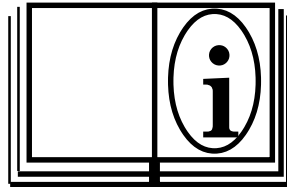




# Rising Stem Valve Operator

Model RS1



Mod. <b>RS1</b>	Ser.No. <input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
E.H. WACHS COMPANIES 100 Shepard St. Wheeling W. 60090 — Patent Pending —							

Part Number: 09-MAN-01

Revision No: 0



# RS 1 Rising Stem Valve Operator

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# RS 1 SAFETY INSTRUCTIONS

Since 1883, EH Wachs has built a reputation for quality and a commitment to consumer satisfaction. In accordance with this, Wachs must take on the added responsibility of doing our best to assure the safest use of our equipment.

We have assembled a list of safety reminders to aid in creating the safest possible working environment. We recommend that the precautionary steps listed there be closely observed.



## Read the Following thoroughly before proceeding

### 1. READ THE OPERATING MANUAL!!

Reading the setup and operating instructions prior to beginning the setup procedures can save valuable time and help prevent injury to operators or damage to machines.

### 2. INSPECT MACHINE & ACCESSORIES!

Prior to machine setup physically inspect the machine and it's accessories. Look for worn tool slides, loose bolts or nuts, lubricant leakage, excessive rust, etc. A properly maintained machine can greatly decrease the chances for injury.

### 3. ALWAYS READ PLACARDS & LABELS!

All placards, labels and stickers must be clearly legible and in good condition. Replacement labels can be purchased from the manufacturer.

### 4. KEEP CLEAR OF ROTATING PARTS!

Keep hands, arms and fingers clear of all rotating or moving parts. Always turn machine off before attempting any adjustments requiring contact with the machine or it's accessories.

### 5. SECURE LOOSE CLOTHING & JEWELRY!


Loose fitting clothing, jewelry; long, unbound hair can get caught in the rotating parts on machines. By keeping these things secure or removing them you can greatly reduce the chance for injury.

### 6. KEEP WORK AREA CLEAR!

Be sure to keep the work area free of clutter and nonessential materials. Only allow those personnel directly associated with the work being performed to have access to the area if possible.

ALWAYS WEAR PROTECTIVE EQUIPMENT:

	<b>WARNING</b> Impact resistant eye protection must be worn while operating or working near this tool.
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	<b>CAUTION</b> Personal hearing protection is required at all times when operating or working near this tool.
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# RS 1 Rising Stem Valve Operator

## RS 1 OPERATION INSTRUCTIONS

*The Wachs Hydraulic Drive Valve Actuator is ideal for all types of valves, rising or non-rising stem. This valve actuator is able to produce 100 foot pounds of torque and speeds up to 25 R.P.M.*

### CONNECTING VALVE ACTUATOR TO POWER SOURCE

1. Be sure the power source you use produces at least 7.5 G.P.M. @ 1500 P.S.I. to obtain rated output.
2. Pressure port on valve is stamped (Press) and return port on valve is stamped (Ret). In connecting valve actuator to power source. Be sure to connect pressure line of power source to valve port on actuator marked (Press).
3. If hose is purchased, quick disconnects will be supplied and male quick disconnect will be installed on return port (Ret) of valve and female will be installed on pressure port (Press) of valve. One extra set will be supplied for your power unit. Female quick disconnect should be installed on pressure port of power unit and male should be installed on return line of power unit. This will assure proper hook-up and will make hoses non-interchangeable. If power unit is purchased from Wachs, all quick disconnects will be installed and unit will be ready to operate. All that will be needed is to fill oil tank of power unit with hydraulic oil. (Mobil DTE 24 or equivalent)
4. Always make sure all connections are clean before connecting tool to power source.

### OPERATING INSTRUCTIONS

If you are going to use your valve actuator for rising stem valves, your adapter plate must be mounted to rising stem valve with u-bolts supplied with your adapter plate. Holes must be drilled into adapter plate to bolt plate to hand wheel spokes.

After mounting adapter plate, bolt fingers to valve actuator in slots provided for this purpose, located on bottom of actuator. Place valve actuator on adapter plate so that fingers rest in slots provided. Insert "fast-pins" in holes provided to lock actuator on adapter plate.

Move valve lever to start machine operating in proper direction.

Valve is spring loaded so that it will stop machine if your hand is removed.

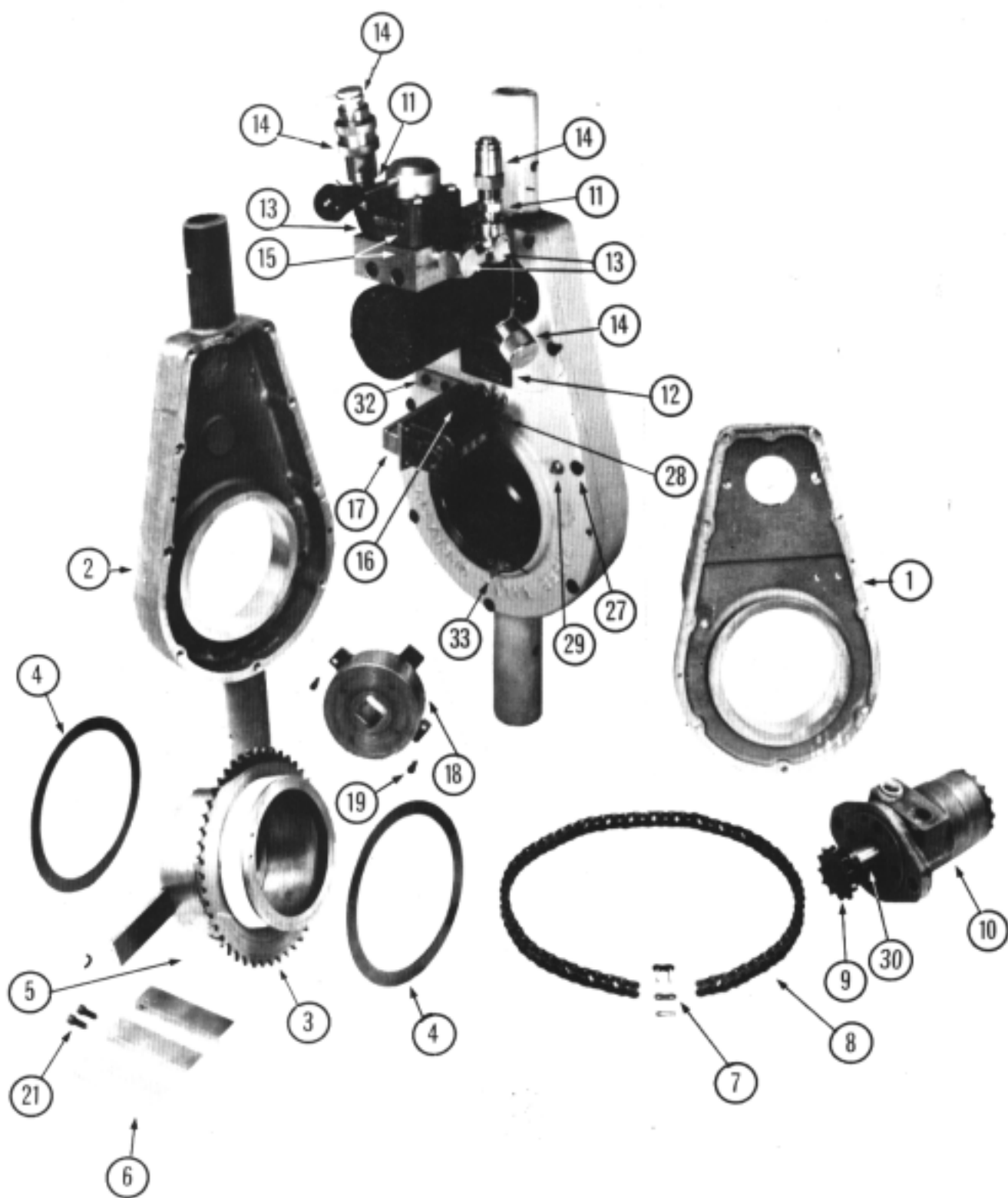
When operating valve actuator, stand so that torque of actuator is pulling you rather than pushing you.

If you intend to use valve actuator for non-rising stem valves, you must remove fingers and bolt in 1" drive adaptor to actuator.

If your valve actuator is equipped with quick reset counter, set it to zero before operating valve.



**DO NOT connect or disconnect hoses to valve actuator or power source while power source is operating.**



# RS 1 Rising Stem Valve Operator

**RSI VALVE STEM OPERATOR  
BILL OF MATERIAL  
P.N. 09-000-01**

REF. NO.	PART NO.	DESCRIPTION	QUANTITY
1 & 2	09-001-01	Housing, Drive Std.	1
3	09-003-01	Drive, Hub	1
4	09-004-00	Bearing, Thrust	2
5	07-005-02	Bushing, Gear RSI	2
7	02-170-00	Link, Connecting	1
8	02-169-02	Chain, Drive RSI	1
9	09-009-03	Sprocket, Hyd. Drive	1
10	09-010-00	Motor, Hyd.	1
11	90-098-58	112 Hex Nip	2
12	09-012-00	Plate, Name	1
13	90-078-58	St. El, Red 318 x 112-90	2
14	09-023-00	Male Cap	1
14	09-024-00	Female Cap	1
14	09-025-00	Female Disconnect	1
14	09-026-00	Male Disconnect	1
15	05-107-00	Valve, Hydraulic	1
27	90-060-08	SHCS, 5116-18 x 718	10
29	90-500-02	118" Grease Fitting	1
30	90-059-48	Key, 114x 1"WRDF#15	1
NS	05-150-00	"O" Ring	2
NS	09-034-00	Handle	2
NS	09-053-00	Case, Storage	1
NS	90-046-10	Pin, 3116x1" Dowel	2
NS	90-049-01	Screw, 3116 U Drive	4
NS	90-052-03	BHCS, 114-20 x 318	2
NS	90-061-20	HHCS, 5116-18 x 2	4
NS	90-064-02	SSS, 5116-18 x 114	1
NS	90-079-20	Pin, fast 3/8 x 2-118	2
NS	90-092-12	BHCS, 1/2-13 x 1-1/4	2

**RSI HI/TORQUE  
BILL OF MATERIAL  
P.N. 09-000-02**

REF. NO.	PART NO.	DESCRIPTION	QUANTITY
1&2	09-001-02	Housing, Drive HIT	1
3	09-003-02	Hub, Drive HIT	1
4	09-004-00	Bearing, Thrust	2
5	07-005-02	Bushing, Gear RSI	2
7	09-056-00	Link, Connecting HIT	1
7	09-057-00	Link, offset HIT	1
8	09-055-00	Chain, HIT Drive	1
9	09-009-01	Sprocket, HIT Drive	1
10	09-058-00	Motor, Hydraulic HIT	1
11	90-098-58	1/2 Hex Nip	2
12	09-012-00	Plate, Name	1
13	90-078-58	St. El, Red 3/8 x 1/2-90	2
14	09-023-00	Male Cap	1
14	09-024-00	Female Cap	1
14	09-025-00	Female Disconnect	1
14	09-026-00	Male Disconnect	1
15	05-107-00	Valve, Hydraulic	10
27	90-060-08	SHCS, 5/16-18 x 7/8	10
27	90-060-08	SHCS, 5/16-18 x 7/8	10
29	90-500-02	Grease Fitting, 1/8 NPT STR	1
30	90-059-48	Key, 1/4x1 WRDF#15	1
NS	05-150-00	O Ring	2
NS	09-034-00	Handle	2
NS	09-053-00	Case, Storage	1
NS	90-046-10	Pin, 3116x1 Dowel	2
NS	90-049-01	Screw, 3/16 U Drive	4
NS	90-052-03	BHCS, 1/4-20 x 3/8	2
NS	90-061-20	HHCS, 5/16-18 x 2	4
NS	90-064-02	SSS, 5/16-18 x 1/2	1
NS	90-079-20	Pin, Fast 3/8 x 2-1/8	2
NS	90-092-12	BHCS, 1/2-13 x 1-1/4	2



# RS 1 Rising Stem Valve Operator

## 09-000-03 RSI, AIR DRIVE BILL OF MATERIAL

Part Number	Quantity	Description
02-031-00	2	HOSE, TRAVEL MOTOR
02-163-00	1	BODY, FILTER
02-164-00	1	ELEMENT, FILTER
02-169-02	1	CHAIN, DRIVE RSI
02-170-00	1	LINK, CONNECTING
02-192-00	1	PLUG, END
03-089-00	1	CLAMP
05-061-01	1	HOSE, AIR 6'
09-021-00	1	VALVE, AIR MODIFIED
07-005-02	2	BUSHING, GEAR RSI
09-063-01	1	COVER
09-064-01	1	HOUSING
09-003-01	1	DRIVE-HUB
09-004-00	2	BEARING, THRUST
09-009-02	1	SPROCKET, AIR DRIVE
09-012-00	1	PLATE, NAME
09-019-00	1	MOTOR, AIR
09-020-00	1	BRACKET, MTR MNTING
09-034-00	2	HANDLE
62-111-00	1	CHEST, TOOL
23-181-00	1	MUFFLER
90-046-10	2	PIN, 3/16 x 1 DOWEL
90-052-03	2	BHCS, 1/4-20 x 3/8
90-055-53	2	WASHER, FLAT 1/4
90-058-05	2	ST. EL, 1/4-90 BRASS LP
90-058-51	2	ST. EL, 1/4-45W/SVLLP
90-058-57	2	BUSHING, 1/4 x 1/2 HP
90-058-59	2	BUSHING, RED 1/4 x 3/8
90-060-08	10	SHCS, 5/16-18 x 7/8
90-060-57	4	SHCS, 5/16-24 x 3/4
90-064-02	1	SSS, 5/16-18 x 1/4
90-065-51	2	LKWSHER, 5/16 SPLIT RG
90-079-20	2	PIN, FAST 3/8 x 2 1/8
90-092-12	2	BHCS, 1/2-13 x 1 1/4
90-098-05	1	ST EL. 1/2-90 LP
90-098-10	1	BUSHING, RED 1/2 x 3/4
90-218-10	1	BUSH, RED 3/4 x 1 1/4
90-500-02	1	GRSE FTG, 1/8 NPT STR
09-MAN-01	1	MANUAL, RS1

# RS 1 Rising Stem Valve Operator

## COUNTER ASSEMBLY BILL OF MATERIAL P.N. 09-401-00

REF. NO.	PART NO.	DESCRIPTION	QUANTITY
16	09-016-00	Counter, Revolution	1
17	09-059-00	Block, Spacer	1
17	09-060-00	Plate, Mounting	1
28	05-029-00	Wldmnt, Star Wheel	1
32	09-017-00	Bracket, Mounting	1
33	09-033-00	Trip, Star Wheel	1
NS	05-084-00	Washer, Felt	2
NS	90-009-02	RHMS, 6-32 x 5/16	6
NS	90-044-02	555, 10-24 x 1/4	1
NS	90-052-06	BHCS, 114-20 x 518	2
NS	90-053-10	FHCS, 1/4-20 x 1	2

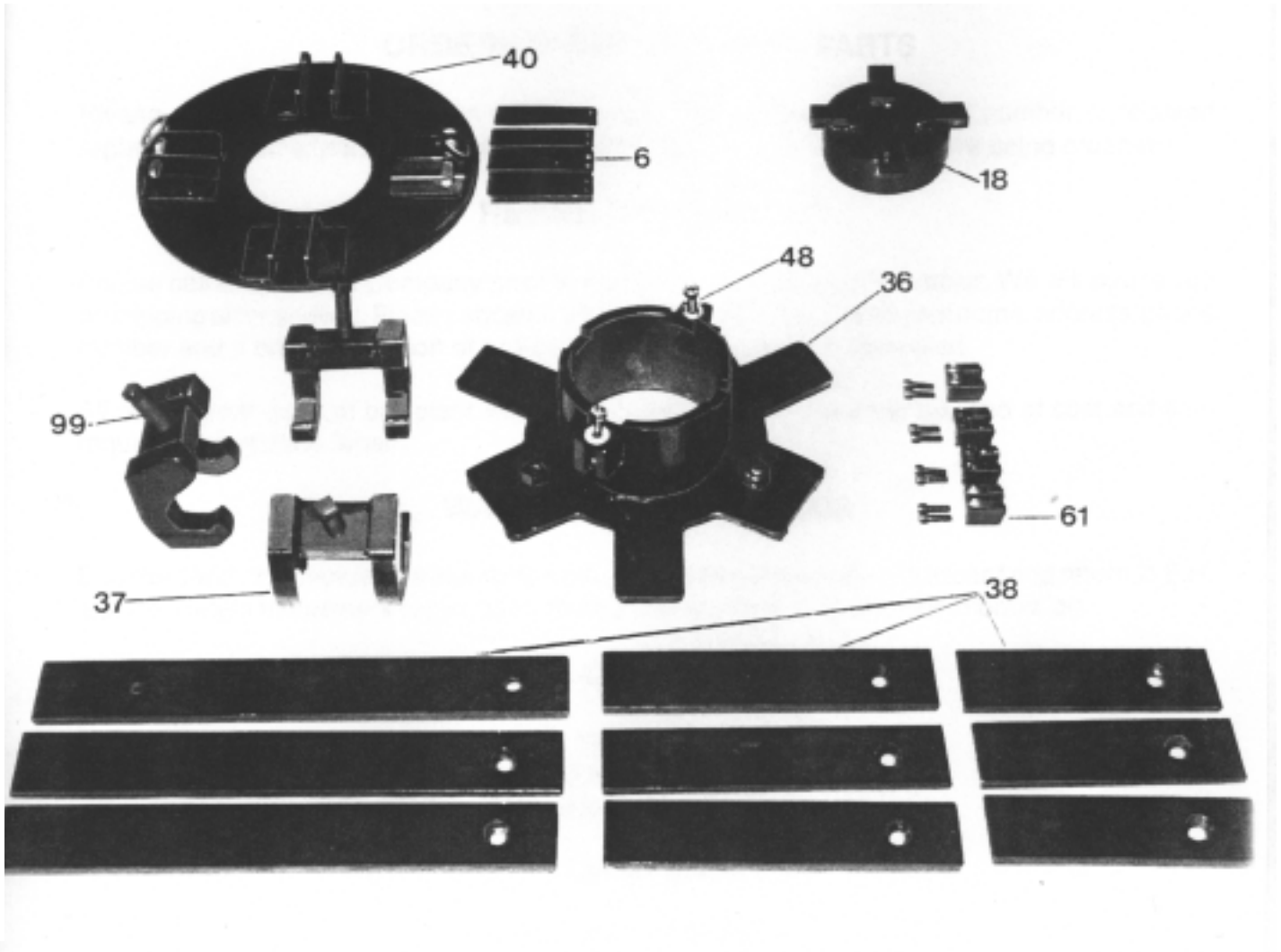
## TORQUE CONTROL RS1 BILL OF MATERIAL P.N. 09-407-00

REF. NO.	PART NO.	DESCRIPTION	QUANTITY
NS	05-115-00	Gauge, Torque	1
NS	05-116-00	Valve, Relief	1
NS	09-062-00	Manifold	1
NS	90-098-56	St. El, 1/2-90 Deg. HP	2

# **RS 1 Rising Stem Valve Operator**

## **RS1 Accessories**

"1 Inch Drive Adapter  
Handwheel Adapter Plate  
Universal Handwheel



# RS 1 Rising Stem Valve Operator

## UNIVERSAL HANDWHEEL ASSEMBLY BILL OF MATERIAL P.N. 09-405-00

REF. NO.	PART NO.	DESCRIPTION	QUANTITY
36	09-036-00	Hub, Universal Handwheel	1
37	09-037-00	Clamp, Straddle	3
38	09-038-01	Arm, Short Torque	3
38	09-038-02	Arm, Medium Torque	3
38	09-038-03	Arm, Long Torque	3
48	09-048-00	Eye Bolt	2
61	09-061-00	Finger, Handwheel Drive	4
99	90-099-01	Screw, 1/2-13 x 2 SQ HD	3
NS	90-050-10	SHCS, 1/4-20 x 1	8
NS	90-056-10	Pin, Dowel 1/4 x 1	2
NS	90-065-01	Nut, Hex 5/16-18	2
NS	90-065-52	Washer, 5/16 Flat	2
NS	90-073-12	FHCS, 3/8-16 x 1-1/4	3
NS	90-075-01	Nut, Hex 3/8-16	3

## 1" DRIVE ADAPTER ASSEMBLY BILL OF MATERIAL P.N. 09402-00

REF. NO.	PART NO.	DESCRIPTION	QUANTITY
18	09-018-00	1" Drive Adaptor	1
19 & 21	90-050-06	SHCS, 1/4-20 x 5/8	2

## HANDWHEEL ADAPTER PLATE BILL OF MATERIAL P.N. 09404-00

REF. NO.	PART NO.	DESCRIPTION	QUANTITY
6	09-006-00	Finger, Drive	4
40	09-040-00	Plate, Handwheel Drive	1
NS	90-050-06	SHCS, 1/4-20 x 5/8	8
NS	90-079-20	Pin, Fast 3/8 x 2-1/8	4
NS	90-900-11	Bolt, 1-3/8 x 2-3/16	4

## SECTION XII

### ORDERING

To place an order or to get more detailed information on any E.H. Wachs products, call us at:  
1-800-323-8185.

### ORDERING REPLACEMENT PARTS

Please use parts list provided in manual. Have part description and part number of required replacement part or parts to help expedite order and insure proper parts are being ordered.

### REPAIR INFORMATION

Please call E.H. Wachs Company prior to returning any equipment for repair. We will advise you of shipping and handling. Please enclose with equipment to be repaired your name, address, phone number and a brief description of problem or work to be done or estimated.

All repair work done at our plant will be estimated and the customer advised of cost and time required to complete repair.

### WARRANTY INFORMATION

Enclosed with the manual is a warranty card. Please fill out the registration card and return to E.H. Wachs. Retain the owners registration record and warranty card for your information.

### RETURN GOODS ADDRESS

E.H. Wachs Company  
100 Shepard Street  
Wheeling, Illinois 60090

#### Call or Write:

E.H. Wachs Company  
P.O. Box A  
100 Shepard Street  
Wheeling, Illinois 60090

847-537-8800

FAX: 847-520-1147 • 847-520-1168

Toll-Free: 1-800-323-8185

Mod. **RS1** Ser.No.

Enter Your Machines Serial Number Here For  
Proper Record Keeping and Ordering Reference.