



**Hodge Clemco Ltd**

## **The RMS - 100 'Recova'**

### **Owner's Manual**

Date of Issue: 01.09.00 . TS.OM 29B

Hodge Clemco Ltd  
Orgreave Drive  
Sheffield  
S13 9NR  
Tel: 0114 254 8811 Fax: 0114 254 0250  
email: [sales@hodgeclemco.co.uk](mailto:sales@hodgeclemco.co.uk)  
[www.hodgeclemco.co.uk](http://www.hodgeclemco.co.uk)

## Machinery Directive

(89/392/EEC amended by 91/368/EEC, 93/44/EEC and 93/68/EEC)

### EC DECLARATION OF CONFORMITY

We HODGE CLEMCO LTD declare that the supplied equipment, when installed and used in accordance with the owner's manual provided, conforms with the essential health and safety requirements of the above Directive(s)

Engineering Manager

Handwritten signature in black ink, appearing to read "DM Jate".

Managing director

Handwritten signature in black ink, consisting of stylized initials and a surname.

### Maintenance Inspection Contract

In response to numerous requests we are now able to offer a Maintenance Inspection Contract for your Clemco Equipment

These requests have been made by customers who appreciate the benefits of regular inspection; servicing on a planned basis. The remedial work which follows a breakdown or worse, the need for early equipment replacement due to accelerated wear may easily exceed the cost of a Maintenance Inspection Contract. If you would like further details please contact our Customer Service Department on 0114 254 8811

## **GENERAL MAINTENANCE, DISMANTLING AND ASSEMBLING INSTRUCTIONS OF THE RMS-100 RECOVA REMOTE CONTROL VALVE.**

**Note:** These instructions are to be used in conjunction with the Owner's Manual appropriate to the blast cleaning machine.

### **1. INTRODUCTION**

The RMS-100 Recova valve incorporates two valves in one body, the lower for compressed air inlet and the upper for controlling the exhaust outlet of the abrasive blast cleaning machine.

A constant source of compressed air is supplied to the inlet RM-23(R) on the deadman handle via a 1/4" i.d flexible air hose (hose -7DR) from the fitting RM-23(R) on the lower part of the RMS-100 body. The air supply is returned from the outlet RM-23(Y) on the deadman handle to the fitting RM-23(Y) on the upper part of the RMS-100 body by a second 1/4" i.d. air hose (Hose-7DY).

Activation of the two valves is achieved simultaneously on closing the deadman handle. Deactivation takes place immediately on release of the handle or by opening the safety petcock on the RMS-100 valve body.

It is a feature of this system that the air exhausted from the abrasive blast cleaning machine does not pass through the working parts of the valve, thus any wear caused by airborne particles of abrasive is restricted to the rubber diaphragm (RM-14).

The valve is designed for easy maintenance with the use of only a few tools.

### **2.0 MAINTENANCE SCHEDULE**

***WARNING: ENSURE THAT THE COMPRESSED AIR SUPPLY TO THE BLAST MACHINE IS TURNED OFF AND THE BLAST MACHINE AND ALL AIR LINES ARE PURGED OF PRESSURE BEFORE ANY MAINTENANCE WORK IS CARRIED OUT. FOR ADDITIONAL SAFETY DISCONNECT THE COMPRESSED AIR SUPPLY HOSE FROM THE BLAST MACHINE AND ENSURE THAT THE AIR SUPPLY CANNOT BE ACCIDENTLY TURNED ON AT SOURCE***

- 1 Open draincock observe if water is present (if water is present check condition of water separator). Close draincock.
- 2 Ensure that the rubber insert (RM-22) in the deadman handle is in position and in good condition. Renew as required.
- 3 Check that the Recova air hose (hose-7D) and the connectors (RM-23) are air tight on the deadman handle and RMS-100 valve.

## Monthly Check

- 1 Examine the condition of the exhaust manifold (RM-29) and associated pipework (RM-11, RM-32 and RM-33).
- 2 Ensure all air connections and joints on the valve body are air tight.

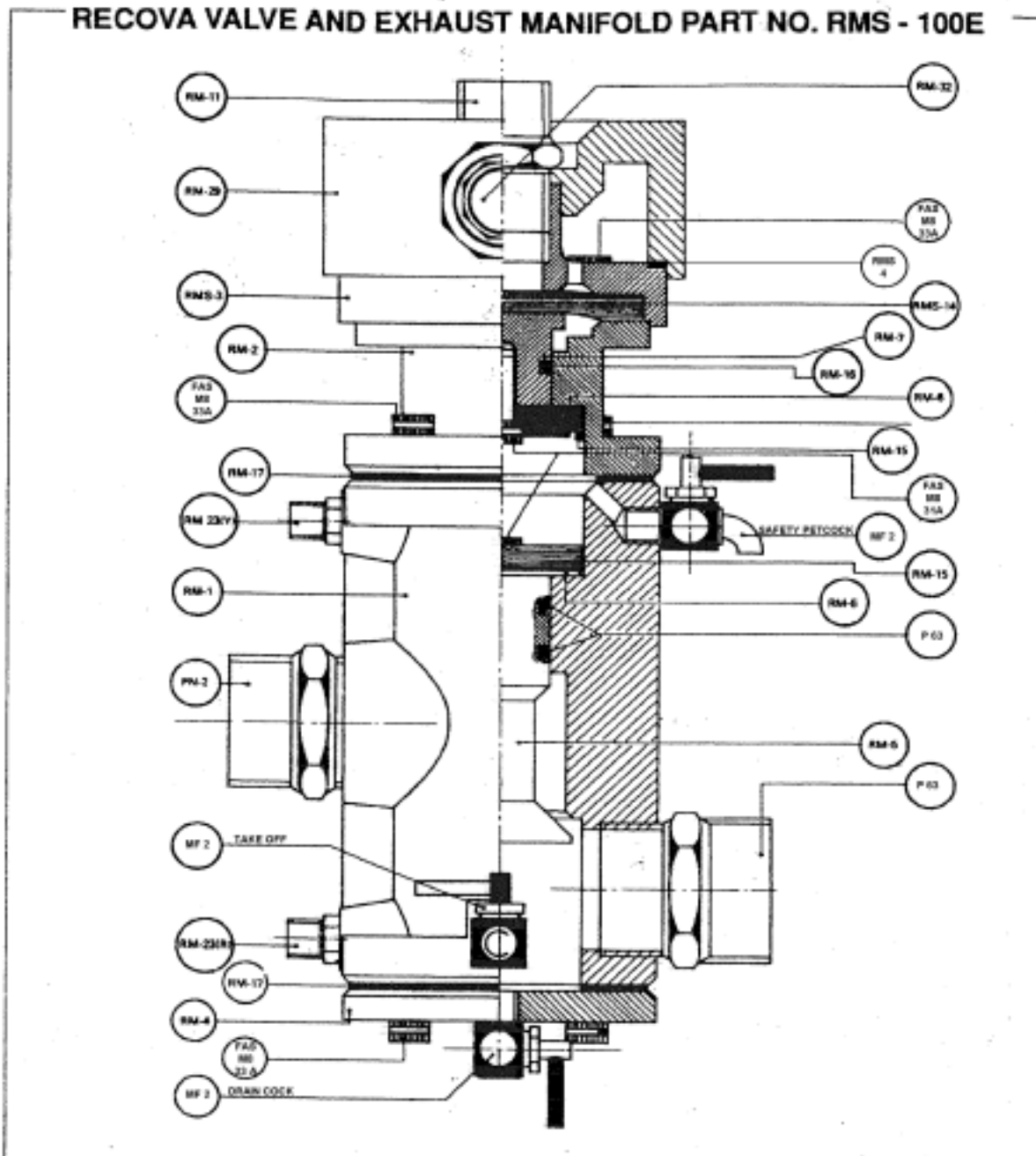
## 3.0 DISMANTLING AND ASSEMBLING INSTRUCTIONS

- a Disconnect the 'Recova' air hoses (hose-7D) from adaptors RM-23(Y) and RM-23(R).
- b Disconnect water separator and inlet nipple.
- c Remove RMS-100 valve and silencer from the abrasive blast cleaning machine by releasing the two unions which connect it to the fixed pipework of the machine.
- d Remove the top elbow (RM-33), nipple (RM-11) the exhaust manifold (RM-29) with silencer assembly can now be lifted from the top cover (RMS-3).
- e Using a 6mm allen key, remove the socket cap screws (FAS M8 33A) lift off the top cover (RMS -3) and inspect the vent holes for excessive wear. Renew top cover if necessary.
- f Remove and inspect condition of rubber diaphragm (RM-14). If the surface shows signs of wear, fit a new diaphragm.
- g Using a 6mm allen key remove screws (FAS M8 33A) securing exhaust cylinder (RM-2) This can now be lifted from the valve body (RM-1).
- h To remove exhaust piston (RM-7) from sleeve piston (RM-6), secure the piston by locating the peg spanner (RM-34) into the two dimples provided, and unscrew socket cap screw (FAS M8 31A). The surface of the cylinder and pistons can now be cleaned and examined for scoring.
- i To remove bottom cover (RM-4) unscrew socket cap screw (FAS M8 33A).
- j Insert a suitably sized rod through nipple (PN-2) into the hole in the inlet piston (RM-5) The internal sub-assembly can now be dismantled

by unscrewing the socket cap screw FAS M8 31A with a 6mm allen key.

- k Ensure that all parts are clean and dry before reassembling.
  - l From the RMS-100 recova valve repair kit (RM-28RK) fit new rubber sleeves RM-15 and 'O' rings (RM-16). Use of a light lubricant (e.g petroleum Jelly) will assist in fitting these parts.
  - m Unscrew the union (RM-32) from the exhaust manifold (RM-29) and the 3/4" M/F elbow (RM-33) Inspect for signs of wear and replace as necessary.
  - n Remove the wing nuts FAS M6 94B from the bottom cover (RMS-122) and withdraw the silencer core (RMS-120). Clean out the silencer core and replace as necessary..
  - o The valve can now be re-assembled by reversing the dismantling procedure.
- NB: Fit the new gasket (RM-17) supplied in the repair kit.**
- p Ensure that the breather holes in the valve body (RM1) and exhaust cylinder (RM-2) are not blocked for this will cause a malfunction of the valve.

**IMPORTANT : DO NOT OVER-TIGHTEN NIPPLES OR OVER LUBRICATE VALVE**

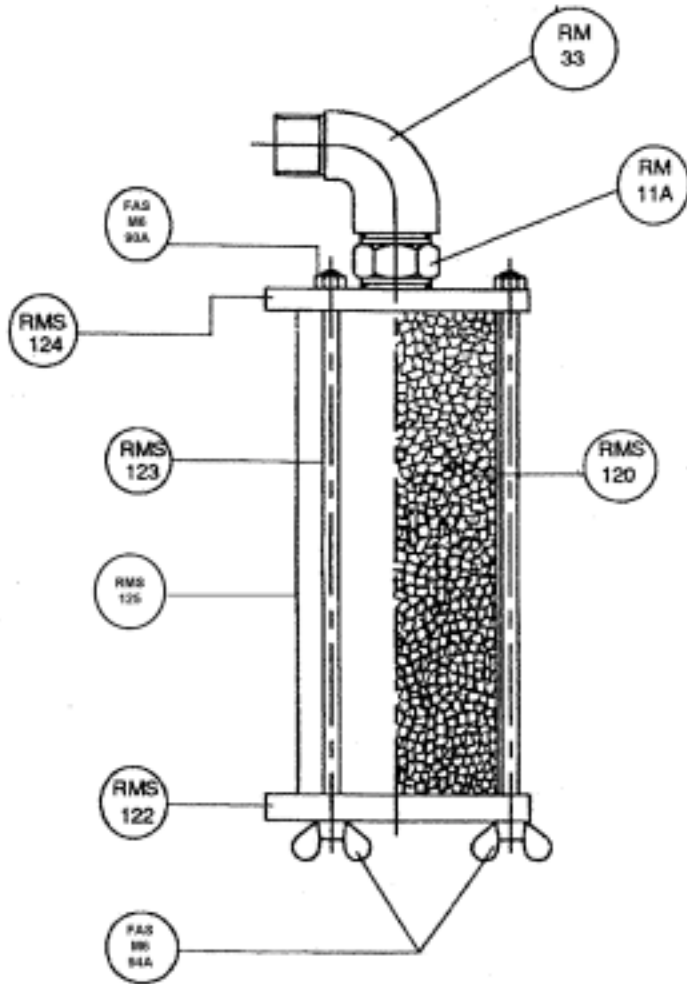


**RMS 100E REPLACEMENT PARTS**

<b>RM 1</b>	VALVE BODY	<b>RM 11</b>	3/4" NIPPLE	<b>RM 23(R)</b>	1/4 X1/4ADAPTOR
<b>RM 2</b>	EXHAUST CYLINDER	<b>P 63</b>	1.1/2" X 1.1/4" NIPPLE	<b>RM 23(Y)</b>	1/4 X1/4ADAPTOR
<b>RMS 3</b>	TOP COVER	<b>*RM 14</b>	RUBBER DIAPHRAGM	<b>RM 29</b>	MANIFOLD
<b>RMS 4</b>	'O' RING	<b>*RM 15</b>	RUBBER SLEEVE	<b>RM 32</b>	3/4" M/F FIXED UNION
<b>RM 4</b>	BOTTOM COVER	<b>*RM 16</b>	RUBBER 'O'RING	<b>PN 2</b>	1.1/4" NIPPLE
<b>RM 5</b>	INLET PISTON	<b>*RM 17</b>	GASKET	<b>RM 28RK</b>	REPAIR KIT
<b>RM 6</b>	SLEEVE PISTON	<b>FAS M8 33A</b>	SOCKET CAP SCREW	<b>*RM 34</b>	PEG SPANNER
<b>RM 7</b>	EXHAUST PISTON	<b>FAS M8 31A</b>	SOCKET CAP SCREW	<b>*AK 2</b>	ALLEN KEY
<b>MF2</b>	1/4" TAP				

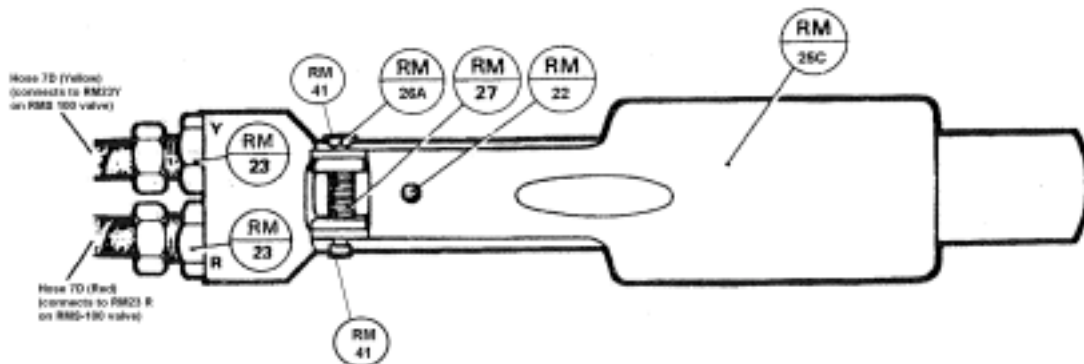
\* Parts included in RM 28 RK Repair Kit

### Silencer and Core Part No RMS 110



RMS 110	
SILENCER REPLACEMENTS PARTS	
RMS 120	CORE
FAS M6 90A	NUT
FAS M6 94A	WING NUT
RMS 122	BOTTOM COVER
RMS 123	STUD BOLT
RMS 124	TOP COVER
RMS 125	BODY
RM 11A	3/4" NIPPLE
RM 33	3/4" M/F ELBOW

### RMS 21A DEADMAN HANDLE



RM 21 A	DEADMAN HANDLE COMPLETE	RM 26A	HANDLE PIN
RM 22	RUBBER INSERT	RM 27	HANDLE SPRING
RM 23	1/4" X 1/4" ADAPTOR	RM 41	CIRCLIP
RM 25 C	HANDLE BLADE	HOSE 7DR	68' X 1/4" RECOVA RED AIR HOSE COUPLED
		HOSE 7DY	68' X 1/4" RECOVA YELLOW AIR HOSE COUPLED