

万通 PK 缸维修手册

Wantong PK Telescopic Cylinder Service Manual

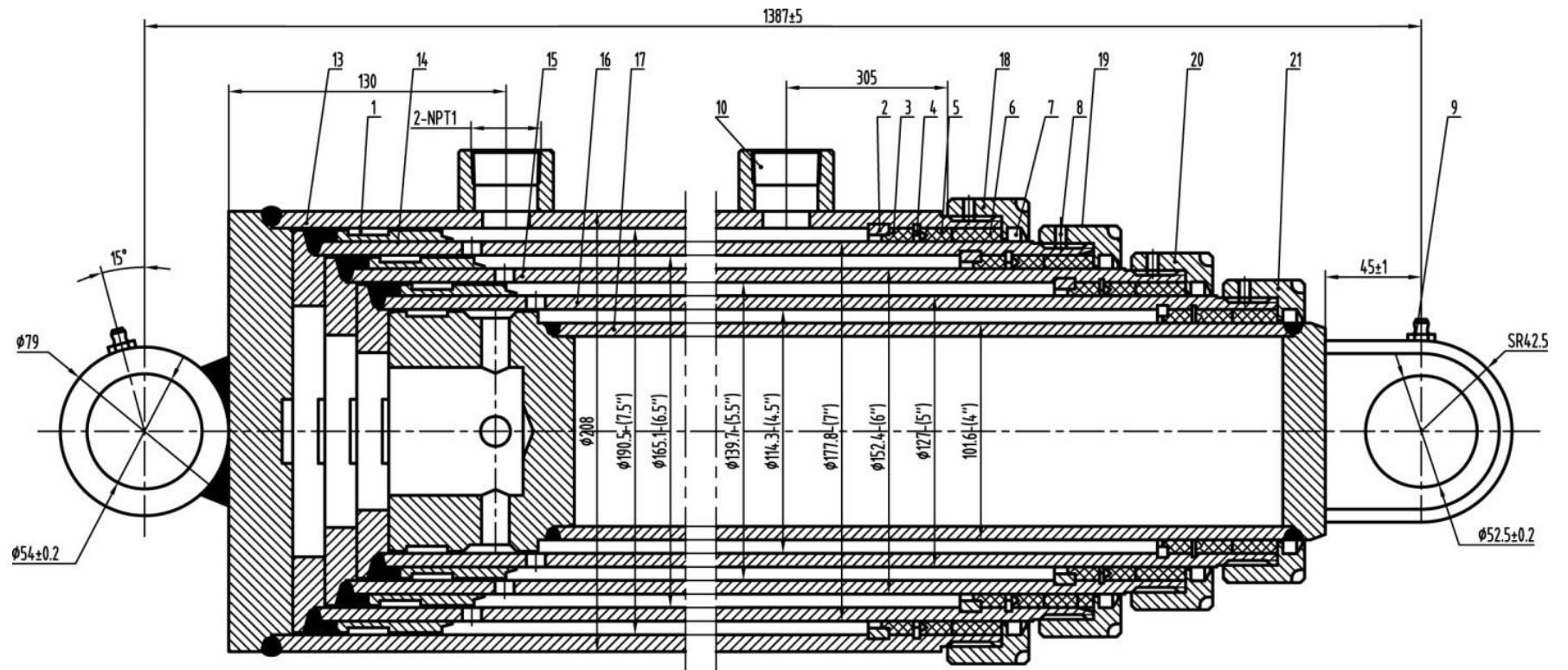
第一部分：图纸及部件

Part 1: drawings and parts

第二部分：维修步骤

Part 2: maintenance steps

山东万通液压股份有限公司
Shandong Wantong Hydraulic Co., Ltd.



Single Acting Telescopic Hydraulic Cylinder

For example: 74-4401-161

山东万通液压股份有限公司
Shandong Wantong Hydraulic Co., Ltd.

序号 No.	代码 Code	名称 Part Name	数量 Quantity	材料 Material
9	P5T-YG-01	压盖 Gland	1	
8	P6T-YG-01	压盖 Gland	1	
7	P7T-YG-01	压盖 Gland	1	
6	P8T-YG-01	压盖 Gland	1	
5	4TG-E178X4069PK/A1-05	柱塞焊接 Plunger welding	1	组件 Assembly
4	4TG-E178X4069PK/A1-04	内套三焊接 Stage 3 welding	1	组件 Assembly
3	4TG-E178X4069PK/A1-03	内套二焊接 Stage 2 welding	1	组件 Assembly
2	4TG-E178X4069PK/A1-02	内套一焊接 Stage 1 welding	1	组件 Assembly
1	4TG-E178X4069PK/A1-01	外套焊接 Outer barrel welding	1	组件 Assembly

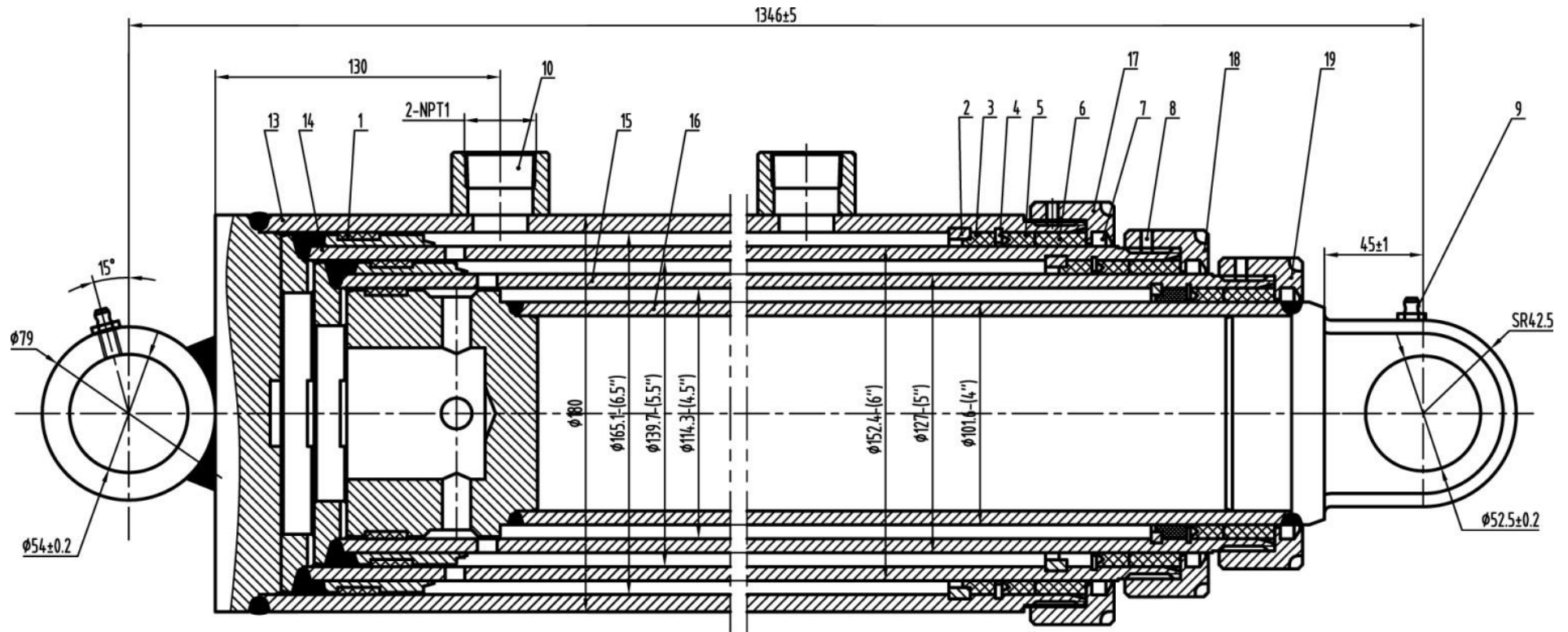
山东万通液压股份有限公司
Shandong Wantong Hydraulic Co., Ltd.

序号 No.	代码 Code	名称 Part Name	数量 Quantity	材料 Material
12		铭牌 data plate	1	
11	GB12618;3X10	抽芯铆钉 blind rivet	4	
10	NPT1	金属螺纹堵 metal thread plug	2	
9	GB1152;NPT1/8	直通式压注油杯 straight type force filling oil cup	2	
8	GB/T78;M6X8	内六角锥端紧定螺钉 hexagon socket set screws with cone point	4	
7.4	d101.6xD114.55X6.48	防尘圈 wiper	1	聚氨酯 polyurethane
7.3	d127xD139.95x6.48	防尘圈 wiper	1	聚氨酯 polyurethane
7.2	d152.4xD165.23x6.35	防尘圈 wiper	1	聚氨酯 polyurethane
7.1	d177.8xD190.75x6.48	防尘圈 wiper	1	聚氨酯 polyurethane
6.4	PK4.500-zch-01	支撑环 support ring	1	聚甲醛 polyoxymethylene
6.3	PK5.500-zch-01	支撑环 support ring	1	聚甲醛 polyoxymethylene
6.2	PK6.500-zch-01	支撑环 support ring	1	聚甲醛 polyoxymethylene
6.1	PK7.500-zch-01	支撑环 support ring	1	聚甲醛 polyoxymethylene
5.4	605:4456600;7''	活塞杆密封圈 rod seal	1	聚氨酯 polyurethane
5.3	605:4400000;6''	活塞杆密封圈 rod seal	1	聚氨酯 polyurethane
5.2	605:4399900;5''	活塞杆密封圈 rod seal	1	聚氨酯 polyurethane
5.1	605:4399800;4''	活塞杆密封圈 rod seal	1	聚氨酯 polyurethane
4.4	WK450;118.72X6X1.55	孔用双层螺旋挡圈 double layer spiral retaining ring for holes	1	65Mn
4.3	WK551;144.86X6.35X1.83	孔用双层螺旋挡圈 double layer spiral retaining ring for holes	1	65Mn

山东万通液压股份有限公司
Shandong Wantong Hydraulic Co., Ltd.

4.2	WK-172X6X2.79	孔用双层螺旋挡圈 double layer spiral retaining ring for holes	1	65Mn
4.1	WK-195.6X6X2.79	孔用双层螺旋挡圈 double layer spiral retaining ring for holes	1	65Mn
3.4	PK4.500-LZCH-01	L 支撑环 L support ring	1	聚甲醛 polyoxymethylene
3.3	PK5.500-LZCH-01	L 支撑环 L support ring	1	聚甲醛 polyoxymethylene
3.2	PK6.500-LZCH-01	L 支撑环 L support ring	1	聚甲醛 polyoxymethylene
3.1	PK7.500-LZCH-01	L 支撑环 L support ring	1	聚甲醛 polyoxymethylene
2.4	PK4.500-KK-01	孔用卡键 stop ring for hole	1	65Mn
2.3	PK5.500-KK-01	孔用卡键 stop ring for hole	1	65Mn
2.2	PK6.500-KK-01	孔用卡键 stop ring for hole	1	65Mn
2.1	PK7.500-KK-01	孔用卡键 stop ring for hole	1	65Mn
1.4	PK4.500-KH-01	导向环 guide ring	1	聚甲醛 polyoxymethylene
1.3	PK5.500-KH-01	导向环 guide ring	1	聚甲醛 polyoxymethylene
1.2	PK6.500-KH-01	导向环 guide ring	1	聚甲醛 polyoxymethylene
1.1	PK7.500-KH-01	导向环 guide ring	1	酚醛夹布 phenolic sandwich fabric

山东万通液压股份有限公司
Shandong Wantong Hydraulic Co., Ltd.



single acting telescopic hydraulic cylinder

For example: 63-4402-120

山东万通液压股份有限公司
Shandong Wantong Hydraulic Co., Ltd.

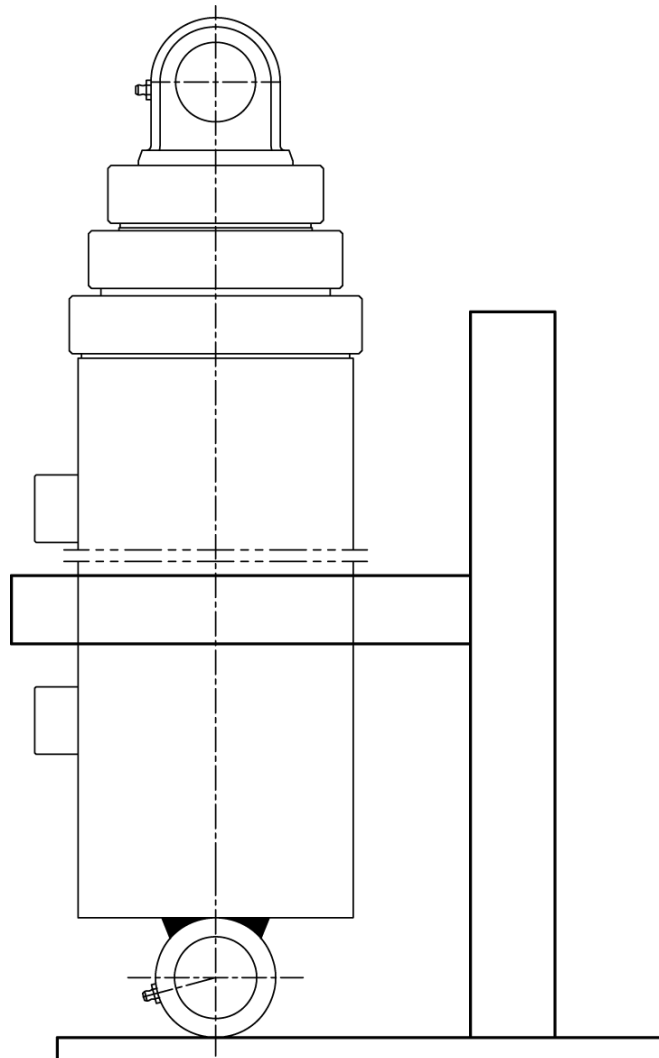
序号No.	代码 code	零件名称 part name	数量quantity	材质 material
12		铭牌 data plate	1	
11	GB12618;3X10	抽芯铆钉 blind rivet	4	
10	NPT1	金属螺纹堵 metal thread plug	2	
9	GB1152;NPT1/8	直通式压注油杯 straight type force filling oil cup	2	
8	GB/T78;M6X8	内六角锥端紧定螺钉 hexagon socket set screws with cone point	3	
7.3	d101.6xD114.55x6.48	防尘圈 wiper	1	聚氨酯 polyurethane
7.2	d127xD139.95x6.48	防尘圈 wiper	1	聚氨酯 polyurethane
7.1	d152.4xD165.23x6.35	防尘圈 wiper	1	聚氨酯 polyurethane
6.3	PK4.500-zch-01	支撑环 support ring	1	聚甲醛 polyoxymethylene
6.2	PK5.500-zch-01	支撑环 support ring	1	聚甲醛 polyoxymethylene
6.1	PK6.500-zch-01	支撑环 support ring	1	聚甲醛 polyoxymethylene
5.3	605:4400000;6''	活塞杆密封圈 rod seal	1	聚氨酯 polyurethane
5.2	605:4399900;5''	活塞杆密封圈 rod seal	1	聚氨酯 polyurethane
5.1	605:4399800;4''	活塞杆密封圈 rod seal	1	聚氨酯 polyurethane
4.3	WK550;118.72X6X1.55	孔用双层螺旋挡圈 double layer spiral retaining ring for holes	1	65Mn
4.2	WK551;144.86X6.35X1.83	孔用双层螺旋挡圈 double layer spiral retaining ring for holes	1	65Mn
4.1	WK-172X6X2.79	孔用双层螺旋充挡圈 double layer spiral retaining ring for holes	1	65Mn

山东万通液压股份有限公司
Shandong Wantong Hydraulic Co., Ltd.

3.3	PK4.500-LZCH-01	L 支撑环 L support ring	1	聚甲醛 polyoxymethylene
3.2	PK5.500-LZCH-01	L 支撑环 L support ring	1	聚甲醛 polyoxymethylene
3.1	PK6.500-LZCH-01	L 支撑环 L support ring	1	聚甲醛 polyoxymethylene
2.3	PK4.500-KK-01	孔用卡键 stop ring for hole	1	65Mn
2.2	PK5.500-KK-01	孔用卡键 stop ring for hole	1	65Mn
2.1	PK6.500-KK-01	孔用卡键 stop ring for hole	1	65Mn
1.3	PK4.500-KH-01	导向环 guide ring	1	聚甲醛 polyoxymethylene
1.2	PK5.500-KH-01	导向环 guide ring	1	聚甲醛 polyoxymethylene
1.1	PK6.500-KH-01	导向环 guide ring	1	酚醛夹布 phenolic sandwich fabric
7	P5T-YG-01	压盖 Gland	1	
6	P6T-YG-01	压盖 Gland	1	
5	P7T-YG-01	压盖 Gland	1	
4	3TG-E152.4X3058PK/A1-04	柱塞焊接 Plunger welding	1	组件 Assembly
3	3TG-E152.4X3058PK/A1-03	内套二焊接 Stage 2 welding	1	组件 Assembly
2	3TG-E152.4X3058PK/A1-02	内套一焊接 Stage 1 welding	1	组件 Assembly
1	3TG-E152.4X3058PK/A1-01	外套焊接 Outer barrel welding	1	组件 Assembly

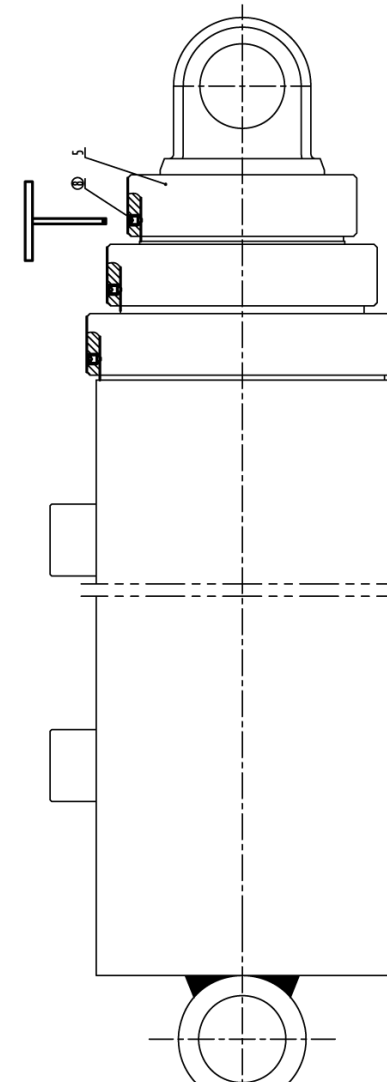
第一步：将油缸站立固定

Step one: make cylinder standing and fixed



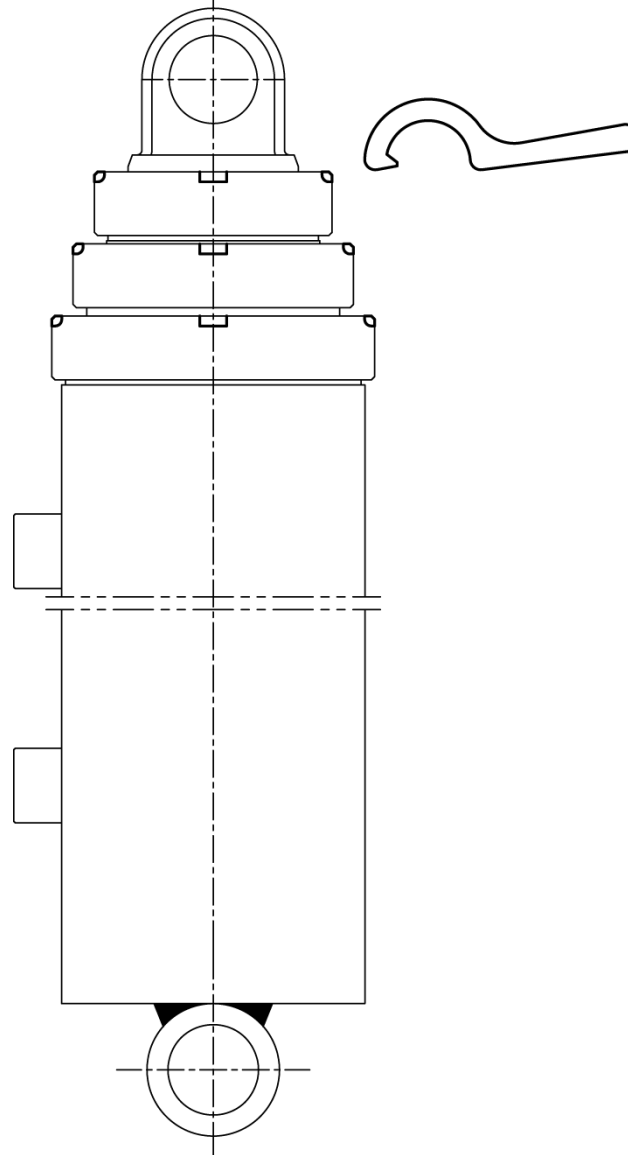
第二步：使用内六角扳手逆时针旋转将每级压盖上的紧定螺钉取下

Step two: take off tightening screw in gland of each stage with the tool of inner hexagon spanner in negative direction

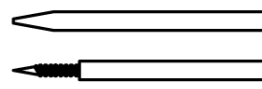
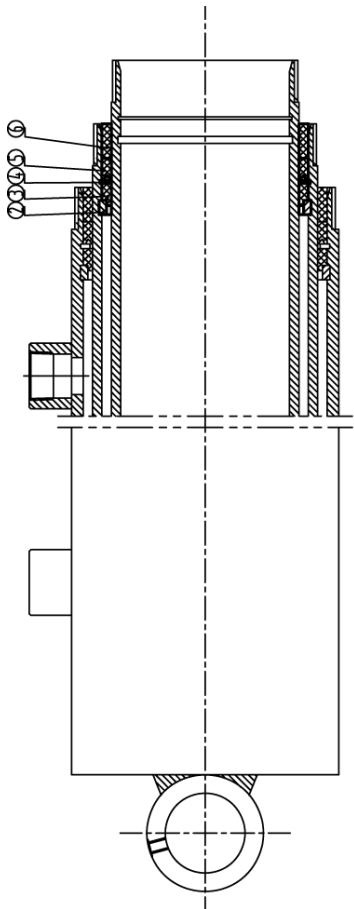


第三步：使用扳手逆时针旋转将每级压盖取下

Step three: take off each gland with the tool of wrench in negative direction

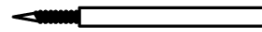


第四步：使用指定工装依次将支撑环，活塞杆密封圈，孔用双层螺旋充挡圈，L 支撑环，孔用卡键取出
Step4: take out support ring, rod seal, double layer spiral retaining ring for holes, L support ring, stop ring for hole with designated tools by turn.



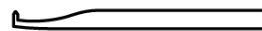
1.一字型扳手或锥头自攻丝型扳手，将 6 支撑环取出

1. Take out of support ring 6 by A type wrench or taper self tapping wrench



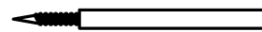
2.锥头自攻型扳手，将 5 活塞杆密封圈取出

2. Take out of rod seals 5 by taper self tapping wrench



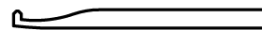
3.扁尖勾头型扳手，将 4 孔用双层螺旋挡圈取出

3. Take out of double layer spiral retaining ring for holes 4 by flat tip wrench4.



4.锥头自攻型扳手，将 3L 支撑环取出

4. Take out of L support ring 3 by taper self tapping wrench

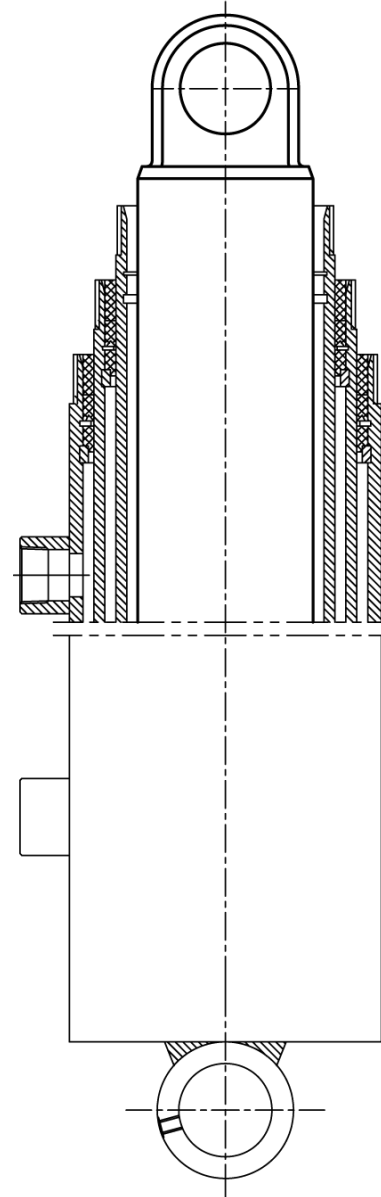


5.扁勾头型扳手和一字型扳手，将 2 孔用卡键取出

5. Take out of stop ring for hole 2 by taper self tapping wrench and “—” shaped wrench

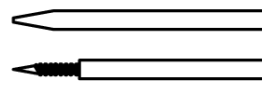
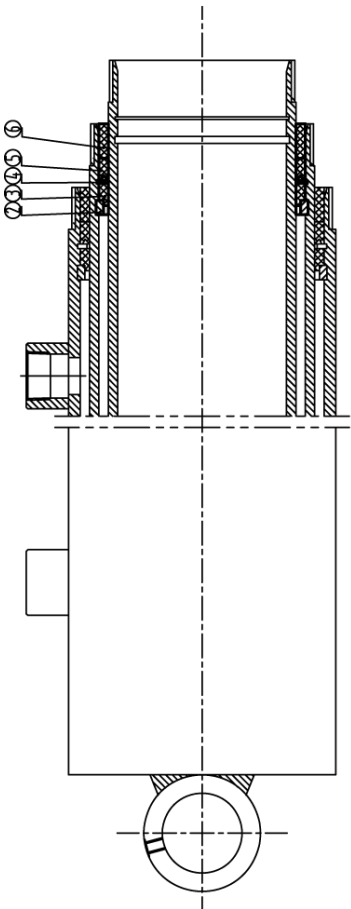
第五步：使用吊装勾将活塞杆吊出

Step 5: Take out of piston rod by hoisting hook



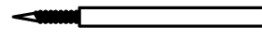
第六步：使用指定工装依次将支撑环，活塞杆密封圈，孔用双层螺旋挡圈，L 支撑环，孔用卡键取出

Step4: Take out support ring, rod seal, double layer spiral retaining ring for holes, L support ring, stop ring for hole with designated tools by turn.



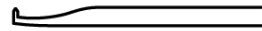
1.一字型扳手或锥头自攻丝型扳手，将 6 支撑环取出

1. Take out of support ring 6 by "—" shaped wrench or taper self tapping wrench



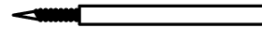
2.锥头自攻型扳手，将 5 活塞杆密封圈取出

2. Take out of rod seal 5 by taper self tapping wrench



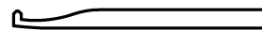
3.扁尖勾头型扳手，将 4 孔用双层螺旋挡圈取出

3. Take out of double layer spiral retaining ring for holes 4 by flat tip wrench



4.锥头自攻型扳手，将 3L 支撑环取出

4. Take out of L support ring 3 by taper self tapping wrench



5.扁勾头型扳手和一字型扳手，将 2 孔用卡键取出

5. Take out of stop ring for hole 2 by taper self tapping wrench and "—" shaped wrench

第六步：拧上压盖，使用吊装带或吊装勾将内套吊出

Step 6 : Screw up the cap, take out of inner stages by hoisting belt or hoisting hook

第7步：重复第五步和第六步工作，将其全部拆卸

Step 7 : Repeat step 5 and step 6, disassemble all parts.

