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Instructions and pictures of this step-by-step manual could slightly differ from practice.

The complete assembled kit along with this step-by-step service manual is result of Special Springs research for the most useful maintenance operation for Special Springs nitrogen gas cylinders. Few minutes and the Special Springs nitrogen gas cylinders are regenerated as new one.

Special Springs along with its own global network are pleased to help you anytime for the best result of your work.

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I. DISCHARGING.

1. Remove the protective screw cap on the charging hole from the operator.
2. Thread the discharging device (OIM/201A) on the charging hole.
3. Be sure the pressure is completely exhausted by pressing down the piston.
4. Unthread the valve retaining screw using the hex key (58CE03).

A. Be sure the pressure is completely exhausted by pressing down the piston.
B. Unthread the valve retaining screw using the hex key (58CE03).

II. ONE WAY VALVE REMOVAL.

A. To exhaust pressure of hoses open the discharging valve on the control panel.
B. When discharging, lock the one way valve with the specific Special Springs grease compound supplied with the repair kit.
C. Carefully verify the tube is correctly positioned and the Multipurpose clamp is correctly positioned.
D. Insert the positioning tube on the cartridge then by using the proper tool.
E. By using the removal C-ring HHRF1000A;HR1500A; LI900A). By using the hex key (49TB...)
F. Adjust the required charging pressure on the right display.
G. Usually the gauge on the right display the ok charging pressure.
H. Pressure can be easily adjusted act on the positioning device.
I. Select and assemble the desired device (DMA) fitted on the positioning device.
J. Digital force tester (58EC) and the Multipurpose clamp (58KNIPEX)
K. Use the Special Springs grease compound supplied with the repair kit.
L. Use the Special Springs grease compound supplied with the repair kit.
M. Use the Special Springs grease compound supplied with the repair kit.
N. Use the Special Springs grease compound supplied with the repair kit.

III. RETAINING C-RING REMOVAL.

A. Position the anti scratch nylon sheath on the right side, 16. (47ASVU)
B. Position the anti scratch nylon sheath on the right side, 16. (47ASVU)
C. Use the Special Springs grease compound supplied with the repair kit.
D. By using the proper Screw extracting tool.
E. By using the proper Screw extracting tool.
F. Be sure the retaining C-ring is the right position into it's groove.
G. Be sure the retaining C-ring is the right position into it's groove.
H. Use the Special Springs grease compound supplied with the repair kit.
I. Use the Special Springs grease compound supplied with the repair kit.
J. Use the Special Springs grease compound supplied with the repair kit.
K. Use the Special Springs grease compound supplied with the repair kit.
L. Use the Special Springs grease compound supplied with the repair kit.
M. Use the Special Springs grease compound supplied with the repair kit.
N. Use the Special Springs grease compound supplied with the repair kit.

IV. PISTON ROD AND BUSHING REMOVAL.

A. By using the the Trianglle MIK extract the piston-rod and the bushing out of the cylinder.
B. Be sure the retaining C-ring is the right position into it's groove.
C. Be sure the retaining C-ring is the right position into it's groove.
D. By using the removal C-ring HHRF1000A;HR1500A; LI900A). By using the hex key (49TB...)
E. Carefully check and clean the bushing.
F. Carefully check and clean the bushing.
G. Carefully check and clean the bushing.
H. Carefully check and clean the bushing.
I. Carefully check and clean the bushing.
J. Carefully check and clean the bushing.
K. Carefully check and clean the bushing.
L. Carefully check and clean the bushing.
M. Carefully check and clean the bushing.
N. Carefully check and clean the bushing.

V. CLEANING AND INSPECTION.

A. By using the the Trianglle MIK extract the piston-rod and the bushing out of the cylinder.
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M. By using the the Trianglle MIK extract the piston-rod and the bushing out of the cylinder.
N. By using the the Trianglle MIK extract the piston-rod and the bushing out of the cylinder.

VI. ONE WAY VALVE REASSEMBLY.

A. Follow the adjusting instruction manual.
B. Usually the gauge on the right display the ok charging pressure.
C. Usually the gauge on the right display the ok charging pressure.
D. Usually the gauge on the right display the ok charging pressure.
E. Usually the gauge on the right display the ok charging pressure.
F. Usually the gauge on the right display the ok charging pressure.
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N. Usually the gauge on the right display the ok charging pressure.

VII. PISTON-ROD AND BUSHING REASSEMBLY.

A. Take the new assembled bushing and bushing out of the cylinder by using the specific Special Springs grease compound supplied with the repair kit.
B. Take the new assembled bushing and bushing out of the cylinder by using the specific Special Springs grease compound supplied with the repair kit.
C. Take the new assembled bushing and bushing out of the cylinder by using the specific Special Springs grease compound supplied with the repair kit.
D. Take the new assembled bushing and bushing out of the cylinder by using the specific Special Springs grease compound supplied with the repair kit.

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N. Usually the gauge on the right display the ok charging pressure.

X. PRESSURE ADJUSTING.

A. Adjust the required charging pressure by using the digital force tester (58EC) and the Multipurpose clamp (58KNIPEX) for the desired pressure. (Max. 150 foot- pound SP260 Digital force tester)
B. When charging directly throught the rod head threaded hole, pull the rod into the cylinder body then insert the piston-rod and discard the bushing.
C. When charging directly throught the rod head threaded hole, pull the rod into the cylinder body then insert the piston-rod and discard the bushing.
D. When charging directly throught the rod head threaded hole, pull the rod into the cylinder body then insert the piston-rod and discard the bushing.
E. When charging directly throught the rod head threaded hole, pull the rod into the cylinder body then insert the piston-rod and discard the bushing.
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L. When charging directly throught the rod head threaded hole, pull the rod into the cylinder body then insert the piston-rod and discard the bushing.
M. When charging directly throught the rod head threaded hole, pull the rod into the cylinder body then insert the piston-rod and discard the bushing.
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