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DBM-AK49H *V SERIES* HYDRAULIC CORE DRILL

OPERATIONS MANUAL
Safety, Operation and Maintenance

74060 7/2015 Ver 3

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IMPORTANT

To fill out a Product Warranty Validation form, and for information on your warranty, call Traxx Construction Products on 1300 109 108
(NOTE: The warranty Validation record must be submitted to validate the warranty).

SERVICING: This manual contains safety, operation, and routine maintenance instructions. Traxx recommends that servicing of hydraulic tools, other than routine maintenance, must be performed by an authorized and certified dealer. Please read the following warning.

⚠ WARNING

SERIOUS INJURY OR DEATH COULD RESULT FROM THE IMPROPER REPAIR OR SERVICE OF THIS TOOL.

REPAIRS AND / OR SERVICE TO THIS TOOL MUST ONLY BE DONE BY AN AUTHORIZED AND CERTIFIED DEALER.

SAFETY SYMBOLS

Safety symbols and signal words, as shown below, are used to emphasize all operator, maintenance and repair actions which, if not strictly followed, could result in a life-threatening situation, bodily injury or damage to equipment.

This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.

This safety alert and signal word indicate an imminently hazardous situation which, if not avoided, will result in death or serious injury.

This safety alert and signal word indicate a potentially hazardous situation which, if not avoided, could result in death or serious injury.

This safety alert and signal word indicate a potentially hazardous situation which, if not avoided, could result in death or serious injury.

This signal word indicates a potentially hazardous situation which, if not avoided, may result in property damage.

This signal word indicates a situation which, if not avoided, will result in damage to the equipment.

This signal word indicates a situation which, if not avoided, may result in damage to the equipment.

Always observe safety symbols. They are included for your safety and for the protection of the tool.

LOCAL SAFETY REGULATIONS

Enter any local safety regulations here. Keep these instructions in an area accessible to the operator and maintenance personnel.

SAFETY PRECAUTIONS

Tool operators and maintenance personnel must always comply with the safety precautions given in this manual and on the stickers and tags attached to the tool and hose.

These safety precautions are given for your safety. Review them carefully before operating the tool and before performing general maintenance or repairs.

Supervising personnel should develop additional precautions relating to the specific work area and local safety regulations. If so, place the added precautions in the space provided in this manual.

The CDV08 Hydraulic Core Drill will provide safe and dependable service if operated in accordance with the instructions given in this manual. Read and understand this manual and any stickers and tags attached to the tool and hoses before operation. Failure to do so could result in personal injury or equipment damage.

- Operator must start in a work area without bystanders. The operator must be familiar with all prohibited work areas such as excessive slopes and dangerous terrain conditions.
- Establish a training program for all operators to ensure safe operation.
- Do not operate the tool unless thoroughly trained or under the supervision of an instructor.
- Always wear safety equipment such as goggles, gloves, ear, head, and breathing protection, and safety shoes at all times when operating the tool.
- Do not inspect, carry or clean the tool while the hydraulic power source is connected. Accidental engagement of the tool can cause serious injury.
- Supply hoses must have a minimum working pressure rating of 2500 psi/175 bar.
- Be sure all hose connections are tight.
- The hydraulic circuit control valve must be in the “OFF” position when coupling or uncoupling the tool. Wipe all couplers clean before connecting. Use only lint-free cloths. Failure to do so may result in damage to the quick couplers and cause overheating of the hydraulic system.
- Do not operate the tool at oil temperatures above 140 °F/60 °C. Operation at higher oil temperatures can cause operator discomfort and may damage the tool. Never come in contact with the tool bit, the bit can get hot.
- Do not operate a damaged, improperly adjusted, or incompletely assembled tool.
- Make sure core bit is firmly fastened.
- To avoid personal injury or equipment damage, all tool repair, maintenance and service must only be performed by authorized and properly trained personnel.
- Do not exceed the rated limits of the tool or use the tool for applications beyond its design capacity.
- Always keep critical tool markings, such as labels and warning stickers legible.
- Always replace parts with replacement parts recommended by Traxx.
- Check fastener tightness often and before each use daily.
- Never operate the tool if you cannot be sure that underground utilities are not present.
- Do not wear loose fitting clothing when operating the tool.
- **Warning:** Use of this tool on certain materials during demolition could generate dust potentially containing a variety of hazardous substances such as asbestos, silica or lead. Inhalation of dust containing these or other hazardous substances could result in serious injury, cancer or death. Protect yourself and those around you. Research and understand the materials you are cutting. Follow correct safety procedures and comply with all applicable national, state or provisional health and safety regulations relating to them, including, if appropriate arranging for the safe disposal of the materials by a qualified person.

SAFETY PRECAUTIONS

- **Warning:** Hydraulic fluid under pressure could cause skin injection injury. If you are injured by hydraulic fluid, get medical attention immediately.
- Keep all body parts away from the working tool.
- When handling material or the tool bit, wear your (PPE) Personal Protection Equipment.
- Be observant of the hydraulic hoses lying about the work area, they can be a tripping hazard.
- Always de-energize the hydraulic system when changing a tool bit.
- Take caution when changing a tool bit, tool bits can get very hot.
- Never use the tool in an explosive atmosphere, sparks from the breaking process could ignite explosive gas.
- Use proper lifting techniques when handling the tool, get help from a co-worker and do not over-reach.
- Use proper protection from falling or flying debris, keep bystanders at a safe distance.
- Do not exceed the rated flow and pressure. See Specifications in this manual for correct flow rate and pressure rating. Rapid failure of the internal seals may result.

TOOL STICKERS & TAGS

Stickers and Tag for the DBM-AK49H

Warning Sticker
P/N-73731

CDV08 Name Sticker
P/N-73894

DBM-AK49H HAMMER
WEIGHT:22lb/10kg
FLOW:4-6gpm/15-24lpm
MAX PRESS:2000psi/140bar
NOM PRESS:1500psi/103bar

Traxx Construction products
Unit 4/1 Rocklea Drive,
Port Melbourne, VIC, 3207

Quality Tag
P/N-73755

The safety tag is attached to the tool when shipped from the factory. Read and understand the safety instructions listed on this tag before removal. We suggest you retain this tag and attach it to the tool when not is use.

HOSE TYPES

The rated working pressure of the hydraulic hose must be equal to or higher than the relief valve setting on the hydraulic system. There are three types of hydraulic hose that meet this requirement and are authorized for use with Traxx. They are:

Certified non-conductive — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *Hose labeled **certified non-conductive** is the only hose authorized for use near electrical conductors.*

Wire-braided (conductive) — constructed of synthetic rubber inner tube, single or double wire braid reinforcement, and weather resistant synthetic rubber cover. *This hose is **conductive** and must never be used near electrical conductors.*

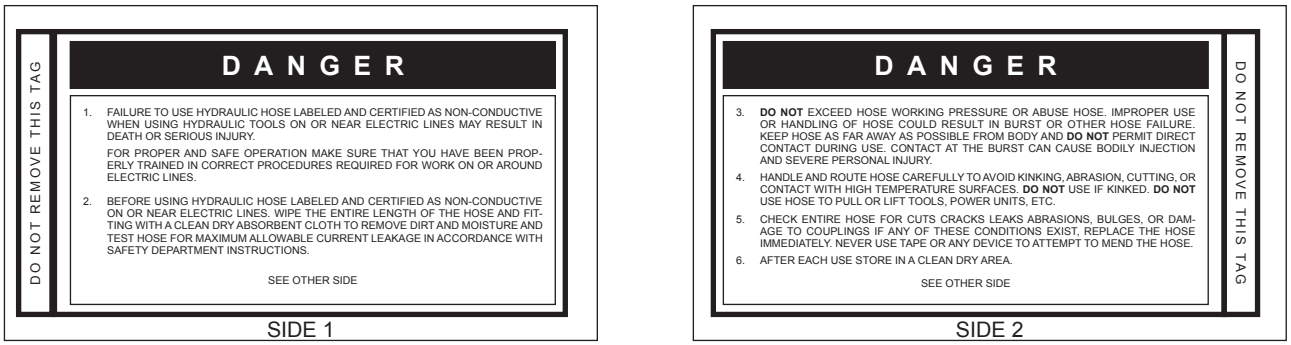
Fabric-braided (not certified or labeled non-conductive) — constructed of thermoplastic or synthetic rubber inner tube, synthetic fiber braid reinforcement, and weather resistant thermoplastic or synthetic rubber cover. *This hose is **not certified non-conductive** and must never be used near electrical conductors.*

HOSE SAFETY TAGS

To help ensure your safety, the following DANGER tags are attached to all hose purchased from Traxx.
DO NOT REMOVE THESE TAGS.

If the information on a tag is illegible because of wear or damage, replace the tag immediately. A new tag may be obtained from your Traxx Distributor.

THE TAG SHOWN BELOW IS ATTACHED TO "CERTIFIED NON-CONDUCTIVE" HOSE



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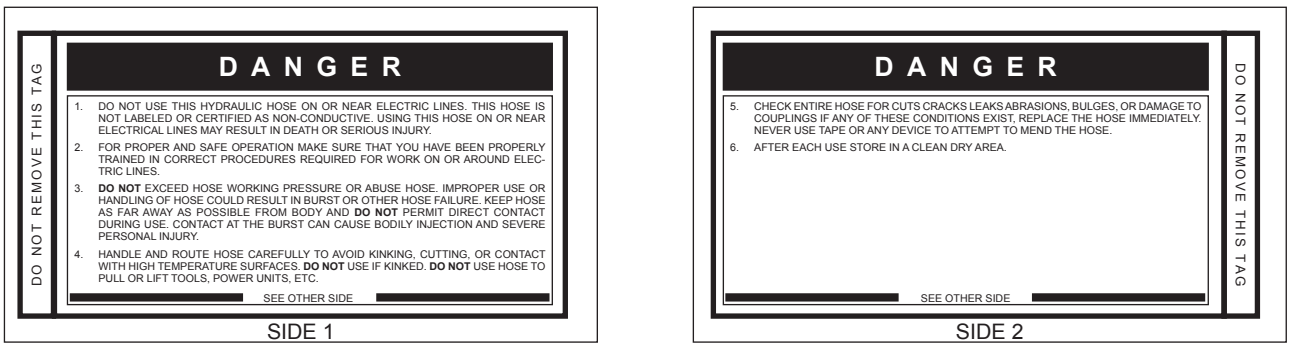
THE TAG SHOWN BELOW IS ATTACHED TO "CONDUCTIVE" HOSE.



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Tool to Hydraulic Circuit Hose Recommendations

The chart to the right shows recommended minimum hose diameters for various hose lengths based on gallons per minute (gpm)/ liters per minute (lpm). These recommendations are intended to keep return line pressure (back pressure) to a minimum acceptable level to ensure maximum tool performance.

This chart is intended to be used for hydraulic tool applications only based on Traxx tool operating requirements and should not be used for any other applications.

All hydraulic hose must have at least a rated minimum working pressure equal to the maximum hydraulic system relief valve setting.

All hydraulic hose must meet or exceed specifications as set forth by SAE J517.

Oil Flow		Hose Lengths		Inside Diameter		USE (Press/Return)	Min. Working Pressure	
GPM	LPM	FEET	METERS	INCH	MM		PSI	BAR
Certified Non-Conductive Hose - Fiber Braid - for Utility Bucket Trucks								
4-9	15-34	up to 10	up to 3	3/8	10	Both	2250	155
Conductive Hose - Wire Braid or Fiber Braid -DO NOT USE NEAR ELECTRICAL CONDUCTORS								
4-6	15-23	up to 25	up to 7.5	3/8	10	Both	2500	175
4-6	15-23	26-100	7.5-30	1/2	13	Both	2500	175
5-10.5	19-40	up to 50	up to 15	1/2	13	Both	2500	175
5-10.5	19-40	51-100	15-30	5/8	16	Both	2500	175
5-10.5	19-40	100-300	30-90	5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
10-13	38-49	up to 50	up to 15	5/8	16	Both	2500	175
10-13	38-49	51-100	15-30	5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
10-13	38-49	100-200	30-60	3/4	19	Pressure	2500	175
				1	25.4	Return	2500	175
13-16	49-60	up to 25	up to 8	5/8	16	Pressure	2500	175
				3/4	19	Return	2500	175
13-16	49-60	26-100	8-30	3/4	19	Pressure	2500	175
				1	25.4	Return	2500	175

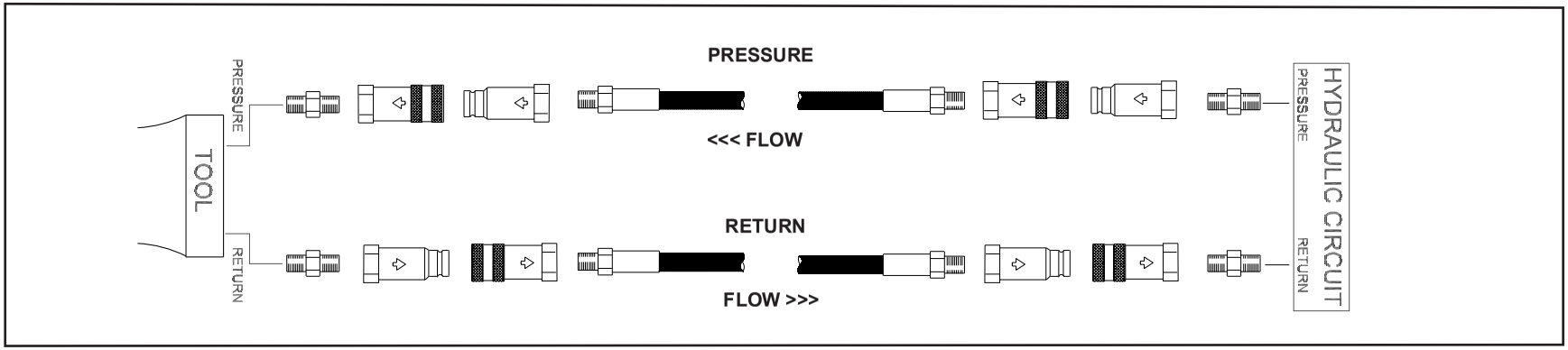


Figure 1. Typical Hose Connections

HTMA / EHTMA REQUIREMENTS

HTMA HYDRAULIC SYSTEM REQUIREMENTS	TOOL TYPE TYPE I	TYPE II	TYPE RR	TYPE III
Flow Range	4-6 gpm (15-23 lpm)	7-9 gpm (26-34 lpm)	9-10.5 gpm (34-40 lpm)	11-13 gpm (42-49 lpm)
Nominal Operating Pressure (at the power supply outlet)	1500 psi (103 bar)	1500 psi (103 bar)	1500 psi (103 bar)	1500 psi (103 bar)
System relief valve setting (at the power supply outlet)	2100-2250 psi (145-155 bar)	2100-2250 psi (145-155 bar)	2200-2300 psi (152-159 bar)	2100-2250 psi (145-155 bar)
Maximum back pressure (at tool end of the return hose)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)	250 psi (17 bar)
Measured at a max. fluid viscosity of: (at min. operating temperature)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)	400 ssu* (82 centistokes)
Temperature: Sufficient heat rejection capacity to limit max. fluid temperature to: (at max. expected ambient temperature)	140° F (60° C)	140° F (60° C)	140° F (60° C)	140° F (60° C)
Min. cooling capacity at a temperature difference of between ambient and fluid temps	3 hp (2.24 kW) 40° F (22° C)	5 hp (3.73 kW) 40° F (22° C)	6 hp (5.22 kW) 40° F (22° C)	7 hp (4.47 kW) 40° F (22° C)
NOTE: Do not operate the tool at oil temperatures above 140° F (60° C). Operation at higher temperatures can cause operator discomfort at the tool.				
Filter Min. full-flow filtration Sized for flow of at least: (For cold temp. startup and max. dirt-holding capacity)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)	25 microns 30 gpm (114 lpm)
Hydraulic fluid Petroleum based (premium grade, anti-wear, non-conductive) Viscosity (at min. and max. operating temps)	100-400 ssu*	100-400 ssu* (20-82 centistokes)	100-400 ssu*	100-400 ssu*
NOTE: When choosing hydraulic fluid, the expected oil temperature extremes that will be experienced in service determine the most suitable temperature viscosity characteristics. Hydraulic fluids with a viscosity index over 140 will meet the requirements over a wide range of operating temperatures.				
*SSU = Saybolt Seconds Universal				

EHTMA HYDRAULIC SYSTEM REQUIREMENTS	CLASSIFICATION B (15Lpm at 138bar EHTMA CATEGORY)	C (20Lpm at 138bar EHTMA CATEGORY)	D (30Lpm at 138bar EHTMA CATEGORY)	E (40Lpm at 138bar EHTMA CATEGORY)	F (50Lpm at 138bar EHTMA CATEGORY)
Flow Range	3.5-4.3 gpm (13.5-16.5 lpm)	4.7-5.8 gpm (18-22 lpm)	7.1-8.7 gpm (27-33 lpm)	9.5-11.6 gpm (36-44 lpm)	11.8-14.5 gpm (45-55 lpm)
Nominal Operating Pressure (at the power supply outlet)	1870 psi (129 bar)	1500 psi (103 bar)	1500 psi (103 bar)	1500 psi (103 bar)	1500 psi (103 bar)
System relief valve setting (at the power supply outlet)	2495 psi (172 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)	2000 psi (138 bar)

NOTE: These are general hydraulic system requirements. See tool specification page for tool specific requirements

OPERATION

GENERAL OPERATION

⚠ WARNING

Before you start changing the tool bit, make sure that the tool is disconnected from the power source in order to avoid unintentional operation of the tool and injury.

DRILL BIT INSTALLATION

To install a new core drill use a 32mm open end wrench to hold the shaft from turning while attaching the core drill, make sure it is secure.

CHECK THE POWER SOURCE

1. Using a calibrated flowmeter and pressure gauge, check that the hydraulic power source develops a flow of 4-6 gpm/15–24 lpm at 1000–2000 psi/69–138 bar.

2. Make sure the hydraulic power source is equipped with a relief valve set to open at 2100–2250 psi/145–155 bar.

3. Check that the hydraulic circuit matches the tool for open-center (OC) operation.

CHECK THE TOOL

1. Make certain all tool accessories are correctly installed. Failure to install tool accessories properly can result in damage to the tool or personal injury.

2. Check the equipment for signs of oil leaks. If leaks are observed, do not use the tool; have the equipment serviced before use.

3. Check fasteners for tightness.

4. Check the tool and hydraulic system for proper operation and performance.

5. If the equipment does not appear to operate properly, have it serviced before use.

CONNECT HOSES

1. Wipe all hose couplers with a clean lint-free cloth before making connections.

2. Connect the hoses from the hydraulic power source to the tool fittings or quick disconnects. It is good practice to connect the return hose first and disconnect it last to eliminate or reduce trapped pressure for easier quick-connect fitting attachment.

NOTE:
If uncoupled hoses are left in the sun, pressure increase within the hoses can make them difficult to connect. When ever possible, connect the free ends of hoses together.

3. Observe the flow indicators stamped on the hose couplers to ensure that the flow is in the proper direction. The female coupler on the drill is the inlet coupler.

4. Cycle the control valve momentarily. If the drill does not operate, the hoses might be reversed. Verify correct connection of the hoses before continuing.

DRILLING A HOLE

⚠ WARNING

When drilling into a structure that might contain electrical wiring, be sure to know the location of the wiring and avoid drilling into it. The housing can carry electrical current from live electrical wires into which the drill is accidentally drilled resulting in injury or death.

1. Open the water supply valve and adjust the water flow as required. It may be necessary to adjust the water as the drill bit advances in the hole.

2. Turn the power source on.

3. Start the core drill by pulling the trigger to the on position.

4. Slowly feed the drill into the work surface and begin drilling. **Note: when drilling by hand start the drilling at an angle so only a small portion of the bit is contacting the surface, then gradually bring the drill up straight where the whole diameter is contacting the material.**

5. When the drilling is finished, remove the bit from the material and turn off the core drill.

6. Turn off the power source and water supply.

TOOL PROTECTION & CARE

NOTICE

In addition to the Safety Precautions found in this manual, observe the following for equipment protection and care.

- Make sure all couplers are wiped clean before connection.
- The hydraulic circuit control valve must be in the “OFF” position when coupling or uncoupling hydraulic tools. Failure to do so may result in damage to the quick couplers and cause overheating of the hydraulic system.
- Always store the tool in a clean dry space, safe from damage or pilferage.
- Make sure the circuit PRESSURE hose (with male quick disconnect) is connected to the “IN” port. The circuit RETURN hose (with female quick disconnect) is connected to the opposite port. Do not reverse circuit flow. This can cause damage to internal seals.
- Always replace hoses, couplings and other parts with replacement parts recommended by Traxx. Supply hoses must have a minimum working pressure rating of 2500 psi/172 bar.
- Do not exceed the rated flow and pressure. See Specifications in this manual for correct flow rate and pressure rating. Rapid failure of the internal seals may result.
- Always keep critical tool markings, such as warning stickers and tags legible.
- Tool repair should be performed by experienced personnel only.
- Make certain that the recommended relief valves are installed in the pressure side of the system.
- Do not use the tool for applications for which it was not intended.

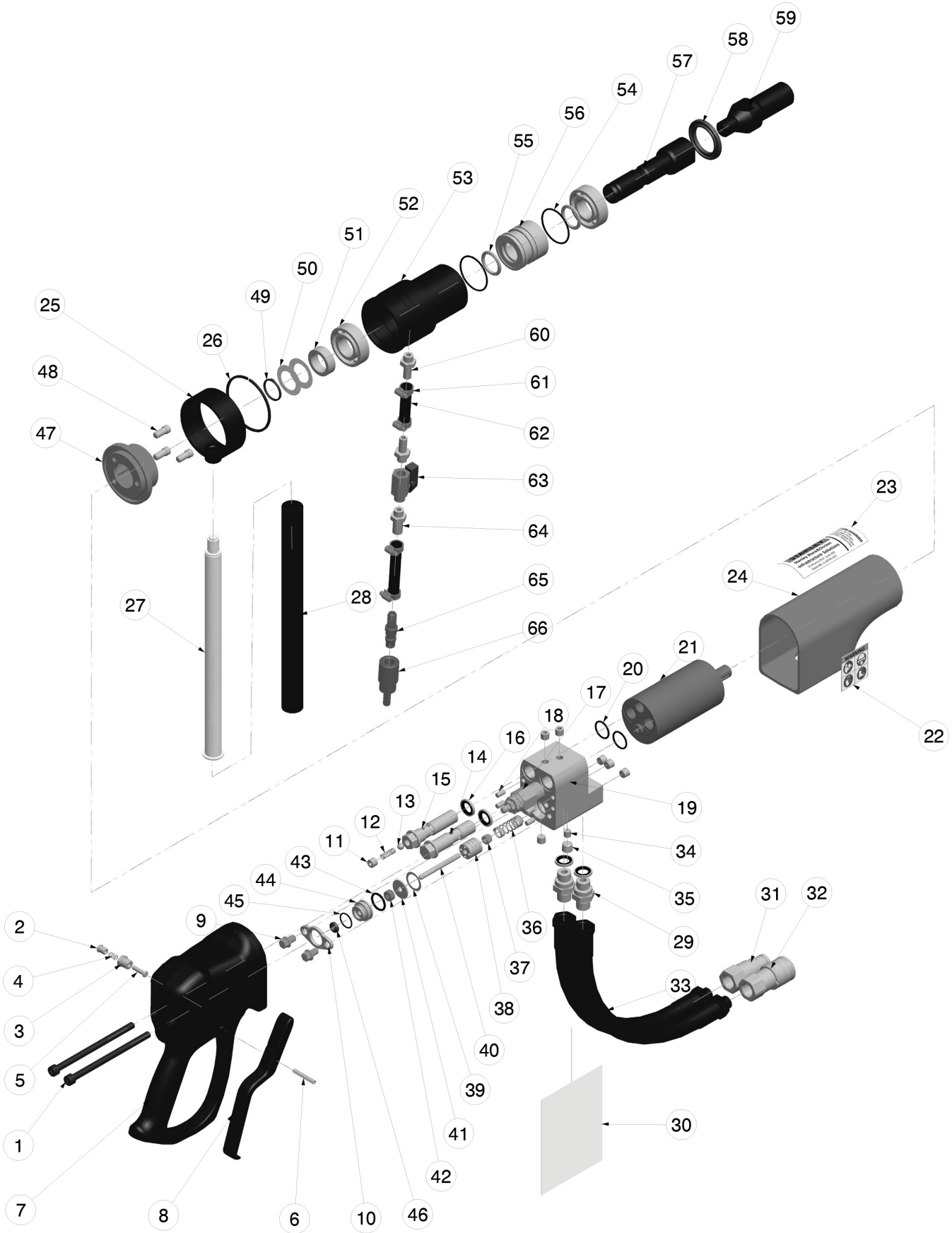
TROUBLESHOOTING

PROBLEM	CAUSE	REMEDY
Tool will not start.	Power unit not functioning.	Check power unit for proper flow and pressure (5 gpm/20 lpm, 800–2175 psi/55–150 bar.
	Couplers or hoses blocked.	Remove restriction.
	Pressure and return line hoses reversed at ports.	Be sure hoses are connected to their proper ports.
	Jammed motor.	See your authorized dealer for service.
Low drilling torque.	Incorrect hydraulic flow.	Check power unit for proper flow and pressure (5 gpm/20 lpm, 800–2175 psi/55–150 bar.
	Defective quick-disconnect.	Check each disconnect separately.
	Hydraulic circuit relief set too low.	Set relief valve at 2250 psi/155 bar.
	Fluid restriction in hose or valve. Excess back-pressure.	Locate and remove obstruction. Check back pressure, 250 psi max.
	Hoses too restrictive.	Fluid not warmed up. Preheat system.
	Hydraulic fluid is too thick.	Hoses too long for hose ID. Use shorter hose. Use larger ID hose.
	Over-feeding the drill.	To much down pressure, do not overload drill to avoid wear or damage.
Tool runs too fast.	Incorrect hydraulic flow.	Check power unit for proper flow and pressure (5 gpm/20 lpm, 800–2175 psi/55–150 bar.

SPECIFICATIONS

Max Pressure	2000 psi / 140 bar.
Nominal Pressure	1500 psi / 103 bar.
Flow Range	4-6 gpm/15-24 lpm
Nominal Flow	5 gpm / 20 lpm
Maximum Back Pressure	250 Psi/17 bar
Connect Size & Type	3/8 in. Male Pipe Hose Ends
Weight	22 lbs / 10 kg
Length	22 in. / 560 mm
Width	10.2 in. / 260 mm
Max. Fluid Temperature	140 °F / 60 °C
System Type	Open Center
Port Size	SAE 8 O-ring
Rotational Speed @ 20 lpm / 5 gpm	600 rpm

DBM-AK49H PARTS ILLUSTRATION



DBM-AK49H PARTS LIST

ITEM #	PART #	DESCRIPTION	QTY
1	73873	SCREW M8*130	2
2	73874	SAFETY LATCH HANDLE	1
3	73875	SAFETY LATCH SLEEVE	1
4	73876	COMPRESSION SPRING	1
5	73877	SAFETY KEY	1
6	73878	SPRING PIN	1
7	73879	HANDLE	1
8	73880	TRIGGER LEVER	1
9	73881	FLANGE BOLTS M8*12	2
10	73882	MOUNTING PLATE	1
11	73883	PIPE PLUG 1/8-27NPT	7
12	73884	COMPRESSION SPRING	1
13	73885	STEEL BALL	1
14	73886	BANJO BOLT	1
15	73887	BANJO BOLT	1
16	73888	SEAL RING	4
17	73889	PRESSURE RELIEF VALVE	1
18	73890	CYLIDER PIN	4
19	73891	VALVE HOUSING	1
20	73892	O-RING	2
21	73893	MOTOR	1
22	73731	WARNING STICKERS	1
23	73894	CDV08 NAME STICKERS	1
24	73895	PLASTIC COVER	1
25	73896	HANDLE RING W/BUSHING	1
26	73897	RETAINING RING	1
27	73898	SUPPORTING HANDLE	1
28	73899	HANDLE GRIP	1
29	73900	FITTING	2
30	73755	CERTIFICATE OF QUALITY	1
31	73509	3-8 MALE COUPLER	1
32	73508	3-8 FEMALE COUPLER	1
33	73901	HOSE ASSY	2
34	73839	ORIFICE PLUG	1
35	73902	PIPE PLUG	1
36	73903	COMPRESSION SPRING	1
37	73904	LOCKNUT 8.8,M6	1
38	73905	TRIGGER PISTON	1
39	73906	SPRING WASHER	1
40	73907	TRIGGER	1

ITEM #	PART #	DESCRIPTION	QTY
41	73908	WASHER	1
42	73909	SEAL	1
43	73910	O-RING	1
44	73911	SEAL HOUSING	1
45	73912	O-RING	1
46	73913	SEAL	1
47	73914	MOTOR ADAPTOR	1
48	73915	CAPSCREW M6*16	3
49	73916	RETAINING RING	1
50	73917	COMPRESSION SPRING	2
51	73918	DISTANCE RING	1
52	73919	BEARING	2
53	73920	BEARING HOUSING	1
54	73921	O-RING	2
55	73922	SEAL	2
56	73923	SEAL HOUSING	1
57	73924	SHAFT	1
58	73925	SEAL	1
59	73926	FRONT ADAPTOR	1
60	73927	PAGODA JOINT(OUTSIDE)	2
61	73928	HOSE CLAMP	4
62	73929	WATER HOSE	2
63	73930	WATER SWITCH	1
64	73931	COPPER PAGODA JOINT(INSIDE)	1
65	73932	COPPER CONNECTORS (MALE)	1
66	73933	COPPER CONNECTORS (FEMALE)	1

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