

EAGLE PRO

Worldwide Hydraulic Solutions

Form No. E09005

Rev. A. 09.18.2015

INSTRUCTION MANUAL

EPB SERIES HYDRAULIC PUMPS

Models: EPB-17xx, EPB-50xx, EPB-100xx



01

SAFETY INSTRUCTIONS

Carefully inspect all components for shipping damage. If shipping damage is found, notify the carrier at once. The carrier is responsible for any damage resulting from shipment.

To avoid personal injury or property damage, please read, understand, and follow all safety instructions.

EAGLE PRO is not responsible for injury or damage resulting from unsafe and/or incorrect product use or system operation, or lack of proper maintenance.

DANGER! Is used only when your action or lack of action may cause serious injury or death.

WARNING! Is used when a potential danger exists that requires correct action to avoid personal injury.

IMPORTANT! Is used when action or lack of action can cause equipment failure.



IMPORTANT!

- ♦ To avoid personal injury or property damage, please read, understand, and follow all safety instructions.
- ♦ Always keep work area clean and free of clutter.
- ♦ When not in use, tools should be properly stored to avoid damage .
- ♦ Operator must wear proper safety attire when working with hydraulic equipment. Work gloves, safety glasses, hard hats, approved safety shoes, and hearing protection and/or other required clothing should be worn while operating this equipment.



DANGER!

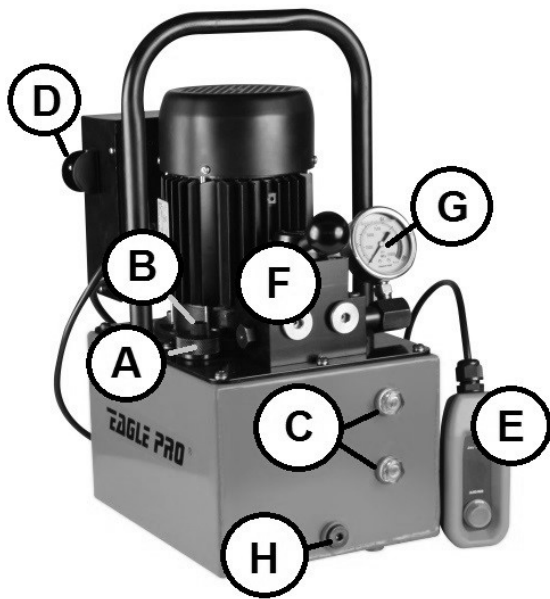
- ♦ The hydraulic equipment user must be a qualified operator with correct training and work experience with hydraulic equipment. Lack of knowledge in any of these areas can lead to equipment damage or personal injury.
- ♦ Carefully inspect hydraulic pump before using . If any damage is found, discontinue use and contact your closest authorized EAGLE PRO Service Center.
- ♦ To avoid personal injury, do not modify or weld hydraulic equipment without approval of EAGLE PRO INDUSTRIAL TOOLS, INC.
- ♦ EPB electric pumps are designed for a maximum of 10,000 PSI/700 bar. Ensure that all hydraulic equipment (cylinders, hoses, accessories, etc.) used with these pumps are rated at 10,000 PSI/700 bar pressure rating or equipment damage may occur.
- ♦ Always stay clear of loads supported only by hydraulic means. A cylinder is a load lifting device, not a load holding device. After a load has been raised or lowered it must always be supported mechanically.

- ◆ Use only rigid cribbing pieces to hold loads. Select solid wood or steel blocks that are capable of supporting the load.
- ◆ Keep hands and feet away from cylinder and work-piece during operation
- ◆ Never exceed equipment ratings. Never attempt to lift a load weighing more than the capacity of the smallest cylinder in the hydraulic system. Overloading will cause equipment failure and possible personal injury.
- ◆ Never set the relief valve higher than the maximum rated pressure of the pump. Higher setting may result in equipment damage and personal injury.
- ◆ Install pressure gauges to monitor system pressure. System pressure must never exceed maximum rated pressure of the electric pump.
- ◆ Do not pick up the hydraulic pump by the power cord, pendant control cord, or hydraulic hose.
- ◆ Electrical pumps should never be used in a potentially explosive environment.
- ◆ Ensure that the pump is properly grounded to guard against electrical shock.
- ◆ Do not use kinked or damaged hydraulic hoses.
- ◆ Carefully inspect the hydraulic couplers on pump, hoses, and other hydraulic tools before using. Never connect tools with damaged couplers or damaged port threads. The damaged coupler(s) or damaged port threads may cause equipment failure and possible personal injury.
- ◆ Install couplers in a clean environment. Always prevent dirt or other debris from entering into the cylinder or tool. Dirt or debris will damage the tool and result in equipment failure and possible personal injury.
- ◆ Before removing or tightening hose(s) or coupler(s), always release hydraulic pressure in system .
- ◆ Never handle pressurized hoses; escaping oil under high pressure can penetrate the skin, causing serious injury. Seek medical aid immediately if injured.
- ◆ When the pump is not in use, release system pressure, remove the hose(s) and use the dust cap to recover the port.
- ◆ Do not drop anything on hydraulic hoses.
- ◆ Do not use equipment in temperatures of 150°F (65°C) or higher. Overheating will soften seals and weakens hose materials, resulting in oil leaks or other equipment failure.
- ◆ Ensure the electric power supply is compatible with the electric pump.
- ◆ Always disconnect the electric pump from the power supply when performing maintenance or repair.
- ◆ For hydraulic technical help or repair service, please contact the closest authorized EAGLE PRO Service Center. EAGLE PRO INDUSTRIAL TOOLS, INC. has no obligations under any warranty with respect to products that have been repaired by unauthorized personnel, modified, or damaged through misuse, abuse, accident, neglect, or mishandling.

02 INITIAL SETUP INSTRUCTIONS

Visually inspect the pump for any shipping damage. If any damage is found, notify the carrier immediately. Carrier is responsible for any damage that occurs during shipment.

2.1 Terminology



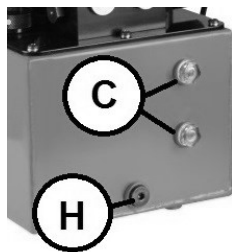
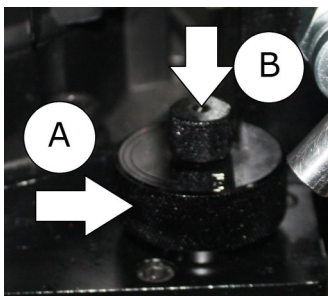
- A. OIL FILLER CAP
- B. VENTILATION KNOB
- C. OIL LEVEL MONITOR AND THERMOMETER
- D. POWER SWITCH
- E. PUSH BUTTON CONTROL SWITCH (if applicable)
- F. CONTROL VALVE
- G. PRESSURE GAUGE
- H. RESERVOIR OIL PLUG

2.2 Filling The Oil Reservoir

For shipping safety, the pump has been shipped without hydraulic oil in the reservoir. Remove the pump from the shipping carton and fill the reservoir with the provided hydraulic fluid.

First, remove the filler cap (A). Using a clean funnel, and the provided hydraulic fluid fill the reservoir. The reservoir is full when the oil level covers the top oil level gauge (C).

Once the oil reservoir is full replace the filler cap (A). and properly dispose of the hydraulic fluid containers.



2.3 ELECTRICAL CONNECTIONS

Ensure proper power availability to prevent motor failure or dangerous overloading. Use the recommended amperage listed on the motor nameplate. Do not use the electric pump if the ground is not connected on the power plug.

EPB-17x Series		EPB-100x Series																										
Voltage	115V	Voltage	230V, 3PH																									
Operating Pressure	10,000 PSI/700 Bar	Operating Pressure	10,000 PSI/700 Bar																									
Electrical Requirements	10 AMPS 115V GROUNDED 60HZ	Electrical Requirements	8.2 AMPS 230V GROUNDED 60HZ																									
Motor Rating	0.5HP 115V 60Hz	Motor Rating	3HP 230V 3PH 60Hz																									
Flow Rate	275/17 IN3	Flow Rate	550/50 IN3																									
Maximum Operating Temp	150° F	Maximum Operating Temp	150° F																									
EPB-50x Series		<table><tr><th rowspan="3">AMP DRAW AT FULL LOAD</th><th colspan="4">CORD SIZE AWG (MM²) 3.2% VOLT DROP</th></tr><tr><th colspan="4">LENGTH OF CORD</th></tr><tr><th>0-25 FEET (0-8M)</th><th>25-50 FEET (8-15M)</th><th>50-100 FEET (15-30M)</th><th>100-150 FEET (30-45M)</th></tr><tr><td>6</td><td>18 (.82)</td><td>16 (1.33)</td><td>14 (2.09)</td><td>12 (3.32)</td></tr><tr><td>8</td><td>18 (.82)</td><td>16 (1.33)</td><td>12 (3.32)</td><td>10 (5.37)</td></tr></table>				AMP DRAW AT FULL LOAD	CORD SIZE AWG (MM ²) 3.2% VOLT DROP				LENGTH OF CORD				0-25 FEET (0-8M)	25-50 FEET (8-15M)	50-100 FEET (15-30M)	100-150 FEET (30-45M)	6	18 (.82)	16 (1.33)	14 (2.09)	12 (3.32)	8	18 (.82)	16 (1.33)	12 (3.32)	10 (5.37)
AMP DRAW AT FULL LOAD	CORD SIZE AWG (MM ²) 3.2% VOLT DROP																											
	LENGTH OF CORD																											
	0-25 FEET (0-8M)					25-50 FEET (8-15M)	50-100 FEET (15-30M)	100-150 FEET (30-45M)																				
6	18 (.82)					16 (1.33)	14 (2.09)	12 (3.32)																				
8	18 (.82)					16 (1.33)	12 (3.32)	10 (5.37)																				
Voltage	115V																											
Operating Pressure	10,000 PSI/700 Bar																											
Electrical Requirements	20 AMPS 115V GROUNDED 60HZ																											
Motor Rating	1.5HP 115V 60Hz																											
Flow Rate	550/50 IN3																											
Maximum Operating Temp	150° F																											

Always minimize the length of extension cords and be sure they are of adequate wire size, with proper ground connections. See FIG A. for recommended minimum wire size (AWG) of any extension cords that are used with EAGLE PRO electric pumps.

EAGLE PRO recommends using extension cords that no longer than 25 feet.

FIG A



WARNING!

Do not operate in a potentially explosive environment, as electric motors may produce sparks.

2.4 HYDRAULIC CONNECTIONS

1. Clean all areas around the oil ports of the pump and cylinders or hydraulic tools to be used.
2. Inspect all threads and fittings for wear or damage. Replace if any damage or excessive wear found.
3. Clean all hose ends, couplers or other fittings.
4. Remove the thread protector(s) from the hydraulic oil ports. Thread the hose assembly into the oil port and attach the hose to the cylinder or hydraulic tool. Use a non-hardening thread sealant to seal the threads. PTFE tape may be used to seal hydraulic connections if only one layer of the tape is used. Apply tape carefully, two threads back, to prevent the tape from being pinched by the coupler and broken off inside the fitting. Any loose pieces of tape could travel through the hydraulic system and obstruct the flow of oil.

5. Ensure that all couplers, hoses, valves, and other accessories are securely tightened to prevent accidental removal of components while in use.
6. Ensure all hoses are not kinked or twisted.



WARNING!

Improperly connected hydraulic couplers can be dangerous if pressurized. Do not grab, touch or come in contact with a pressurized hydraulic fluid leak. Escaping fluid can penetrate the skin and cause severe injury.

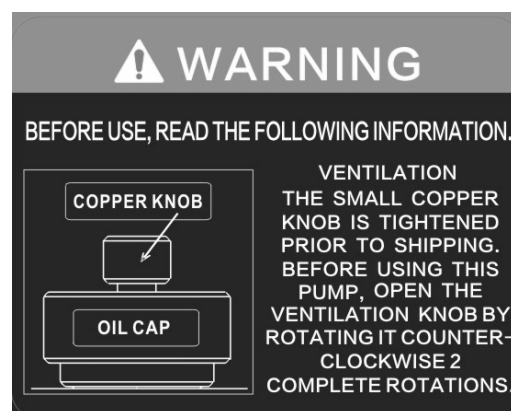
Avoid kinking or tightly bending hoses. If a hose becomes kinked or otherwise damaged, it must be replaced. Damaged hoses may rupture at high pressure causing personal injury.

03 OPERATION INSTRUCTIONS



WARNING!

Before using, always open the reservoir ventilation knob (B) by rotating it 2 complete counter-clockwise rotations.



3.1 ASSEMBLING THE SYSTEM

The EAGLE PRO EPB electric pumps are shipped with a shipping plug in the 3/8"-NPT oil outlet port(s). Remove this plug using an 8mm hex head wrench.

For pumps with Single Acting valves, connect the hose assembly into the pump and attach the hose to the cylinder or hydraulic tool being used. See FIG B.

For pumps with Double Acting valves, connect one hose assembly into the ADVANCE port (A) and connect this hose to the bottom port on the cylinder or tool. Connect another hose into the RETRACT port (B) and connect this hose to the top port on the cylinder or tool. See FIG C.

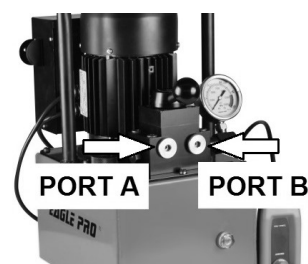


FIG B

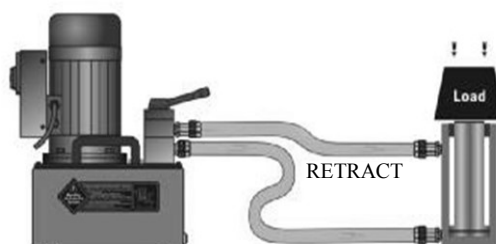


FIG C

ADVANCE

3.2 MOTOR AND VALVE OPERATION—SINGLE ACTING

Turn the pump on by pushing the ON/OFF (D) toggle switch (located on the electrical box) up, to the ON position. To operate the pump see the valve operating diagram below, FIG C.



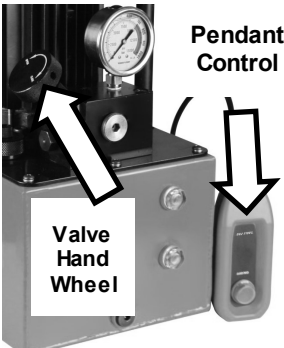
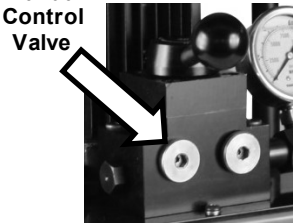
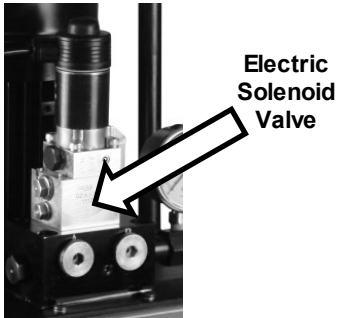
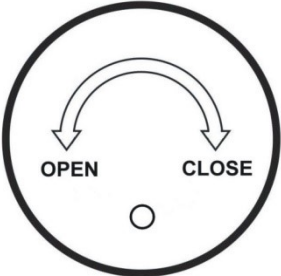
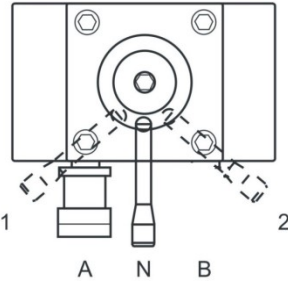
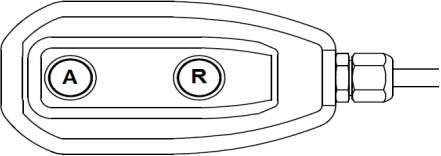
Operation	Manual Valve Operation		Electric Solenoid Valve Operation
	Hand Wheel	EV-4x Valve	2 Button Pendant
Advance	CLOSE	Turn Handle to A (1)	ADVANCE Button A
Retract	OPEN	Turn Handle to B (2)	RETRACT Button R
Hold	CLOSE W/Motor Off	A Position or N Position W/Motor off	Release Button
Pendant ON/OFF	Toggle Motor On or Off	Toggle Motor On or Off	Toggle Motor On or Off
Valve Image			
Operating Diagram			

FIG C

(*) If the electric pump does not feature a pendant control switch, operate the pump using the ON/OFF toggle switch (D) above

3.2 MOTOR AND VALVE OPERATION—DOUBLE ACTING

Turn the pump on by pushing the ON/OFF (D) toggle switch (located on the electrical box) up, to the ON position. To operate the pump see the valve operating diagram below, FIG D.



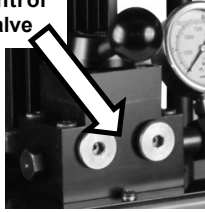
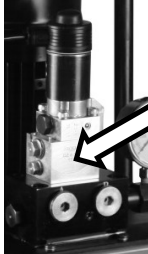
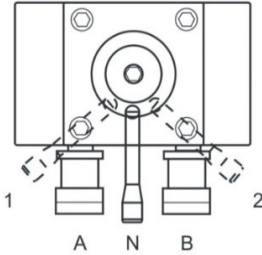
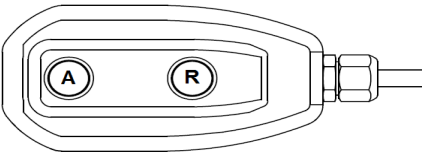
Operation	Manual Valve Operation	Electric Solenoid Valve Operation
	EV-4x Valve	2 Button Pendant
Advance	Turn Handle to A (1)	ADVANCE Button A
Retract	Turn Handle to B (2)	RETRACT Button R
Hold	A Position or N Position W/Motor off	Release Button
Pendant ON/OFF	Toggle Motor On or Off	Toggle Motor On or Off
Valve Image		
Operating Diagram		

FIG D

(*) If the electric pump does not feature a pendant control switch, operate the pump using the ON/OFF toggle switch (D) above

04 MAINTENANCE

4.1 HYDRAULIC FLUID LEVEL

(*) If the electric pump do not have handle control switch, take on or off the power switch (D)

Before each operation it is important that the fluid level is checked. If the fluid level is low, add hydraulic fluid as Section 02 Initial Setup shows.



IMPORTANT!

In order to ensure proper operation of the electric pump, completely drain and clean the pump reservoir every 250 hours, or more frequently if used in dirty environments. In general hydraulic fluid should be a light yellow and transparent liquid. If hydraulic fluid appears dark or cloudy replace the fluid.

4.2 CHANGING THE HYDRAULIC FLUID

Follow the steps below to change the hydraulic fluid.

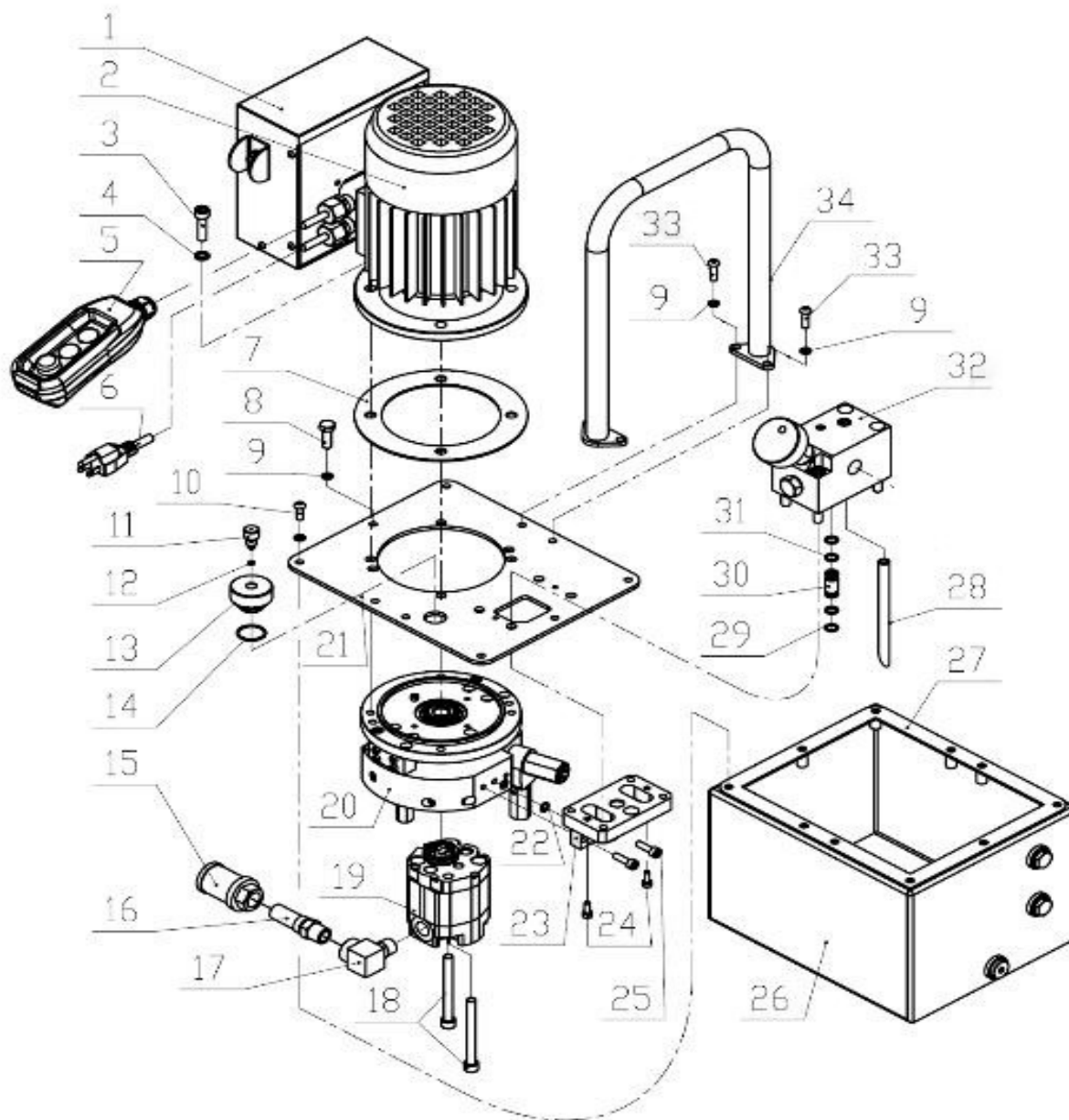
- STEP 1.** Ensure pump is unplugged from power source and system pressure has been released.
- STEP 2.** Loosen and remove reservoir drain plug using a 6mm hex wrench. See FIG E.
- STEP 3.** Drain oil into approved container and dispose of properly according to local regulations.
- STEP 4.** Unscrew and remove the bolts holding the reservoir to the top plate of the hydraulic pump.
- STEP 5.** Lift the top plate off of the pump reservoir, being careful not to damage the pump body and set aside.
- STEP 6.** Clean the pump reservoir and reservoir magnet with a mild cleaning agent and wipe dry. Ensure that any small pieces of paper towel or rag are removed from the reservoir.
- STEP 7.** Unscrew the oil filter by hand from the pump body and clean using a mild cleaning agent and a soft brush. Flush the filter with clean hydraulic fluid to ensure any cleaning agents and/or small particles have been removed from the filter. If the oil filter is damaged contact the nearest authorized Eagle Pro service center to order a replacement.
- STEP 8.** Screw oil filter back onto pump body, be sure to only hand tighten oil filter. Over tightening may damage the pump body.
- STEP 9.** Reassemble pump and reservoir.
- STEP 10.** Once pump is completely assembled, add new, clean **ISO #32** hydraulic fluid, see Section 02 Initial Setup Instruction's on how to add hydraulic fluid.



FIG E

PROBLEM	POSSIBLE CAUSE	SOLUTION
Motor Will Not Run	<ol style="list-style-type: none"> 1. No power or incorrect voltage 2. Damaged power cord 3. Tripped circuit breaker 4. Loose or faulty wiring 5. Defective On/Off Switch 6. Defective Motor 7. Overheated Motor 	<ol style="list-style-type: none"> 1. Check power supply and voltage 2. Contact your local Authorized Eagle Pro Service Center 3. Ensure electrical supply is adequate 4. Contact your local Authorized Eagle Pro Service Center 5. Contact your local Authorized Eagle Pro Service Center 6. Contact your local Authorized Eagle Pro Service Center 7. Wait for motor to cool before restarting
Motor Stalls Under Load	<ol style="list-style-type: none"> 1. Low voltage 	<ol style="list-style-type: none"> 1. Ensure electrical supply is adequate 2. If using extension cord ensure correct size
Erratic Cylinder Operation	<ol style="list-style-type: none"> 1. Air in system or pump cavitation 2. External fluid leak 3. Internal fluid leak 	<ol style="list-style-type: none"> 1. Follow pump/cylinder instructions fro bleeding air 2. Ensure all connections are tight and properly sealed 3. Contact your local Authorized Eagle Pro Service Center
Pump Will Not Hold Pressure	<ol style="list-style-type: none"> 1. External fluid leak 2. Internal fluid leak 3. Pump or valve malfunction 	<ol style="list-style-type: none"> 1. Ensure all connections are tight and properly sealed 2. Contact your local Authorized Eagle Pro Service Center 3. Contact your local Authorized Eagle Pro Service Center
Pump Builds full Pressure, But Load Does Not Move	<ol style="list-style-type: none"> 1. Load greater than cylinder capacity 2. Flow to cylinder blocked 	<ol style="list-style-type: none"> 1. Reduce load, or select higher capacity cylinder 2. Ensure couplers are properly connected
Single Acting Cylinder Will Not Retract	<ol style="list-style-type: none"> 1. Cylinder return spring is damaged 2. Valve is not open 3. Valve malfunction 4. Pump reservoir too full 5. No load on "Load Return" cylinder 	<ol style="list-style-type: none"> 1. Contact your local Authorized Eagle Pro Service Center 2. Ensure pump valve is opened correctly 3. Contact your local Authorized Eagle Pro Service Center 4. Drain hydraulic fluid to correct level 5. Add load to cylinder
Double Acting Cylinder Will Not Retract	<ol style="list-style-type: none"> 1. Return flow restricted or blocked 2. Valve is not open 3. Valve malfunction 	<ol style="list-style-type: none"> 1. Ensure couplers are properly connected 2. Ensure pump valve is opened correctly 3. Contact your local Authorized Eagle Pro Service Center
Pump Runs Hot	<ol style="list-style-type: none"> 1. Incorrect electrical connections 2. Hydraulic fluid level low 3. Pump running too long 4. Work environment too hot 	<ol style="list-style-type: none"> 1. Check power supply, voltage, and ensure extension cord is correctly sized 2. Add hydraulic fluid 3. Wait for motor to cool before restarting 4. Remove from work site. Do not use equipment in temperatures of 150°F (65°C) or higher
Pump Pressure Too High	<ol style="list-style-type: none"> 1. Relief valve set too high 2. Relief valve malfunction 	<ol style="list-style-type: none"> 1. Contact your local Authorized Eagle Pro Service Center 2. Contact your local Authorized Eagle Pro Service Center

6.1 EPB-171A



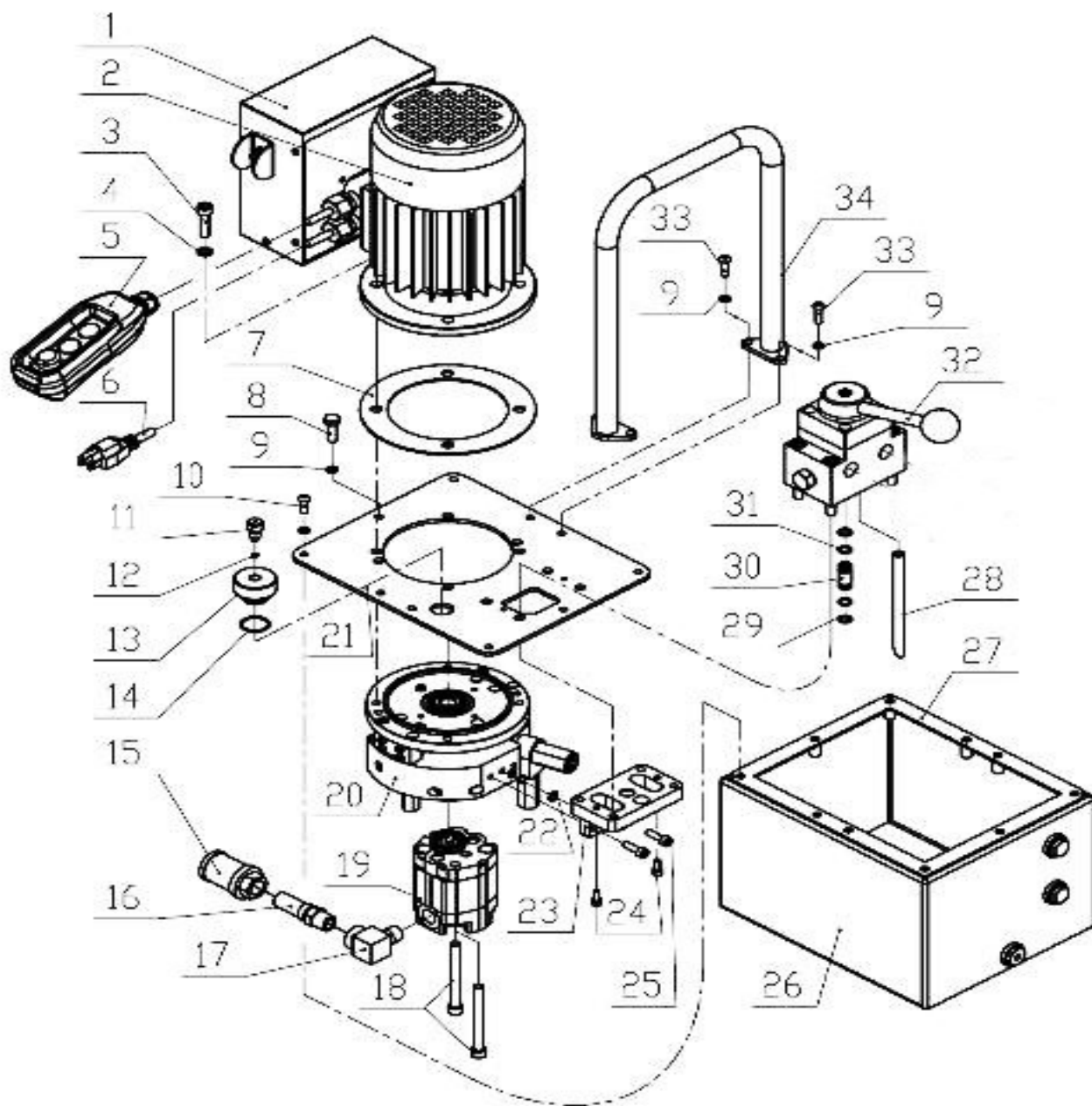
6.1 EPB-171A CONTINUED

EPB-171A Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	DQH01	Electric Control Box	1	19	EDYB2.7	Gear Motor	1
2	ML7124/B5	Motor 0.5Hp 115V 60Hz	1	20	EGYB03	Pump Head	1
3	13005	Bolt (M8*30)	4	21	EPB-3B5P5A-1	Top Plate	1
4	13125	Washer (12.3*8.1*2.1)	4	22★	24220	O-ring	1
5	XKSB.2	Pendant Switch	1	23	EPB-3B5P5A.1	Block Kit	1
6	YY-3	Plug	1	24	12015	Bolt (M5*12)	2
7★	EPB-3B1P2B-1	Motor Gasket	1	25	11004	Bolt (M6*20)	2
8	11033	Bolt (M6*16)	1	26	ELYX0500A	Oil Reservoir	1
9★	QY2-13	Copper washer	10	27★	EPB-3B5P5A-2	Reservoir Gasket	1
10	13082	Bolt (M6*16)	5	28	EPB-3B5P5A-3	Oil Return Tube	1
11	EPA21621.3-1	Air Vent Screw	1	29★	24164	O-ring	2
12★	24187	O-ring	1	30	EPB-3B5P5A-4	Fitting	1
13	EPA21621.3-2	Oil Cap	1	31★	21073	Gasket	2
14★	24227	O-ring	1	32	EV42H3A	Control Valve	1
15	WU-10*80-J	Filter	1	33	13083	Bolt (M6*20)	4
16	EJB107	Fitting	1	34	ETS01	Handle	1
17	EJF106	Fitting	1	35★	03.03.0049	Eagle Pro Label	2
18	13013	Bolt (M8*80)	2				

Note: ★ Denotes items in and only available in pump repair kit: **EPB171-RP-A**

6.2 EPB-175A



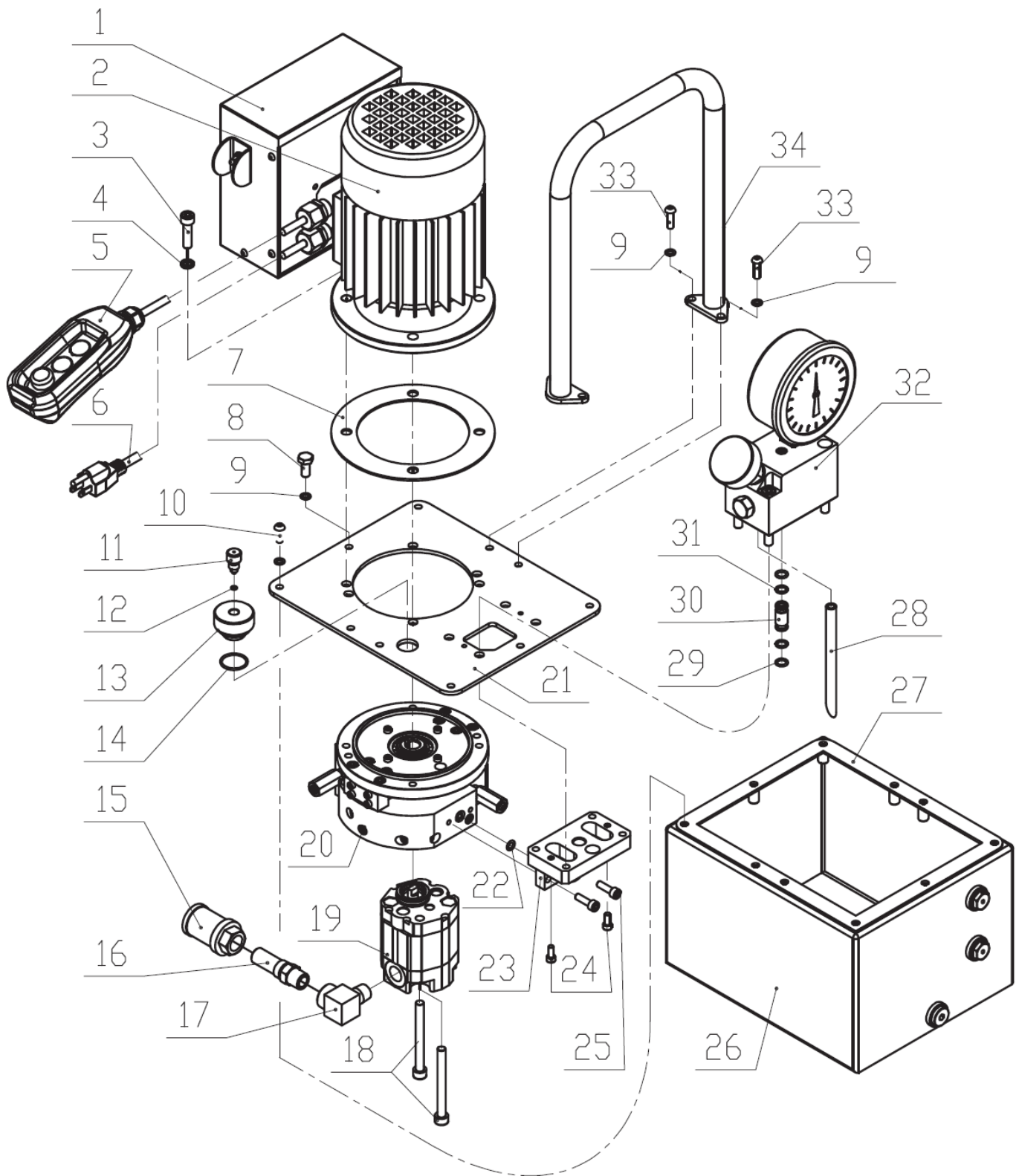
6.2 EPB-175A

EPB-175A Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	DQH01	Electric Control Box	1	19	EDYB2.7	Gear Motor	1
2	ML7124/B5	Motor 0.5Hp 115V 60Hz	1	20	EGYB03	Pump Head	1
3	13005	Bolt (M8*30)	4	21	EPB-3B5P5A-1	Top Plate	1
4	13125	Washer (12.3*8.1*2.1)	4	22★	24220	O-ring	1
5	XKSB.2	Pendant Switch	1	23	EPB-3B5P5A.1	Block Kit	1
6	YY-3	Plug	1	24	12015	Bolt (M5*12)	2
7★	EPB-3B1P2B-1	Motor Gasket	1	25	11004	Bolt (M6*20)	2
8	11033	Bolt (M6*16)	1	26	ELYX0500A	Oil Reservoir	1
9★	QY2-13	Copper washer	10	27★	EPB-3B5P5A-2	Reservoir Gasket	1
10	13082	Bolt (M6*16)	5	28	EPB-3B5P5A-3	Oil Return Tube	1
11	EPA21621.3-1	Air Vent Screw	1	29★	24164	O-ring	2
12★	24187	O-ring	1	30	EPB-3B5P5A-4	Fitting	1
13	EPA21621.3-2	Oil Cap	1	31★	21073	Gasket	2
14★	24227	O-ring	1	32	EV-43M4E	Control Valve	1
15	WU-10*80-J	Filter	1	33	13083	Bolt (M6*20)	4
16	EJB107	Fitting	1	34	ETS01	Handle	1
17	EJF106	Fitting	1	35★	03.03.0049	Eagle Pro Label	2
18	13013	Bolt (M8*80)	2				

★Denotes items in and only available in pump repair kit: **EPB171-RP-A**

6.3 EPB-1710A



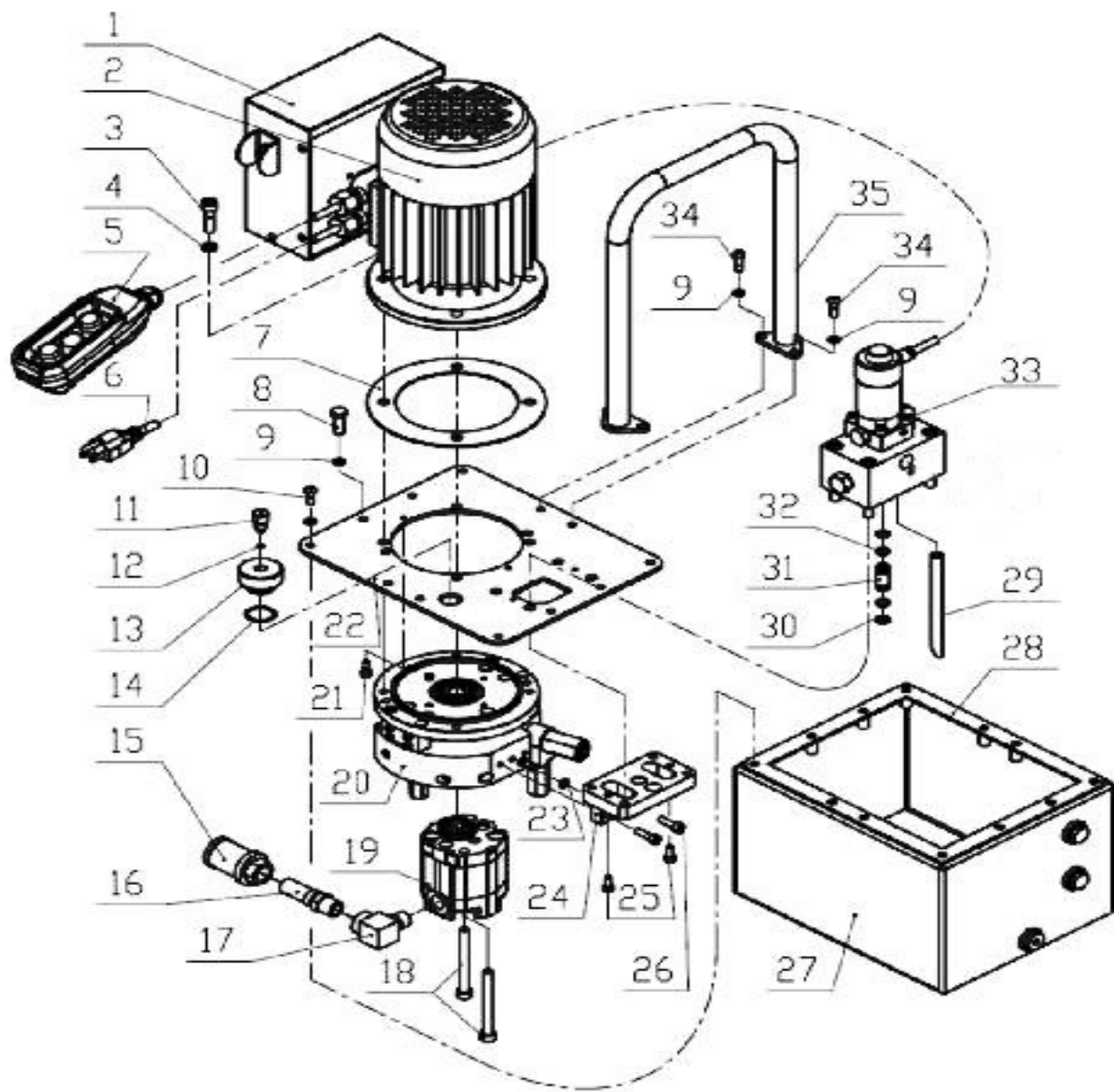
6.3 EPB-1710A

EPB-1710A Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	DQH01	Electric Control Box	1	19	BKP1Q0D2.7	Gear Motor	1
2	ML7134 (71C4A)	Motor 0.5Hp 115V 60 Hz	1	20	EPB-3B10P5A.1	Pump Head	1
3	13005	Bolt (M8*30)	4	21	EPB-3B5P5A-1	Top Plate	1
4	13125	Washer (12.3*8.1*2.1)	4	22★	24220	O-ring (6.8*1.9)	1
5	XKSB.2	Pendant Switch	1	23	EPB-3B10P5A.2	Block Kit	1
6	YY-3	Plug	1	24	12015	Bolt (M5*12)	2
7	EPB-3B1P2B-1	Motor Gasket	1	25	11004	Bolt (M6*20)	2
8	11033	Bolt (M6*16)	1	26	ELYX0500A	Oil Reservoir	1
9★	QY2-13	Copper washer	10	27	EPB-3B5P5A-2	Reservoir Gasket	1
10	13082	Bolt (M6*16)	5	28	EPB-3B5P5A-3	Oil Return Tube	1
11	EPA21621.3-1	Air Vent Screw	1	29★	24164	O-ring (8.8*1.9)	2
12★	24187	O-ring (2.8*1.8)	1	30	EPB-3B5P5A-4	Fitting	1
13	EPA21621.3-2	Oil Cap	1	31	21073	Gasket (12*9*1.4)	2
14★	24227	O-ring (23.6*1.8)	1	32	EV42H2	Control Valve	1
15	WU-10*80-J	Filter	1	33	13083	Bolt (M6*20)	4
16	EJB107	Fitting	1	34	ETS01	Handle	1
17	EJF106	Fitting	1	35★	03.03.0049	Eagle Pro Label	2
18	13013	Bolt (M8*80)	2				

Note: ★ Denotes items in and only available in pump repair kit: **EPB1710A-RP-A**

6.4 EPB-502SA



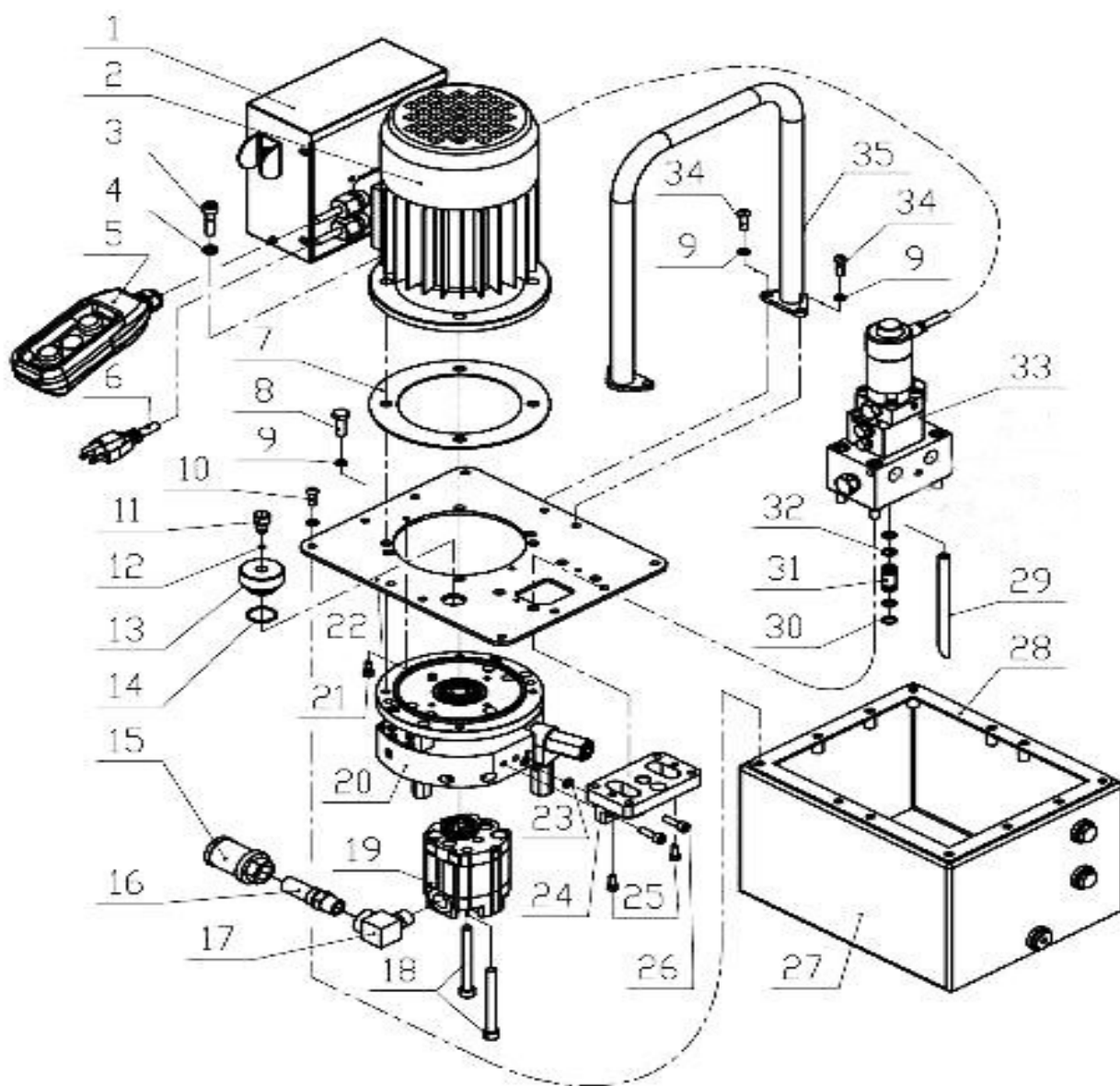
6.4 EPB-502SA

EPB-502SA Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	DQH02	Electric Control Box	1	19	EDYB2.7	Gear Motor	1
2	ML8022/B5	Motor 1.5Hp 115v 60Hz	1	20	EGYB08	Pump Head	1
3	13019	Bolt (M10*30)	4	21	12016	Bolt (M5*16)	2
4	13126	Washer (15.7*10.2*2.6)	4	22	EPB-8B5P8A-1	Top Plate	1
5	XKSB.2	Pendant Switch	1	23★	24220	O-ring	1
6	YY-3G/3C	Plug	1	24	EPB-8B5P8A.1	Block Kit	1
7★	EPB-10B-3	Motor Gasket	1	25	12015	Bolt (M5*12)	2
8	11033	Bolt (M6*16)	2	26	11004	Bolt (M6*20)	2
9★	QY2-13	Copper washer	12	27	ELYX0750A	Oil Reservoir	1
10	13082	Bolt (M6*16)	6	28★	EPB-8B5P8A-2	Reservoir Gasket	1
11	EPA21621.3-1	Air Vent Screw	1	29	EPB-3B5P5A-3	Oil Return Tube	1
12★	24187	O-ring	1	30★	24164	O-ring	2
13	EPA21621.3-2	Oil Cap	1	31	EPB-3B5P5A-4	Fitting	1
14★	24227	O-ring	1	32★	21073	Gasket	2
15	WU-10*80-J	Filter	1	33	EV-52M2	Control Valve	1
16	EJB107	Fitting	1	34	13083	Bolt (M6*20)	4
17	EJF106	Fitting	1	35	ETS02	Handle	1
18	13013	Bolt (M8*80)	2	36★	03.03.0049	Eagle Pro Label	2

Note: ★ Denotes items in and only available in pump repair kit: **EPB502-RP-A**

6.5 EPB-504SA



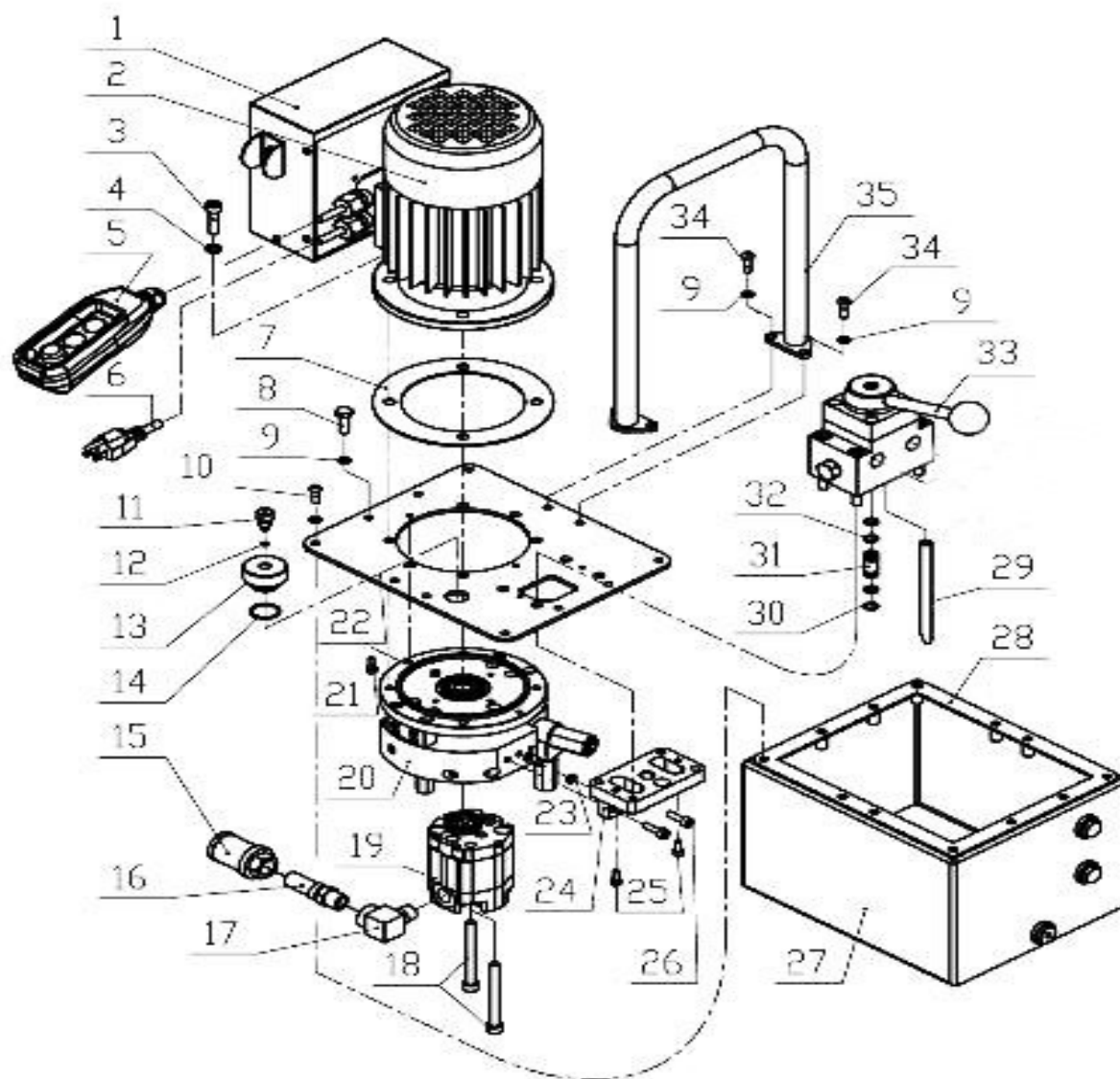
6.5 EPB-504SA

EPB-504SA Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	DQH02	Electric Control Box	1	19	EDYB2.7	Gear Motor	1
2	ML8022/B5	Motor 1.5Hp 115v 60Hz	1	20	EGYB08	Pump Head	1
3	13019	Bolt (M10*30)	4	21	12016	Bolt (M5*16)	2
4	13126	Washer (15.7*10.2*2.6)	4	22	EPB-8B5P8A-1	Top Plate	1
5	XKSB.2	Pendant Switch	1	23★	24220	O-ring	1
6	YY-3G/3C	Plug	1	24	EPB-8B5P8A.1	Block Kit	1
7★	EPB-10B-3	Motor Gasket	1	25	12015	Bolt (M5*12)	2
8	11033	Bolt (M6*16)	2	26	11004	Bolt (M6*20)	2
9★	QY2-13	Copper washer	12	27	ELYX0750A	Oil Reservoir	1
10	13082	Bolt (M6*16)	6	28★	EPB-8B5P8A-2	Reservoir Gasket	1
11	EPA21621.3-1	Air Vent Screw	1	29	EPB-3B5P5A-3	Oil Return Tube	1
12★	24187	O-ring	1	30★	24164	O-ring	2
13	EPA21621.3-2	Oil Cap	1	31	EPB-3B5P5A-4	Fitting	1
14★	24227	O-ring	1	32★	21073	O-ring	2
15	WU-10*80-J	Filter	1	33	EV-52H4B	Control Valve	1
16	EJB107	Fitting	1	34	13083	Bolt (M6*20)	4
17	EJF106	Fitting	1	35	ETS02	Handle	1
18	13013	Bolt (M8*80)	2	36★	03.03.0049	Eagle Pro Label	2

Note: ★ Denotes item in and only available in pump repair kit: **EPB504-RP-A**

6.6 EPB-505A



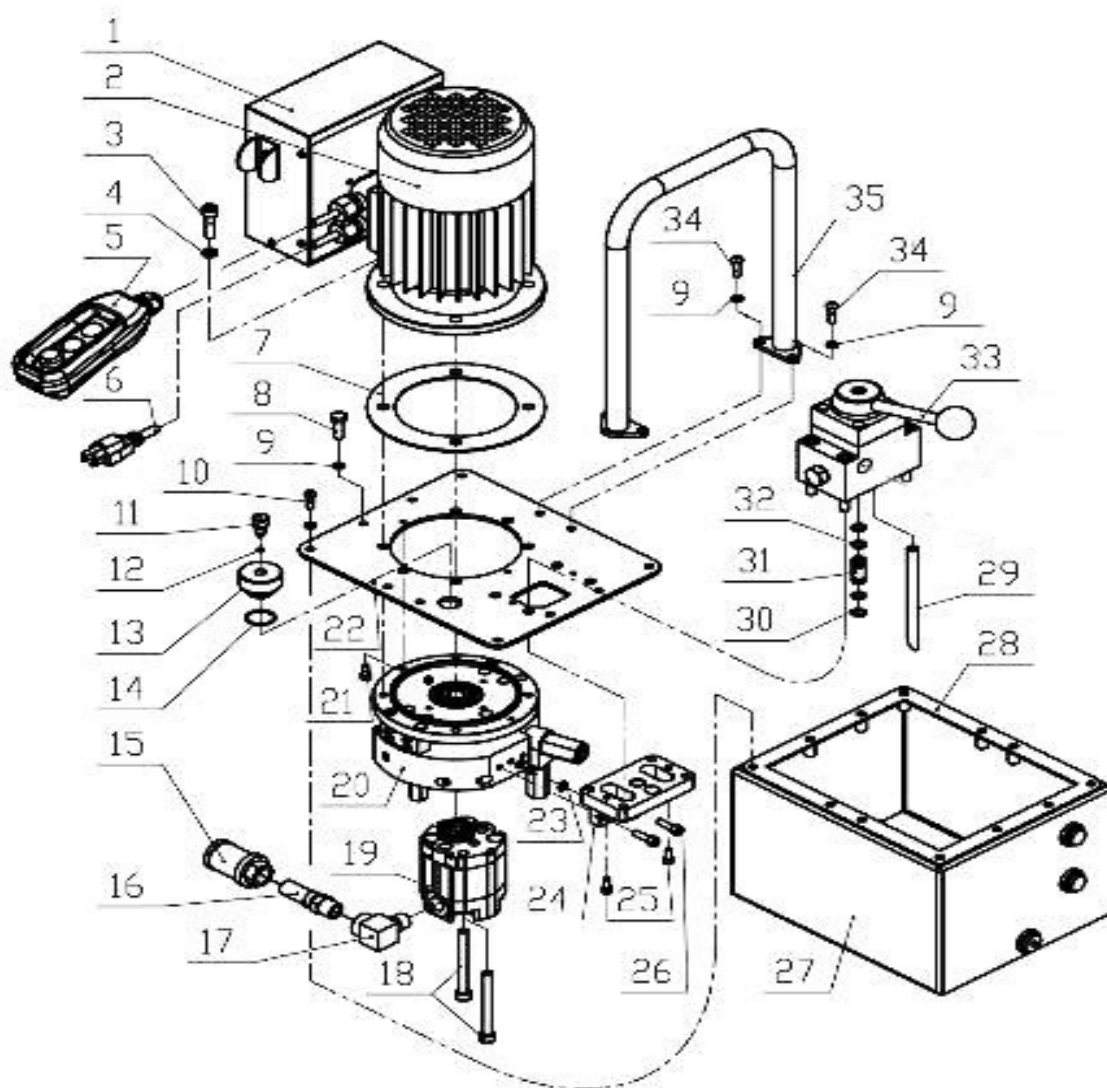
6.6 EPB-505A

EPB-505A Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	DQH02	Electric Control Box	1	19	EDYB2.7	Gear Motor	1
2	ML8022/B5	Motor 1.5Hp 115v 60Hz	1	20	EGYB08	Pump Head	1
3	13019	Bolt (M10*30)	4	21	12016	Bolt (M5*16)	2
4	13126	Washer (15.7*10.2*2.6)	4	22	EPB-8B5P8A-1	Top Plate	1
5	XKSB.2	Pendant Switch	1	23★	24220	O-ring	1
6	YY-3G/3C	Plug	1	24	EPB-8B5P8A.1	Block Kit	1
7★	EPB-10B-3	Motor Gasket	1	25	12015	Bolt (M5*12)	2
8	11033	Bolt (M6*16)	2	26	11004	Bolt (M6*20)	2
9★	QY2-13	Copper washer	12	27	ELYX0750A	Oil Reservoir	1
10	13082	Bolt (M6*16)	6	28★	EPB-8B5P8A-2	Reservoir gasket	1
11	EPA21621.3-1	Air Vent Screw	1	29	EPB-3B5P5A-3	Oil Return Tube	1
12★	24187	O-ring	1	30★	24164	O-ring	2
13	EPA21621.3-2	Oil Cap	1	31	EPB-3B5P5A-4	Fitting	1
14★	24227	O-ring	1	32	21073	O-ring	2
15	WU-10*80-J	Filter	1	33	EV-43M4E	Control Valve	1
16	EJB107	Fitting	1	34	13083	Bolt (M6*20)	4
17	EJF106	Fitting	1	35	ETS02	Handle	1
18	13013	Bolt (M8*80)	2	36★	03.03.0049	Eagle Pro Label	2

Note: ★ Denotes items in and only available in pump repair kit: **EPB505-RP-A**

6.7 EPB-508A



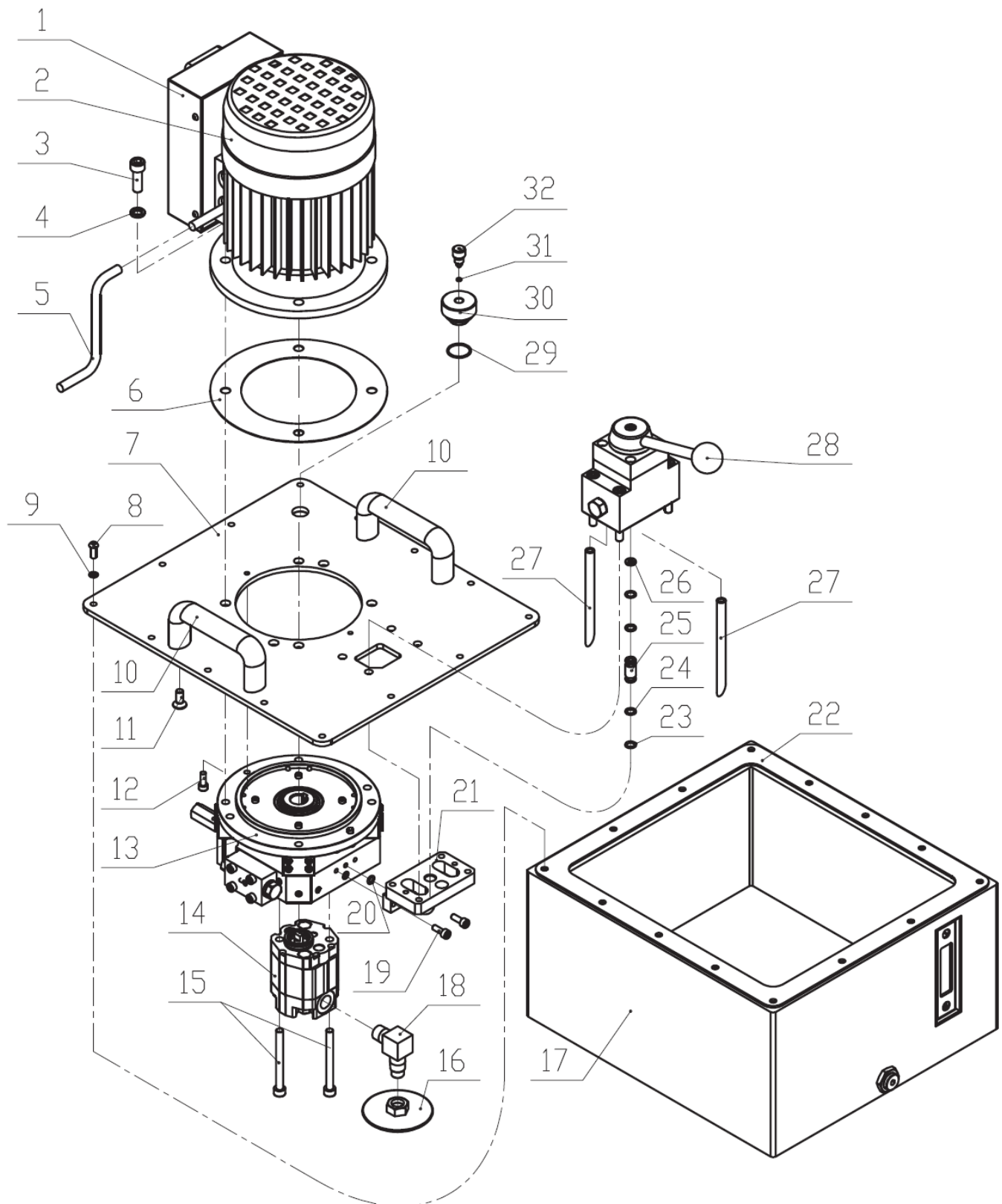
6.7 EPB-508A

EPB-508A Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	DQH02	Electric Control Box	1	19	EDYB2.7	Gear Motor	1
2	ML8022/B5	Motor 1.5Hp 115v 60Hz	1	20	EGYB08	Pump Head	1
3	13019	Bolt (M10*30)	4	21	12016	Bolt (M5*16)	2
4	13126	Washer (15.7*10.2*2.6)	4	22	EPB-8B5P8A-1	Top Plate	1
5	XKSB.2	Pendant Switch	1	23★	24220	O-ring	1
6	YY-3G/3C	Plug	1	24	EPB-8B5P8A.1	Block Kit	1
7★	EPB-10B-3	Motor Gasket	1	25	12015	Bolt (M5*12)	2
8	11033	Bolt (M6*16)	2	26	11004	Bolt (M6*20)	2
9★	QY2-13	Copper washer	12	27	ELYX0750A	Oil Reservoir	1
10	13082	Bolt (M6*16)	6	28★	EPB-8B5P8A-2	Reservoir gasket	1
11	EPA21621.3-1	Air Vent Screw	1	29	EPB-3B5P5A-3	Oil Return Tube	1
12★	24187	O-ring	1	30★	24164	O-ring	2
13	EPA21621.3-2	Oil Cap	1	31	EPB-3B5P5A-4	Fitting	1
14★	24227	O-ring	1	32	21073	O-ring	2
15	WU-10*80-J	Filter	1	33	EV-43M3A	Control Valve	1
16	EJB107	Fitting	1	34	13083	Bolt (M6*20)	4
17	EJF106	Fitting	1	35	ETS02	Handle	1
18	13013	Bolt (M8*80)	2	36★	03.03.0049	Eagle Pro Label	2

Note: ★ Denotes items in and only available in pump repair kit: **EPB505-RP-A**

6.8 EPB-1005C



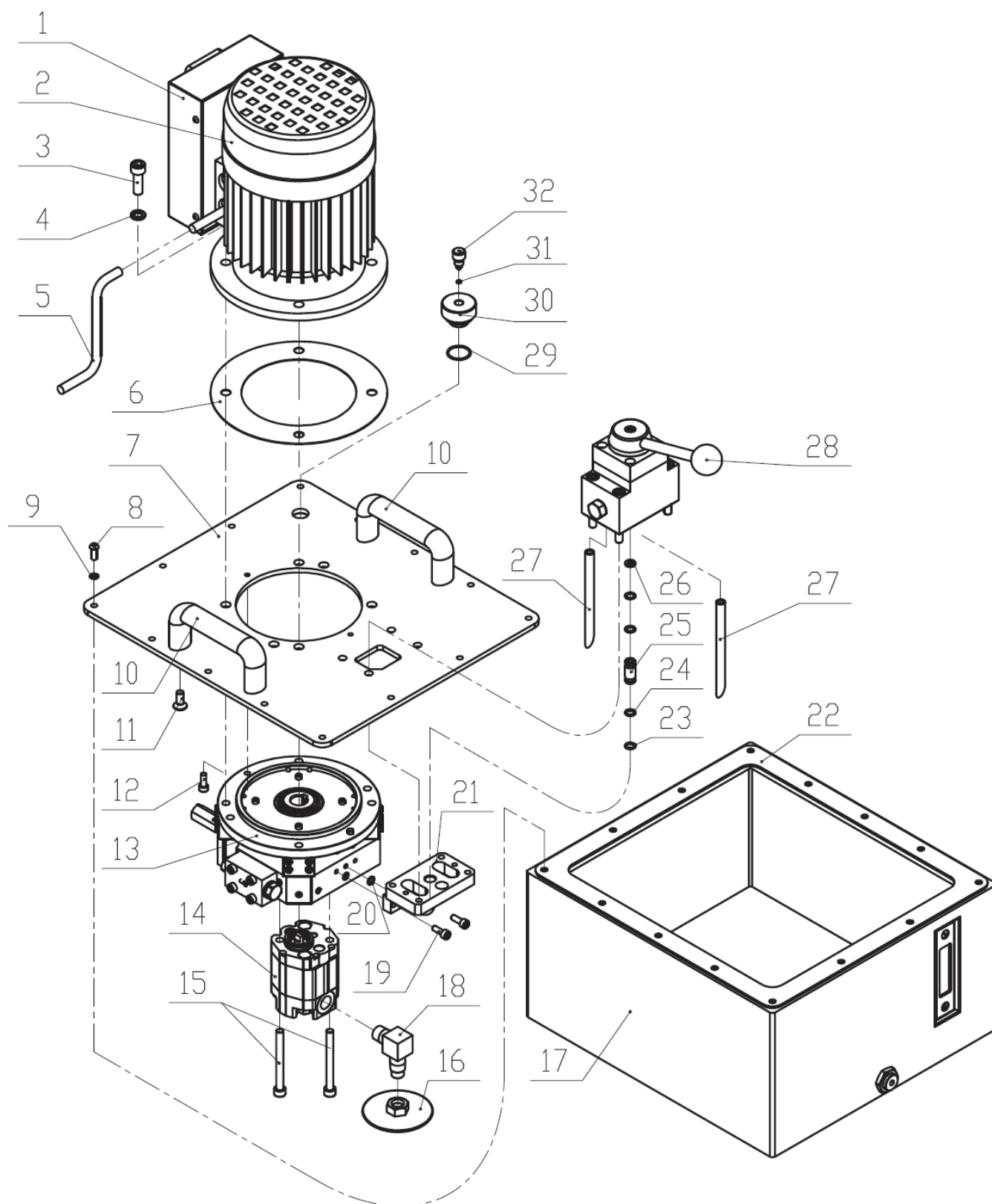
6.8 EPB-1005C

EPB-1005C Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	EDKG02	Electric Control Box	1	18	EJF107	Fitting	1
2	MS90L2 (90G2E)	Motor 3.0Hp 230v 60Hz	1	19	11004	Bolt (M6*20)	2
3	13019	Bolt (M10*30)	4	20★	24220	O-Ring (6.8*1.9)	1
4	13126	Washer	4	21	EPB-20B5M20C.1	Block Kit	1
5	12AWG*5C	Power cord	1	22	EPB-20B5M20C-2	Reservoir gasket	1
6	EPB-10B-1	Motor Gasket	1	23★	24164	O-ring (8.8*1.9)	2
7	EPB-20B5M20C-1	Top Plate	1	24★	21073	Gasket (12*9*1.4)	2
8	13082	Bolt (M6*16)	14	25	EPB-3B5P5A-4	Fitting	1
9★	QY2-13	Copper washer	14	26	EPB-20B5M20C-3	Washer (11.5*7*2)	1
10	L120	Handle	2	27	EPB-3B5P5A-3	Oil Return Tube	2
11	13104	Bolt (M8*20)	4	28	EV43M4E	Control Valve	1
12	11003	Bolt (M6*16)	2	29★	24227	O-ring (23.6*1.8)	1
13	EGYB20	Pump Head	1	30	EPA21621.3-2	Oil Cap	1
14	EDYB3.2	Gear Motor	1	31★	24187	O-ring (2.8*1.8)	1
15	13013	Bolt (M8*80)	2	32	EPA21621.3-1	Bolt	1
16	EBY01	Filter	1	33★	03.03.0049	Eagle Pro Label	2
17	ELYX2000A	Oil Reservoir	1				

Note: ★ Denotes items in and only available in pump repair kit: **EPB1005C-RP-A**

6.9 EPB-1008C



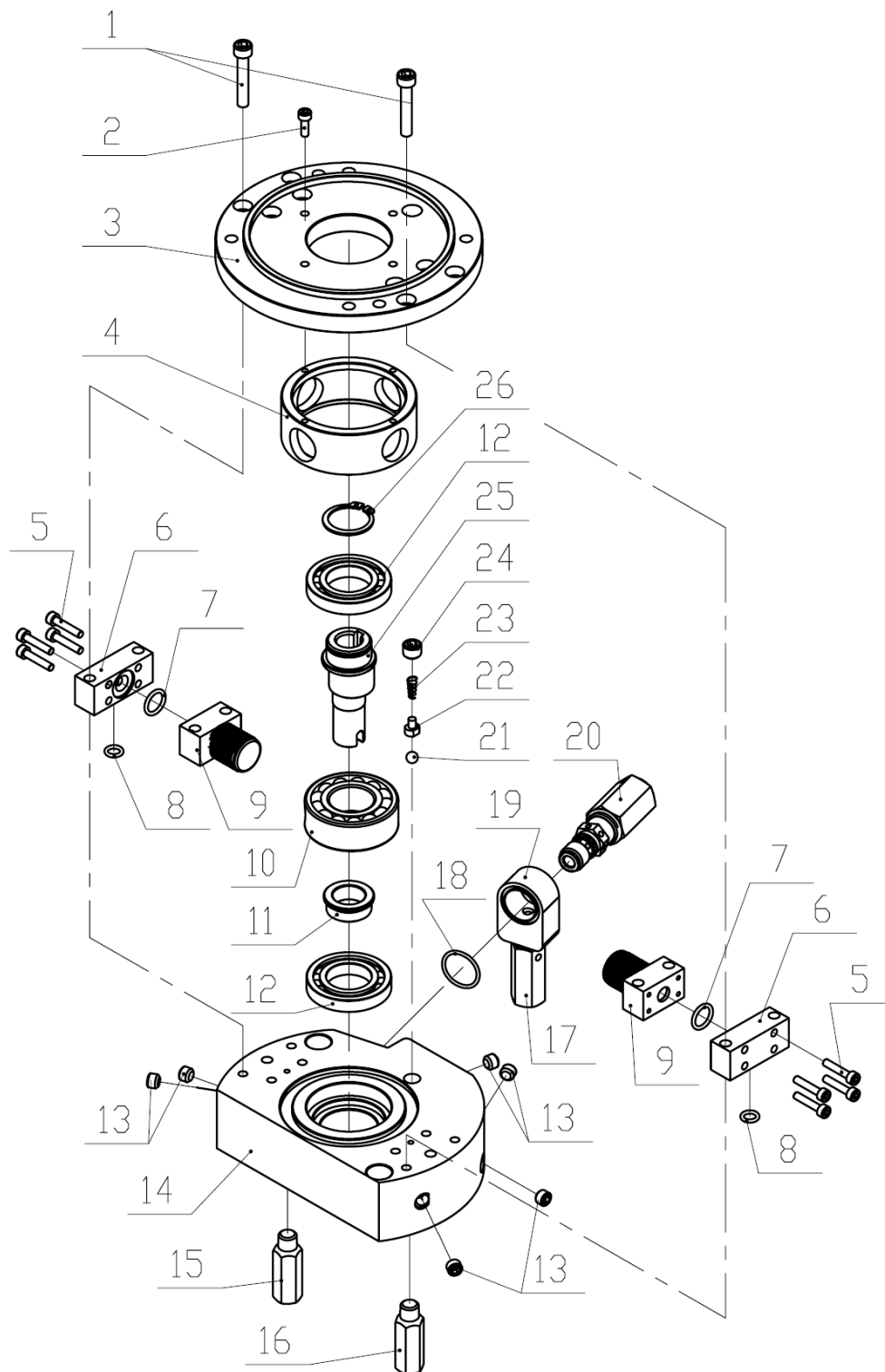
6.9 EPB-1008C

EPB-1008C Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	EDKG02	Electric Control Box	1	18	EJF107	Fitting	1
2	MS90L2 (90G2E)	Motor 3.0Hp 230v 60Hz	1	19	11004	Bolt (M6*20)	2
3	13019	Bolt (M10*30)	4	20★	24220	O-Ring (6.8*1.9)	1
4	13126	Washer	4	21	EPB-20B5M20C.1	Block Kit	1
5	12AWG*5C	Power cord	1	22	EPB-20B5M20C-2	Reservoir gasket	1
6	EPB-10B-1	Motor Gasket	1	23★	24164	O-ring (8.8*1.9)	2
7	EPB-20B5M20C-1	Top Plate	1	24★	21073	Gasket (12*9*1.4)	2
8	13082	Bolt (M6*16)	14	25	EPB-3B5P5A-4	Fitting	1
9★	QY2-13	Copper washer	14	26	EPB-20B5M20C-3	Washer (11.5*7*2)	1
10	L120	Handle	2	27	EPB-3B5P5A-3	Oil Return Tube	2
11	13104	Bolt (M8*20)	4	28	EV43M3A	Control Valve	1
12	11003	Bolt (M6*16)	2	29★	24227	O-ring (23.6*1.8)	1
13	EGYB20	Pump Head	1	30	EPA21621.3-2	Oil Cap	1
14	EDYB3.2	Gear Motor	1	31★	24187	O-ring (2.8*1.8)	1
15	13013	Bolt (M8*80)	2	32	EPA21621.3-1	Bolt	1
16	EBY01	Filter	1	33★	03.03.0049	Eagle Pro Label	2
17	ELYX2000A	Oil Reservoir	1				

Note: ★ Denotes items in and only available in pump repair kit: **EPB1005C-RP-A**

7.1 EGYB03 Pump Head



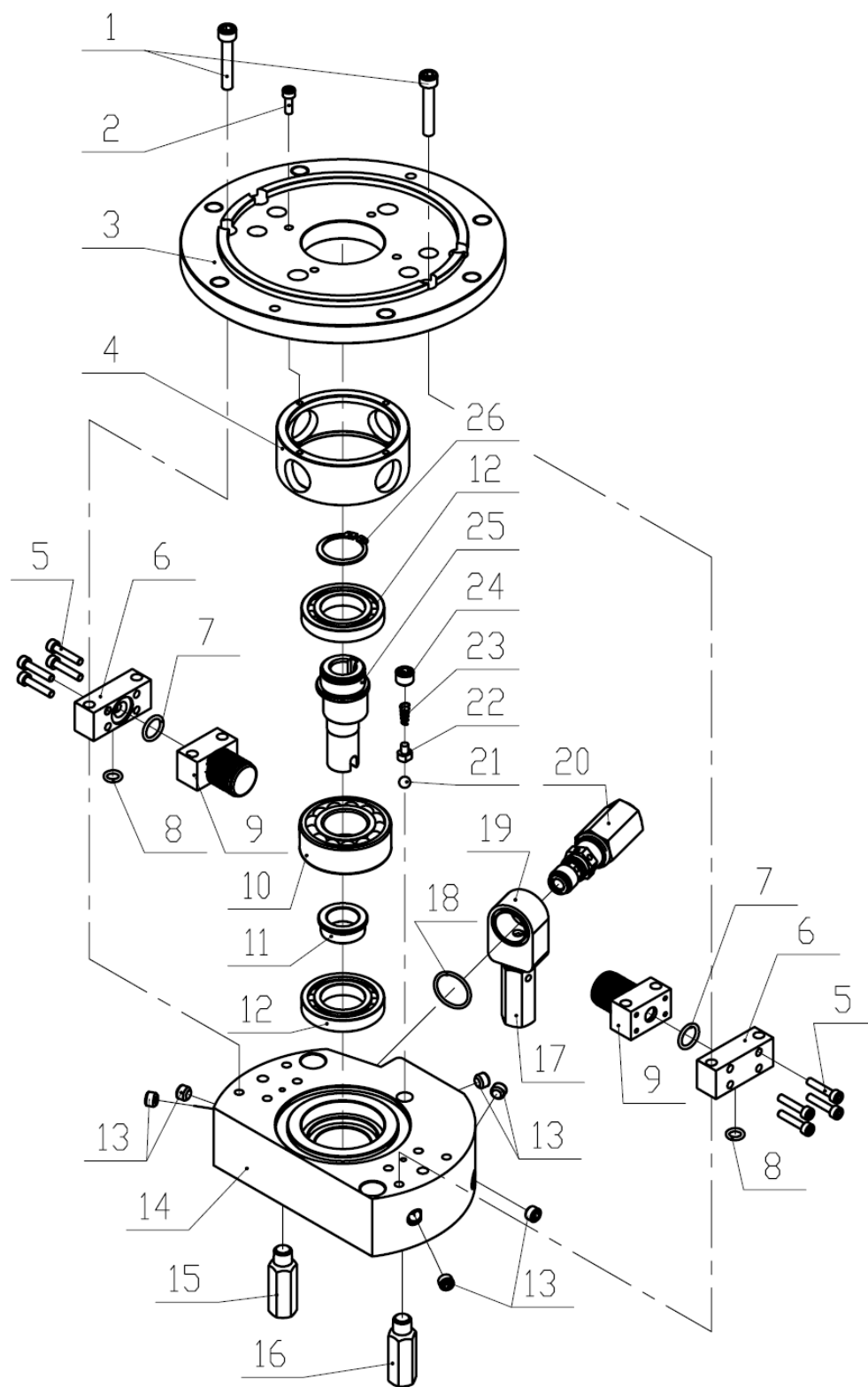
7.1 EGYB03 Pump Head

EGYB03 Pump Head Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	11007	Bolt (M6*35)	8	14	EGYB03-3	Block	1
2	12004	Bolt (M4*12)	4	15	EF3.1A	Low Pressure Safety Valve	1
3	EGYB03-2	Connector Block	1	16	EF3.2	High Pressure Safety Valve	1
4	EBT03L-4	Bushing	1	17	EV36	Low Pressure Release Valve	1
5	12006	Bolt (M4*20)	8	18◆	42996	O-ring	1
6	TWP-2AF.2.1-1	Connector Block	2	19	TWP-2AF.2-6	Connector Block	1
7◆	42995	O-ring	2	20	XHC02-00	Low Pressure Release Valve	1
8◆	24001	O-ring	2	21	41008	Steel Ball	1
9	MPE5	Piston Pump	2	22	EJZ001-3	Ball Seat	1
10	4205	Grooved Ball Bearing	1	23	EGYB03-4	Spring	1
11	EPB-3B1P2B.2-6	Bushing	1	24	11025	Threaded Cap	1
12	16005-2Z	Grooved Ball Bearing	2	25	EGYB03-1	Eccentric Shaft	1
13	13114	Threaded Cap	6	26	13229	Snap Ring	1

Note: ◆ Denotes items in and only available in pump repair kit: **EGYB03-RP-A**

7.2 EGYB08 Pump Head



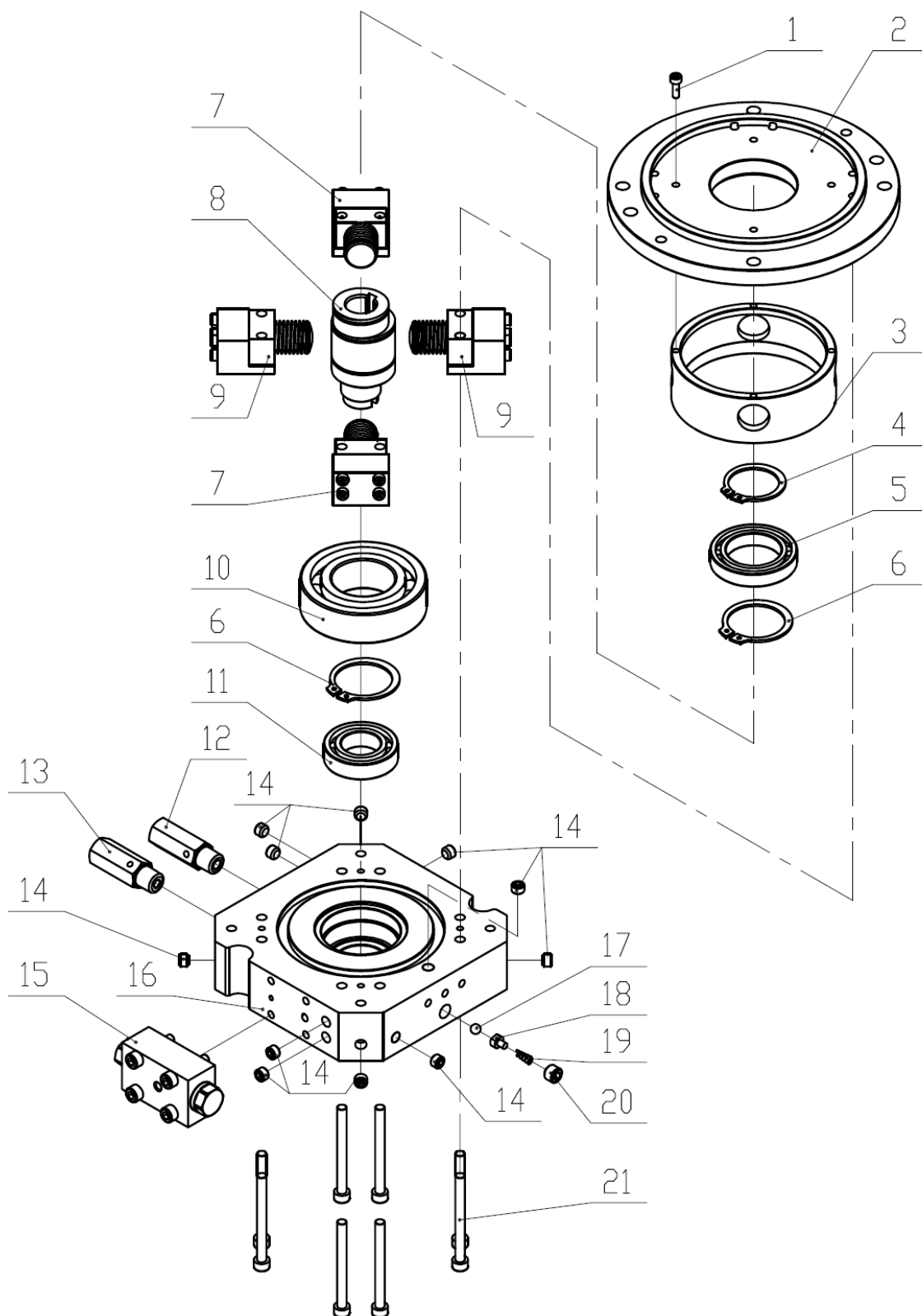
7.2 EGYB08 Pump Head

EGYB08 Pump Head Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	11007	Bolt (M6*35)	8	14	EGYB03-3	Block	1
2	12004	Bolt (M4*12)	4	15	EF3.1A	Low Pressure Safety Valve	1
3	EGYB08-2	Connector Block	1	16	EV35	High Pressure Safety Valve	1
4	EBT03L-4	Bushing	1	17	EV36	Low Pressure Release Valve	1
5	12006	Bolt (M4*20)	8	18◆	42996	O-ring	1
6	TWP-2AF.2.1-1	Connector Block	2	19	TWP-2AF.2-6	Connector Block	1
7◆	42995	O-ring	2	20	TWP02XH-00	Low Pressure Release Valve	1
8◆	24001	O-ring	2	21	41008	Steel Ball	1
9	MPE6	Piston Pump	2	22	EJZ001-3	Ball Seat	1
10	4205	Grooved Ball Bearing	1	23	EGYB03-4	Spring	1
11	EPB-3B1P2B.2-6	Bushing	1	24	11025	Threaded Cap	1
12	16005-2Z	Grooved Ball Bearing	2	25	EGYB08-1	Eccentric Shaft	1
13	13114	Threaded Cap	10	26	13229	Snap Ring	1

Note: ◆ Denotes items in and only available in pump repair kit: **EGYB08-RP-A**

7.3 EGYB20 Pump Head

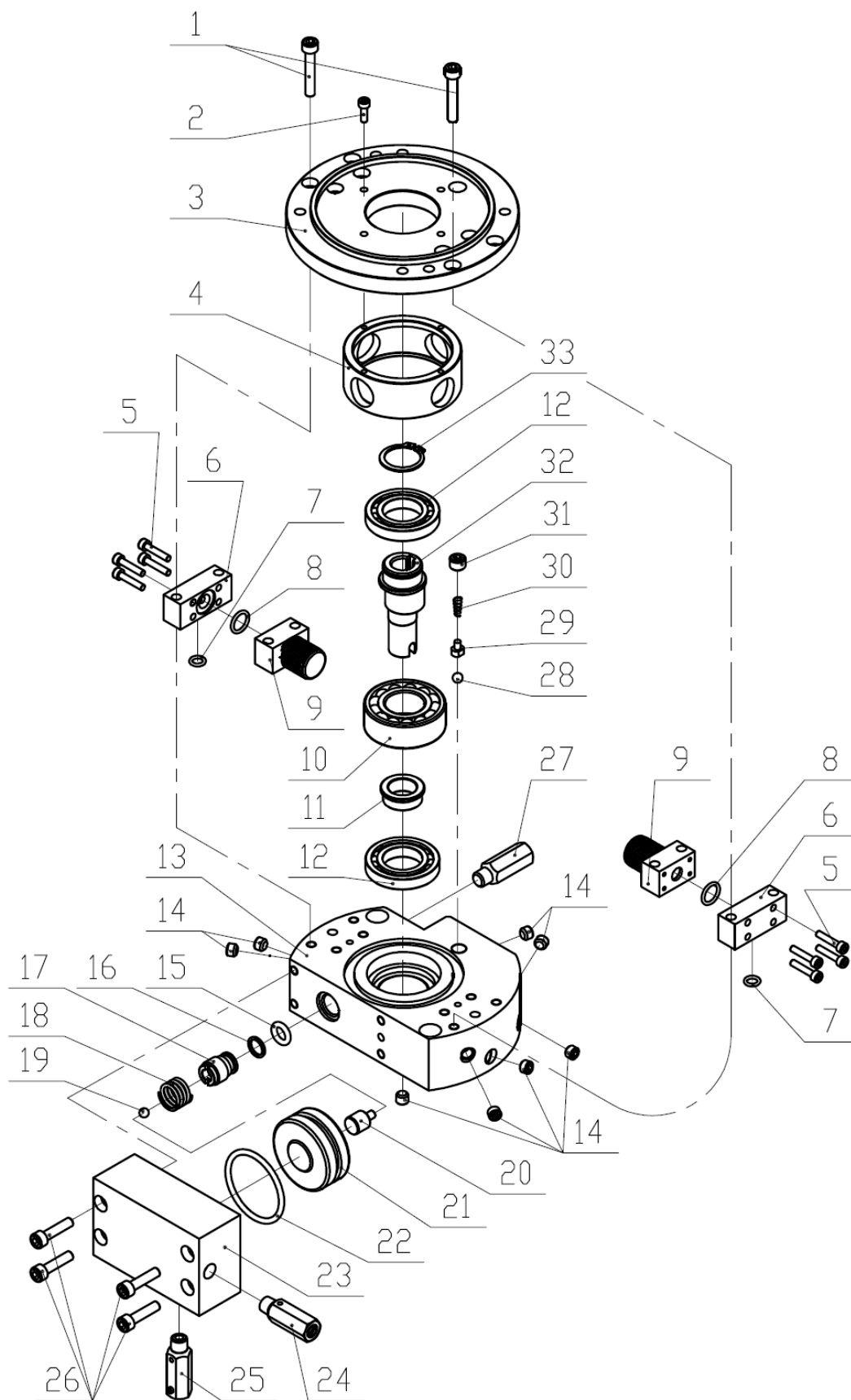


7.3 EGYB20 Pump Head

EGYB20 Pump Head Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	12004	Bolt (M4*12)	4	12	EV36	Low Pressure Safety Valve	1
2	EGYB20-2	Connector Block	1	13	EV35	High Pressure Safety Valve	1
3	EGYB20-3	Bushing	1	14	13114	Threaded Cap	11
4	13236	Snap Ring	1	15	EV72	Check Valve	1
5	61907-2Z	Grooved Ball Bearing	1	16	EGYB20-4	Connector Block	1
6	13240	Snap Ring	2	17	41008	Steel Ball	1
7	EGYB20.1	Piston Pump	2	18	EJZ001-3	Ball Seat	1
8	EGYB20-1	Eccentric Shaft	1	19	EGYB03-5	Spring	1
9	EGYB20.2	Piston Pump	2	20	11025	Threaded Cap	1
10	4208	Grooved Ball Bearing	1	21	41064	Bolt (M6*75)	8
11	6005-2Z	Grooved Ball Bearing	1	22	13115	Washer	8

7.4 EPB-3B10P5A-1 Pump Head



7.4 EPB-3B10P5A-1 Pump Head

EPB-3B10P5A.1 Pump Head

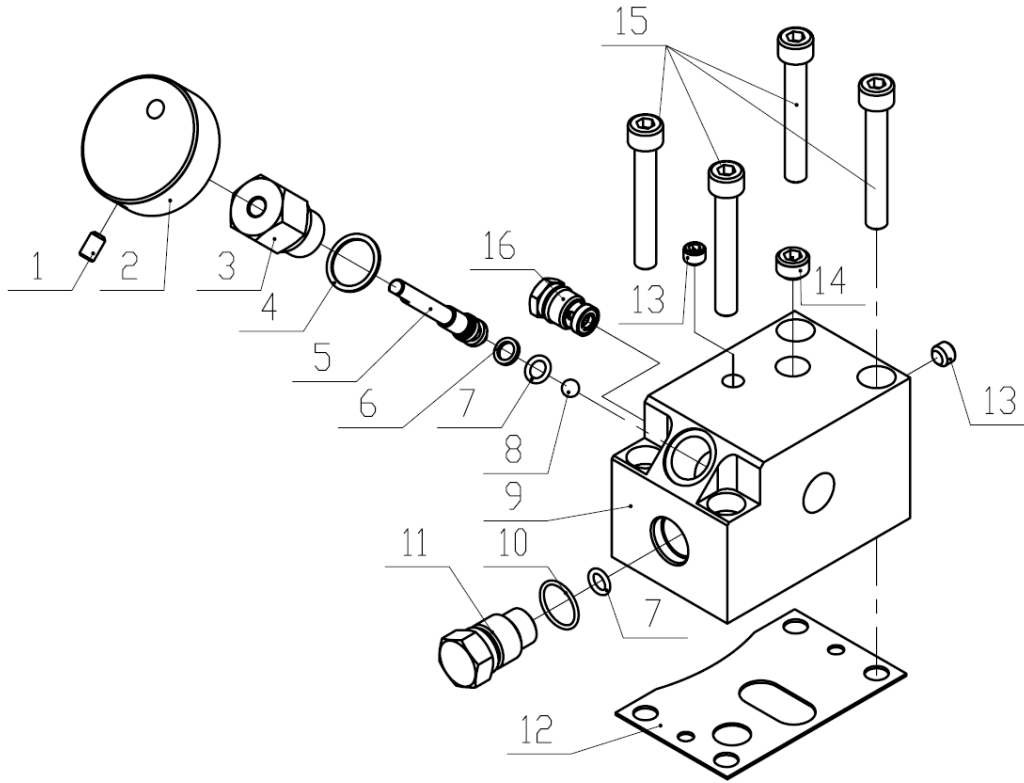
NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	11007	Bolt (M6*35)	8	18	EPB-3B10P2A.1-4	Spring	1
2	12004	Bolt (M4*12)	4	19	41013	Steel Ball	1
3	EGYB03-2	Connector Block	1	20	EPB-3B10P2A.1.1-2	Pin	1
4	EBT03L-4	Bushing	1	21	EPB-3B10P2A.1.1-1	Piston	1
5	12006	Bolt (M4*20)	8	22◆	24186	O-ring	1
6	TWP-2AF.2.1-1	Connector Block	2	23	EPB-3B10P2A.1-3	Hydraulic Control valve	1
7◆	24001	O-ring (5.8*1.9)	2	24	EF3.1A	Low Pressure safety valve	1
8◆	24284	O-ring (12.5*1.8)	2	25	EPB-3B10P2A.1.2	Release Valve	1
9	MPE5	Piston Pump	2	26	11008	Bolt (M6x40)	4
10	4205	Grooved Ball Bearing	1	27	EF3.2	High Pressure safety valve	1
11	EPB-3B1P2B.2-6	Bushing	1	28	41008	Steel Ball	1
12	16005-2Z	Grooved Ball Bearing	2	29	EJZ001-3	Ball Seat	1
13	EPB-3B10P2A.1-2	Connector Block	1	30	EGYB03-4	Spring	1
14	13114	Threaded Cap	8	31	11025	Threaded Cap	1
15◆	42977	O-ring (10.82x1.78)	1	32	TWP-2AF.2-1	Eccentric Shaft	1
16◆	21118	Gasket (14x11.1x1.4)	1	33	13229	Snap Ring	1
17	EPB-3B10P2A.1-5	Valve Base	1				

Note: ◆ Denotes items in and only available in pump repair kit: **EPB-3B10P5A.1-RP-A**

08

CONTROL VALVE BREAKDOWNS

8.1 EV-42H3A Control Valve

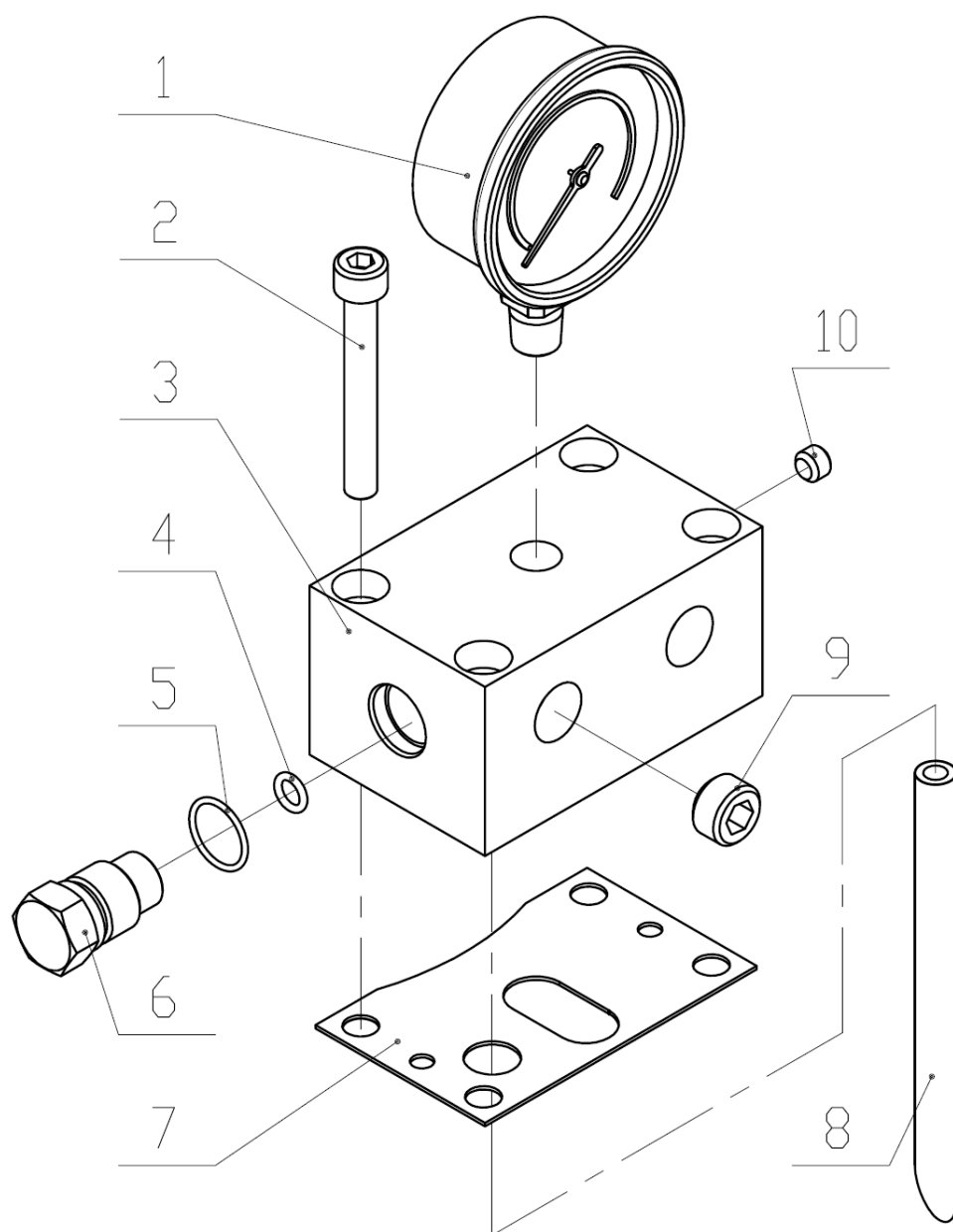


EV-42H3A Control Valve Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	14013	Bolt (M6*10)	1	9	EV42H3A-1	Valve Block	1
2	EAC402-5	Control Knob	1	10▲	42972	O-ring	1
3	EV42H3-2	Valve Base	1	11	EV43M4E-6	End Cap	1
4▲	EV23-07	O-ring	1	12▲	EV43M4E-1	Gasket	1
5	EV42H3A-2	Valve Pin	1	13	13114	Threaded Cap	2
6▲	21020	Gasket	1	14	11034	Threaded Cap	1
7▲	24220	O-ring	2	15	13009	Bolt (M8*55)	4
8	41008	Steel Ball	1	16	DX01-00	Check Valve	1

Note: ▲ Denotes items in and only available in pump repair kit: **EV42H3A-RP-A**

8.2 EV-61H2C Control Valve

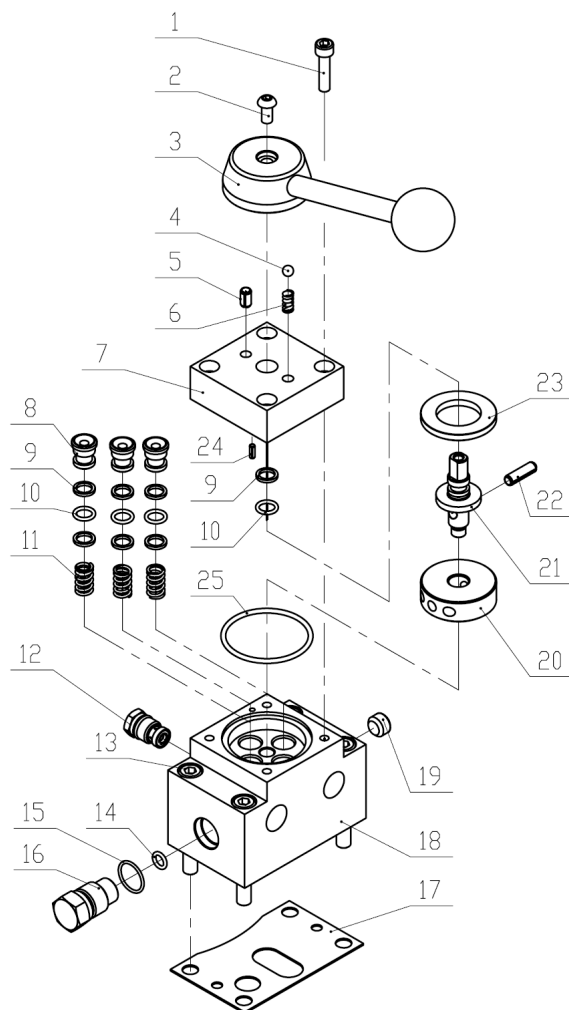


EV-61H2C Control Valve

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	EG-2510	Pressure Gauge	1	6	EV43M4E-6	Cap	1
2	13010	Bolt (M8*60)	4	7	EV43M4E-1	Gasket	1
3	EV61H2C-1	Valve Block	1	8	EPB-3B5P5A-3	Oil Return Tube	1
4▲	24220	O-ring (6.8*1.9)	1	9	13102	Threaded Cap	1
5▲	42972	O-ring (16.5*1.5)	1	10	13114	Threaded Cap	1

Note: ▲Denotes items in and only available in pump repair kit: **EV61H2C-RP-A**

8.3 EV-43M4E Control Valve

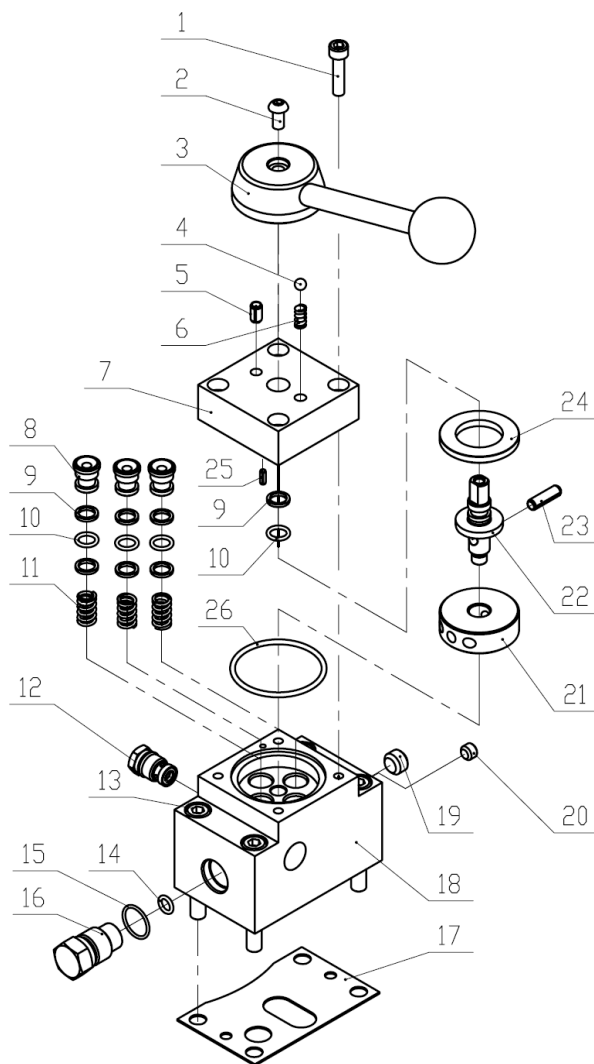


EV-43M4E Control Valve Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	11005	Bolt (M6*25)	4	14▲	24220	O-ring	1
2	13081	Bolt (M6*12)	1	15▲	42972	O-ring	1
3	EVM4.1-01	Handle Assembly	1	16	EV43M4E-6	End Cap	1
4	41007	Steel Ball	1	17▲	EV43M4E-1	Gasket	1
5	13354	Pin	1	18	EV43M4E-2	Valve Block	1
6	EVM4-06	Spring	1	19	11034	Threaded Cap	1
7	EV43M4E-4	Valve Cover	1	20	EVM4.02	Block	1
8	EVM4-02	Pin	3	21	EVM4-04	Transfer valve	1
9▲	21071	Gasket	7	22	13359	Pin	1
10▲	24164	O-ring	4	23	889105	Shaft Assembly	1
11	EVM4-05	Spring	3	24	13320	Pin	1
12	DX01-00	Check Valve	1	25▲	24047	O-ring	1
13	13010	Bolt (M8*60)	4				

Note: ▲ Denotes items in and only available in pump repair kit: **EV43M4E-RP-A**

8.3 EV-43M3A Control Valve

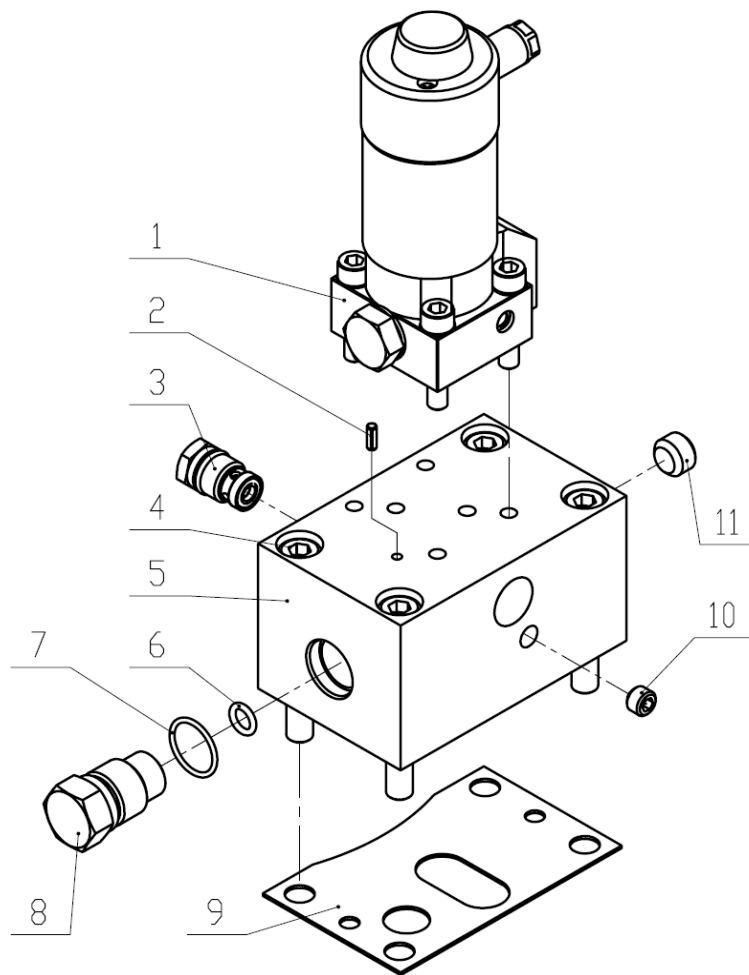


EV-43M3A Control Valve Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	11005	Bolt (M6*25)	4	14▲	24220	O-ring	1
2	13081	Bolt (M6*12)	1	15▲	42972	O-ring	1
3	EVM4.1-01	Handle Assembly	1	16	EV43M4E-6	End Cap	1
4	41007	Steel Ball	1	17▲	EV43M4E-1	Gasket	1
5	13354	Pin	1	18	EV43M3A-1	Valve Block	1
6	EVM4-06	Spring	1	19	11034	Threaded Cap	1
7	EV43M4E-4	Valve Cover	1	20	13114	Block	1
8	EVM4-02	Pin	3	21	EVM4.02	Transfer Valve	1
9▲	21071	Gasket	7	22	EVM4-04	Pin	1
10▲	24164	O-ring	4	23	13359	Pin	1
11	EVM4-05	Spring	3	24	889105	Shaft Assembly	1
12	DX01-00	Check Valve	1	25	13320	Pin	1
13	13010	Bolt (M8*60)	4	26▲	24047	O-ring	1

Note: ▲Denotes items in and only available in pump repair kit: **EV43M3A-RP-A**

8.4 EV-52M2 Control Valve

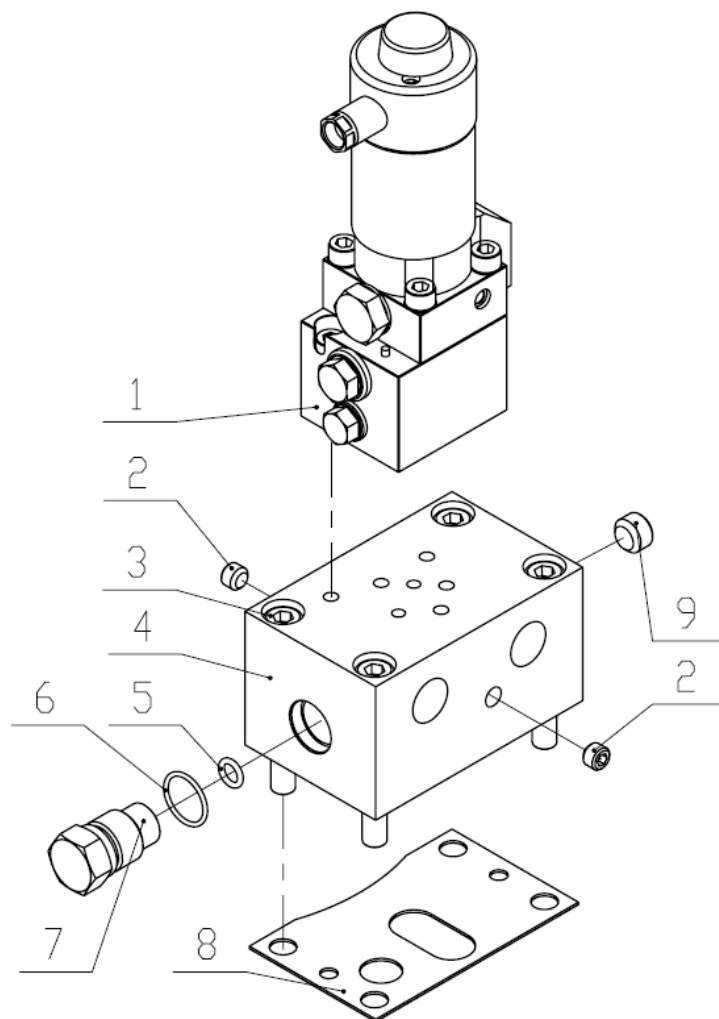


EV-52M2 Control Valve Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	GR2-1-G24	Solenoid Valve	1	7 ▲	42972	O-ring	1
2	13320	Pin	1	8	EV43M4E-6	End Cap	1
3	DX01-00	Check Valve	1	9 ▲	EV43M4E-1	Gasket	1
4	13010	Bolt (M8*60)	4	10	13114	Threaded Cap	1
5	EV52H2B-1	Valve Block	1	11	11034	Threaded Cap	1
6 ▲	24220	O-ring	1				

Note: ▲ Denotes items in and only available in pump repair kit: **EV52M2-RP-A**

8.5 EV-52H4B Control Valve

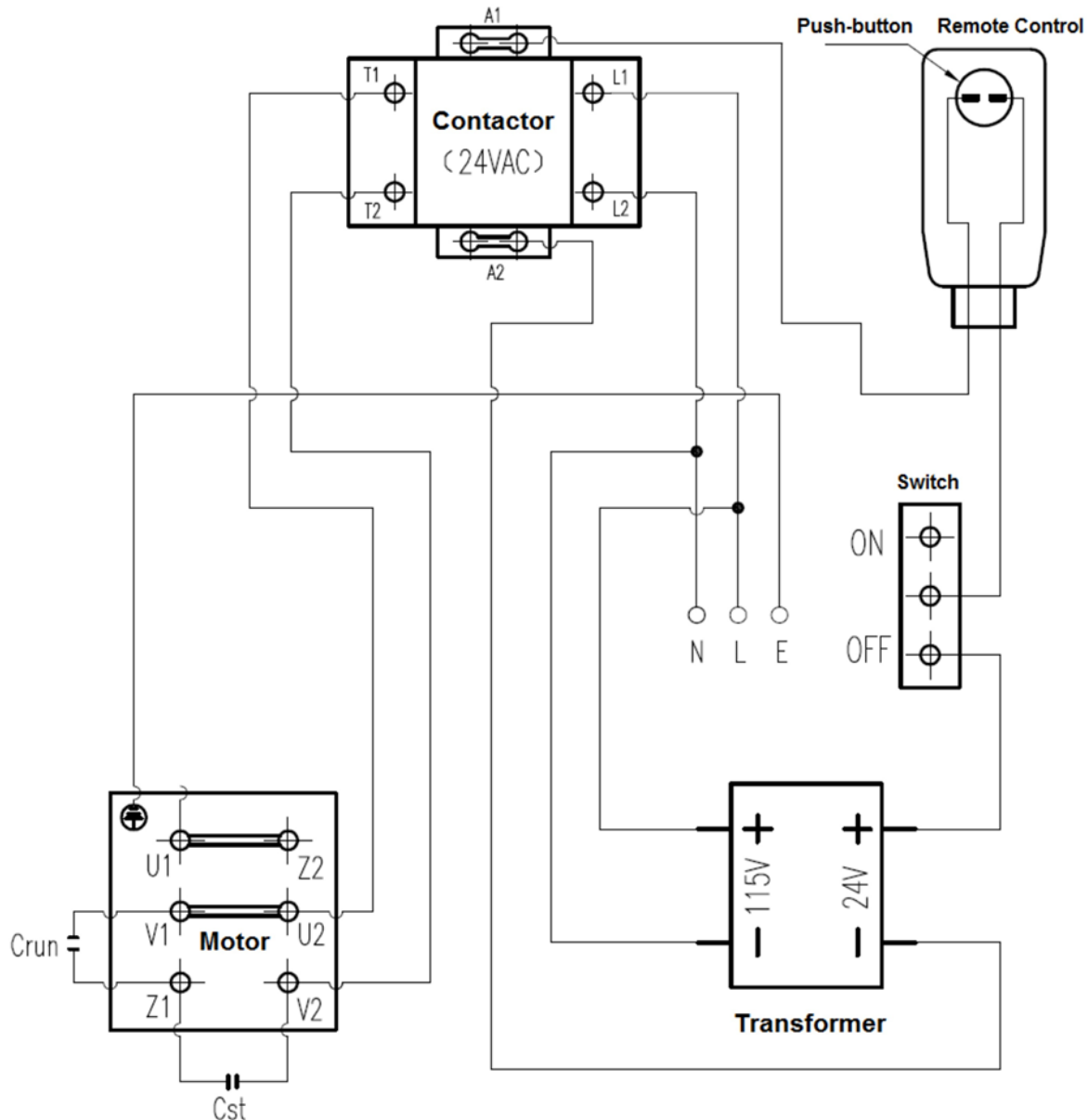


EV-52H4B Control Valve Parts Lists

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	GZ4-1R-G24	Solenoid Valve	1	6 ▲	42972	O-ring	1
2	13114	Threaded Cap	2	7	EV43M4E-6	End Cap	1
3	13010	Bolt (M8*60)	4	8 ▲	EV43M4E-1	Gasket	1
4	EV52H4B-1	Valve Block	1	9	11034	Threaded Cap	1
5 ▲	24220	O-ring	1				

Note: ▲ Denotes item in and only available in pump repair kit: **EV52H4B-RP-A**

9.1 Manual Valve, 115V 1Ph Electric Pumps



Power Cord : YY-3G/3C 12AWG* 3C

Wire color :

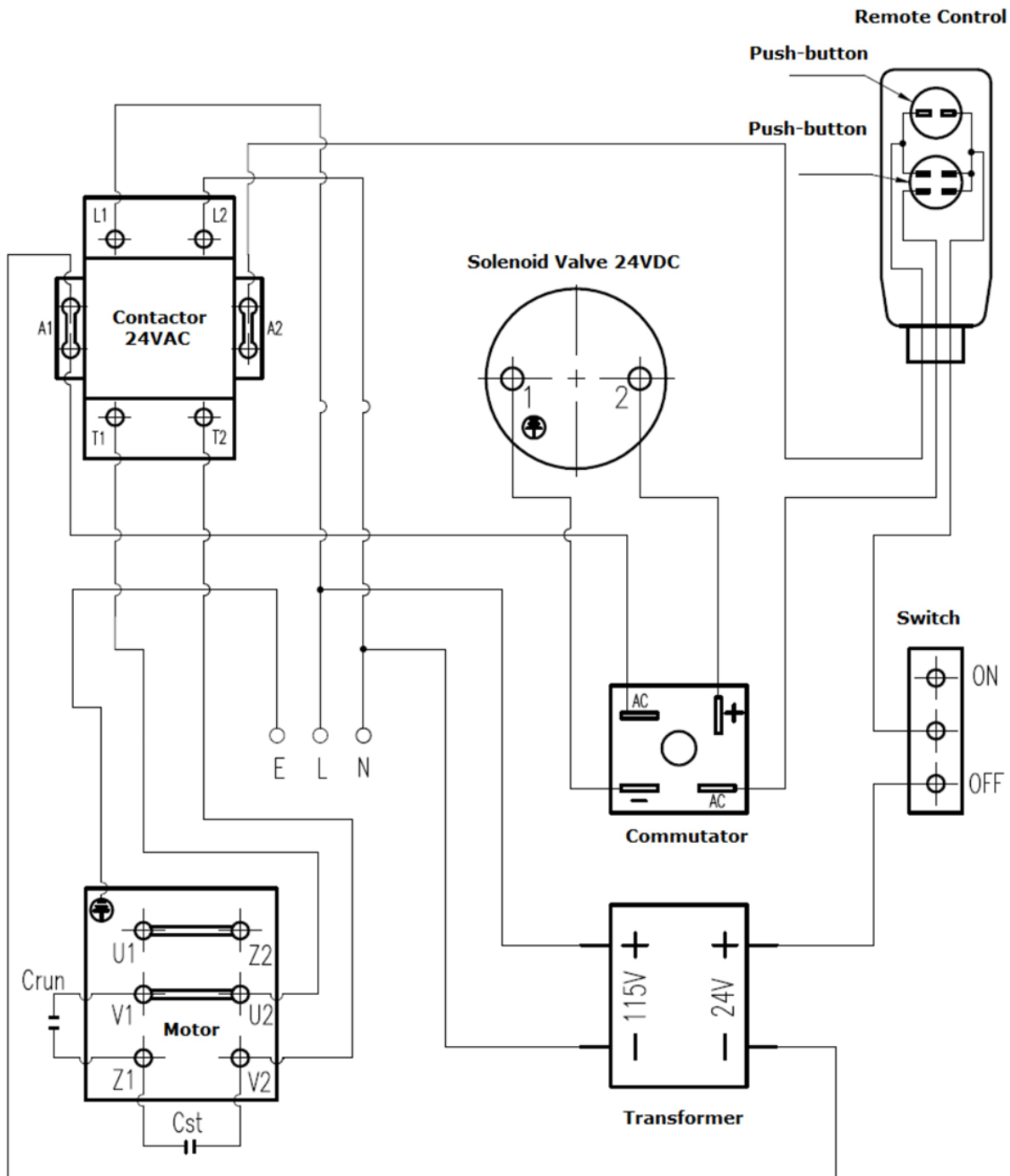
Live Wire(L) : Black AWM 1015 105°C VW-1 16AWG E187208

Null Wire(N) : White AWM 1015 105°C VW-1 16AWG E137395

Ground Wire(E) : Green AWM 1015 105°C VW-1 16AWG E137395

Remote Control Wire: SJTW 105°C VW-1 18AWG E257733

9.2 Electric Solenoid Valve, 115V 1Ph Electric Pumps



Power Cord : YY-3G/3C 12AWG

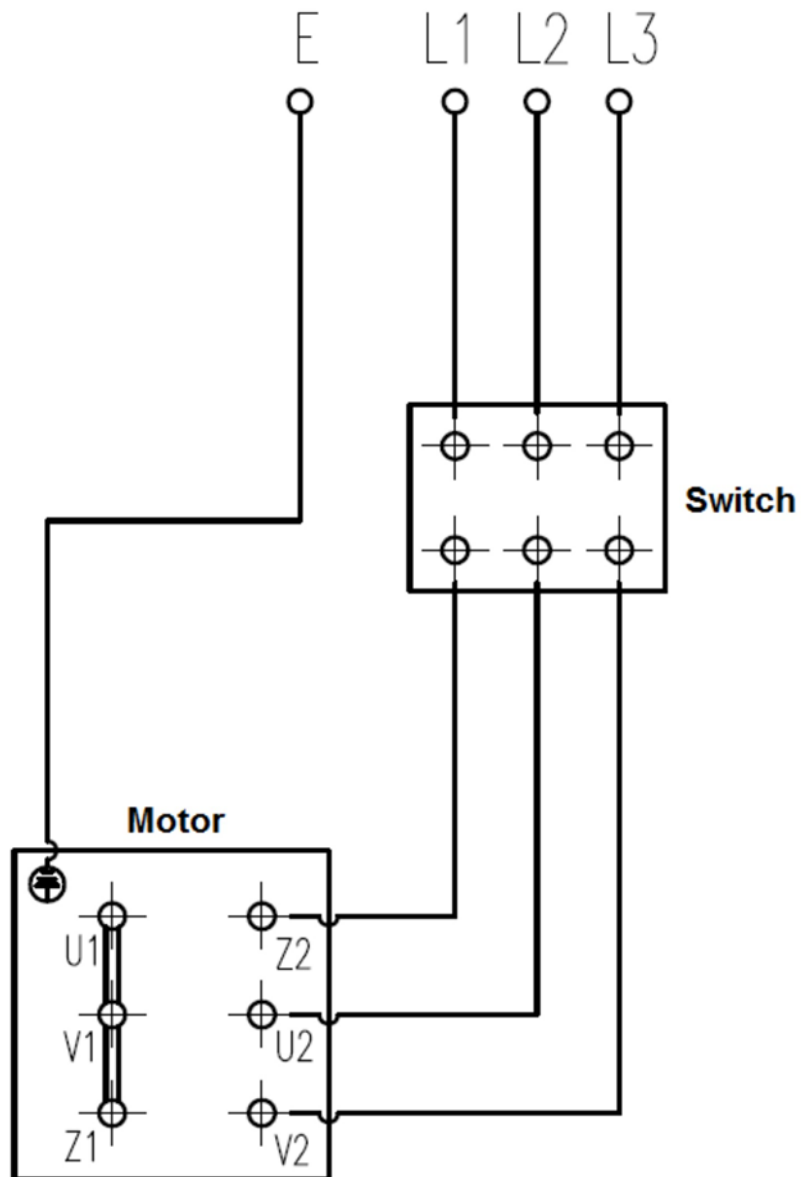
Wire color :

Live Wire(L) : Black

Null Wire(N) : White

Ground Wire(E) : Green

9.3 Manual Valve, 230V 3Ph Electric Pumps



Power Cord : 12 AWG * 5C

Wire color :

Live Wire(L1) : Black

Live Wire(L2) : Red

Live Wire(L3) : Yellow

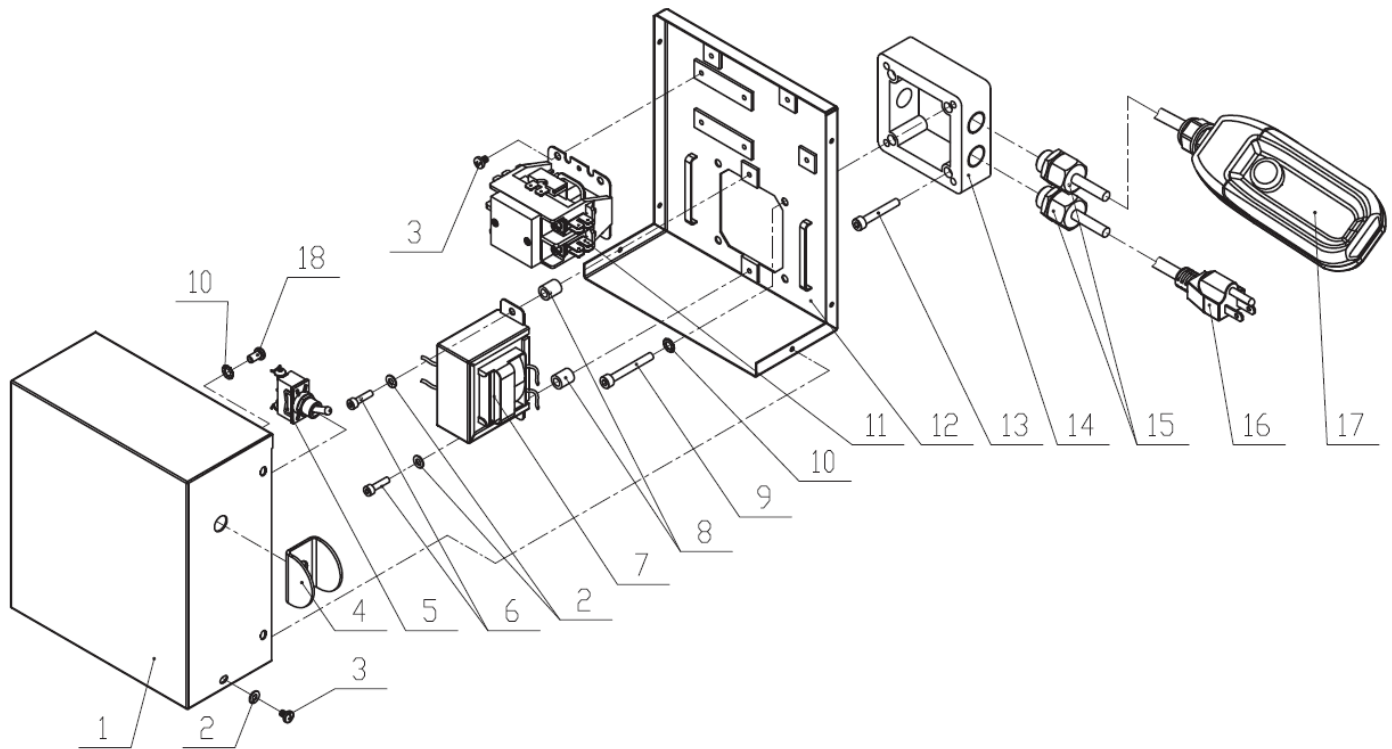
Ground Wire(E) : Green

10

ELECTRICAL BOX PARTS LISTS

10.1

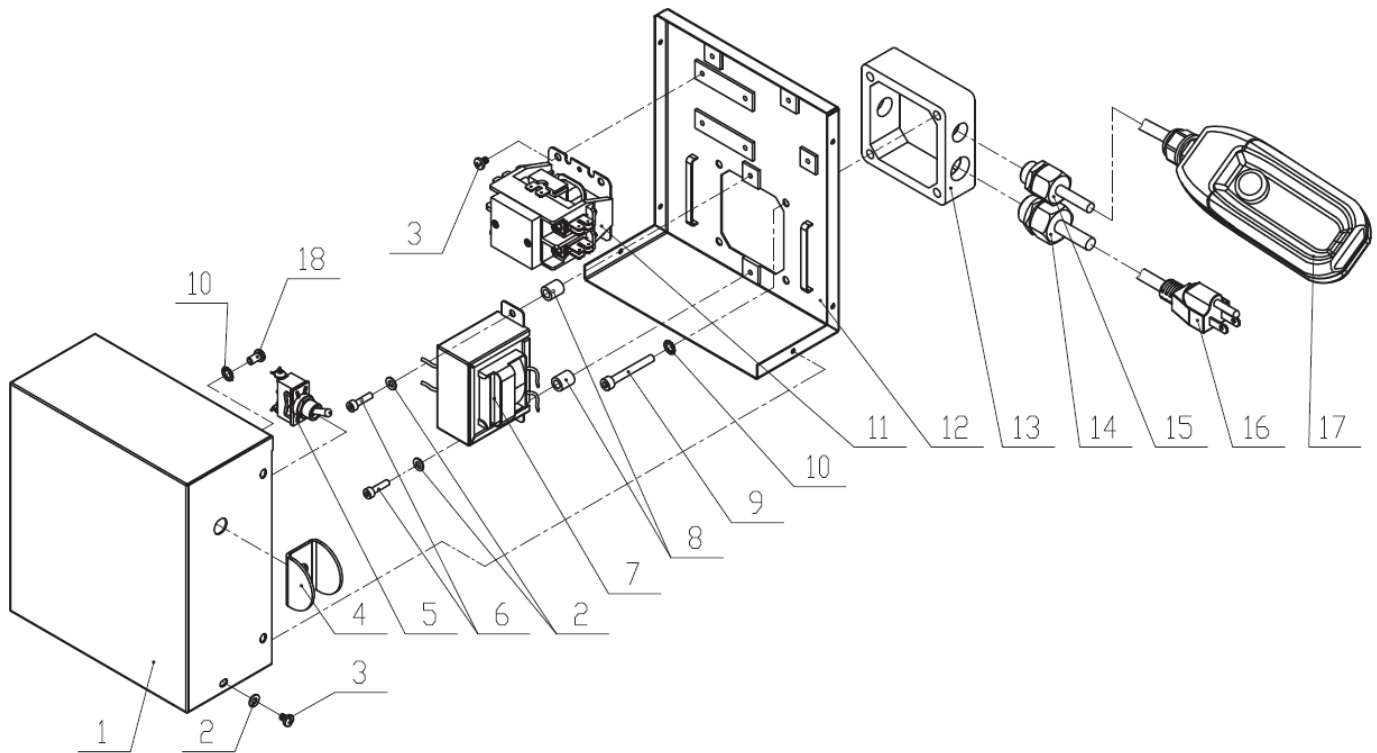
Electrical Control Box for EPB-17x Series



DKX01 (0.5HP) Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	DQH01.2	Electrical Box Cover	1	10	41180	Washer	2
2	41080	Washer	8	11	HCC-2XQ00BB384	Contactor	1
3	41075	Bolt (M4*6)	10	12	DQH01.1	Electrical Box Base	1
4	EDKG01-4	Switch Guard	1	13	12018	Bolt (M5*30)	4
5	KND102	Switch	1	14	DQH04-2	Motor Spacer	1
6	12005	Bolt (M4*16)	2	15	M16A-10B	Cable Gland	2
7	HCT-01D0AA03	Transformer	1	16	YY-3	Power Cord	1
8	EDKG01-03	Spacer	2	17	XKSB.2	Pendant Control Assembly	1
9	12020	Bolt (M5*40)	4	18	41076	Bolt (M5*10)	1

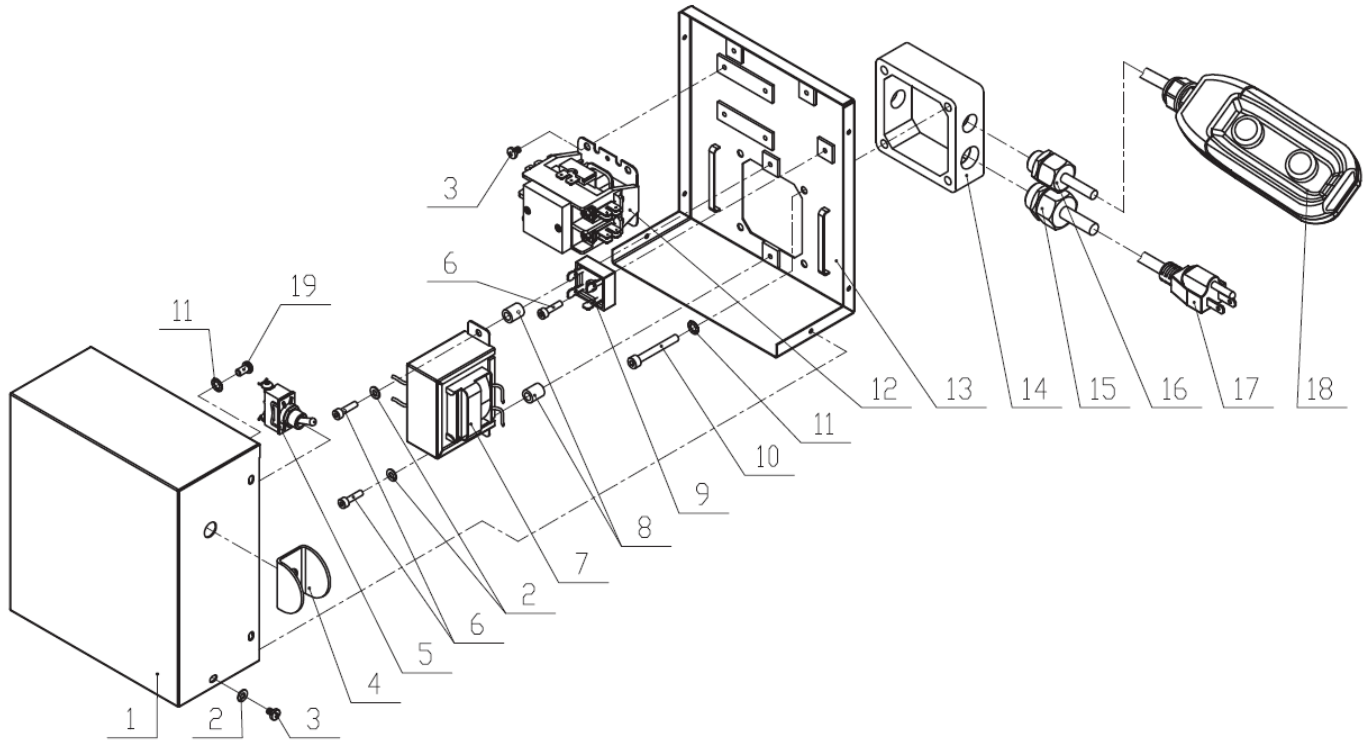
10.2 Electrical Control Box for EPB-505A, -508A



DKX01 (1.5HP) Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	DQH01.2	Electrical Box Cover	1	10	41180	Washer	2
2	41080	Washer	8	11	HCC-2XQ02BB384	Contactor	1
3	41075	Bolt (M4*6)	10	12	DQH01.1	Electrical Box Base	1
4	EDKG01-4	Switch Guard	1	13	DQH04-1	Motor Spacer	1
5	KND102	Switch	1	14	M20*1.5	Cable Gland	1
6	12005	Bolt (M4*16)	2	15	M16A-10B	Cable Gland	1
7	HCT-01D0AA03	Transformer	1	16	YY-3G/3C	Power Cord	1
8	EDKG01-03	Spacer	2	17	XKSB.2	Pendant Control Assembly	1
9	12020	Bolt (M5*40)	4	18	41076	Bolt (M5*10)	1

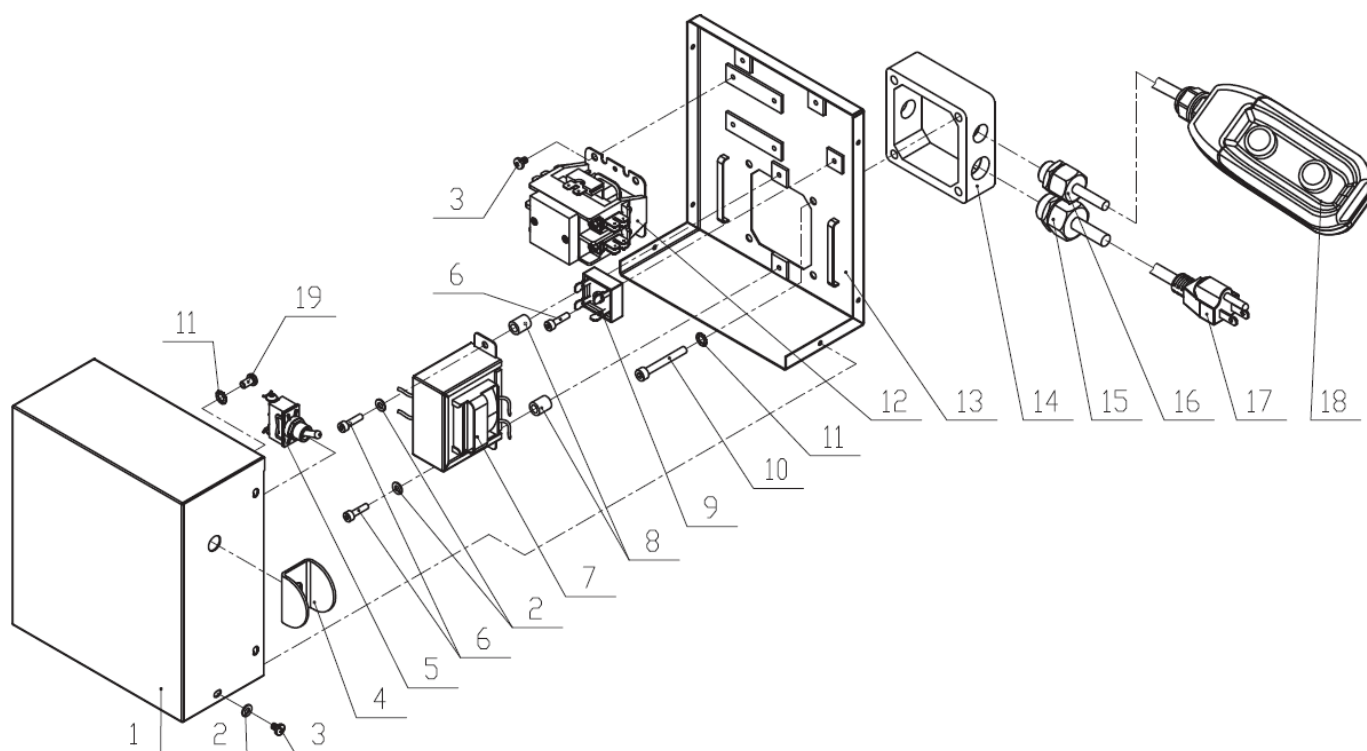
10.3 Electrical Control Box for EPB-502SA



DKX02 (1.5HP) Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	DQH01.2	Electrical Box Cover	1	11	41180	Washer	2
2	41080	Washer	8	12	HCC-2XQ00BB384	Contactor	1
3	41075	Bolt (M4*6)	10	13	DQH01.1	Electrical Box Base	1
4	EDKG01-4	Switch Guard	1	14	DQH04-1	Motor Spacer	1
5	KND102	Switch	1	15	M20*1.5	Cable Gland	1
6	12005	Bolt (M4*16)	3	16	M16A-10B	Cable Gland	1
7	HCT-01D0AA03	Transformer	1	17	YY-3	Power Cord	1
8	EDKG01-03	Spacer	2	18	XKSB.4	Pendant Control Assembly	1
9	KBPC2510	Rectifier	1	19	41076	Bolt (M5*10)	1
10	12020	Bolt (M5*40)	4				

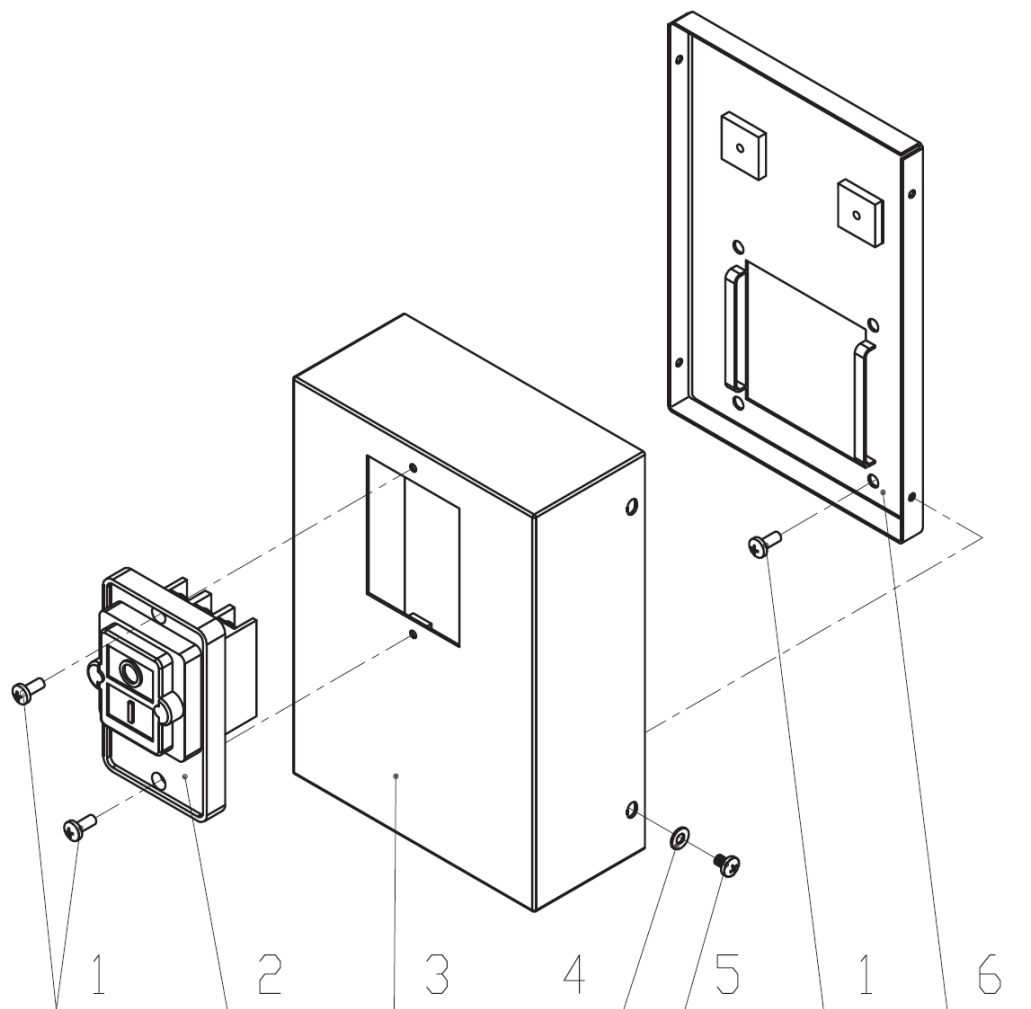
10.4 Electrical Control Box for EPB-504SA



DKX03 (1.5HP) Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	DQH01.2	Electrical Box Cover	1	11	41180	Washer	2
2	41080	Washer	8	12	HCC-2XQ00BB384	Contactor	1
3	41075	Bolt (M4*6)	10	13	DQH01.1	Electrical Box Base	1
4	EDKG01-4	Switch Guard	1	14	DQH04-1	Motor Spacer	1
5	KND102	Switch	1	15	M20*1.5	Cable Gland	1
6	12005	Bolt (M4*16)	3	16	M16A-10B	Cable Gland	1
7	HCT-01D0AA03	Transformer	1	17	YY-3	Power Cord	1
8	EDKG01-03	Spacer	2	18	XKSB.3	Pendant Control Assembly	1
9	KBPC2510	Rectifier	1	19	41076	Bolt (M5*10)	1
10	12020	Bolt (M5*40)	4				

10.5 Electrical Control Box for EPB-100x Series



DKX05 (3.0 HP) Parts List

NO	Part No.	Description	QTY	NO	Part No.	Description	QTY
1	14033	Bolt (M4*10)	6	4	41080	Washer	8
2	KA0-5	Waterproof Switch	1	5	41075	Bolt (M4*6)	4
3	EDKG02-01	Electrical Box Cover	1	6	EDKG02.01	Electrical Box Base	1