



Instruction Manual

Air Hydraulic Jack

Model – ALJ30-2-170





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

1.0 Product Information

DURAPAC – Air Hydraulic Jacks are engineered to meet Industrial Standards for Performance and Safety. The ALJ30-2-170 Air Hydraulic Jack is an ergonomically designed portable jacking system that is easily wheeled around a workshop.

This unit is designed for lifting of heavy vehicles. It can be used on any hard surface (maintenance bays and workshops) and is easily transported by ute or trailer. The wheeled carriage has an ergonomically designed handle system that is adjustable, making it easy to move around by a single person. The carriage frame is steel for maximum durability and longevity.

- Handle can be locked in 3 positions
- Built in safety valve to prevent overloading
- Automatic control of lowering speed for safety
- Hard chrome plated piston rods for long life
- 2 extension saddles included (75 mm & 45 mm)
- CE certified
- 3-year warranty
- Spare parts and service available Australia wide

Special skill, knowledge and training may be required for a specific task and the product may not be suitable for all jobs. The user must ultimately make the decision regarding suitability of the product for any given task and assume the responsibility of safety for all in the work area. Contact a Durapac representative if you are unsure of your jack's suitability for a particular application.

2.0 Receiving Instructions

It is recommended prior to use that an inspection be done by qualified personnel and that any missing or damaged parts, decals, warning/safety labels or signs are replaced with Durapac authorised replacement parts only. Any jack that appears to be damaged in any way, is worn, leaking or operates abnormally should be removed from service immediately until such time as repairs can be made. Any jack that has been or suspected to have been subject to a shock load should be removed from service immediately until inspected by a Durapac authorised service centre. Owners and operators of this equipment should be aware that the use and subsequent repair of this equipment may require specialised training and knowledge.

3.0 Safety

Save these instructions. For your safety, read and understand the information contained within. The owner and operator should understand this product and safe operating procedures before attempting to use this product. Instructions and safety information should be conveyed in the operator's native language before use of this product is authorised. Make certain that the operator thoroughly understands the inherent dangers associated with the use and misuse of the product. If any doubt exists as to the safe and proper use of this product as outlined in this factory authorised manual, remove from service immediately.

**DANGER:**

- To avoid personal injury keep hands and feet away from work area during operation
- **Do NOT** handle pressurised hoses. Escaping oil under pressure can penetrate the skin causing serious injury. If oil is injected under the skin, see a doctor immediately
- Stay clear of loads supported by hydraulics. A cylinder, when used as a load lifting device, should never be used as a load holding device. After the load has been raised or lowered, it must always be supported mechanically

**WARNING:**

- The system operating pressure must not exceed the pressure rating of the lowest rated component in the system. Install pressure gauges in the system to monitor operating pressure. It is your window to what is happening in the system
- Always wear appropriate personal protective equipment (PPE) when operating hydraulic equipment. The operator must take precaution against injury due to failure of the tool or work piece(s)
- **Do NOT** hold or stand directly in line with any hydraulic connections while pressurising
- **Do NOT** attempt to disconnect hydraulic connections under pressure. Release all line pressure before disconnecting hoses
- All personnel must be clear before lowering load or depressurising the system
- **Do NOT** attempt to lift a load weighing more than the capacity of the cylinder

**IMPORTANT:**

- If at any stage, the safety related decals become hard to read, these must be replaced
- Minimum age of the operator must be 18 years. The operator must have read and understood all instructions, safety issues, cautions and warnings before starting to operate the equipment. The operator is responsible for this activity towards other persons
- **Do NOT** lift hydraulic equipment by the hoses or couplers. Use the carrying handle or other means of safe transport
- Hydraulic equipment must only be serviced by a qualified hydraulic technician. For repair service, contact the Durapac authorised service centre in your area. To protect your warranty, use only high-quality hydraulic oil

**CAUTION:**

- **KEEP HYDRAULIC EQUIPMENT AWAY FROM FLAMES AND HEAT.** Hydraulic fluid can ignite and burn. Excessive heat will soften packings and seals, resulting in fluid leaks. Heat also weakens hose materials and packings. For optimum performance do not expose equipment to temperatures of 65°C (150°F) or higher. Protect all equipment from weld spatter
- No alteration should be made to this device

3.1 Jacks

- Stay clear of loads supported by hydraulics
- **Do** use a gauge or other load measuring instrument to verify load, where possible
- **Do NOT** exceed the rated capacity of the pump or any equipment in the system. Burst hazard exists if connection pressure exceeds rated pressure
- **Do NOT** set the relief valve to a higher pressure than the maximum rated pressure. Higher settings may result in equipment damage and/or personal injury
- **Do NOT** operate the system with bent or damaged couplers or damaged threads
- **Do NOT** subject the pump and its components to shock loads
- Use only Durapac approved accessories and components
- **Do NOT** overload equipment. Overloading can cause equipment failure and possible personal injury
- **BE SURE SETUP IS STABLE BEFORE LIFTING LOAD.** The jack should be placed on a flat surface that can support the load. **Avoid** situations where loads are not directly centred on the cylinder piston. Off-centre loads produce considerable strain on cylinder and pistons. In addition, the load may slip or fall, causing potentially dangerous results
- Ensure vehicle has suitable wheel chocks installed to prevent unplanned movement
- Distribute the load evenly across the entire load cap surface. Always use a load cap to protect the piston
- **Never** pressurise uncoupled couplers. Only use hydraulic equipment in a coupled system
- **Do NOT** drive or push the load off the jack. Lower jack and remove before moving the load
- Properly support the jack and jack bases
- Lift only dead weight loads

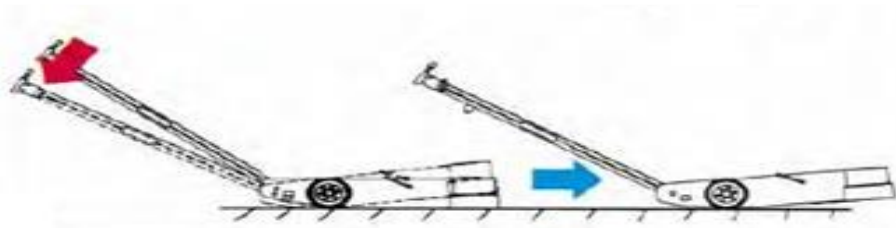


Figure 1 – Press handle down to move jack forward

3.2 Extensions

- Choose the tallest extension available that still allows suitable clearance under the truck jacking point

FAILURE TO HEED THESE WARNINGS MAY RESULT IN PERSONAL INJURY AS WELL AS PROPERTY DAMAGE.

4.0 Installation

- 4.1 Familiarise yourself with the specifications and illustrations in this owner’s manual. Know your jack, its limitations and how it operates before attempting to use. Refer to the specification chart below or if in doubt, contact a Durapac representative.

Specifications

Model	ALJ30-2-170
Capacity	30T / 15T
Working Air Pressure	8 - 12 bar
Min. Height	170 mm
Stroke (Stage 1)	86 mm @ 30T
Stroke (Stage 2)	83 mm @ 15T
Extension Height	75 mm + 45 mm
Max. Height Incl. Extensions	459 mm

Shipping

Net Weight	47 kg
Box 1	0.07 m ³ -- 46 kg (GW)
Box 2	0.04 m ³ -- 9 kg (GW)

Dimensions

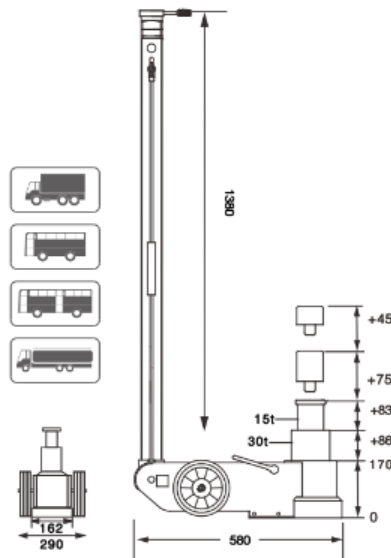


Figure 2 - Dimensions

- 4.2 Check all system fittings and connections to be sure they are tight and leak free.
- 4.3 Jacks come filled with hydraulic oil.

5.0 Assembly

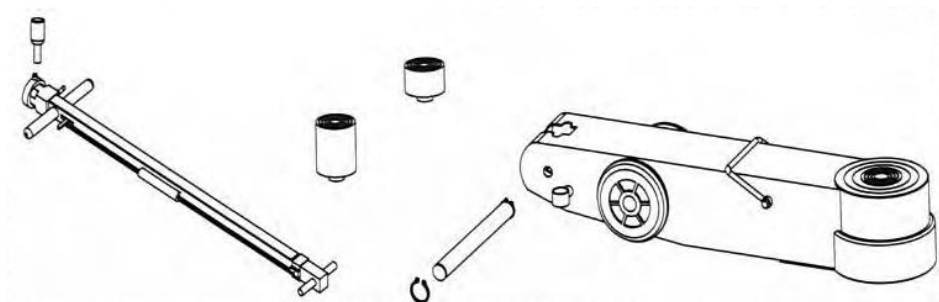


Figure 3 - Components

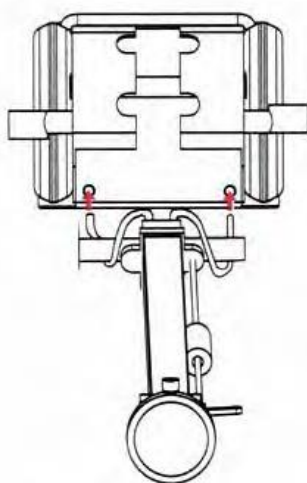


Figure 4 – Connect 2 x Air Tubes

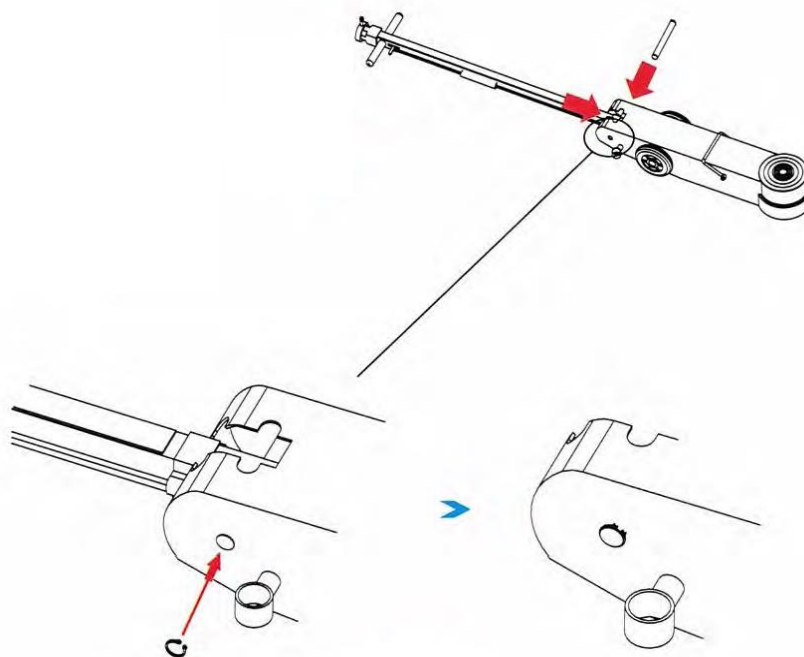


Figure 5 – Insert Pin to Connect Handle to Jack

6.0 Operation



IMPORTANT:

- Always use a flat, hard surface under the cylinder support plate
- Avoid off-centre loads which could damage the cylinder, cause loss of the load and possible serious injury or death
- Control the load at all times. **Do NOT** drop the load
- Cylinder gland nut/stop ring is designed to take the full load, to reduce cylinder wear, use less than the full stroke where possible
- Always monitor pressure, load or position using suitable equipment. Pressure may be monitored by means of the gauge. Correct application position can only be determined by the operator of the equipment
- **Do NOT** operate a pump that is disconnected from the application. If operated in this condition, the hose and connections will become pressurised. This increases the chance of a burst hazard. Damage may also occur to the pump and its components
- Fully retract the cylinder and protect the entire unit from external damage
- The jack must be perpendicular to the load; jacking on an angle can result in the jack slipping out and loss of load
- Use a jack with at least 10% more capacity than what is required
- **Do NOT** crawl or place any part of your body under any load at any time unless it is mechanically locked. Insert additional vehicle support stands if needed
- **Always** used the hardened removable load cap. **Do NOT** lift a load directly on the piston rod

6.1 Positioning the Handle

The jack's handle can be put in three different positions:

Lowered to position the jack under a low height vehicle.

Mid-range for easy manoeuvring around the workshop.

Upright for storage and transporting.

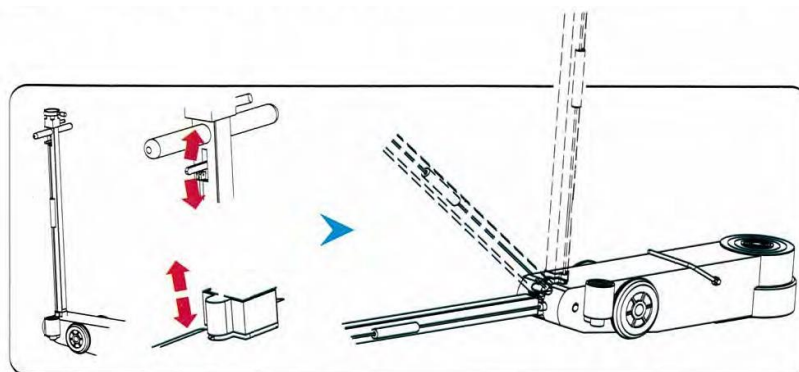


Figure 6 – Handle Positions

6.2 Positioning the Jack

⚠ The cylinder load cap should engage against a flat surface, parallel to the cylinder base.

6.2.1 Select the appropriate extension.

6.2.2 Position the jack under the load.

6.3 Advancing and Lowering the Load

6.3.1 Move the control valve handle to the UP position to advance the cylinder (Fig. 7). Once the load has been raised to the desired height, release the control valve handle.

6.3.2 Move the control valve handle to the DOWN position to retract the cylinder (Fig. 7). Once the load has been lowered to the desired height, release the control valve handle.

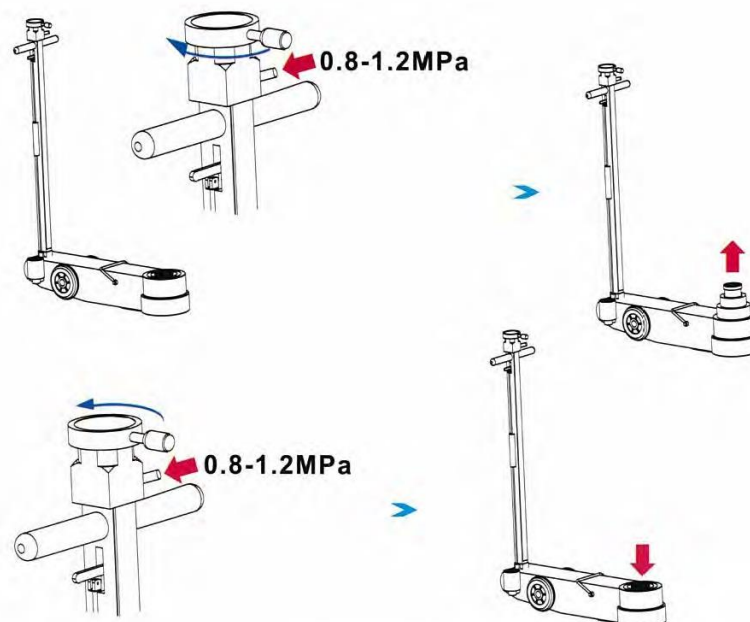


Figure 7 – Advancing & Lowering the Load

6.4 After Using the Jack

6.4.1 Fully retract the cylinder.

6.4.2 Disconnect the air supply.

6.5 Transporting the Jack

A forklift may be used to lift the jack onto a ute or trailer using the sling point.

7.0 Maintenance




IMPORTANT:

- Check oil level regularly
- Use only good quality hydraulic fluid. **Do NOT** use brake fluid, transmission fluid, turbine oil, motor oil, alcohol, glycerine etc. Use of anything other than good quality hydraulic oil will void warranty and damage the pump, hose, and application. We recommend Durapac Hydraulic Oil or equivalent
- Equipment must only be serviced by a qualified hydraulic technician. For repair service, contact your local Durapac authorised service centre
- Damage to hydraulic hoses may not be detected during visual inspections. For this reason, Durapac recommends that hydraulic hoses be replaced on a regular basis
- Tighten connections as needed. Use non-hardening pipe thread compound when servicing connections

Maintenance is required when wear or leakage is noticed. Periodically inspect all components to detect any problem that may require service and maintenance.

7.1 Changing Hydraulic Fluid

 For best results, change fluid once a year or every 300 hours of use

- 7.1.1 Pour used fluid into a sealable container.
- 7.1.2 Dispose of fluid in accordance with local regulations.

7.2 Storage

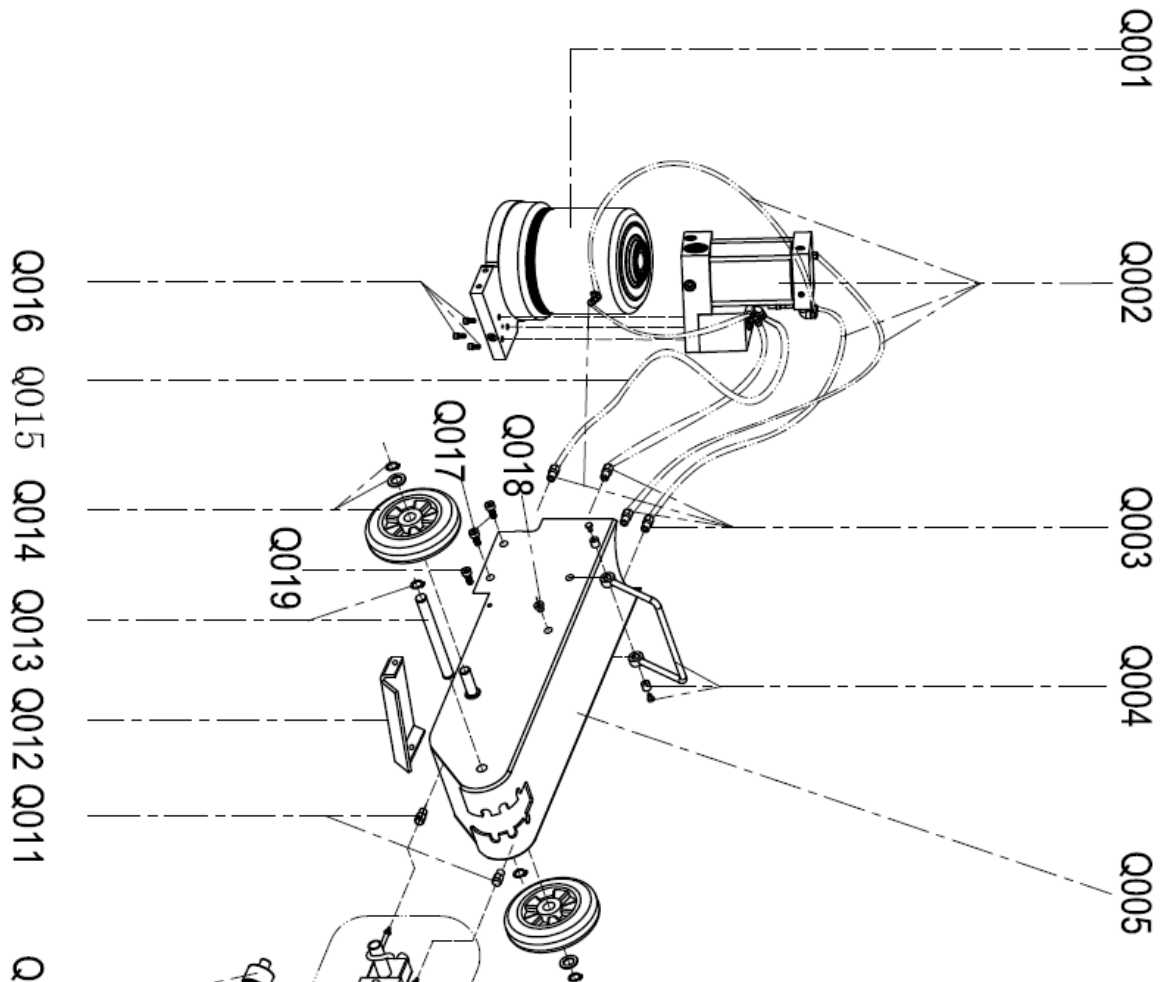
- 7.2.1 When not in use, depressurise and disconnect the hydraulic jack from the application.
- 7.2.2 Wipe clean thoroughly and store in a clean, dry environment. Avoid temperature extremes.
- 7.2.3 Shield jack with a protective cover.

8.0 Troubleshooting

Problem	Cause	Solution
Pump loses pressure	Leaking system components	<ul style="list-style-type: none"> • Repair or replace as necessary
Pump not delivering fluid	Low fluid level in reservoir	<ul style="list-style-type: none"> • Check fluid level
	Worn seats	<ul style="list-style-type: none"> • Repair seats • Replace pump body
Pump does not reach rated capacity	Low fluid level in reservoir	<ul style="list-style-type: none"> • Check fluid level
	Leaking system components	<ul style="list-style-type: none"> • Repair or replace as necessary
	Fluid leaking past inlet or outlet checks	<ul style="list-style-type: none"> • Repair inlet or outlet checks • Replace high pressure piston seal
Cylinder piston will not extend	Loose fittings	<ul style="list-style-type: none"> • Tighten couplers
	Low fluid level in pump reservoir	<ul style="list-style-type: none"> • Fill and bleed the system
	Leaking cylinder seals	<ul style="list-style-type: none"> • Replace worn seals. Look for excessive contamination or wear
Cylinder piston extends only partially	Low fluid level in pump reservoir	<ul style="list-style-type: none"> • Fill and bleed the system
	Load above capacity of system	<ul style="list-style-type: none"> • Use correct equipment
Cylinder piston extends slower than normal	Loose couplers	<ul style="list-style-type: none"> • Tighten couplers
	Restricted hydraulic line or fitting	<ul style="list-style-type: none"> • Clean and replace if damaged
	Pump not operating correctly	<ul style="list-style-type: none"> • Check pump's operating instructions • Repair or replace as necessary
	Low fluid level in pump reservoir	<ul style="list-style-type: none"> • Fill and bleed the system
Cylinder does not hold pressure	Leaky connection	<ul style="list-style-type: none"> • Clean, reseal with thread sealant, and tighten connection
	Leaking cylinder seals	<ul style="list-style-type: none"> • Replace worn seals. Look for excessive contamination or wear. Replace contaminated fluid
	Pump or valve not operating correctly	<ul style="list-style-type: none"> • Repair or replace as necessary
Cylinder will not retract or retracts slower than normal	Closed pump release valve	<ul style="list-style-type: none"> • Open pump release valve
	Loose couplers	<ul style="list-style-type: none"> • Tighten couplers
	Blocked hydraulic lines	<ul style="list-style-type: none"> • Clean and flush lines
		<ul style="list-style-type: none"> • Send to a Durapac authorised service centre for repair
	Internally damaged cylinder	<ul style="list-style-type: none"> • Send to a Durapac authorised service centre for repair
	Pump reservoir too full	<ul style="list-style-type: none"> • Drain fluid to correct level

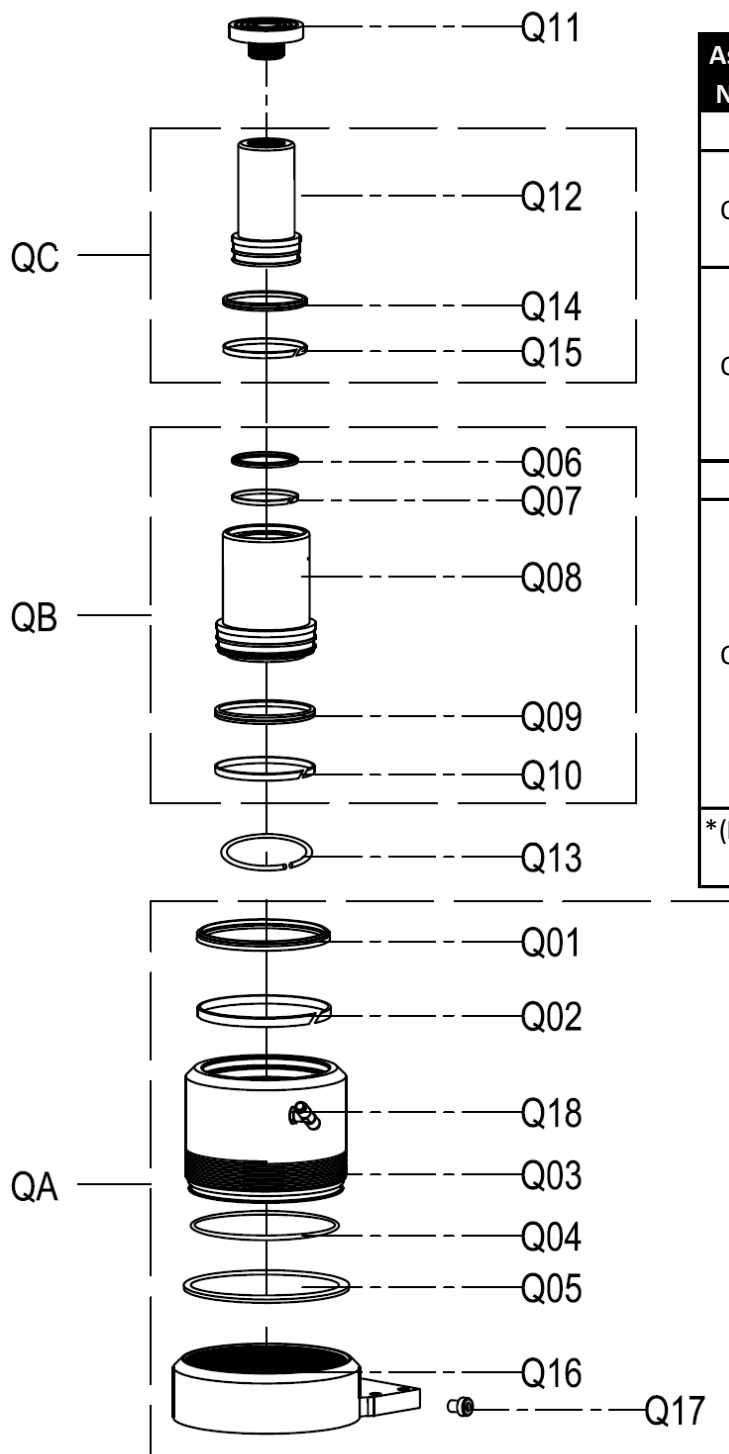
9.0 Parts Breakdown and List

9.1 Complete Assembly Parts Breakdown and List



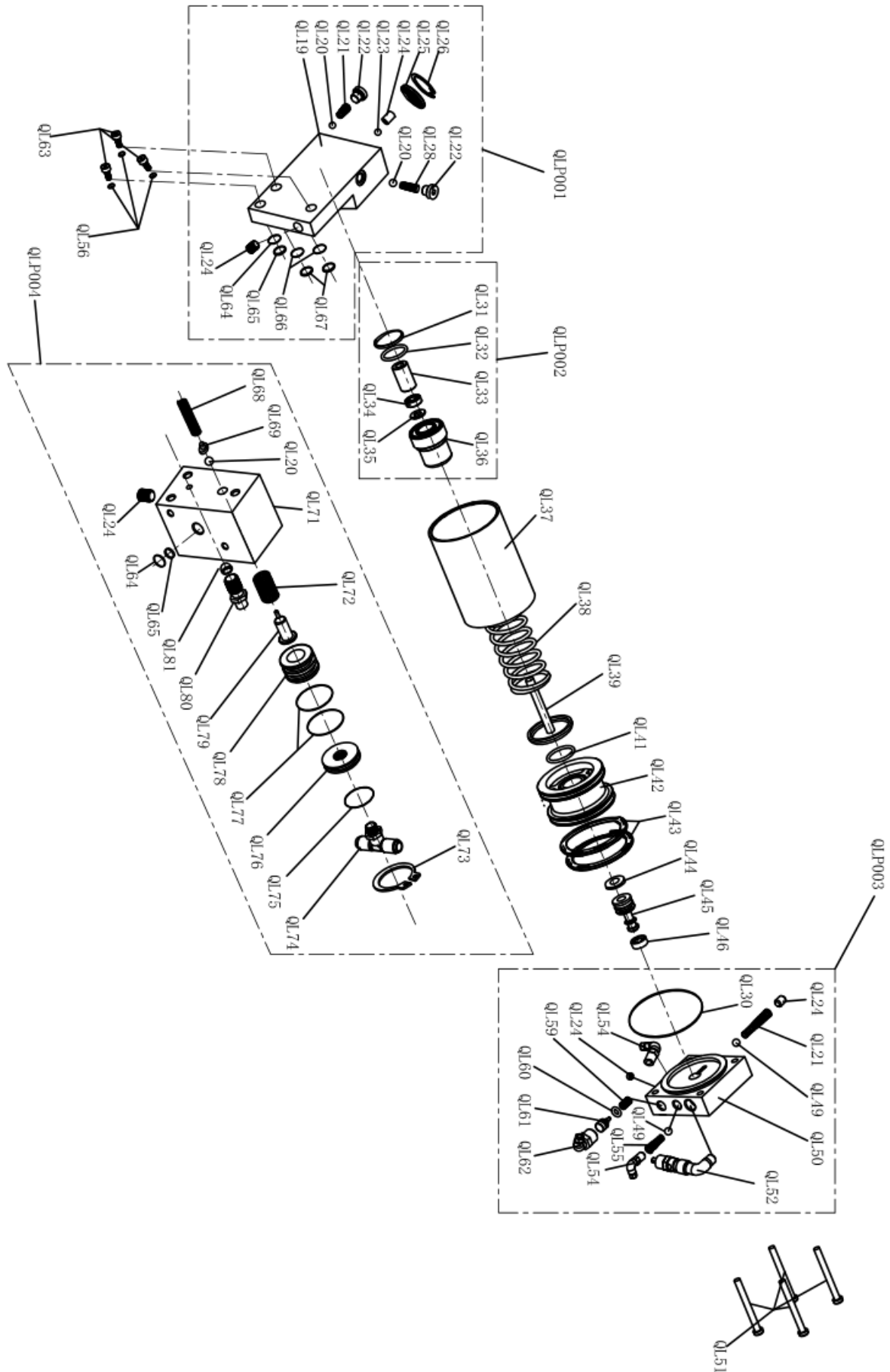
Item	Description	Part No.	Qty
Q001	Cylinder assy.	ZCF1034	1
Q002	Pump assembly	ZCF1028	1
Q003	Tie in	ZCF1300	4
Q004	Lifting Handle (set)	ZCF1301	1
Q005	Housing	ZCF1302	1
Q007	Switch assembly	ZCF1001	1
Q008	Handle grip	ZCF1108	2
Q009	Handle assembly	ZCF1041	1
Q010A	45 mm extension	ZCF1054	1
Q010B	75mm extension	ZCF1055	1
Q011	Tie in	ZCF1303	2
Q012	Protection cover	ZCF1099	1
Q013	Handle shaft	ZCF1088	1
Q014	Single wheel set	ZCF1016	2
Q015	Oil hose	ZCF1098	1
Q016	Screw	ZCF1304	3
Q017	Screw	ZCF1305	4
Q018	Screw	ZCF1306	2
Q019	Screw	ZCF1307	2

9.2 Cylinder Assembly (ZCF1034) Parts Breakdown and List



Assy No.	Item No.	Description	Part No.	Qty
	Q11	Saddle	ZCF1080	1
QC	Q12	Piston assembly	ZCF1308	1
	Q14*			
	Q15*			
QB	Q06*	Inner sleeve assembly	ZCF1309	1
	Q07*			
	Q08			
	Q09*			
	Q10*			
	Q13	Locking ring	ZCF1310	1
QA	Q01*	Base & outer sleeve assembly	ZCF1311	1
	Q02*			
	Q17			
	Q03			
	Q04*			
	Q05*			
	Q16			
Q18				
*(Included in)		Cylinder Seal Kit	ZCF1022	1

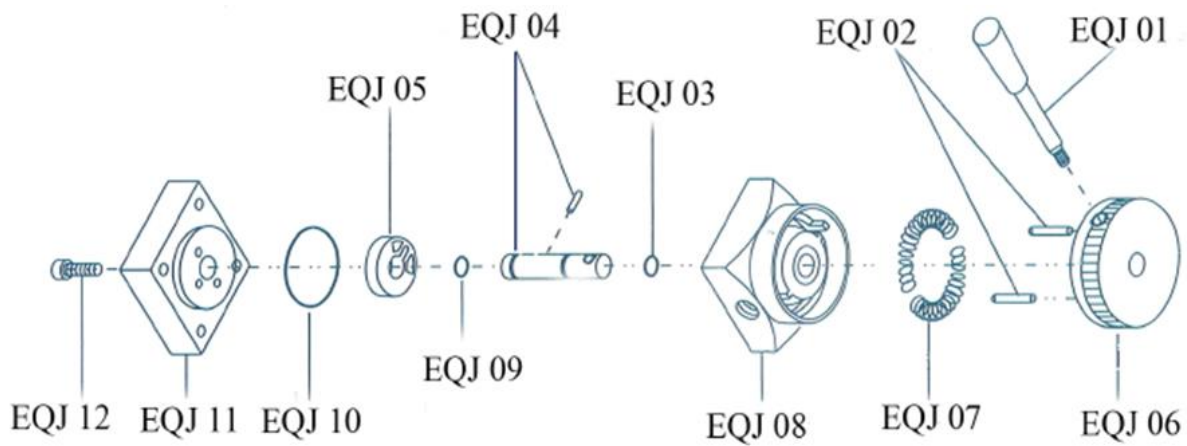
9.3 Pump Assembly (ZCF1028) Parts Breakdown and List



9.3.1 Pump Assembly (ZCF1028) Parts List

Item	Description	Part No.	Qty	Item	Description	Part No.	Qty
QL19	Check valve	ZCF1360	1	QL54	Tie in	ZCF1389	2
QL20	Steel ball	ZCF1361	2	QL55	Spring	ZCF1390	1
QL21	Spring	ZCF1362	1	QL56	Spring gasket	ZCF1391	3
QL22	Screw	ZCF1363	2	QL59	Spring	ZCF1392	1
QL23	Steel ball	ZCF1364	1	QL60	O-ring*	ZCF1393	1
QL24	Screw	ZCF1365	5	QL61	Piston	ZCF1394	1
QL25	Silencer	ZCF1366	1	QL62	Tie in	ZCF1395	1
QL26	Clamp	ZCF1367	1	QL63	Screw	ZCF1396	3
QL28	Spring	ZCF1368	1	QL64	Locking o-ring*	ZCF1397	2
QL30	O-ring*	ZCF1369	1	QL65	O-ring*	ZCF1398	2
QL31	Locking ring*	ZCF1370	1	QL66	Locking o-ring*	ZCF1399	2
QL32	O-ring*	ZCF1371	1	QL67	O-ring*	ZCF1400	2
QL33	Bushing guide	ZCF1372	1	QL68	Spring	ZCF1401	1
QL34	B3 seal*	ZCF1373	1	QL69	Steel ball plug	ZCF1402	1
QL35	Locking ring*	ZCF1374	1	QL71	Oil drain block	ZCF1403	1
QL36	Oil pump	ZCF1375	1	QL72	Spring	ZCF1404	1
QL37	Air cylinder	ZCF1376	1	QL73	Clamp	ZCF1405	1
QL38	Spring	ZCF1377	1	QL74	Tie in	ZCF1406	1
QL39	Plunger rod	ZCF1378	1	QL75	O-ring*	ZCF1407	1
QL41	O-ring*	ZCF1379	1	QL76	Oil drain cover	ZCF1408	1
QL42	Piston	ZCF1380	1	QL77	O-ring*	ZCF1409	2
QL43	Seal*	ZCF1381	2	QL78	Oil drain piston	ZCF1410	1
QL44	Seal*	ZCF1382	1	QL79	Oil drain bolt	ZCF1411	1
QL45	Piston	ZCF1383	1	QL80	Tie in	ZCF1412	1
QL46	Rubber cap*	ZCF1384	1	QL81	Filter	ZCF1413	1
QL49	Rubber ball	ZCF1385	2	QLP001	Check valve assembly	ZCF1414	1
QL50	Air inlet valve	ZCF1386	1	QLP002	Oil pump assembly	ZCF1415	1
QL51	Screw	ZCF1387	4	QLP003	Air inlet valve assy.	ZCF1416	1
QL52	Safety valve	ZCF1388	1	QLP004	Oil drain assembly	ZCF1417	1
				*	Pump seal kit	ZCF1003	1

9.4 Switch Assembly (ZCF1001) Parts Breakdown and List



Item	Description	Part No.	Qty
EQJ01	Handle	ZCF1000	1
EQJ02	Straight pin	ZCF1203	2
EQJ03	O-ring	ZCF1204	1
EQJ04	Central spindle	ZCF1205	1
EQJ05	Valve base	ZCF1206	1
EQJ06	Switch cap	ZCF1207	1
EQJ07	Spring	ZCF1208	2
EQJ08	Valve body	ZCF1209	1
EQJ09	O-ring	ZCF1210	1
EQJ10	O-ring	ZCF1211	1
EQJ11	Valve base	ZCF1212	1
EQL12	Screw	ZCF1213	4