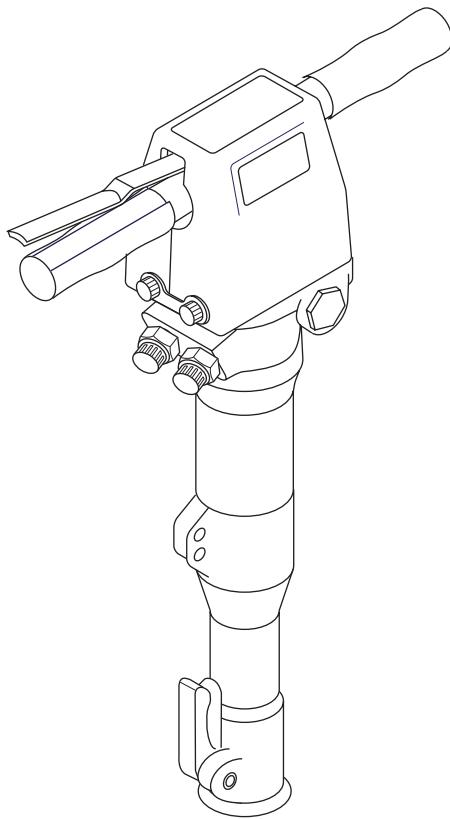


INSTRUCTION MANUAL

Fairmont[®]



HPB45

Hydraulic Paving Breaker



Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

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Description

The HPB45 Fairmont Paving Breaker is intended to break up asphalt, concrete, and hard clay. Accessories available from Fairmont allow the HPB45 to drive ground rods. The HPB45 breaker is available in a standard version as well as an ergonomic version, provided with vibration-dampened handles.

Safety

Safety is essential in the use and maintenance of Fairmont tools and equipment. This manual and any markings on the tool provide information for avoiding hazards and unsafe practices related to the use of this tool. Observe all of the safety information provided.

Purpose of this Manual

This manual is intended to familiarize personnel with the safe operation and maintenance procedures for the following Fairmont Paving Breakers:

- HPB45-1 1-1/8" x 6" shank with standard handles
- HPB45-2 1" x 4-1/4" shank with standard handles
- HPB45-1AVS 1-1/8" x 6" shank with dampening handles
- HPB45-2AVS 1" x 4-1/4" shank with dampening handles

Keep this manual available to all personnel.

Replacement manuals are available upon request at no charge.

Other Publications

Tool Owners/Users

SAE Standard J1273 (Hose and Hose Assemblies):
Publication 999 3032.3

All specifications are nominal and may change as design improvements occur. Greenlee Textron Inc. shall not be liable for damages resulting from misapplication or misuse of its products.

KEEP THIS MANUAL

IMPORTANT SAFETY INFORMATION**SAFETY ALERT SYMBOL**

This symbol is used to call your attention to hazards or unsafe practices which could result in an injury or property damage. The signal word, defined below, indicates the severity of the hazard. The message after the signal word provides information for preventing or avoiding the hazard.

⚠ DANGER

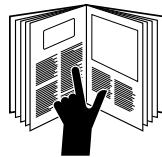
Immediate hazards which, if not avoided, WILL result in severe injury or death.

⚠ WARNING

Hazards which, if not avoided, COULD result in severe injury or death.

⚠ CAUTION

Hazards or unsafe practices which, if not avoided, MAY result in injury or property damage.

**⚠ WARNING**

Read and understand all of the instructions and safety information in this manual before operating or servicing this tool.

Failure to observe this warning could result in severe injury or death.

**⚠ WARNING**

Skin injection hazard:
Oil under pressure easily punctures skin causing serious injury, gangrene or death. If you are injured by escaping oil, seek medical attention immediately.

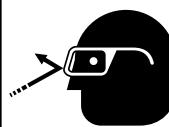
- Do not use hands to check for leaks.
- Do not hold hose or couplers while the hydraulic system is pressurized.
- Depressurize the hydraulic system before servicing.

⚠ WARNING

Do not exceed the following hydraulic power source maximums:

- Hydraulic flow: 30 l/min (8 gpm)
- Pressure relief: 160 bar (2300 psi)
- Back pressure: 15 bar (200 psi)

Failure to observe this warning could result in severe injury or death.

**⚠ WARNING**

Wear eye protection when operating or servicing this tool.

Failure to wear eye protection could result in serious eye injury from flying debris or hydraulic oil.

**⚠ WARNING**

Wear hearing protection when using this tool.

Failure to observe this warning could result in serious injury.

**⚠ WARNING**

Wear foot protection when using this tool.

Failure to observe this warning could result in serious injury.

IMPORTANT SAFETY INFORMATION**⚠ WARNING**

Tool, bit, and other components may be hot during and after operation. Allow to cool before handling, or handle with heat-resistant gloves.

Failure to observe this warning could result in severe injury.

⚠ WARNING

Serious injury can result if the operator does not maintain control of the tool.

- Wear slip-proof gloves when operating this tool.
- Maintain a firm grip on the tool, using both hands at all times.
- Do not lock the trigger in the power-ON position. Operator cannot stop tool when the trigger is locked.

Failure to observe these warnings could result in severe injury or death.

⚠ WARNING

Do not disconnect tool, hoses or fittings while the power source is running or if the hydraulic fluid is hot. Hot hydraulic fluid can cause serious burns.

⚠ WARNING

Accumulator is charged with nitrogen under high pressure. This pressure must be unloaded before dismounting.

Failure to observe this warning could result in severe injury or death.

⚠ WARNING

Do not reverse hydraulic flow. Operation with hydraulic flow reversed can cause tool malfunction. Connect the supply (pressure) hose and return (tank) hose to the proper ports.

Failure to observe this warning could result in severe injury or death.

⚠ CAUTION

Vibration hazard:

Apply just enough pressure to do the work. Applying excess pressure to the breaker can cause operator discomfort or temporary numbness.

Failure to observe this precaution may result in injury.

⚠ WARNING

Do not change accessories, inspect, adjust or clean tool when it is connected to a power source. Accidental start-up can result in serious injury.

Failure to observe these warnings could result in severe injury or death.

IMPORTANT SAFETY INFORMATION**⚠ CAUTION**

- Do not operate the breaker unless the bit is properly installed and placed against the work surface. Damage to the breaker can result.
- Inspect the hydraulic hoses and couplings every operating day. Repair or replace if leakage, cracking, wear or damage is evident. Damaged hoses or couplings can fail, resulting in injury or property damage.
- Use this tool for manufacturer's intended purpose only. Use other than that which is described in this manual can result in injury or property damage.
- Make sure all bystanders are clear of the work area when handling, starting, and operating the tool. Nearby personnel can be injured by flying or falling debris or by flying parts in the event of a tool malfunction.

IMPORTANT

Emergency stop procedure:

1. Release the trigger.
2. Shut off the hydraulic power source.

IMPORTANT

Procedure for connecting or disconnecting hydraulic hoses, fittings or components:

1. Move the flow lever on the power source to the OFF position.
2. Stop the hydraulic power source.
3. Follow the sequence under "Hose Connections" to prevent pressure buildup. In case some pressure has built up, loosen hoses, fittings or components slowly.

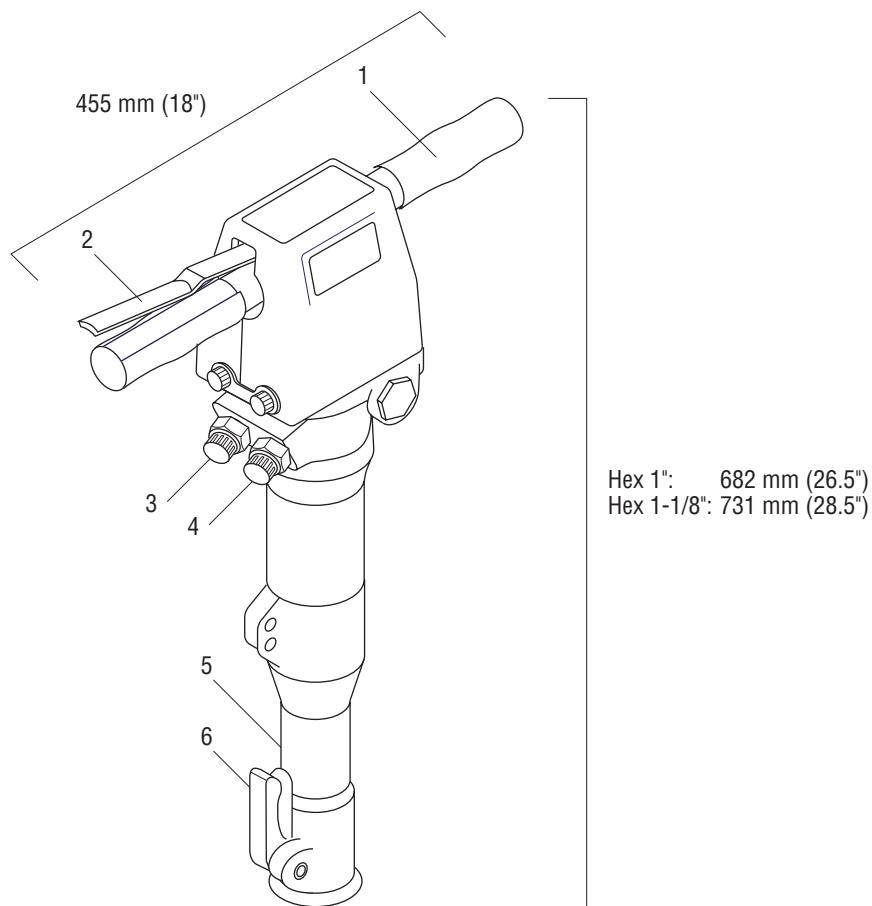
⚠ CAUTION

Hydraulic oil can cause skin irritation.

- Handle the tool and hoses with care to prevent skin contact with hydraulic oil.
- In case of accidental skin contact with hydraulic oil, wash the affected area immediately to remove the oil.

Failure to observe these precautions may result in injury.

Note: Keep decals clean and legible. Replace decals when necessary.

Identification**HPB45 Hydraulic Paving Breaker**

- | | |
|------------------|----------------|
| 1. Handle | 4. Return Port |
| 2. Trigger | 5. Front End |
| 3. Pressure Port | 6. Latch |

Specifications

HPB45

Type of Hydraulic System Open-center
Weight (without hoses and tool)

Standard Handle

Hex 1"	20.9 kg (46 lb)
Hex 1-1/8"	24.1 kg (53 lb)

Dampening Handle

Hex 1"	21.8 kg (48 lb)
Hex 1-1/8"	25.0 kg (55 lb)

Steel Size (standard) Hex 1" x 4-1/4", 1-1/8" x 6"

Working Pressure 105 to 125 bar (1500 to 1800 psi)

Hydraulic Oil

Working Temperature 30 to 70 °C (86 to 158 °F)

Accumulator Charging

Pressure (nitrogen) 50 bar (723 psi)

Blow Frequency 22 to 36 Hz (1320 to 2160/min)

Impact Energy 85 Joule

Hydraulic Port Connections..... 1/2" BSP

Vibration Level

Standard Handle	$a = 11.4 \text{ m/s}^2$
Dampening Handle	$a = 4.9 \text{ m/s}^2$

Sound Power Level

Guaranteed

Hex 1"	LWA = 109 dB
Hex 1-1/8"	LWA = 110 dB

Measured

Hex 1"	LWA = 107 dB
Hex 1-1/8"	LWA = 106 dB

Hydraulic Power Source

WARNING

Do not exceed the following hydraulic power source maximums:

- Hydraulic flow: 30 l/min (8 gpm)
- Pressure relief: 160 bar (2300 psi)
- Back pressure: 15 bar (200 psi)

Failure to observe this warning could result in severe injury or death.

Type of Hydraulic System Open-center
Flow

Minimum 18 l/min (5 gpm)

Maximum 30 l/min (8 gpm)

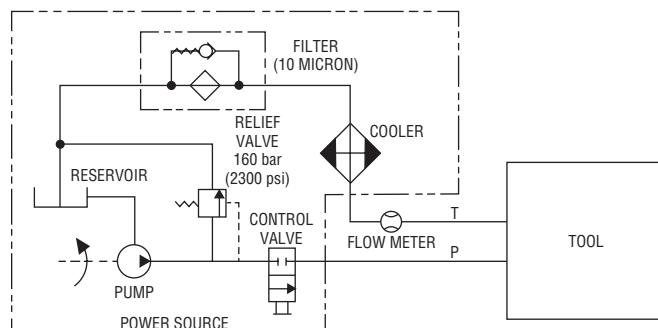
Filtration 10 micron (nominal)

Pressure Relief Setting 160 bar (2300 psi)

Back Pressure (maximum) 15 bar (200 psi)

- Optimal performance occurs at maximum flow.
- Maximum hydraulic fluid temperature must not exceed 70 °C (158 °F). A sufficient oil cooling capacity is needed to limit the hydraulic fluid temperature.
- Hydraulic flow must not exceed 30 l/min (8 gpm). Install a flow meter in the return line to measure the rate of hydraulic flow before using the tool.
- Pressure relief valve setting must not exceed 160 bar (2300 psi) at your tool's maximum flow. Locate the pressure relief valve in the supply circuit to limit excessive hydraulic pressure to the tool.

Hydraulic Schematic



Specifications (cont'd)

Recommended Hydraulic Fluid

Viscosity

Ideal	20 to 40 cSt
Allowable	15 to 1000 cSt

Viscosity Index Min. 100

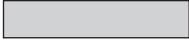
Standard mineral or synthetic oil can be used.

When the tool works continuously, the oil temperature will steady at a certain level called the oil working temperature. Depending on the nature of the job and the cooling capacity of the system, the oil working temperature will be 20 °C to 40 °C (68 °F to 104 °F) above the air temperature. At working temperature, the oil viscosity must be within the ideal area. The tool may not be operated if the oil viscosity is not within the allowable area or if the temperature is not within -20 °C to 70 °C (-4 °F to 158 °F).

The viscosity index expresses the dependence of the viscosity on the temperature. Thus, a high viscosity index is preferable so that the oil can be used within a wide temperature interval.

Applicable Oil Types

TYPE OF OIL	(-4 F) -20 C	(14 F) -10 C	(32 F) 0 C	(50 F) 10 C	(68 F) 20 C	(86 F) 30 C	(104 F) 40 C	(122 F) 50 C	(140 F) 60 C	(158 F) 70 C	Viscosity at 40 C (104 F)
BP Biohyd 32											36.0 cSt
BP Biohyd 46											44.0 cSt
BP Biohyd SE 46											46.0 cSt
BP Biohyd SE 68											72.2 cSt
CASTROL Biotech HTG 32											36.8 cSt
MOBIL EAL 224 H											36.0 cSt
Q8 Holbein 46											48.4 cSt
SHELL Naturelle HF											35.0 cSt
STATOIL M 32-68											47.4 cSt
SHELL Tellus oil T46											46.0 cSt
ESSO Univis N46											45.7 cSt
TEXACO Rando oil HDZ46											51.0 cSt
MOBIL DTE 15											44.9 cSt

 Permitted oil temperature

 Recommended oil temperature

Hoses and Fittings

Installation and Maintenance

Refer to publication 999 3032.3, SAE J1273 (Hose and Hose Assemblies).

Replacement

Adaptors: Breakers are installed with 1/2" BSP male–1/2" BSP male adaptors.

Hoses: Hoses are produced according to EN 853 with two layers of wire and have a maximum pressure of 275 bar (4000 psi). Hoses are approximately 300 mm (12") long.

Fittings: 1/2" BSP female for connecting to the breaker; 1/2" NPTF male for connecting to quick release couplings.

Hose Connections

WARNING

Do not disconnect tool, hoses or fittings while the power source is running or if the hydraulic fluid is hot. Hot hydraulic fluid can cause serious burns.

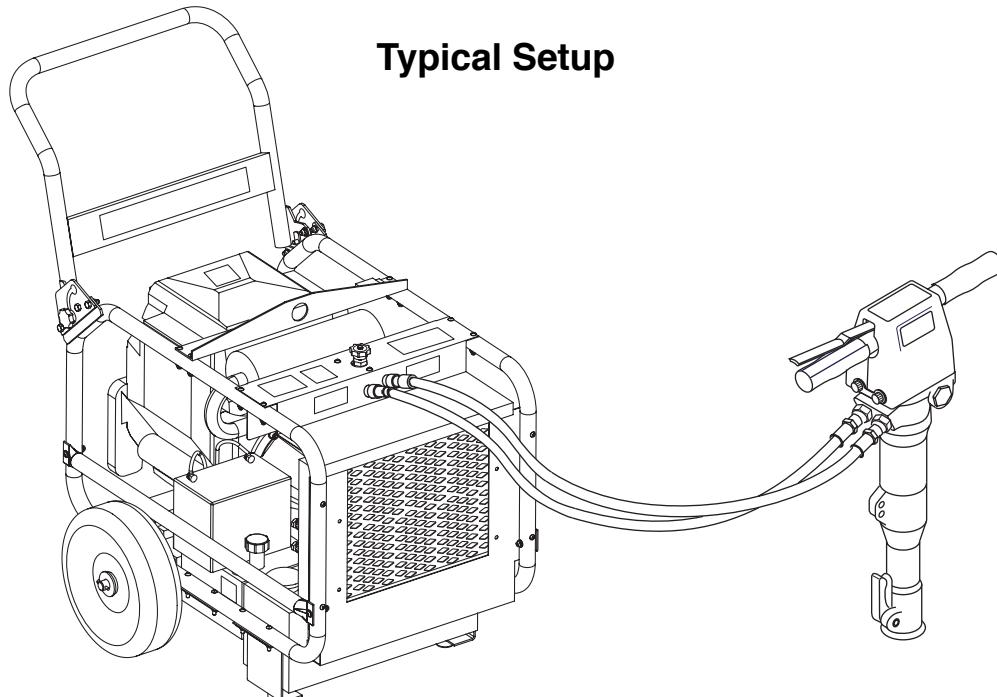
Connecting Hoses

1. Move the flow lever on the hydraulic power source to the OFF position.
2. Stop the hydraulic power source.
3. Connect the return hose to the return port on the hydraulic power source, then to the return port on the tool.
4. Connect the pressure hose to the pressure port on the tool, then to the pressure port on the hydraulic power source.

Disconnecting Hoses

1. Move the flow lever on the hydraulic power source to the OFF position.
2. Stop the hydraulic power source.
3. Disconnect the pressure hose from the hydraulic power source, then from the tool.
4. Disconnect the return hose from the tool, then from the hydraulic power source.
5. Install dust caps over the ports to prevent contamination.

Typical Setup



Setup

⚠ WARNING

Inspect accessories before use. Discard accessories that have cracks, chips, or gouges.
Failure to observe this warning could result in severe injury or death.

⚠ WARNING

Do not change accessories, inspect, adjust, or clean tool when it is connected to a power source. Accidental start-up can result in serious injury.
Failure to observe this warning could result in severe injury or death.

1. Stop the hydraulic power source.
2. Unlock the latch with a downward motion.
3. Insert the accessory into the front head.
4. Lock the latch with an upward motion.
5. Connect the hydraulic hoses according to the instructions under "Hose Connections."

Operation

1. Start the hydraulic power source.
Note: Allow the hydraulic power source to run for a few minutes to warm the hydraulic fluid.
2. Position the bit against the surface (material to be broken, ground rod to be driven, etc.).
3. Grasp both handles firmly.
4. To start the tool, activate the trigger.
5. To stop the tool, release the trigger.
6. When the tool is not in use, stop the hydraulic power source to reduce heat and wear on tool components.

Maintenance

Use this maintenance schedule to maximize the tool's service life.

Note: Keep all decals clean and legible. Replace decals when necessary.

Daily

1. Wipe all tool surfaces clean.
2. Inspect the hydraulic hoses and fittings for signs of leaks, cracks, wear, or damage. Replace if necessary.
3. Install dust caps over the hydraulic ports when the tool is disconnected.

Monthly

Perform a thorough inspection of the hydraulic hoses and fittings as described in publication 999 3032.3, SAE J1273 (Hose and Hose Assemblies).

Annually

If required by your organization, have the tool inspected by an authorized Fairmont service center.

Maintenance (cont'd)

Accumulator Recharging Procedure

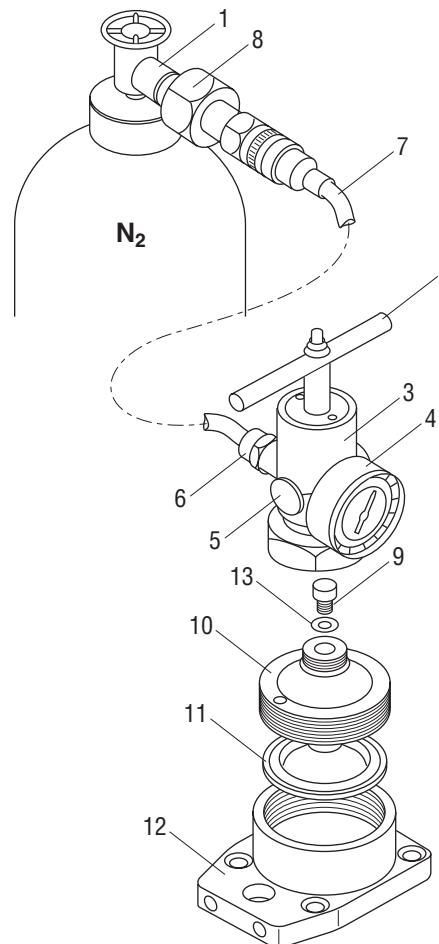
WARNING

Accumulator is charged with nitrogen under high pressure. This pressure must be unloaded before dismounting.

Failure to observe this warning could result in severe injury or death.

1. Check that the oil inlet of the accumulator is depressurized.
2. Remove the protective cap over the charging screw (9) of the accumulator. The socket head screw must be perfectly clean.
3. Loosen the charging screw on top of the accumulator (maximum of two turns). Totally neutralize the pressure before dismounting the accumulator.
4. Unscrew the accumulator cover (10), take out the diaphragm (11), and check for leakage and damage.
5. Clean, check, and replace damaged or worn parts.
6. Grease the seal faces of the accumulator body (12) and the accumulator cover (10) with silicone.
7. Spray both sides of the diaphragm with silicone. Place the diaphragm with its bead pointing downward so that it fits in the groove of the accumulator body (12).
8. Unscrew the charging screw and replace the seal ring (13).
9. Grease the thread of the accumulator cover (10) with copper grease and tighten to approximately 300 Nm (221 ft-lb).
10. Fasten the charging screw lightly, and loosen it two turns afterward.
11. Mount the filling device on the filling socket of the accumulator cover and fasten it lightly while turning the handle (2) forward and backward, ensuring that the hexagon resiliently fits into the charging screw.
12. Close the bleeder valve (5) by turning it clockwise.
13. Connect the hose (7) to the check valve (6).
14. Connect the free end of the hose directly to the nitrogen bottle by using the reducing nipple.
Note: Use only pure nitrogen.
15. Read the pressure on the gauge (4). Carefully open the valve of the nitrogen bottle (1) and charge with nitrogen until the pressure is approximately 20% higher than required charging pressure. Close the valve of the nitrogen bottle.
16. If the gauge (4) shows too high a nitrogen pressure, loosen the bleeder valve (5) until the required pressure is achieved.

17. Close the charging screw (9) of the accumulator by turning the handle (2) clockwise.
18. Unload the nitrogen hose by opening the bleeder valve (5).
19. Dismount the filling device and check the charging screw (9) for leakage with drops of oil.
20. Fit the protective cap over the accumulator.



500 2718.2 Accumulator filling device
(includes items 2–8)

500 2717.4 Accumulator kit (fully charged)
(includes items 9–14)

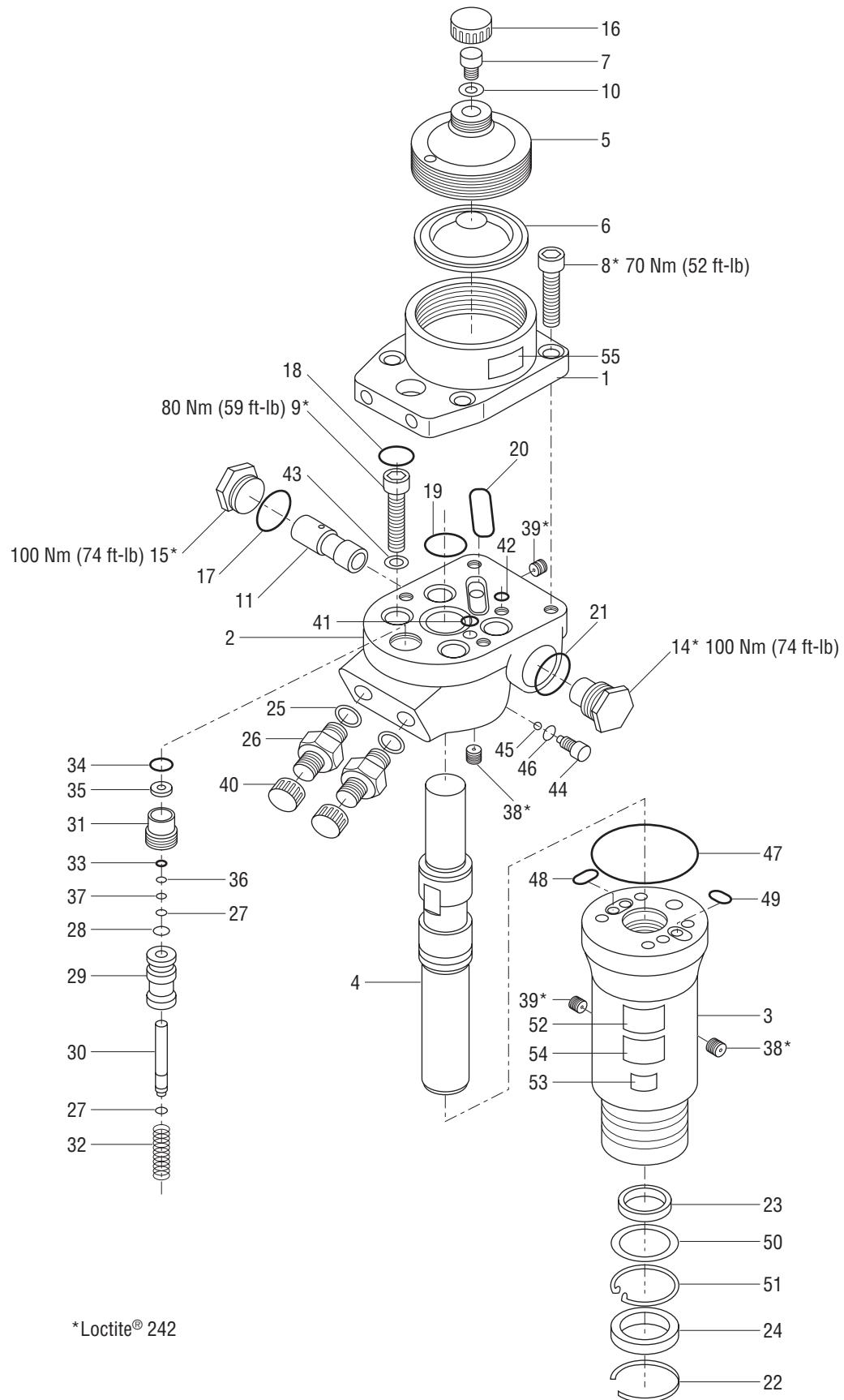
- | | |
|--|------------------------------------|
| (1) Valve of nitrogen bottle | (9) Charging screw |
| (2) Handle | (10) Accumulator cover |
| (3) Filling adaptor | (11) Diaphragm |
| (4) Gauge | (12) Accumulator body |
| (5) Bleeder valve | (13) Seal ring |
| (6) Check valve | (14) Protective cap
(not shown) |
| (7) Hose, approximately
3 m (10 ft) | |
| (8) Reducing nipple
(24.32-14WFG) | |

Troubleshooting

Before troubleshooting, determine whether the problem is in the tool, the hoses, or the power source. Substitute a tool, hoses, or power source known to be in good working order to eliminate the item that is not operating.

If the problem is in the tool, refer to the troubleshooting table in this manual. If the problem is in the power source, refer to the troubleshooting section of the power source instruction manual.

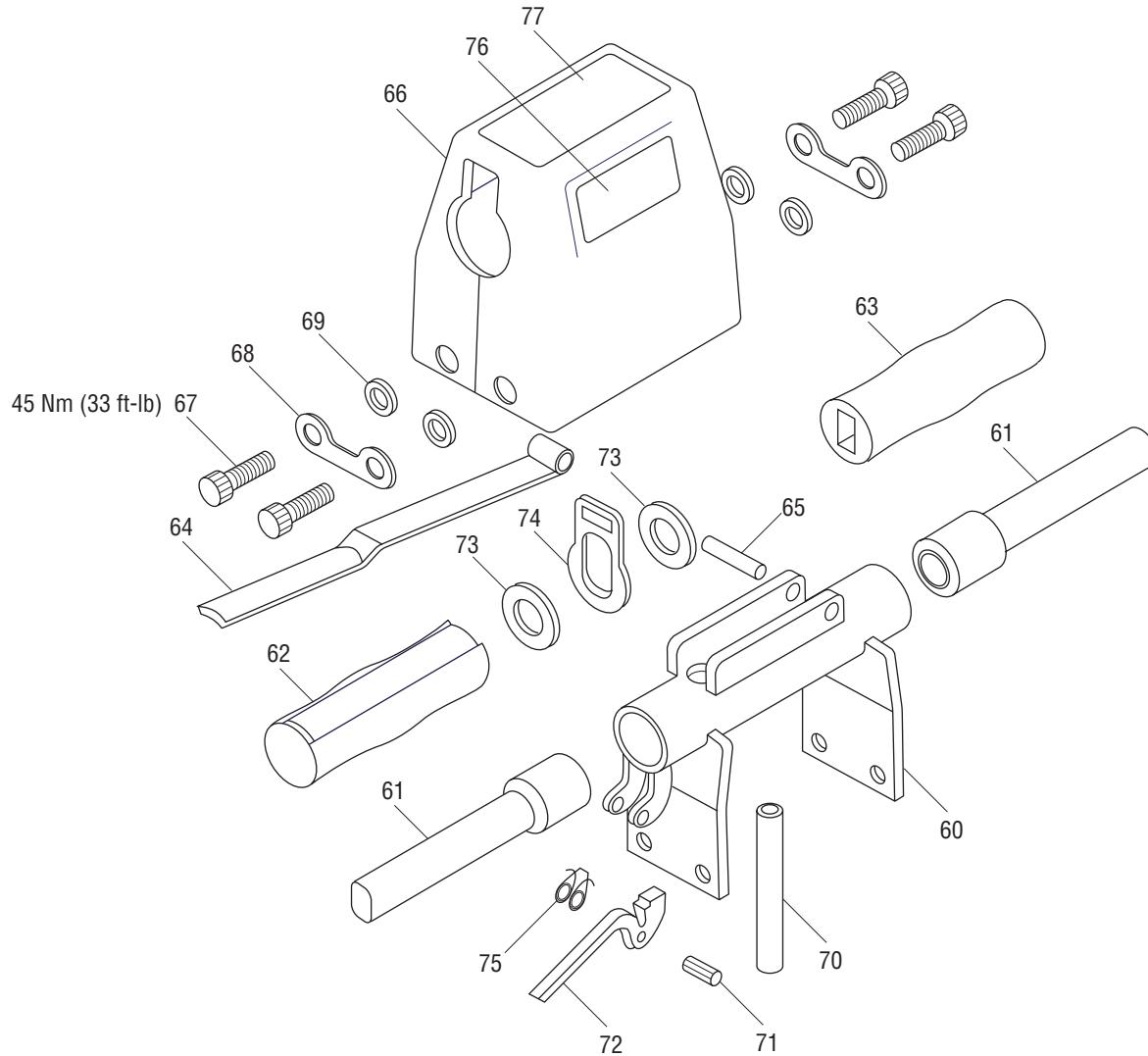
Problem	Probable Cause	Probable Remedy
Tool does not operate.	Improper power source.	Verify that the power source meets the specifications.
	Hydraulic fluid level low.	Check the fluid level. Check system for leaks.
	Incorrect hydraulic fluid viscosity.	Use hydraulic fluid with the correct viscosity.
Tool operates slowly or erratically.	Hydraulic fluid cold.	Allow fluid to warm to the operating temperature. Actuate the tool intermittently to reduce the warming time.
	Power source not adjusted correctly.	Refer to the power source operator's manual. Set the flow and pressure to correspond with the tool.
	Hydraulic fluid level low.	Check the fluid level. Check system for leaks.
	Air in the hydraulic system.	Refer to the power source manufacturer's instructions for removing air from the system.
Tool feels hot.	Incorrect hydraulic fluid viscosity.	Use hydraulic fluid with the correct viscosity.
	Hydraulic fluid level low.	Check the fluid level. Check for leaks.
	Hydraulic fluid dirty.	Refer to the power source owner's manual for procedure to replace hydraulic oil and filter.
Strike rate is normal; blow energy is weak.	Low accumulator gas pressure.	Return tool to an authorized Fairmont service center.
	Broken accumulator diaphragm.	Return tool to an authorized Fairmont service center.

Illustration—Main

Parts List—Main

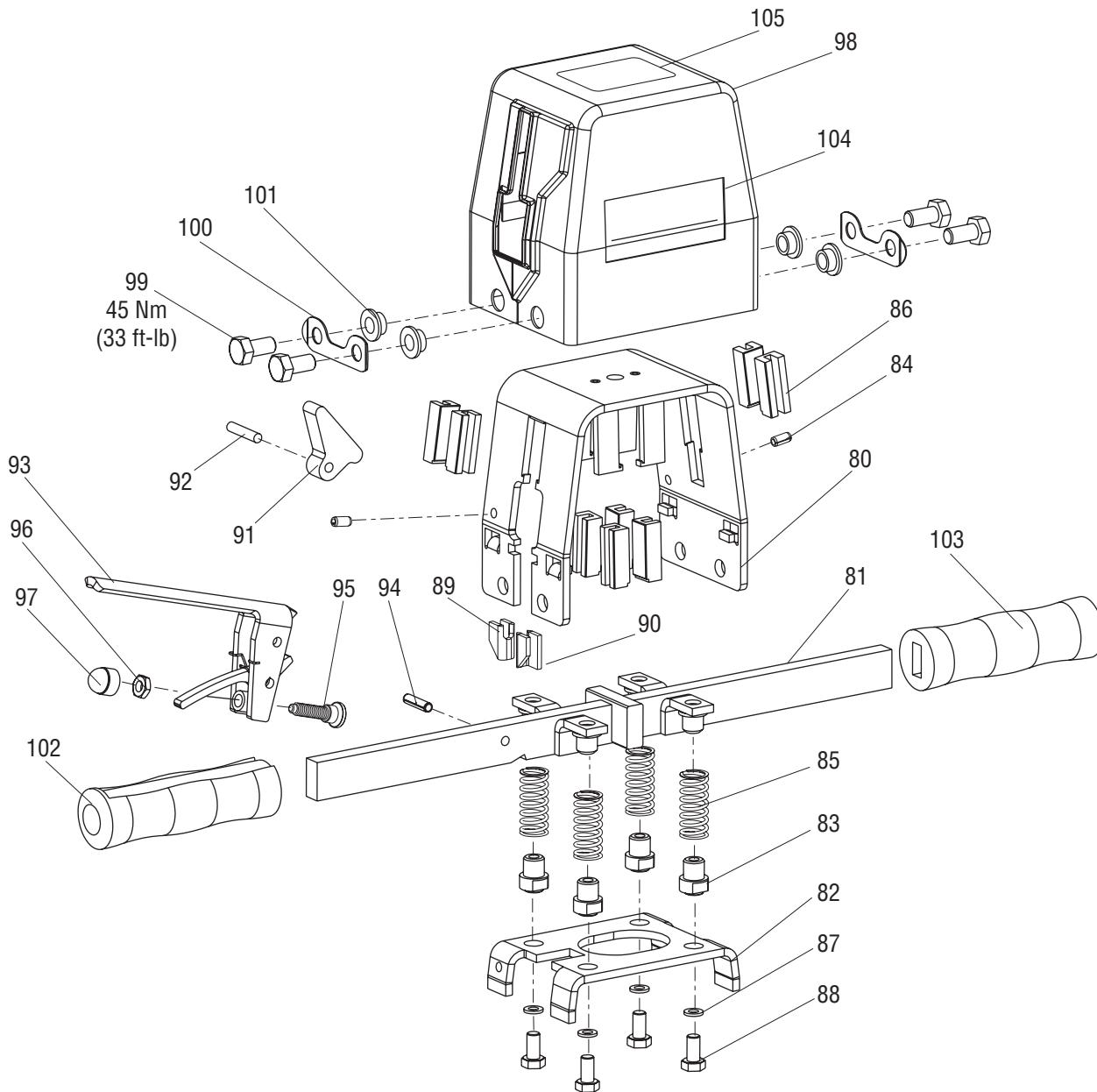
Key	Part No.	Description	Qty	Key	Part No.	Description	Qty
1	50022083	Accumulator body	1	33	50022490	O-ring, Ø8.3x2.4	1
2	50022130	Valve housing	1	34	50022512	O-ring, Ø16.3x2.4	1
3	50022148	Cylinder	1	35	50022520	Seal, Ø8/Ø14x3.5/5	1
4	50022156	Striking piston	1	36	50022539	Backup ring	1
5	50022164	Accumulator cover	1	37	50022547	Seeger spring ring	1
6	50022172	Diaphragm	1	38	50022555	Fitting, 02 KRG	6
7	50022180	Charging screw	1	39	50022563	Fitting, 04 KRG	3
8	50022199	Screw, M10x30	4	40	50022741	Protective cap, 1/2" BSP	2
9	50022202	Screw, M10x35	4	41	50022768	O-ring, Ø6x2	1
10	50022210	Seal ring, Ø8.7/Ø13x1	1	42	50022784	O-ring, Ø8x2	1
11	50022229	Spool	1	43	50022814	Backup washer	4
14	50022253	Guide socket	1	44	50022822	Screw	1
15	50022261	Spool socket	1	45	50022830	Check valve ball	1
16	50022270	Protective cap, M24x1.5	1	46	50022849	Seal ring, Ø9/Ø14x1	1
17	50022288	O-ring, Ø24x1.5	1	47	50022857	O-ring, Ø82x1.5	1
18	50022296	O-ring, Ø18x2	4	48	50022881	O-ring, Ø16x1.5	1
19	50022300	O-ring, Ø30x2	1	49	50022890	O-ring, Ø13x1.5	1
20	50022318	O-ring, Ø32x2	1	50	50022962	Backup washer, Ø32.7/45x2.5	1
21	50022326	O-ring, Ø25x1.5	1	51	50023063	Locking ring	1
22	50022334	Locking ring	1	52	50109499	Plate, identification	1
23	50022342	Seal, Ø32/Ø40x6	1	53	50109529	Decal, sound level 110 dB (HPB45-1)	1
24	50022350	Seal, Ø32/Ø45x7/10	1	50027204	Decal, sound level 109 dB (HPB45-2)	1	
25	50022369	Seal ring, 1/2"	2	54	50110292	Decal, weight (HPB45-1)	1
26	50022377	Connector, 1/2" BSP	2	50110284	Decal, weight (HPB45-2)	1	
27	50022385	Seeger spring ring	2	55	50110764	Decal, accumulator	1
28	50022407	Shim PS, 8x14x0.5	1				
29	50022415	Trigger spool	1	50023101	Seal kit (includes items 10, 16–25, 27, 28, 33–37, 41, 42, 46–51, and 68/91)		
30	50022431	Trigger rod	1	50023152	Trigger valve kit (includes items 27–37)		
31	50022458	Packing gland	1	50109138	Whip hose	2	
32	50022474	Spring	1				

Illustration and Parts List—Standard Handle with Cover



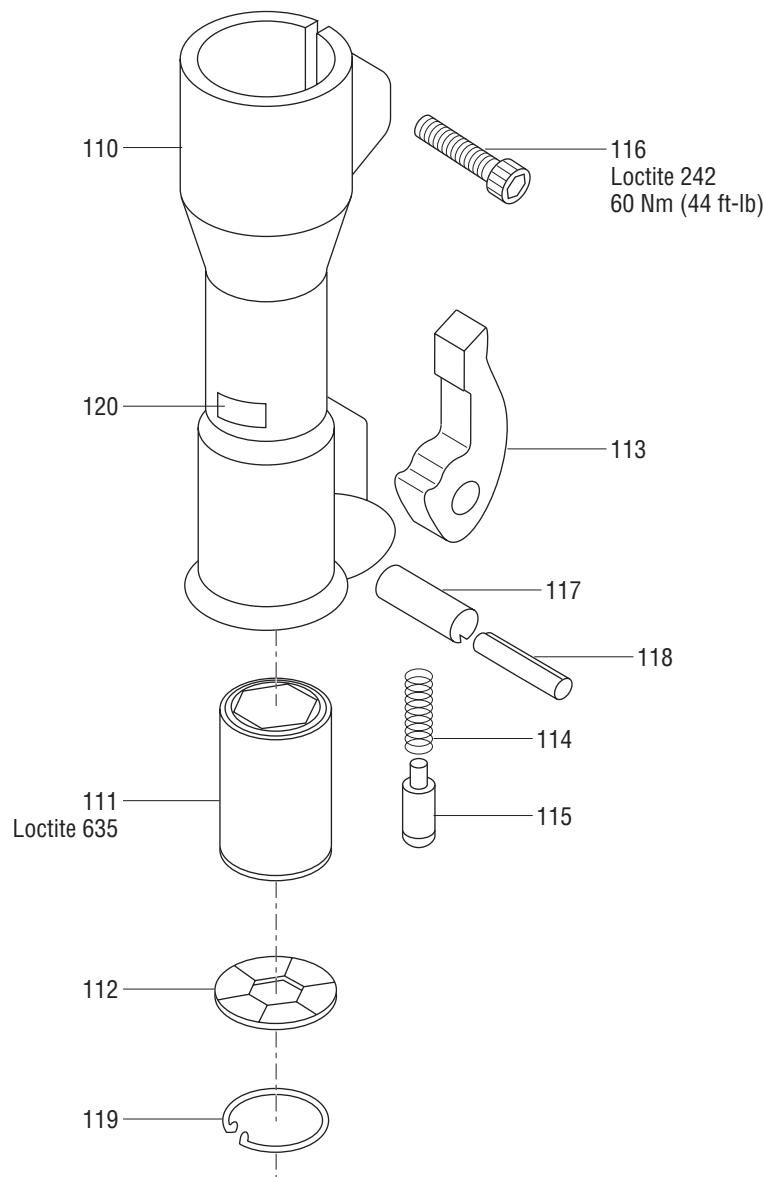
Key	Part No.	Description	Qty	Key	Part No.	Description	Qty
	50023179	Standard handle with cover		68	50023292	Nab	2
60	50023187	Bracket, standard handle	1	69	50023314	Handle spacer	4
61	50023195	Handle, standard	2	70	50023330	Nylon guide	1
62	50023209	Rubber handle	1	71	50023365	Slotted pin, Ø6x22	1
63	50023217	Rubber handle	1	72	50023373	Safety trigger	1
64	50023241	Trigger lever, standard	1	73	50023381	Washer, nylon Ø21/Ø37x3	2
65	50023250	Roll pin, Ø8x40	1	74	50023390	Lock plate	1
66	50023268	Top cover	1	75	50023403	Spring	1
67	50023276	Screw, M10x20	4	76	50463268	Decal, Fairmont	2
				77	49009	Decal, warning	1

Illustration and Parts List—Dampening Handle with Cover



Key	Part No.	Description	Qty	Key	Part No.	Description	Qty
52020091		Dampening handle with cover		92	50023527	Pin, pawl Ø6x30	1
80	52020092	Frame	1	93	50023446	Trigger lever	1
81	52020093	Handle rod	1	94	50023535	Roll pin, Ø6x24	1
82	52020094	Bottom plate	1	95	50023560	Thrust pad with screw	1
83	52020095	Spring guide	4	96	50023578	Nut, M8	1
84	52020096	Roll pin, Ø6x12	2	97	50023586	Nut, cap, M8-hex 13 black	1
85	52020097	Spring	4	98	50023543	Top cover	1
86	52020098	Nylon guide	8	99	50023276	Screw, M10x20	4
87	52020099	Washer, Ø8	4	100	50023292	Nab	2
88	52020100	Screw, M8x16	4	101	50023314	Handle spacer	4
89	50023497	Pin latch, right	1	102	50023209	Rubber handle	1
90	50023500	Pin latch, left	1	103	50023217	Rubber handle	1
91	50023470	Trigger pawl	1	104	50463268	Decal, Fairmont	2
				105	49009	Decal, warning	1

Illustration and Parts List—Nose

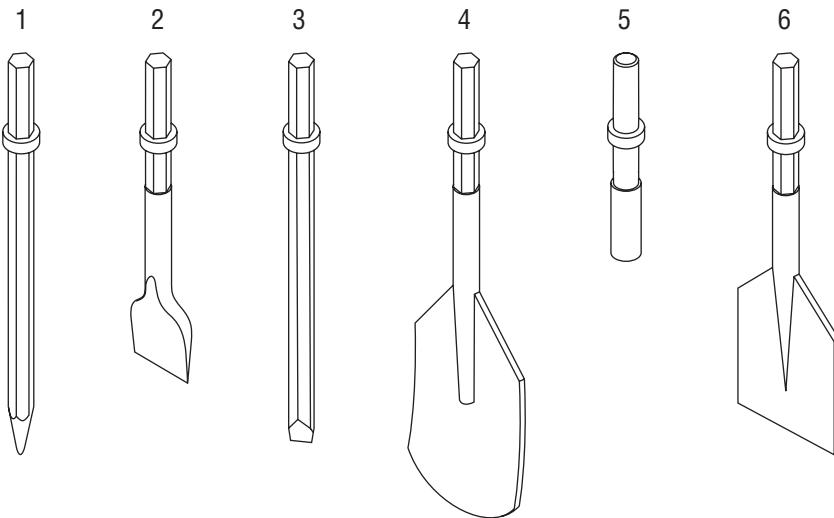
1" x 4-1/4" Hex Shank

Key	Part No.	Description	Qty
110	50023624	Nose part, hex 1"	1
111	50023632	Bushing, hex 1" x 4-1/4"	1
112	50023675	Chisel bellows, hex 1"	1
113	50023705	Latch	1
114	50023730	Spring	1
115	50023748	Lock pin	1
116	50023756	Screw, M10x55	2
117	50023764	Roll pin, Ø16x50	1
118	50023802	Roll pin, Ø10x50	1
119	50023829	Locking ring, 57x2	1
120	50109570	Decal, hex shank size 1 x 4-1/4	1

1-1/8" x 6" Hex Shank

Key	Part No.	Description	Qty
110	50023837	Nose part, hex 1-1/8", 1-1/4"	1
111	50023918	Bushing, hex 1-1/8" x 6"	1
112	50023926	Chisel bellows, hex 1-1/8"	1
113	50023705	Latch	1
114	50023730	Spring	1
115	50023748	Lock pin	1
116	50023756	Screw, M10x55	2
117	50023764	Roll pin, Ø16x50	1
118	50023802	Roll pin, Ø10x50	1
119	50023934	Locking ring, 64x2	1
120	50109561	Decal, hex shank size 1-1/8 x 6	1

Accessories



Accessories with 1" x 4-1/4" Hex Shank

Key	UPC No. 78-3310-	Part No.	Description	Qty
1	49138	49138	Moil point, 14"	1
2	46219	46219	Chisel bit, 3" x 14"	1
3	46218	46218	Chisel bit, 1-3/8" x 14"	1
4	46220	46220	Clay spade	1
5	46222	46222	Rod driver (for 5/8" maximum diameter ground rod)	1
	46223	46223	Rod driver (for 1" maximum diameter ground rod)	1
6	46221	46221	Asphalt cutter	1

Accessories with 1-1/8" x 6" Hex Shank

Key	UPC No. 78-3310-	Part No.	Description	Qty
1	41706	F018451	Moil point, 14"	1
2	41707	F018452	Chisel bit, 3" x 14"	1
3	41710	F018455	Chisel bit, 1-3/8" x 13-3/4"	1
4	41709	F018454	Clay spade, 5-1/2" x 14"	1
6	41708	F018453	Asphalt cutter, 5" x 11"	1



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