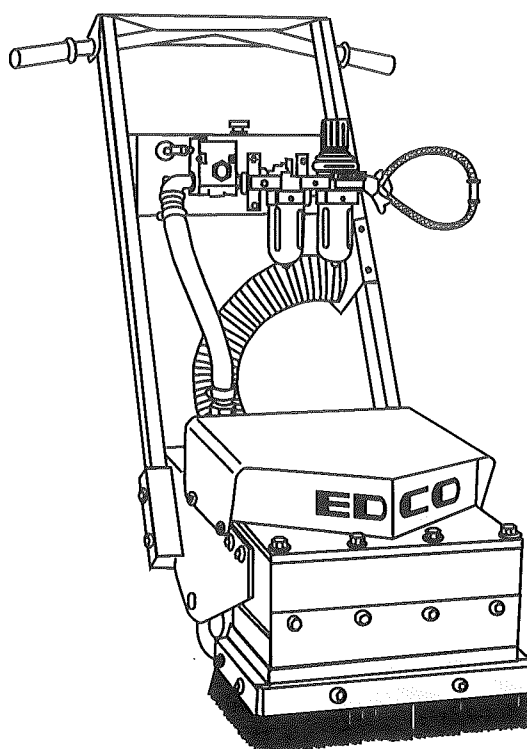


Instructions and Parts List Manual

Model CD-5



Air Powered Chip-Dek Scabbler



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

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



SAFETY MESSAGE



The safety instructions are preceded by a graphic alert message of DANGER, WARNING or CAUTION.



A safety instruction that advises that death or serious injury will result if instructions are not followed and caution exercised.



A safety instruction that advises that death or serious injury can result if instructions are not followed and caution exercised



A safety instruction that advises that injury could result if instructions are not followed.



WARNING



This equipment will create dust from the material being removed. That dust may contain a chemical known to the State of California to cause cancer and/or birth defects or other reproductive harm. As an example, paints and concrete contain chemicals known to the State of California to cause cancer and/or birth defects or other reproductive harm. Check the chemical properties of the material to be removed and take appropriate precautions.

It is the operator's responsibility to keep other people (workers, pedestrians, bystanders, etc.) away during operation. Block off the work area in all directions with roping, safety netting, etc. for a safe distance. Failure to do so may result in others being injured by flying debris or exposing them to harmful dust and noise.

Maintain a safe operating distance from flammable materials. Sparks from the cutting-action of this machine can ignite flammable materials or vapors.



GENERAL INSTRUCTIONS



MACHINE PRECAUTIONS

- Eye and ear protection must be worn at all times when the machine is in use. During normal operation, sound levels may exceed 92 dB(A).



- Wear appropriate clothing, footwear, and safety attire when operating this machinery. Steel toe safety shoes, padded gloves, non-fogging vented safety goggles or face screen, dust respirator (when dry cutting), hard hat (when appropriate for the job), and safety vest should be worn.
- Do not wear loose clothing that can get tangled in moving parts.



- Wear an approved dust/particle respirator when removing hazardous material or when operating dry.
- Maintain a safe operating distance to other personnel
- This equipment is designed for preparation of horizontal concrete or asphalt surfaces using Tungsten Carbide Bits. It is controlled by a single operator from the rear of the machine.
- Read and follow all safety decals.
- Avoid deck inserts, pipes, columns, openings, electrical outlets, or any objects protruding from slab surface.
- Stay alert; use common sense, and avoid unsafe conditions.



OWNER RESPONSIBILITIES:

- Never allow anyone to operate the machine in an impaired physical or mental state.
- Provide all instruction manuals for the operator to fully read and understand.
- Provide proper training and instruction to the operator.
- Maintain safety decals on the machine.

- Maintain the machine in safe operating condition with all guards securely in place, all mechanical fasteners tight, all controls in working order, and the machine configured for the job application.
- Maintain a copy of the equipment's operators manual with the machine for reference at all times.

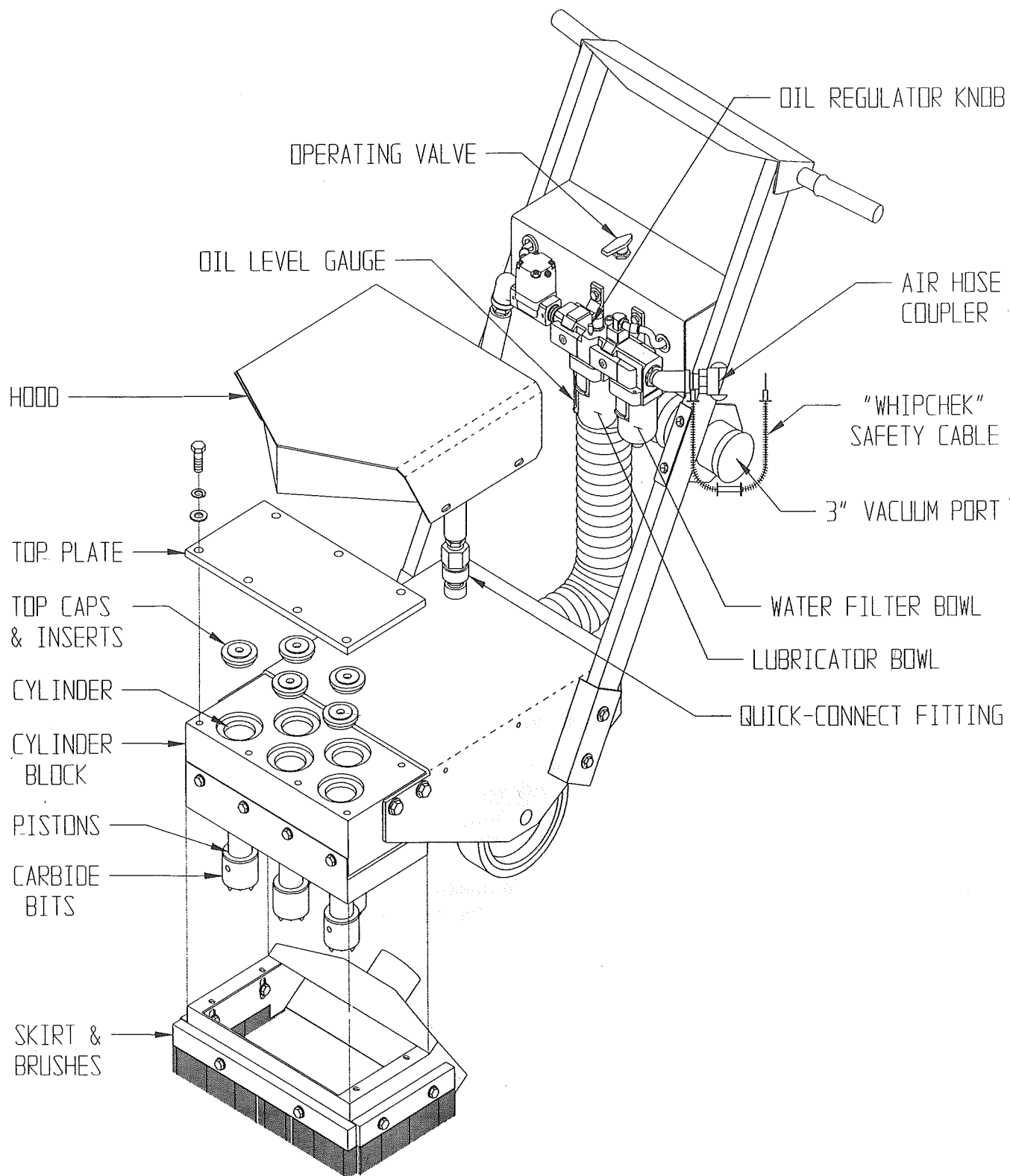
OPERATOR RESPONSIBILITIES:

- Be familiar with all aspects of the machine's operation and controls before applying power to the equipment.
- Use the correct accessory for the job being performed and material being removed. Make sure accessories are mounted correctly.
- Never operate this machine while under the influence of drugs or alcohol, while taking medications that impair the senses or reactions, or when excessively tired or under stress.
- Follow the instructions in the operators manual and exercise caution.
- Never leave the machine running unattended.
- Comply with all local safety and health regulations as well as EPA and OSHA regulations.

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EDCO MODEL CD-5 "CHIP-DEK" SCABBLER



INSTRUCTIONS FOR EDCO MODEL CD-5 "CHIP-DEK" SCABBLER

BEFORE STARTING OPERATION:

For efficient operation of the CD-5, be sure to use a compressor with adequate output. A compressor output of 150 CFM @ 90 PSI or larger is recommended.

Before operating the machine check to make sure, the water bowl of the filter is empty. There is a manual drain valve at the bottom of the bowl.

Also, check the level of the lubricator. The proper oil to use is one with a viscosity of 32 centi-stokes (ISO-32). For example, Citgo AW-32 hydraulic oil or Lubriplate HO-32 hydraulic oil.

Tilt machine backwards and check the condition and secureness of the five carbide bits.

If the job requires dust free operation, hook-up the EDCO VAC-150 Industrial dust control vacuum system, or equivalent, to the 3 inch vacuum port (a 2" reducing adapter is also available) located directly under the handle bar assembly.

WARNING Determine if the slab is structurally sound and safe. While the CD-5 delivers a measured impact and should not damage the base, care should be taken that the slab is strong enough to withstand the impact of repeated hammering. **A slab less than 4 inches thick may crack under repeated hammering.**

OPERATING MACHINE:

Before starting, this machine be sure to read and understand this entire operators manual. Hook air hose (3/4" minimum) from a regulated air supply to the coupler on the handle of the CD-5 and do not exceed 60 feet of 3/4" hose.

WARNING Be sure to use a "whipchek" safety cable at this joint. Failure to do so could result in serious bodily injury or death. Before supplying the air hose with air, ensure that the operating valve on the console of the CD-5 is in the "OFF" position.

To start operation of the CD-5, grasp handle bars and turn operating valve to the "ON" position and pistons will start pounding the pavement. The CD-5 will feel as though the front head is floating. It will be necessary to move the machine so that it will not pound pockets into the slab. The CD-5 should be moved slowly in a side to side sweeping motion to ensure a consistently uniform removal of material. As the machine is operating, it may become necessary to adjust the hammering action of the CD-5. The addition of an air pressure regulator between the machine and your compressor will allow for this adjustment. The air pressure flowing to the pistons in the cylinder head may be adjusted from 0 PSI, minimum, to 90 PSI, maximum.

The air pressure should be regulated between 40 PSI and the maximum of 90-PSI depending on how aggressive the machine needs to be to accomplish the job. During the operation of the CD-5, it will be necessary to periodically stop the machine and visually inspect the level of condensation (water) that might accumulate in the water filter bowl located on the bottom of the air filter. If the accumulation of water exceeds the maximum level as marked on the water filter bowl, it will be necessary to drain the water filter bowl. To drain the water filter bowl, loosen the drain valve knob located on the bottom of the water filter bowl, let it completely drain then retighten.

In addition, during the operation of the CD-5 it will be necessary to maintain the correct amount of oil in the lubricator. This oil in the lubricator is essential to the operating life of the components in the cylinder head. The proper oil in the airflow reaching the pistons and cylinders will help flush away any contaminants as well as lubricate the close tolerance components and will leave a non-corrosive film to eliminate rusting of the surfaces. The adjustment knob on top of the lubricator controls the oil drip rate. Adjustment should only be made under normal steady flow condition. Turning the adjustment knob counter-clockwise will increase the oil drip rate and turning adjustment knob clockwise will decrease the oil drip rate. The knob is set at the factory all the way counter-clockwise to the maximum (+) position. Each piston should be receiving lubrication and have a light film of oil on the surface, just enough to "feel" it. If oil starts to appear on the surface, then decrease the oil drip rate. Excess oil will stain the concrete, Insufficient oil will result in damage to the equipment.

When work is complete, close air compressor outlet valve then turn CD-5 operating valve to the "ON" position to empty the high pressure air from the hose before disconnecting the machine from compressor. **Be sure to disconnect the CD-5 from the air source when not in use.**

MAINTENANCE:

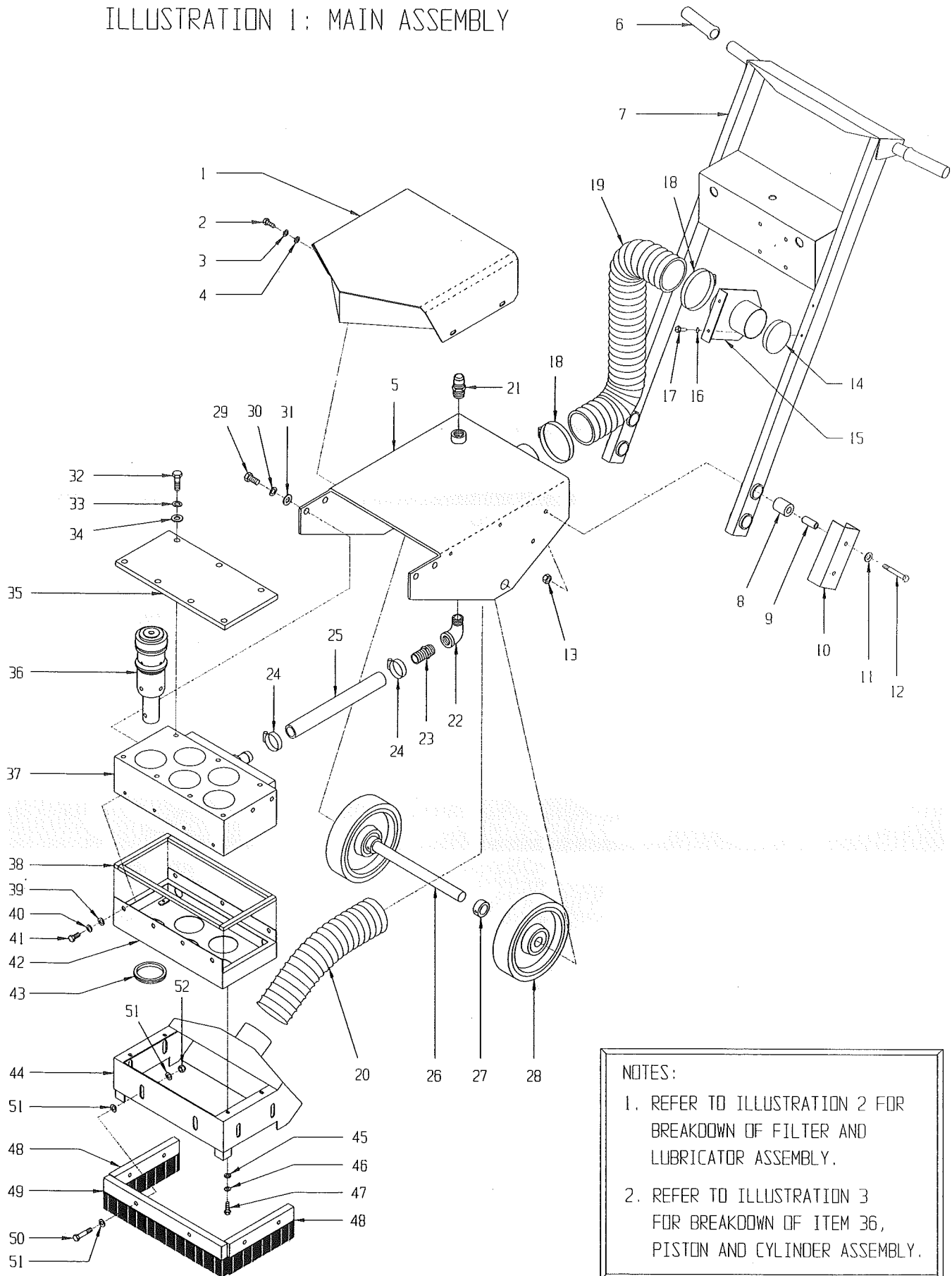
If the CD-5 is to be stored or not used **for a prolonged length of time** it is recommended that the following suggestions be followed:

- (1) Drain moisture from water filter.
- (2) Fill lubricator bowl with proper grade of oil.
- (3) Remove top plate from cylinder block, remove top caps, and generously apply the proper oil to top of pistons. Manually move the pistons up and down through their cycle several times to ensure all surfaces are coated with oil. Generously oil the top of the cylinders. Reassemble the machine taking care to ensure that the o-ring seals on the cylinder top caps are not damaged.

Table: 1

TROUBLE SHOOTING GUIDE		
FAULT	POSSIBLE	REMEDIES
<u>Machine will not operate.</u>	Cylinders or valves clogged with dirt. Insufficient air supply. Valve not turned on. Low oil level.	Strip and clean. Check compressor output. Turn on valve. Add proper amount and grade of oil.
<u>Finish of work is unsatisfactory.</u>	Incorrect or worn bits.	Replace with new or correct bits.
<u>Dust level is unacceptable.</u>	Operating environment.	Moisten area to be machined with water or utilize an industrial vacuum system.
<u>Work rate is too low.</u>	Insufficient air supply. Worn bits.	Check compressor output. Check hose size. Check clearance between piston, cylinder and liner – (.006" Max.)

ILLUSTRATION 1: MAIN ASSEMBLY



NOTES:

1. REFER TO ILLUSTRATION 2 FOR BREAKDOWN OF FILTER AND LUBRICATOR ASSEMBLY.
2. REFER TO ILLUSTRATION 3 FOR BREAKDOWN OF ITEM 36, PISTON AND CYLINDER ASSEMBLY.

PARTS LISTING - ILLUSTRATION 1: MAIN ASSEMBLY

Item #	Part #	Description	Qty.
1	63115	Hood	1
2	10018	Screw, Cap 1/4-20 x 3/4	4
3	10038	Washer, Lock 1/4	4
4	10602	Washer, Flat 1/4	4
5	63101	Main Frame	1
6	10608	Grip, Hand, 1" Model AT	2
7	63104	Handle Bar	1
8	63106	Bushing, Rubber 1-1/4 x 5/8 x 1-1/2	4
9	63107	Tube, Bushing Center 5/8 x 3/8 x 1-9/16	4
10	63105	Bracket, Handle Bar Mounting	2
11	10025	Washer, Flat 3/8	4
12	10815	Screw, Cap 3/8-24 x 2-3/4	4
13	10004	Nut, Lock 3/8-24	4
14	64030	Plug, Cap 3"	1
15	63112	Bracket, Vacuum Hose 3"	1
16	10455	Washer, Lock, Ext. Tooth #10	2
17	10846	Screw, Self-Tap Hex Washer 1/4-20 X 1/2	2
18	10849	Clamp, Hose, Size 52, Adj. To 3-3/4"	2
19	63117	Hose, Flex 3"ID x 26"L	1
20	63118	Hose, Flex 3"ID x 15"L	1
21	63065	Fitting, Quick-Connect Male Plug 3/4 NPT	1
22	10727	Elbow, Street 3/4NPT x 90 (Black)	1
23	63047	Barb, 1" Hose x 3/4MPT	1
24	10784	Clamp, Hose, Size 20, Adj. To 1-3/4"	2
25	63119	Hose, Air 1" ID x 12"L	1
26	63053	Axle Shaft 1" Rd. x 15"L	1
27	10427	Collar, Locking 1" ID	2
28	63050	Wheel 8 X 1-15/16 X 1"Brg., Poly Thread	2
29	10356	Screw, Cap 1/2-13 X 1-1/2	4
30	10045	Washer, Lock 1/2	4
31	10312	Washer, Flat 1/2	4
32	10356	Screw, Cap 1/2-13 X 1-1/2	7
33	10045	Washer, Lock 1/2	7
34	10312	Washer, Flat 1/2	7
35	63023	Plate, Cylinder Block Top	1
36	63010	Piston & Cylinder Assembly (Refer to Illus. 3 for Breakdown)	5
37	63024	Block, Cylinder	1
38	63026	Sealing Strips, Exhaust Box (2 each) 1/2" W x 3/8" Thk x 7" L 1/2" W x 3/8" Thk x 13-1/2" L	1
39	10025	Washer, Flat 3/8	7
40	10811	Washer, Lock 3/8	7
41	10907	Screw, Cap 3/8-16 x 3/4	7
42	63102	Exhaust Box	1
43	63110	Grommet 2-1/2"ID x 1/16"Grv x 2-3/4"GD	5
44	63103	Skirt, 3" Vacuum	1
45	10602	Washer, Flat 1/4	4
46	10038	Washer, Lock 1/4	4
47	11573	Screw, Skt. Hd. Cap 1/4-20 X 3/4	4
48	63114	Brush, Wooden 2" H x 8-1/2" L	2
49	63113	Brush, Wooden 2" H x 16" L	1
50	10029	Screw, Cap 3/8-24 x 1-3/4"	6
51	10025	Washer, Flat 3/8	18
52	10004	Nut, Lock 3/8-24	6

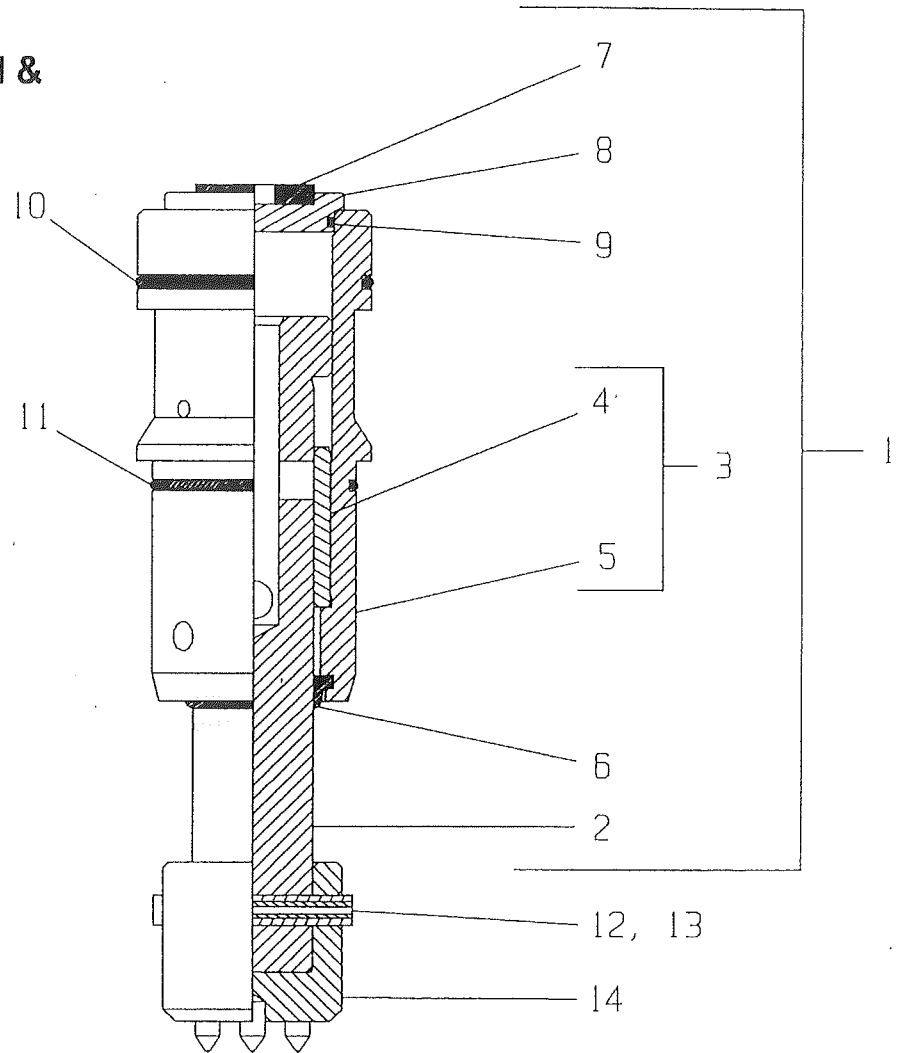
*SEE ABOVE INSET FOR DETAILS.

NOTE:
CONNECTS TO MALE PLUG

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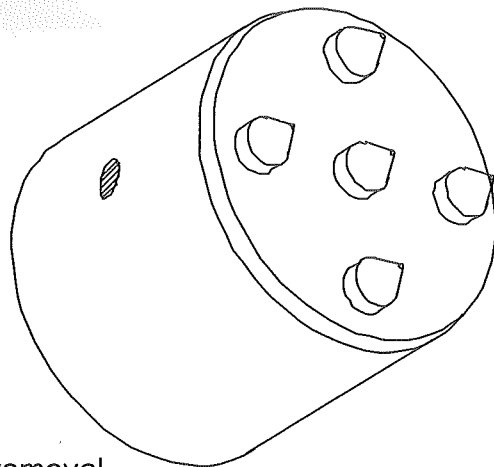
PARTS LISTING – ILLUSTRATION 2: FILTER AND LUBRICATOR ASSEMBLY

ITEM	# PART	DESCRIPTION	QTY.
1	63104	Handle Bar (Refer to Illus. 1 - Item # 7)	1
2	63116	Panel, Console Rear	1
3	10877	Screw, Self-Tap Hex Washer 10-24 x 1/2	4
4	10455	Washer, Lock, Ext. Tooth #10	4
5	63111	Grommet 3/4" ID x 1/8" Grv. x 1" GD	2
6	63004	Valve, Ball W/ Vent 1/4" Fem. NPT	1
7	63034	Fitting, Straight 5/16" Tube X 1/4 MPT	2
8	63057	Fitting, Swivel 45°, 5/16" Tube X 1/8 BSPT	1
9	63121	Tubing, Nylon 5/16" OD x 10" L	2
10	63067	Coupler, Air Hose, 3/4" MPT	1
11	63040	Cable, "Whipchek" Safety 1/8" x 20-1/4	1
12	10740	Conduit Lock Nut 3/4" NP	2
13	50086	Elbow, Street 3/4" NPT x 45° (Black)	1
14	63123	Filter, 3/4 NPT (NAF4000-N06-2)	1
15	10730	Elbow, Street 1/4 NPT X 90 (Brass)	1
16	63034	Fitting, Straight 5/16" Tube x 1/4" MPT	1
17	63124	Bracket, T-Type, Y51T-N02 (Includes 2 O-rings Item #18)	1
18	63068	O-Ring #216, 1/8" x 1-1/8" ID x 1-3/8" OD (Included W/ Items #17 & #20)	3
19	63122	Lubricator, 3/4 NPT (NAL4000-N06-8)	1
20	63064	Bracket, T-Type Adapter, NE50T-N06 (Includes 1 O-Ring, Item #18)	1
21	10213	Washer, Flat 5/16"	4
22	10801	Washer, Lock 5/16"	4
23	10806	Screw, Cap 5/16-18 x 1"	4
24	10577	Pipe Nipple 3/4NPT X 1-1/2 (Black)	1
25	63125	Valve, Process, 3/4 NPT, VNA301A-20A	1
26	63126	Pipe Plug 1/8 BSPT	1
27	10727	Elbow, Street 3/4" NPT x 90 (Black)	1
28	63047	Barb, 1" Hose x 3/4" MPT	2
29	10784	Clamp, Hose, Size 20, Adj. To 1-3/4"	2
30	63120	Hose, Air 1" ID x 15-1/2" L	1
31	63066	Fitting, Quick-Connect Fem. Coupler 3/4"	1

ILLUSTRATION 3: PISTON & CYLINDER ASSEMBLY

Item #	Part #	Description	Qty.
1	63010	Piston & Cylinder Assembly, CD-5 (Includes Items 2 thru 11)	5
2	63018	Piston	1 ea.
3	63070	Cylinder & Liner Assembly (Includes Items 4 and 5)	1 ea.
4	63015	Cylinder (Do not replace separately)	-
5	63014	Liner (Do not replace separately)	-
6	63019	Wiper Ring, Piston	1 ea.
7	63011	Insert, Top Cap	1 ea.
8	63012	Cap, Cylinder Top	1 ea.
9	63013	O-Ring #133, 3/32 x 1-13/16"ID	1 ea.
10	63016	O-Ring #231, 1/8 x 2-5/8"ID	1 ea.
11	63017	O-Ring #141, 3/32 x 2-5/16"ID	1 ea.
12	10007	Pin, Roll 3/8 X 2-1/2 (Included W/Bit, Item #14)	1 ea.
13	63055	Pin, Roll 7/32 x 2-1/2 (Included W/Bit, Item #14)	1 ea.
14	-	Bit, Tungsten Carbide (Not Included)	1 ea.
-	18810	5-Point (Medium, General Purpose)	-
-	18820	9-Point (Fine Surface Removal)	-
-	18830	Cross-Cut (Rough Surface Removal)	-

TUNGSTEN CARBIDE BITS



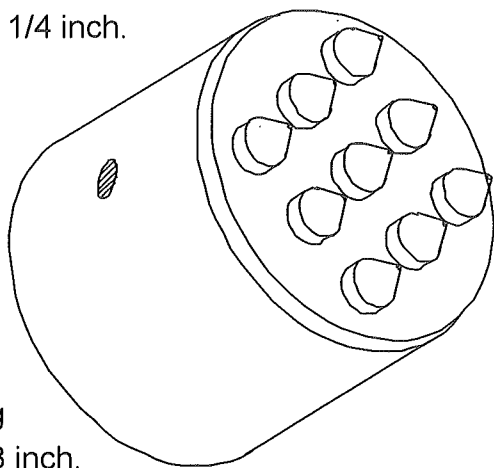
5 - POINT

Item no. 18810

General surface removal

Penetration up to 1/4 inch.

Use 5-Point bits for general purpose removal of concrete due to spalling, blistering, excess surface material, or in preparation of bonding new concrete overlays. Depth of removal is generally 1/4" or more and is dependent on the speed with which the unit is moved across the surface.



9 - POINT

Item no. 18820

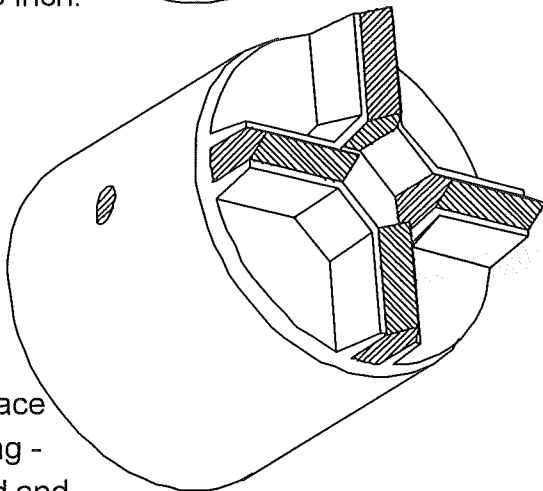
Laitance removal

Fine scabbling

Anti-slip surfacing

Penetration to 1/8 inch.

The 9-Point bits achieve surface removal of approximately 1/8". Creating an excellent bonding texture for overlays of thin coats of polymer concrete, epoxy or urethane. Also ideal for producing slip-resistant surfaces for fork trucks and other vehicular traffic.



CROSS- CUT

Item no. 18830

Demolition -

Fast, Rough Surface

removal. Grooving -

Repairs to spalled and deteriorated slabs.

CROSS-CUT bits may be used for fast, heavy surface removal of concrete for new overlays, repairs to deteriorated slabs, or roughening dairy barn floors to help prevent cattle from slipping. Depth of removal is generally 3/8" or greater dependent on speed with which unit is moved across the surface.

Bits are easily and quickly changed or replaced. The uses listed above are merely suggested. Your own trials will determine which bit fits your need best. Choose the correct type to do the job. Use a hammer and punch to drive out the bit retaining pins. Remove the bits, replace and drive the retaining pins back in securely. If pins are loose or worn replace with new tight fitting pins.

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 ensure 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 the parts list.

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