



# DUPRESS 62 Operation and maintenance manual

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#### **FOREWORD**

Each press is carefully checked through all stages of production and is thoroughly tested under full steam pressure before leaving the factory. The iron is hydraulically tested to twice working pressure and a test certificate is issued. The presses are ready for installation and should run for a considerable period without attention, apart from filling the main lubricator with oil.

The fundamental design of the DUPRESS is simple and with the aid of this booklet, all normal servicing should be found quite easy to carry out.

The function and adjustment of each unit is described on the following pages together with a parts list for each.

In the event of spare parts being required, when ordering, please state the machine number which will be found on the nameplate, the part number and name of the part and the quantity of each required.

Should difficulty be experienced at any time, we are always pleased to send a Service Engineer to give assistance. Overseas customers should contact the agent through whom the Press was purchased.

The Dupress machines supplied to the European market are fitted with safety guards around the sides and rear, to restrict access by third parties when the machine is in operation.

Care must be taken to avoid contact with the work Table when it is rotating to avoid crushing or trapping resulting in serious injury.

Care must be taken to avoid entrapment between the work table and the pressing Iron when the table is lifting.

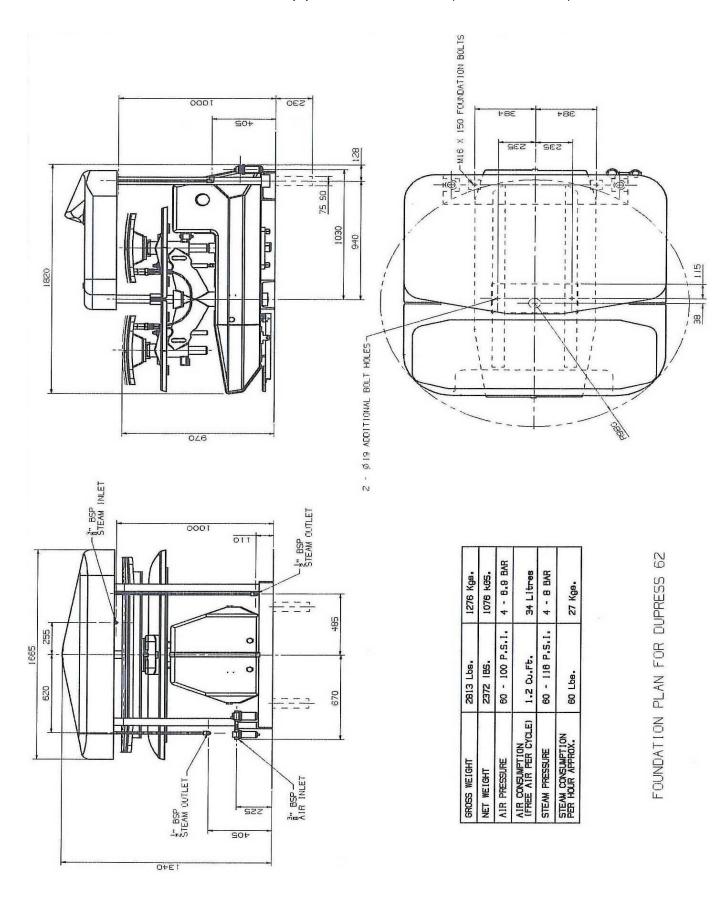
WARNING: Avoid contact with all hot surfaces and steam hoses to prevent scalding or serious burns.

#### **INSTALLATION**

The press has been tested with steam and compressed air before leaving the factory. When received it is ready for immediate use.

After placing in position, it is recommended that the press should be bolted to the floor.

Connect the steam, the two condense pipes and the air line. (see sizes below)



#### **OPERATION**

#### **READ IN CONJUCTION WITH AIR CIRCUIT - V3961**

The foot pedal is the only control necessary to operate the machine.

When the pedal is depressed, the tables will rotate and one will automatically come into the pressing position. To lower from the pressing position, but not to rotate the tables, press the pedal sharply and release. The table under the iron will then cone down but will not rotate.

If it is the desire to lower from the pressing position and to rotate immediately – press down the pedal and hold until the tables start to rotate. Then release the pedal.

To stop the press when work is finished, it is only necessary to press the pedal sharply and release at once.

Main air to the machine is turned on and both tables are in their normal rest position.

#### 1) Operate Foot Pedal Valve No.3 (Optional Timer not fitted)

- (a) Air will now pass through the Turn Round Safety Valve No. 4 on to the Turn Round Valve No.5.
- (b) Valve No.5 will now allow regulated air from Regulator No.14 to pass via Air Flow Regulator No.11, to the Turn Round Cylinder.
- (c) Both Tables will now begin to rotate.
- (d) Air from the full bore side of the Turn Round Cylinder will be exhausting through the Quick Exhaust Valve No.12 and Silencer (Part No Z. 8966) to atmosphere.
- (e) An air signal from Valve No.3 will also pass on to the Squeeze Pilot Valve, confirming that this is non passing.

#### 2) Operation of Top Cam Valve No.6

- (a) This valve is operated automatically when the tables have rotated approximately 90 degrees of their full 180 degrees travel.
- (b) Air will now pass through Valve No.6 on to the Turn Round Valve No.5, setting this over such that main air will pass up to, but not passing, Cam Valve No.13.
- (c) This Valve is automatically operated when the Tables have rotated approximately 170 degrees of their full 180 degrees travel.
- (d) Air now passing Cam Valve No.13 will go on to drive the Turn Round Cylinder to its fully 'Home' position, ie., when one table is correctly aligned under the Iron.
- (e) An air signal from valve No.6 will also pass on to the squeeze pilot valve No.8, setting this to passing.

#### 3) Operation of Bottom Cam Valve No.7

- (a) This Valve is operated automatically when the tables have rotated approximately 175 degrees of their full 180 degrees travel.
- (b) Air now passing Bottom Cam Valve No.7 will go onto Squeeze Pilot Valve No.8 which will allow air to open the Squeeze Valve No.9, passing main air to the Squeeze Cylinder causing it to rise, together with the table under the Iron. The Dupress is now 'pressing'.

#### **OPERATION**

#### 4) Second Operation of the Foot Pedal Valve No.3

- a) Air will now pass to the Squeeze Pilot Valve No.8 and thereby exhausting the Pilot Line that has been holding the Main Squeeze Valve No.9 open to main air.
- b) An air signal will also pass up to the Turn Round Safety valve No.4, but will not pass whilst either Table is in the 'pressing' condition.
- c) With the Table now having descended, the machine cycle is complete and may be repeated by operation of the Foot pedal.

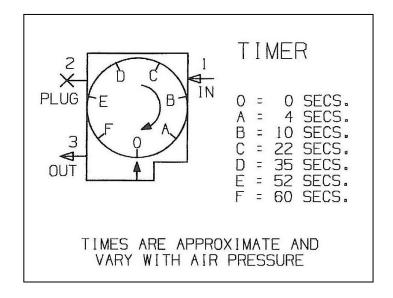
#### **OPTIONAL SQUEEZE TIMER**

When an optional Timer is fitted to the Control Circuit of the Dupress, it effectively eliminates the second operation of the Foot Pedal on each machine cycle. (A machine cycle being defined as: 180 degrees rotation of machine tables, one table going up to the press condition and being released again.)

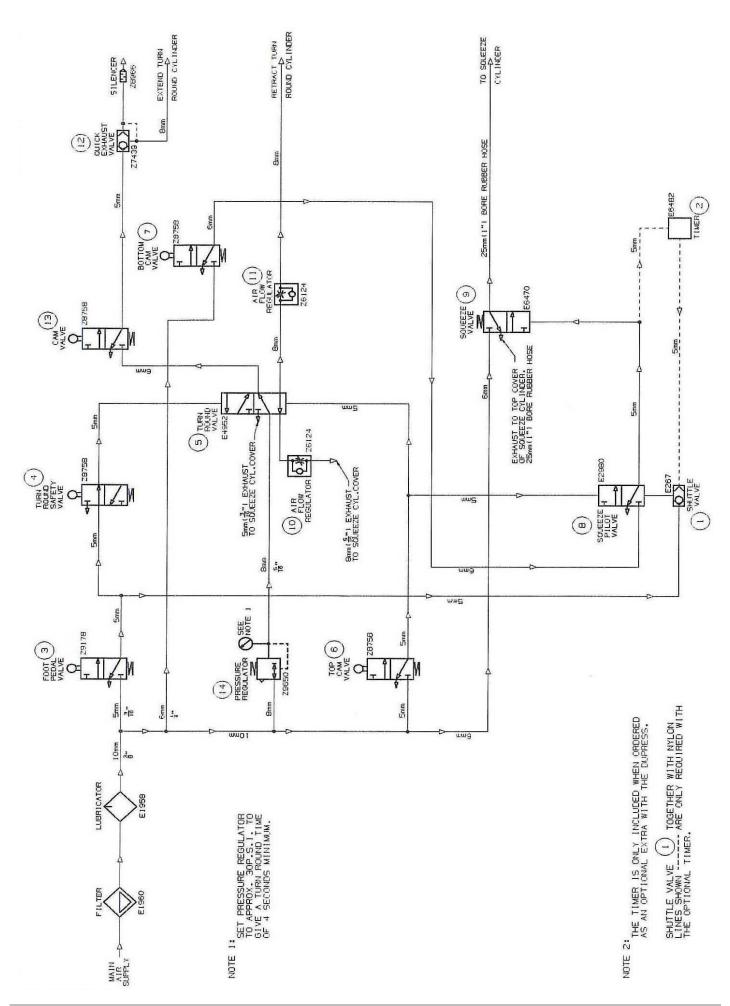
With reference to Air Circuit Drawing No.V.3961, the Pilot Signal from Valve 8 to Valve 9, also initiates the Timer No.2. After a period of time has elapsed (adjustable 0 to 30 seconds), an output signal from the Timer passes, via Shuttle Valve No.1 to Valve No.8 and exhausts the Squeeze Pilot Valve, the Main Squeeze Valve, as well as the Timer itself.

The Timer controls the duration for which the Table is pressing against the underside of the Iron.

When an optional timer is fitted to the control circuit of the Dupress, it effectively eliminates the second operation of the foot pedal on each machine cycle. This timer controls the duration for which a table is pressing against the underside of the iron and is adjustable from 0 to 60 seconds. To adjust the pressing time turn the adjusting head clockwise.



# PNEUMATIC CIRCUIT - V3961



#### PNEUMATIC CIRCUIT - OPERATION

#### **READ IN CONJUCTION WITH AIR CIRCUIT - V3961**

#### No.1 Shuttle Valve

Allows air to pass to the Squeeze Pilot Valve from either the Timer or the Foot Pedal Valve, but not from Timer to Foot Pedal Valve or visa versa. (This Valve is only fitted when an optional Timer has been ordered)

#### No.2 Timer

Adjustable for the duration of the Squeeze 0 to 30 seconds (only fitted when ordered)

#### No.3 Foot Pedal Valve

Located at front of frame. This initiates the Turn Round and releases the Squeeze, on alternate operations. (When a timer is fitted, the Foot Pedal Valve does not require to be operated in order to release the Squeeze)

#### No.4 Turn Round Safety Valve

Located on top of the Main Squeeze Cylinder. Prevents table rotation when press is on Squeeze.

#### No.5 Turn Round Valve

Located on frame on left hand side. Reverses the air from one end of the Turn Round Cylinder to the other, in order that the Tables may rotate.

#### No.6 Top Cam Valve

Located on centre shaft cam on right hand side (top valve) Opens the Squeeze Pilot Valve, and sets the Turn Round Valve over.

#### No.7 Bottom Cam Valve

Located on centre shaft cam on right hand side (bottom valve) Delivers air to the Squeeze Pilot Valve

#### No.8 Squeeze Pilot Valve

Located on frame on left hand side. This operates the main Squeeze Valve.

#### No.9 Squeeze Valve

Located at back of frame right hand side. Operates the Squeeze Piston, to raise and lower the machine Tables.

#### No.10 Air Flow Regulator and No.11 Air Flow Regulator

Attached to turn around valve. To adjust speed on second half of turn round.

#### No.12 Quick Exhaust Valve

Located at front of frame on left hand side. To ensure rapid start to the rotation of Tables when the Foot Pedal is pressed.

#### No.13 Cam Valve

Located on centre shaft cam on left hand side. Passes air to extend the Turn Round Cylinder.

#### No.14 Pressure Regulator

To adjust speed of Turn Round time MUST be set to give 4 seconds minimum (Normal setting – 30 p.s.i.).

#### **FAULT FINDING**

#### Turn round will not operate when pedal is pressed.

Check that compressed air is available in the air line to the Press. Move tables back and forth by hand to ensure movement is free. Leaving in pressing position while other checks are made. Remove bottom covers and check that pedal lever is fully depressing pedal valve, loosen nut on outlet pipe, depress pedal, air should then escape, if it does not then the fault is in the pedal valve.

If the pedal Valve is not at fault then check the turn round safety valve. Ensure that the Guide shaft is depressing the valve and check by loosening the outlet pipe nut and if it is correct air should escape when pedal is pressed. The turn round valve should also be checked in a similar manner.

#### Turn round will not stop – Tables keep rotating without pedal being depressed.

First grasp the tables and stop them by holding at the half way round position.

The fault is almost certain to be in the pedal valve. To check, undo the outlet pipe and if air is escaping continuously the fault is due to this valve. Turn off the air, examine the pedal linkage to the valve to ensure that the adjustment is correct and that the valve is not depressed when the pedal is in the 'up' position. Check that the pedal is turning to the 'up' position.

If these points are all right the fault is in the pedal valve and is possibly due to the seat leaking.

#### Turn round starts before Table is down.

This is caused by the turn round safety valve either leaking or sticking in the open (down) position.

#### Turn round too fast or too slow both ways.

Adjust flow regulator valves no.10 and 11 and pressure regulator No 14. Valves no 11 and 14 controls the speed during the first half of turn and valve no 10 controls the second half.

#### Turn round bangs or stops without check.

This is due to excessive turn round speed or trouble with the shock absorber. If the speed of the turn round is less than three seconds, slow down by adjusting as above.

If the turn round speed is correct then the shock absorber is in need of adjustment.

Tighten the M20 hexagonal nut, below the compression spring of the shock absorber, approximately one third of a turn at a time, until the tables are brought to rest in a manner and without undue shock.

#### Tables rotate but will not press.

First check that the bottom cam valve no.7 is mounted correctly and securely. An air signal from this valve should go up to and pass through the squeeze pilot valve no.8, and then go on to the squeeze valve no.9. If a positive signal is felt at valve no.9, with main air being on this valve, and the table under the iron still will not press, then this valve is suspect and should be stripped down or replaced.

#### **FAULT FINDING**

#### Tables come down immediately.

If the table rises and then drops at once air must be leaking from the pedal valve or the pedal adjustment is causing the valve to stay partially open.

#### Table will not come down when pedal is pressed.

On operation of the foot pedal, a signal must reach valve no.8 and set this over to exhaust. This in turn will normally exhaust valve no.9 and bring the table down. With valve no.8 exhausted, and the table not descending, then the valve no.9 becomes suspect and should be carefully examined, paying particular attention to the coil spring inside this valve.

#### Table comes down slowly when pedal is pressed.

Provided that a positive signal reaches the squeeze valve no.9 when the foot pedal is operated, then the fault is almost certainly within valve no.9, and this should be closely examined.

#### Iron or Tables not heating.

Check that there is no stoppage in the steam supply to the press, and that all valves are turned fully on. If either the iron or the tables do not heat properly then the trouble may be a stoppage in one of the steam pipes on the press.

#### **QUICK EXHAUST VALVE**

This valve enables the air from the turn round cylinder to be exhausted quickly, without the need to use much larger and complicated control valves.

The only part in this valve that may need attention is the diaphragm. Should this part ever need replacing it is a simple matter to remove the top cover and insert a replacement.

Should the diaphragm become punctured, this will cause the turn round to start slowly.

This valve functions by the incoming air pushing the diaphragm downwards onto the exhaust port, and the air passes round the edge of the diaphragm into the cylinder. When the main air is cut off, the air pressure in the cylinder forces the diaphragm off its seat, thus allowing the air to pass out through the large exhaust port.

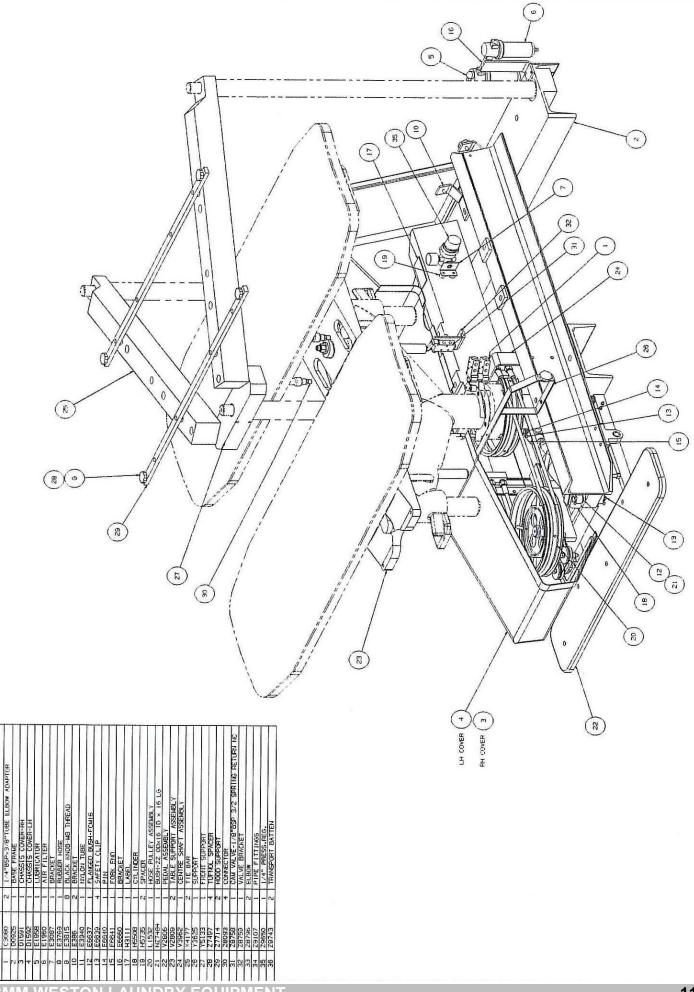
#### **LUBRICATION**

There are few points that require lubrication other than the main lubricator at the back of the press. This should be topped up weekly with shell tellus 37 or light equivalent oil.

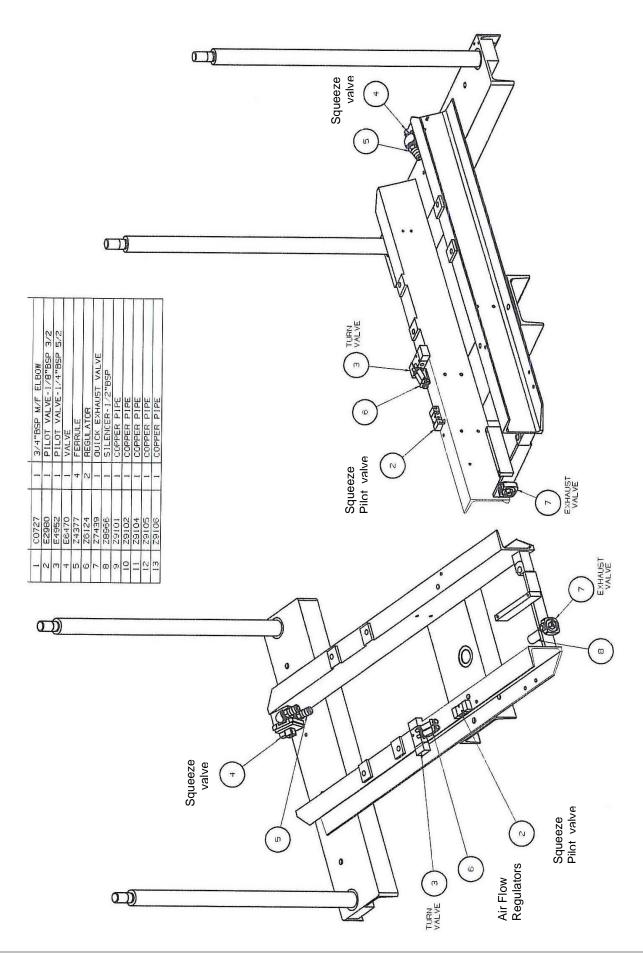
The front pedal bearing may occasionally be oiled through the oil hole in the top of each.

All other parts of the press are either covered by the main lubricator or have bearings which do not require any attention

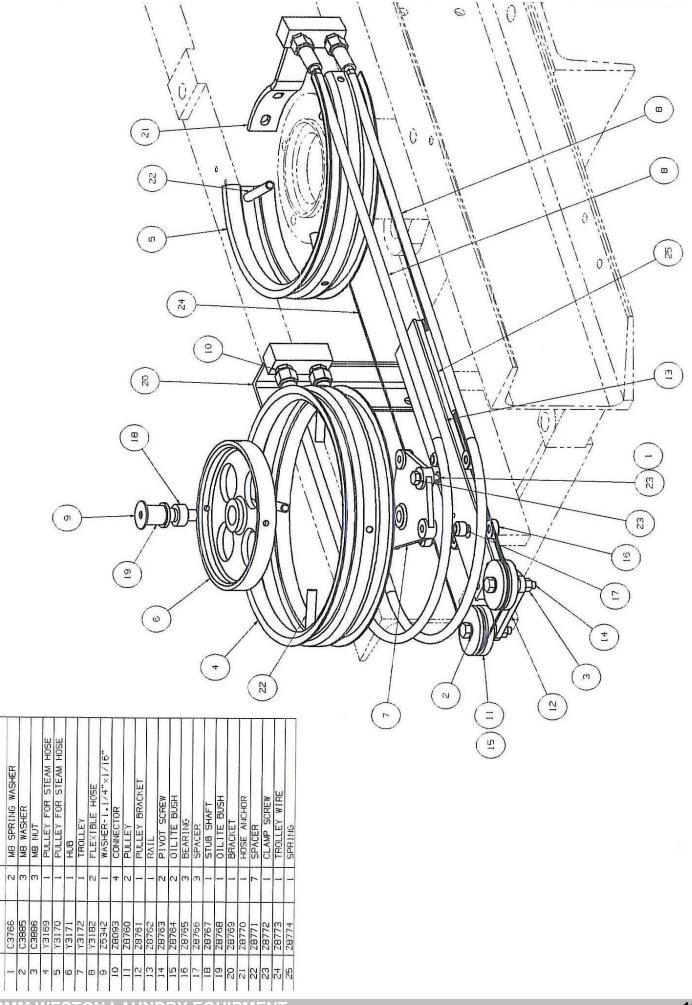
# **GENERAL ARRANGEMENT**



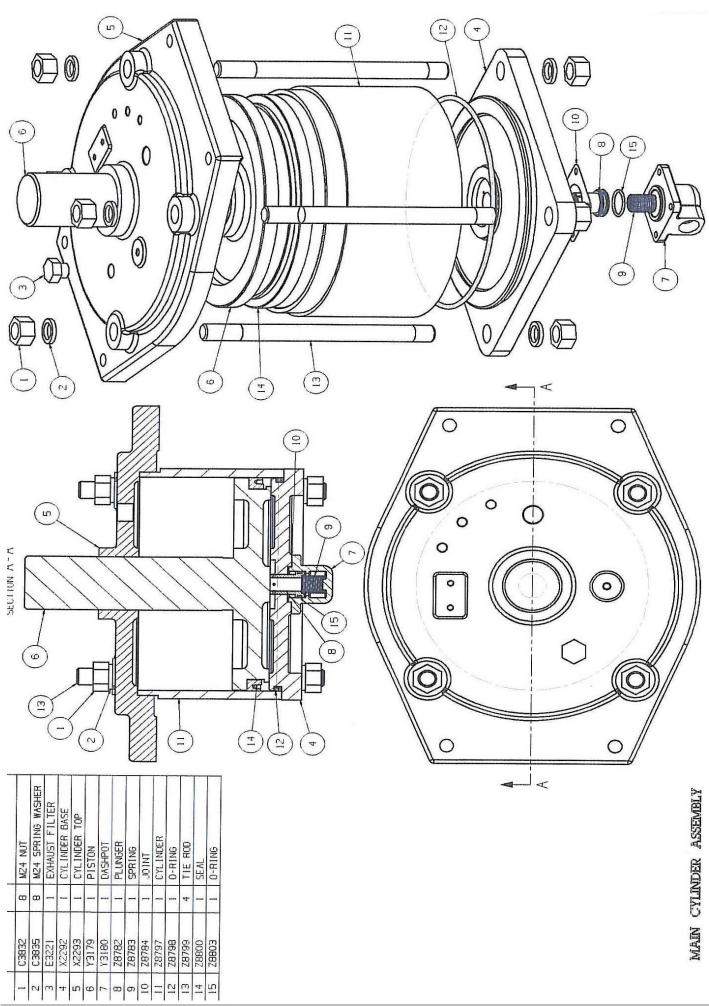
# **VALVES**



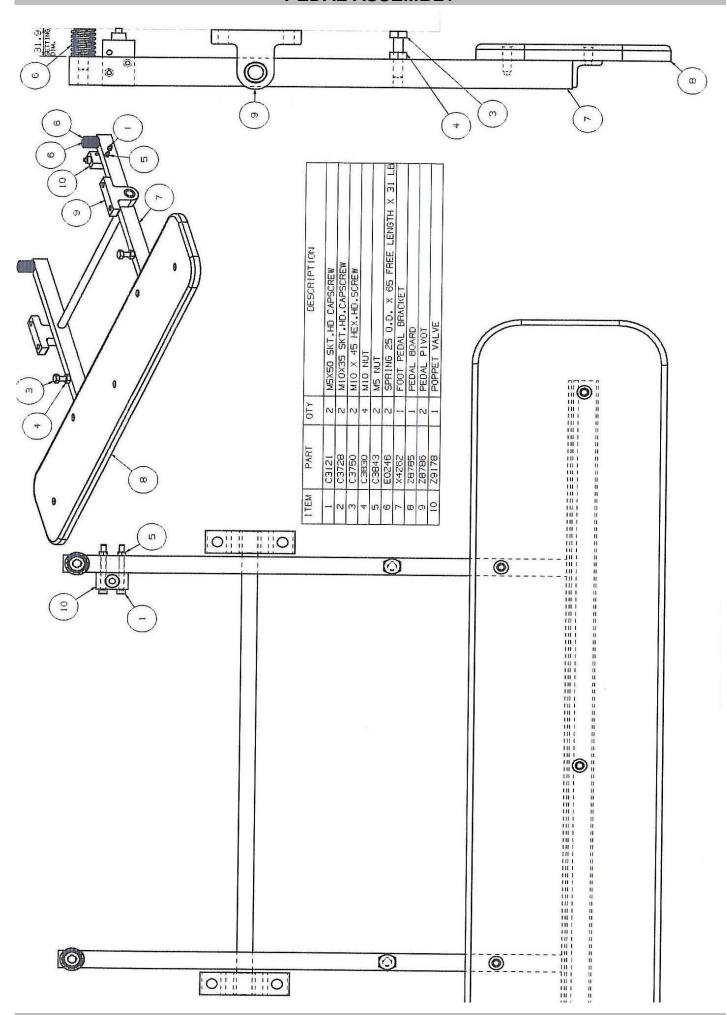
# **TURN AROUND ASSEMBLY**



# **MAIN CYLINDER ASSEMBLY**

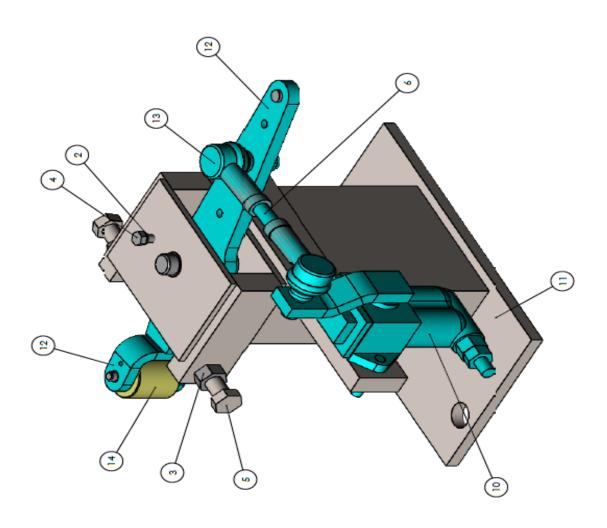


# **PEDAL ASSEMBLY**

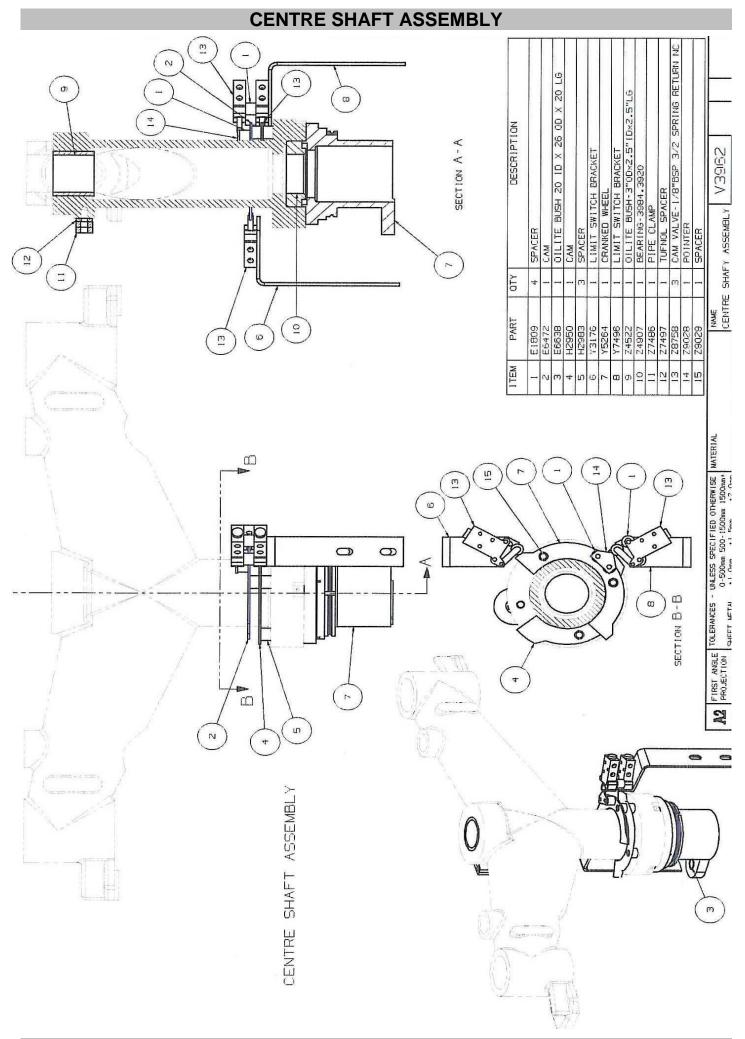


# TABLE SUPPORT ASSEMBLY TRAY - SEE MAIN ASSEMBLY - SWING ARM - SEE MAIN ASSEMBLY TABLE SUPPORT ASSEMBLY TABLE - SEE MAIN ASSEMBLY - PUSHER ROD - SEE MAIN ASSEMBLY n 9 ω 2 TRAY HOLDER OILTE BUSH-1.625"ODx1.25"IDx1.25"LG WASHER-SPRING RETAINER OILITE BUSH-3"ODx2.5"IDx2.5"LG WASHER RUBBER WASHER GUIDE PIN MIG NYLOC NUT 1 X4273 72140 74505 74506 74522 75386 75525 25525 Ŋ ω

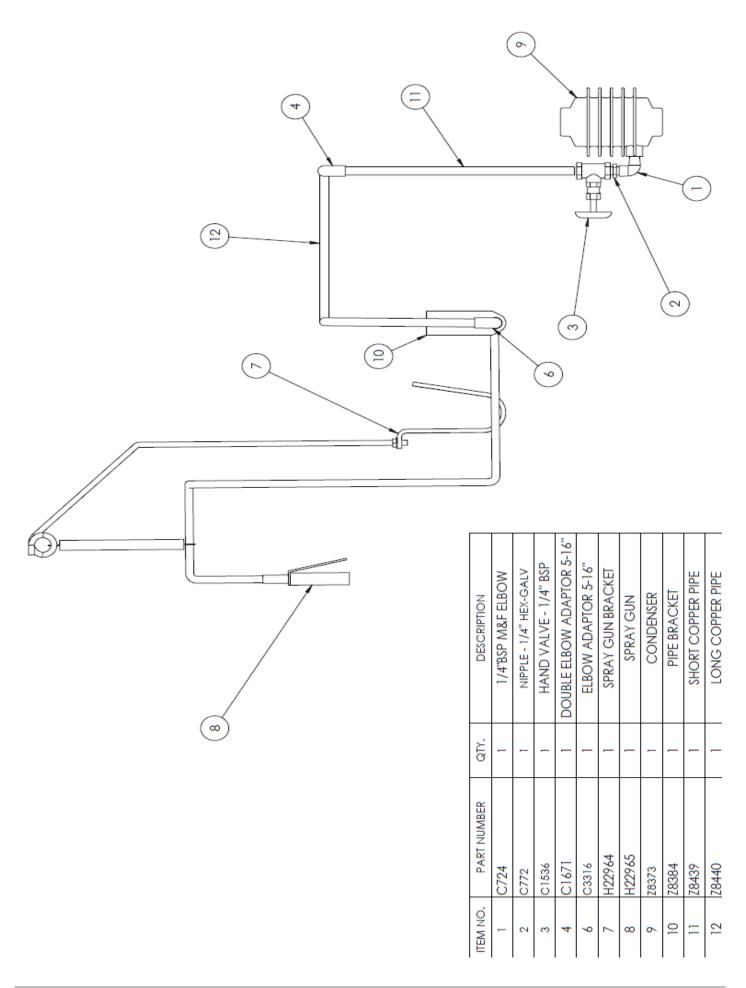
# SHOCK ABSORBER ASSEMBLY



1	ANI NOINDEK	ÖĬ.	DESCRIPTION
	C3765	1	M6 SPRING WASHER
2 (	C3766	-	M8 SPRING WASHER
3	C3776	2	M16 NUT
4	C3812	1	M8 x 20 HEX HD SCREW
5 (	C3820	2	M16 X 75 HEX SCREW
9	E2555	1	9/16" UNF ROD
1 L	H18487	1	ROLLER PIN
8 H	H18491	4	WASHER - SHOCK ABSORBER
4 6	NZ8848	1	PIVOT PIN
۷ 01	V2416	1	SHOCK ABSORBER
11	V11752	1	SHOCK ABSORBER BRACKET
12 Y	Y3181	1	DAMPER ARM
13 e	e2554	2	BALL JOINT
14 e	e4096	1	ROLLER



# **SPRAY GUN ATTACHMENT**



# PART NUMBERS

# **Standard Table**

Linen	Y 6609
Padding	Z 6550
Flannel	Z 6551
Mattress	V1176

# **Tapered Table**

Linen	Y 6609
Linen	Y 6610
Padding	Z 6146
Flannel	Z 6147
Mattress	V1219

#### **Nurses Table**

Linen (large)	Y 6611
Linen (small)	Y6612
Padding (large)	Z 8215
Flannel (large)	Z 8216
Padding (small)	Z 8217
Felt (small)	Z 8218
Mattress (large)	V1238
Mattress (small)	V1239

#### Coatmaster

Y 6613
Z 9394
Z 9395
V1546

#### **SERVICE**

It is hoped that the information in this manual will assist you in keeping your plant in good order and in the event of a fault occurring will help in remedying the trouble.

In the British Isles we have a number of trained service engineers stationed in all parts of the

country, each with a fully equipped service van.

These engineers are always ready to give any assistance to users of our machinery and equipment.

For those customers in the British Isles who prefer to have their machines regularly inspected and serviced by our specialist engineers a



scheme is in operation for this purpose and details of which are available upon request.

Our charges for maintenance are based on an hourly rate for working and travelling times during normal working hours, i.e. Monday to Friday 8.00am to 5.00pm.



BMM WESTON LTD, WESTON WORKS, FAVERSHAM, KENT, ENGLAND Head Office: Phone 01795 533441 Fax 01795 538891 Internet: <a href="www.bmmweston.com">www.bmmweston.com</a> Service Dept: Phone 01795 597127 Fax 01795 538891 e-mail: <a href="mailto:service@bmmweston.co.uk">service@bmmweston.co.uk</a>