The MDWS's cannot be clamped to all work pieces within their range without adjusting the position of the 'Clamp Arm Assemblies'.

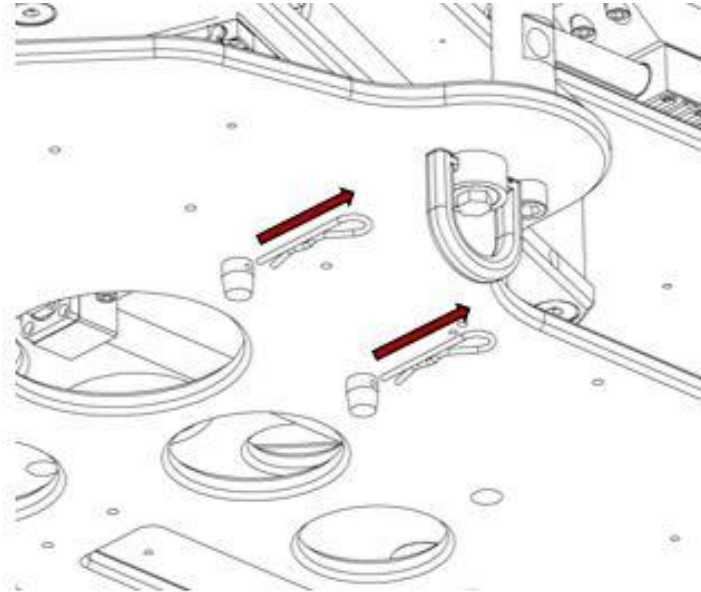
The positions of the 'Clamp Arm Assemblies' are shown below alongside their corresponding work piece diameters.

Machine	Mounting Position		
	Forward	Middle	Back
MDWS620	16"-20"	N/A	6"-20"
MDWS1638	30"-38"	N/A	16"-28"
MDWS3660	54"-60"	48"-60"	36"-48"
	Work Piece ϕ		

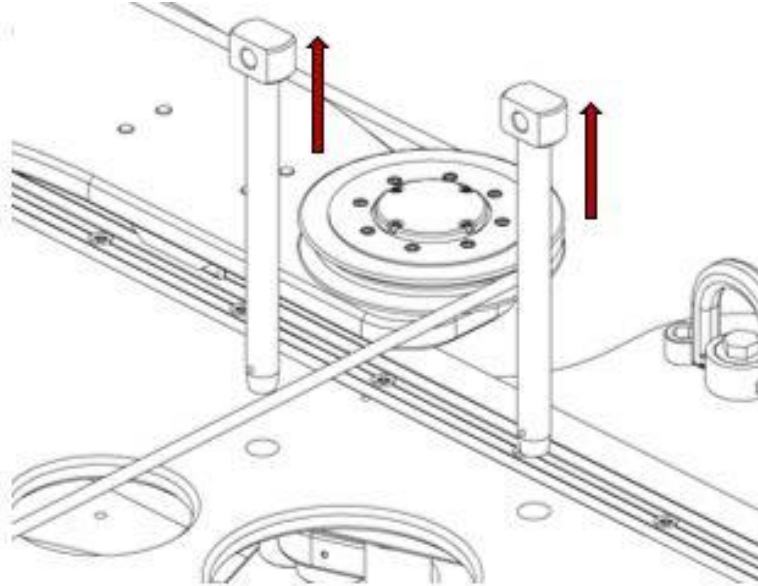


Before attempting to change the position of the 'Clamp Arm Assemblies' ensure that the machine is well supported the correct way up & that the R-Clips underneath the 'Clamp Assembly Locating Pins' are accessible.

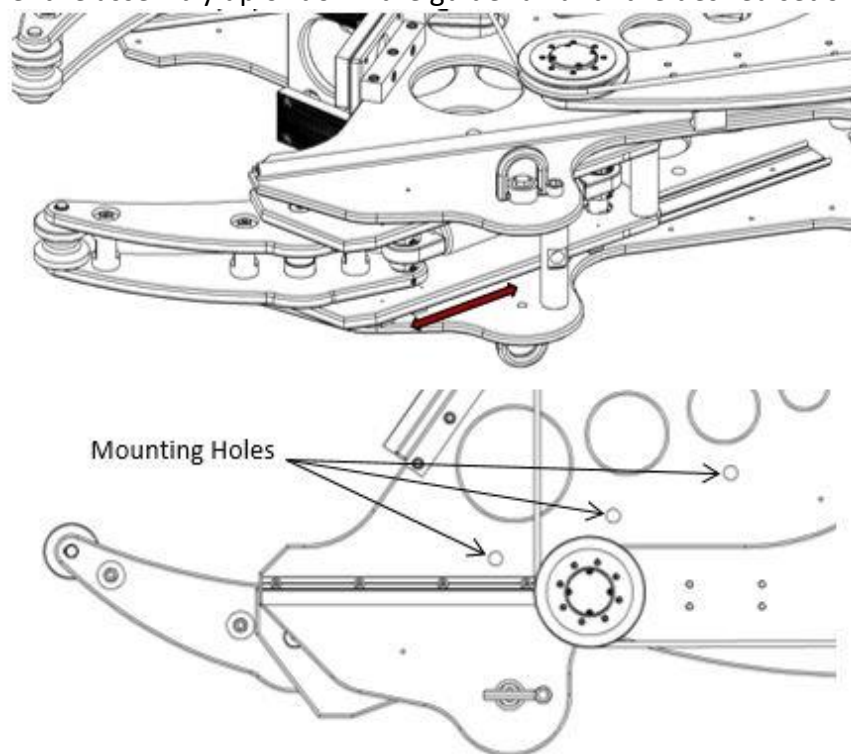
1. To change the position of the 'Clamp Arm Assemblies' start by removing the R-Clips from the 'Clamp Assembly Locating Pins'.



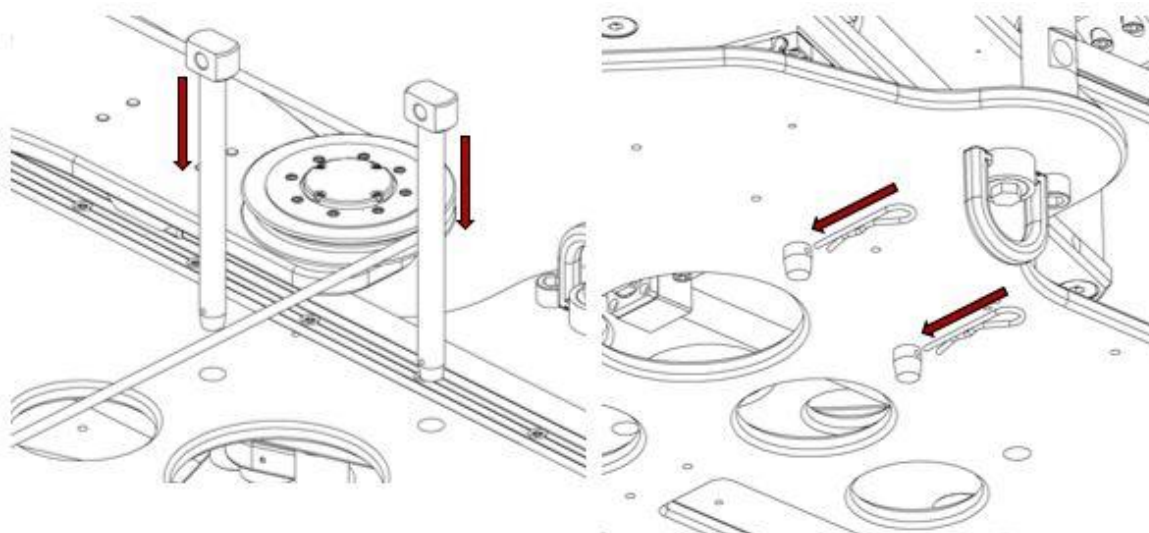
2. Remove the 'Clamp Assembly Locating Pins' from the top of the machine.



3. Move the entire assembly up or down the guide rail until the desired set of holes line up.

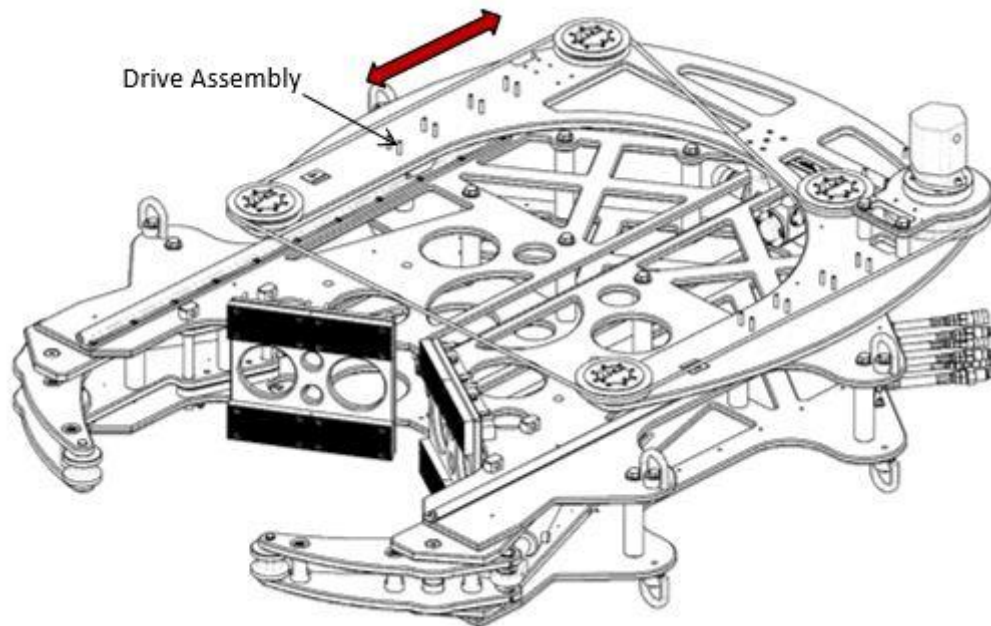


4. Re-install the 'Clamp Assembly Locating Pins' & R-Clips.



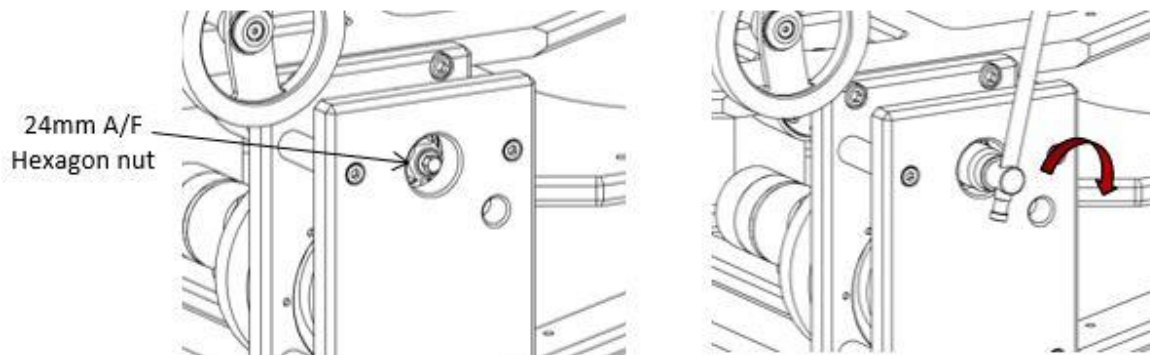
Note: Always install the pair of 'Clamp Arm Assemblies' in the same position on both sides of the machine.

7.3. *Setting the Drive Assembly*



To adjust the 'Drive Assembly's' position on the machine simply turn the 24mm A/F hexagon nut located on the 'Feed Assembly' gearbox with a 24mm socket & socket wrench.

Turn the hexagon clockwise to retract the 'Diamond Wire Drive' or counter-clockwise to advance it.



Alternatively, use the automatic feed function by engaging the hydraulic feed control on the 'Control Panel'.

Move the drive assembly to within 150mm [6"] of the work piece/pipe in preparation for its cut.

8. Machine Operation

Warning: The cutting wire spins at a very high velocity. If the wire breaks during operation, segments can fragment & be thrown from the machine at dangerous speeds. Make sure all personnel are at a safe distance before starting the cutting drive. Serious injury or death could result from contact with the wire or as a result of the wire breaking.

1. Ensure that the machine is securely clamped to the work piece / pipe, and is supported by appropriate lifting equipment if it is required before beginning machine operation. If the machine is being used for 'Topside' operations, ensure that an effective cooling system is in place before cutting.
2. Engage hydraulic flow to the feed motor and gearbox to start feeding the Diamond Wire Drive towards the work piece / pipe.
3. Feed the Diamond Wire Drive forwards until the cutting wire is within 10mm of the work piece / pipe, and then stop the hydraulic motor.
4. Engage hydraulic flow to the Drive motor to start rotating the diamond wire to cutting speed.
5. Re-engage the feed motor to start feeding the Diamond Wire Drive into the work piece / pipe.
6. Visually monitor the progression of the cutting wire as it feeds into the pipe.
7. During cutting, the Diamond Wire Drive should not be overfed into the pipe or the wire will become over-stressed.
8. Continue to feed the Diamond Wire Drive until the wire has completely cut through the work piece / pipe.
9. Disengage hydraulic flow to the Drive and Feed motors.

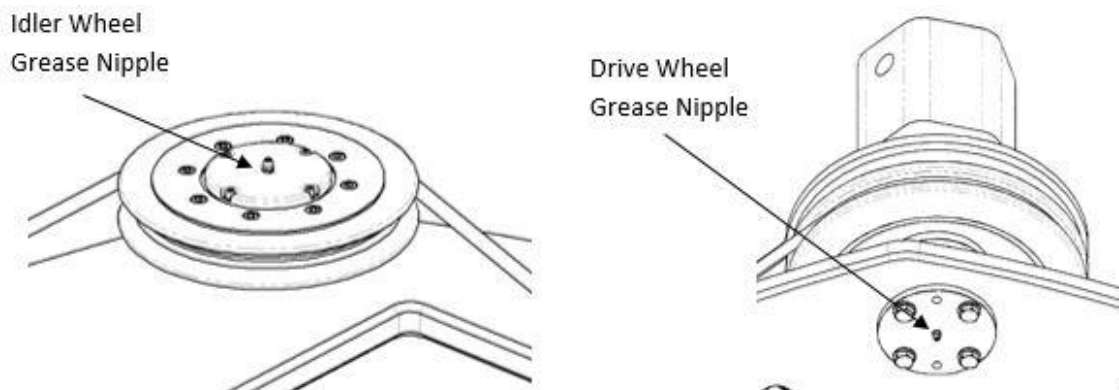
9. Machine Maintenance

General wear and tear items should be replaced with like for like components as per the machine general assembly drawings detailed in this manual. Failure to do so may result in a machine that is not fit for purpose and is outside the design intent it was supplied for. Items that require specific maintenance regimes and products will be detailed here in.

General Maintenance Schedule		
Time Period	Action	Recommended Lubricant
After every use	Clean all cutting debris from machine. Pay particular attention to lead screws, pivots, sealing, sliding & rotating faces.	General water displacing, cleaning oil.
As required	Replace cutting wire.	N/A
Every 10 hours	Check all securing nuts & bolts are tight.	N/A
Before long term storage (12 months minimum)	Protect machine, components & accessories from corrosion. Store all machine components securely in original packing box.	General, oil based, rust inhibitor.

9.1. Grease Points

The drive and idler wheels on the machine feature grease points, an M6 grease nipple on the top of the idler wheels provides access, whilst the drive wheel has a grease nipple on the underside as shown.



10. Troubleshooting Guide

Symptom	Possible cause	Action
The machine will not rotate	1. Hydraulic/Pneumatic supply not available	Check supply
	2. Hydraulic/Pneumatic supply is below the minimum required to operate the machine	Check supply
	3. Drive motor faulty	Remove motor and check operation
	5. Faulty valve or emergency shut off operational	Check supply to motor

11. Appendices

11.1. Recommended torque settings for fasteners

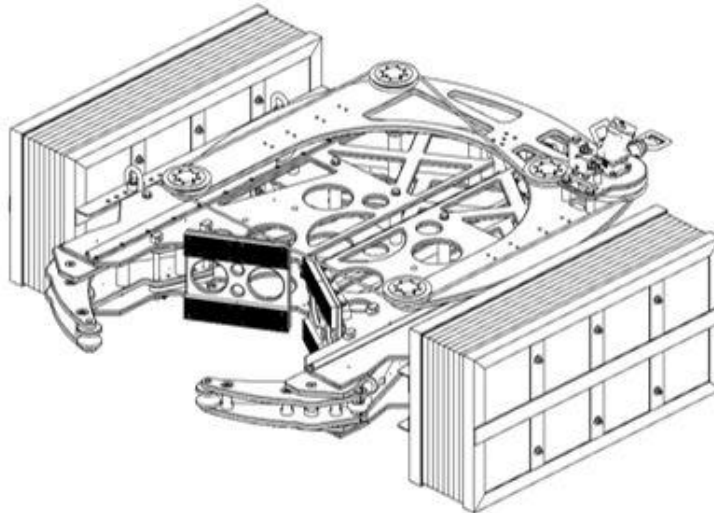
Thread Ø	Tensile Strength		Torque Setting	
	kN	lbs	Nm	in - lbs
M3	6.54	1470	2.1	19
M4	11.4	2560	4.6	41
M5	18.5	4160	9.5	85
M6	26.1	5870	16	140
M8	47.6	10700	39	350
M10	75.4	17000	77	680
M12	110	24700	135	1200
M14	150	33700	215	1900
M16	204	45900	330	2900
M20	306	68800	650	5750
M22	374	83950	875	7725
M24	441	99100	1100	9700
M30	701	158000	2250	19900
M32	860	193500	3050	27000
M36	1020	229000	3850	34100

11.2. *Optional Extras*

There are modules available for the MDWS range as optional extras. These are not necessary to operate the machine, but are useful during certain machining operations.

MDWS1638-30 / MDWS620-30

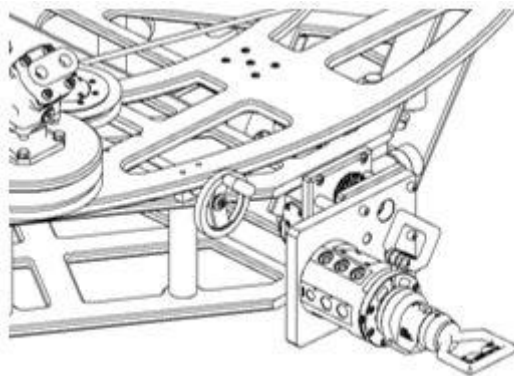
The MDWS1638-30 and MDWS620-30 are floatation modules designed to be compatible with the MDWS1638 and MDWS620 machines respectively, and must be installed as a pair in order to operate correctly. The floats are installed by unscrewing the M16 RLPs and then fitting them back in place through the float mount holes into the machine plate.



An MDWS1638 with a pair of MDWS1638-30 floatation modules installed

MDWS-HS-100

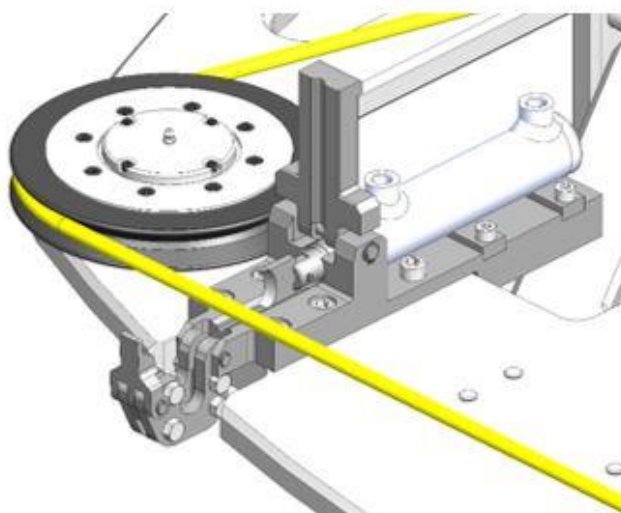
The MDWS-HS-100 is a Hot Stab module designed to replace the MDWS1638-7 hydraulic power panel and allows for an ROV unit to more easily operate the machine. It is mounted with six M10x50 screws onto the back of the MDWS1636-6 unit.



An MDWS-HS-100 Hot Stab unit mounted on a MDWS1638

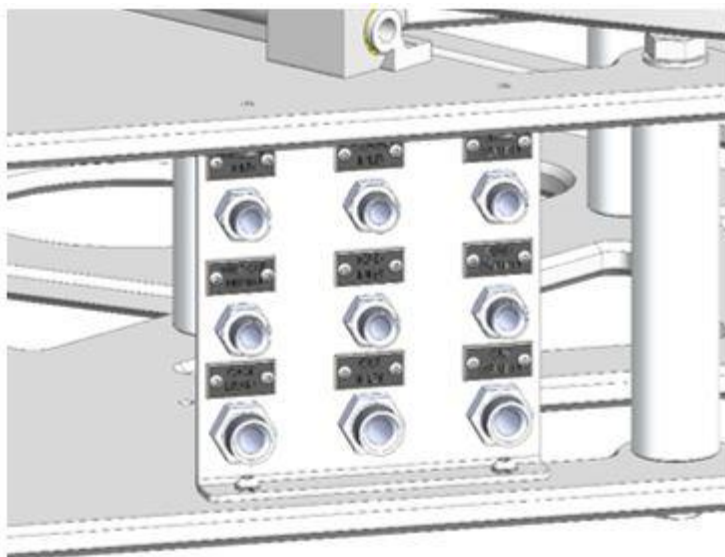
MDWS1638-14 and MDWS1638-7a

The MDWS1638-14 is a hydraulically operated severing unit designed to cut through the diamond wire itself in the event of the wire becoming jammed. Were the wire to become stuck during a cut and the machine needs to be released from the work piece, the MDWS1638-14 can be activated to sever the wire so that the machine can be removed.



An MDWS1638 with MDWS1638 hydraulic severing unit

The MDWS1638-7a is required for the MDWS1638-14 to function, this is because the -7a hydraulic power panel comes with additional connector locations for the MDWS1638-14 and Case Drain.

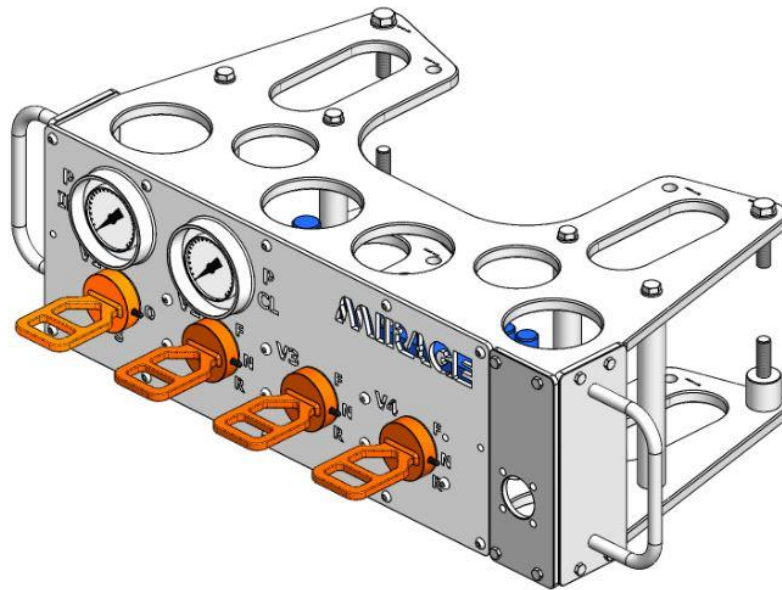


An MDWS1638 with the MDWS1638-7 replaced by a MDWS1638-7a

SSSDWCP-0

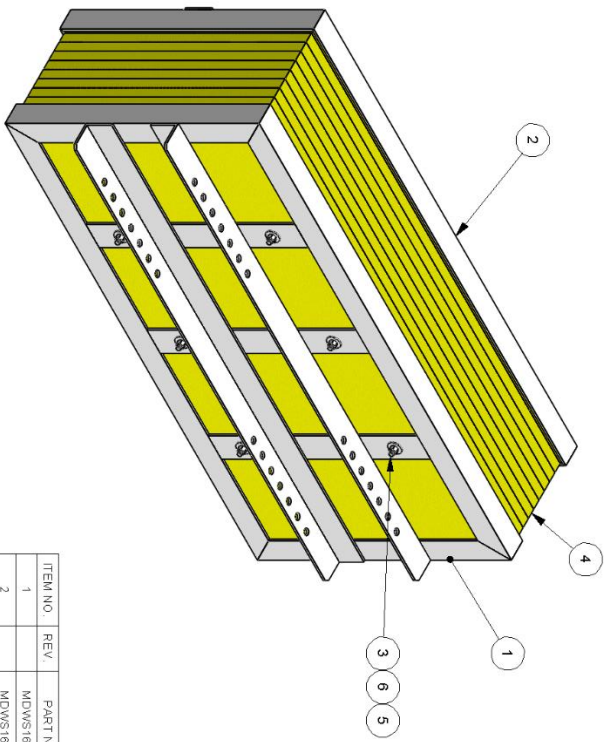
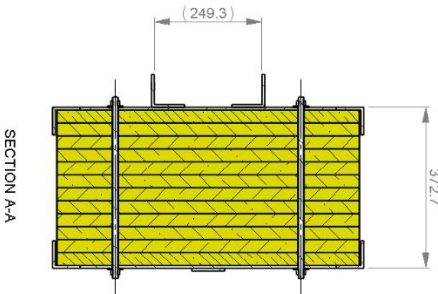
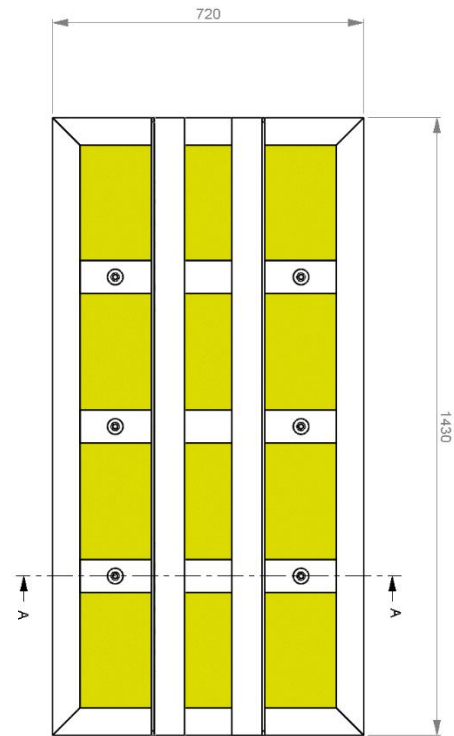
The SSSDWCP-0 is an ROV control panel which is compatible with the MDWS620 or MDWS1638. The panel is designed to be operated by a ROV unit whilst the machine is performing sub-sea operations. Note that in order to use this assembly the rear gearbox covers will have to be replaced with the included SSSDWCP-1-007 and SSSDWCP-1-008.

No Hot Stab Receptacle is included with the SSSDWCP-0



To fix the SSDWCP-0 to an MDWS machine;

- Remove the MDWS1638-6-002 feed gearbox support plate by unscrewing the 4x M8x100 bolts.
- Next, remove the chain and sprocket gears by unscrewing the M8x35 bolt which will allow the MDWS1638-6-020 retaining washer and top sprocket to be removed.
- Remove the KM5 and MB5 lockwasher to allow the lower sprocket and chain assembly to be removed.
- Unscrew the 4x M10x35 screws, then with the HYM 0200-6 reduction gearbox still attached, remove the MDWS1638-6-017 mount plate, whilst leaving the MDWS1638-6-023 leadscrew in place.
- Remove the x3 M8 screws in the HYM 0200-6 to remove the reduction gearbox, then re-assemble the whole machine by following the reverse of the above steps, but replacing the MDWS1638-6-017 and MDWS1638-6-002 with the SSSDWCP-1-007 and SSSDWCP-1-008. Note that the two lower MDWS1638-6-005 will be positioned higher in the new plates.
- Attach the main SSSDWCP-0 assembly to the machine by using the 4x M20 bolts to replace the M20 bolts on the main MDWS assembly which hold the rear MDWS1638-1-004 clamp supports in place. Using these bolts, attach the SSSDWCP-0 to the MDWS machine, hole are provided to accommodate both the MDWS620 and MDWS1638.



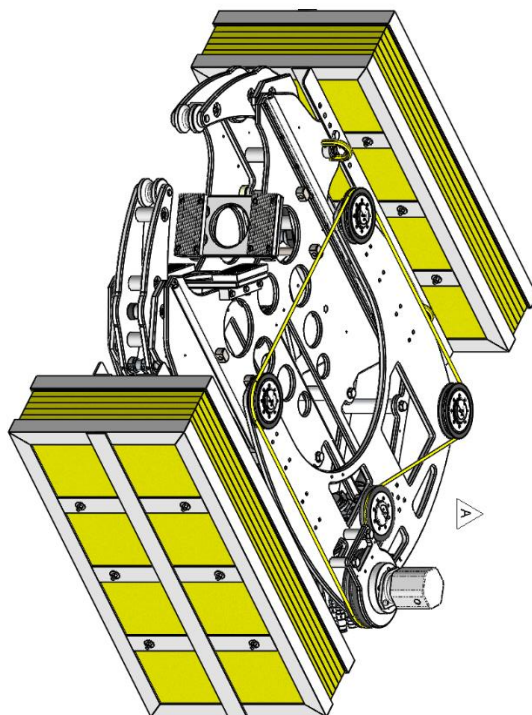
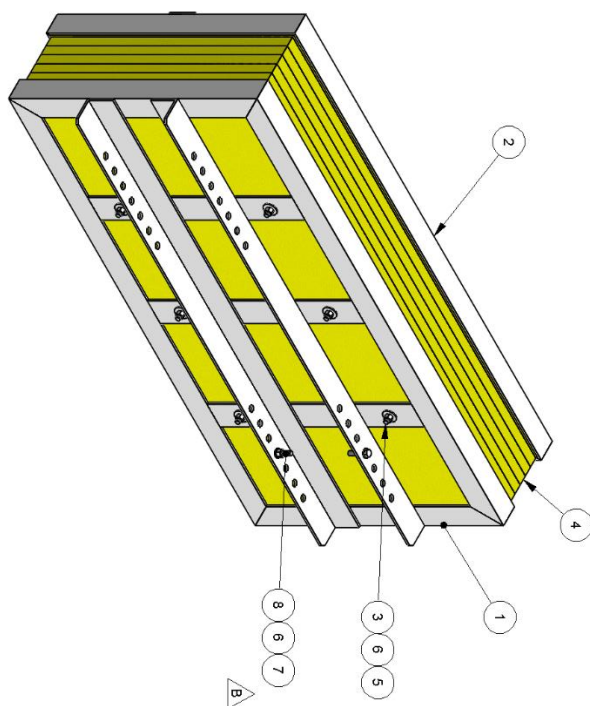
ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY
1		MDWS1638-30-001	FLOATATION MOUNT FRAME	1
2		MDWS1638-30-002	FLOATATION LOCK FRAME	1
3		MDWS1638-30-003	FLOATATION LOCK STUD	6
4		MDWS1638-30-004	FLOATATION BLOCK	12
5		M12	FORM G WASHER	12
6		M12	Hex Nut Style 2 - BS EN 24033	12

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WEIGHT: 139.28kg CHECKED BY: 15-Aug-16 APPROVED BY: 15-Aug-16	MDWS1638-30 SHEET 1 OF 1



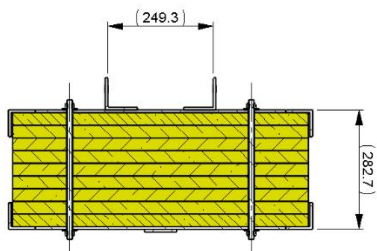
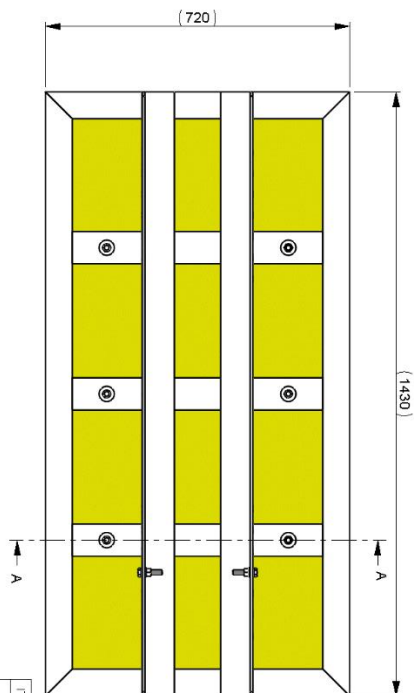
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DO NOT SCALE



IF IN DOUBT ASK

NOTE: ABOVE SHOWN FOR REF ONLY



N Drawing StorageMACHINES GASDIAMOND WIRE-FLOATATIONMDWS620-30
A3 ASSEMBLY (AUTO) - 7-4-2009

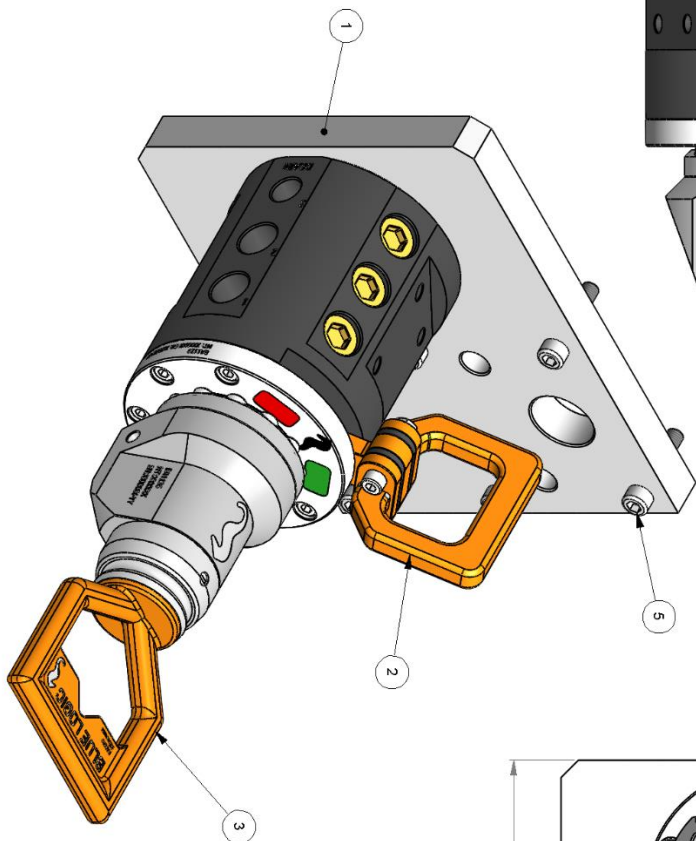
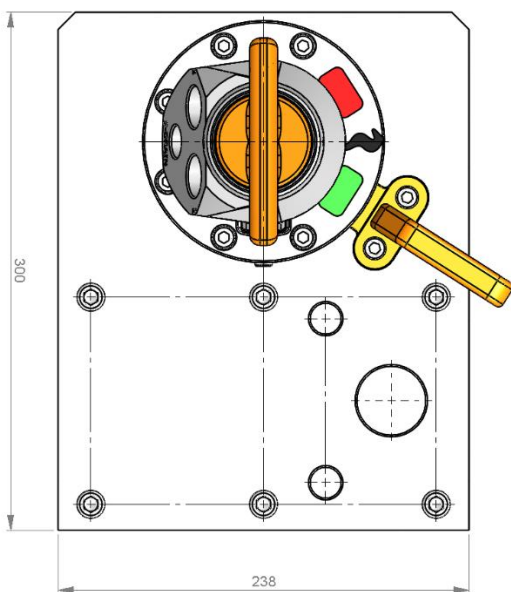
ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY
1		MDWS1638-30-001	SECTION A MOUNT FRAME	2
2		MDWS1638-30-002	FLOATATION LOCK FRAME	2
3		MDWS620-30-001	FLOATATION LOCK STUD	12
4		MDWS1638-30-004	FLOATATION BLOCK	18
5		M12	FORM G WASHER	24
6		M12	Hex Nut S16 2 - BS EN 24033	28
7		FRIGHT WARE BS 4320 - M12	WASHER (FORM A)	8
8		M12 x 50	Hex Screw Grade A8 - BS EN 24014	4

REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
1		Added hole, worked, and nuts	24/04/2018	DRB	DWS
2		Added all only image of request of	18/04/2018	DRB	SM
3		Re. Doubled both quantities			

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PORTABLE PERFORMANCE

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WEIGHT 11271KG
DRAWN BY DC 18/04/2018
CHECKED BY SI 18/04/2018
APPROVED BY DWS 18/04/2018
10 ENTERPRISE WAY, JILLEE PARKWAY,
STORES ROAD, DERBY DE11 4BB
TEL (01332) 291787 FAX (01332) 370356
E MAIL info@miragemachines.co.uk
DWS 18/04/2018
MDWS620-30
SHEET 1 OF 1
A3



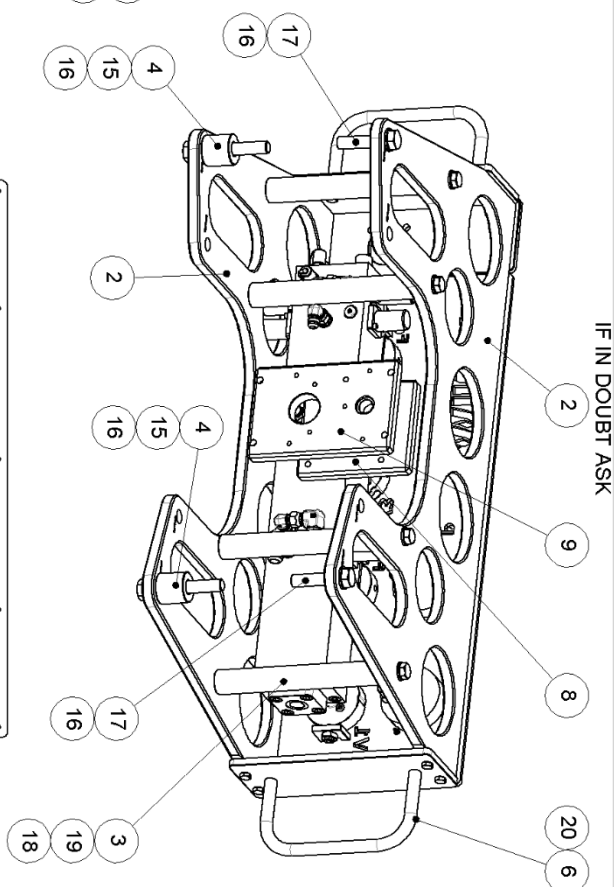
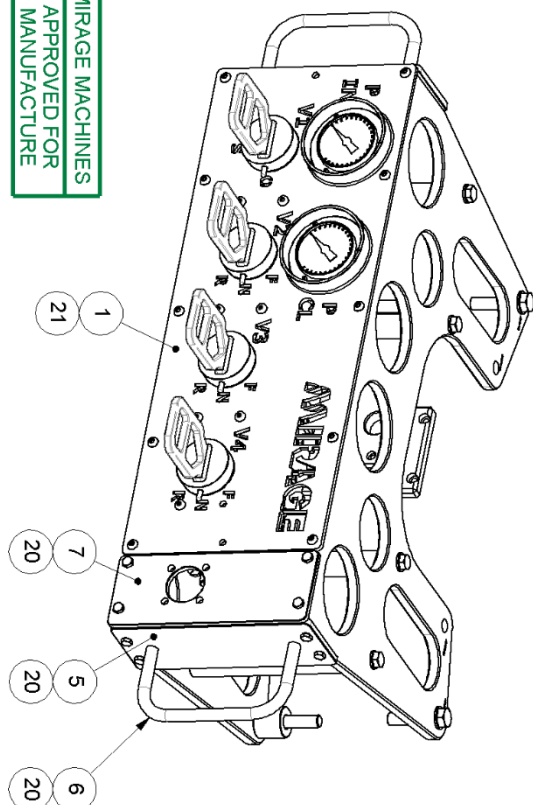
ITEM NO.	RELT	PART NUMBER	DESCRIPTION	QTY
1		MDWS-HS-100-001	HOT STAB MOUNT PLATE	1
2	07	BA1121	Q60 TP VSTAR REC 250 BAR INTERM MA8 BSP 3/4"-1/2"	1
3	06	BA1135	Q60 TP VSTAR 250 BAR INTERV 70° BSP 3/4"-1/2"	1
4		M8 x 40	Hex Socket Head - BS EN ISO 4762	9
5		M10 x 50	Hex Socket Head - BS EN ISO 4762	6

REV.	INC.	DESCRIPTION	DATE	DRAWN BY	APPROVED
		 THIRD ANGLE PROJECTION			
2. MATERIALS MANUFACTURED TO THIS ALL RIGHTS RESERVED. UNLESS COMPICENT, DESIGN NO COPY OF THE DRAWING OR PART THEREOF MAY BE MADE WITHOUT PRIOR WRITTEN PERMISSION.					
WEIGHT	22.64K _g				
DRAWN BY	SR	15/4/15			
CHECKED BY	DC	15/4/15			
APPROVED BY	RMS	15/4/15			
DATE	15/4/15				
HOT STAB SCALE 1:25					
MIRAGE PORTABLE PERFORMANCE 10 ENTERPRISE WAY, LITTLE FARMWAY, STOKES ROAD, DREBY DE21 4BB TEL (01332) 291671 FAX (01332) 310356 DMC16 E MAIL info@mirage-machines.co.uk MDWS-HS-100 SHEET 1 OF 1 A3					

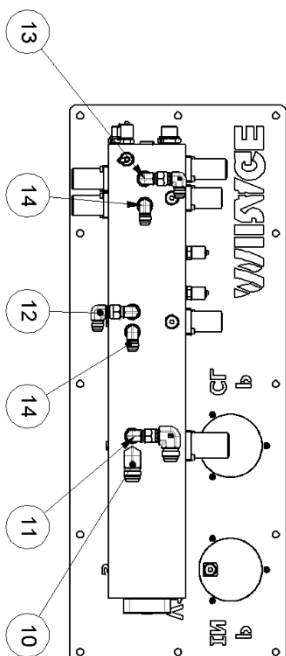
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DO NOT SCALE

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APPROVED FOR
MANUFACTURE



VIEW ON REAR OF CONTROL PANEL SHOWING PIPE ROUTING



ITEM NO.	REV.	PART NUMBER	DESCRIPTION	QTY.
1		DS GA-1594-PD	ROV CONTROL PANEL ASSEMBLY	1
2		SSSDWCP-1-001	ROV CONTROL PANEL MOUNTING PLATE	2
3		SSSDWCP-1-002	ROV CONTROL PANEL FRAME SPACER	4
4		SSSDWCP-1-003	ROV CONTROL PANEL FRAME SPACER	2
5		SSSDWCP-1-004	GRASP HANDLE PLATE	2
6		SSSDWCP-1-005	GRASP HANDLE	2
7		SSSDWCP-1-006	HOT STAB RECEPTACLE MOUNT PLATE	1
8		SSSDWCP-1-007	FEED GEARBOX SUPPORT PLATE	1
9		SSSDWCP-1-008	FEED GEARBOX MOUNT PLATE	1
10		SSSDWCP-2	3/4" MALE HOSE ASSEMBLY	1
11		SSSDWCP-3	3/4" FEMALE HOSE ASSEMBLY	1
12		SSSDWCP-4	1/2" FEMALE HOSE ASSEMBLY	1
13		SSSDWCP-4	1/2" FEMALE HOSE ASSEMBLY (ELBOWS FLIPPED)	1
14		SSSDWCP-5	1/2" MALE HOSE ASSEMBLY	2
15		M20 x 130	Hex Screw Grade AB - BS EN 24017	2
16		M20	WASHER (FORM A)	4
17		M20 x 90	Hex Screw Grade AB - BS EN 24017	2
18		M16 x 55	Hex Screw Grade AB - BS EN 24017	8
19		M16	WASHER (FORM A)	8
20		M10 x 30	Hex Screw Grade AB - BS EN 24017	16
21		M10 x 30	Hex Socket Button Head - BS EN ISO 7380	10

UNIT CAN BE FITTED TO EITHER
MDWS1638 OR MDWS620. WITH
SSSDWCP-1-007 / 008 GEARBOX
PLATES SWAPPED OUT FOR
PLATES AT REAR OF MACHINE.



THIRD ANGLE PROJECTION

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WEIGHT 62.81KG DMS 13/06/2018
DRAWN BY HI 14/06/2018
CHECKED BY KS 14/06/2018
APPROVED BY

TITLE ROV CONTROL PANEL ASSY

SCALE 1:1

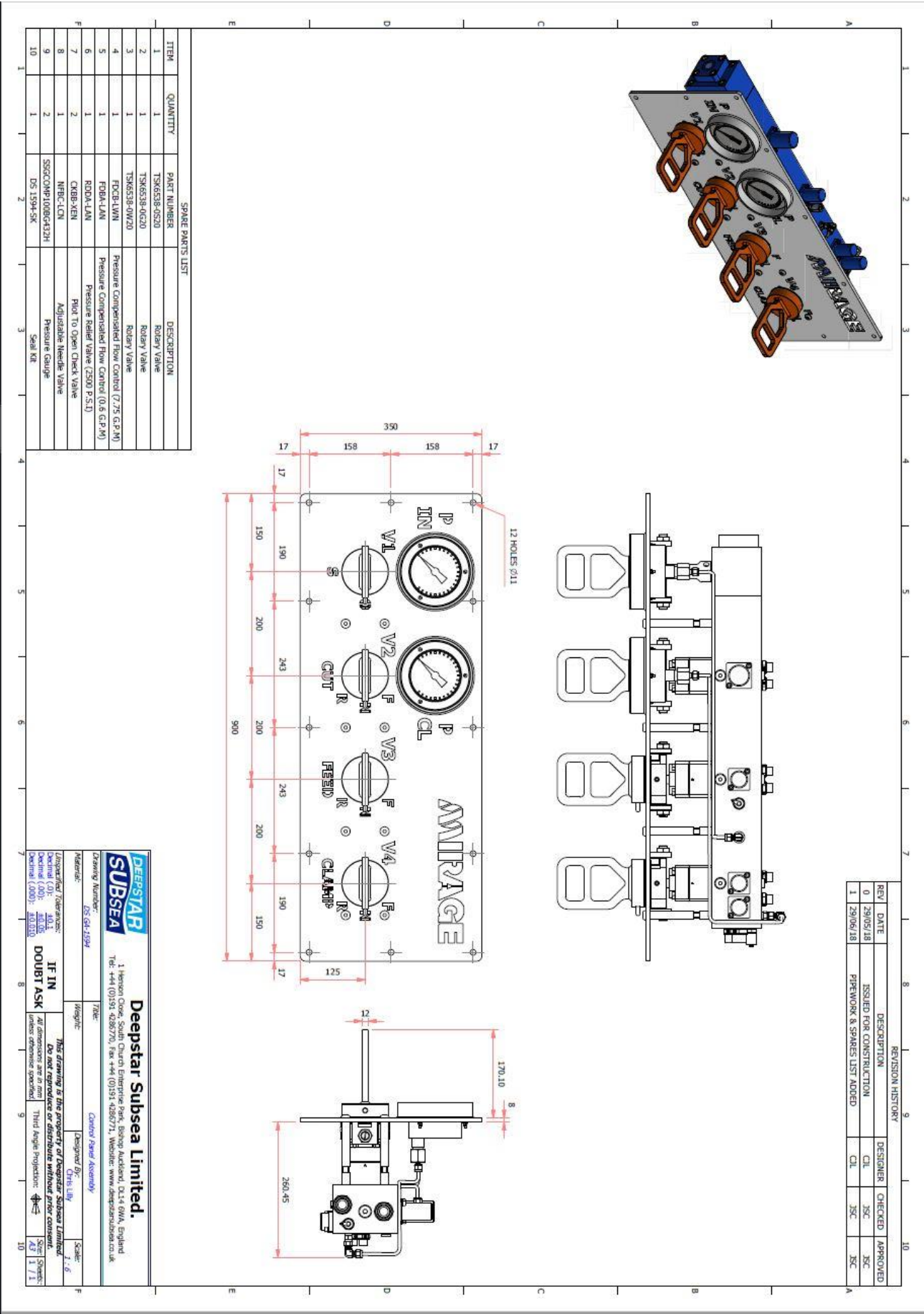
SHEET 1 OF 1

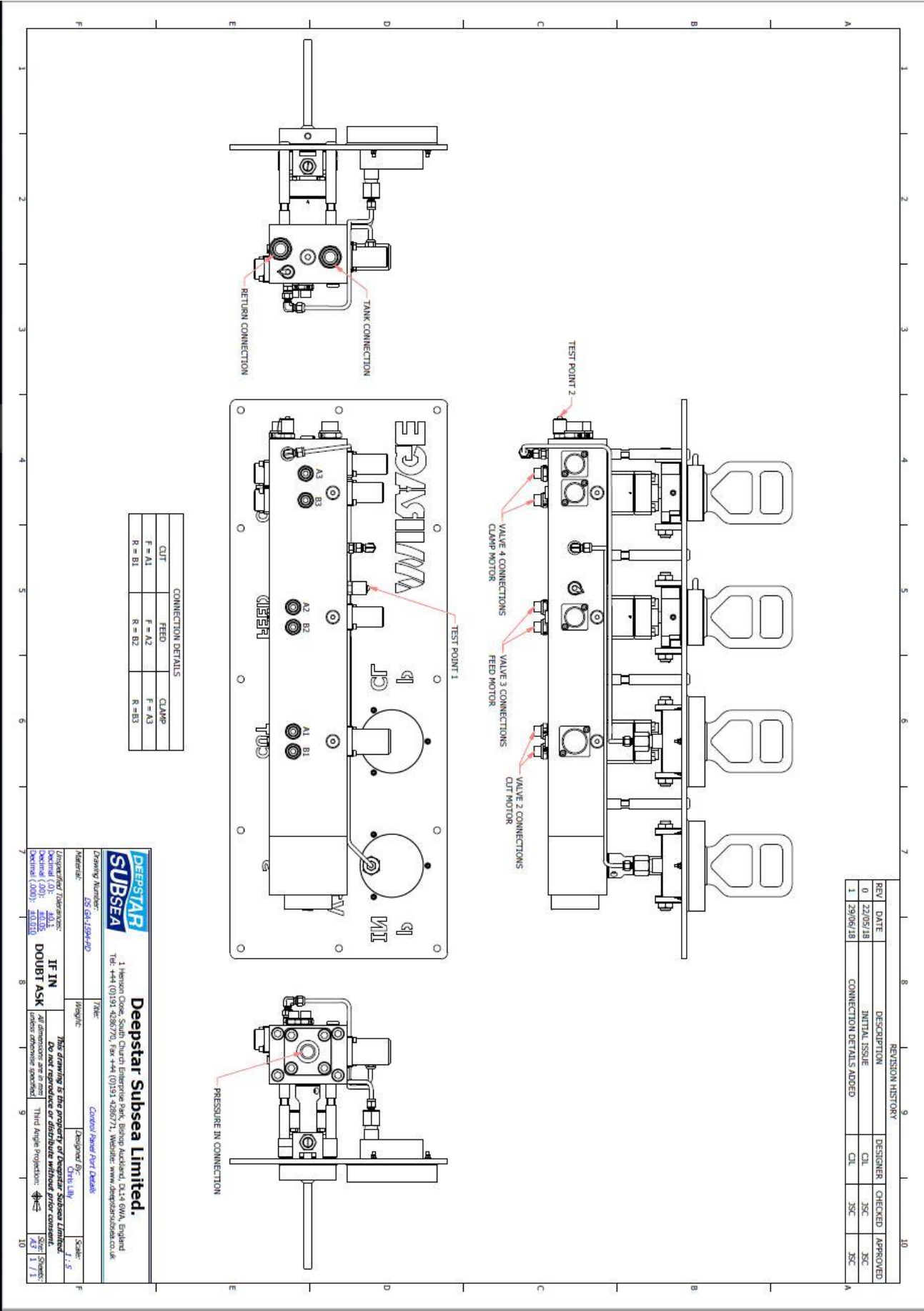
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10 ENTERPRISE WAY, LILLE PAVILLY,
STOES ROAD, DERBY DE21 4BB
TEL: (01332) 291767 FAX: (01332) 370356
E-MAIL: info@miragemachines.co.uk

DWG NO SSSDWCP-0

A3





11.3. General Notes

[illegible]