

HOLEMAKER 35 PNEUMATIC

Holemaker Portable Magnetic Drilling Machine

OPERATOR'S MANUAL

WARNING!

BEFORE USE, ENSURE EVERYONE USING THIS MACHINE READS AND UNDERSTANDS ALL SAFETY AND OPERATING INSTRUCTIONS IN THIS MANUAL .



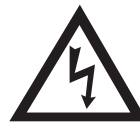
EYE PROTECTION
REQUIRED



HEARING PROTECTION
REQUIRED



NEVER PLACE
FINGERS NEAR
CUTTING AREA OR
MACHINE ARBOR



LINE VOLTAGE
PRESENT



BEWARE OF
ROTATING
MACHINE PARTS



Serial # _____

Date of Purchase _____

Ver: 1.10 17/08/15

Holemaker 35 Pneumatic Magnetic Drilling Machine

Congratulations on the purchase of your Holemaker 35 Pneumatic magnetic drilling machine. Holemaker drilling machines are designed to deliver fast, efficient hole drilling performance in portable applications.

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LIMITED WARRANTY

Industrial Tool & Machinery Sales (hereinafter referred to as ITMS) will, within twelve (12) months from the original date of purchase, repair or replace any goods found to be defective in materials or workmanship. This warranty is void if the item has been damaged by accident, neglect, improper service or other causes not arising out of defects in materials or workmanship. This warranty does not apply to machines and/or components which have been altered, changed, or modified in any way, or subjected to overloading or use beyond recommended capacities and specifications. Worn componentry due to normal wear and tear is not a warranty claim. Goods returned defective shall be returned prepaid freight to ITMS or agreed repair agent, which shall be the buyer's sole and exclusive remedy for defective goods. ITMS accepts no additional liability pursuant to this guarantee for the costs of travelling or transportation of the product or parts to and from ITMS or the service agent or dealer, such costs are not included in this warranty.

THE MANUFACTURER RESERVES THE RIGHT TO MAKE
IMPROVEMENTS AND MODIFICATIONS TO DESIGN WITHOUT PRIOR NOTICE.

Imported And Distributed By

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IMPORTANT SAFETY INSTRUCTIONS



READ AND SAVE ALL INSTRUCTIONS FOR FUTURE REFERENCE.

1. Keep Work Area Clean
 - Cluttered areas and benches increase risk of injuries.
2. Consider Work Area Environment
 - Keep work area well lit.
 - Do not use tool in presence of flammable liquids or gases.
3. Check the state of the air lines, connections and machine before beginning operation
4. Ensure the drill is powered by cleaned and oiled air
5. Do not allow the drill to be submerged in water, or exposed to moisture
6. Keep Children Away
 - Do not let visitors contact tool or air supply
 - All visitors should be kept away from work area.
7. Store Idle Tools
 - When not in use, tools should be stored in a dry, high and locked-up place, out of reach of children.
8. Do Not Force Tool
 - It will do the job better and safer at the rate for which it was intended.
9. Use Right Tool
 - Do not force a small tool or attachment to do the job of a heavy-duty tool.
 - Do not use tool for unintended purpose. For example: Do not use a circular saw for cutting tree limbs or logs.
10. Dress Properly
 - Do not wear loose clothing or jewellery. They can be caught in moving parts.
 - Rubber gloves and non-skid footwear are recommended when working outdoors.
 - Wear protective hair covering to contain long hair.
 - Always wear safety glasses
 - Use face or dust mask if necessary
 - Use hearing protection
11. Do Not Abuse Tool
 - Never carry tool the air hose
 - Keep tool and air supply hose away from heat, oil and sharp edges.
12. Do Not Overreach
 - Keep proper footing and balance at all times.

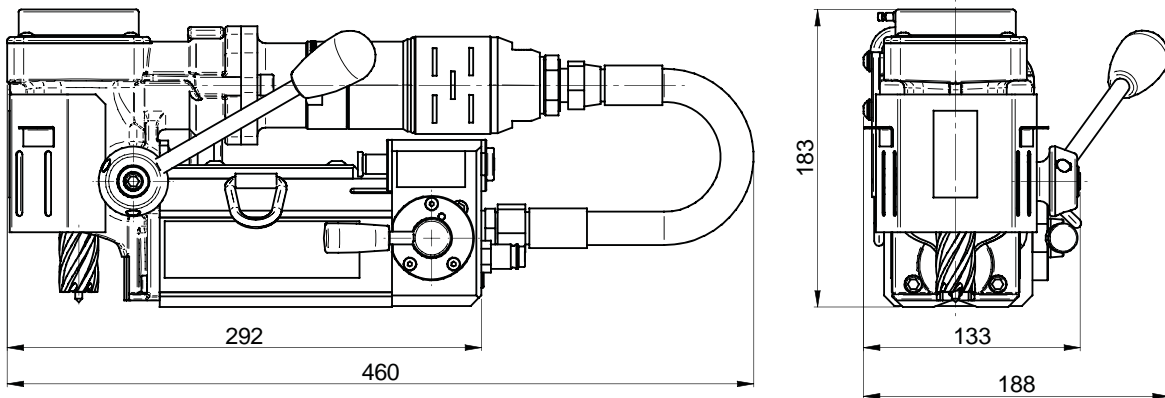
IMPORTANT SAFETY INSTRUCTIONS

12. Maintain Tools With Care
 - Keep tools sharp and clean for better and safer performance.
 - Follow instructions for lubricating and changing accessories.
 - Inspect tool periodically and if damaged, have repaired by authorized service facility.
 - Inspect air supply hose periodically and replace if damaged.
 - Keep handles dry, clean, and free from oil and grease.
13. Disconnect Tools
 - Unplug from air supply when not in use, before servicing, and when changing accessories, such as cutters.
14. Remove Adjusting Keys And Wrenches
 - Form habit of checking to see that keys and adjusting wrenches are removed from tool before turning it on.
15. Avoid Unintentional Starting
 - Do not carry a plugged-in tool. Always disconnect from air supply before moving.
 - Be sure switches are off before connecting to the air supply
16. Stay Alert
 - Watch what you are doing. Use common sense. Do not operate tool when you are tired.
 - Do not use when taking medications that may cause drowsiness.
17. Check Damaged Parts
 - Before further use of the tool, any damaged parts should be repaired and performance verified prior to operation.
 - Check alignment of moving parts, binding of parts, breakage of parts, mounting, and any other conditions that may affect its operation. Any part that is damaged should be properly repaired or replaced by an authorized service center.
 - Do not use this tool if switches do not turn it on and off. Have defective switches replaced by authorized service center.
18. Use Cutter Guard
 - Always use cutter guard supplied with machine to reduce the risk of injury. (refer fig. 1)

Fig. 1



TECHNICAL DATA



| | |
|-------------------------------------|------------------------|
| Operating pressure | 85 PSI |
| Air consumption | 1400 l/min |
| Motor Power | 800Watt |
| Arbor size | 3/4" Weldon /19,05 mm/ |
| Hole capacity with Holemaker cutter | 35mm (1.38 in) |
| Maximum drilling depth | 25mm (0.98 in) |
| Stroke | 39mm (1.54 in) |
| Magnet force on 25mm Plate | 6,500 N |
| Free Speed | 500 rpm |
| Load speed | 240 rpm |
| Magnetic base | 80x80x143 mm |
| Weight | 14kg |
| Noise level | above 70 dB |
| Working temperature range | -20°C /+ 40°C |

The compressed-air motor used in the HMP35AD drill is certified ATEX II2G/D C IIC T6;T4 and meets the requirements for use in areas with a risk of explosion.

SPECIAL INSTRUCTIONS


1. Read and follow operator's manual thoroughly.
2. DO NOT touch rotating cutter or parts.
3. Always stop machine completely and unplug from air supply before changing cutters, clearing swarf, refilling lubrication or performing adjustments.
4. Never wear loose clothing or gloves when working near cutting area or machine arbor.
5. Always wear eye protection. Any tool can shatter.
6. Always use safety chain or strap provided with machine.
7. Always use proper tooling. Keep cutters securely fastened.
8. DO NOT use dull or broken cutters.
9. Beware of ejected slugs at end of cut. They become HOT during the cut.
10. Keep all safety features functioning and working properly.
11. Keep bottom of magnet burr free and clear of chips and debris.
12. Use only authorized service centers for repairs.


Remove all contents from packaging and inspect to ensure no damage was incurred during shipping. Your Holemaker package should include the following:

| DESCRIPTION | QTY |
|---------------------------|-----|
| HOLEMAKER HMP35AD MACHINE | 1 |
| METAL CARRY CASE | 1 |
| SAFETY CHAIN WITH CLIP | 1 |
| HEX WRENCH 4 | 1 |
| HEX WRENCH 4 | 1 |
| FEED HANDLE | 1 |
| COOLANT BOTTLE ASSEMBLY | 1 |
| OPERATORS MANUAL | 1 |

WHAT YOU SHOULD KNOW BEFORE YOU DRILL

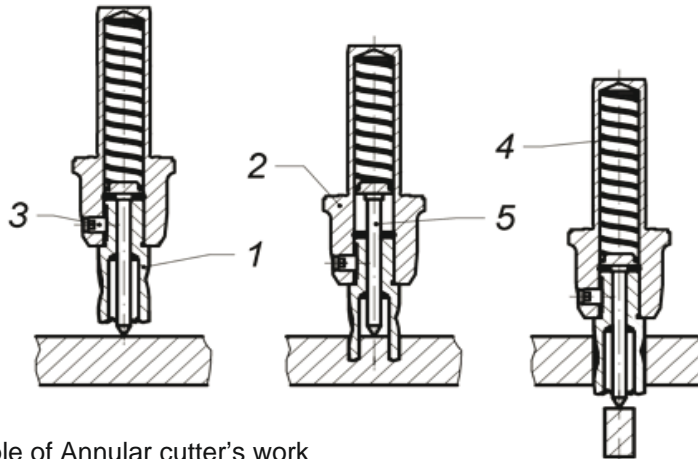
1. Type of material to be drilled, Brinnell or Rockwell hardness, material thickness and position should all be determined to ensure proper selection of cutting tools.
2. Remove any excessive mill scale or rust from surface to be drilled.
3. When drilling thin materials, it is recommended that you place a steel plate under the work piece and Holemaker magnet area to increase magnetic holding force.
4. Material that has been flame cut may become heat treated and therefore difficult to drill. Avoid drilling near such areas whenever possible.
5. Special cutter lubricant is available for using the Holemaker and annular cutters in the horizontal position. Consult you distributor for more information.

 The Holemaker HMP35AD is not designed for use on steel thinner than 3/8" or 10mm, as the magnet's adhesive power would be significantly reduced which can cause machines failure or individuals injury.

 Never use the pneumatic hose running from the motor to the machines frame as a lifting handle.

START UP AND OPERATION

CAUTION: READ THE WHOLE INSTRUCTIONS MANUAL BEFORE ATTEMPTING TO START UP



Principle of Annular cutter's work

This drilling machine's spindle has a 19mm Weldon Shank type and is specifically designed for use with Annular cutters.

Annular cutter (1) is located inside arbor body (2) and is fastened with grub screws (3). When fastening the cutter in the arbour, ensure that the grub screws are firmly tightened to avoid them coming loose during operation. It is important to position the cutter in relation to the arbour in such a way that fixing flats on the cutter shank are positioned opposite to the grub screws (3). Both grub screws(3) should be used to fasten the cutter. The Pilot Pin (5) is located inside the cutter to easily position the annular cutter over centre of a planned hole. During drilling as the cutter goes into the material, the pilot pin moves back into the arbour body and pressurizes the discharge spring (4). That spring ejects the slug which is a by-product of drilling the hole with a centre free cutter.

Before you cut

Steel elements of this machine are coated with a layer of lubricant for the period of storage and transport, and must be cleaned off prior to their usage.

Before positioning the machine on work piece always make sure that:

- work piece is made of ferrous material
- thickness of work piece is adequate for secure magnetic adhesion (mild steel - 10mm is recommended)
- Ensure no part of magnet overhangs the steel workpiece
- surface of steel under the magnet is flat
- wipe, brush or sand down clean surface where you intended to place the drilling machine, so that you remove rust, paint, dirt etc which would reduce adhesive power of the electromagnetic base.

Install annular cutter in the machine before plugging it into air supply

Always make sure prior to use that the machine is secured from falling down with a chain/strap.

Cutting

- Choose a suitable lubricating fluid and fill the coolant tank.

The cooling system is an integral part of the machine and should always be used.

Warning: The cooling system works gravitationally, therefore it can be used only when in vertical position of the drilling machine. In other positions, a cutting paste should be used

- Check workings of cooling system. Open the coolant tank's tap and apply pressure on the pilot by turning spokes counter clockwise. As the pilot starts to sink into the cutter, cooling liquid should start to run down the groove in pilot pin. If there is no liquid flowing down, check if the tap is fully opened. It may take a few seconds for cooling liquid to fill the whole system.

In order to start the machine:

- Make sure that the motor connection lever is in the OFF position. turn the magnet switch to the ON position. turn the motor connection lever to the ON position.
- turning the motor connection lever to the OFF position will cause the motor to stop running. The magnetic base will still be on.
- in order to change the drilling location, the magnet switch should be set to the OFF position after the drive has been stopped.

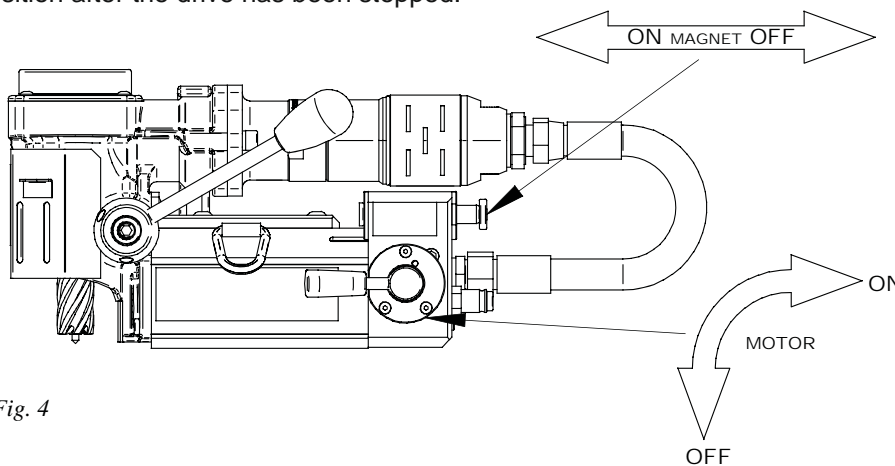


Fig. 4

Making a hole with an annular cutter should ideally be done in one pass. Do not peck drill.

WARNING: When the annular cutter goes through the material the slug can be pushed out often with considerable strength. Pay attention to avoid injury.

- After a hole is made the cutter should be retracted and both the motor and the electromagnet should be switched OFF.
- When work with the machine is finished the machine should be disconnected from the air supply, the machine should be cleaned up from swarf, coolant etc. and the cutter should be removed and cleaned.

MAINTENANCE AND SERVICE

- Regularly grease the pinion and the teeth on the pinole sleeve.
- All component parts should be cleaned and maintained with a thin oil film.
- Use only clean, detergent-free oil with a density compliant with SAE 10 (90SSU) or lower.
- When working with a pneumatic motor, it is necessary to use an air preparation unit.

ATTENTION: The pneumatic motor's guarantee is invalid when damages arise from pollution in the air feed or lack of lubrication.

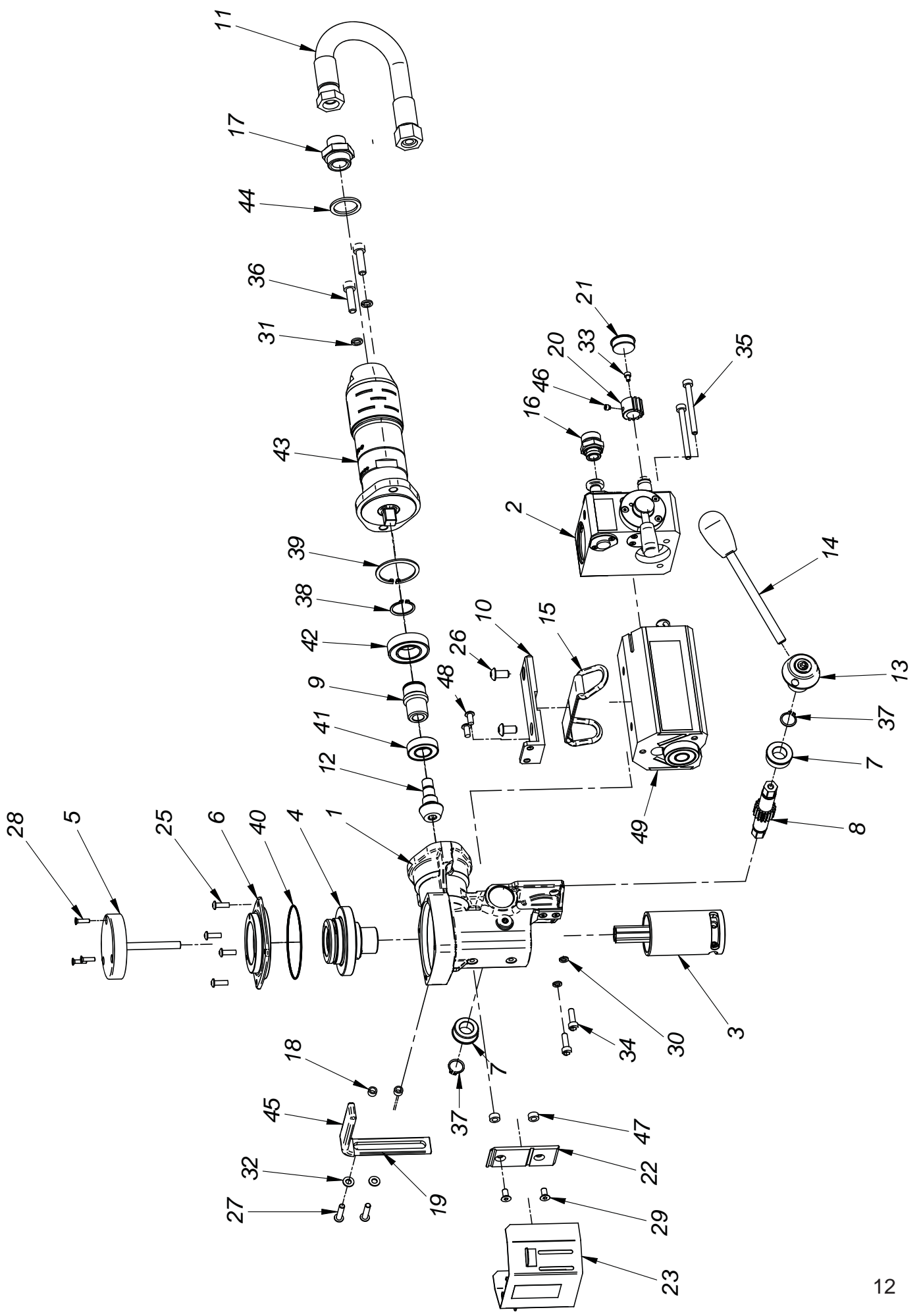
- Lubrication of the pneumatic motor.
- Direct servicing is not necessary when drill usage is normal.
- It is necessary to use an air preparation unit in the air feed system.
- Inspections and servicing of the air preparation unit should be carried out as needed depending on the air pollution level. Clean the filter, dry out the dehydrator, and maintain an oil level with drips every 2-5 seconds.
- Oil used in the air preparation unit must have an ignition temperature higher than 260°C.
- Any type of mechanical repair of the drill should be done at a service workshop recommended by the vendor. When repairing use only original parts.

ATTENTION: The HMP35AD drill is designed to be powered by air with working pressure 4 to 6 bar /60 to 90 PSI/. Maintenance of the machine's technical parameters and its general state are strictly dependent on the cleanness and preparation of the air and proper servicing.

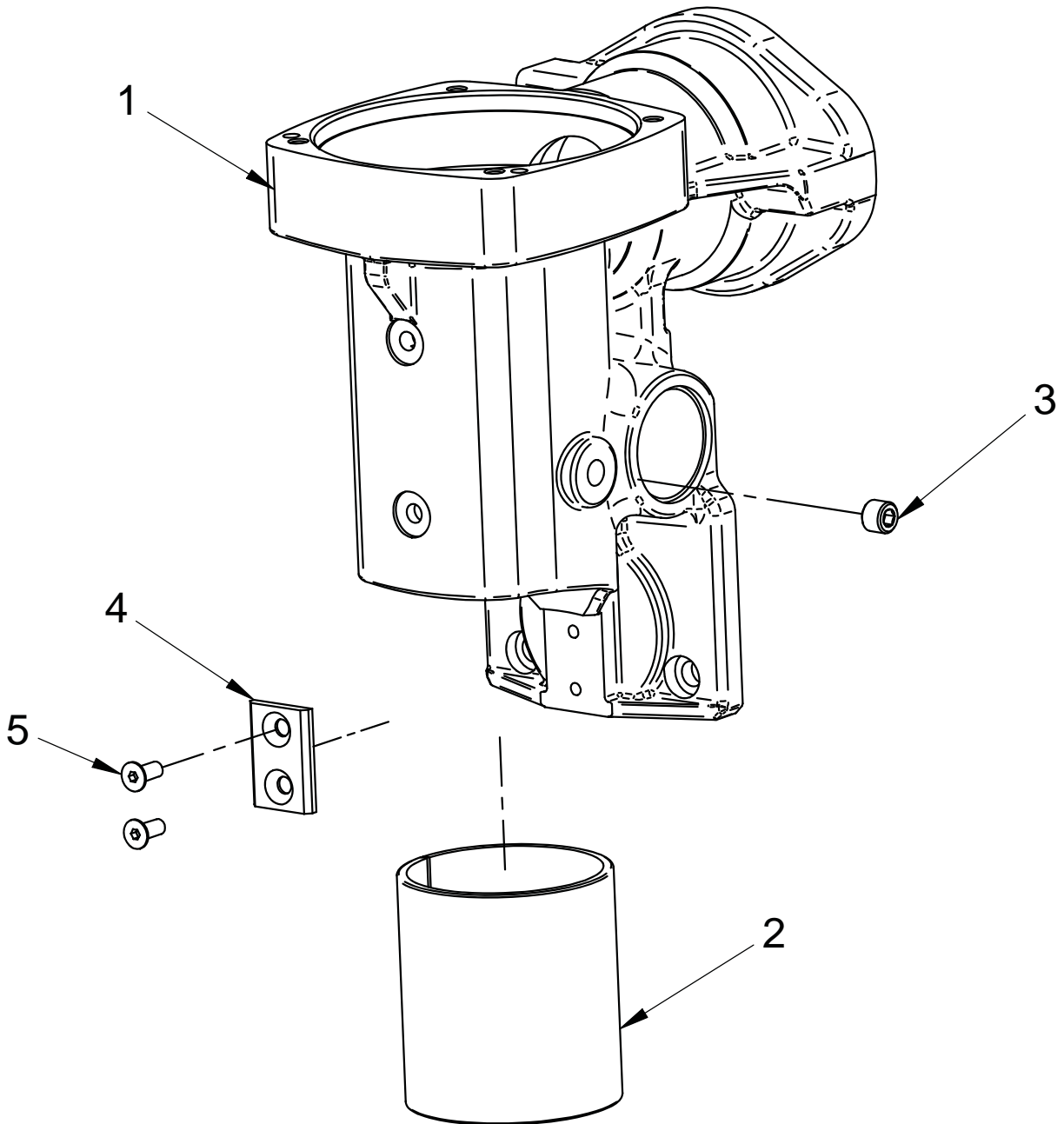
BASIC TROUBLESHOOTING

1. Magnetic base not holding securely
 - Material is too thin.
 - Surface of material being drilled must be free of chips, debris, rust and mill scale.
 - Does size of cutter exceed machine's rated capacity?
 - Check magnet face for unevenness, nicks and burrs.
2. Drill motor running, arbor and spindle not turning
 - Possible sheared drive train component.
3. Motor slows when drilling
 - Excessive downfeed pressure during drilling cycle will cause motor to slow
 - Does cutting tool need to be resharpened?
4. Coolant system not working
 - Dirt or debris in coolant tank.
 - Consistency of coolant mixture too thick.
 - Is correct pilot pin being used?
 - Vent hole in coolant tank lid blocked.
5. Slugs not ejecting from cutter
 - Lack of coolant causing slugs to expand in cutter bore.
 - Is correct pilot pin being used?
 - Possible broken internal arbor parts.
6. Breaking cutters
 - How is coolant being applied? Coolant must be supplied to interior of cutter.
 - Excessive feed pressure being applied when cutter initially contacts work surface.
 - Confirm material hardness.
 - Drilling stacked materials with incorrect cutter.
 - Dull cutters; dull or chipped cutting edges require excessive feed pressure, resulting in breakage.
 - Movement of machine on material - See "1. Magnetic base not holding securely"
 - Inconsistent hardness in material can cause cutter breakage
7. Oversized or rough holes
 - Insufficient coolant.
 - Excessive feed pressure.
 - Dull cutter.

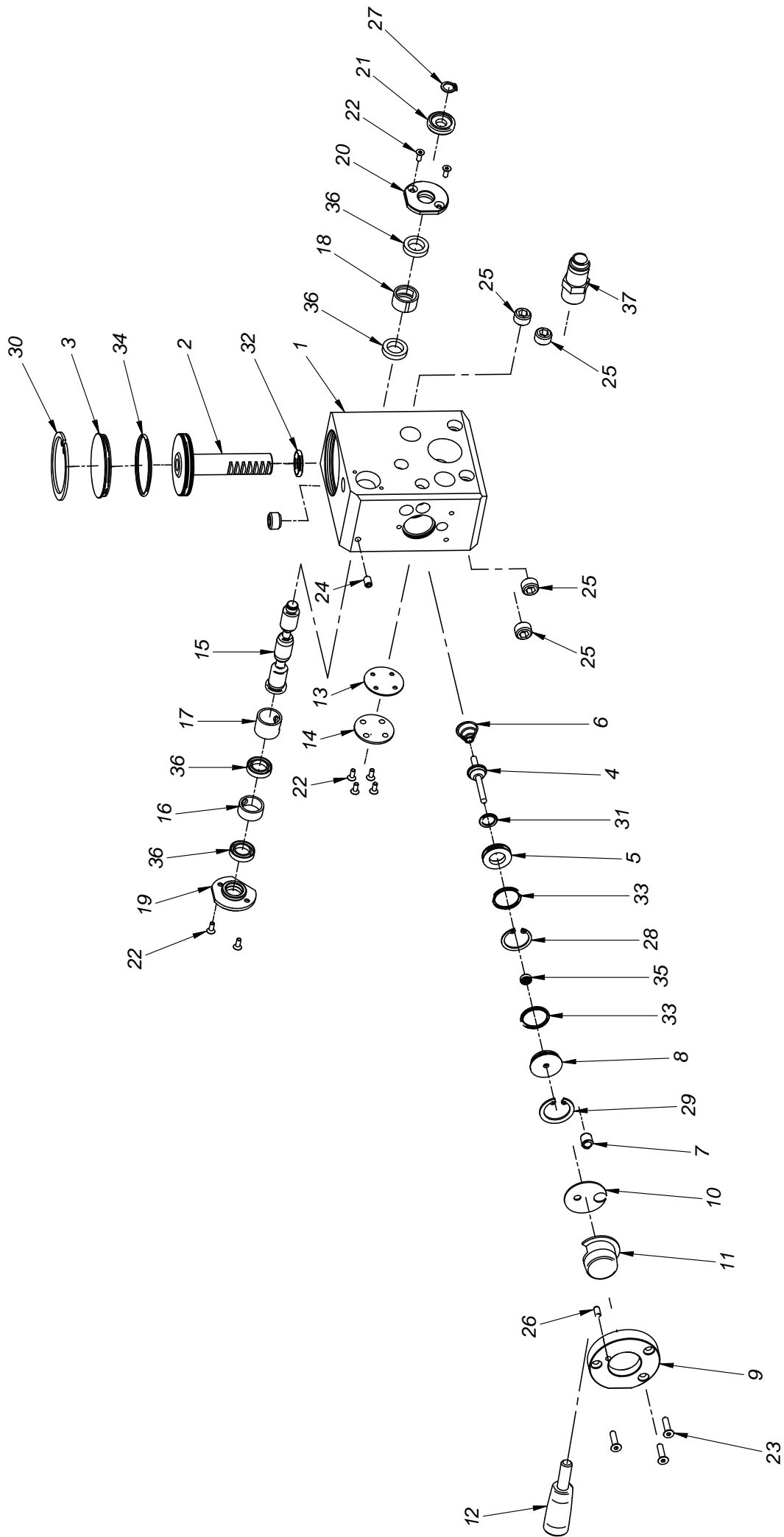
| ITEM | PART NUMBER | DESCRIPTION | QTY |
|------|-------------|-----------------------------------|-----|
| 1 | SPMP3501 | MAIN BODY ASSEMBLY | 1 |
| 2 | SPMP3502 | VALVE ASSEMBLY | 1 |
| 3 | SPMP3503 | QUILL ASSEMBLY | 1 |
| 4 | SPMP3504 | BEVEL GEAR T=39 ASSEMBLY, | 1 |
| 5 | SPMP3505 | GEAR BOX COVER ASSEMBLY, | 1 |
| 6 | SPMP3506 | BEARING NUT HOLDER, | 1 |
| 7 | SPMP3507 | SLEEVE | 2 |
| 8 | SPMP3508 | PINION | 1 |
| 9 | SPMP3509 | DRIVER | 1 |
| 10 | SPMP3510 | MAIN BODY BRACKET | 1 |
| 11 | SPMP3511 | MOTOR HOSE ASSY | 1 |
| 12 | SPMP3512 | GEARSHFT T=11, | 1 |
| 13 | SPMP3513 | HEAD ASSEMBLY, | 1 |
| 14 | SPMP3514 | SPOKE HANDLE INCLUDING 35406 KNOB | 1 |
| 15 | SPMP3515 | D-RING STRAP | 1 |
| 16 | SPMP3516 | STRAIGHT COUPLING 1/2" - 3/8" | 1 |
| 17 | SPMP3517 | STRAIGHT COUPLING 3/4" - 3/8" | 1 |
| 18 | SPMP3518 | HOLDER SLEEVE | 2 |
| 19 | SPMP3519 | HOLDER | 1 |
| 20 | SPMP3520 | TURN ON/OFF GEAR | 1 |
| 21 | SPMP3521 | GEAR PLUG | 1 |
| 22 | SPMP3522 | GUARD'S SLIDE | 1 |
| 23 | SPMP3523 | GUARD ASSEMBLY | 1 |
| 25 | SPMP3525 | SOCKET BUTTON HEAD CAP SCREW M5 | 4 |
| 26 | SPMP3526 | SCREW M8x16 | 2 |
| 27 | SPMP3527 | SOCKET BUTTON HEAD CAP SCREW M6 | 2 |
| 28 | SPMP3528 | SCR, M4 x 16 FHSCS | 3 |
| 29 | SPMP3529 | SCR, M6 x 12 FHSCS | 2 |
| 30 | SPMP3530 | SPRING WASHER 6,1 | 2 |
| 31 | SPMP3531 | SPRING WASHER 8.2 | 2 |
| 32 | SPMP3532 | ROUND WASHER 6,4 | 2 |
| 33 | SPMP3533 | HEX. SOCKET BOLT M4x6 | 1 |
| 34 | SPMP3534 | HEX. SOCKET BOLT M6x20 | 2 |
| 35 | SPMP3535 | HEX. SOCKET BOLT M6x65 | 2 |
| 36 | SPMP3536 | HEX SOCKET BOLT-M8X30 | 2 |
| 37 | SPMP3537 | EXTERNALE RETAINING RING 16z | 2 |
| 38 | SPMP3538 | EXTERNALE RETAINING RING 25z | 1 |
| 39 | SPMP3539 | INTERNAL RETAINING RING-47W | 1 |
| 40 | SPMP3540 | SEAL RING 80x1,3, | 1 |
| 41 | SPMP3541 | BEARING BALL 6003 | 1 |
| 42 | SPMP3542 | BEARING, BALL 6005 ZZ | 1 |
| 43 | SPMP3543 | AIR MOTOR | 1 |
| 44 | SPMP3544 | SEAL, 3/4" | 1 |
| 45 | SPMP3545 | SWITCH CONNECTOR | 1 |
| 46 | SPMP3546 | HEX SET SCREW-M6 x 6 | 1 |
| 47 | SPMP3547 | GUARD SLEEVE | 2 |
| 48 | SPMP3548 | LABELS, SET | 1 |
| 49 | SPMP3549 | MAGNET BASE | 1 |



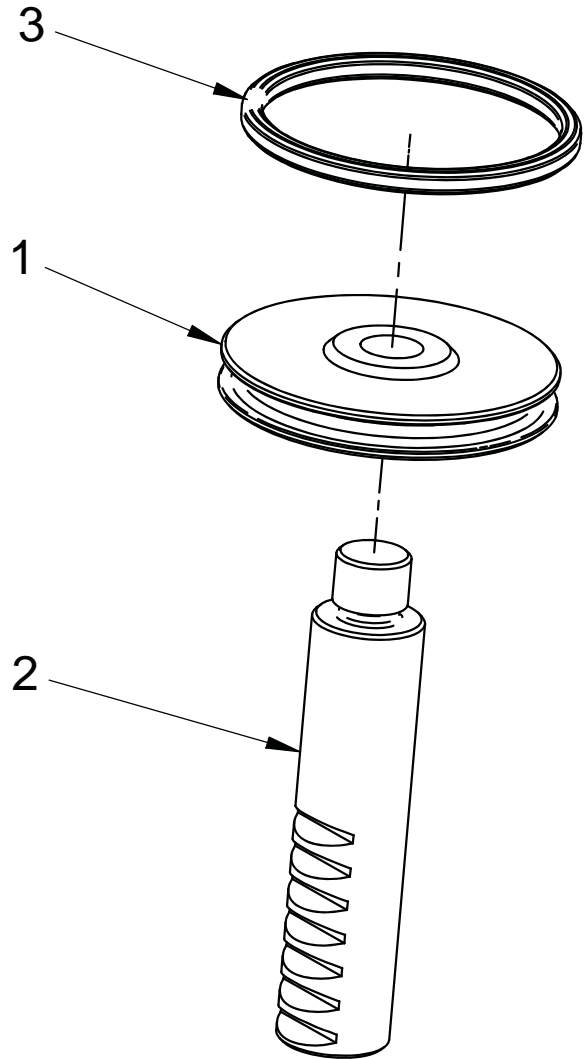
| Part Number:SPMP3501 | | MAIN BODY ASSEMBLY | |
|----------------------|-------------|------------------------|-----|
| ITEM | PART NUMBER | DESCRIPTION | QTY |
| 1.1 | SPMP350101 | MAIN BODY | 1 |
| 1.2 | SPMP350102 | BUSHING PERMAGLIDE | |
| 1.3 | SPMP350103 | HEX. INSERT SCREW M8x6 | 1 |
| 1.4 | SPMP350104 | MAIN BODY PLATE | 1 |
| 1.5 | SPMP350105 | SCR, M4 x 10 FHSCS | 2 |



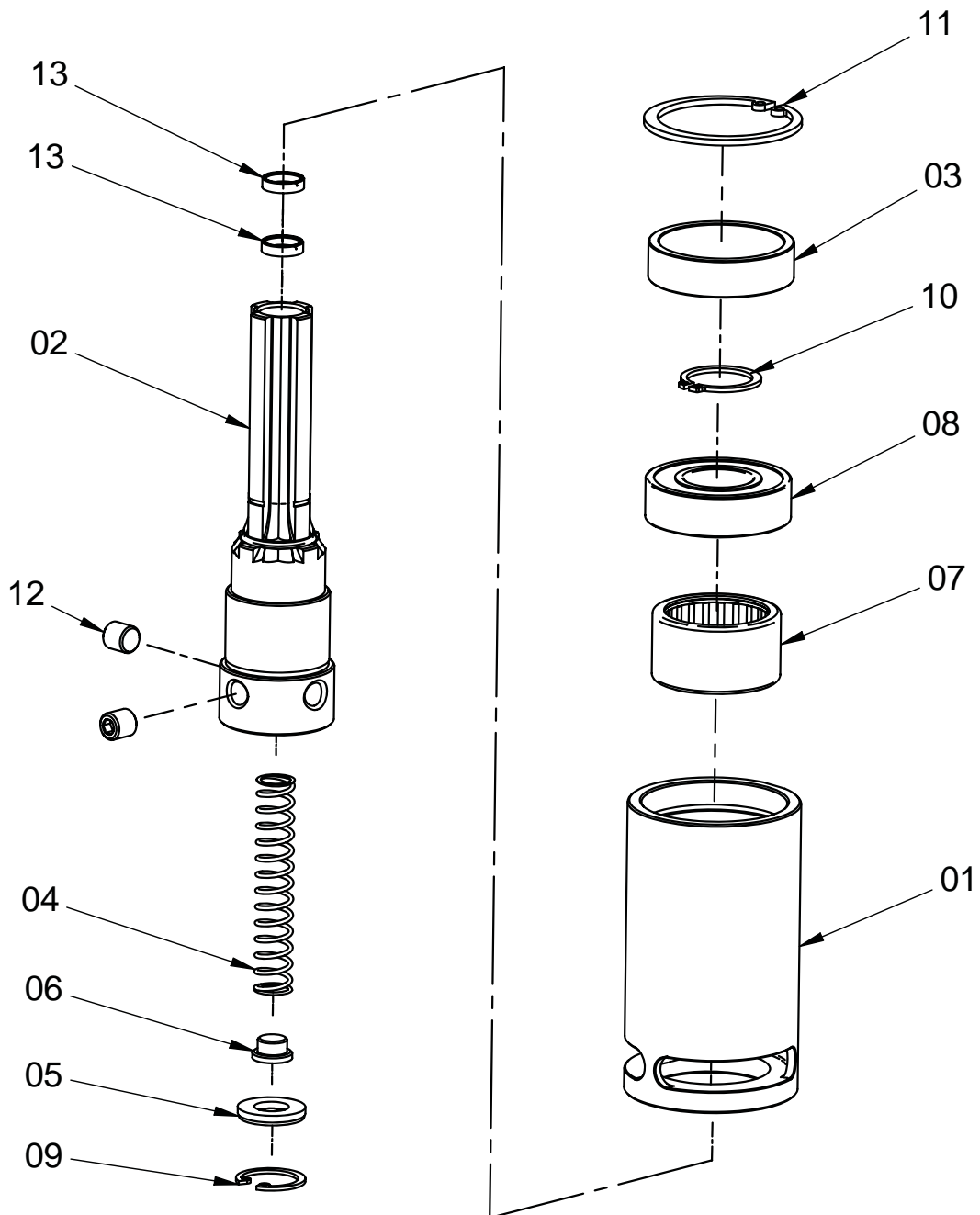
| Part Number:SPMP3502 | | VALVE ASSEMBLY | |
|----------------------|-------------|-----------------------------|-----|
| ITEM | PART NUMBER | DESCRIPTION | QTY |
| 2.1 | SPMP350201 | VALVE HOUSING | 1 |
| 2.2 | SPMP350202 | PISTON ASSY | 1 |
| 2.3 | SPMP350203 | PISTON PLUG | 1 |
| 2.4 | SPMP350204 | STOP PLUG | 1 |
| 2.5 | SPMP350205 | LOCKING RING | 1 |
| 2.6 | SPMP350206 | SPRING | 1 |
| 2.7 | SPMP350207 | BALL LOCK GN 614-8-NI | 1 |
| 2.8 | SPMP350208 | EXTERNAL RING | 1 |
| 2.9 | SPMP350209 | HANDLE HOLDER | 1 |
| 2.10 | SPMP350210 | WASHER | 1 |
| 2.11 | SPMP350211 | HANDLE SHAFT | 1 |
| 2.12 | SPMP350212 | HANDLE ASSY | 1 |
| 2.13 | SPMP350213 | SEAL COVER | 1 |
| 2.14 | SPMP350214 | COVER | 1 |
| 2.15 | SPMP350215 | DIVIDING SHAFT | 1 |
| 2.16 | SPMP350216 | SLEEVE I | 1 |
| 2.17 | SPMP350217 | SLEEVE CENTER | 2 |
| 2.18 | SPMP350218 | SLEEVE II | 1 |
| 2.19 | SPMP350219 | COVER I | 1 |
| 2.20 | SPMP350220 | COVER II | 1 |
| 2.21 | SPMP350221 | SHAFT RING | 1 |
| 2.22 | SPMP350222 | SCR, M3 x 8 FHSCS | 8 |
| 2.23 | SPMP350223 | SCR, M4 x 16 FHSCS | 3 |
| 2.24 | SPMP350224 | HEX. INSERT SCREW M5x8 | 1 |
| 2.25 | SPMP350225 | HEX. INSERT SCREW M12x8 | 4 |
| 2.26 | SPMP350226 | PIN 4x10 | 1 |
| 2.27 | SPMP350227 | EXTERNAL RETAINING RING 8z | 1 |
| 2.28 | SPMP350228 | RETAINING RING INTERNAL 21w | 1 |
| 2.29 | SPMP350229 | RETAINING RING INTERNAL 24w | 1 |
| 2.30 | SPMP350230 | INTERNAL RETAINING RING-47W | 1 |
| 2.31 | SPMP350231 | O-RING 9x2 | 1 |
| 2.32 | SPMP350232 | O-RING 15,3x2,4 | 1 |
| 2.33 | SPMP350233 | O-RING 18x2 | 2 |
| 2.34 | SPMP350234 | O-RING 42x2 | 1 |
| 2.35 | SPMP350235 | SEAL, 4x8,2x4 | 1 |
| 2.36 | SPMP350236 | SEAL U2 012x18.4 | 4 |
| 2.37 | SPMP350237 | MALE PLUG, G3/8" 10mm | 1 |



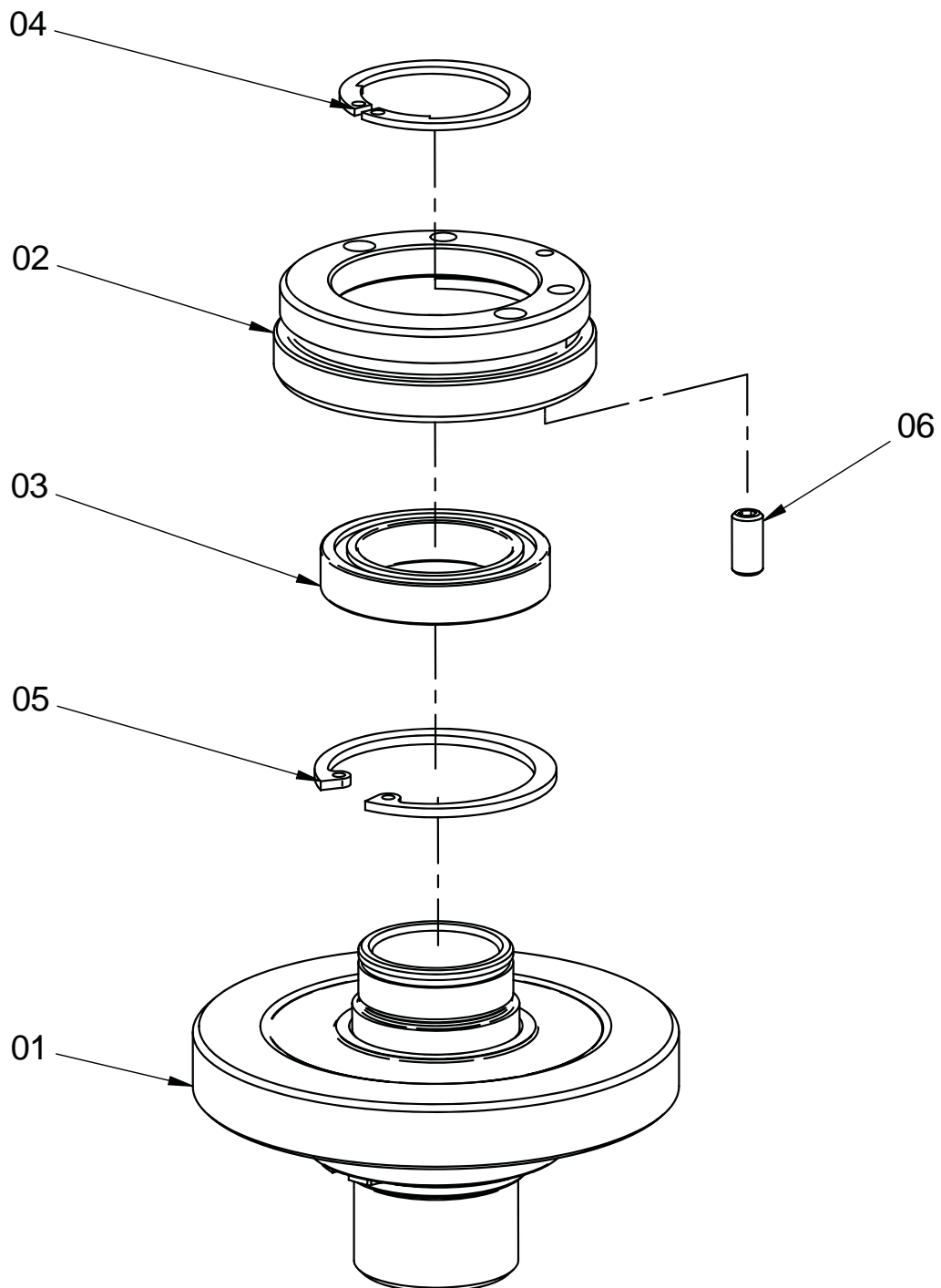
| Part Number:SPMP350202 | | PISTON ASSY | |
|------------------------|--------------|------------------|-----|
| ITEM | PART NUMBER | DESCRIPTION | QTY |
| 2.2.1 | SPMP35020201 | PISTON | 1 |
| 2.2.2 | SPMP35020202 | PISTON GEAR RACK | 1 |
| 2.2.3 | SPMP35020203 | O-RING 39,2x3 | 1 |



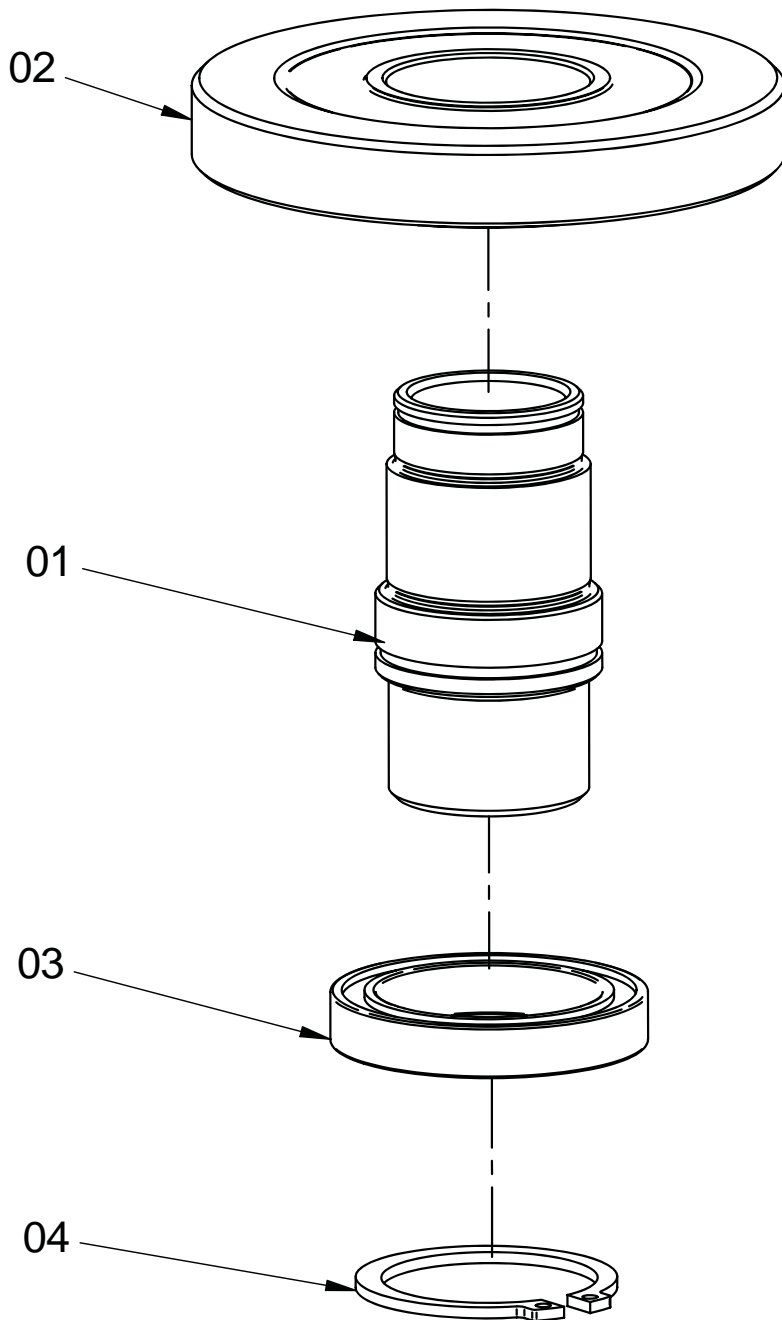
| Part Number:SPMP3503 | | QUILL ASSEMBLY | |
|----------------------|-------------|-------------------------------|-----|
| ITEM | PART NUMBER | DESCRIPTION | QTY |
| 3.1 | SPMP350301 | QUILL CARRIER | 1 |
| 3.2 | SPMP350302 | SPINDLE | 1 |
| 3.3 | SPMP350303 | DISTANCE SLEEVE | 1 |
| 3.4 | SPMP350304 | SPRING | 1 |
| 3.5 | SPMP350305 | SEAL | 1 |
| 3.6 | SPMP350306 | PLUNGER | 1 |
| 3.7 | SPMP350307 | NEEDLE BEARING RHNA303720 | 1 |
| 3.8 | SPMP350308 | BEARING BALL 6004 2RS | 1 |
| 3.9 | SPMP350309 | INTERNAL RETAINING RING 19W | 1 |
| 3.10 | SPMP350310 | EXTERNAL RETAINING RING- 20Z | 1 |
| 3.11 | SPMP350311 | INTERNAL RETAINING RING - 42W | 1 |
| 3.12 | SPMP350312 | HEX SET SCREW M8x10 | 2 |
| 3.13 | SPMP350313 | SEAL RING TRK000080 | 2 |



| Part Number:SPMP3504 | | BEVEL GEAR T=39 ASSEMBLY | |
|----------------------|-------------|-------------------------------------|-----|
| ITEM | PART NUMBER | DESCRIPTION | QTY |
| 4.1 | SPMP350401 | BEVEL GEAR T=39 ASSY / INCL. SLEEVE | 1 |
| 4.2 | SPMP350402 | BEARING NUT | 1 |
| 4.3 | SPMP350403 | BEARING BALL 61805 2RS | 1 |
| 4.4 | SPMP350404 | EXTERNAL RETAINING RING 25Z TYPE A | 1 |
| 4.5 | SPMP350405 | INTERNAL RETAINING RING 37W | 1 |
| 4.6 | SPMP350406 | HEX SET SCREW M5x10 | 1 |



| Part Number:SPMP350401 | | BEVEL GEAR T=39 ASSY / INCL. SLEEVE | |
|------------------------|--------------|-------------------------------------|-----|
| ITEM | PART NUMBER | DESCRIPTION | QTY |
| 4.1.1 | SPMP35040101 | SLEEVE | 1 |
| 4.1.2 | SPMP35040102 | BEVEL GEAR T=39 | 1 |
| 4.1.3 | SPMP35040103 | BEARING BALL 6806 LLU | 1 |
| 4.1.4 | SPMP35040104 | EXTERNAL RETAINING RING 30z | 1 |



| Part Number:SPMP3505 | | GEAR BOX COVER ASSEMBLY | |
|----------------------|-------------|-------------------------------|-----|
| ITEM | PART NUMBER | DESCRIPTION | QTY |
| 5.1 | SPMP350501 | GEAR BOX COVER | 1 |
| 5.2 | SPMP350502 | JUMPER | 1 |
| 5.3 | SPMP350503 | Anschlussnippel fur AMT2-H-19 | 1 |

