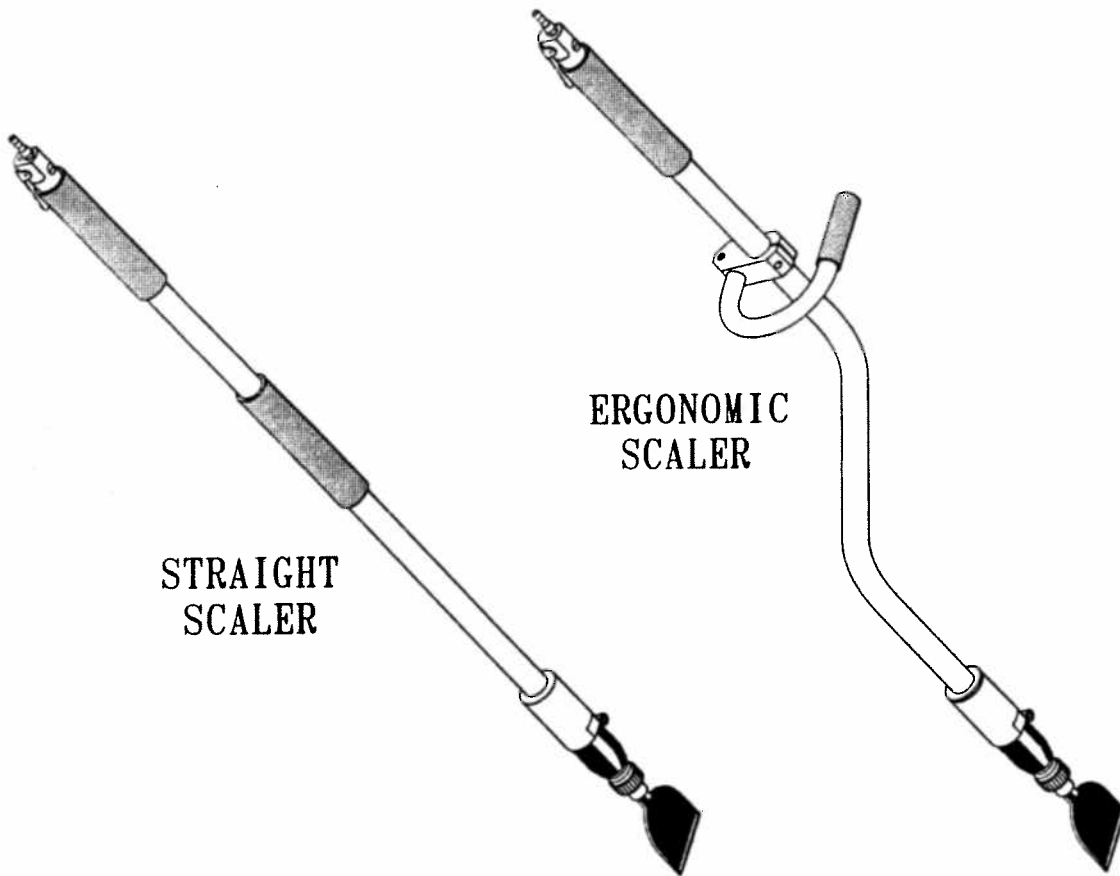


REVISED MARCH 1996  
STARTING SERIAL #20080



# MODEL ALR CHISEL SCALER

## INSTRUCTIONS AND PARTS LIST MANUAL



STRAIGHT  
SCALER

ERGONOMIC  
SCALER



**EQUIPMENT DEVELOPMENT COMPANY, INC.**

100 THOMAS JOHNSON DRIVE, FREDERICK, MARYLAND 21702-4305 USA

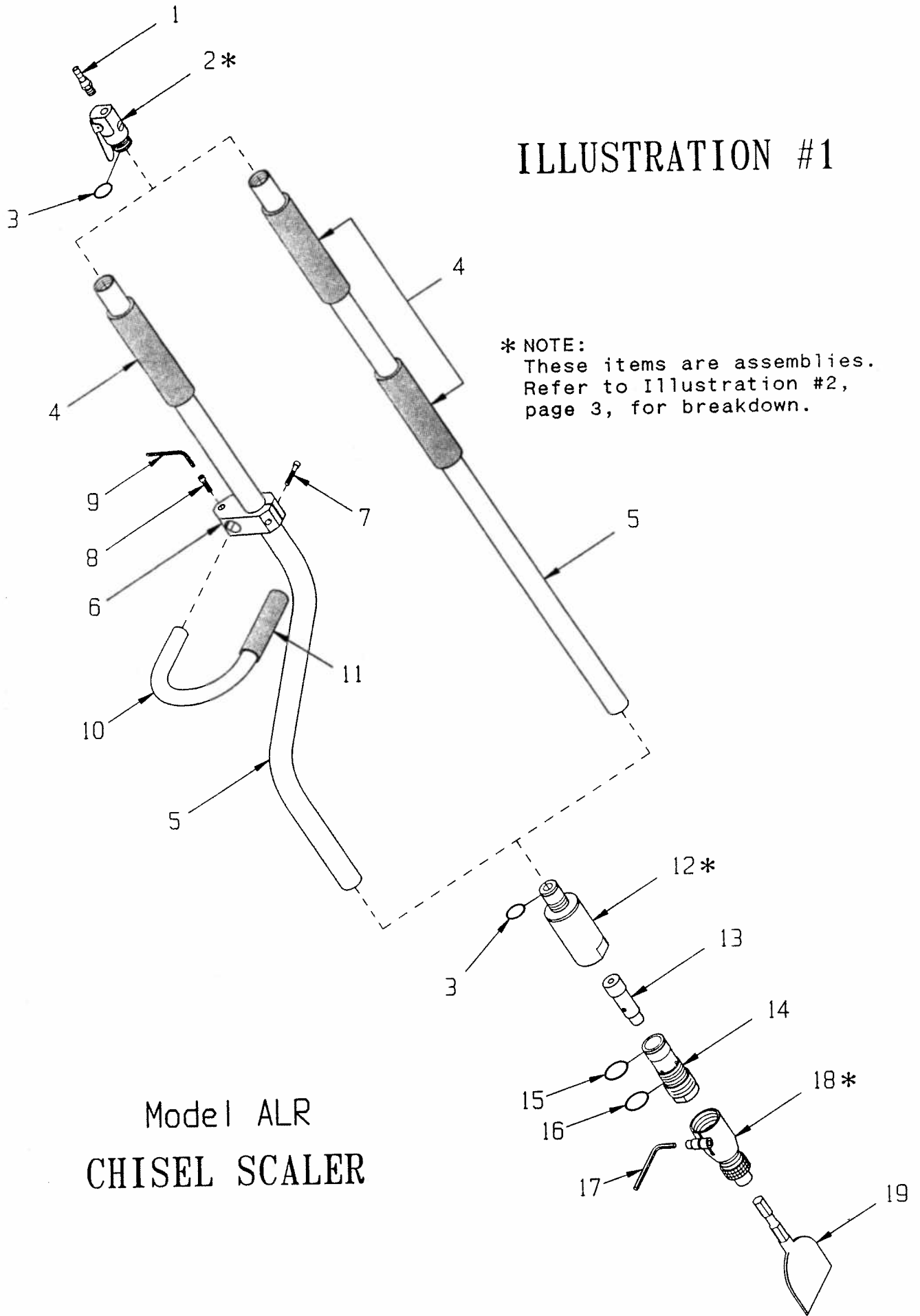
PHONE (301)663-1600

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# ILLUSTRATION #1



\* NOTE:  
These items are assemblies.  
Refer to Illustration #2,  
page 3, for breakdown.

Model ALR  
CHISEL SCALER

## PARTS LISTING - ILLUSTRATION #1

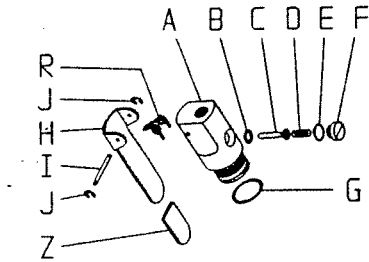
Item #	Part #	Description	Qty.
1	C10523	Barb, Swivel 3/8Hose x 1/4MPT	1
2	C10570	Valve Body Assembly (Refer to Illus. #2 for Breakdown)	1
*3	C10536	O-Ring 2 x 26mm	2
4		Grip, Foam	
	C10531	1-1/4"ID x 8"L (Models ALR-4 & ALR-5)	1 or 2
	C10539	1-1/4"ID x 12"L (Model ALR-2 Only)	1
5		Casing (Specify Size)	1
	C10587	Ergonomic Steel Model ALR-E5	
	C10587A	Ergonomic Alum. Model ALR-E5-A	
	C10532	Straight Steel 44-1/2" Model ALR-5	
	C10532A	Straight Alum. 44-1/2" Model ALR-5-A	
	C10589	Straight Steel 56-1/2" Model ALR-6	
	C10589A	Straight Alum. 56-1/2" Model ALR-6-A	
	C10533	Straight Steel 32-1/2" Model ALR-4	
	C10533A	Straight Alum. 32-1/2" Model ALR-4-A	
	C10534	Straight Steel 12" Model ALR-2	
	C10534A	Straight Alum. 12" Model ALR-2-A	
6	C10586	Clamp, Ergonomic Handle	1
7	10856	Screw, Skt. Hd. Cap 1/4-20 x 1-1/2	1
8	10869	Screw, Skt. Hd. Cap 1/4-20 x 1	1
9	66045	Wrench, Hex Key 3/16 in.	1
10	C10588	Handle, U-Shaped	1
11	61067	Grip, Foam 7/8"ID x 5"L	1
12		Cylinder Housing Assembly (Refer to Illus. #2 for Breakdown)	1
	C10535	Steel Housing	
	C10535A	Alum. Housing	
13	C10583	Piston Should be replaced	1
14	C10584	Cylinder together as a set.	1
*15	C10511	O-Ring 2 x 34mm	1
*16	C10512	O-Ring 2 x 37mm	1
17	C10537	Wrench, Hex Key 1/4 in.	1
18	C10514	Chisel Holder Assy., 5/8" Hex Shank (Refer to Illus. 2 for Breakdown)	1
19	C10302	LR-4 Chisel, 4" Steel - Standard (Other Accessories are Available)	1

## \* Note:

To order KIT OF ALL O-RINGS (8 Total) use part # C10550.  
This kit includes items #3, 15, & 16 from Illustration #1  
and items B, E, G, N, O, & P from Illustration #2.

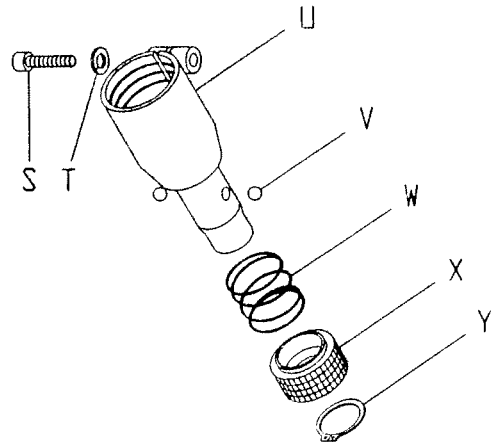
# ILLUSTRATION #2

## ITEM #2 C10570 VALVE BODY ASSEMBLY



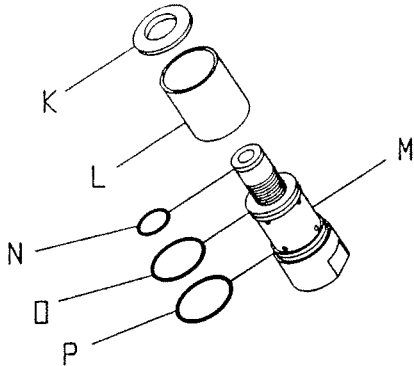
Item	Part #	Description	Qty.
A	C10571	Valve Body	1
B	C10540	O-Ring #109, 3/32 x 5/16" ID	1
C	C10572	Valve Stem	1
D	C10542	Spring, Valve Stem	1
E	C10543	O-Ring #013, 1/16 x 7/16" ID	1
F	C10544	Valve Stem Retainer	1
G	C10536	O-Ring 2 x 26mm	1
H	C10573	Lever, Air Valve	1
I	C10574	Pin, Valve Lever, 1/8 x 1-3/8	1
J	C10622	Retaining Ring, E-Clip 1/8"	2
R	C10585	Spring, Double Torsion	1
Z	C10569	Grip, Flat Red .125x.75x1.5"L	1

## ITEM #18 C10514 CHISEL HOLDER ASSEMBLY



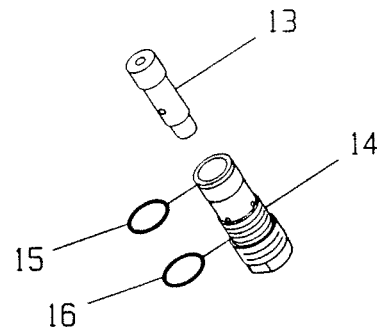
Item	Part #	Description	Qty.
S	C10577	Screw, Skt.Hd. 5/16-18 x 1-1/4	1
T	10801	Washer, Lock 5/16	1
U	C10578	Chuck Body	1
V	C10579	Ball, 5/16" Chrome	2
W	C10580	Spring, Comp. 1.5" OD x 1.25"L	1
X	C10581	Collar, Knurled Ball Locking	1
Y	C10582	Retaining Ring, Ext. 1-1/8"	1
17	C10537	Wrench, Hex Key 1/4" (Not Shown)	1

## ITEM #12 C10535 OR C10535A CYLINDER HOUSING ASSEMBLY



Item	Part #	Description	Qty.
K	C10545	Cylinder Housing Cap	1
L	C10546	Cylinder Housing Sleeve	1
M	C10547	Cylinder Housing Main Body	1
		Steel Main Body	
	C10547A	Alum. Main Body	
N	C10536	O-Ring 2 x 26mm	1
O	C10548	O-Ring 2 x 46mm	1
P	C10549	O-Ring 2 x 48mm	1

## ITEMS #13, 14, 15, & 16 PISTON & CYLINDER ASSEMBLY



Item	Part #	Description	Qty.
13	C10583	Piston	} Should be replaced together as a set. 1
14	C10584	Cylinder	
15	C10511	O-Ring 2 x 34mm	1
16	C10512	O-Ring 2 x 37mm	1


# EDCO AIR-RAM LONG REACH SCALER - MODEL ALR OPERATORS INSTRUCTIONS



**READ AND UNDERSTAND THE INSTRUCTIONS THOROUGHLY  
BEFORE ATTEMPTING TO OPERATE THIS EQUIPMENT.**

Death or serious injury could occur if the tool is used improperly.



1. When operating this equipment, the operator must wear approved job related safety attire. Eye and hearing protection must be worn at all times while equipment is in use. Sound levels exceed 92 dBA. Steel toe safety shoes should be worn. Head protection is required if work is performed overhead.  

2. Use the correct size air hose for the tool. Hose and fittings must be rated for safe handling at 100 PSI pressure. The working pressure of this tool is 80 PSI and should never be allowed to exceed 90 PSI. **The maximum pressure is 100 PSI.**
3. Limit the hose length to 30 feet (10 meters) maximum. Note: The pressure drop of 3/8" diameter hose is approximately 3 PSI per 90 linear feet.
4. A filter/water separator must be provided on the air source to provide an adequate supply of clean, dry air to this tool. A lubricator should also be used. If a lubricator is unavailable, lubricate the tool daily by putting 4 to 5 drops of lightweight machine oil in the hose connector opening prior to connecting the air supply. In cold weather, use graphite oil for lubrication.
5. Use only genuine EDCO chisels and accessories with this equipment. To install a chisel, pull back on the spring loaded locking collar and hold while you firmly seat the chisel in the holder. Release collar to retain the chisel.
6. To remove a chisel, simply pull back on the spring loaded collar and hold while you remove the chisel. Release the collar when complete.
7. The appropriate accessory must be used for the job at hand. **DO NOT** force the tool into the work. The hammering action of the tool will perform the work for you. **NEVER use the tool as a pry bar.** Damage to the equipment will result. If the tool does not seem to perform the work to your specifications, try another accessory or call our customer service department at 1-800-638-3326.
8. To activate tool, attach the air source, firmly grip the tool then squeeze the hand lever on the air valve.
9. **CAUTION** After releasing the air valve hand lever, the tool will continue to operate for up to 15 seconds. This is a normal result of stored pressure in the tool casing being released gradually. **Be sure to firmly grip the tool until ALL air leaves the chamber.**
10. Remove the air source from the tool when not in use.

# MAINTENANCE INSTRUCTIONS

1. Remove air source and chisel accessory from tool before performing any maintenance.
2. Clean tool daily and keep it clean and lubricated. If a lubricator is provided with the air source, it should be adequate. If you are unsure or no lubricator is provided, lubricate the tool daily before use by putting 4 to 5 drops of lightweight machine oil in the hose connector opening. If tool is operated in cold weather (near or below freezing), use a graphite oil instead of the lightweight machine oil as described above.
3. After every 100 hours of use, flush the tool thoroughly with an environmentally safe, non-flammable and non-caustic solvent to clean out any oil/gunk buildup in the tool. Oil tool immediately after flushing.
4. Replace any damaged parts immediately. Use only genuine EDCO parts.

## SPECIFICATIONS

	<b>LENGTH*</b>	<b>WEIGHT*</b>	
		Steel	Aluminum
ALR-2	28.5 in ( 72.4 cm)	8.6 lb (3.9 kg)	7.6 lb (3.4 kg)
ALR-4	49.0 in (124.5 cm)	11.3 lb (5.1 kg)	8.5 lb (3.9 kg)
ALR-5	61.0 in (154.9 cm)	12.9 lb (5.9 kg)	9.0 lb (4.1 kg)
ALR-6	73.0 in (185.4 cm)	14.5 lb (6.6 kg)	10.5 lb (4.8 kg)
ALR-ES	67.0 in (170.2 cm)	17.3 lb (7.8 kg)	12.3 lb (5.6 kg)

\* All weight and dimensions include the standard 4" (10.2 cm) chisel.

**Blows per Minute** ..... 2100-3000

**Stroke** ..... 1.535 inches (38.99 mm)

**Bore** ..... 1.188 inches (30.18 mm)

**Air Flow Rate** ..... 6-8 CFM

**Working Pressure** ..... 80-90 PSI (5.5-6.2 Bar), 100 PSI max

**Noise Level During Operation** ..... Exceeds 92 dB(A)  
Hearing protection must be worn

**Caution** ..... Approximately 15 seconds of pressure is stored in case after air valve is released

**Note** ..... Specifications are subject to change at any time.

## TO DISASSEMBLE THE EDCO AIR-RAM SCALER MODEL ALR:

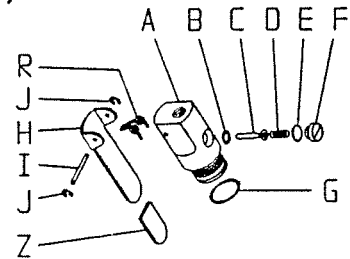
NOTE: Items (#2), (#12) and (#18) can be replaced as assemblies.

NOTE: All threaded parts are standard right-hand threads.

1. Place Cylinder Housing (#12) in a vice and clamp on the flat ends.
2. To remove Chisel Holder Chuck (#18) - loosen hex screw using the allen wrench supplied (#17) then unscrew the Chisel Holder from the cylinder (#14).
3. Unscrew Cylinder (#14) from Cylinder Housing (#12). Cylinder (#14) contains the Piston (#13). Piston is removed by gently tapping on the small end and lifting Piston up and out of Cylinder Housing.
4. Cylinder Housing (#12) is not an operating part and rarely needs to be removed. If an air leak is detected, the "o" rings (#3) and (N) should be replaced.
5. Casing (#5) if damaged, may be unscrewed from the Cylinder Housing (#12) and Valve Assembly (#2). There are no moving parts in the Casing.
6. To remove the Valve Assembly (#2) simply unthread from the upper end of the Casing (#5).
7. To replace Rubber Hand Grips (#4) - remove Air Valve Assembly and slide grips to a comfortable position on Casing.

### STEPS TO DISASSEMBLE THE AIR VALVE BODY ASSEMBLY (#2)

1. To remove Internal Valve Parts,  
E - "O" Ring  
D - Compression Spring  
C - Valve Stem  
B - "O" Ring



- first remove the Capping Screw (F). Note that the Valve Stem (C) should be replaced if it is worn & loose in Valve Body (A).
2. The "O" Ring for the Valve Stem (B) may become unseated due to excess pressure. Check this item if tool fails to stop running when valve handle is released.
  3. The Valve Lever (H) is held in place by the Pin (I) and two E-clips (J).  
  
The "O" Ring (G) must be in place on Valve Assembly (A) to prevent air leaks when assembly is threaded into Casing (#5).

NOTE: All "O" Rings should be inspected and replaced if air leakage or damage is detected.

NOTE: Be sure to lubricate all parts with a light machine oil when reassembling the tool.

# LIMITED EQUIPMENT WARRANTY

**Equipment Development Company, Inc.** herein referred to as EDCO warrants that each new unit manufactured by EDCO to be free from defects in material and workmanship in normal use and service for a period of (1) one year (except in the case of the cutter drum assembly on all model concrete asphalt planes, in which case the warranty period shall be 90 days) from date of shipment to the original retail or equipment rental center owner.

EDCO will, at its option, repair or replace, at the EDCO factory or at a point designated by EDCO any part, which shall appear to the satisfaction of EDCO inspection to have been defective in material or workmanship.

This warranty, does not apply to failure occurring as a result of abuse, misuse, negligent repairs, corrosion, erosion, normal wear and tear, alterations or modifications made to the product without express written consent of EDCO: or failure to follow the recommended operating practices and maintenance procedures as provided in the products operating and maintenance manuals.

This warranty does not obligate EDCO to bear any transportation charges in connection with the replacement or repair of defective parts. This warranty does not obligate EDCO to bear any expense for travel time or of personnel in correction with any service calls.

Accessories or equipment furnished and installed on the product by EDCO but manufactured by others, including but not limited to engines, motors, electrical equipment, transmissions, etc., shall carry the accessory manufacturers' own warranty.

**THIS WARRANTY IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESSED OR IMPLIED, OR STATUTORY, INCLUDING ANY WARRANTIES OF MERCHANTABILITY OR OF FITNESS FOR A PARTICULAR PURPOSE.**

## LIABILITY LIMITATIONS

The remedies of the user set forth under provisions of warranty outlines above are the exclusive and total liability of EDCO with the respect to their sale or the equipment and service furnished hereunder, in connection with the performance or breach thereof, or from the sale, delivery, installation, repair or technical direction covered by or furnished under the sale, whether based on contract, warranty, negligence, indemnity, strict liability, or otherwise shall not exceed the purchase price of the unit of equipment upon which such liability is based.

EDCO will not in any event be liable to the user, any successors in interest or any beneficiary or assignee relating to this sale for any consequential, incidental, indirect, special or punitive damages arising out of this sale or any breach thereof, or any defects on, or failure of, or malfunction of the equipment under this sale based upon loss of use, lost profits or revenue, interest, lost goodwill, work stoppage, impairment of other goods, loss by reason of shutdown or non-operation, increased expenses of operation of the equipment, cost of purchase or replacement power of claims of users or customers of the user for service interruption whether or not such loss or damage is based on contract, warranty, negligence, indemnity, strict liability, or otherwise.

EDCO reserves the right to modify, alter and improve any part or parts without incurring any obligation to replace any part or parts previously sold without such modified, altered or improved part or parts.

No person is authorized to give any other warranty or to assume any additional obligation on EDCO's behalf unless made in writing and signed by an officer of EDCO.

Equipment Development Company, Inc.

## HOW TO ORDER REPAIR PARTS

To insure product safety and reliability, always use genuine EDCO replacement parts when making repairs to the equipment.

When ordering parts, please specify the MODEL and SERIAL NUMBER of the machine as given on the NAME PLATE. In addition, give part number, description and quantity as listed on parts list.

Please note: Due to improvements and changes in the equipment, the illustrations shown may be different than the actual machine.

Printed in USA



**EQUIPMENT DEVELOPMENT COMPANY, INC.**

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