

# XT39R4 OPERATION MANUAL

## TABLE OF CONTENTS

### INTRODUCTION

### SAFETY

- Safety Alert Symbols and Signal Word Explanations

- Safety Decals

- Lockout/Tagout

### OPERATOR QUALIFICATIONS

### PRODUCT DESCRIPTION

### DIMENSIONS

### TECHNICAL SPECIFICATIONS

### BOOM ARTICULATION DIAGRAM

### PRODUCT OVERVIEW

- Concrete Pumping System

- Outriggers

- Boom

- Control Panel

- Transmitter and Receiver

### PUMPING AND DRIVING MODES

- Pump Mode Precautions

- Engaging Pump Mode

- Drive Mode Precautions

- Engaging Drive Mode

### SETUP AREA

### OUTRIGGERS

- Outrigger Precautions

- Outrigger Operation

### BOOM

- Boom Precautions

- Boom Operation

- Manual Boom Control Operation

- Remote Boom Control Operation

- Remote Control Activation

- Closing and Securing Boom

### CONTROL PANEL

### PUMPING

**Pumping Precautions**

**Priming the Pump**

**Pumping Operation**

**Cleaning Precautions**

**Cleaning the System**

**MAINTENANCE**

**Maintenance Precautions**

**Recommended Daily Inspections**

**Suggested General Inspection Schedule**

**LUBRICATION**

**Boom and Outrigger Area Lubrication**

**Concrete Pump Area Lubrication**

**Rotation Bearing Lubrication**

**Gear Reduction Unit Lubrication**

**Power Take-Off (PTO) Lubrication**

**HYDRAULIC SYSTEM MAINTENANCE**

**Adding Hydraulic Fluid**

**Filter Servicing**

**Cleaning the Hydraulic Tank**

**Bolt Torque Chart**

**Hose Torque Chart**

**TROUBLESHOOTING AND REPAIRS**

**Pumping System Troubleshooting**

**Boom System Troubleshooting**

## INTRODUCTION

This operation manual introduces the technical characteristics, performance parameters, operating principle, safe operation, safe maintenance, safe inspection, safe repair, and other aspects of the truck mounted concrete boom pump.

Reading and understanding this operation manual will help maximize performance and reliability, and help minimize dangers, improper operation, and repair costs.

The truck mounted concrete boom pump is only to be used for the purpose of placing concrete.

The operation manual is applicable to a **STANDARD EQUIPPED TRUCK MOUNTED CONCRETE BOOM PUMP**. It is possible some truck mounted concrete boom pumps are supplied with various options and specialized equipment.

All product descriptions, illustrations and specifications found throughout this manual were in effect at the time the manual was released for printing. It should be noted **REED RESERVES THE RIGHT TO MAKE CHANGES IN DESIGN OR TO MAKE ADDITIONS TO OR IMPROVEMENTS IN THE PRODUCT WITHOUT IMPOSING ANY OBLIGATIONS UPON ITSELF TO INSTALL THEM ON PRODUCTS PREVIOUSLY MANUFACTURED.**

## SAFETY

Everyone involved with the operation, maintenance, inspection, and repair of the truck mounted concrete boom pump **MUST READ** and **UNDERSTAND** this operation manual and the accompanying American Concrete Pumping Association (ACPA) Safety Manual.

- Use only qualified, experienced, and trained personnel wearing protective equipment at all times.
- For safe use, maintenance, inspection, and repair of the truck mounted concrete boom pump, only operate, maintain, inspect, and repair in accordance with this operation manual and ACPA Safety Manual.
- Contact REED Technical Support and Service when assistance is required.
- Performance and safety features must never be altered, disconnected, or removed.

## Safety Alert Symbols and Signal Word Explanations

The following safety alert symbols, signals, and explanations are adopted from the ACPA Safety Manual.

The triangle with the exclamation point inside is used to alert the operator to an important safety point, and is called a safety alert symbol. One of the following color coded signal words will appear after the safety alert symbol:



If the safety alert symbol is followed by the signal word **DANGER** with white letters in a red box, the safety alert symbol indicates a hazardous situation which, if not avoided, **WILL** lead to death or serious injury.

If the safety alert symbol is followed by the signal word **WARNING** with black letters in an orange box, the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **COULD** result in death or serious injury.

If the safety alert symbol is followed by the signal word **CAUTION** with black letters in a yellow box, the safety alert symbol indicates a potentially hazardous situation which, if not avoided, **COULD** result in minor to moderate injury.

The signal word **CAUTION**, used in a yellow box, but without safety alert symbol means the safety symbol alert addresses a hazard which, if not avoided, **COULD** cause damage to equipment or property.

## Safety Decals

Decals and placement of decals are standardized by the Concrete Pump Manufacturers Association (CPMA) for your protection. They are placed at appropriate areas on the truck mounted concrete boom pump to be constant warnings of dangers. Know and adhere to the information they provide. Contact REED Customer Service for complimentary replacements of safety decals.

## Lockout/Tagout

The Lockout/Tagout procedure applies to all REED concrete pumping equipment.

Before performing any maintenance on a concrete pump;

- Unit must be OFF and the ignition key must be removed from the control panel or dash.
- Key must be securely stored in toolbox or with operator performing maintenance.
- Signage must be posted to indicate machine is currently under Lockout/Tagout.

## Operator Qualifications

Everyone involved with the operation, maintenance, inspection, and repair of the truck mounted concrete boom pump **MUST READ** and **UNDERSTAND** this operation manual and the accompanying American Concrete Pumping Association (ACPA) Safety Manual.



- Individuals who cannot read and understand this operation manual, ACPA Safety Manual, signs, warnings, notices, and operating instructions, in the language in which it is printed, must not be allowed to operate the truck mounted concrete boom pump.
- Only qualified, experienced, and trained personnel may be allowed to operate the truck mounted concrete boom pump.
- Operation, maintenance, inspections, and repair must only be made by qualified, experienced, and trained personnel.
- Obey all applicable local and government statutes and regulations applying to safe operation and driving of truck mounted concrete boom pumps.

## PRODUCT DESCRIPTION

The operation of the truck mounted concrete boom pump encompasses the use of hydraulic and electrical systems. The truck mounted concrete boom pump is designed to safely pump wet concrete through a delivery system of pipes and hoses attached to a boom within its published ratings and specifications.

Stability of the truck mounted concrete boom pump during operation of the boom is provided by hydraulic outriggers. Controls for the outriggers are located on the passenger and driver sides of the truck mounted concrete boom pump.

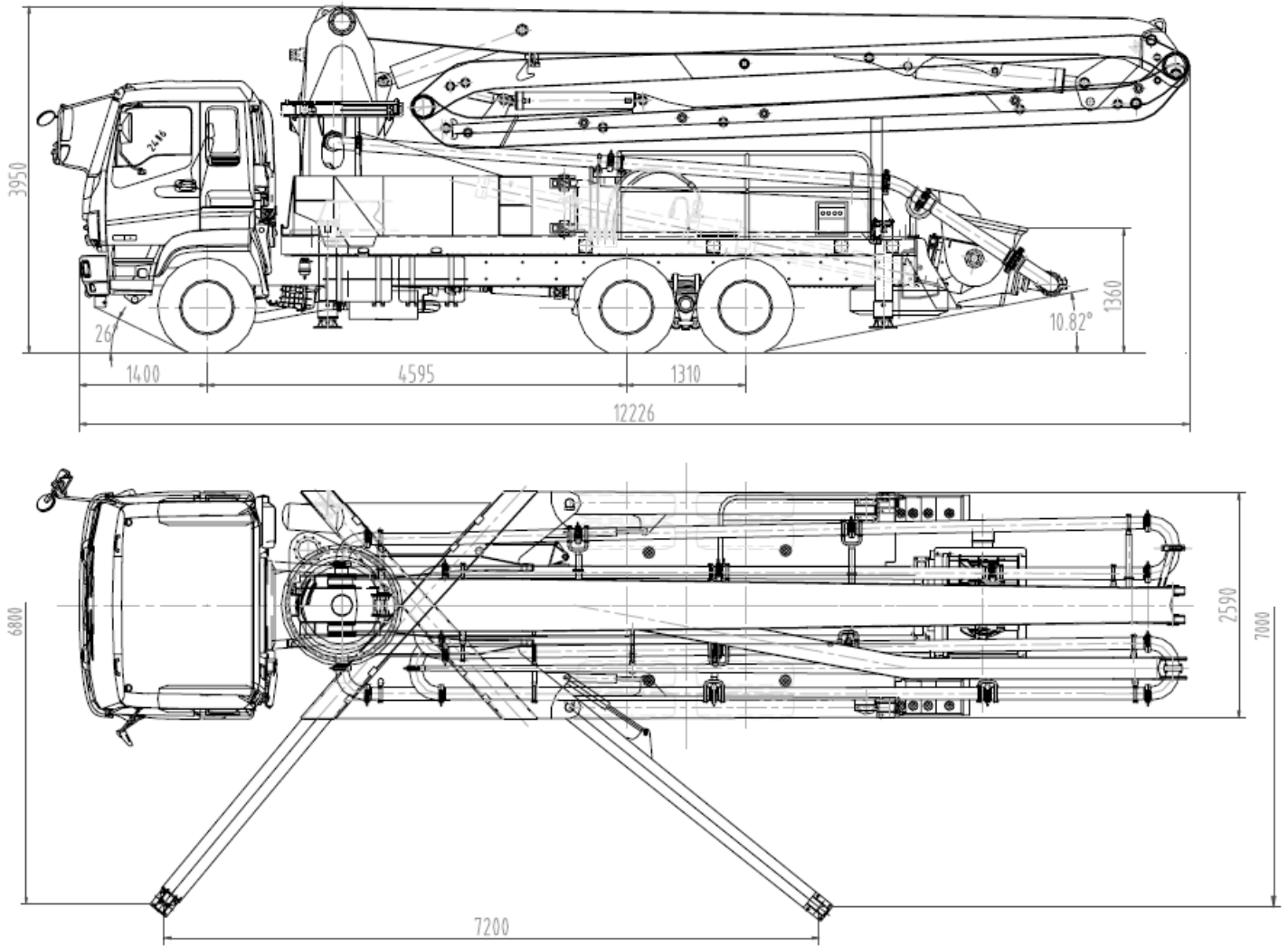
The boom is mounted on a pedestal structure directly behind the chassis cab and is equipped with a rotational mechanism incorporating a low friction rotational bearing. Each boom section can be operated independently through the pre-established design articulation parameters of each section. The boom function controls are located on or near the pedestal structure and the remote.

A steel pipe delivery line is installed from the hopper discharge outlet, along the deck, through the pedestal and attached along side of the boom sections. A heavy duty end hose is provided to facilitate concrete placement.

The pumping system employs an s-tube design valve system. This system incorporates material cylinders, powered by hydraulic cylinders that cycle alternately. With concrete material in the hopper and the pump operating, a material cylinder retracts material inside the cylinder. At full retraction of the cylinder, a signal is sent to the s-tube swing cylinders causing the s-tube to shift position to the fully loaded material cylinder. The piston of the loaded cylinder then pushes the material through the s-tube and into the delivery lines. The shifting from one cylinder to the other cylinder takes place providing a continuous flow of material through the delivery piping system. The pump can be operated at the control panel on the deck or can be operated from the remote control.

The power for operation of the boom and concrete pump is provided by the truck engine, which drives the hydraulic pumps through a power take-off (PTO) unit.

# DIMENSIONS

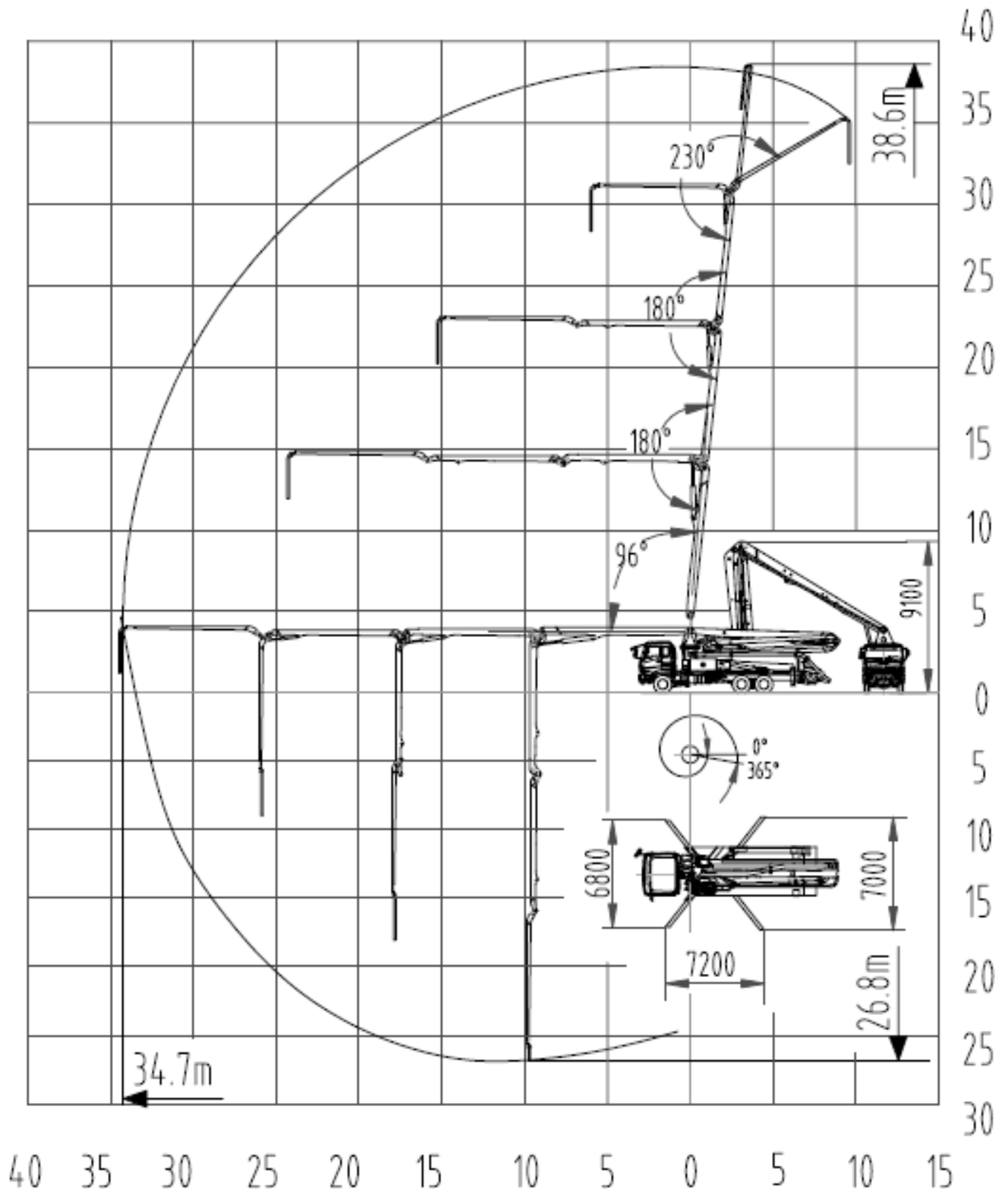


## TECHNICAL SPECIFICATIONS

GENERAL SPECIFICATIONS	
Chassis Model	Mack MR688S
Wheelbase	5461 mm
Hydraulic System	Closed Loop
Water Tank Capacity	560 l
PUMP SPECIFICATIONS	
Output	125 m <sup>3</sup> /hr
Concrete Pressure	85 bar
Concrete Cylinder Diameter	230 mm
Stroke Length	2000 mm
Strokes per Minute	26
Hopper Capacity	600 l
Hydraulic Pressure	320 bar
Hydraulic Oil Capacity	380 l
BOOM SPECIFICATIONS	
Boom Sections	4
Fold Type	Roll and Fold
Section 1 Length	9.3 m
Section 2 Length	8.4 m
Section 3 Length	8.4 m
Section 4 Length	8.6 m
Delivery Pipe Diameter	125 mm
Hydraulic Pressure	320 bar
Hydraulic Oil Capacity	360 l

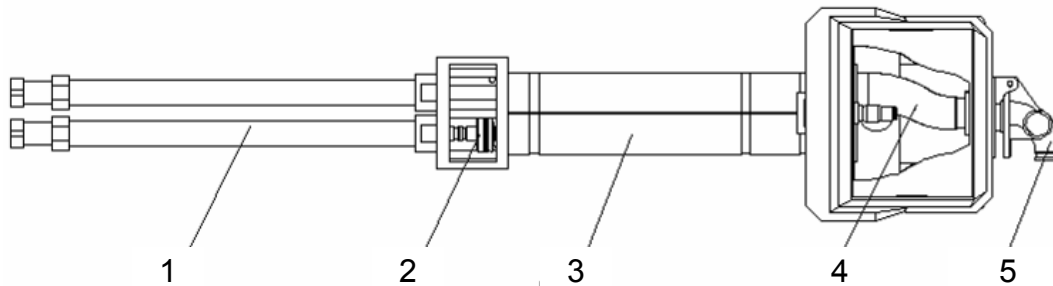


# BOOM ARTICULATION DIAGRAM



## PRODUCT OVERVIEW

### Concrete Pumping System



1. Drive Cylinder    2. Concrete Piston    3. Concrete Cylinder    4. S-Tube    5. Hopper Elbow

The hydraulic oil flow created by the hydraulic pump, driven by the engine on the truck, pushes the drive cylinder pistons, inside the drive cylinders (1), alternately back and forth. Because the drive pistons and concrete pistons (2), inside the concrete cylinders (3), are linked together, the pistons move synchronously.

#### Forward Pumping

When the drive cylinder pistons retract, along with the concrete piston, concrete will be sucked from the hopper into the concrete cylinder. Then, when the drive piston, along with the concrete piston, is pushed towards the hopper, the concrete piston will pump concrete through the concrete cylinders into the s-tube (4), and out to the hopper elbow (5).

Next, the pump switches at the end of the stroke. Then the s-tube valve shifts to the other concrete cylinder which has sucked concrete and then starts the next cycle.

#### Reverse Pumping

Reverse pumping links the concrete piston in the sucking stroke and s-tube valve to suck concrete from the s-tube instead of the hopper. As a result, the concrete piston pumps concrete into the hopper.

Pumping is controlled using the control panel and the remote.

## Outriggers

The truck mounted concrete boom pump is equipped with front and rear outriggers. The front set consists of a hydraulic telescopic beam that extends on a diagonal direction out toward the chassis cab. The beams are equipped with a hydraulic leveling jack. The rear set consists of a beam that hydraulically swings out away from the chassis to a diagonal position; also equipped with a leveling jack. Both sets are used to stabilize the unit before operation of the boom. Controls for the outriggers are located on the passenger and driver sides of the truck mounted concrete boom pump.

## Boom

The boom consists of 4 sections and each sections movement is independently controlled with lever valves and the remote. A control is also provided for the rotation of the complete structure.

The booms sections are identified by numbers.

### **SECTION 1**

Section 1 is the 1st boom section which has 1 end attached to the masthead and the other end attached to the 2nd boom section.

### **SECTION 2**

Section 2 is the 2nd boom section which has 1 end attached to the 1st boom section and the other end attached to the 3rd boom section.

### **SECTION 3**

Section 3 is the the 3rd boom section which has 1 end attached to the 2nd boom section and the other end attached to the 4th boom section.

### **SECTION 4**

Section 4 is the last boom section and has 1 end attached to the 3rd boom section.

## Control Panel



The control panel located on the deck features switches to control Emergency Shutdown, Forward Pumping, Reverse Pumping, Pumping Output, Engine RPM, Hydraulic Oil Cooling Fan, Local/Remote Control, Lights, S-Tube Shift, Drive Cylinder Extension, and Horn. A text display is also on the control panel to gauge engine RPM.

## Transmitter and Receiver

The truck mounted concrete boom pump is equipped with a wireless remote control system which consists of a transmitter and a receiver. The transmitter is to be carried by the operator for convenient operation of the equipment, controlling pumping and the boom.



## PUMPING AND DRIVING MODES

### Pump Mode Precautions

Refer to the ACPA Safety Manual and the Setup section of this operation manual for setup area safety precautions not limited to the following guidelines:



- Ensure the machine can be safely setup and safely operated in the chosen location.
- The operator must have a clear view over the entire working area. Ensure the area is clear of any obstructions (such as electrical wires, trees, and personnel) that may compromise safety.
- Examine the entire area of the proposed setup to ensure stability. The machine must be positioned on level ground. Keep a sufficient distance away from slopes, pits, trenches, and excavations as governed by the ACPA safety manual.

### Engaging Pump Mode

To Engage Pump Mode

- 1) Depress clutch
- 2) Flip 24V Converter Switch on
- 3) Push System Switch on
- 4) Push PUMP Switch on
- 5) Shift into desired gear
- 6) Release clutch

## Drive Mode Precautions

Refer to the ACPA Safety Manual for driving safety precautions not limited to the following guidelines:



- Concrete must be cleaned out of the delivery system.
- Boom must be completely folded and resting on the boom rest before operating outriggers.
- Jack cylinders and outriggers must be completely retracted with safety locks engaged before driving.
- Outrigger pads and other miscellaneous equipment must be stored and secure.
- Obey all traffic laws when driving the truck mounted concrete boom pump.

## Engaging Drive Mode

To Engage Drive Mode:

- 1) Depress clutch
- 2) Push DRIVE Switch on
- 3) Push System Switch off
- 4) Flip 24V Converter Switch off
- 5) Shift into desired gear
- 6) Release clutch

## SETUP AREA

Refer to the ACPA Safety Manual for setup area safety precautions not limited to the following guidelines:



- Ensure the machine can be safely setup and safely operated.
- The operator must have a clear view over the entire working area.
- Ensure the area is clear of any obstructions (such as electrical wires, trees, and personnel) that may compromise safety.
- Examine the entire area of the proposed setup to ensure stability. The machine should be positioned on level ground.
- Keep a sufficient distance away from slopes, pits, trenches, and excavations.

## OUTRIGGERS

The outriggers are driven by hydraulic cylinders that extend to support and stabilize the truck mounted concrete boom pump boom operations. The truck mounted concrete boom pump is equipped with front and rear outriggers. The front set consists of hydraulic telescopic beams that extend on a diagonal direction out toward the chassis cab. The rear set consists of an outrigger beam that hydraulically swings out away from the chassis to a diagonal position. The outriggers are equipped with a hydraulic leveling jack.

### Outrigger Precautions

Refer to the ACPA Safety Manual for outrigger safety precautions not limited to the following guidelines:



- Clear the area while extending or retracting outriggers, personnel may be injured or killed within this area.
- Surface of the supporting ground must be horizontally level solid ground and have load bearing capacity in accordance with ACPA guidelines.
- Fully extend all outriggers and rest jacks on outrigger pads.
- The maximum inclination angle of the machine is 3°.
- Only unfold the boom after properly placing the outriggers and only retract outriggers when the boom is secure on the boom rest.
- Do not drive with boom unfolded or outriggers extended.
- Engage outrigger safety locks devices and secure boom before traveling.



## Outrigger Operation

On each side of the truck mounted concrete boom pump, there is 1 group of 4 section operation valves for the outriggers, which control extracting or retracting, swinging out or swinging in, and up or down operation for outriggers and outrigger jack cylinders.

### CAUTION

- Before starting outrigger operations, the outrigger safety locks must be unlocked.

Facing the left side of the valve group, you can see the following parts in the order from the left to right:

- 1) Safety interlock/control button must be pushed while an outrigger control is actuated. If the button is released, even if outrigger control lever is actuated, outrigger operations will cease to function
- 2) Lever for jack cylinder operation of front outrigger
- 3) Lever for extraction or retraction of front outrigger
- 4) Lever for swingout operation of rear outrigger
- 5) Lever for jack cylinder operation of rear outrigger



Movement direction of the outrigger and jacks is determined by upward or downward movement of the lever. Fully extend outriggers and use jack cylinders to stabilize machine within 3° of horizontal.



- Fully extend outrigger footprint to ensure stability and ensure the machine is horizontally level (bubble levels should not exceed 3°) before operating boom to prevent tipping.
- Securely fold boom onto boom rest before retracting outriggers. Ensure the outriggers have been locked in the fully folded and retracted position before driving.

## BOOM

The boom is mounted on a pedestal structure directly behind the chassis cab and is equipped with a rotational mechanism incorporating a low friction rotational bearing. Each boom section can be operated independently through the pre-established design articulation parameters of each section. The boom function controls are located on or near the pedestal structure and the remote.

## Boom Precautions

Refer to the ACPA Safety Manual for boom safety precautions not limited to the following guidelines:



- Boom must not come within 17 feet of powerlines.
- Outriggers must be fully extended, leveling unit within 3°, before boom is unfolded.
- Do not operate outriggers until boom is completely folded and secure on the boom rest.
- Do not drive with boom unfolded.
- Only operate boom when the entire boom is within clear sight.
- Boom must not be used as a crane.
- Extra pipe or hose must not impose an additional load on the boom.

## Boom Operation

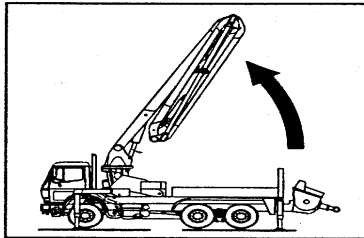
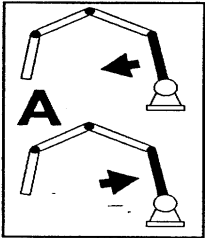
The boom consists of 4 sections:

**SECTION 1** - The first boom section attached to the masthead

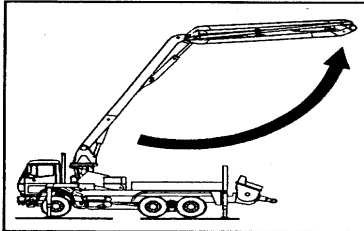
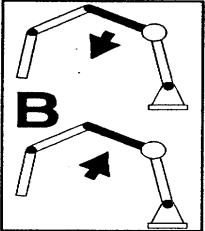
**SECTION 2** - The second boom section attached to the first section

**SECTION 3** - The third boom section attached to the second boom section

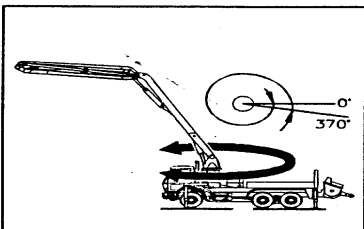
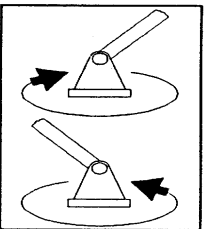
**SECTION 4** - The last section of the 4 section boom



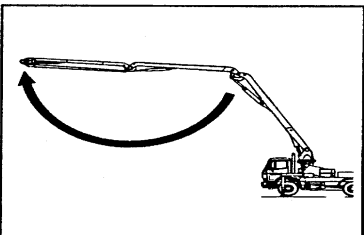
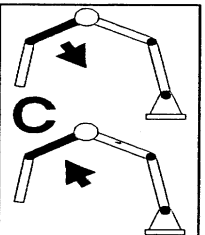
1) Actuate control lever "A" to unlock safety hook and that the entire structure is raised to at least 70°.



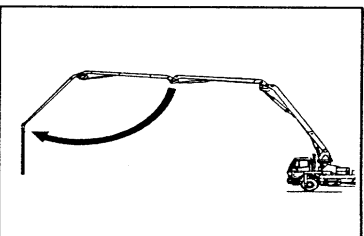
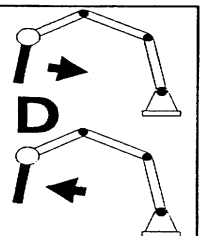
2) Actuate control lever "B" to raise boom "B" opening to at least 120°.



3) Actuate the **ROTATION** control rotating the rotation bearing until the boom is over front of cab.



4) Open boom section "C" with appropriate control to approximately 180°.



5) Open boom section "D" to desired position

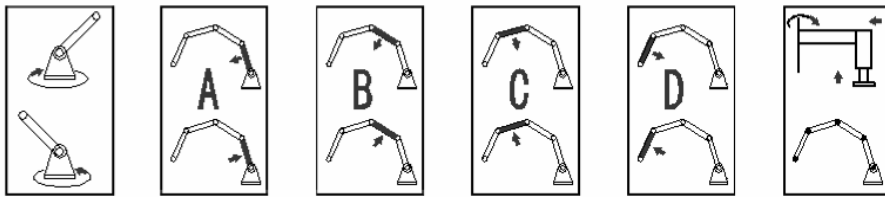
## Manual Boom Control Operation

The boom control valves are located on the pedestal near the masthead. The control valves are 3 position hydraulic directional type valves, which can be manually or remote operated.

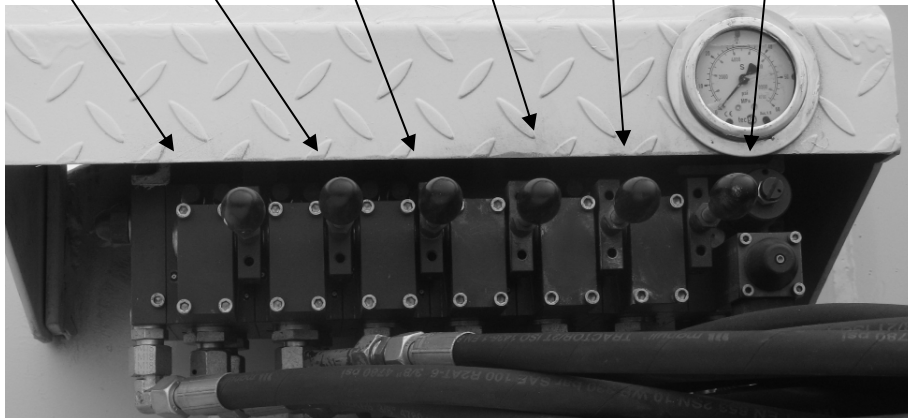
**CAUTION**

The boom control valve is a proportional valve; the speed of the boom sections is proportional to the trigger angle of the actuating lever. Because of this load sensitivity, the actuating levers should be gradually actuated for gradual acceleration and hence smooth operation. Correspondingly, when stopping boom movement, the actuating lever should be returned gradually to center for smooth operation.

- |   |                                 |
|---|---------------------------------|
| 1. Boom Rotation                        | 2. Upward/Downward of Segment 1 |
| 3. Upward/Downward of Segment 2         | 4. Upward/Downward of Segment 3 |
| 5. Upward/Downward Turning of Segment 4 | 6. Boom and Outrigger           |

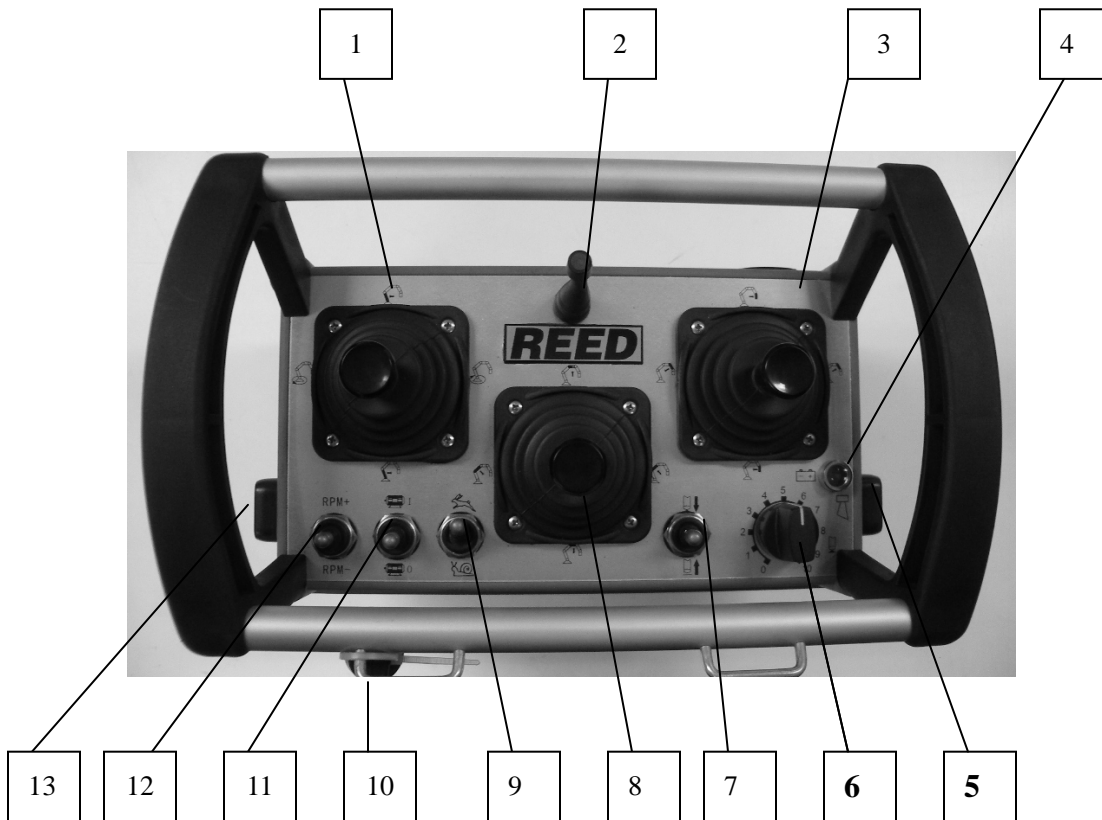


- ①      ②      ③      ④      ⑤      ⑥



## Remote Boom Control Operation

The truck mounted concrete pump is equipped with a remote control system which consists of a transmitter and a receiver. The receiver is installed near the control box of the truck mounted concrete pump. The transmitter is to be carried by the operator for convenient operation.



1. Boom Rotation, Section 1 Folding/Unfolding Lever
2. Antenna
3. Section 4 Folding/Unfolding Lever
4. Battery Low Voltage Indicator
5. Horn Button
6. Pumping Volume
7. Positive/Reverse Pump
8. Section 2 & 3 Folding/Unfolding Lever
9. Boom Fast/Slow
10. Remote On Key
11. Engine Start/Stop
12. Engine RPM
13. Emergence Shutdown Switch

## Remote Control Activation

- 1) Turn the LOCAL/REMOTE switch on the control panel to the REMOTE position.
- 2) Turn on the transmitter (the status light of the transmitter will flash green when entering normal working status).
- 3) Press the HORN button and the system will reset enabling remote control.

Precautions of the operation are identical to manual operation. Special attention should be paid to the gradual transition of the lever from starting and stopping the boom sections movement.

The transmitter will automatically shut off when controls are being affected by RF interference; then the boom movement stops and repressing the start button is required to reset the system and enable the transmitter to reenter its working status.

Speed of boom movement can be selected by controlling the FAST/SLOW switch on the fully proportional remote control.

When an EMERGENCY STOP button is pressed, electrical and hydraulic functions will be stopped. Address conditions for EMERGENCY STOP, press the HORN switch to reset and enable system.

After cancellation of the emergency shutdown, the toggle lever switch of PUMP START/STOP on the remote must be pushed to the off position (0); the remote can only be started again by pressing the horn button to restart the system.

Severe RF disturbance from radio stations, TV stations and other electromagnetic signals require the use of a teather for remote control. Connect the supplied teather to the transmitter and receiver.

## Closing and Securing Boom

After cleaning the boom, fold the boom in the REVERSE sequence from the boom unfolding.



- Take precaution to secure the boom using straps before driving.

## CONTROL PANEL



Concrete pumping operations are controlled utilizing the system control box. See description of each function below:

### CONTROL Switch

LOCAL position for local control mode using control box controls  
REMOTE position for remote control mode using radio remote

### RPM Switch

RPM+ to raise engine RPM  
RPM- to lower engine RPM

### DRIVE CYLINDER Switch

EXTEND position to extend concrete piston position through concrete cylinder  
RETRACT position to retract concrete piston position through concrete cylinder

### S-TUBE Switch

EXTEND position to extend shift cylinder to swing and change s-tube position  
RETRACT position to retract shift cylinder to swing and change s-tube position

### PUMP Switch

ON position to turn forward pumping on  
OFF position to turn forward pumping off

### REVERSE Pump Switch

ON position to turn reverse pumping on  
OFF position to turn reverse pumping on

### VOLUME Switch

0 - 100% variable output

### COOLER Switch

AUTO position will flush hydraulic oil through the cooler at 55° C  
MANUAL position will flush hydraulic oil through the cooler until switch shifted back to center neutral or AUTO position

### HORN Switch

Toggle HORN switch to power horn and reset system settings

### LIGHTS Switch

Toggle LIGHTS switch on to turn on system lights



### EMERGENCY STOP

Pressing EMERGENCY STOP switches stop all pump and boom functions as well as releasing accumulator pressure. To reenale operations after addressing issues, release activated EMERGENCY STOP switches and reset system by activating the HORN switch.

## PUMPING

Everyone involved with the operation, maintenance, inspection, and repair of the machine **MUST READ** and **UNDERSTAND** this manual and the accompanying American Concrete Pumping Association (ACPA) Safety Manual.

Contact REED Technical Support and Service when assistance is required.

### Pumping Precautions

Refer to the ACPA Safety Manual for pump safety precautions not limited to the following guidelines:



- Never put your hands or any other body part into any area of the machine, including, but not limited to hopper, s-tube, and waterbox.
- Concrete is pumped at extremely high pressures, do not open blocked delivery line or place body in way of endhose discharge.
- Press Emergency Stop button whenever safety or performance is compromised. After pressing any Emergency Stop button, the machine functions will turn off. After addressing emergency situation, the machine system must be reset by activating the Horn Switch.
- Replace, do not repair damaged pipes and hose.
- Keep hopper grate closed.
- Keep sufficient material in the hopper to prevent the induction of air into the concrete cylinders. When compressed air within the delivery line is abruptly released, the concrete being pumped is discharged in an explosive manner.
- Never bend the end hose during pumping. A bend is an obstruction of the material flow allowing pressure to build up in the system creating a dangerous condition.
- Reversing pumping direction may, or may not, relieve concrete pressure in the system.

- Do not allow the end hose to be guided or maneuvered by hand.

## **CAUTION**

- Move the concrete within the concrete pump delivery system during pumping stoppage to avoid segregation (or separation) and solidification.
- Clean out the delivery system and concrete pump if pumping operations are suspended for too long.
- Concrete output is influenced and related to the quality and consistency of the concrete mix. Mix consistency is a decisive factor when it comes to the filling rate of the material cylinders.

## **Priming the Pump**

Prime the delivery line ahead of the actual concrete mix to lessen the possibility of packing when the line is filled with concrete.

- 1) Mix prime packs as directed by the prime pack manufacturer (typically 2 packs for new pipe, 1 pack thereafter).
- 2) Cycle machine 2-3 times to verify pump is ready for operation.
- 3) Pour prime pack mixture into prime port on swing out elbow and then reseal prime port.
- 4) Fill hopper with concrete and begin pumping at low to medium volume.

## **Pumping Operation**

Before filling hopper with concrete, check for safe work conditions and safe operation of functions, follow priming procedures and activate the AGITATOR SWITCH for agitator operation.

After hopper is filled with concrete:

- 1) Turn Pump Switch On.
- 2) Initially pump at low to medium volume at preset minimum RPM, use the VOLUME CONTROL switch and engine RPM to gradually increase pumping output.

3) Using the remote transmitter, control boom to pump concrete to desired location.

## Cleaning Precautions

Everyone involved with the operation, maintenance, inspection, and repair of the machine **MUST READ** and **UNDERSTAND** this manual and the accompanying American Concrete Pumping Association (ACPA) Safety Manual.

Contact REED Technical Support and Service when assistance is required.

Refer to the ACPA Safety Manual for cleaning safety precautions not limited to the following guidelines:



- Never put your hands or any other body part into any area of the machine, including, but not limited to hopper, s-tube, and waterbox.
- Keep hopper grate closed during cleaning.



- Do not operate the water hose when there is no water in the water tank.

## Cleaning the System

Effective clean-up removes concrete in the hopper, s-tube, concrete cylinders and delivery system.

- 1) Upon completion of pumping, reverse pump concrete back into the hopper.
- 2) After all possible concrete is reversed pumped into the hopper; remove end hose from tip section of the boom.
- 3) Insert water soaked cleanout spongeball into the tip section opening.
- 4) Position the boom at a 15° angle, relative to horizontal.
- 5) Pump in reverse to suck the spongeball through the delivery pipe.
- 6) After the sponge ball is sucked through the delivery pipe, open the hopper swingout elbow to remove the sponge.
- 7) Open the clean out door of the hopper in the designated area to empty hopper of concrete.
- 8) Turn on the water pump and use the water hose to wash the end hose, hopper swingout elbow, s-tube, concrete cylinder, agitators, grate, and hopper.
- 9) Finally, wash and clean the entire machine.
- 10) In extremely cold temperatures, the water tank and water pump should be thoroughly e to prevent freezing.

## MAINTENANCE

This section introduces safe maintenance of the truck mounted concrete pump. In order to achieve normal and safe operation of the truck mounted concrete pump all inspection, maintenance, and repair work must be performed. Safe inspection, maintenance, and repair will minimize maintenance costs and health hazards and maximize performance.

### Maintenance Precautions

Everyone involved with the operation, maintenance, inspection, and repair of the truck mounted concrete boom pump **MUST READ** and **UNDERSTAND** this operation manual and the accompanying American Concrete Pumping Association (ACPA) Safety Manual.

Contact REED Technical Support and Service when assistance is required.



- Maintenance must be performed by trained, experienced, and certified personnel in the appropriate fields.
- The following maintenance guide is a general guide to aid trained, experienced, and certified personnel.
- Trained, experienced, and certified personnel must wear appropriate protective equipment.
- Ensure unit is shutoff and utilize lockout/tagout safety products before performing maintenance.

## **Recommended Daily Inspections**

### **1) Chassis**

Check

- Engine oil level
- Fuel tank level
- Tire condition and pressure
- Fuel, oil, and other leaks
- Chassis lighting, brakes, and signals

### **2) Sub-Frame and Decking**

Check

- Subframe for weld cracks, missing bolts, deformation
- Structural integrity of decking, steps, walkways
- Tool boxes and miscellaneous features are secure

### **3) Drive Components**

Check

- Power take-off mounting secure and oil level
- No interference of drive lines
- All hydraulic pumps in good condition
- Cables, wires, hoses, and tubing secure
- Hydraulic leaks
- Lubrication points

### **4) Outriggers**

Check

- For missing parts such as rollers, pins, bolts, and nuts
- Hydraulic cylinders are secure
- Foot pads secure
- Condition of hydraulic hoses and tubing
- Switches undamaged, emergency stop switch-push/pulls
- Level sight gauge in good condition
- Lubrication points

### **5) Boom Pedestal and Rotation Assembly**

Check

- Pedestal and rotation assembly for structural damage and/or cracked welds

- Rotation gear mounting bolts are secure
- Drive pinion and gear teeth in good condition
- Reduction unit securely mounted
- Rotation limit stops in good condition
- Delivery piping, clamps secure
- Hydraulic hoses, tubing secure, properly clamped no leaks
- Oil levels full
- Lubrication points

## **6) Boom**

Check

- For structural damage and cracked welds
- Bushings, pins, and retainers secure
- Hydraulic cylinders are in good condition and securely mounted
- Hydraulic hoses, tubing secure, properly clamped with no leaks
- Delivery line not damaged, no dents, secured properly to boom
- All clamps secure, retaining pin in place
- Lubrication points

## **7) End Hose**

Check

- For damage, condition, free of cuts internal and external
- Mounted securely to boom, support brackets intact
- Locking levers, lever springs in place, in good condition
- Hose clamps secure, retaining chain in good condition, shackles and pins tight

## **8) Boom Control Valve**

Check

- Hydraulic control valve bank securely mounted
- Each control lever moves freely, returns when released
- Protective rubber boots in good condition
- Control identification decal in good condition
- Hydraulic tubing, hoses and electrical wiring secure and clamped
- No hydraulic leaks

## **9) Concrete Pump**

Check

- For structural damage, cracked welds, and attachment to sub-frame



Hydraulic drive cylinders in good condition, secure, no leakage  
Material cylinders secure  
Water box structurally sound, clean, cover in place, drain functional  
Proximity switches  
S-tube shift mechanism structurally sound, all pins and retainers in place  
Hydraulic shift cylinders in good condition  
Bearing housing, seals etc. in good condition  
Hydraulic hoses secure no leaks  
Clamps of delivery pipes are loose or damaged  
Lubrication points

## **10) Hopper Assembly**

Check

For structural damage, dents, cracked welds  
S-tube secure, in good condition  
Condition of wear plate, wear ring, seals  
Connection of S-tube to outlet seals, bearing  
Hopper grating is structurally sound, opens and closes  
Vibrator securely mounted, wiring connections secure  
Hopper drain is functional  
Transfer delivery line undamaged, secured all clamps tight with pin retainers  
Outlet elbow secure, clamp tight

## **11) Agitator**

Check

Agitator paddles and shaft for damage, cracked welds  
Drive motor secure, bearings, seals housing in good condition  
Control valve securely mounted, levers move freely  
Hydraulic hoses and tubing secure, clamped

## **12) Lube System**

Check

Lube pump securely mounted, gaskets, lid in place  
Lube line connections tight, clamped  
Ample grease in reservoir

## **13) Control Panel**

Check

Switches in good condition, stay in position or momentary return to center  
Instruments and gauges in good condition, lights operate  
Control identification in good condition

## **14) Remote Controls**

Check

Switches in good condition, stay in position or momentary return to center  
Boom control levers move freely, return to center, protective rubber boots in good condition  
Cord in good condition, not damaged or cut and securely connected

## **15) Hydraulic System**

Check

Filler caps in place  
Level sight gauges in good condition  
Hydraulic filter condition gauges  
Hydraulic oil cooler securely mounted, fan motor in good condition  
Hydraulic fluid levels to proper levels  
Hoses and tubing's secure, no leaks, minimal wear

## **16) Electrical System**

Check

Electrical connections are well secured and free of rust  
Wire insulators free of aging or peeling

## **17) Water System**

Check

Filler caps in place  
Level sight gauges  
Water level full  
Hoses and tubing minimum wear

## Suggested General Inspection Schedule

	Inspection	Inspection Interval (Daily/ Per Hour)						Also Inspect
		Daily	250	500	1000	1500	2000	
General	Lubrication Points	•						Weekly
	Visual And Functional Check Of All Safety Equipment	•						
	Tighten Nuts and Bolts							As Required
	Certified Boom Inspection			•				Annually
	Wire, Hose, and Tube Conditions	•						
Hydraulic System	Oil Level	•						
	Discharge Condensed Water	•						
	Hoses and Tubes	•						
	Replace All Hydraulic Oil And Analyze				•			
	Clean Hydraulic Cylinders				•			
Drive Cylinder	Seals Of Hydraulic Cylinders							Monthly
Hydraulic Oil Filter	Replace Filter Element							As Required
Water Tank	Water Level	•						
Gearbox	Replace All Oil In Gear Box			•				
	Rotating Speed Reducer			•				

**Truck Mounted Concrete Boom Pump Operation Manual**

	Inspection	Inspection Interval (Daily/ Per Hour)						Also Inspect
S-Tube	Wear	•						
	Check And Adjust Enclosed Gasket	•						
	S-Tube Bolt			•				
Delivery Pipe	Clamps	•						
	Wall Thickness	•						
	Gaskets			•				
Concrete Piston	Connector		•					
	Concrete Cylinder And Concrete Piston Wear	•						
Delivery System	Wear	•						
Lubrication System	Oil Level	•						

## LUBRICATION

The truck mounted concrete pump is equipped with several critical areas that require lubrication.

### CAUTION

- Rapid wear and component breakdown will result if the unit is operated with inadequate lubrication.
- Follow the recommended interval and if need be increase the interval when above normal usage takes place.

## Boom and Outrigger Area Lubrication

Boom and outrigger lubrication points involve all the articulated joints on the boom, the swivels and rotating joints of the concrete delivery piping and the pivot points of the swing out outriggers.

### CAUTION

- Before making the connection of the lube pump to grease fitting be sure to clean the grease fittings to prevent contaminants from entering the lube point.
- Wipe off any excess lubricant after greasing.

Recommended interval: every 60 hours of operation under normal usage, more frequent as required.

## Concrete Pump Area Lubrication

Some of these areas critical lube points are connected to the central lubrication distribution block and fed by the automatic lube pump. The main lube pump and reservoir is located at rear of unit near hopper. This system will automatically feed the central distribution block at the preset interval.

### CAUTION

- The reservoir must be checked and lubricant replenished if necessary on a daily basis.
- For areas not connected to the auto lube system, use a manual lube pump and pump a sufficient number of strokes to ensure thorough lubrication of each point.
- Visually check each point and wipe off any excess lubricant.

## Rotation Bearing Lubrication

Greasing serves to reduce the ball friction and maintains the bearing seal as well as offering protection against the entry of contaminants. Inject the grease until it is made to exit from the gasket.

For lubrication of gear teeth on bearing and pinion, smear or brush recommended oil on all areas of teeth.

Bearing lubricant: **GENERAL PURPOSE GREASE, SHELL ALVANIA ELPFH2  
OR EQUAL**

Gear teeth lubricant: **SHELL MALLEUS FLUID “C” OR EQUAL**

Recommended interval: **EVERY 100 HOURS OF OPERATION**

## Gear Reduction Unit Lubrication

This unit is located on the outside of the turret pedestal and requires attention on a daily basis. An oil level plug is located on side of reduction unit. The breather and fill extends from reduction unit opposite oil level plug and is readily accessible. Remove the cap to add oil if necessary.

Lubricant: **SHELL OMALA OIL 150**

Interval: **CHECK DAILY FILL AS REQUIRED (TOTAL CAPACITY OF OIL = 5.6 LITERS)**

## Power Take-Off (PTO) Lubrication

The PTO unit contains two (2) areas requiring lubrication attention. One area is the main gear box and the other is the pump shaft cavity.

The oil level plug for the main section is located on side of the casing. Remove plug to check level. When required add oil through breather fill fitting.

The oil level plug for the pump shaft cavity is located on side of flange ring. Remove plug to check level. When required add oil through cavity breather fill unit.

Recommended lubricants are mineral oil meeting CLP DIN 51517-3 and synthetic oils meeting CLP PG DIN 51517-3 and CLP HC DIN 51517-3. Check level every 100 hours of operation

## **HYDRAULIC SYSTEM MAINTENANCE**

The concrete boom pump is equipped with 2 hydraulic systems. One system is used to meet the hydraulic requirements for concrete pump operation and the other hydraulic system is used for the boom and outrigger operations. Contamination is the most common cause for hydraulic system failure. Extreme care must be exercised to prevent contaminants from entering the system. Always cap or plug open ports and hydraulic lines.

The concrete boom pump utilizes in its hydraulic system a fluid manufactured by the SHELL OIL CO. and is designated as TELLUS #46. It is to be used in ambient temperatures of 39-90° F (4-32° C). The normal fluid temperature will range from 100-167° F (38-75° C).

### **CAUTION**

- Use only shell tellus 46 or equal hydraulic fluid and never mix with other type fluids. Always use a CLEAN fluid. Using impure or other type of fluids not specified will contaminate the hydraulic system and can lead to eventual system malfunction or damage and possibly deteriorate the hydraulic seals.
- Fluid Level - It is important that the fluid level of the boom and pump hydraulic systems be checked constantly. Maintain fluid to proper level at all times.
- Return Filters - For the concrete pump these are 10 micron filters with disposable elements. Change element when filter condition gauges indicates to do so. For the boom system the element is a 25 micron type.
- Pressure Filters - These filters are 10 micron filters with disposable element. Change when condition indicator depicts to do so. The boom filter is also a 10 micron filter with condition indicator.

- Hydraulic Tank - Change oil in tank every 1500 hours of operation or yearly whichever comes first.

## Adding Hydraulic Fluid

### CAUTION

- Exercise extreme care when adding fluid to the hydraulic tank, preventing contamination.
- 1) To prevent any dirt or water from entering the hydraulic tank, thoroughly clean area around filler opening.
  - 2) Fill appropriate reservoir with clean hydraulic fluid using clean pump filters and fine wire mesh, 200 mesh or finer.
  - 3) Replace filler cap immediately after filling tank to proper level.

### CAUTION

- Do not use a cloth for straining fluid as lint is harmful to the hydraulic system.

## Filter Servicing

Hydraulic filters in the system provide continuous hydraulic fluid filtration to prevent contamination which will cause rapid wear, component breakdown, and eventual failure.

The filter assemblies on the pump circuit are equipped with condition indicators. These need to be checked periodically and the element changed when so indicated.

### CAUTION

- The filter for the boom hydraulics is a pressure filter. It is not equipped with a condition indicator thus a log needs to be kept and element changed every 250 hours of operation.
- 1) Shut off machine and use Lockout/Tagout. On pump circuit allow accumulator system to depressurize.



- 2) Place a drain pan underneath the filter housing to catch any fluid drainage.
- 3) Clean area around filter housing.
- 4) On the return filters carefully unscrew filter element, remove and discard properly.
- 5) For the high pressure filters loosen bolt on bottom of filter housing until free then remove element.
- 6) If element has a gasket lightly smear a small amount of oil on the element gasket.
- 7) Replace the element in the filter and secure filter housing.
- 8) Start up machine and observe for any leakage.

**CAUTION**

- Don not wash and reuse filter elements, use new filters to prevent contamination.

## **Cleaning the Hydraulic Tank**

The boom hydraulic tank is located inside the boom pedestal. The tank is equipped with a filler breather cap located on top of the tank as well as return filter assembly and a high pressure filter.

The pump hydraulic tank is located on the right side between the front and rear outriggers. The tank is equipped with a filler cap located on top of the tank and access covers on both the outer side and top side of the tank. On the side of the tank, there are 2 suction filters for pre-filtering of the fluid before it enters the system.

**CAUTION**

- The hydraulic tanks should be drained and cleaned after 1500 hours of operation or yearly whichever comes first. This will assist in keeping the systems clean and in proper condition. The following is suggested and generally will apply to both hydraulic tanks.
- 1) Shut off machine and use Lockout/Tagout. On pump circuit allow accumulator system to depressurize.

- 2) Place a suitably sized drain container under the hydraulic tank drain.
- 3) Open drain valve to drain tank.
- 4) Remove the access cover(s) on the hydraulic tank being careful not to damage the gaskets.
- 5) Remove filters.
- 6) After tank has drained, flush the inside of the hydraulic tank with clean solvent and wipe clean with lint free cloths, do not use paper towels, removing any particles from tank.
- 7) Close the tank drain valve.
- 8) Reinstall the filter housings after replacing filters.
- 9) Reinstall access covers with gaskets.
- 10) Clean the filler breather with solvent and air blow dry.
- 11) Refill the hydraulic tank with new clean hydraulic fluid.
- 12) Start machine and check for leaks.

## Bolt Torque Chart

Tightening-moment is determined by bolt diameter, bolt material, and loading area of bolt head. Refer to the following charts for general torque values. When replacing bolts, new bolts of identical dimensions and grades must be used.

Bolt Size	Pitch 0.2d (mm)	Grade		Grade		Grade	
		4.6		5.6		6.8	
		Force	Torque	Force	Torque	Force	Torque
		N	T (Nm)	N	T (Nm)	N	T (Nm)
M8	1.6	5800	9	7140	11	11200	
M10	2	9310	18	11300	22	17800	36
M12	2.4	13500	32	16500	39	25900	62
M16	3.2	25200	80	30800	98	48300	154
M20	4	39400	158	48000	192	75600	302
M24	4.8	56800	272	69100	332	108000	518
M30	6	90300	542	109000	654	172000	1032
M36	7.2	131000	943	160000	1152	151000	1807

Bolt Size	Pitch 0.2d (mm)	Grade		Grade		Grade	
		8.8		10.9		12.9	
		Force	Torque	Force	Torque	Force	Torque
		N	T (Nm)	N	T (Nm)	N	T (Nm)
M8	1.6	14800	23	21200	34	24800	39
M10	2	23500	47	33600	67	39400	78
M12	2.4	35400	85	49000	118	57200	137
M16	3.2	66100	211	91000	291	106000	339
M20	4	102000	408	142000	568	166000	664
M24	4.8	148000	710	205000	984	239000	1174
M30	6	235000	1410	326000	1956	380000	2280
M36	7.2	343000	2470	474000	3412	554000	3988

## Hose Torque Chart

When tightening hoses and tubes, refer to the following table:

Hose Size		Md (Nm)	Hose Size		Md (Nm)
6	L	20	18	L	120
8	L	40	20	S	250
12	L	55	25	S	400
15	L	70	30	S	500
16	S	130	38	S	800

## TROUBLESHOOTING AND REPAIRS

Everyone involved with the operation, maintenance, inspection, and repair of the machine **MUST READ** and **UNDERSTAND** this manual and the accompanying American Concrete Pumping Association (ACPA) Safety Manual.



Troubleshooting and repairs must be performed by trained, experienced, and certified personnel in the appropriate fields. The following troubleshooting guide is a general guide to aid trained, experienced, and certified personnel identify and repair potential issues only.

Contact REED Technical Support and Service when assistance is required.

## Pumping System Troubleshooting

### Piston of Drive Cylinder Does Not Move

- 1) Connection wire to pumping start button loose or disconnected; check and replace if necessary.
- 2) Auxiliary relay burnt; check and replace if necessary.
- 3) Solenoid directional control valve failure; typically coil failure; check and replace if necessary.
- 4) Improper adjustment of pumping volume switch; check and adjust if necessary.
- 5) Insufficient hydraulic oil inside hydraulic cylinder; check and adjust if necessary.
- 6) Filter element severely blocked; check and replace if necessary.

### Piston of Drive Cylinder Does Not Change Direction

- 1) Gap between proximity switch and induction shield too large; adjust the gap to within 2~3mm if necessary.
- 2) Bottom surface of proximity switch become insulated due to grease or the other contaminants; clean bottom surface of the proximity switch if necessary.
- 3) Wrong placement of two proximity switches; check and adjust if necessary.
- 4) Failure of proximity switches; check and replace if necessary.
- 5) Coil of solenoid directional control valve failure; check and replace if necessary.

- 6) Auxiliary relay burnt; check and replace if necessary.

#### Piston of Drive Cylinder Slow

- 1) Drive cylinder check valve damaged; check and replace if necessary.
- 2) Improper adjustment of pumping volume switch; check and adjust if necessary.
- 3) Insufficient control pressure. Adjust main pump charge pressure to 3MPa and flushing valve to 2.5Mpa if necessary.
- 4) Blockage of filter element or insufficient oil pressure; check and replace if necessary.
- 5) Incorrect RPM; check and adjust if necessary.
- 6) Failure of directional control valve; spool cannot move to the required position; check and replace if necessary.

#### Concrete Output of Poor Condition: Irregular or Insufficient Concrete Output

- 1) Severe wear of concrete piston; check and replace if necessary.
- 2) Gap between wear plate and wear ring too large; check and adjust if necessary.
- 3) Poor quality of supplied concrete; demand quality concrete.
- 4) S-tube partially blocked; check and clear if necessary.

#### Pumping Does Not Stop

- 1) KAI contact point of auxiliary relay burnt and damaged; check and replace if necessary.
- 2) Failure of shutdown switch; check and replace if necessary.

#### S-Tube Does Not Swing

- 1) S-tube blocked with object; check and clear if necessary.
- 2) Failure of pilot relief valve occurred and caused insufficient reversing pressure; check and replace if necessary.
- 3) Failure of accumulator pump causes insufficient pressure; check and replace if necessary.
- 4) Poor quality of aggregate or long shutdown time; demand quality concrete and/or cycle during downtime to prevent blockage.

#### S-Tube Weak Swing

- 1) Insufficient pressure inside accumulator or bladder. Recharge gas into the bladder and make nitrogen pressure larger than 10.5MPa or replace it with a new accumulator bladder and recharge it to 10.5MPa if necessary.
- 2) Load releasing switch not fully closed; check and replace if necessary.
- 3) Oil leakage in swing cylinder; check and replace if necessary.
- 4) Spool of pilot relief valve severely worn and damaged which causes reversing pressure be lower than 15MPa; check and replace if necessary.
- 5) Coil failure of directional control valve or spring breaking of valve spool: abrasion of spool of the directional control valve occurs and internal leakage appears; check and replace if necessary.

#### S-Tube Has Insufficient Swing

- 1) Copper alloy bearing of swing oil cylinder has distortion or non-uniform thickness; check and replace if necessary.
- 2) See S-Tube Weak Swing section

#### Concrete Leakage of S-Tube

- 1) Sleeve of the s-tube has distortion or the bearing is severely worn and has a large gap; check and replace if necessary.

#### Lubrication System

- 1) Lube distributor fully clogged; check and clear if necessary.
- 2) Failure of check valve of the lubricating pump; check and replace if necessary.
- 3) Failure of relief valve of lubricating system; check and replace if necessary.

- 4) High viscosity lube cannot pass filtration screen; check and replace if necessary.
- 5) Lube line is fully blocked; typically the lubricating point at the s-tube outlet; check and clear if necessary.

#### Agitation System

- 1) Poor aggregate; agitation resistance too large; check concrete and demand quality concrete.
- 2) Adjustment pressure of agitation relief valve insufficient; adjust the pressure to 12MPa if necessary.
- 3) Agitation blade damaged; check and replace if necessary.
- 4) Gear pump of agitation system damaged; check and replace if necessary.
- 5) Operation lever of reversing valve is broken; check and replace if necessary.
- 6) Agitation shaft or shaft liner damaged; check and replace if necessary.

#### Proximity Switches

- 1) Bottom surface has accumulated oil and waste, which has caused ineffective induction; check and replace if necessary.
- 2) Gap too large and causing ineffective induction; check and adjust to 2-3mm if necessary.
- 3) Water temperature in the water box too high causing irregular swing of s-tube; check and add cool water if necessary.
- 4) Fully damaged; check and replace if necessary.

#### Accumulator

- 1) Accumulator charge leakage; check bladder pressure with appropriate accumulator charge kit and replace if necessary.

#### Cooler

- 1) Temperature activating switch damaged; check and replace if necessary.
- 2) Cooler solenoid valve damaged; check and replace if necessary.

#### Oil Overheating

- 1) High pumping volume of low quality concrete; lower output volume of concrete until quality concrete is delivered.
- 2) Blockage causing overheating; check for and clear blockage if necessary.
- 3) See section regarding Cooler.

## **Boom System Troubleshooting**

#### Boom Inoperable

- 1) Insufficient pressure in boom hydraulic system; check maximum pressure and adjust if necessary. If desired maximum pressure cannot be achieved, check hydraulic pump and replace if necessary.
- 2) Control valve damaged. Check electrical signals to coils and manually actuate control valve to identify issue and replace if necessary.

#### Boom Vibration

- 1) Insufficient lubrication; check and lubricate lubrication points if necessary.
- 2) Boom pins and other articulating parts damaged; check and replace if necessary.
- 3) Rotational thrust bearing and rotating gears too large; check and replace if necessary.
- 4) Bolts of rotational thrust bearing are loose; fasten and/or replace bolts if necessary.

#### Boom Rotation Too Slow or Not Rotating

- 1) Valve blocked; check and clear if necessary.

- 2) Boom pump not horizontal; check and adjust if necessary.

**Boom Abnormal Operation**

- 1) Control valve blocks dirty or damaged; check and clean or replace if necessary.
- 2) Oil leakage in hydraulic cylinder; replace seals if necessary.

**Cannot Lubricate Pins**

- 1) Lubricating units blocked or damaged; check and replace if necessary.
- 2) Blockage in lubricating groove; check and clear if necessary.



# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

---

<b>CHAPTER 1 MACHINE OVERVIEW .....</b>	<b>3</b>
<b>CHAPTER 2 BOOM .....</b>	<b>4</b>
<b>2.1 MASTHEAD ASSEMBLY XBC39.2.9 .....</b>	<b>4</b>
<b>2.2 BOOM SECTION 1 XBC39.1.1 .....</b>	<b>6</b>
2.2.1 SECTION 1 XBC39.1.1.1 .....	6
2.2.1-1 CYLINDER 1 OF SECTION 1 ZBC37.1.1.3 .....	10
2.2.1-2 CYLINDER 2 OF SECTION 1 ZBC39.1.11 .....	12
<b>2.3 BOOM SECTION 2 XBC39.1.2 .....</b>	<b>14</b>
2.3.1 SECTION 2 XBC39.1.2.1 .....	14
2.3.1-1 CYLINDER OF SECTION 2 ZBC37.1.2.3 .....	18
<b>2.4 BOOM SECTION 3 XBC39.1.3 .....</b>	<b>20</b>
2.4.1 SECTION 3 XBC39.1.3.1 .....	20
2.4.1-1 CYLINDER OF SECTION 3 ZBC37.1.3.5 .....	24
<b>2.5 BOOM SECTION 4 ZBC39.1.4 .....</b>	<b>26</b>
2.5.1 SECTION 4 ZBC39.1.4.1 .....	26
2.6 DELIVERY PIPE .....	28
2.6.1 BOOM DELIVERY PIPE XBC39.11 .....	28
SUPPORT OF SECTION 1 DELIVERY PIPE XBC39.11.1 .....	31
SUPPORT OF SECTION 2 DELIVERY PIPE XBC39.11.2 .....	35
SUPPORT OF SECTION 3 DELIVERY PIPE XBC39.11.3 .....	37
SUPPORT OF SECTION 4 DELIVERY PIPE XBC39.11.4 .....	39
2.6.2 DECK DELIVERY PIPE BC37.3 .....	42
SUPPORT 1 OF DECK DELIVERY PIPE .....	45
SUPPORT 2 OF DECK DELIVERY PIPE .....	46
SUPPORT 3 OF DECK DELIVERY PIPE .....	47
SUPPORT 4 OF DECK DELIVERY PIPE .....	48
<b>CHAPTER 3 PEDESTAL AND OUTRIGGERS .....</b>	<b>49</b>
EXTEND CYLINDER XBC39.2.8 .....	50
SWINGOUT CYLINDER ZBC37.2.7 .....	50
3.1 ROTATION ASSEMBLY AND DRIVE ZBC37.2.2 .....	52
3.2 HYDRAULIC JACK CYLINDER XBC39.00-3012 .....	54
3.3 HYDRAULIC SWINGOUT CYLINDER ZBC37.2.7 .....	56
3.4 HYDRAULIC EXTEND CYLINDER XBC39.2.8 .....	58
3.5 HYDRAULIC TANK ASSEMBLY XBC39.2.6 .....	60
3.6 WATER TANK ASSEMBLY XBC38.2.7 .....	62
<b>CHAPTER 4 PUMPING SYSTEM .....</b>	<b>64</b>
4.2 HOPPER ASSEMBLY BC37.3.1 .....	68





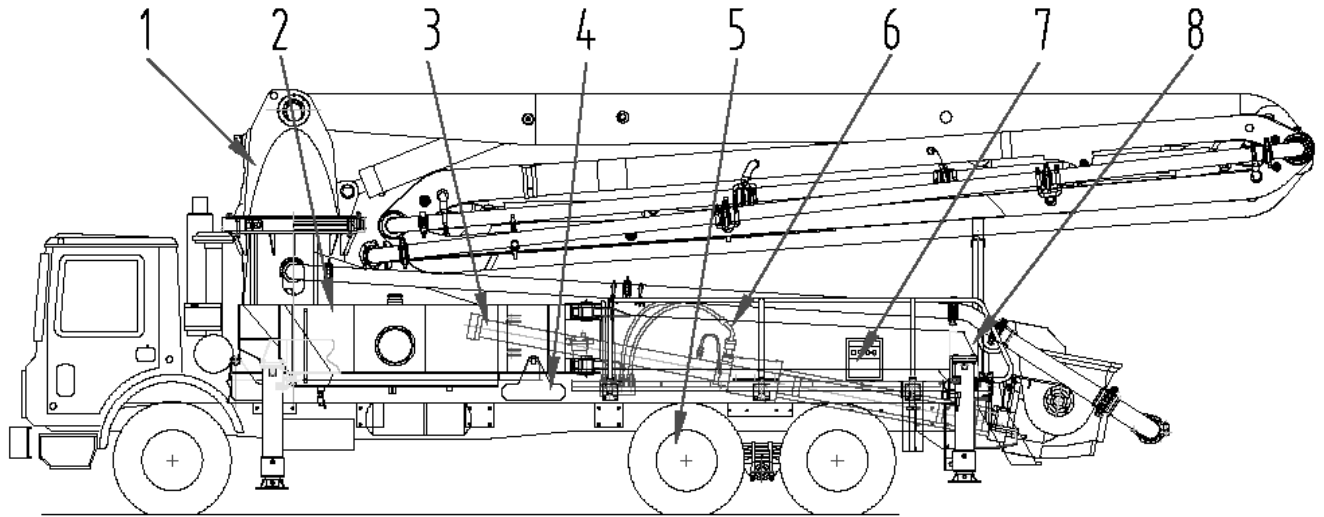
# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

---

4.4 DRIVE CYLINDER BC37.3.5.....	72
4.5 SHIFT CYLINDER XBCY39.00-6233.....	75
4.6 S-TUBE ASSEMBLY BC37.3.2.....	77
4.7 AGITATOR ASSEMBLY.....	81
<b>CHAPTER 5 SUBFRAME ASSEMBLY.....</b>	<b>86</b>
5.1 BOOM REST.....	88
5.2 REAR OUTRIGGER LOCK ZBC37.4.5.....	89
5.3 GEARBOX ASSEMBLY BC42.5.2.....	90
<b>CHAPTER 6 HYDRAULIC SYSTEM.....</b>	<b>92</b>
6.1 PUMPING SYSTEM XBC39.6.1.....	92
6.2 SHIFTING SYSTEM XBC39.6.2.....	95
6.4 BOOM SYSTEM XBC39.6.4.....	101
6.5 OUTRIGGER SYSTEM XBC39.6.5.....	103
<b>CHAPTER 7 ELECTRICAL CONTROL SYSTEM.....</b>	<b>105</b>
<b>7.1 CONTROL SYSTEM XBC39.7.....</b>	<b>105</b>
7.2 CONTROL BOX.....	106
<b>CHAPTER 8 LUBRICATION SYSTEM.....</b>	<b>107</b>
8.1 LUBRICATION SYSTEM.....	107

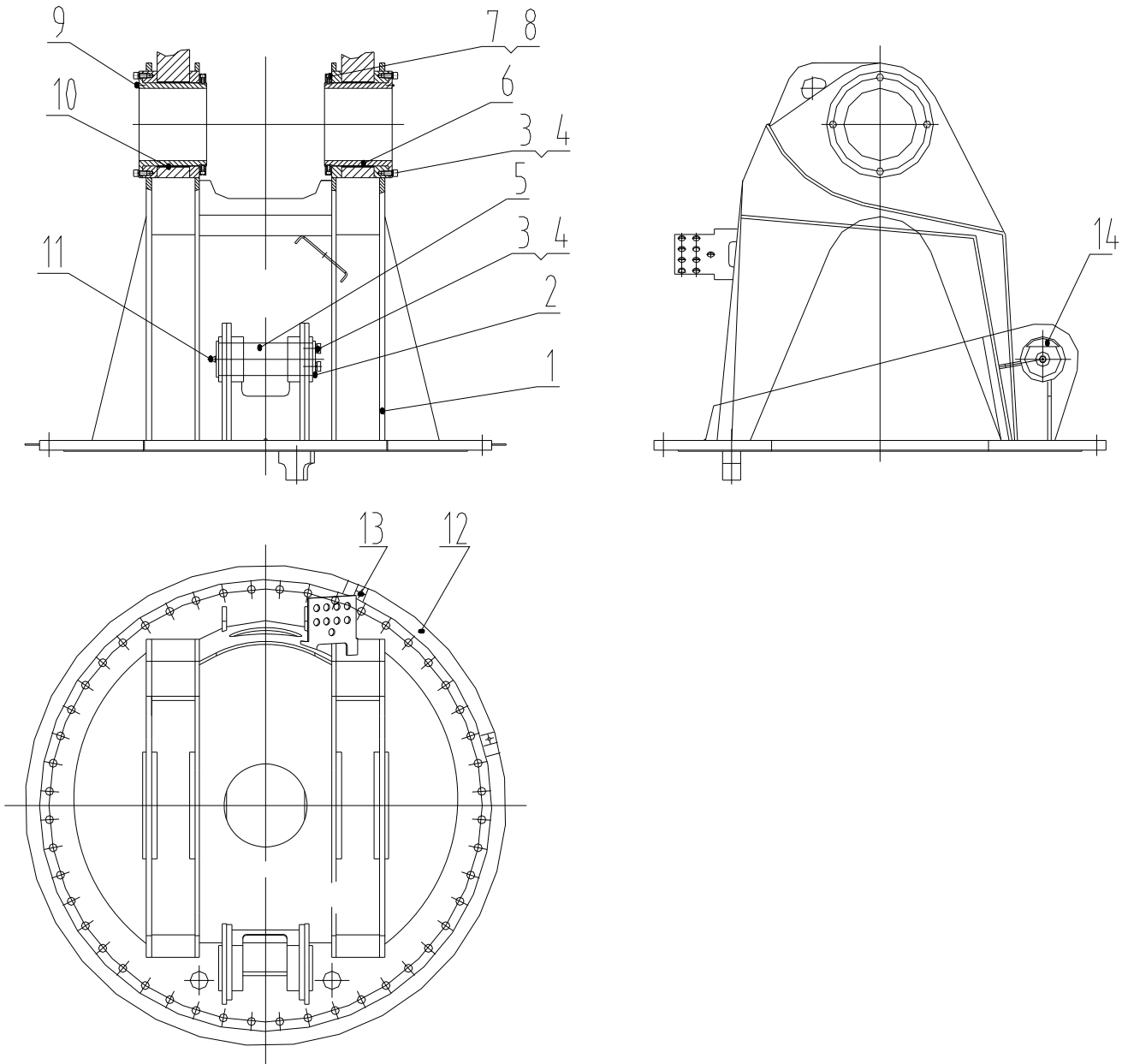
## CHAPTER 1 MACHINE OVERVIEW



No.	Description	Group Number	Material	Parent	Weight	Quantity
1	boom	XBC39.1		XT39R4V00		1
2	pedestal	XBC39.2		XT39R4V00		1
3	pumping system	XBC39.3		XT39R4V00		1
4	subframe	XBC39.4		XT39R4V00		1
5	chassis	XBC39.5		XT39R4V00		1
6	hydraulic system	XBC39.6		XT39R4V00		1
7	electrical system	XBC39.7		XT39R4V00		1
8	lubrication system	XBC39.8		XT39R4V00		1

## CHAPTER 2 BOOM

### 2.1 MASTHEAD ASSEMBLY XBC39.2.9





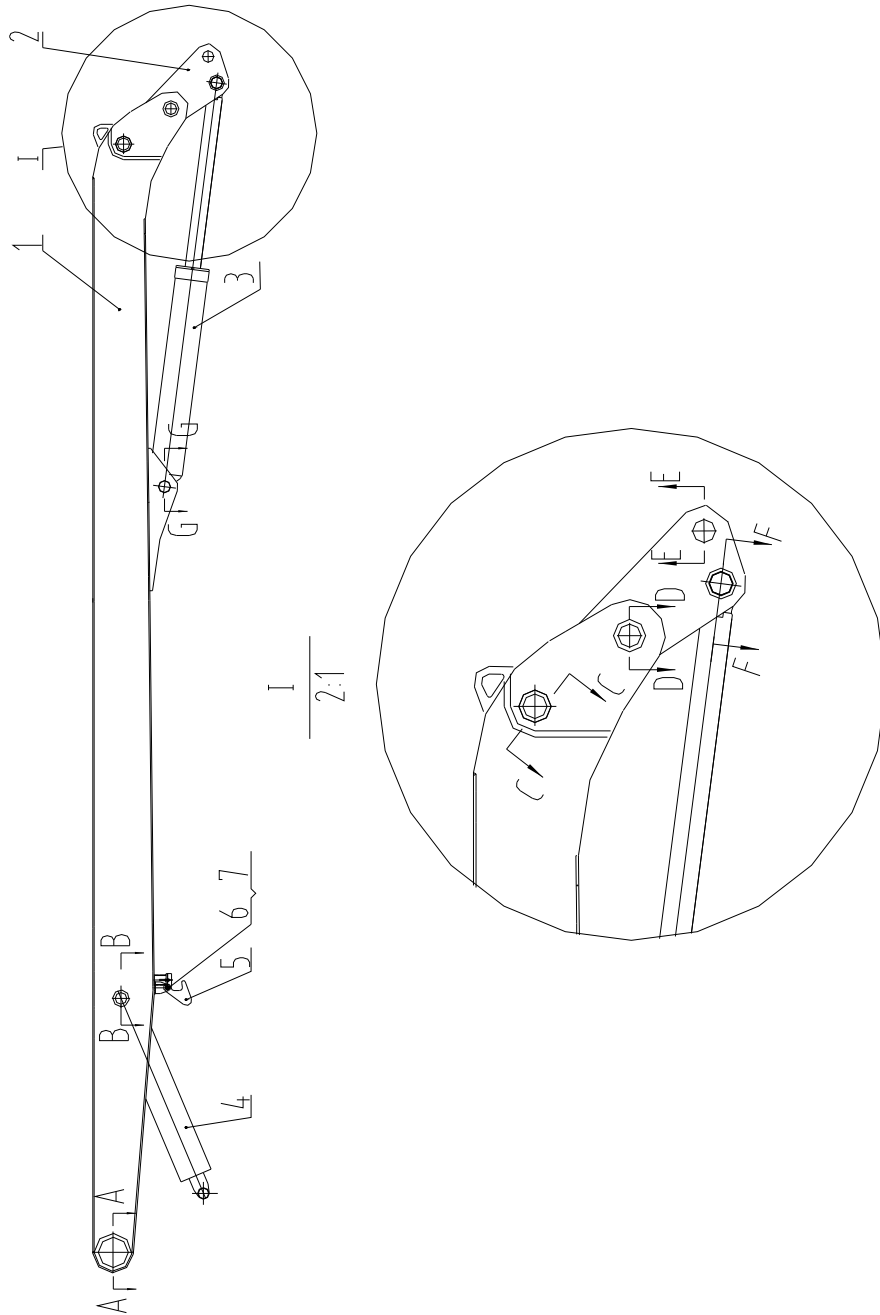
# XT39R4V00

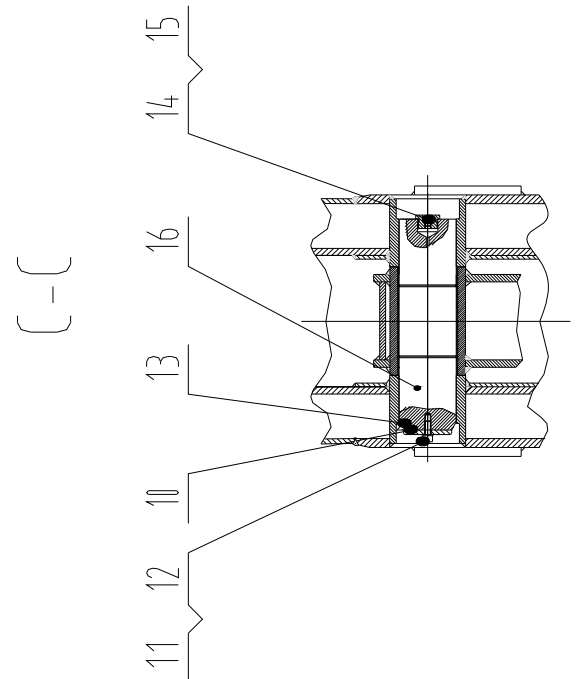
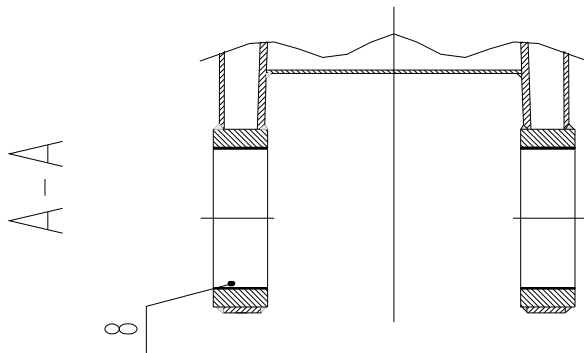
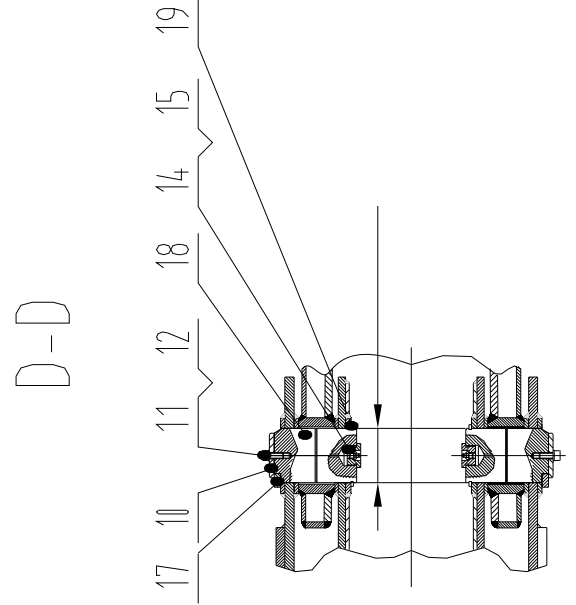
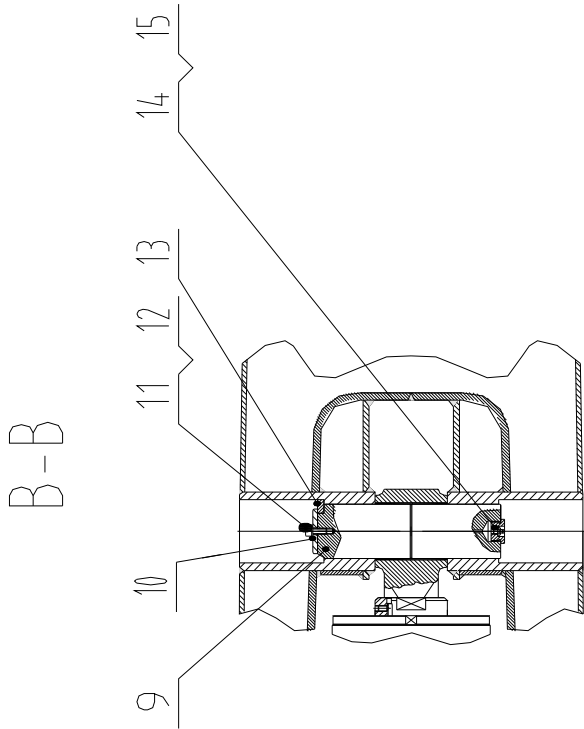
**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

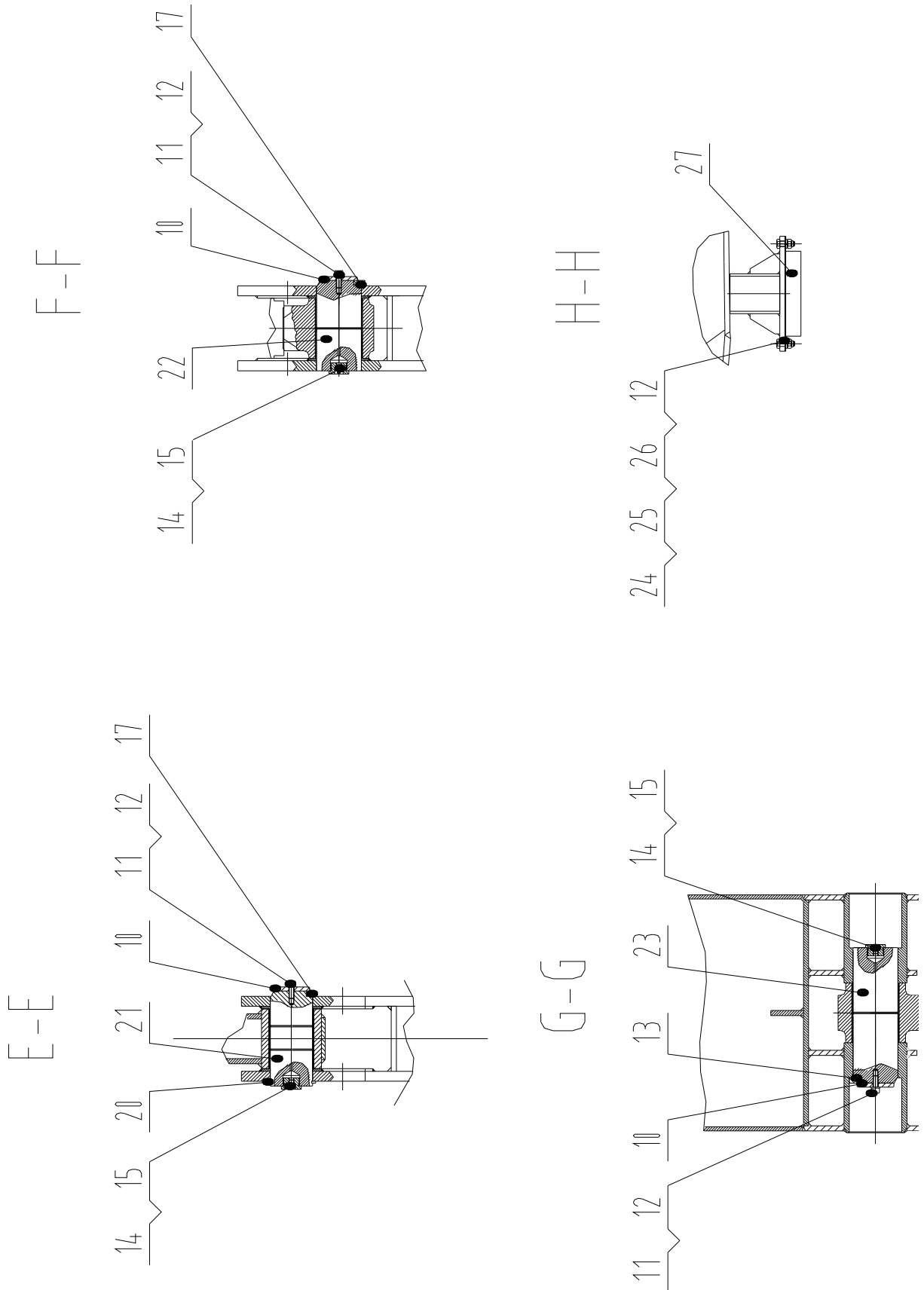
No.	Description	Part Number	Material	Parent	Weight	Quantity
1	masthead weldment	XBC39.2.9.1		XBC39.2.9		1
2	plate,guide plate	ZBC37.2.1-1		XBC39.2.9		1
3	bolt M12X25	CB00000014		XBC39.2.9		15
4	washer 12	CW00000003		XBC39.2.9		15
5	pin	ZBC37.2.1-2		XBC39.2.9		1
6	pin,hollow pin	ZBC37.2.1-3		XBC39.2.9		2
7	bolt M8 x 25	CB00000052		XBC39.2.9		4
8	nut M230	ZBC37.2.1-4		XBC39.2.9		2
9	Nipple,grease M6 x 1	CL00000002		XBC39.2.9		2
10	bearing	ZBC37.2.1-5		XBC39.2.9		2
11	Nipple,grease M8 x 1	CL00000003		XBC39.2.9		1
12	cover,protection	ZBC37.2.1-6		XBC39.2.9		1
13	bolt M5 x 8	CB00000039		XBC39.2.9		2
14	plate	ZBC37.2.1-7		XBC39.2.9		1

## 2.2 BOOM SECTION 1 XBC39.1.1

### 2.2.1 SECTION 1 XBC39.1.1.1









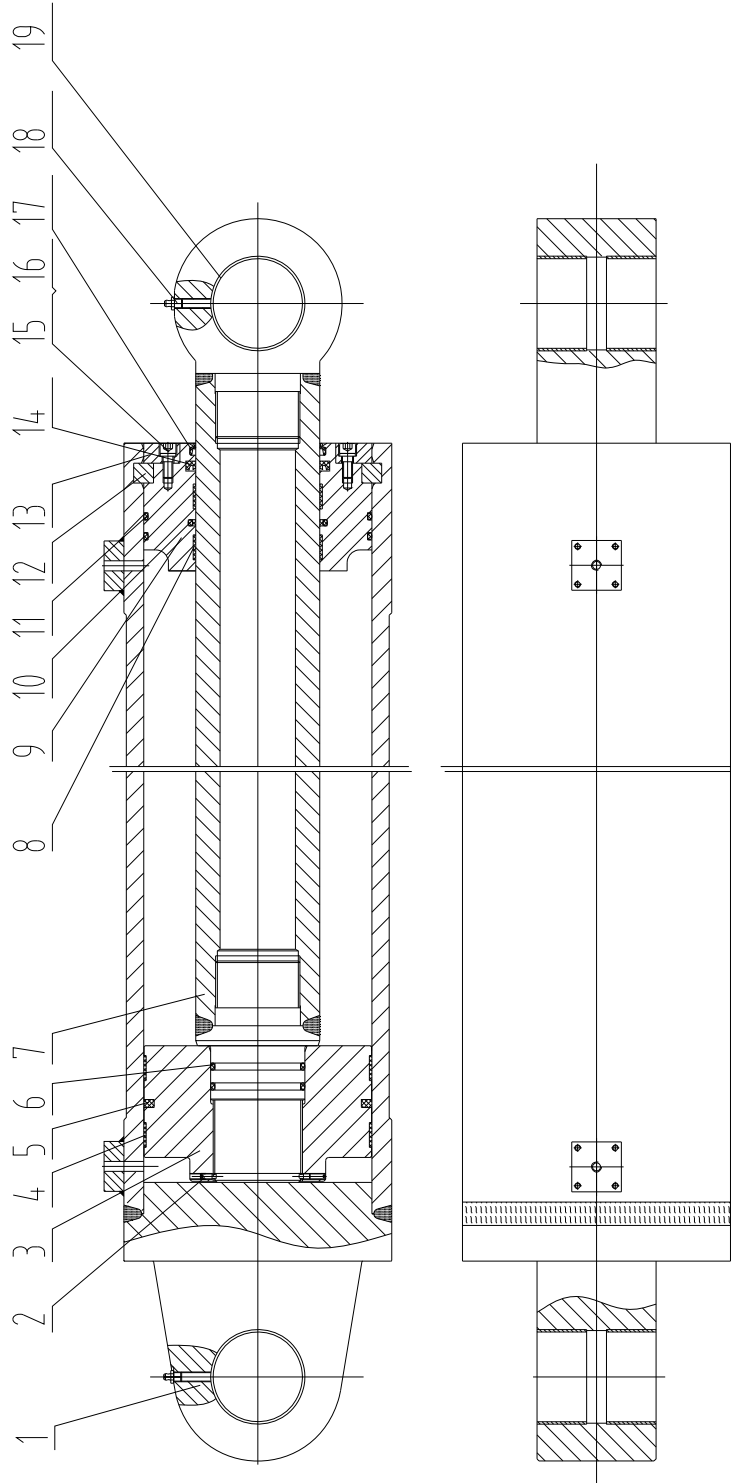
# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	section 1	XBC39.1.1.1		XBC39.1.1		1
2	link,lever link	ZBC37.1.1.2		XBC39.1.1		1
3	cylinder 1 section 1	ZBC37.1.1.3		XBC39.1.1		1
4	cylinder 2 section 1	ZBC39.1.11		XBC39.1.1		1
5	hook	ZBC37.1.1-1		XBC39.1.1		1
6	pin 30 × 60	ZBC37.1.1-2		XBC39.1.1		1
7	pin,cotter pin 6.3 × 55	C100000007		XBC39.1.1		1
8	boss,pin boss	ZBC37.1.1.5		XBC39.1.1		1
9	bushingΦ235×Φ230×90	ZBC37.1.1-3		XBC39.1.1		2
10	pin Φ90 × 304	ZBC37.1.1-4		XBC39.1.1		1
11	ring,snap ring	ZBC37.1.1-5		XBC39.1.1		7
12	bolt M10 × 25	CB00000005		XBC39.1.1		7
13	washer 10	CW00000001		XBC39.1.1		13
14	plate 1	ZBC37.1.1-6		XBC39.1.1		3
15	plug,screw plug	ZBC37.1.1-7		XBC39.1.1		7
16	nipple,grease M10	CL00000001		XBC39.1.1		7
17	pin Φ95 × 350	ZBC37.1.1-8		XBC39.1.1		1
18	plate 2	ZBC37.1.1-9		XBC39.1.1		4
19	pin Φ90 × 137	ZBC37.1.1-10		XBC39.1.1		2
20	ring,snap ring shaft 90	CD00000006		XBC39.1.1		2
21	ring,snap ring shaft 85	CD00000005		XBC39.1.1		1
22	pin Φ85 × 190	ZBC37.1.1-11		XBC39.1.1		1
23	pin Φ90 × 180	ZBC37.1.1-12		XBC39.1.1		1
24	pin Φ90 × 271	ZBC37.1.1-13		XBC39.1.1		1
25	bolt M10 × 30	CB00000007		XBC39.1.1		2
26	washer 10	CW00000002		XBC39.1.1		2
27	nut M10	CN00000001		XBC39.1.1		2



## 2.2.1-1 CYLINDER 1 OF SECTION 1 ZBC37.1.1.3



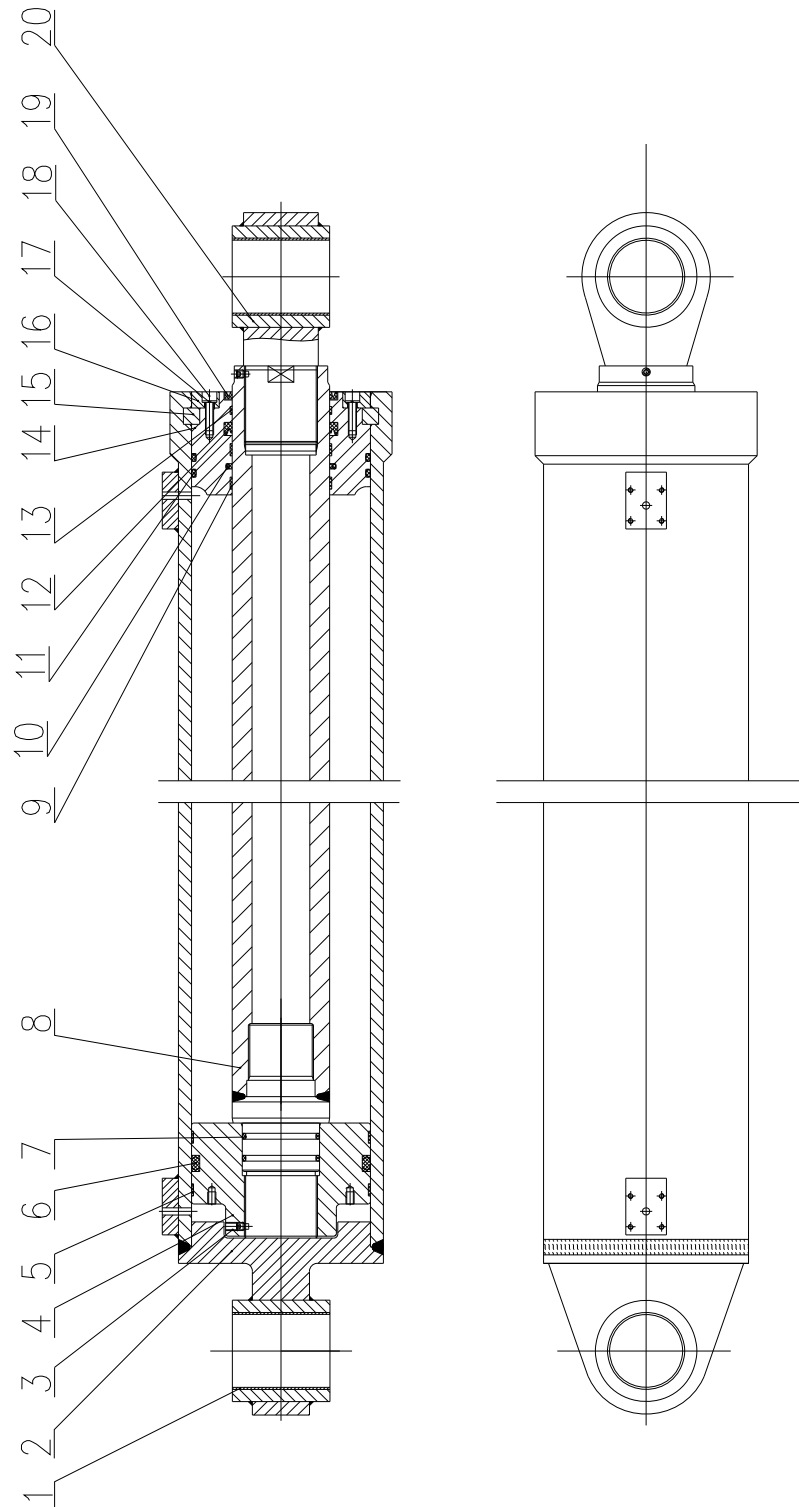


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	cylinder body	XBC3900211101	weldment	ZBC37.1.1.3		1
2	bolt M6 x 16	CB00000042		ZBC37.1.1.3s		2
3	piston	XBC3900211103		ZBC37.1.1.3		1
4	ring,guide ring 230 x 225 x25	XBC3900211104		ZBC37.1.1.3s		2
5	seal,bearing seal 230 x 210 x 16	XBC3900211105		ZBC37.1.1.3s		1
6	O-ring 85.09 x 5.33	XBC3900211106		ZBC37.1.1.3s		2
7	rod,piston rod	XBC3900211107		ZBC37.1.1.3		1
8	ring,guide ring 130x125x25	XBC3900211108		ZBC37.1.1.3s		2
9	carrier,seal carrier	XBC3900211109		ZBC37.1.1.3		1
10	seal,bearing seal 125 x 140.1 x 6.3	XBC3900211110		ZBC37.1.1.3s		1
11	O-ring 221.62 x 5.33	XBC3900211111		ZBC37.1.1.3s		1
12	ring,key ring	XBC3900211112		ZBC37.1.1.3s		1
13	ring,snap ring	XBC3900211113		ZBC37.1.1.3s		1
14	seal,bearing seal 125 x 145 x 16	XBC3900211114		ZBC37.1.1.3s		1
15	bolt M10 x 25	CB00000004		ZBC37.1.1.3s		6
16	washer 10	CW00000001		ZBC37.1.1.3s		6
17	seal,ring 125 x 133.8	XBC3900211117		ZBC37.1.1.3s		1
18	nipple M10	CL00000001		ZBC37.1.1.3s		2
19	bearing 90 x 95 x 120	XBC3900211119		ZBC37.1.1.3s		2

## 2.2.1-2 CYLINDER 2 OF SECTION 1 ZBC39.1.11





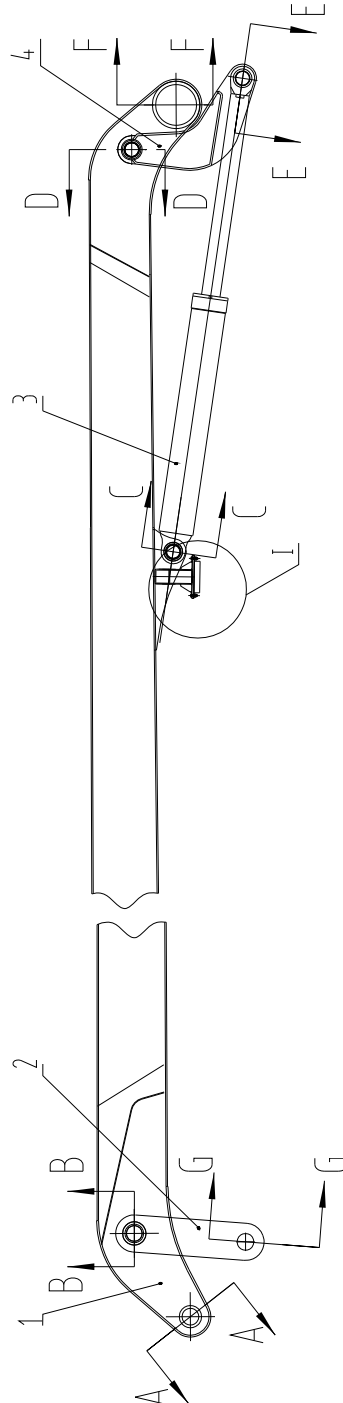
# XT39R4V00

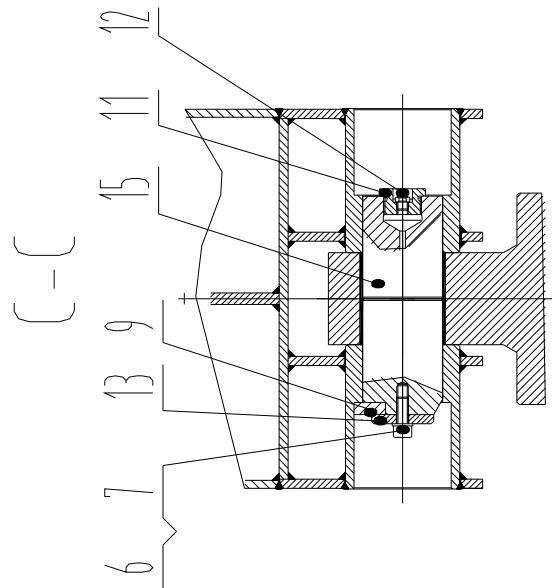
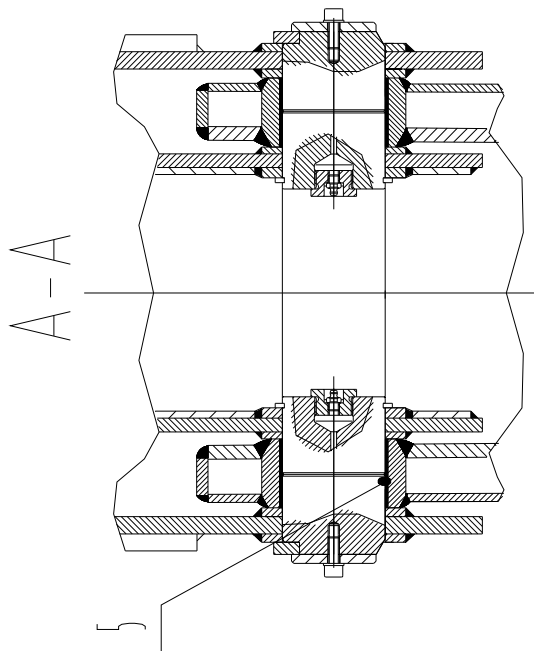
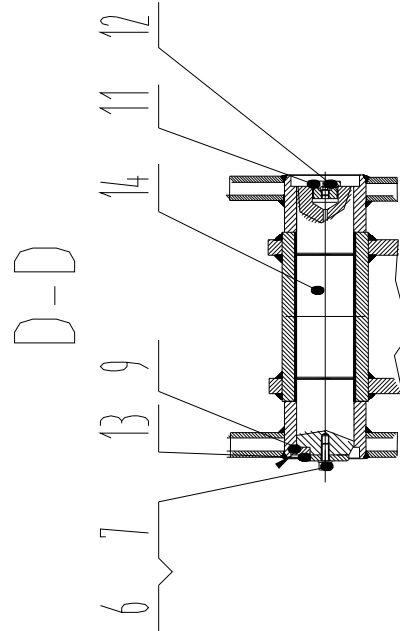
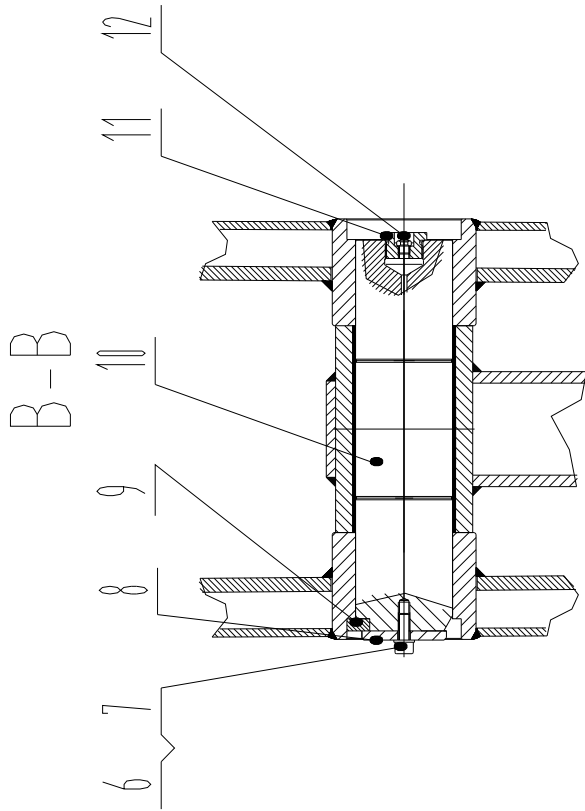
**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

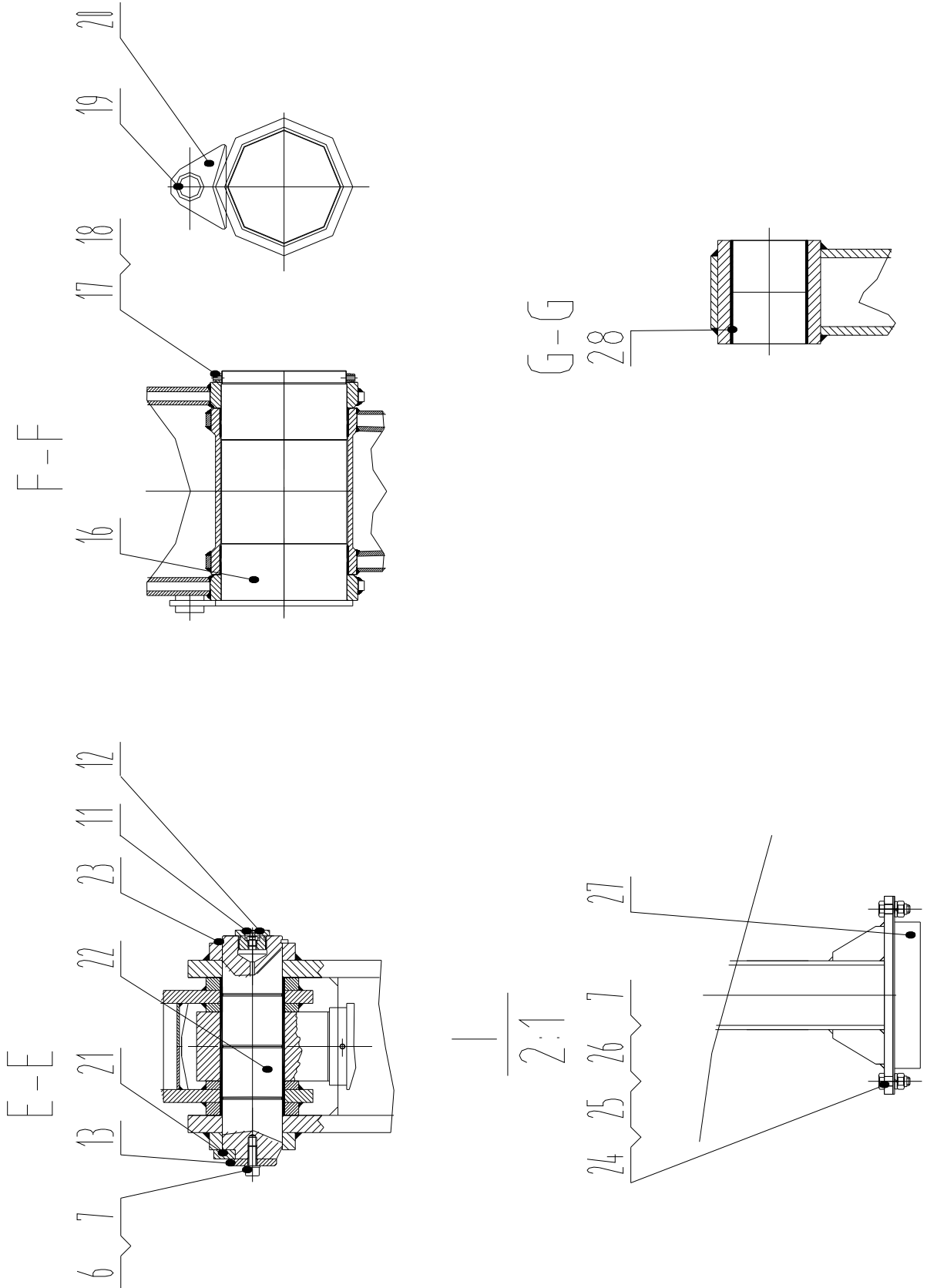
No.	Description	Part Number	Material	Parent	Weight	Quantity
1	bearing 90 × 95 × 120	XBC3900211201		ZBC39.1.11s		2
2	cylinder body	XBC3900211202		ZBC39.1.11		1
3	bolt M10 × 15	CB00000001		ZBC39.1.11s		2
4	piston	XBC3900211204		ZBC39.1.11		1
5	ring,guide ring 220 × 215 × 15	XBC3900211205		ZBC39.1.11s		2
6	seal,piston seal 220 × 200 × 16	XBC3900211206		ZBC39.1.11s		1
7	O-ring 85 × 5.3	CO00000014		ZBC39.1.11s		2
8	rod,piston rod assembly	XBC3900211208		ZBC39.1.11		1
9	ring,guide ring 120 × 125 × 15	XBC3900211209		ZBC39.1.11s		2
10	seal,bearing seal120 × 6.3	XBC3900211210		ZBC39.1.11s		1
11	O-ring 206 × 7	CO00000013		ZBC39.1.11s		2
12	seal,bearing seal120 × 140 × 14.5	XBC3900211212		ZBC39.1.11s		1
13	ring,supporting ring 120 × 125 × 9.7	XBC3900211213		ZBC39.1.11s		1
14	carrier,seal carrier	XBC3900211214		ZBC39.1.11		1
15	ring,key ring	XBC3900211215		ZBC39.1.11s		1
16	ring,snap ring	XBC3900211216		ZBC39.1.11s		1
17	washer 10	CW00000001		ZBC39.1.11s		6
18	bolt M10 × 25	CB00000004		ZBC39.1.11s		6
19	seal, ring 120 × 140 × 10	XBC3900211219		ZBC39.1.11s		1
20	clevis,rod end clevis	XBC3900211220		ZBC39.1.11		1

## 2.3 BOOM SECTION 2 XBC39.1.2

### 2.3.1 SECTION 2 XBC39.1.2.1







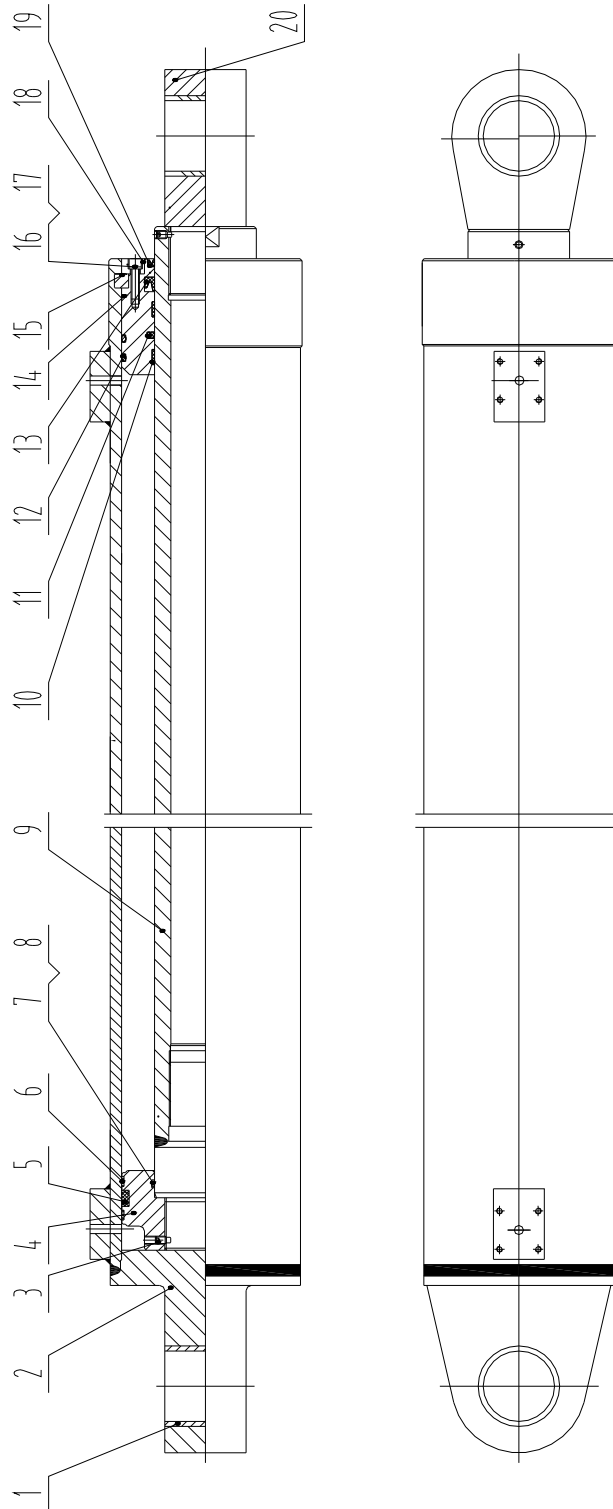


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	section 2	XBC39.1.2.1		XBC39.1.2		1
2	link,pressure link	ZBC37.1.2.2		XBC39.1.2		1
3	cylinder of section 2	ZBC37.1.2.3		XBC39.1.2		1
4	link,lever link	ZBC37.1.2.4		XBC39.1.2		1
5	bushing $\phi 95 \times \phi 90 \times 60$	ZBC37.1.2-1		XBC39.1.2		2
6	bolt M10 $\times$ 25	CB00000005		XBC39.1.2		4
7	washer 10	CW00000001		XBC39.1.2		10
8	ring,snap ring	ZBC37.1.1-5		XBC39.1.2		1
9	plate 1	ZBC37.1.1-6		XBC39.1.2		3
10	pin $\phi 85 \times 340$	ZBC37.1.2-2		XBC39.1.2		1
11	plug,screw plug	ZBC37.1.1-7		XBC39.1.2		4
12	nipple M10 $\times$ 1	CL00000001		XBC39.1.2		4
13	ring,snap ring	ZBC37.1.2-3		XBC39.1.2		3
14	pin $\phi 75 \times 350$	ZBC37.1.2-4		XBC39.1.2		1
15	pin $\phi 70 \times 190$	ZBC37.1.2-5		XBC39.1.2		1
16	bushing	ZBC37.1.2-6		XBC39.1.2		1
17	nut M218 $\times$ 3	ZBC37.1.2-7		XBC39.1.2		1
18	bolt M6 $\times$ 8	CB00000041		XBC39.1.2		2
19	pipe	ZBC37.1.2-8		XBC39.1.2		1
20	plate,position plate	ZBC37.1.2-9		XBC39.1.2		1
21	plate 2	ZBC37.1.1-9		XBC39.1.2		1
22	pin $\phi 70 \times 259$	ZBC37.1.2-10		XBC39.1.2		1
23	ring,snap ring for shaft 70	CD00000010		XBC39.1.2		1
24	bolt M10 $\times$ 30	CB00000007		XBC39.1.2		2
25	washer 10	CW00000002		XBC39.1.2		2
26	nut M10	CN00000001		XBC39.1.2		2
27	block,bumper block	ZBC38.1.1.7		XBC39.1.2		1
28	bushing $\phi 85 \times \phi 90 \times 60$	ZBC37.1.2-11		XBC39.1.2		2



**2.3.1-1 CYLINDER OF SECTION 2 ZBC37.1.2.3**



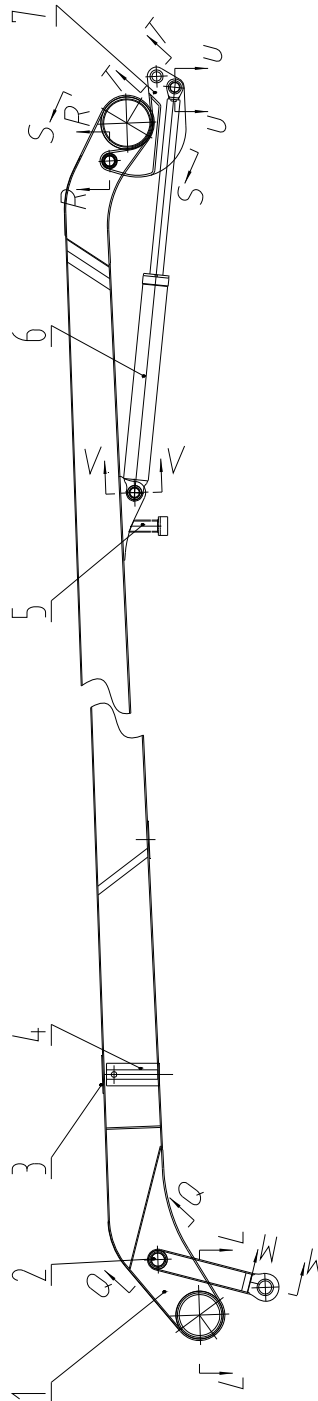
# XT39R4V00

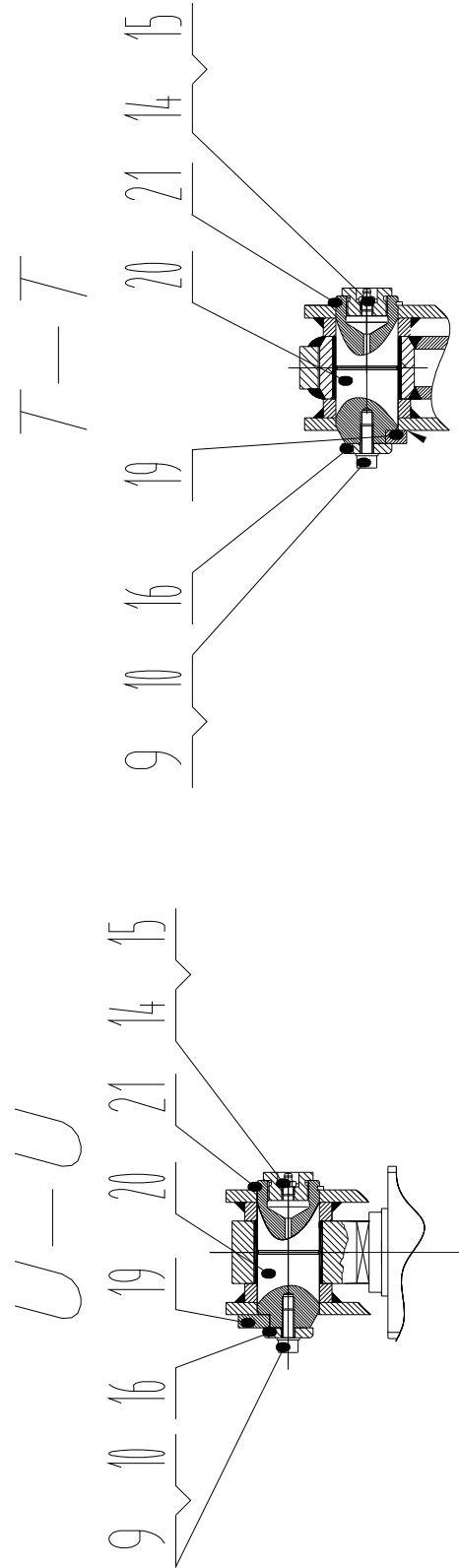
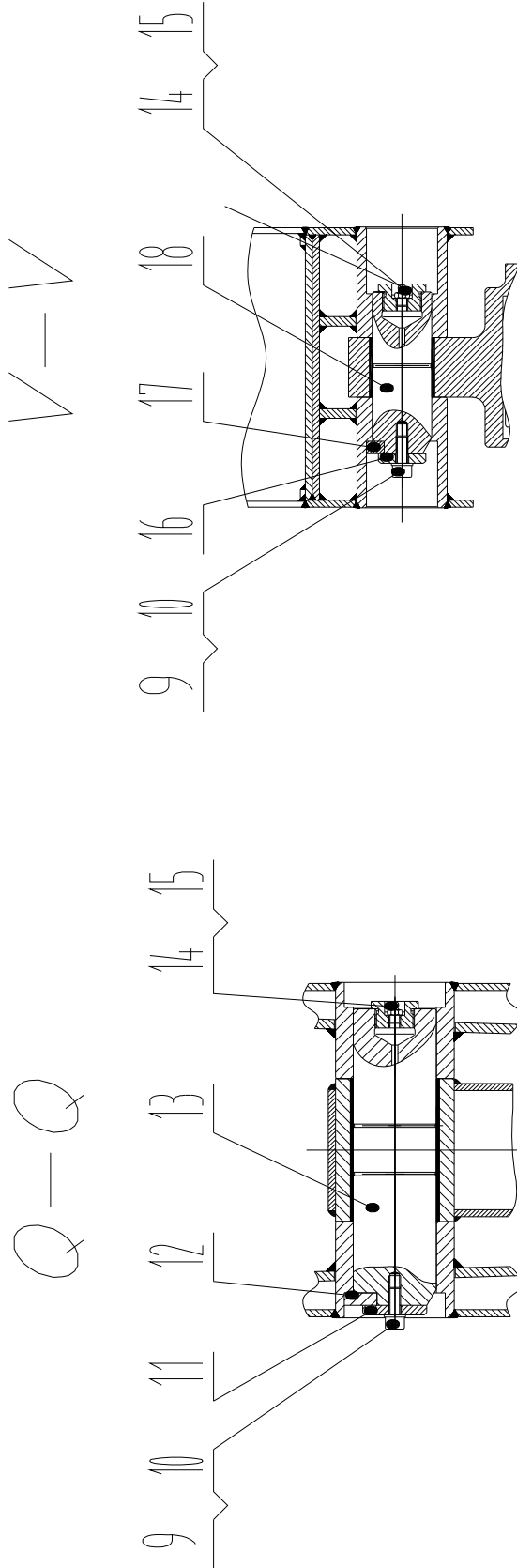
**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

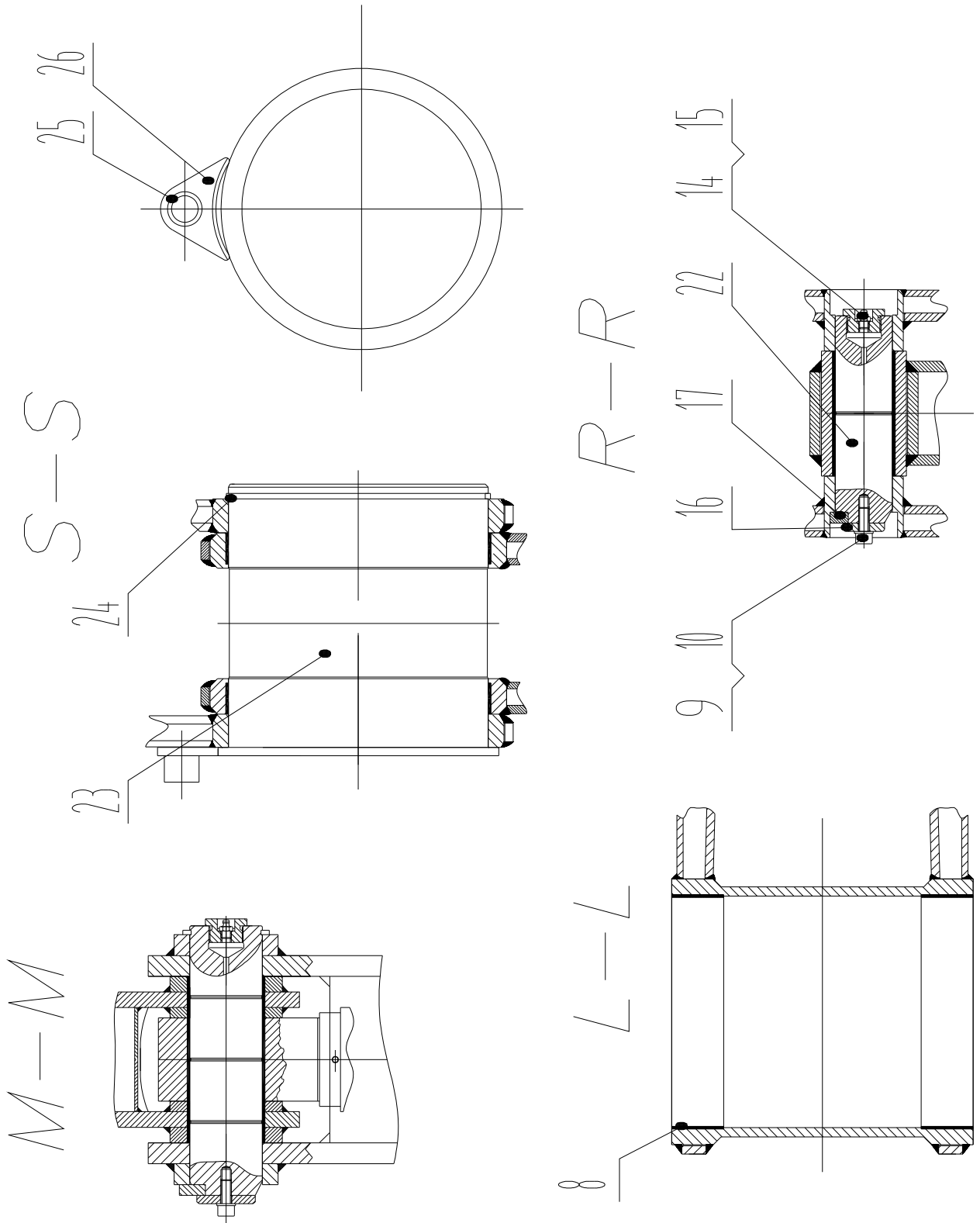
No.	Description	Part Number	Material	Parent	Weight	Quantity
1	bearing 70 × 75 × 80	XBC3900221101		ZBC37.1.2.3s		2
2	cylinder body	XBC3900221102		ZBC37.1.2.3		1
3	bolt M8 × 15	CB00000044		ZBC37.1.2.3s		2
4	piston	XBC3900221104		ZBC37.1.2.3		1
5	seal,piston seal 165 × 142 × 15.5	XBC3900221105		ZBC37.1.2.3s		1
6	ring,guide ring 165 x 160 x 9.7	XBC3900221106		ZBC37.1.2.3s		2
7	O-ring 98.02 x 3.53	CO00000007		ZBC37.1.2.3s		1
8	ring,snap ring	XBC3900221108		ZBC37.1.2.3s		2
9	rod,piston rod assembly	XBC3900221109		ZBC37.1.2.3		1
10	ring,guide ring 100 × 105 × 15	XBC3900221110		ZBC37.1.2.3s		2
11	seal,bearing seal 100 × 6.3	XBC3900221111		ZBC37.1.2.3s		1
12	O-ring 155 x 5.3	CO00000012		ZBC37.1.2.3s		2
13	seal,bearing seal100 × 120 × 14.5	XBC3900221113		ZBC37.1.2.3s		1
14	carrier,seal carrier	XBC3900221114		ZBC37.1.2.3		1
15	ring,key ring	XBC3900221119		ZBC37.1.2.3s		1
16	bolt M8 x 20	CB00000050		ZBC37.1.2.3s		6
17	washer8	CW00000017		ZBC37.1.2.3s		6
18	ring,snap ring	XBC3900221116		ZBC37.1.2.3s		1
19	seal,ring 100 × 114 × 8	XBC3900221117		ZBC37.1.2.3s		1
20	clevis,rod end clevis	XBC3900221118		ZBC37.1.2.3		1

## 2.4 BOOM SECTION 3 XBC39.1.3

### 2.4.1 SECTION 3 XBC39.1.3.1







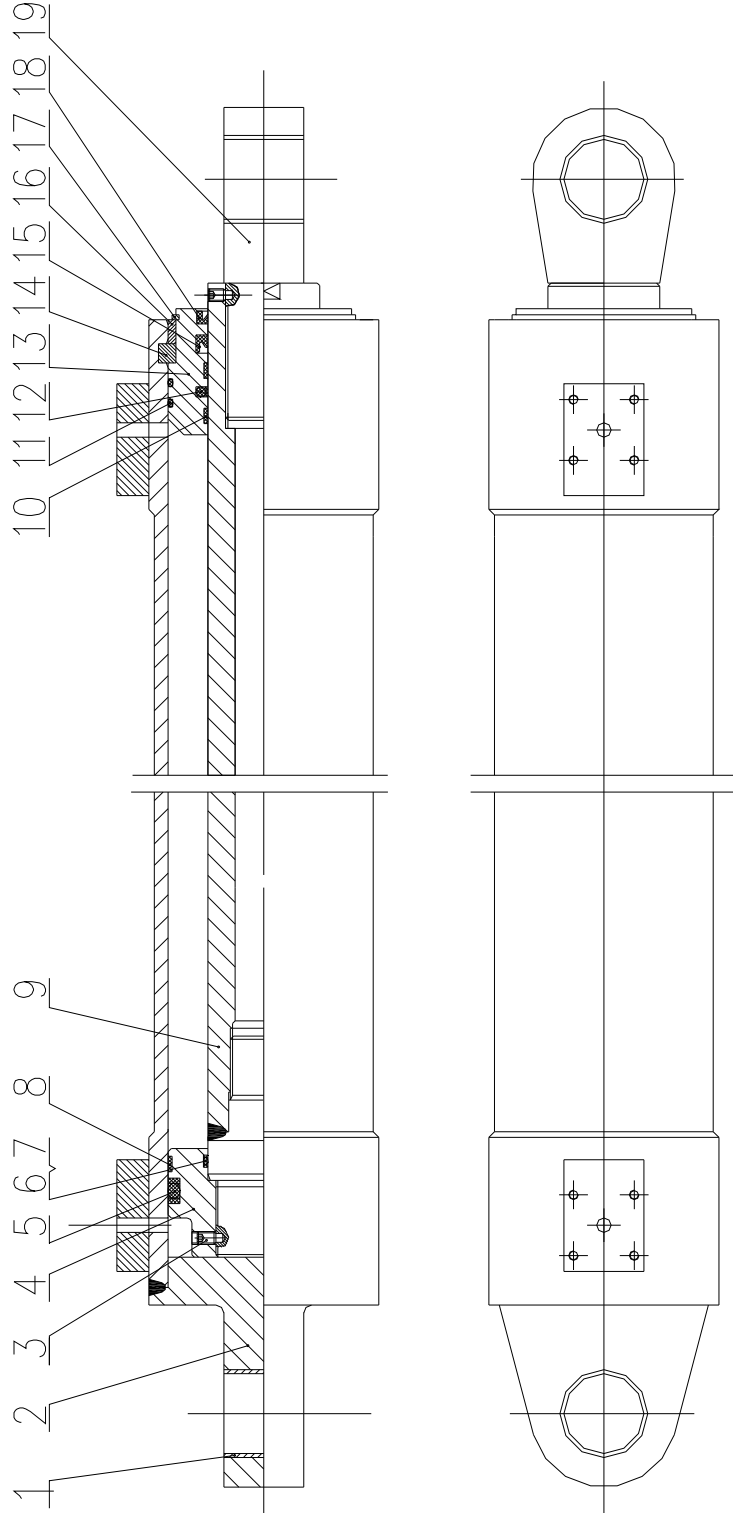


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	section 3	XBC39.1.3.1		XBC39.1.3		1
2	link,pressure link	ZBC37.1.3.2		XBC39.1.3		1
3	plate 5 × 200 × 280	ZBC37.1.3-1		XBC39.1.3		2
4	base,hook base	XBC39.1.3.3		XBC39.1.3		1
5	block,bumper block	XBC39.1.3.4		XBC39.1.3		1
6	cylinder section 3	ZBC37.1.3.5		XBC39.1.3		1
7	link,lever link	ZBC37.1.3.6		XBC39.1.3		1
8	bushing $\Phi 225 \times \Phi 220$ × 50	ZBC37.1.3-2		XBC39.1.3		2
9	bolt M10 × 25	CB00000005		XBC39.1.3		5
10	washer 10	CW00000001		XBC39.1.3		5
11	ring,snap ring	ZBC37.1.2-3		XBC39.1.3		1
12	plate 1	ZBC37.1.1-6		XBC39.1.3		1
13	pin $\Phi 70 \times 249$	ZBC37.1.3-3		XBC39.1.3		1
14	plug,screw plug	ZBC37.1.1-7		XBC39.1.3		5
15	nipple M10 × 1	CL00000001		XBC39.1.3		5
16	ring,snap ring	ZBC37.1.3-4		XBC39.1.3		3
17	plate	ZBC37.1.3-5		XBC39.1.3		2
18	pin $\Phi 50 \times 136$	ZBC37.1.3-6		XBC39.1.3		2
19	plate 2	ZBC37.1.1-9		XBC39.1.3		2
20	pin $\Phi 50 \times 118$	ZBC37.1.3-7		XBC39.1.3		2
21	ring,snap ring for shaft 50	CD00000009		XBC39.1.3		2
22	pin $\Phi C55 \times 199$	ZBC37.1.3-8		XBC39.1.3		1
23	pin,hollow	ZBC37.1.3-9		XBC39.1.3		1
24	ring,snap ring for shaft 250	ZBC37.1.3-10		XBC39.1.3		1
25	plate	ZBC37.1.2-8		XBC39.1.3		1
26	plate,position plate	ZBC37.1.2-9		XBC39.1.3		1

## 2.4.1-1 CYLINDER OF SECTION 3 ZBC37.1.3.5





# XT39R4V00

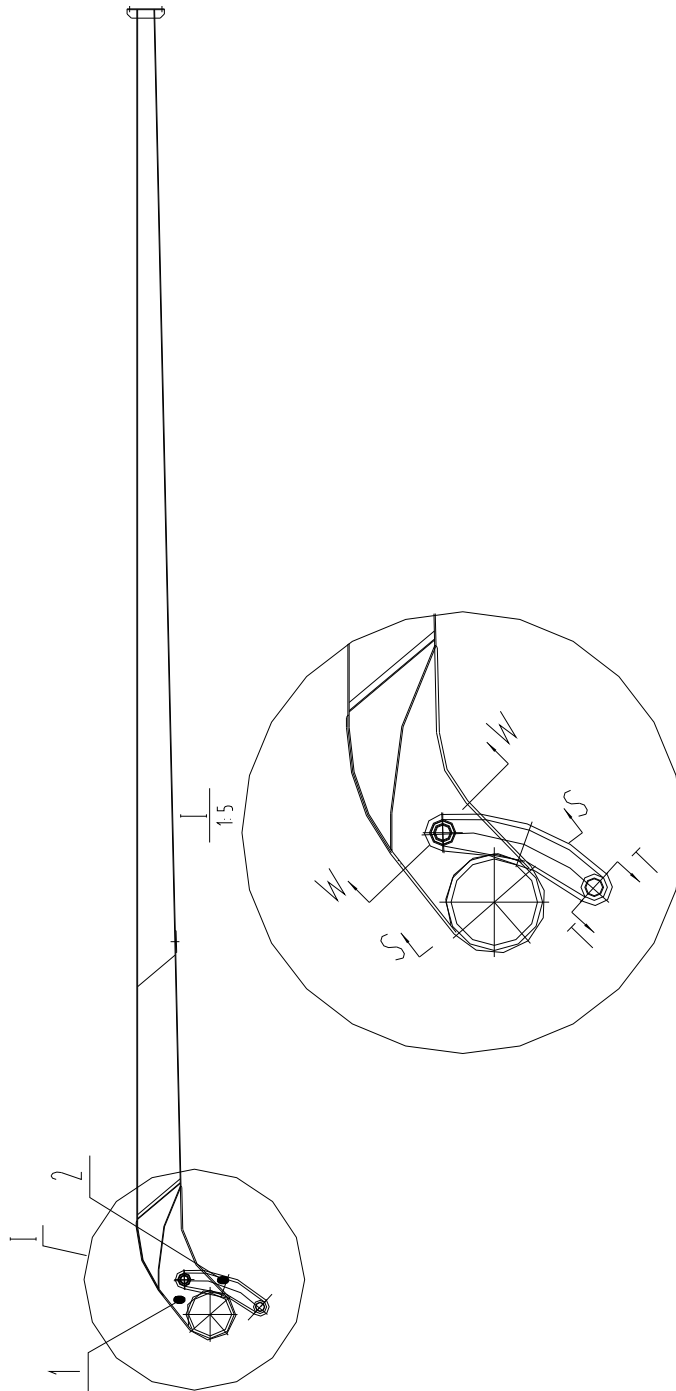
**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	bearing	XBC3900231101		ZBC37.1.3.5s		2
2	cylinder body	XBC3900231102		ZBC37.1.3.5		1
3	bolt M8 × 15	CB00000044		ZBC37.1.3.5s		2
4	piston	XBC3900231104		ZBC37.1.3.5		1
5	seal,bearing seal 120 × 105 × 16	XBC3900231105		ZBC37.1.3.5s		1
6	O-ring 71 × 3.55	CO00000006		ZBC37.1.3.5s		1
7	ring,snap ring 75.66 × 70 × 1.5	CD00000012		ZBC37.1.3.5s		2
8	ring,guide ring 120 x 105 x 9.7	XBC3900231108		ZBC37.1.3.5s		2
9	rod,piston rod assembly	XBC3900231109		ZBC37.1.3.5		1
10	ring,guide ring 70 x 75 x 9.7	XBC3900231110		ZBC37.1.3.5s		2
11	O-ring 112 x 3.55	CO00000011		ZBC37.1.3.5s		2
12	seal,combination seal 70 x 6.3 x85.1	XBC3900231112		ZBC37.1.3.5s		1
13	carrier,seal	XBC3900231113		ZBC37.1.3.5		1
14	ring,key ring	XBC3900231114		ZBC37.1.3.5s		1
15	seal,bearing seal 70 x 85 x 11.4	XBC3900231115		ZBC37.1.3.5s		1
16	ring,spacer ring	XBC3900231116		ZBC37.1.3.5s		1
17	ring,snap ring 110	CD00000013		ZBC37.1.3.5s		1
18	seal,ring 70 x 84 x 8	XBC3900231118		ZBC37.1.3.5s		1
19	clevis,rod end clevis	XBC3900231119		ZBC37.1.3.5		1



## 2.5 BOOM SECTION 4 ZBC39.1.4

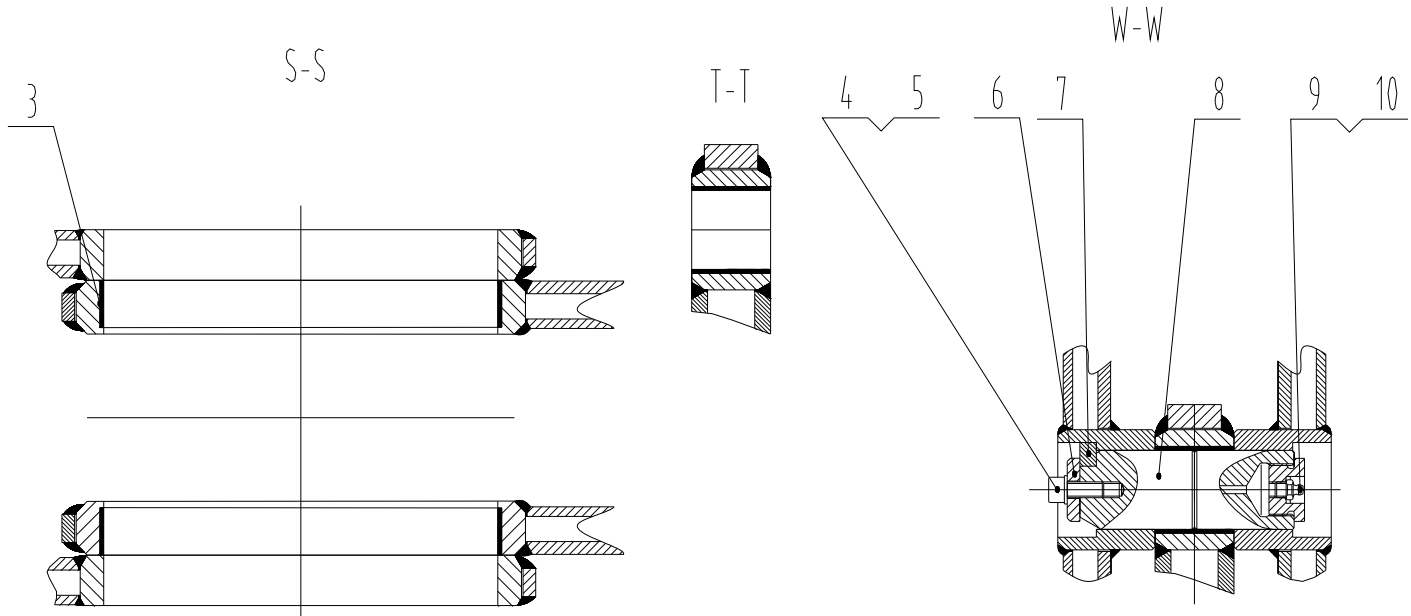
### 2.5.1 SECTION 4 ZBC39.1.4.1





# XT39R4V00

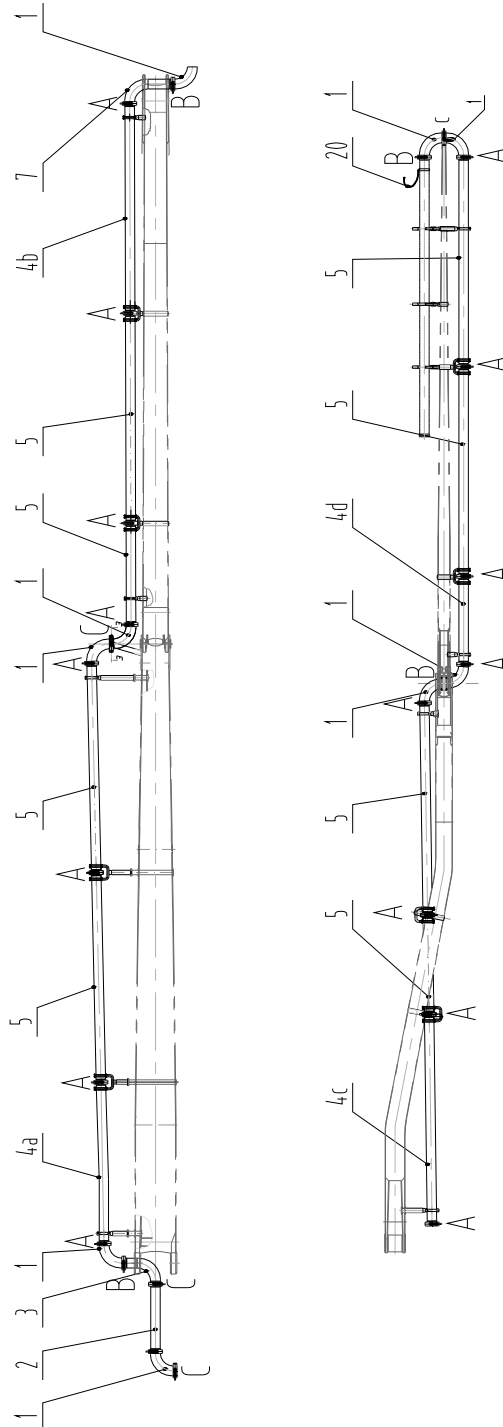
**REED**  
 13822 Oaks Avenue  
 Chino, CA 91710  
 909-287-2100  
 www.reedpumps.com

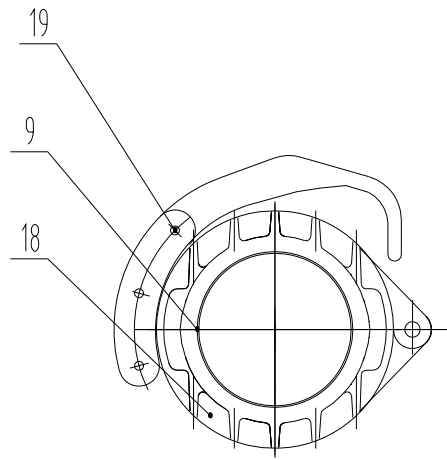


No.	Description	Part Number	Material	Parent	Weight	Quantity
1	section 4	ZBC39.1.4.1		ZBC39.1.4		1
2	link,pressure link	ZBC37.1.4.2		ZBC39.1.4.1		1
3	bushing Φ250×255×30	ZBC37.1.4-1		ZBC39.1.4.1		2
4	bolt M10 × 25	CB00000005		ZBC39.1.4.1		1
5	washer 10	CW00000001		ZBC39.1.4.1		1
6	ring,snap ring	ZBC37.1.3-4		ZBC39.1.4.1		1
7	plate	ZBC37.1.3-5		ZBC39.1.4.1		1
8	pin Φ50 × 136	ZBC37.1.4-2		ZBC39.1.4.1		1
9	plug,screw plug	ZBC37.1.1-7		ZBC39.1.4.1		1
10	nipple M10 × 1	CL00000001		ZBC39.1.4.1		1

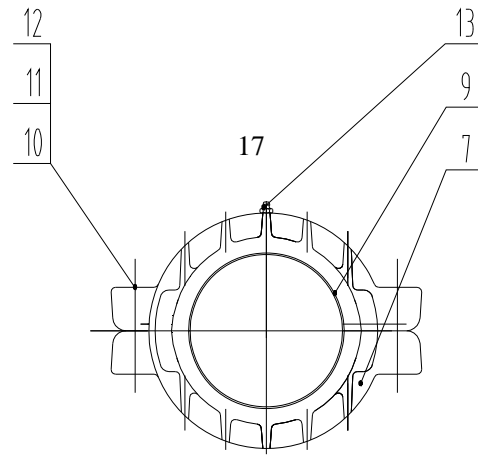
## 2.6 DELIVERY PIPE

### 2.6.1 BOOM DELIVERY PIPE XBC39.11

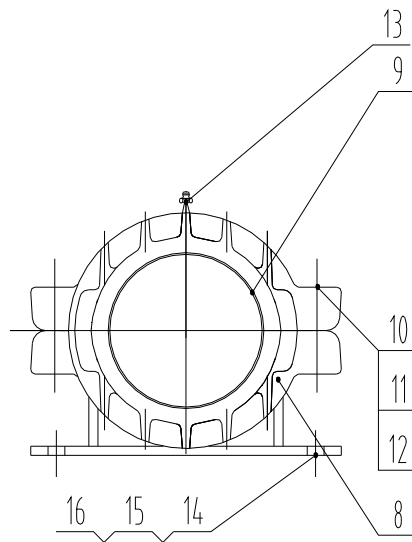




A



B



C

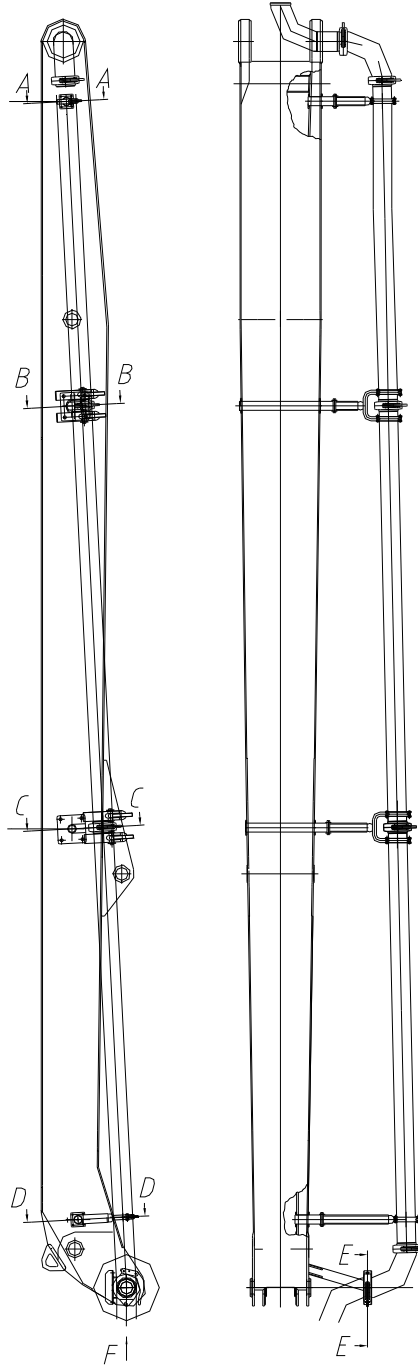


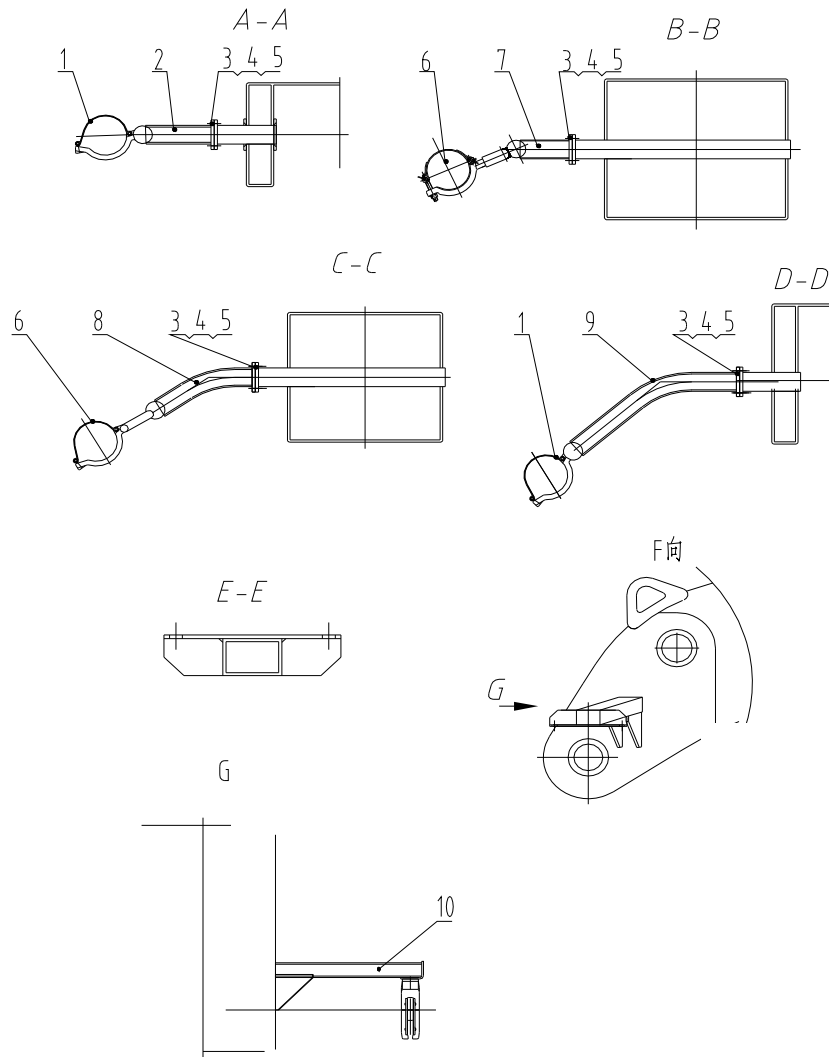
# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

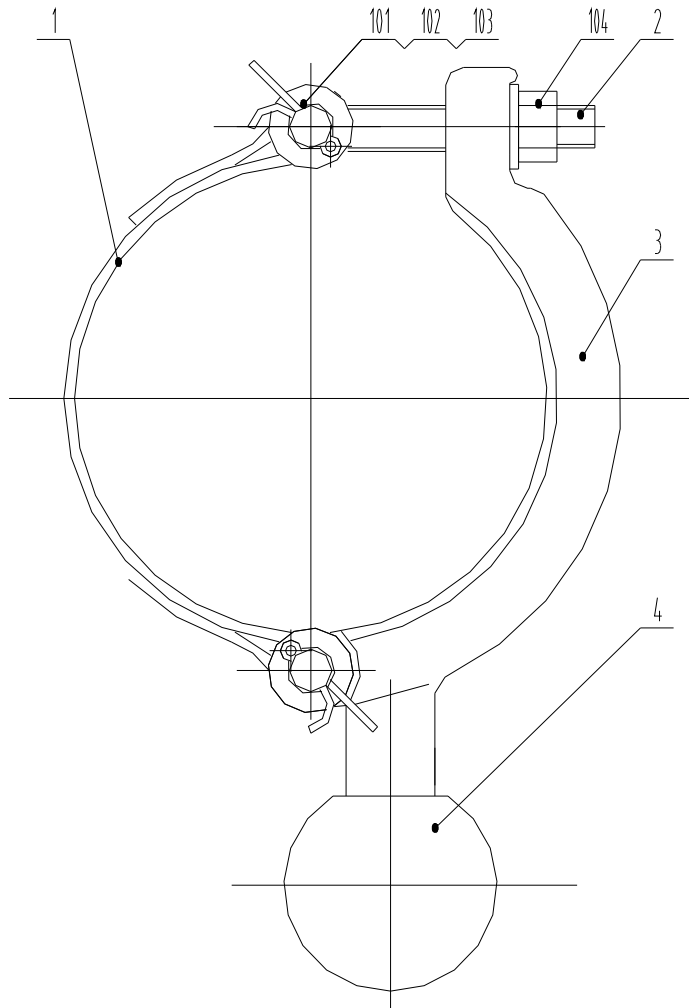
No.	Description	Part Number	Material	Parent	Weight	Quantity
1	elbow, 125mmx90, br275 lp	ZBC37.10.1		XBC39.11		9
2	pipe, makeup 125x1015mm lp	XBC39.00-2502		XBC39.11		1
3	elbow, extended 125mmx90, br190 lp	XBC39.00-2503		XBC39.11		1
4a	pipe, makeup 125x2754mm lp	XBC39.00-254a		XBC39.11		1
4b	pipe, makeup 125x1832mm lp	XBC39.00-254b		XBC39.11		1
4c	pipe, makeup 125x1803mm lp	XBC39.00-254c		XBC39.11		1
4d	pipe, makeup 125x2045mm lp	XBC39.00-254d		XBC39.11		1
5	pipe, straight 125x3000mm lp	XBC39.00-2505		XBC39.11		8
7	elbow, extended 345mm, 125mmx90, br275	XBC39.00-2507		XBC39.11		1
8	clamp, base, 2bolt 125mm lp	XBC39.00-2508		XBC39.11		5
9	gasket, clamp 125mm hp	XBC39.00-2509		XBC39.11		25
10	bolt M12 x 50	CB00000017		XBC39.11		16
11	washer 12	CW00000003		XBC39.11		16
12	nut 12	CN00000003		XBC39.11		16
13	nipple, grease M10 x 1	CL00000001		XBC39.11		8
14	bolt M16 x 55	CB00000024		XBC39.11		14
15	washer 16	CW00000006		XBC39.11		14
16	nut M16	CN00000005		XBC39.11		14
17	clamp, pipe 2 bolt 125mm lp	XBC39.00-2517		XBC39.11		1
18	clamp, snap 125 mm lp	XBC39.00-2518		XBC39.11		19
19	pin $\Phi$ 6	XBC39.00-2519		XBC39.11		19
20	chain, hose chain	XBC39.00-2520		XBC39.11		1

## SUPPORT OF SECTION 1 DELIVERY PIPE XBC39.11.1



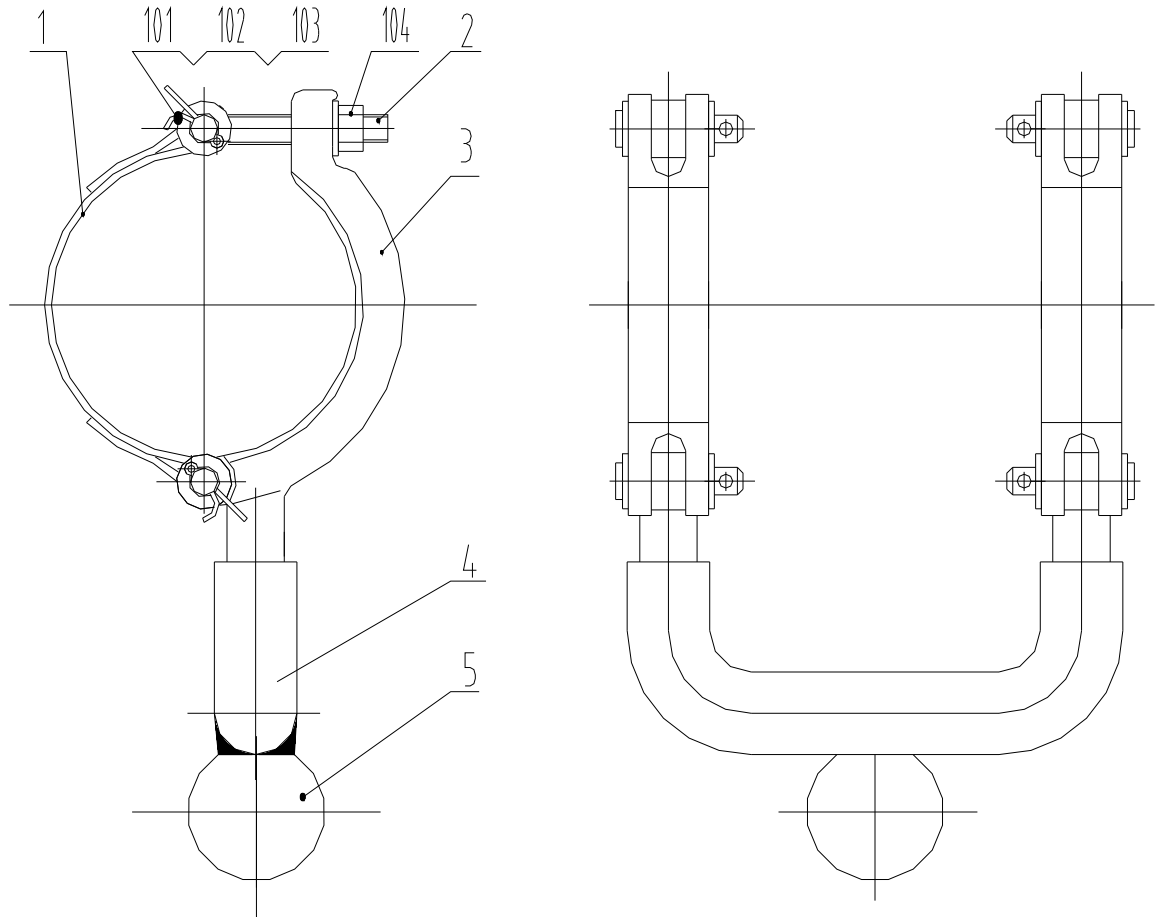


No.	Description	Part Number	Material	Parent	Weight	Quantity
1	support,single	ZBC37.11.1.1	component	XBC39.11.1		2
2	base,support base 1	XBC39.11.1.2	weldment	XBC39.11.1		1
3	bolt M12*60	CB00000018	8.8	XBC39.11.1		18
4	nut M12	CN00000002	5	XBC39.11.1		18
5	washer 12	CW00000003	65Mn	XBC39.11.1		18
6	support,double	ZBC37.11.1.3	component	XBC39.11.1		2
7	support base 2	XBC39.11.1.4	weldment	XBC39.11.1		1
8	support base 3	XBC39.11.1.5	weldment	XBC39.11.1		1
9	support base 4	XBC39.11.1.6	weldment	XBC39.11.1		1
10	support base 5	XBC39.11.1.7	weldment	XBC39.11.1		1



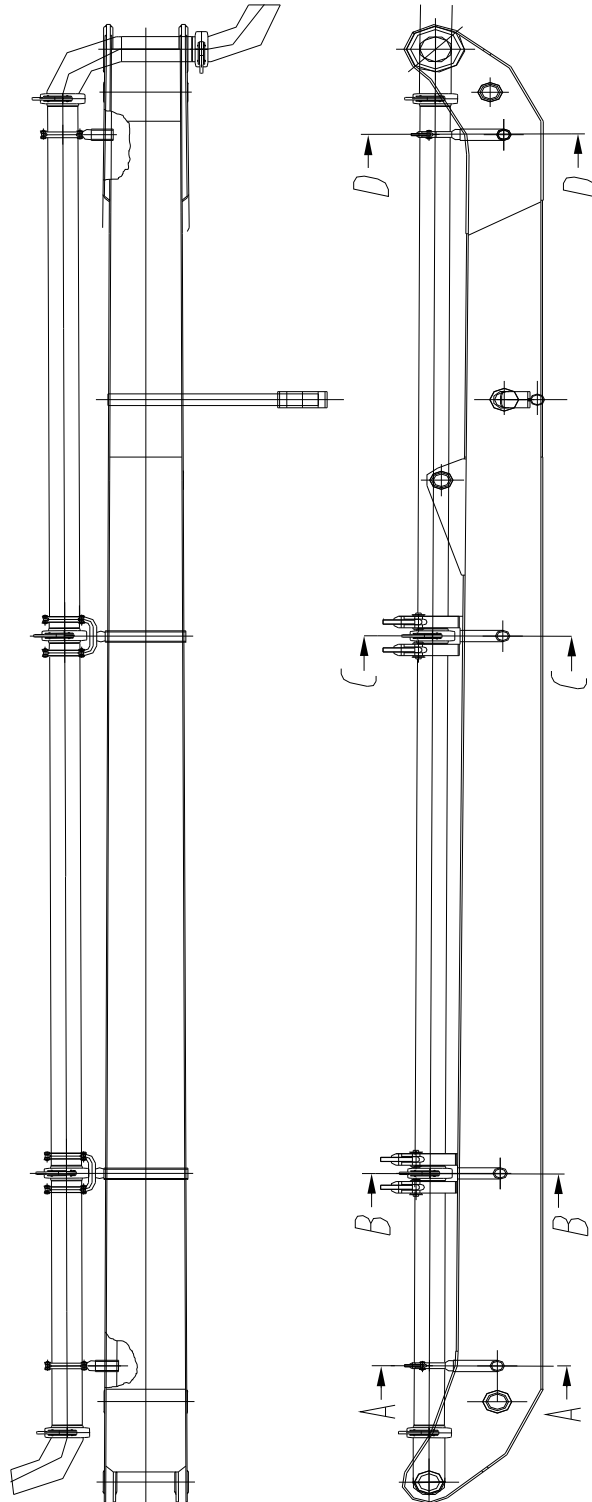
No.	Description	Part Number	Material	Parent	Weight	Quantity
1	strap	ZBC37.11.1.1-1	Q235	XBC39.11.1		1
2	bolt	ZBC37.11.1.1-2	35	XBC39.11.1		1
3	support,pipe	ZBC37.11.1.1-3	ZG230-450	XBC39.11.1		1
4	ball,steel ball $\Phi 60$	ZBC37.11.1.1-4	Q235	XBC39.11.1		1
101	pin,cylindrical pin 12x 50	C100000003	35	XBC39.11.1		2
102	pin,cotter pin 4 x 25	C100000005	Q195	XBC39.11.1		2
103	washer 12	CW00000004	100HV	XBC39.11.1		5
104	nut 12	CN00000003	5	XBC39.11.1		1





No.	Description	Part Number	Material	Parent	Weight	Quantity
1	strap	ZBC37.11.1.1-1	Q235	XBC39.11.1		2
2	bolt	ZBC37.11.1.1-2	35	XBC39.11.1		2
3	support, pipe	ZBC37.11.1.1-3	ZG35	XBC39.11.1		1
4	pipe, steel pipe	ZBC37.11.1.3-1	20	XBC39.11.1		1
5	ball, steel ball $\Phi 60$	ZBC37.11.1.1-4	Q235	XBC39.11.1		1
101	pin, cylindrical pin 12 × 50	C100000003	35	XBC39.11.1		4
102	pin, cotter pin 4 × 25	C100000005	Q195	XBC39.11.1		4
103	washer 12	CW00000004	100HV	XBC39.11.1		10
104	nut 12	CN00000003	5	XBC39.11.1		2

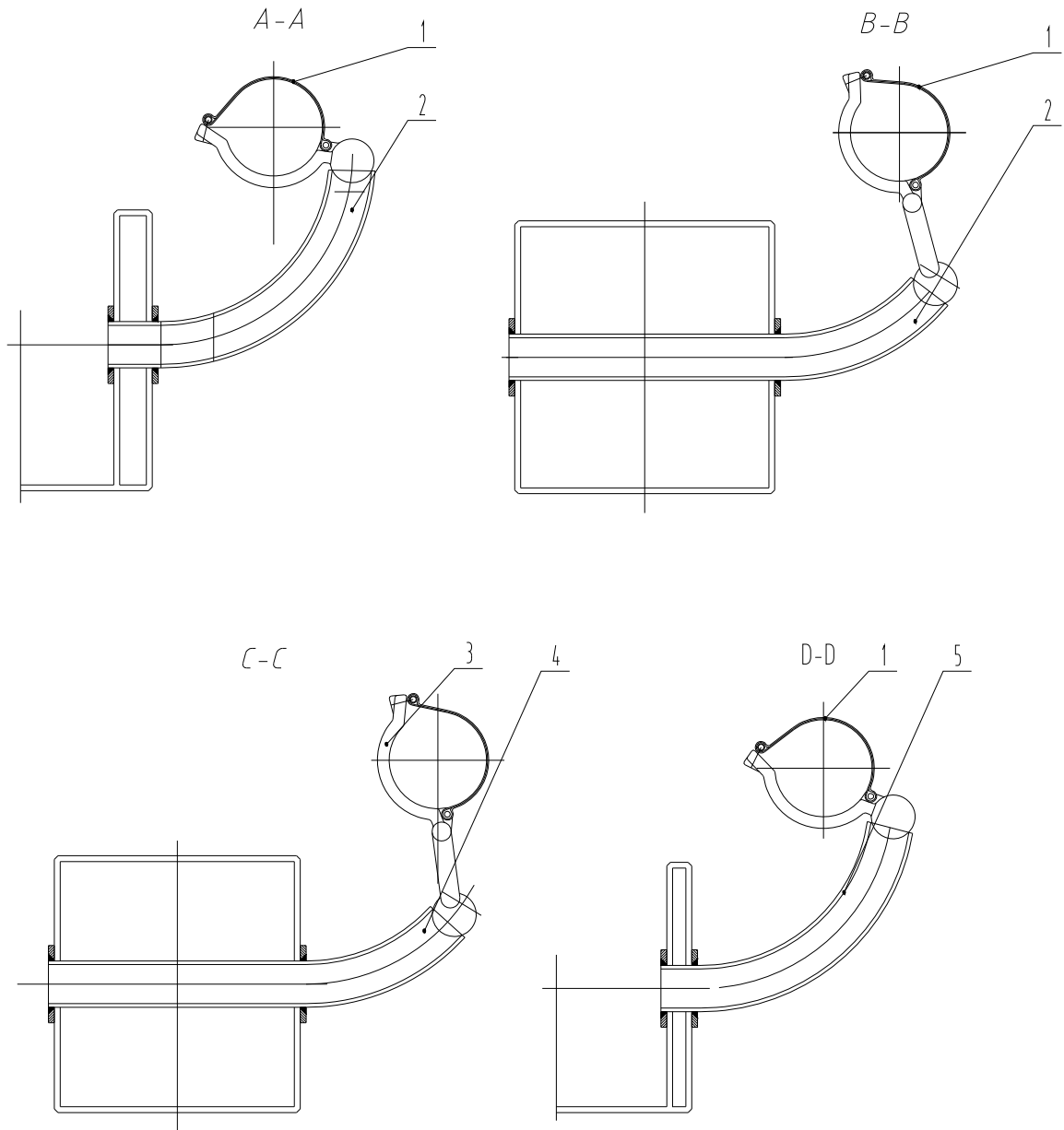
## SUPPORT OF SECTION 2 DELIVERY PIPE XBC39.11.2





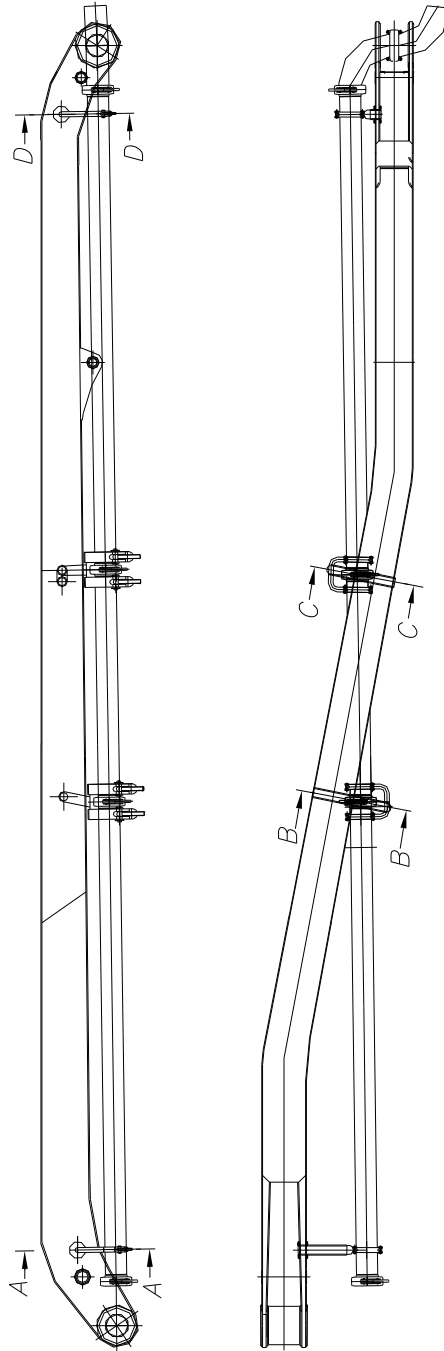
# XT39R4V00

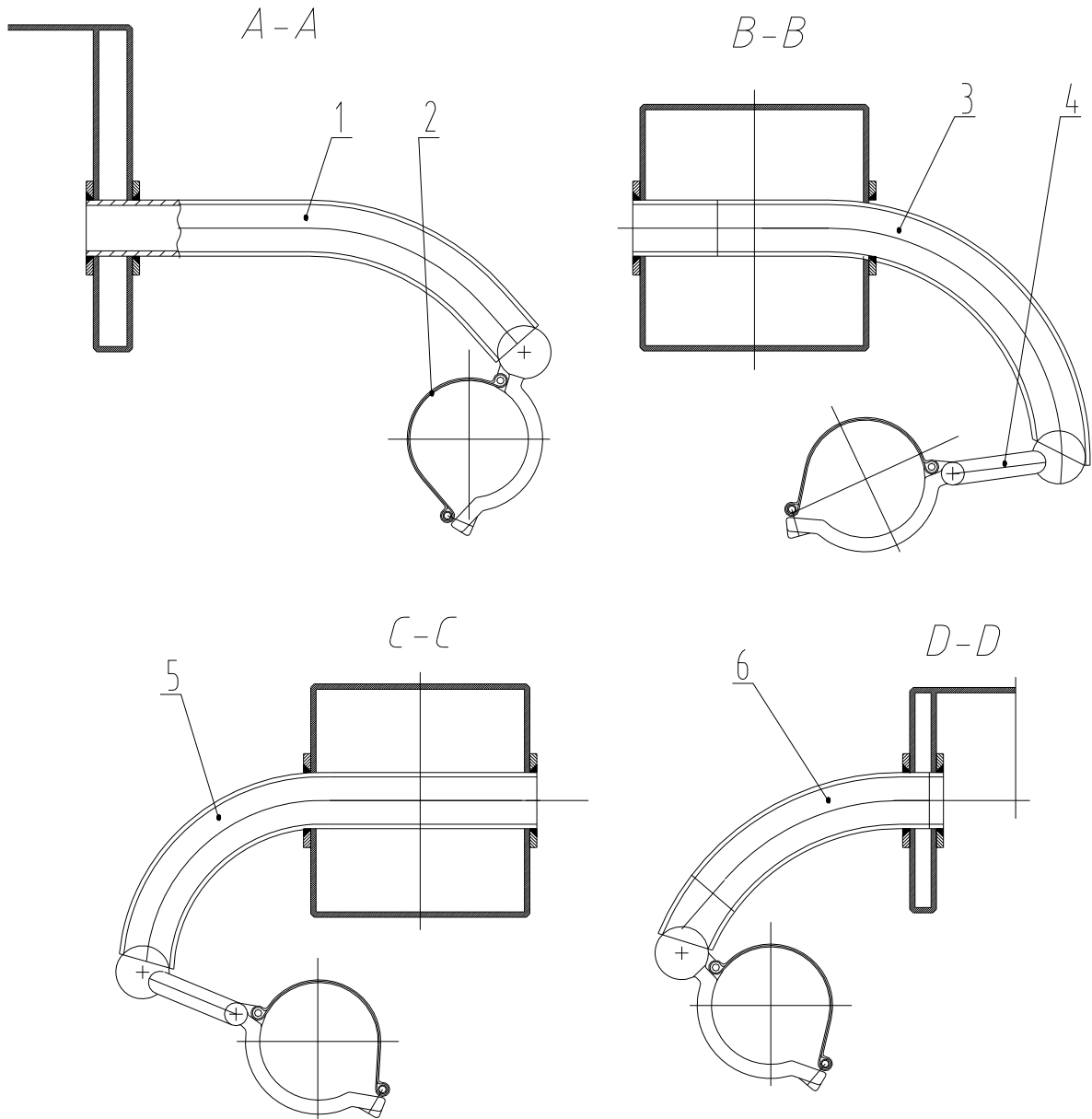
REED  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com



No.	Description	Part Number	Material	Parent	Weight	Quantity
1	support,single	ZBC37.11.1.1	component	XBC39.11.2		2
2	support base 1	XBC39.11.2-1	Q345-A	XBC39.11.2		1
3	support,double	ZBC37.11.1.3	component	XBC39.11.2		2
4	support base 2	XBC39.11.2-2	Q345-A	XBC39.11.2		2
5	support base 3	XBC39.11.2-3	Q345-A	XBC39.11.2		1

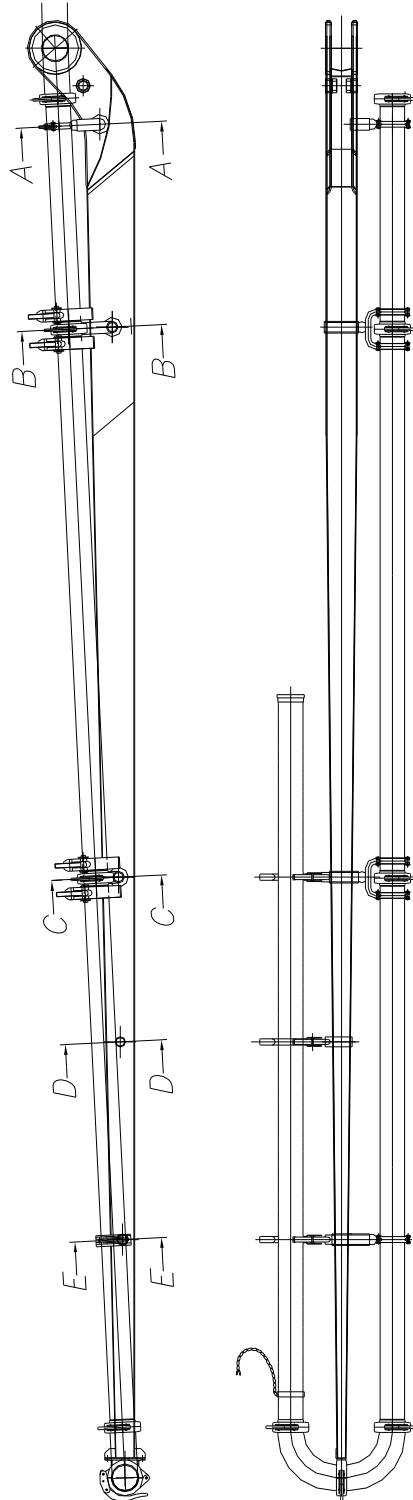
## SUPPORT OF SECTION 3 DELIVERY PIPE XBC39.11.3

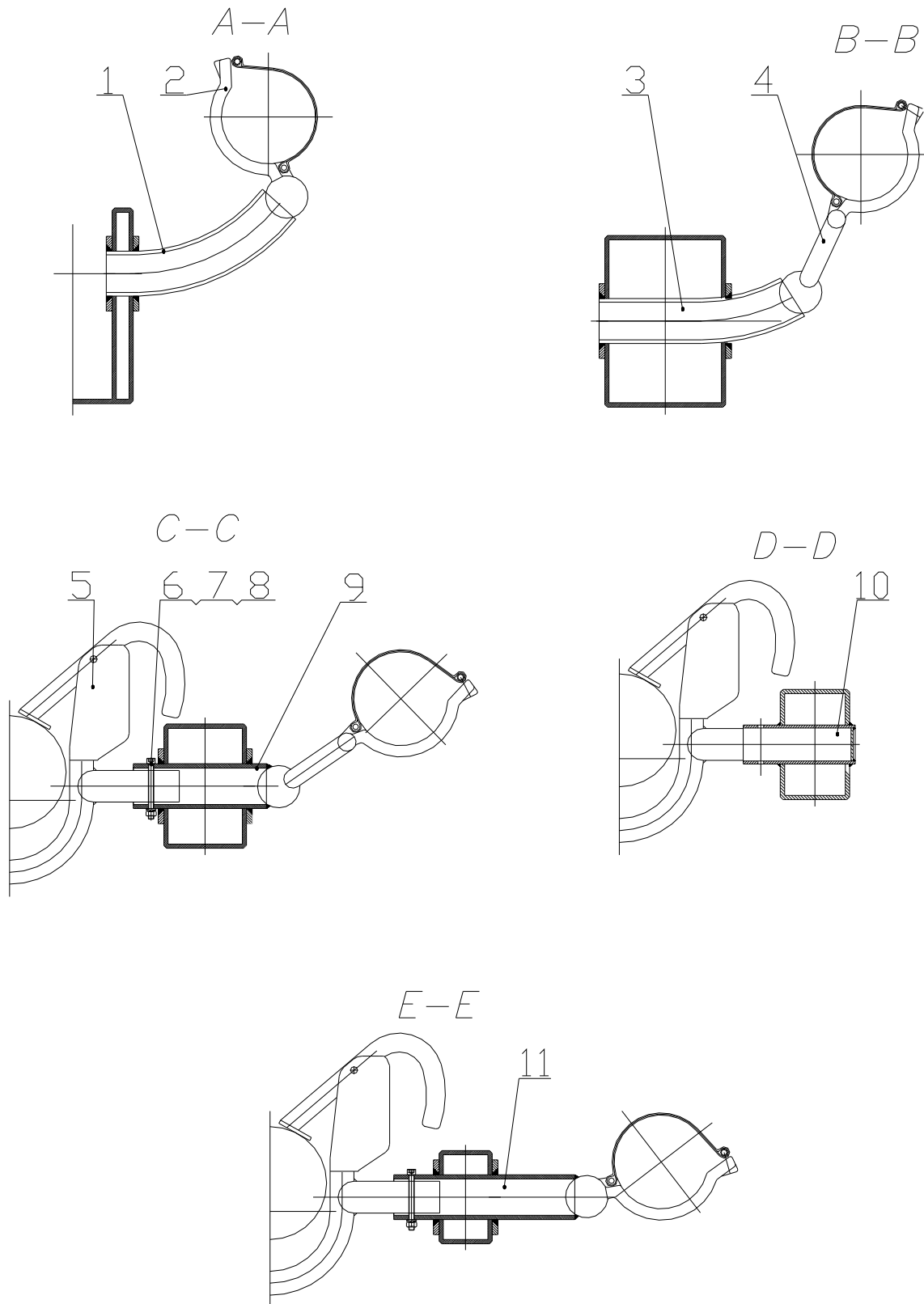




No.	Description	Part Number	Material	Parent	Weight	Quantity
1	support base 1	XBC39.11.3-1	Q345-A	XBC39.11.3		1
2	support,single	ZBC37.11.1.1	component	XBC39.11.3		2
3	support base 2	XBC39.11.3-2	Q345-A	XBC39.11.3		1
4	support,double	ZBC37.11.1.3	component	XBC39.11.3		2
5	support base 3	XBC39.11.3-3	Q345-A	XBC39.11.3		1
6	support base 4	XBC39.11.3-4	Q345-A	XBC39.11.3		1

## SUPPORT OF SECTION 4 DELIVERY PIPE XBC39.11.4







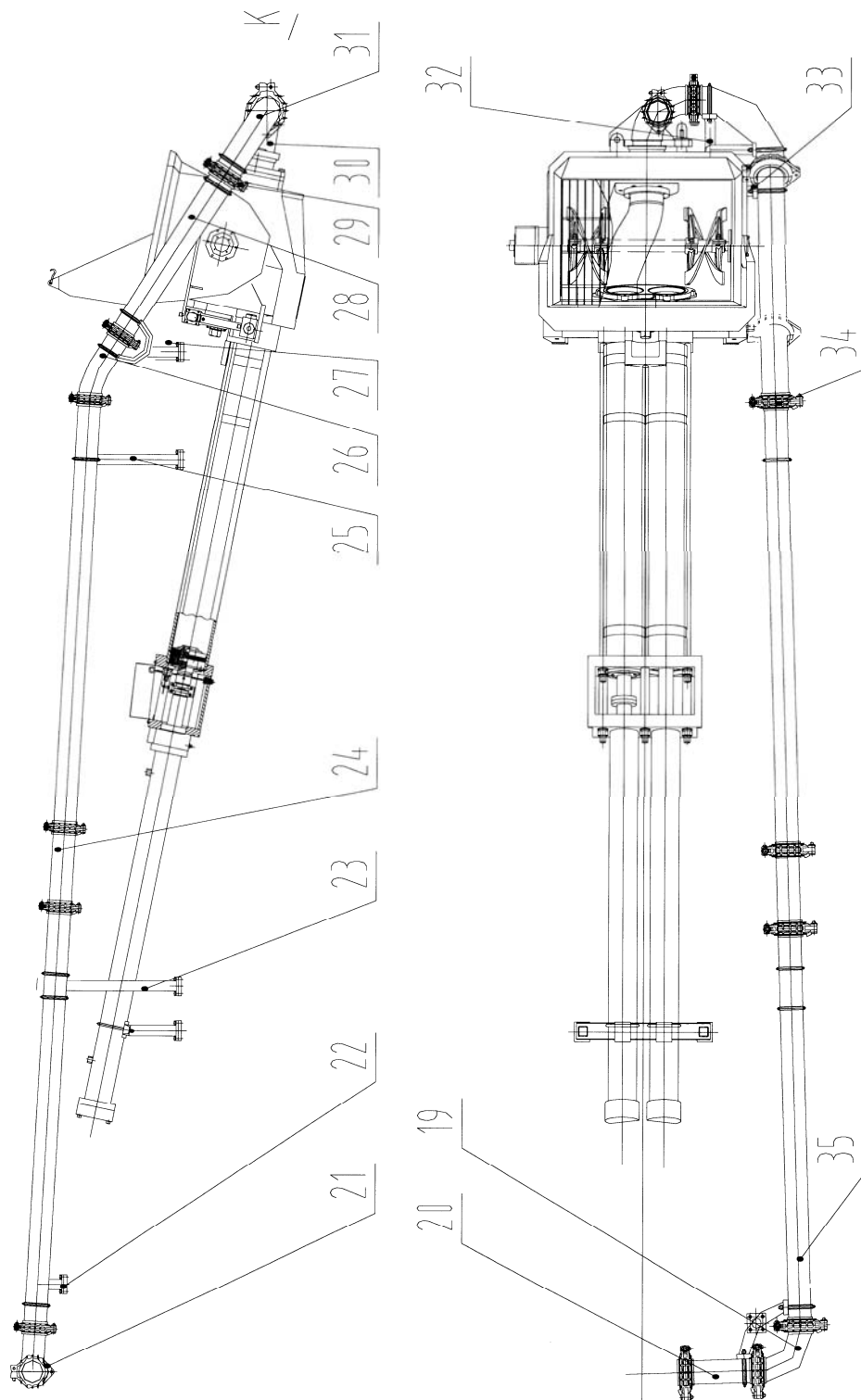
# XT39R4V00

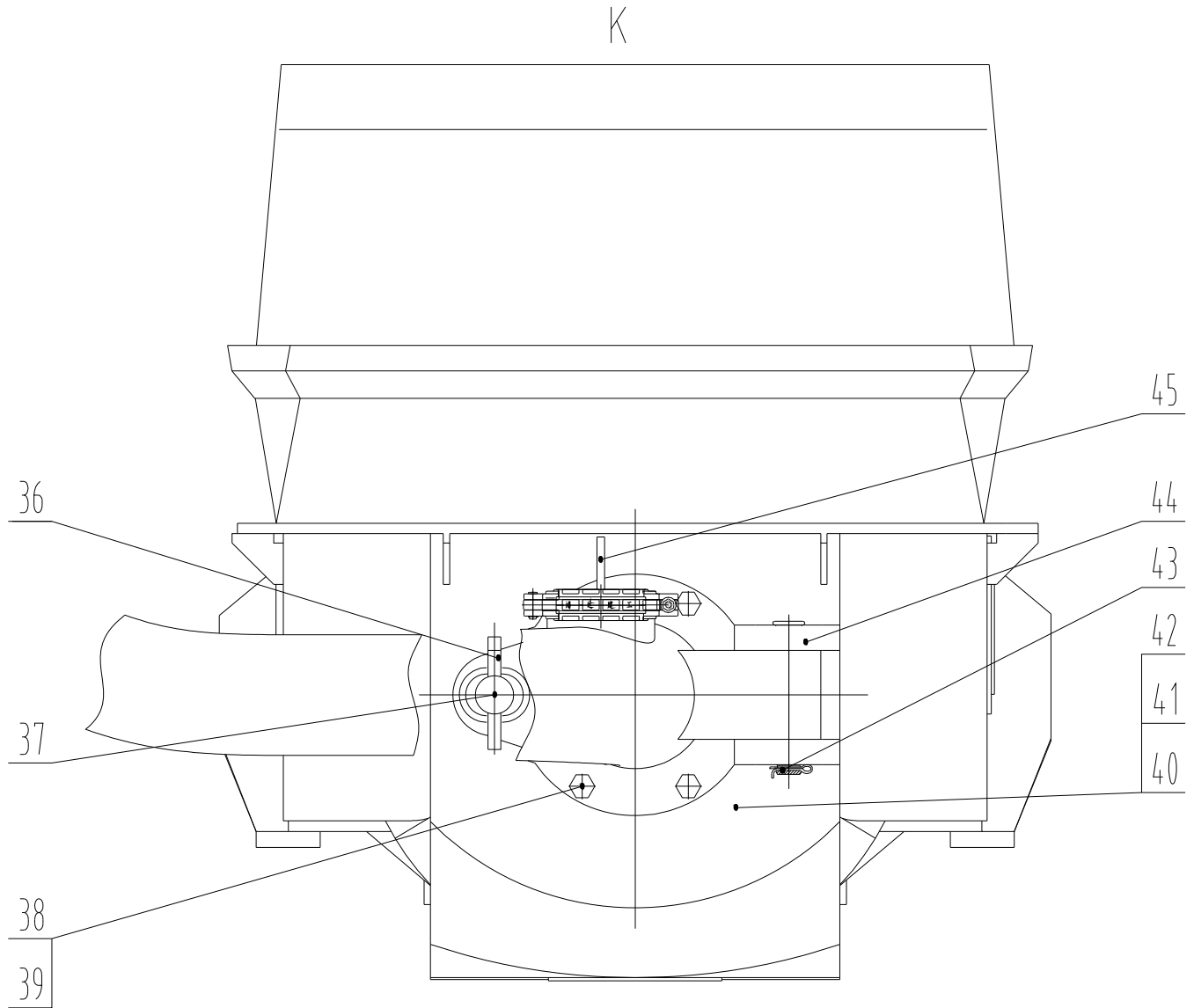
**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	support base 1	XBC39.11.4-1	Q345-A	XBC39.11.4		1
2	support,single	ZBC37.11.1.1	component	XBC39.11.4		1
3	support base 2	XBC39.11.4-2	Q345	XBC39.11.4		1
4	support,double	ZBC37.11.1.3	component	XBC39.11.4		2
5	support,hose support	ZBC37.11.4.1	component	XBC39.11.4		3
6	bolt M8 x 75	CB00000053	8.8	XBC39.11.4		3
7	nut M8	CN00000008	6	XBC39.11.4		3
8	washer 8	CW00000017	65Mn	XBC39.11.4		1
9	support base 3	XBC39.11.4-3	Q345-A	XBC39.11.4		1
10	support base 4	XBC39.11.4.2	weldment	XBC39.11.4		1
11	support base 5	XBC39.11.4-4	Q345	XBC39.11.4		1



## 2.6.2 DECK DELIVERY PIPE BC37.3





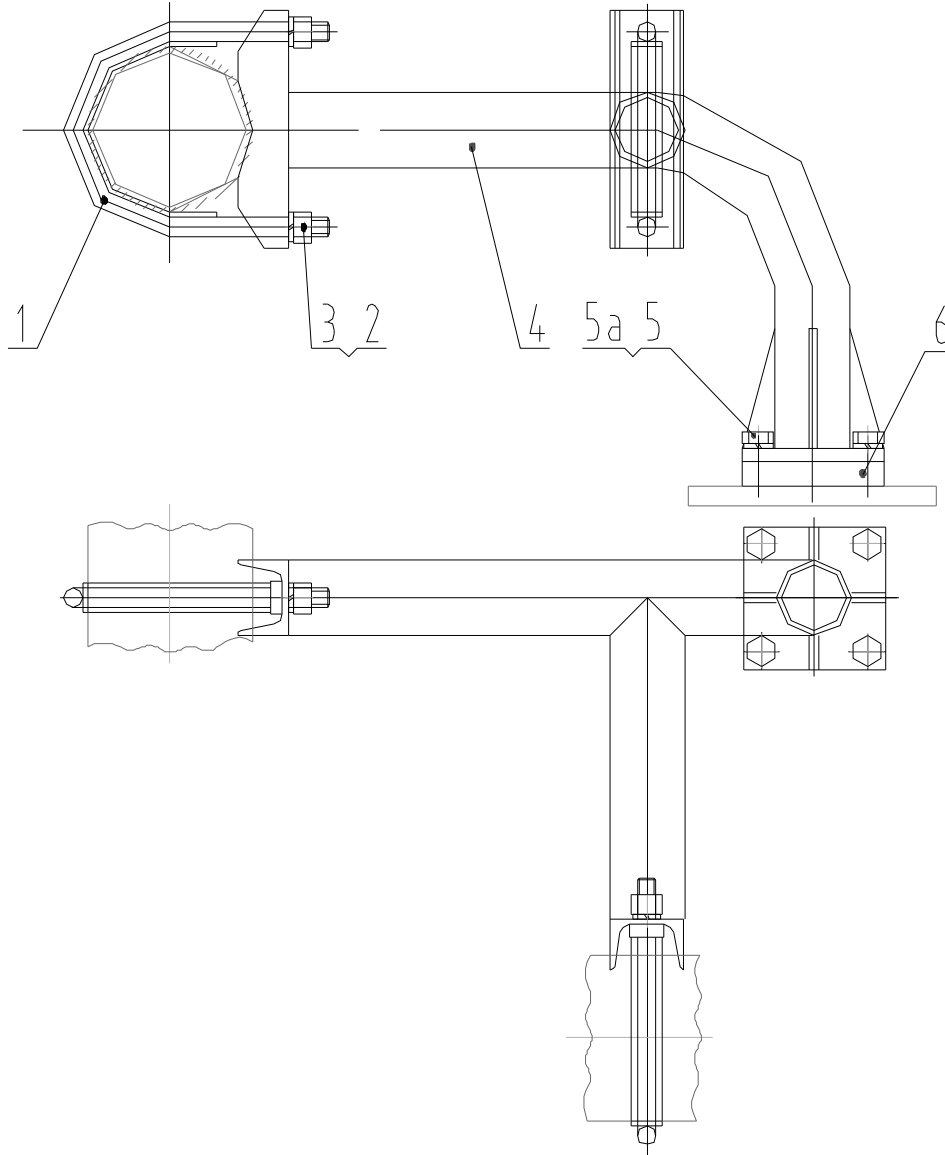


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

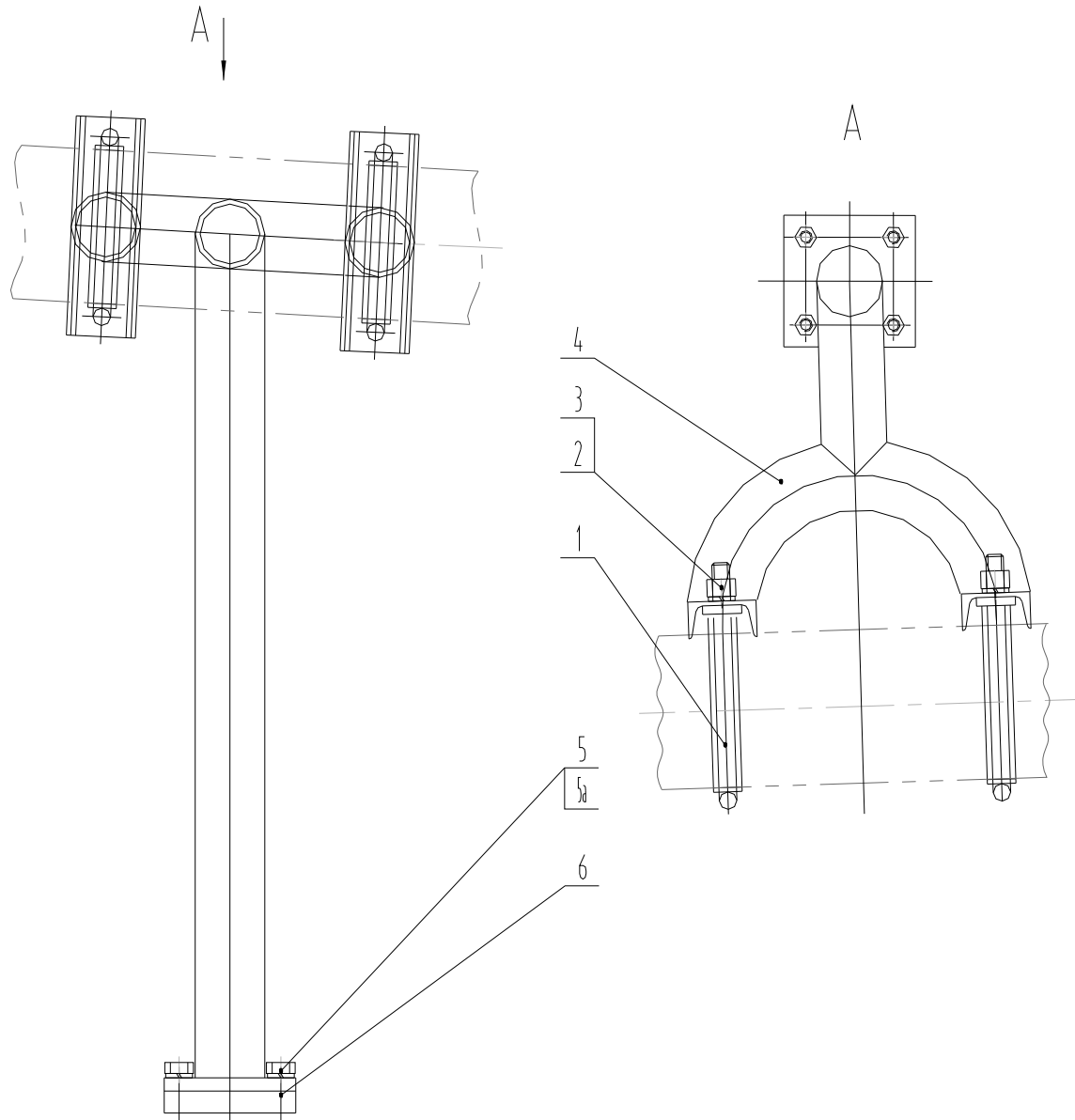
No.	Name	Code	Material	Parent	Weight	Quantity
19	elbow 125mmx90	BC37.3.6		BC37.3		1
20	pipe,makeup125x460mm	BC37.3.7		BC37.3		1
21	clamp,pipe 125mm (Φ148)	BC37.3.8		BC37.3		2
22	support 1	BC37.3.9		BC37.3		1
23	support 2	BC37.3.10		BC37.3		1
24	pipe,makeup 125x3661mm	BC37.3.11		BC37.3		1
25	support 3	BC37.3.12		BC37.3		1
26	elbow 125mmx30	BC37.3.13		BC37.3		1
27	support 4	BC37.3.14		BC37.3		1
28	reducer 150-125mm	BC37.3.15		BC37.3		1
29	clamp,pipe 150mm	60S1816.14.1		BC37.3		3
30	elbow,hinged elbow	BC37.3.16		BC37.3		1
31	elbow,150mmx90	BC37.3.17		BC37.3		1
32	support 5	BC37.3.18		BC37.3		1
33	support 6	BC37.3.19		BC37.3		1
34	clamp,125mm hp (157mm)	60S1816.14.13		BC37.3		4
35	pipe,makeup 125x2127mm	BC37.3.20		BC37.3		1
36	wedge	BC37.3-6		BC37.3		1
37	pin,slotted	BC37.3-7		BC37.3		1
38	bolt M24x125	CB00000035		BC37.3		6
39	washer 24	CW00000013		BC37.3		6
40	outlet,concrete outlet	BC37.3.21		BC37.3		1
41	O-ring Φ205x7	CO00000024		BC37.3		1
42	O-ring Φ258x7	CO00000026		BC37.3		1
43	pin,cotter pinΦ5x56	C100000010		BC37.3		1
44	pin Φ35x210	BC37.3-8		BC37.3		1
45	cover,cleanout port cover	BC37.3.22		BC37.3		1

## SUPPORT 1 OF DECK DELIVERY PIPE



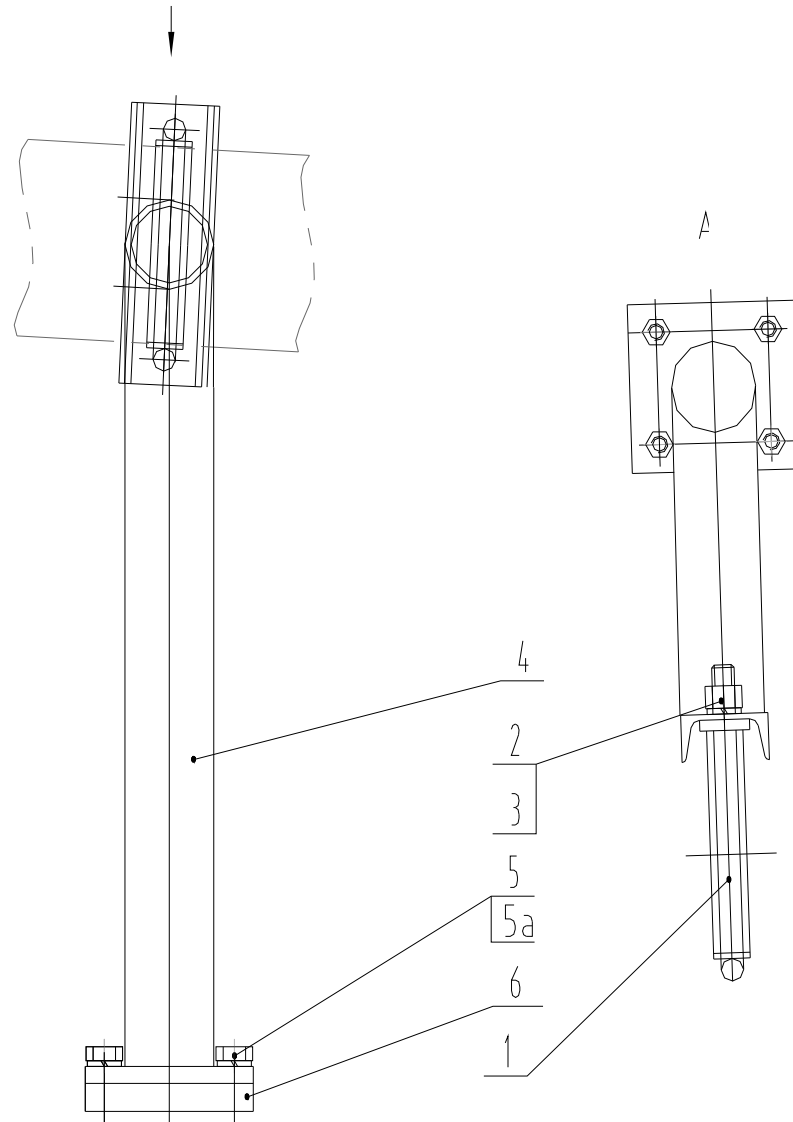
No.	Description	Part Number	Material	Parent	Weight	Quantity
1	U bolt	BC37.3.9.1		BC37.3		2
2	washer 14	CW00000005		BC37.3		8
3	nut M14	CN00000004		BC37.3		4
4	support rod	BC37.3.9.2		BC37.3		1
5	bolt M16×30	CB00000019		BC37.3		4
5a	washer 16	CW00000006		BC37.3		4
6	plate,base plate	BC37.3.9-1		BC37.3		1

## SUPPORT 2 OF DECK DELIVERY PIPE



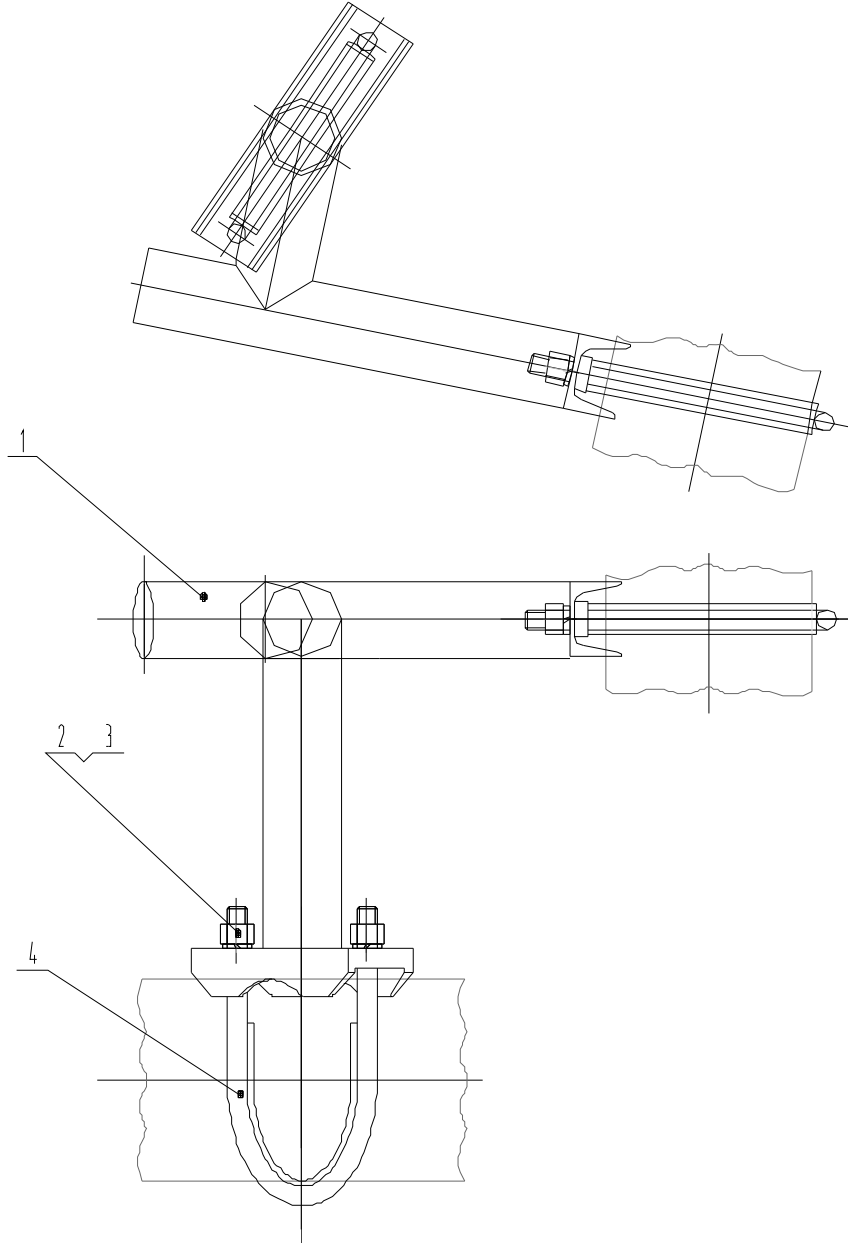
No.	Description	Part Number	Material	Parent	Weight	Quantity
1	U bolt	BC37.3.9.1		BC37.3		2
2	washer 14	CW00000005		BC37.3		8
3	nut M14	CN00000004		BC37.3		4
4	support rod	BC37.3.10.1		BC37.3		1
5	bolt M16 × 30	CB00000019		BC37.3		4
5a	washer 16	CW00000006		BC37.3		4
6	plate,base plate	BC37.3.9-1		BC37.3		1

## SUPPORT 3 OF DECK DELIVERY PIPE



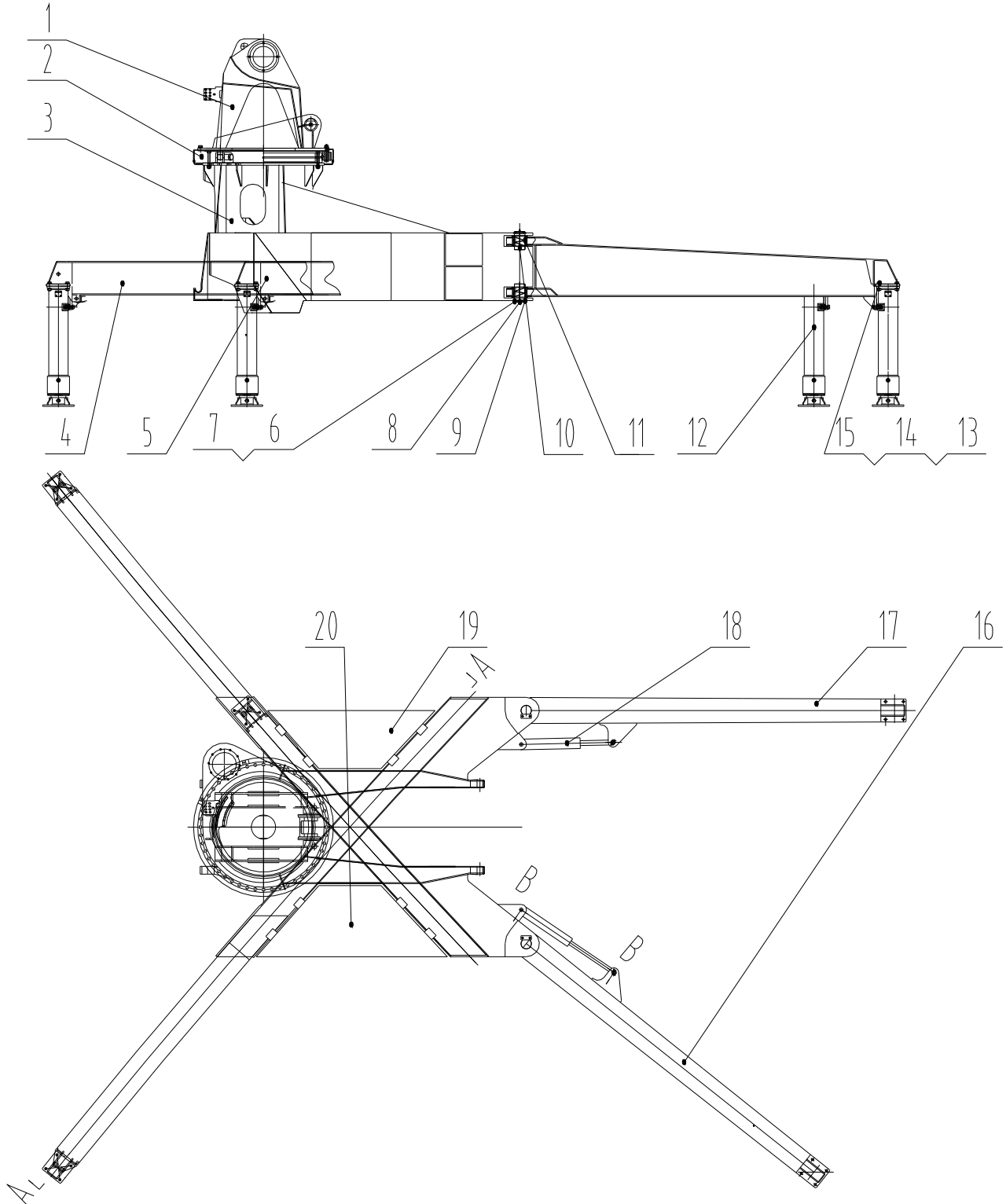
No.	Description	Part Number	Material	Parent	Weight	Quantity
1	U bolt	BC37.3.9.1		BC37.3		2
2	washer 14	CW00000005		BC37.3		8
3	nut M14	CN00000004		BC37.3		4
4	support rod	BC37.3.12.1		BC37.3		1
5	bolt M16 × 30	CB00000019		BC37.3		4
5a	washer 16	CW00000006		BC37.3		4
6	plate,base plate	BC37.3.9-1		BC37.3		1

## SUPPORT 4 OF DECK DELIVERY PIPE



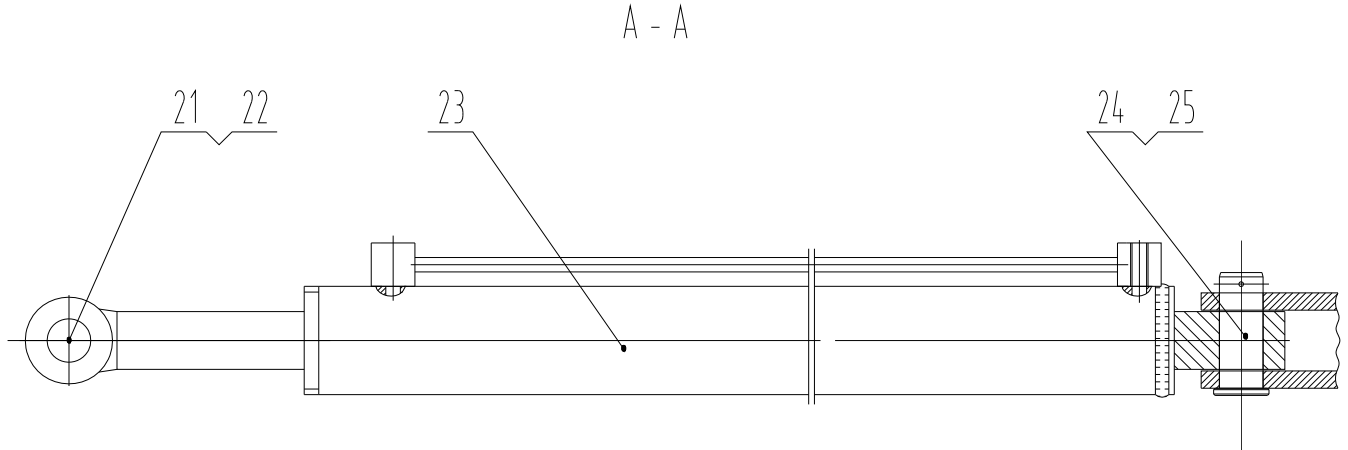
No.	Description	Part Number	Material	Parent	Weight	Quantity
1	bar	BC37.3.18.1		BC37.3		1
2	washer 14	CW00000005		BC37.3		4
3	nut M14	CN00000004		BC37.3		4
4	U bolt	BC37.3.18.2		BC37.3		2

## CHAPTER 3 PEDESTAL AND OUTRIGGERS

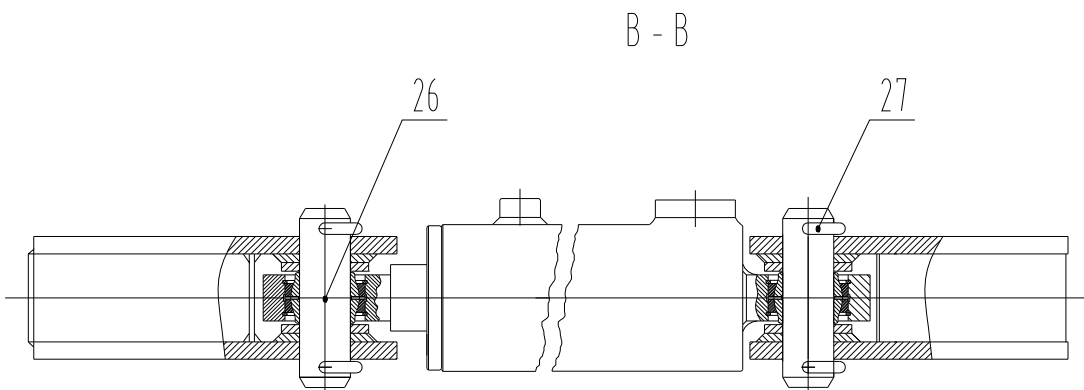




## EXTEND CYLINDER XBC39.2.8



## SWINGOUT CYLINDER ZBC37.2.7



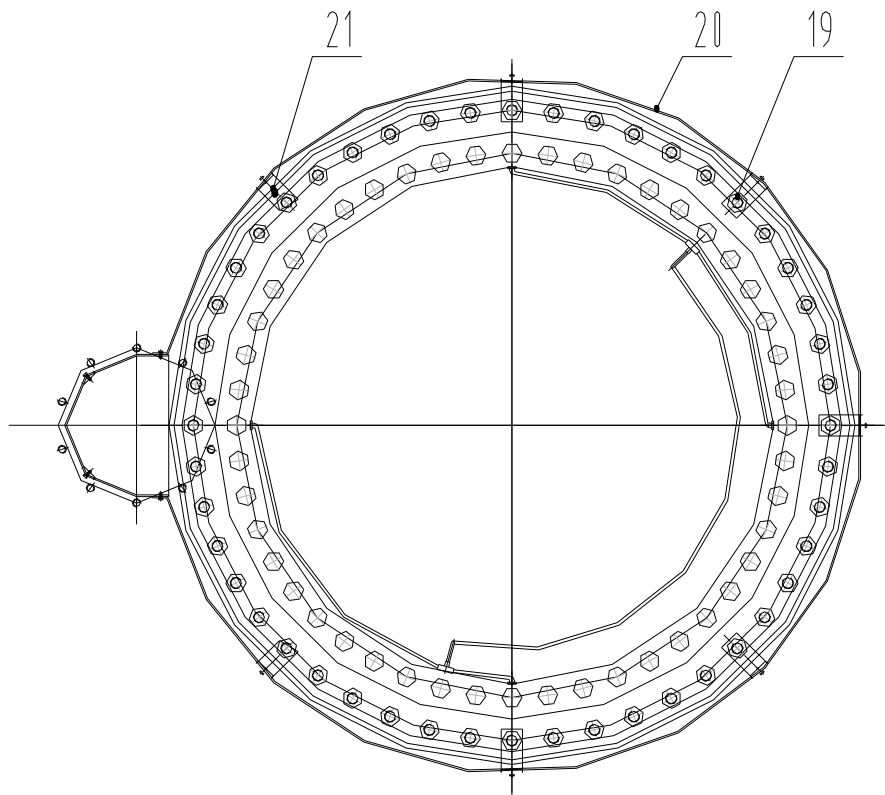
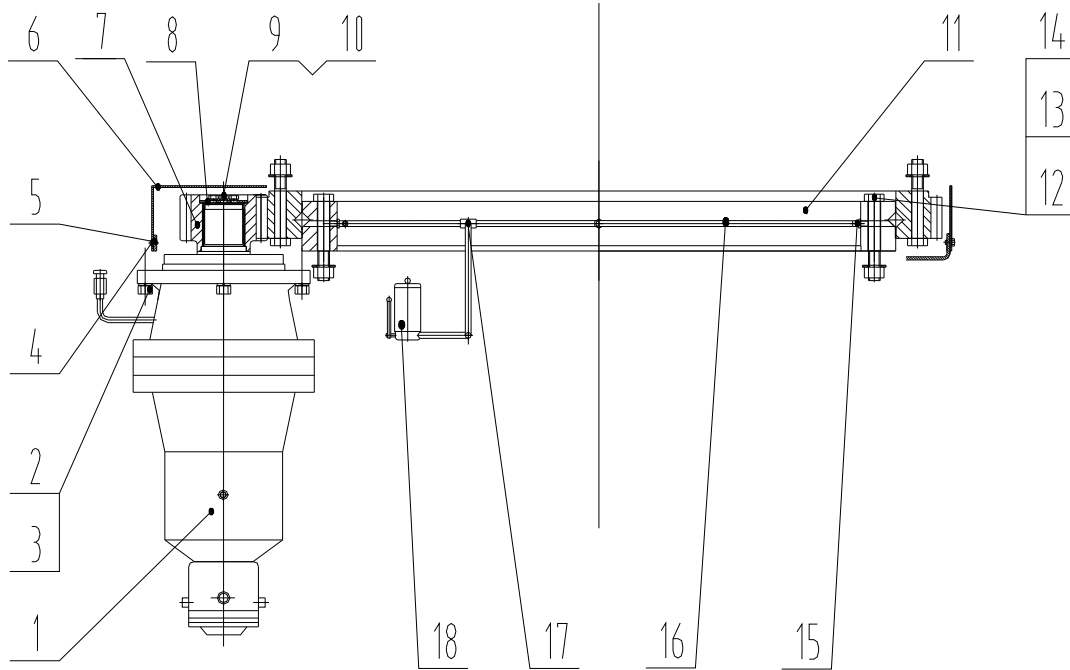


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	masthead	XBC39.2.9		XBC39.2		1
2	rotation assembly	ZBC37.2.2		XBC39.2		1
3	pedestal	XBC39.2.1		XBC39.2		1
4	outrigger,front left	XBC39.2.2		XBC39.2		1
5	outrigger,front right	XBC39.2.3		XBC39.2		1
6	bolt M12 × 20	CB00000012		XBC39.2		8
7	washer 12	CW00000003		XBC39.2		8
8	Nipple M10 × 1	CL00000001		XBC39.2		4
9	plate	ZBC37.2-2		XBC39.2		4
10	pin	ZBC37.2-3		XBC39.2		4
11	bearing	ZBC37.2-4		XBC39.2		4
12	cylinder,jack	XBC39.00-3012		XBC39.2		4
13	bolt M22×70	CB00000032		XBC39.2		8
14	washer 22	CW00000011		XBC39.2		8
15	nut M22	CN00000006		XBC39.2		8
16	outrigger,rear left	XBC38.2.4		XBC39.2		1
17	outrigger,rear right	XBC38.2.5		XBC39.2		1
18	cylinder,swingout	ZBC37.2.7		XBC39.2		2
19	tank,hydraulic tank	XBC39.2.6		XBC39.2		1
20	tank,water tank	XBC39.2.7		XBC39.2		1
21	pin 1	XBC39.2-1		XBC39.2		2
22	ring,snap ring for shaft 30	CD00000003		XBC39.2		2
23	cylinder,extend	XBC39.2.8		XBC39.2		2
24	pin 2	XBC39.2-2		XBC39.2		2
25	pin,cotter pin 6.3 × 55	C100000008		XBC39.2		2
26	pin	ZBC37.2-1		XBC39.2		8
27	pin,cotter pin 8 × 60	C100000009		XBC39.2		16

## 3.1 ROTATION ASSEMBLY AND DRIVE ZBC37.2.2



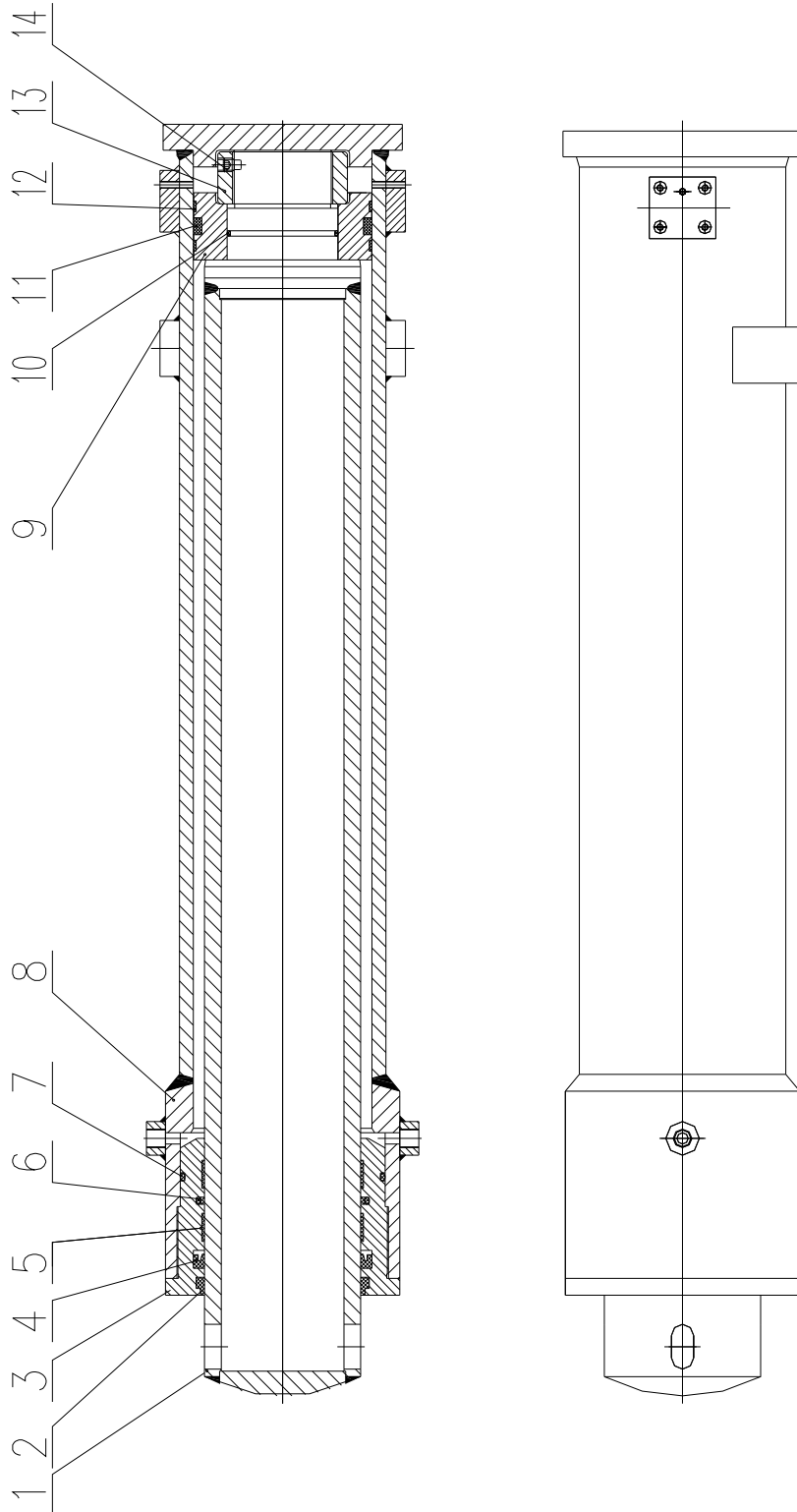


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	gearbox	ET3150/MN-S9		ZBC37.2.2		1
2	washer 16	CW00000006		ZBC37.2.2		10
3	bolt M16 × 55-10.9	CB00000023		ZBC37.2.2		10
4	bolt M8 × 12	CB00000043		ZBC37.2.2		13
5	plate,position plate	ZBC37.2.2-1		ZBC37.2.2		2
6	cover,small gear	ZBC37.2.2.1		ZBC37.2.2		1
7	gear,drive gear	ZBC37.2.2-2		ZBC37.2.2		1
8	cover	BC42.2.3-5		ZBC37.2.2		1
9	bolt M10 × 30	CB00000007		ZBC37.2.2		3
10	washer 10	CW00000001		ZBC37.2.2		3
11	bearing,rotation bearing	06.1116.21		ZBC37.2.2		1
12	bolt M22 × 150	CB00000030		ZBC37.2.2		96
13	nut M22	CN00000006		ZBC37.2.2		96
14	washer 22	CW00000010		ZBC37.2.2		96
15	fitting,tube-to-tube	XBC39.00-3215		ZBC37.2.2		4
16	tube,copper tube φ6 x1 (internal diameter φ4)	XBC39.00-3216		ZBC37.2.2		5
17	fitting,tube-to-tube,tee connector	XBC39.00-3217		ZBC37.2.2		2
18	pump,lubrication manual pump	XBC39.00-3218		ZBC37.2.2		1
19	plate,position plate 1	ZBC37.2.2-3		ZBC37.2.2		5
20	cover,gear protecting	ZBC37.2.2-4		ZBC37.2.2		1
21	plate,position plate 2	ZBC37.2.2-5		ZBC37.2.2		2

## 3.2 HYDRAULIC JACK CYLINDER XBC39.00-3012



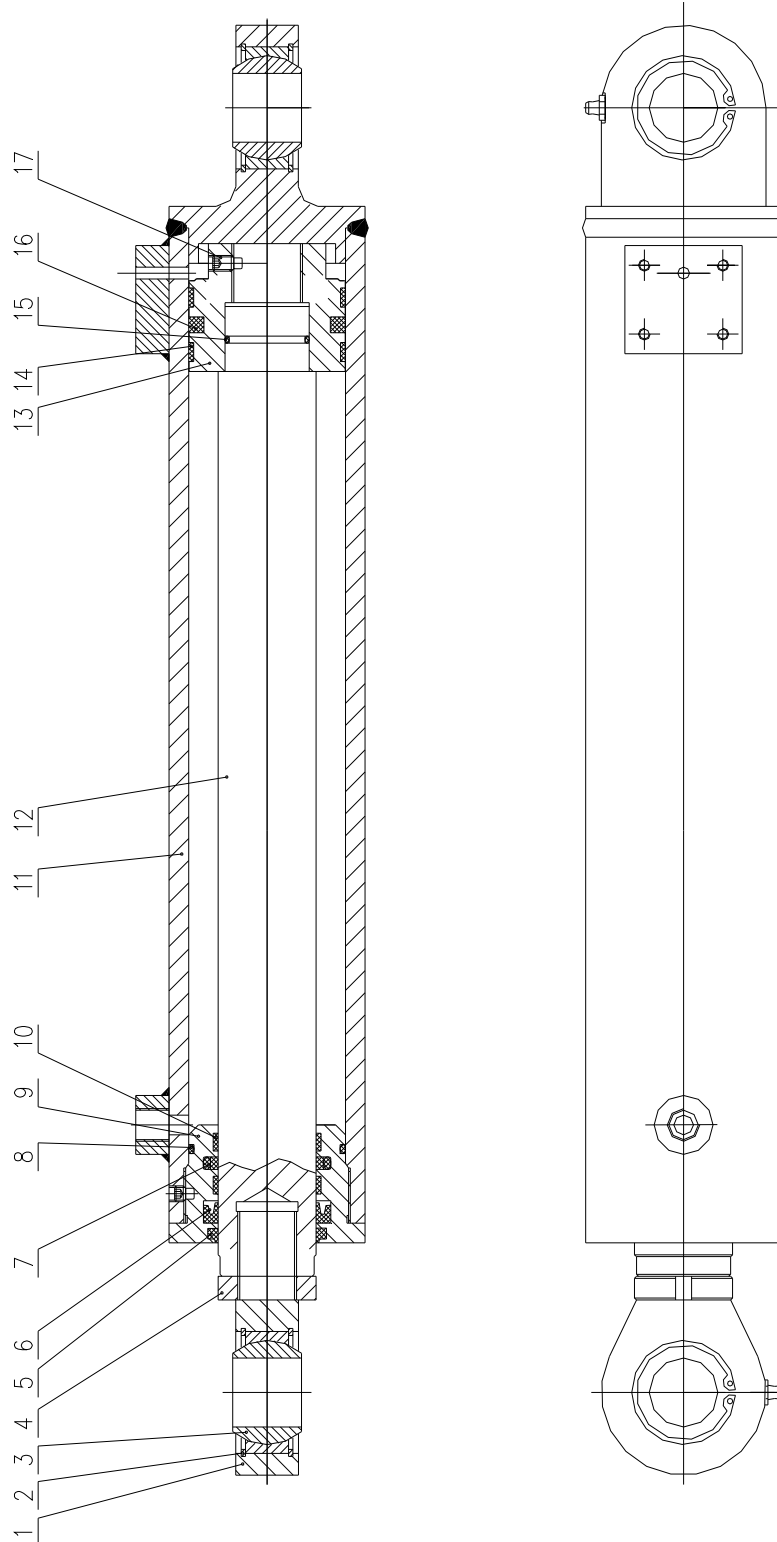


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	rod,piston rod	XBC39.00-3301		XBC39.00-3012		1
2	seal,ring 40 × 155.1 × 6.3	XBC39.00-3302		XBC39.00-3012s		1
3	ring,guide ring	XBC39.00-3303		XBC39.00-3012s		1
4	seal,bearing seal 40 × 160 × 14.5 bs	XBC39.00-3304		XBC39.00-3012s		1
5	guide ring 140 x 145 x 25	XBC39.00-3305		XBC39.00-3012s		2
6	seal,bearing seal 140 × 155.1 × 6.3 od	XBC39.00-3306		XBC39.00-3012s		1
7	O-ring	XBC39.00-3307		XBC39.00-3012s		1
8	cylinder body	XBC39.00-3308		XBC39.00-3012		1
9	piston	XBC39.00-3309		XBC39.00-3012		1
10	O-ring 91.67 × 3.53	CO00000005		XBC39.00-3012s		1
11	ring,snap ring 160 x 114.5 x 16	CD00000011		XBC39.00-3012s		1
12	ring,guide ring 160 x 155 x 15	XBC39.00-3312		XBC39.00-3012s		2
13	nut,lock nut	XBC39.00-3313		XBC39.00-3012s		1
14	bolt M12 × 16	CB00000011		XBC39.00-3012s		1

## 3.3 HYDRAULIC SWINGOUT CYLINDER ZBC37.2.7





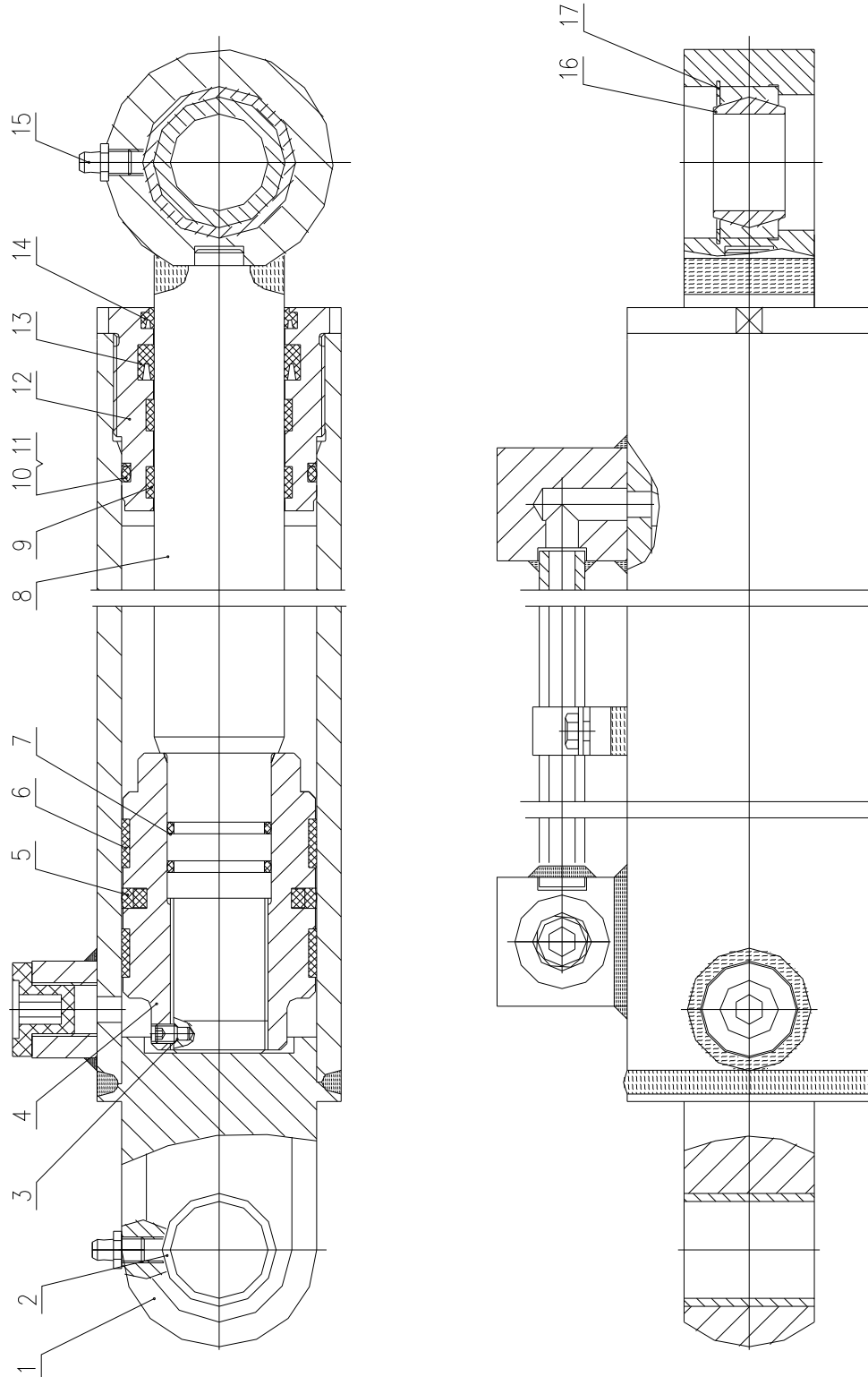
# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	clevis,rod end clevis	XBC39.00-3401		ZBC37.2.7		1
2	ring,snap ring 55	CD00000001		ZBC37.2.7s		4
3	bearing,joint bearing 35	XBC39.00-3403		ZBC37.2.7s		2
4	nut	XBC39.00-3404		ZBC37.2.7s		1
5	seal,ring 50 × 60 × 7	XBC39.00-3405		ZBC37.2.7s		1
6	seal,bearing seal 50 × 65 × 11.4	XBC39.00-3406		ZBC37.2.7s		1
7	seal,bearing seal 50 × 6.3×65.1	XBC39.00-3407		ZBC37.2.7s		1
8	O-ring 72.63 × 3.53	CO00000004		ZBC37.2.7s		1
9	carrier,seal carrier	XBC39.00-3409		ZBC37.2.7		1
10	ring,guide ring 50 × 55 × 5.6	XBC39.00-3410		ZBC37.2.7s		2
11	cylinder body	XBC39.00-3411		ZBC37.2.7		1
12	rod,piston rod	XBC39.00-3412		ZBC37.2.7		1
13	piston	XBC39.00-3413		ZBC37.2.7		1
14	ring,guide ring 80 × 75×9.7	XBC39.00-3414		ZBC37.2.7s		2
15	O-ring 37.77 × 2.62	CO00000002		ZBC37.2.7s		1
16	seal,bearing seal 80 × 64.6 × 6.3	XBC39.00-3416		ZBC37.2.7s		1
17	bolt M8 × 8	CB00000046		ZBC37.2.7s		2



## 3.4 HYDRAULIC EXTEND CYLINDER XBC39.2.8



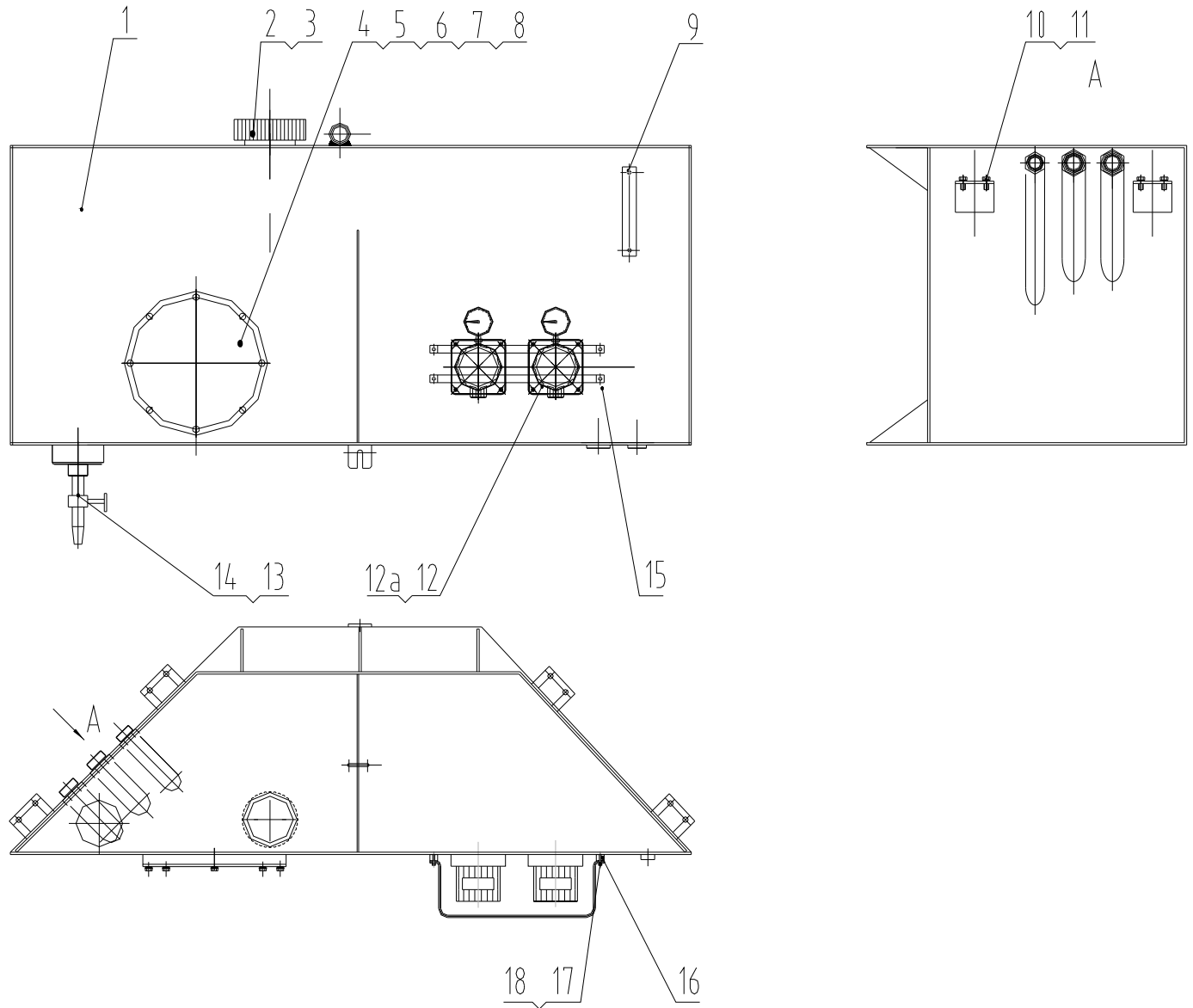


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	cylinder body	XBC39.00-3701		XBC39.2.8		1
2	bushing 30 × 34 × 40	XBC39.00-3702		XBC39.2.8s		1
3	bolt M6 × 10	CB00000040		XBC39.2.8s		1
4	piston	XBC39.00-3704		XBC39.2.8		1
5	seal,bearing seal 60 × 44.5 × 6.3	XBC39.00-3705		XBC39.2.8s		1
6	ring,guide ring 55 × 60 × 15	XBC39.00-3706		XBC39.2.8s		2
7	O-ring 26.64 × 2.62	CO00000001		XBC39.2.8s		2
8	rod,piston rod	XBC39.00-3708		XBC39.2.8		1
9	ring,guide ring 40 × 45 × 9.7	XBC39.00-3709		XBC39.2.8s		2
10	O-ring 53.57 × 3.53	CO00000003		XBC39.2.8s		1
11	ring,snap ring	XBC39.00-3711		XBC39.2.8s		1
12	carrier,seal carrier	XBC39.00-3712		XBC39.2.8		1
13	seal,piston rod seal 40 × 50 × 11	XBC39.00-3713		XBC39.2.8s		1
14	seal,ring 40 × 48 × 5.8	XBC39.00-3714		XBC39.2.8s		1
15	nipple M8	CL00000003		XBC39.2.8s		1
16	bearing,joint bearing	XBC39.00-3716		XBC39.2.8s		1
17	ring,snap ring for holes 47	CD00000002		XBC39.2.8s		1

## 3.5 HYDRAULIC TANK ASSEMBLY XBC39.2.6



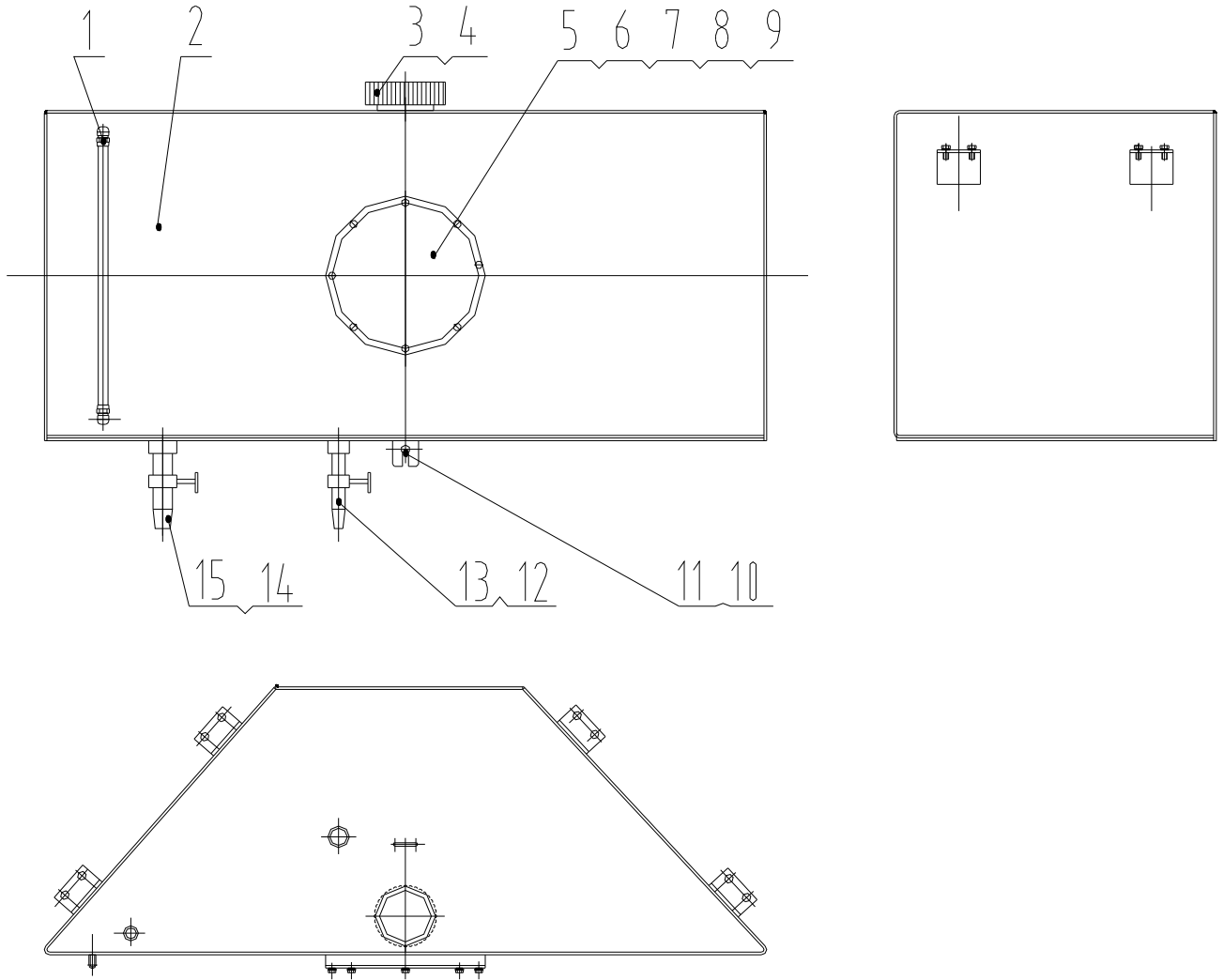


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	tank,hydraulic	XBC39.2.6.1		XBC39.2.6		1
2	filter	LE0827-91		XBC39.2.6		1
3	bolt M5 × 12	CB00000037		XBC39.2.6		4
4	flange	BC42.2-1		XBC39.2.6		1
5	o-ring 307 × 5.3	CO00000023		XBC39.2.6		1
6	bolt M10 × 16	CB00000002		XBC39.2.6		8
7	washer 10	CW00000002		XBC39.2.6		8
8	washer 10	CW00000001		XBC39.2.6		8
9	gauge,level and temperature	YWZ-200T		XBC39.2.6		1
10	bolt M12 × 25	CB00000013		XBC39.2.6		9
11	washer 12	CW00000003		XBC39.2.6		9
12	filter,oil assembly	ES094		XBC39.2.6		2
12a	element,filer oil	P20933-01		XBC39.2.6		2
13	pipe,1"	C100000002		XBC39.2.6		1
14	valve,1" copper ball valve	XBC39.00-3514		XBC39.2.6		1
15	cover,filter cover	XBC39.2.6.1-11		XBC39.2.6		2
16	plate	XBC39.2.6.1-12		XBC39.2.6		4
17	washer 5	CW00000016		XBC39.2.6		4
18	bolt M5 x 25	CB00000038		XBC39.2.6		4

## 3.6 WATER TANK ASSEMBLY XBC38.2.7



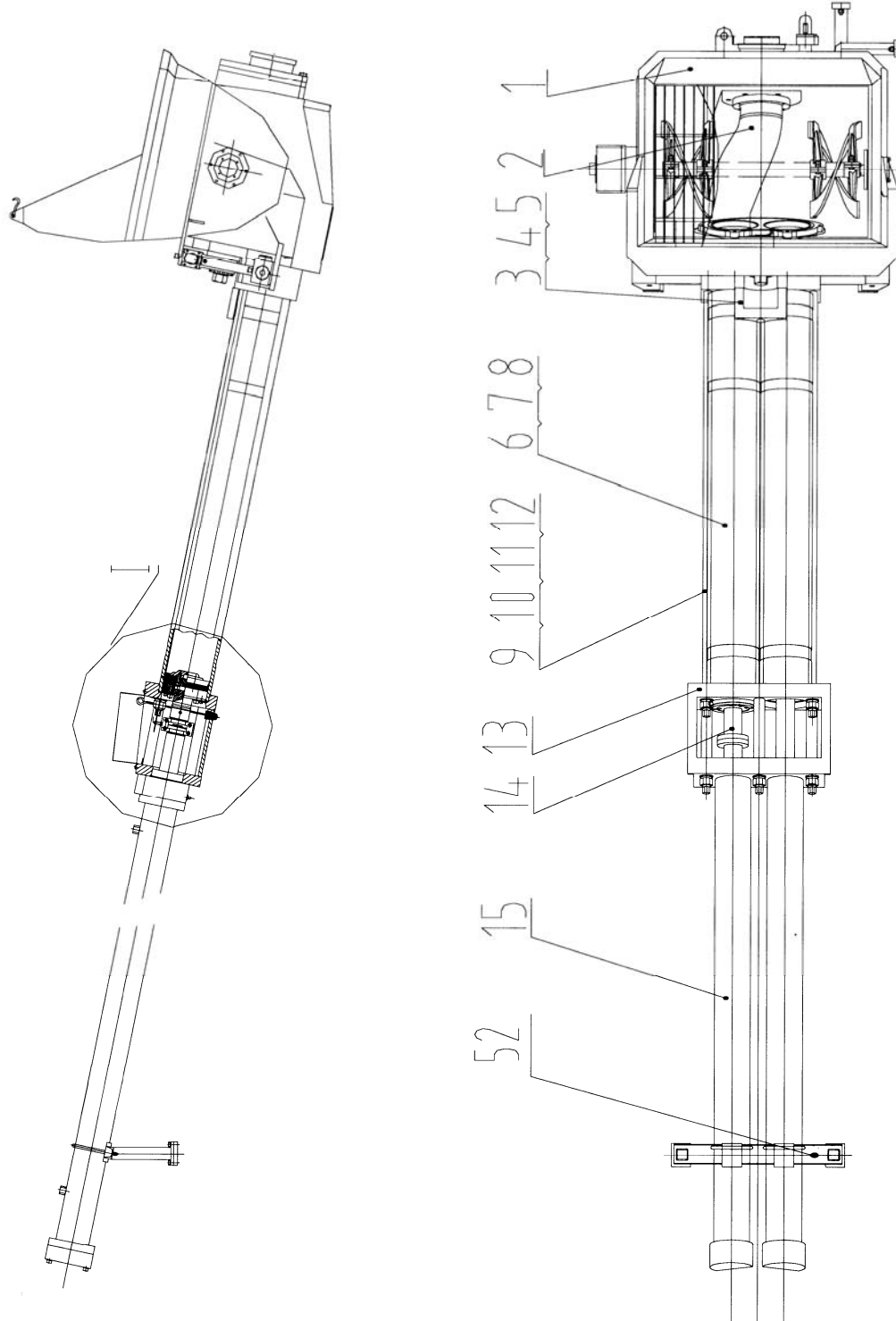


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	tube,transparent nylon tube $\Phi 16 \times 1$ PA11	XBC39.00-3601		XBC38.2.7		1
2	tank,water	XBC38.2.7.1		XBC38.2.7		1
3	filter,water	EF-80		XBC38.2.7		1
4	bolt M8 $\times$ 30	CB00000045		XBC38.2.7		4
5	flange	BC42.2-1		XBC38.2.7		1
6	o-ring 307 $\times$ 5.3	CO00000023		XBC38.2.7		1
7	bolt M10 $\times$ 16	CB00000002		XBC38.2.7		8
8	washer 10	CW00000002		XBC38.2.7		8
9	washer 10	CW00000001		XBC38.2.7		8
10	bolt M12 $\times$ 25	CB00000013		XBC38.2.7		9
11	washer 12	CW00000003		XBC38.2.7		9
12	pipe,1"	C100000002		XBC38.2.7		1
13	valve,1" ball valve	XBC39.00-3613		XBC38.2.7		1
14	pipe,1 1/2"	C100000001		XBC38.2.7		1
15	valve,1 1/2" ball valve	XBC39.00-3615		XBC38.2.7		1

## CHAPTER 4 PUMPING SYSTEM





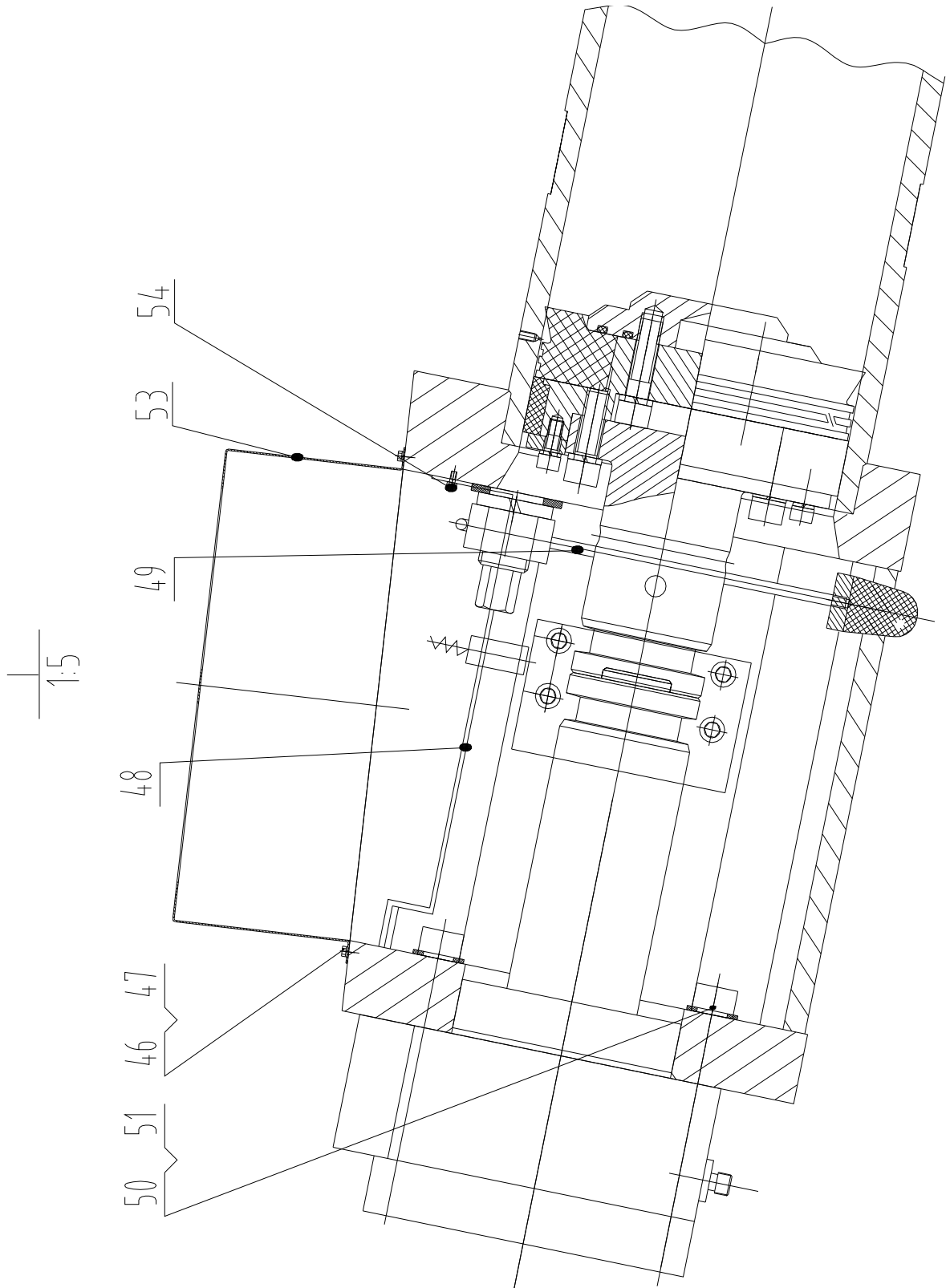
# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Name	Code	Material	Parent	Weight	Quantity
1	hopper assembly	BC37.3.1		XBC39.3		1
2	s-tube assembly	BC37.3.2		XBC39.3		1
3	base,tie-rod base	BC37.3-1		XBC39.3		1
4	washer 20	CW00000009		XBC39.3		3
5	bolt M20×145	CB00000027		XBC39.3		3
6	o-ring Φ243×7	CO00000025		XBC39.3		2
7	cylinder,concrete cylinder	BC37.3-2		XBC39.3		2
8	tie-rod	BC37.3-3		XBC39.3		6
9	shield	BC37.3-4		XBC39.3		2
10	nut M36	CN00000007		XBC39.3		6
11	washer 36	CW00000014		XBC39.3		6
12	washer 36	CW00000019		XBC39.3		6
13	water box	BC37.3.3		XBC39.3		1
14	piston,concrete piston	BC37.3.4		XBC39.3		2
15	cylinder,drive cylinder	BC37.3.5		XBC39.3		2



## 4.1 WATER BOX BC37.3.3



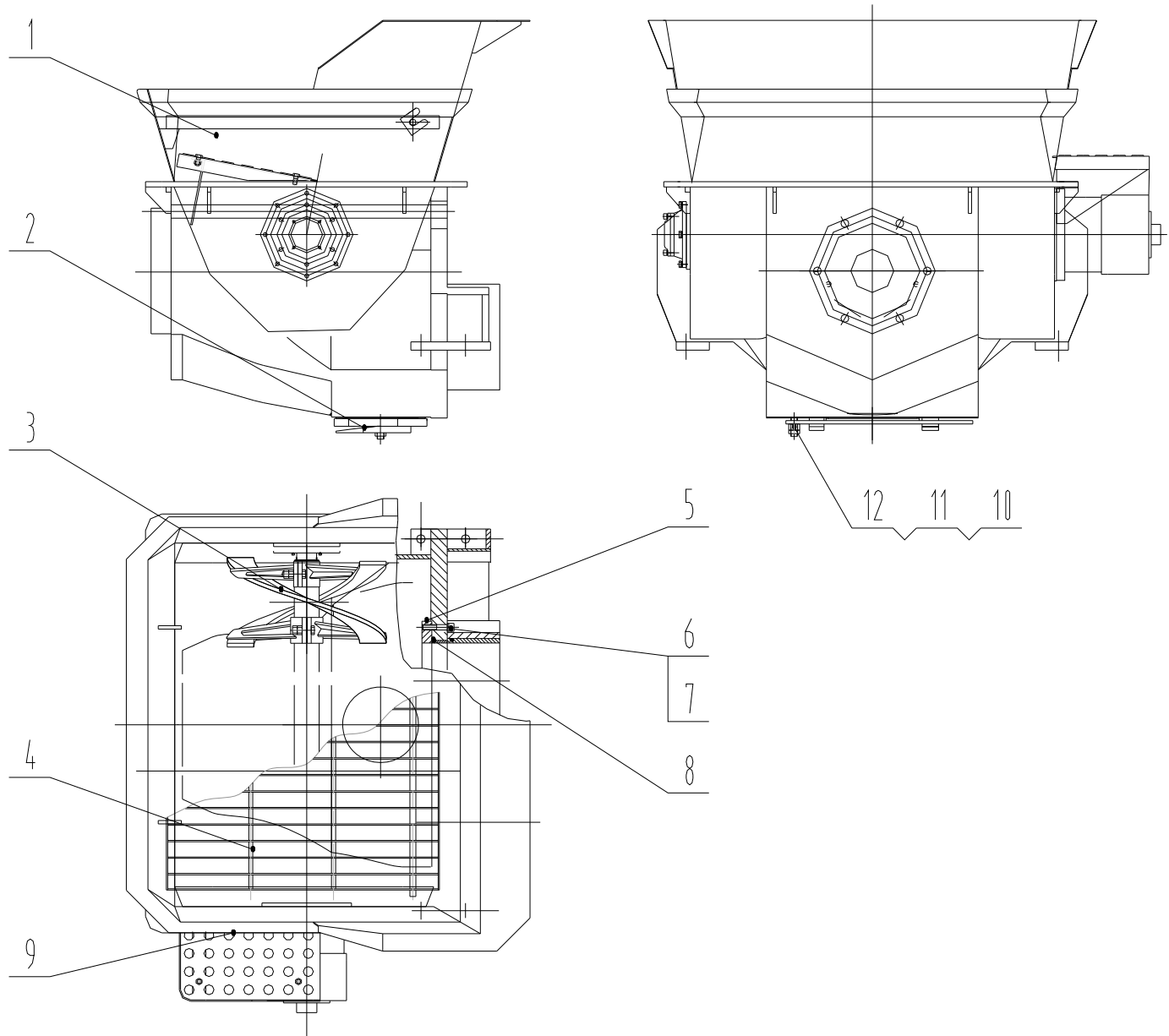


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

---

No.	Name	Code	Material	Parent	Weight	Quantity
46	bolt M8 x 12	CB00000047		BC37.3.3		4
47	washer 8	CW00000017		BC37.3.3		4
48	bracket,proximity switch	BC37.3.26		BC37.3.3		2
49	plug,waterbox	BC37.3.23		BC37.3.3		2
50	bolt M22 x 185	CB00000031		BC37.3.3		18
51	washer 22	CW00000012		BC37.3.3		18
52	support,drive cylinder	BC37.3.24		BC37.3.3		1
53	cover,water box	BC37.3-12		BC37.3.3		1
54	bolt M8 x 16	CB00000048		BC37.3.3		4

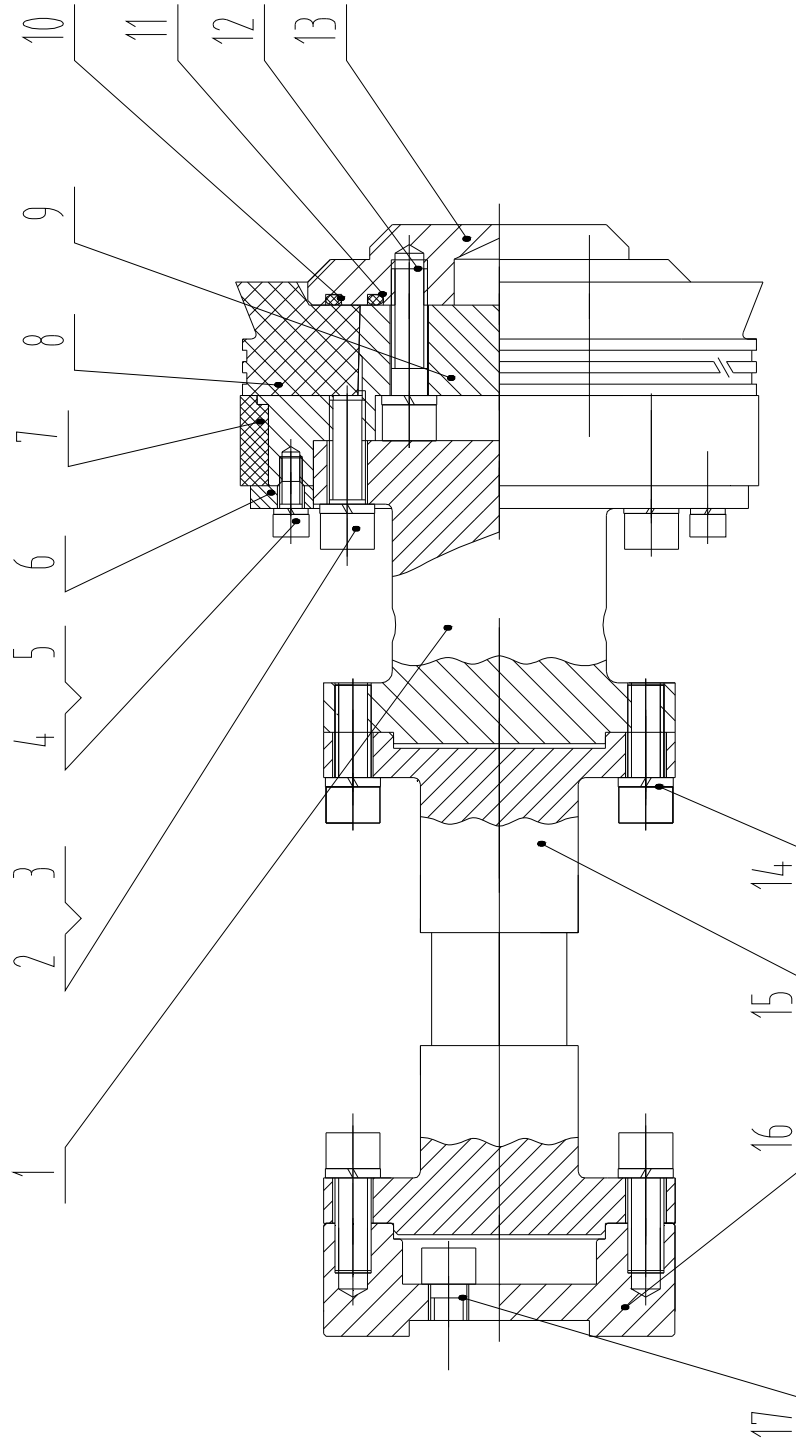
**4.2 HOPPER ASSEMBLY BC37.3.1**



# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	hopper weldment	BC37.3.1.1		BC37.3.1		1
2	door,hopper door	60S1816.3.4-2		BC37.3.1		1
3	agitator	BC37.3.1.5		BC37.3.1		1
4	grate,hopper grate	BC37.3.1.2		BC37.3.1		1
5	plate,wear plate	BC37.3.1-1		BC37.3.1		1
6	bolt M16 × 75	CB00000026		BC37.3.1		6
7	washer 16	CW00000006		BC37.3.1		2
8	o-ring 243 × 5.3	CO00000021		BC37.3.1		2
9	step	BC37.3.1.4		BC37.3.1		1
10	stud	60S1816.3.4-4		BC37.3.1		1
11	Nut M20	CN00000009		BC37.3.1		1
12	Nut M20	CN00000010		BC37.3.1		1

**4.3 CONCRETE PISTON ASSEMBLY BC37.3.4**

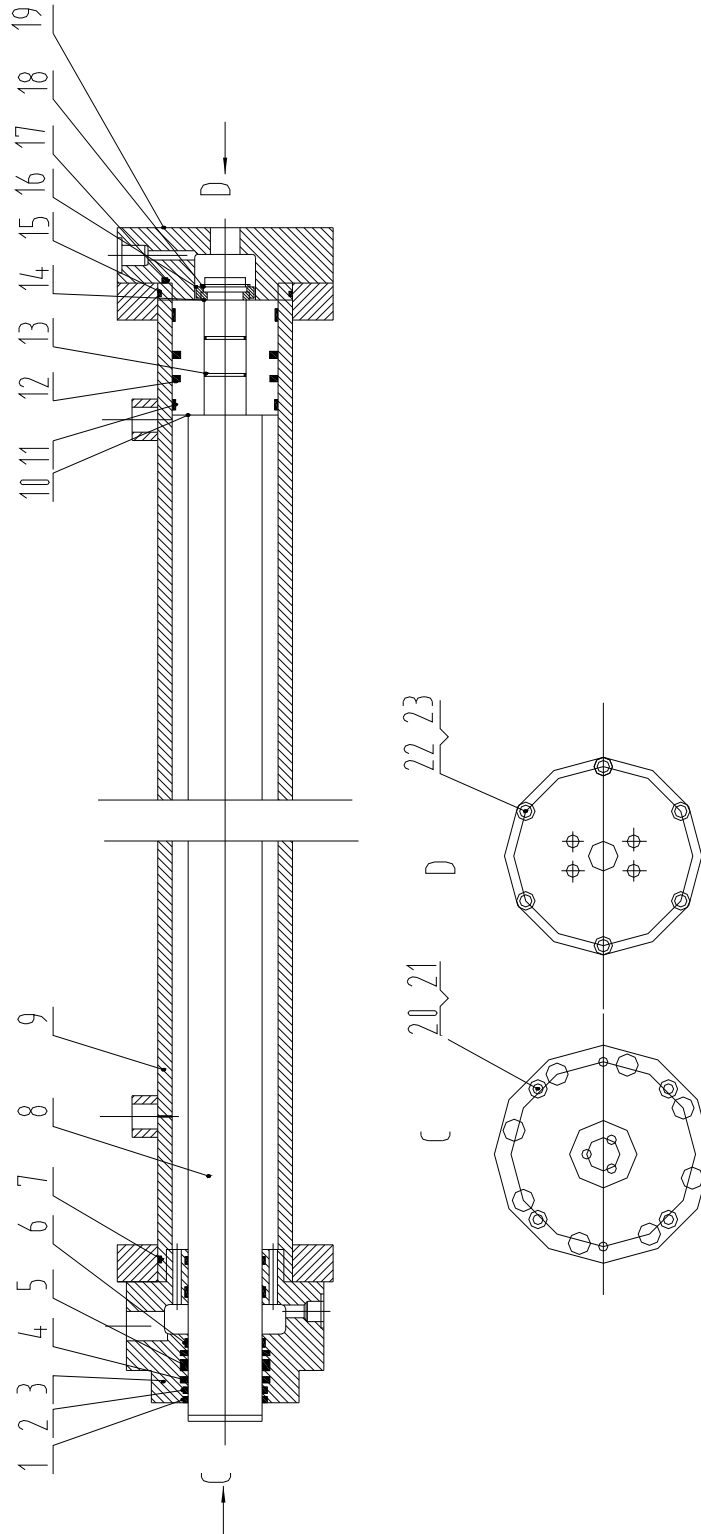


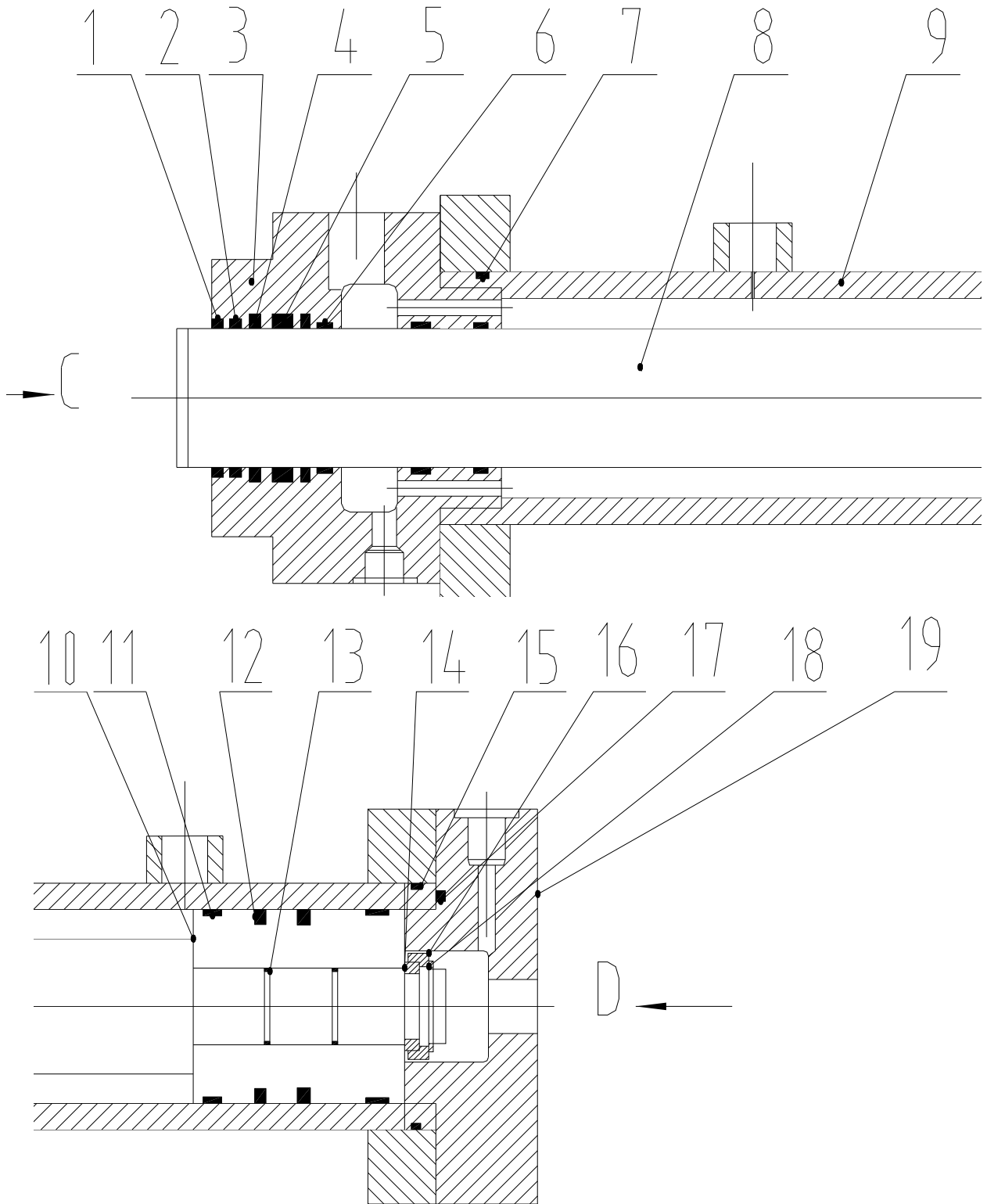
# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Name	Code	Material	Parent	Weight	Quantity
1	connecting rod	CZB90.03.1-1	45	BC37.3.4		1
2	bolt m16x50	CB00000022	8.8	BC37.3.4		4
3	washer 16	CW00000006	65Mn	BC37.3.4		16
4	bolt m10x25	CB00000005	8.8	BC37.3.4		4
5	washer 10	CW00000001	65Mn	BC37.3.4		4
6	plate,retaining plate	BC37.3.4-2	Q235-A	BC37.3.4		1
7	band,guide band	BC37.3.4-3		BC37.3.4		1
8	seal,concrete seal	BC37.3.4-4	Polyurethane	BC37.3.4		1
9	piston body	BC37.3.4-5	45	BC37.3.4		1
10	o-ring 140x5.3	CO00000020	Rubber	BC37.3.4		1
11	o-ring 103x5.3	CO00000019	Rubber	BC37.3.4		1
12	bolt m16x60	CB00000025	8.8	BC37.3.4		4
13	plate,retaining plate	BC37.3.4-6	45	BC37.3.4		1
14	bolt m16*45	CB00000021	8.8	BC37.3.4		8
15	rod,connecting rod	60S1816.5-5	45	BC37.3.4		1
16	flange,transition flange	60S1416.5-3	45	BC37.3.4		1
17	bolt m12x40	CB00000016	8.8-grade	BC37.3.4		3

## 4.4 DRIVE CYLINDER BC37.3.5







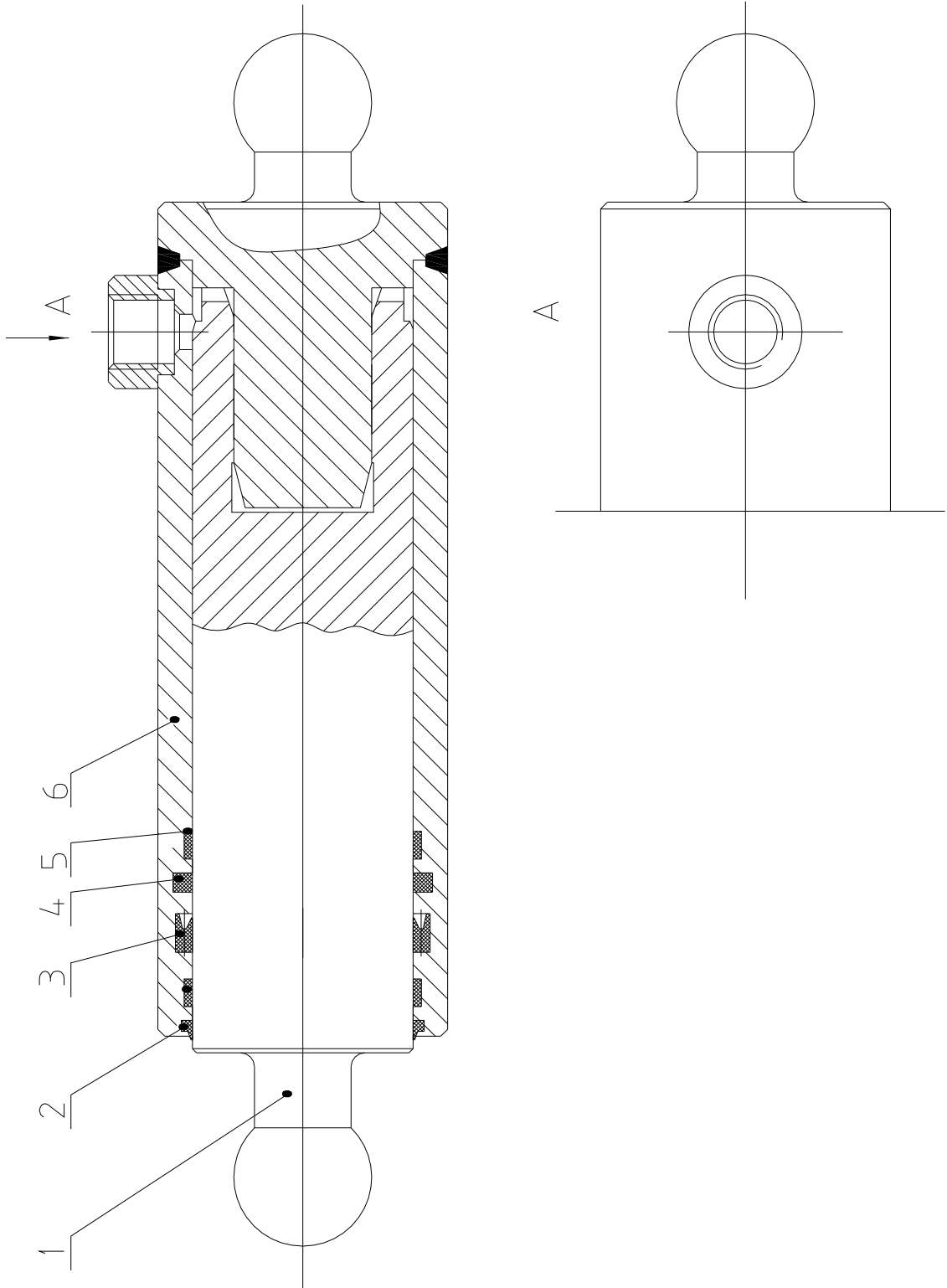


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	ring,snap ring 90	CD00000007		BC37.3.5s		1
2	ring,anti-dust ring	XBC39.00-4302		BC37.3.5s		1
3	carrier,seal carrier	XBC39.00-4303		BC37.3.5		1
4	seal,OD piston rod seal	XBC39.00-4304		BC37.3.5s		2
5	seal,BS piston rod seal	XBC39.00-4305		BC37.3.5s		1
6	ring,guide ring	XBC39.00-4306		BC37.3.5s		3
7	O-ring 125 x 3.1	CO00000016		BC37.3.5s		2
8	rod,piston rod	XBC39.00-4308		BC37.3.5		1
9	cylinder body	XBC39.00-4309		BC37.3.5		1
10	piston	XBC39.00-4310		BC37.3.5		1
11	ring,guide ring	XBC39.00-4311		BC37.3.5s		2
12	seal,piston seal	XBC39.00-4312		BC37.3.5s		2
13	O-ring 66x3.1	CO00000018		BC37.3.5s		2
14	ring,key ring for shaft	BC39.00-4314		BC37.3.5s		1
15	O-ring 115X3.1	CO00000015		BC37.3.5s		1
16	ring,snap ring cap	XBC39.00-4316		BC37.3.5s		1
17	O-ring 130X3.1	CO00000017		BC37.3.5s		1
18	ring,snap ring 65	CD00000008		BC37.3.5s		1
19	cylinder body	XBC39.00-4319		BC37.3.5		3
20	bolt M10 x 100	CB00000008		BC37.3.5s		4
21	washer 10	CW00000001		BC37.3.5s		4
22	bolt M24 x 65	CB00000034		BC37.3.5s		6
23	washer M24	CW00000013		BC37.3.5s		6

## 4.5 SHIFT CYLINDER XBCY39.00-6233



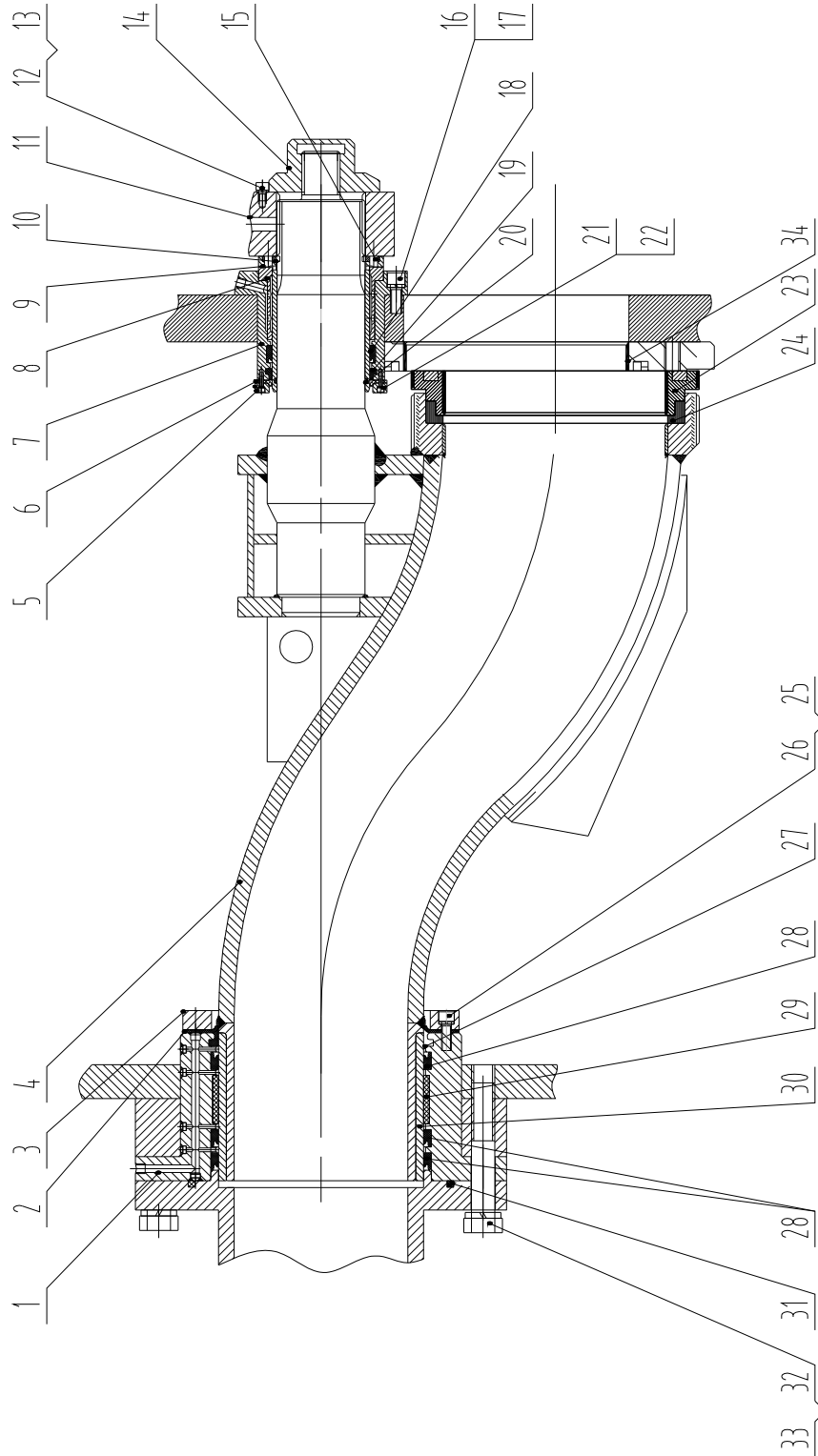


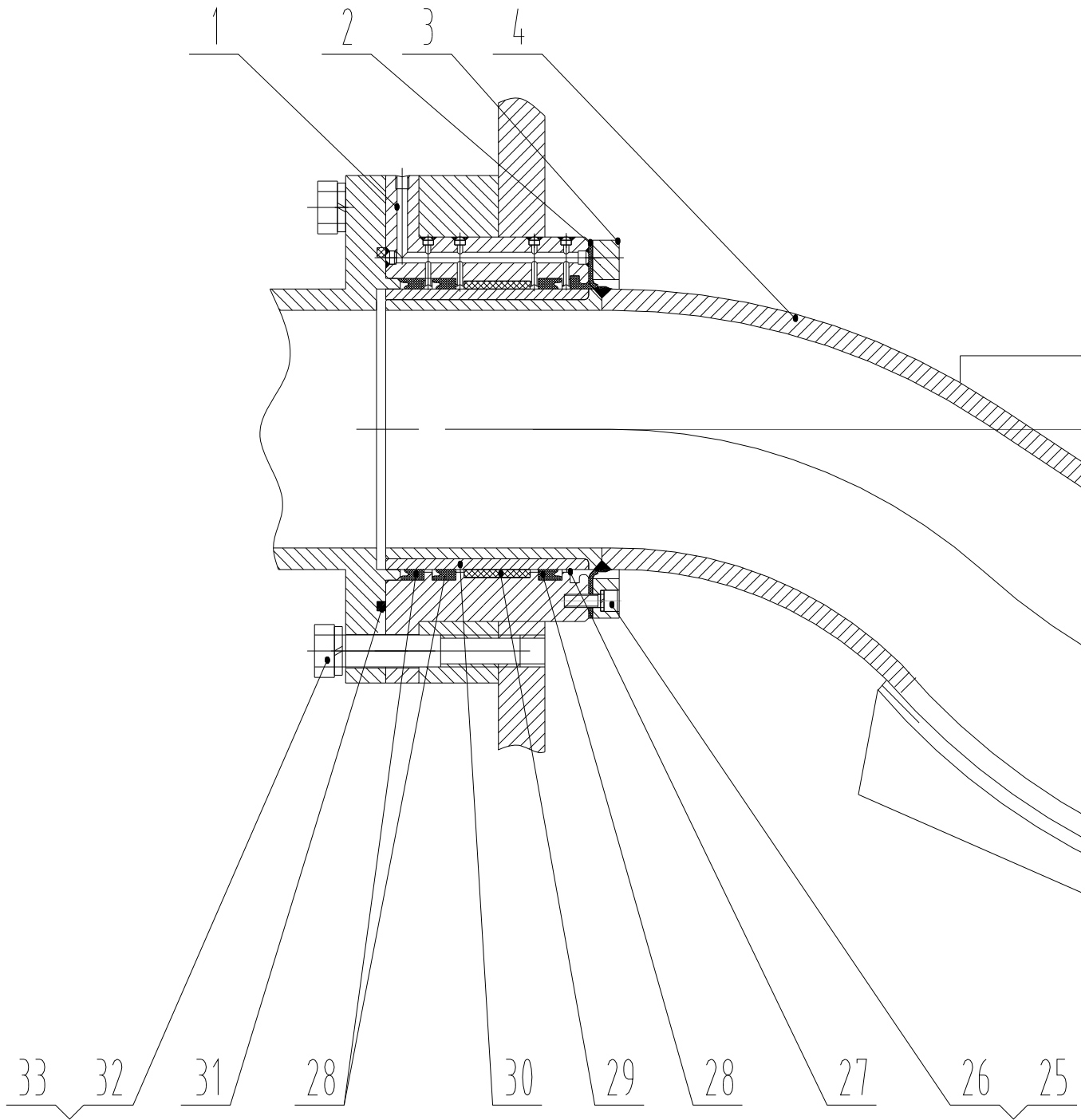
# XT39R4V00

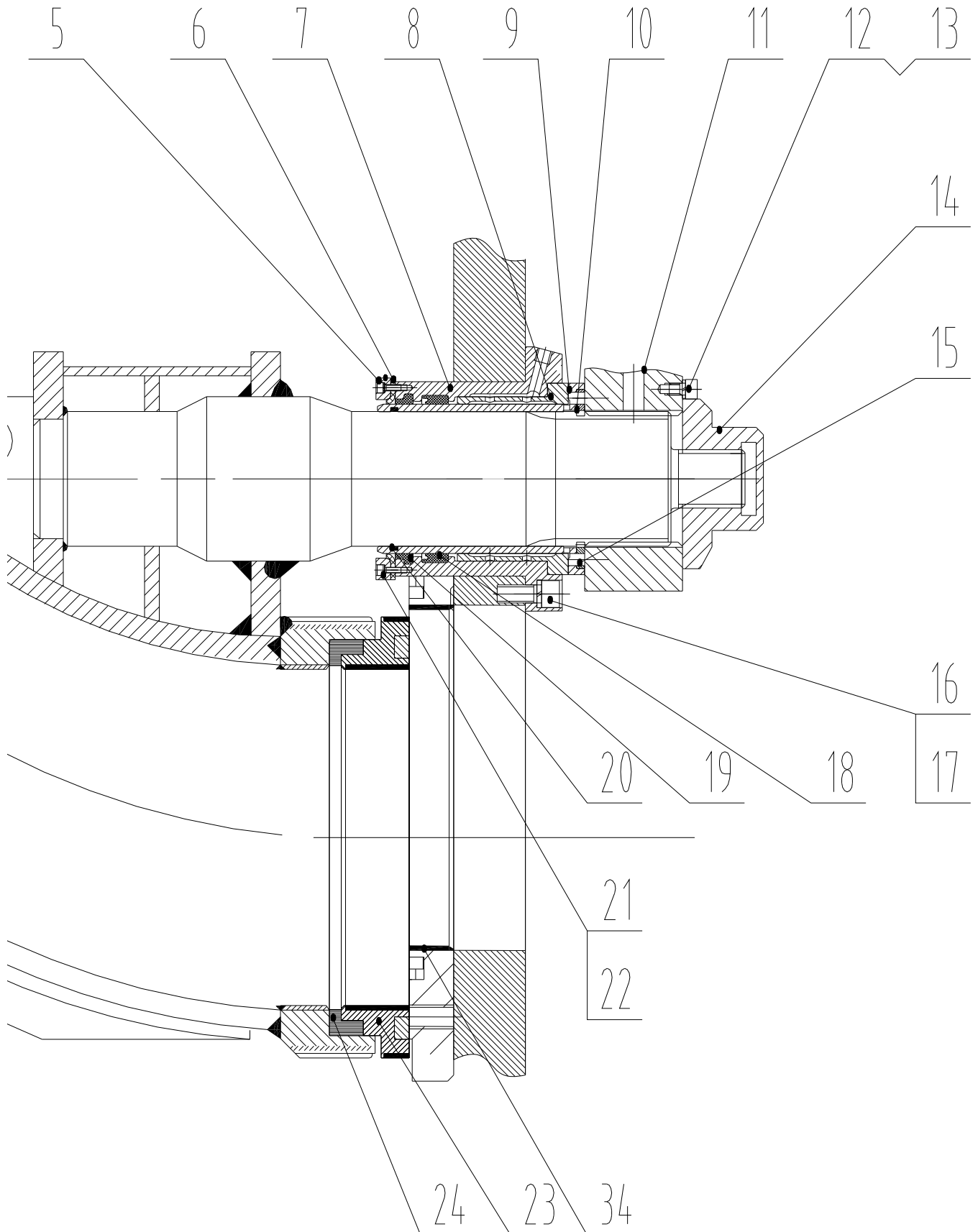
**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
[www.reedpumps.com](http://www.reedpumps.com)

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	rod,piston rod	XBC39.00-4801		XBCY39.00-6233		1
2	ring,AY anti-dust d80	XBC39.00-4802		XBCY39.00-6233s		1
3	ring,BS bearing ring d80	XBC39.00-4803		XBCY39.00-6233s		1
4	seal,PTEE OD rod seal d80	XBC39.00-4804		XBCY39.00-6233s		1
5	ring,FR guide ring	XBC39.00-4805		XBCY39.00-6233s		2
6	cylinder assembly	XBC39.00-4806		XBCY39.00-6233		1

## 4.6 S-TUBE ASSEMBLY BC37.3.2







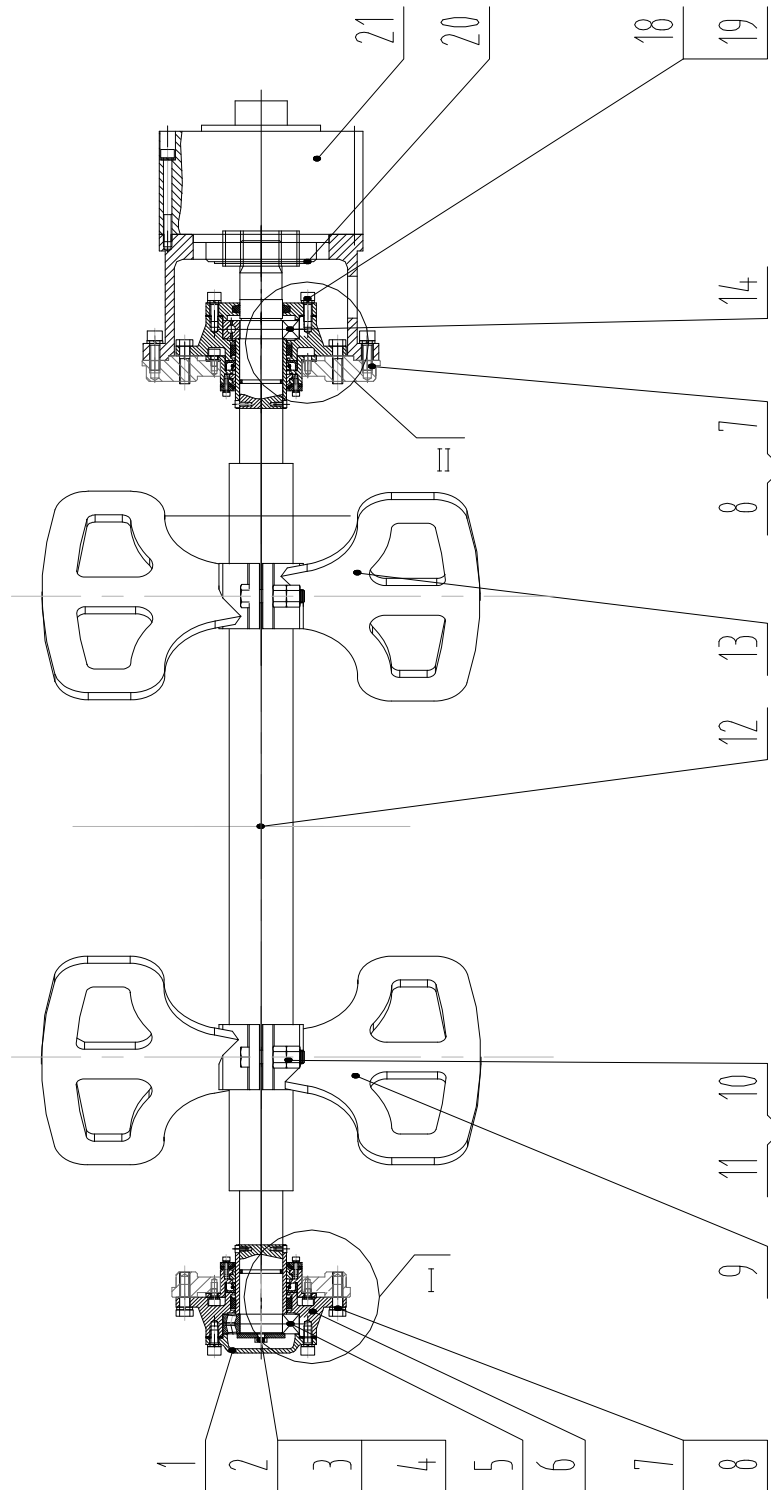


# XT39R4V00

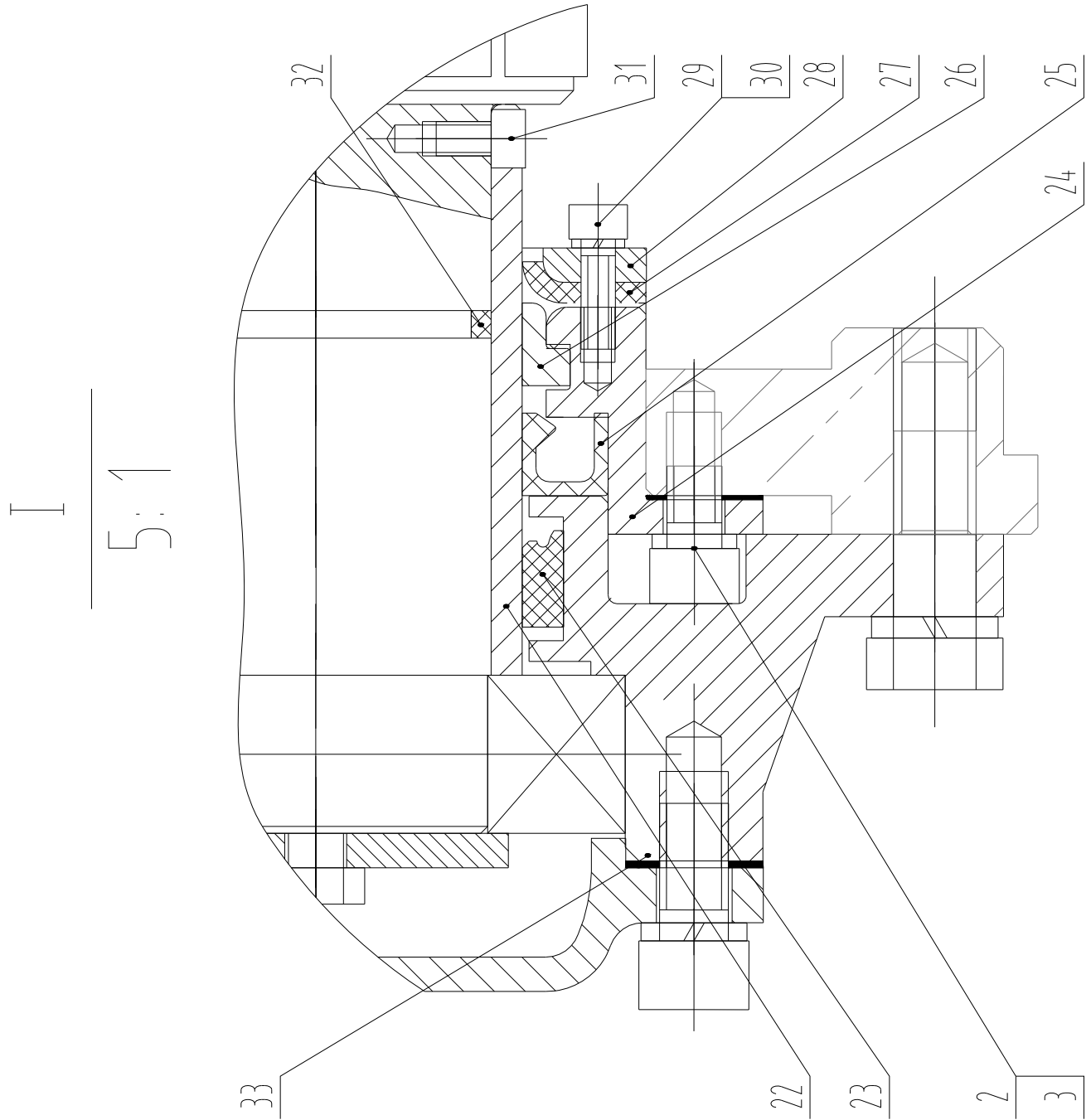
**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

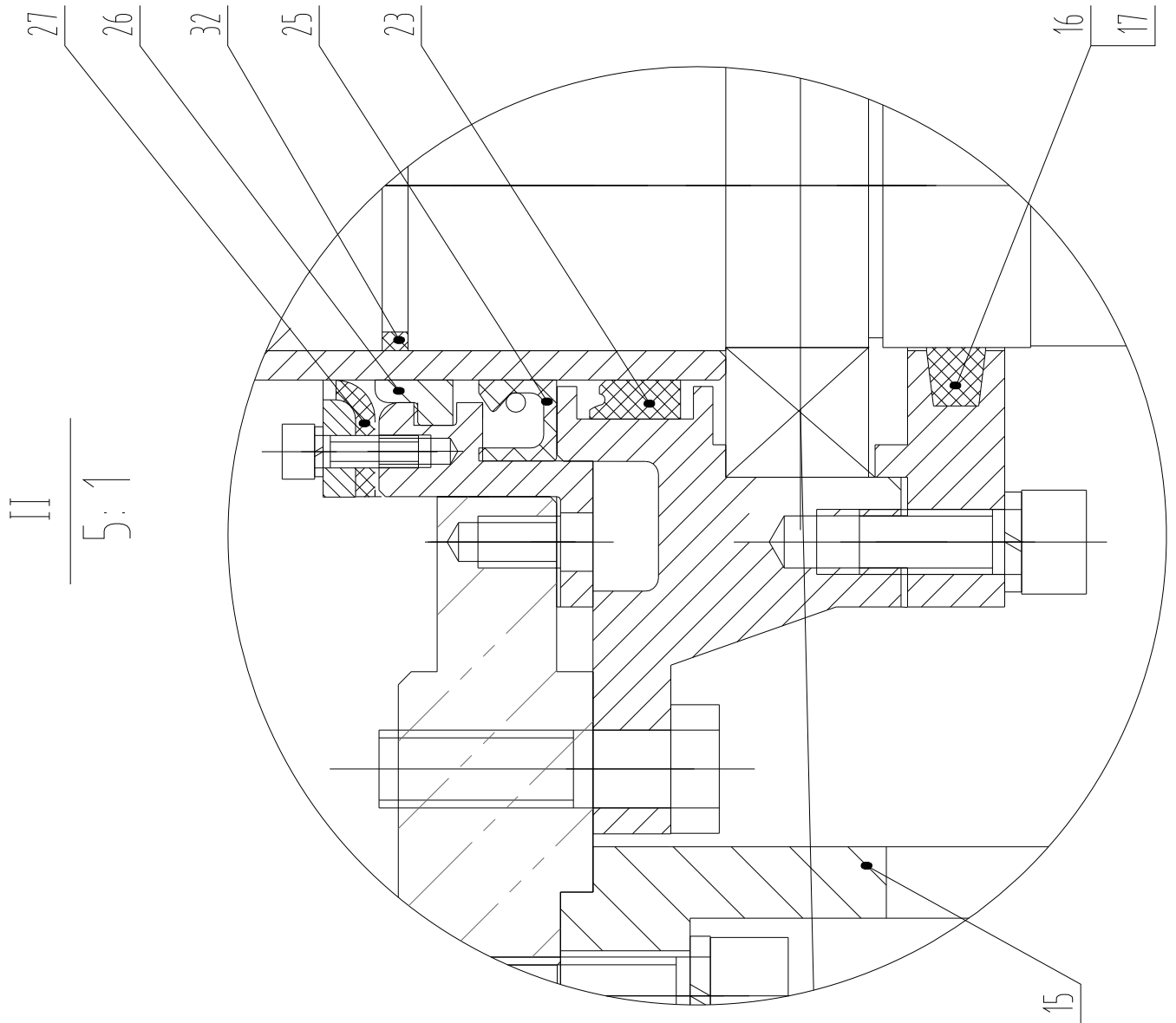
No.	Description	Part Number	Material	Parent	Weight	Quantity
1	housing,bearing outlet	60S1816.1.2.2		BC37.3.2		1
2	seal,housing	60S1816.1.2-1		BC37.3.2		1
3	plate,retaining plate	60S1816.1.2-2		BC37.3.2		1
4	s-tube	BC37.3.2.1		BC37.3.2		1
5	plate,retaining plate	60S1816.1.2-3		BC37.3.2		1
6	seal,bearing housing	60S1816.1.2-4		BC37.3.2		1
7	housing,bearing shaft	60S1816.1.2-15		BC37.3.2		1
8	bearing,copper bearing	60S1816.1.2-5		BC37.3.2		1
9	bearing,thrust bearing	60S1816.1.2-6		BC37.3.2		1
10	spline ring	60S1816.1.2-7		BC37.3.2		1
11	lever,drive lever	60S1816.1.2-8		BC37.3.2		1
12	bolt M8 x 16	CB00000049		BC37.3.2		1
13	washer 8	CW00000017		BC37.3.2		1
14	nut,tension nut	60S1816.1.2-9		BC37.3.2		1
15	pin,positioning pin	60S1816.1.2-10		BC37.3.2		1
16	bolt M12 x 30	CB00000015		BC37.3.2		6
17	washer 12	CW00000003		BC37.3.2		6
18	seal,lip seal	XBC39.00-4918	C1A015N3571	BC37.3.2		1
19	seal,ring	XBC39.00-4919	A5A018N3587	BC37.3.2		1
20	o-ring 88.49x3.53	CO00000028		BC37.3.2		1
21	bolt M4 x 12	CB00000036		BC37.3.2		6
22	washer 4	CW00000015		BC37.3.2		6
23	ring,cutting ring	BC37.3.2-11		BC37.3.2		1
24	ring,tension ring	BC37.3.2-12		BC37.3.2		1
25	bolt M10 x 30	CB00000007		BC37.3.2		6
26	washer 10	CW00000001		BC37.3.2		6
27	seal,ring J210	XBC39.00-006		BC37.3.2		1
28	seal,lip seal YXd210	XBC39.00-007		BC37.3.2		3
29	bearing,nylon bearing	60S1816.1.2-13		BC37.3.2		1
30	sleeve,wear sleeve	60S1816.1.2-14		BC37.3.2		1
31	o-ring 258 x 7	CO00000022		BC37.3.2		1
32	bolt M24 x 150	CB00000033		BC37.3.2		6
33	washer 24	CW00000013		BC37.3.2		6
34	plate,wear plate	BC37.3.1-1		BC37.3.2		1

## 4.7 AGITATOR ASSEMBLY











# XT39R4V00

REED  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

Number	Description	Part Number	Material	Parent	Quantity
1	cover	60S1816.3.2-1	HT200		1
2	bolt m8x16	CB00000099	GB70-85		9
3	Washer 8	CW00000017	GB93-87		9
4	Pressure plate	60S1816.3.2-2	钢板 B-5/Q235-A		1
5	bearing,copper bearing 22210	CZ00000001	GB/T288-94		1
6	housing,bearing outlet	60S1816.3.2-3	HT200		2
7	bolt m12x35	CB00000106	GB70-85		20
8	Washer 12	CW00000003	GB93-87		20
9	Agitator,Right Side	60S1816.3.2.1			2
10	Bolt M16x65	CB00000107	GB8782-86		8
11	Nut M16	CN00000012	GB41-86		16
12	shaft	60S1816.3.2-4	35CrMoV 或 42CrMo		1
13	Agitator, Left Side	60S1816.3.2.2			2
14	bearing,copper bearing 6210	CZ00000002	GB/T276-94		1
15	Motor Base	60S1816.3.2-5	ZG200-400		1
16	cover	60S1816.3.2-6	B-20/Q235-A		1
17	felt ring	60S1816.3.2-7			1
18	bolt m10x25	CB00000085	GB70-85		12
19	Washer 10	CW00000001	GB93-87		12
20	Spline sleeve	60S1816.3.2-8			1
21	Agitator Motor	1QJM12-1.25			1
22	axle sleeve	60S1816.3.2-9	45		2
23	ring, bearing ring Yxd60×72×14	CO00000048			2
24	sealing cover	60S1816.3.2-10	Q235-A		2
25	Lip seal	CO00000047	GB9877.1-88		2
26	seal , Dustproof seal J60	CO00000049			2
27	Dustproof mat of rubber	60S1816.3.2-11			2
28	Pressure plate	60S1816.3.2-12	钢板 B-5/Q235-A		2
29	Washer 5	CW00000026	GB93-87		12
30	bolt M5×14	CB00000108	GB70-85		12



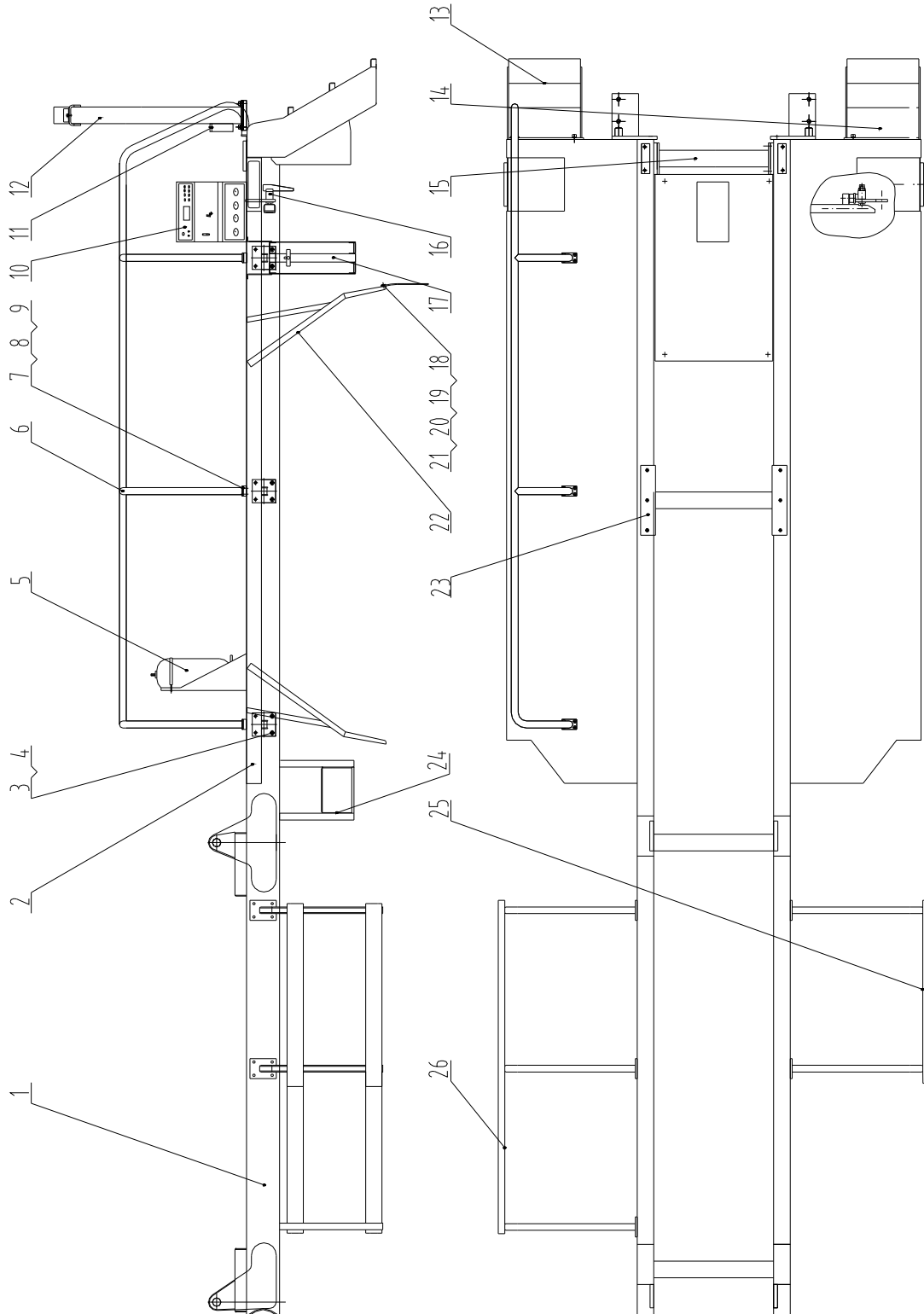
# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

---

31	bolt M5×8	CB00000109	GB70-85		4
32	O-ring $\phi$ 50×3.1	CO00000046	GB1235-76		2
33	sealing gasket	60S1816.3.2-13	软钢纸板 $\delta$ 0.5		2

## CHAPTER 5 SUBFRAME ASSEMBLY



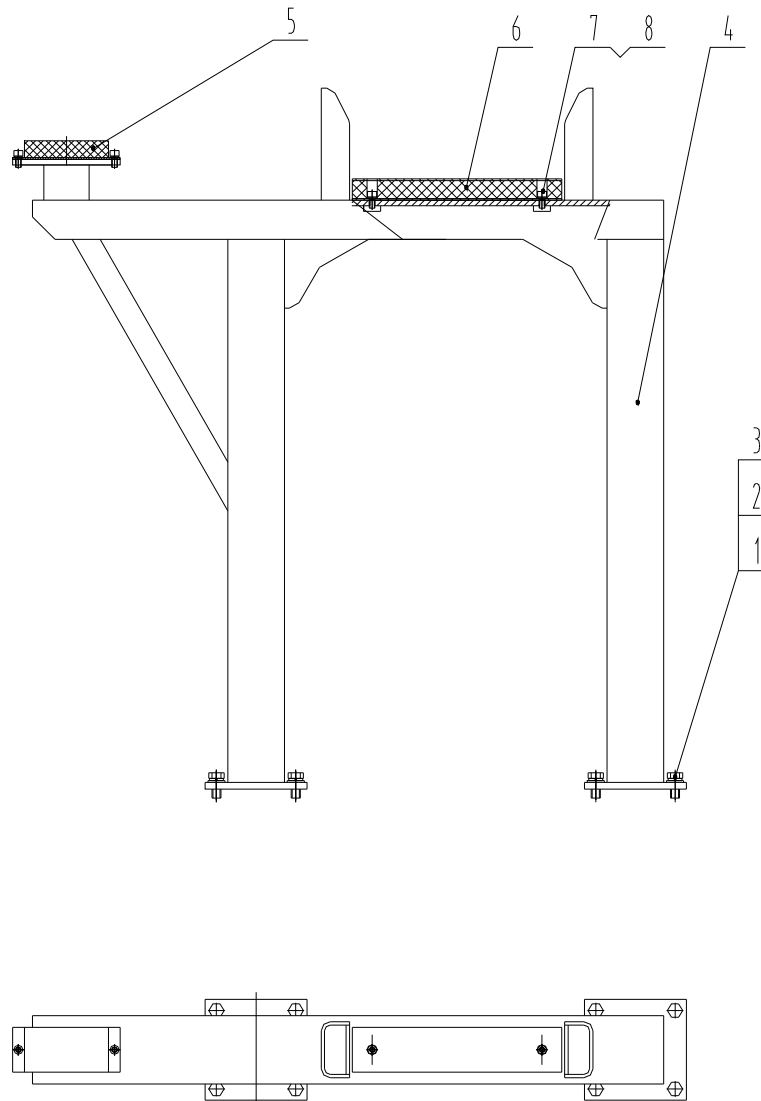


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

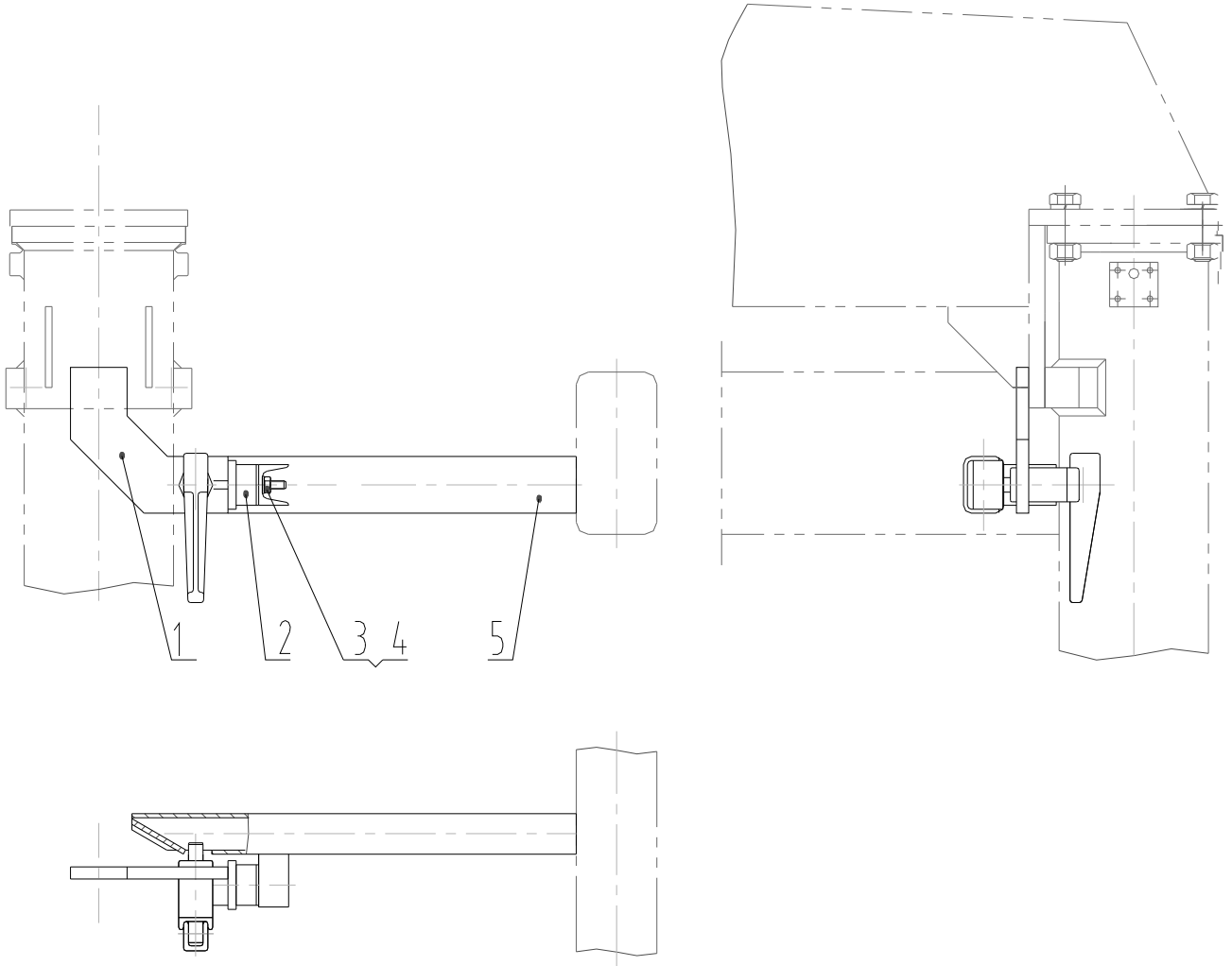
No.	Description	Part Number	Material	Parent	Weight	Quantity
1	subframe	XBC39.4.1		XBC39.4		1
2	deck	XBC39.4.2		XBC39.4		1
3	bolt M16 x 35	CB00000020		XBC39.4		32
4	washer 16	CW00000006		XBC39.4		32
5	support,accumulator	XBC39.4.20		XBC39.4		1
6	rail,deck rail	ZBC39.4.4		XBC39.4		1
7	base,rail	BC42.4.10-1		XBC39.4		3
8	bolt M12 x 25	CB00000013		XBC39.4		12
9	washer 12	CW00000003		XBC39.4		12
10	control box	XBC39.4.21		XBC39.4		1
11	lubrication reservoir	XBC39.4.22		XBC39.4		1
12	rest,boom rest	ZBC37.4.7		XBC39.4		1
13	steps,right	BC42.4.16		XBC39.4		1
14	steps,left	BC42.4.15		XBC39.4		1
15	brace,subframe base	ZBC39.4.7		XBC39.4		1
16	lock,rear outrigger	ZBC37.4.5		XBC39.4		2
17	bracket,outrigger pad	BC42.4.13		XBC39.4		2
18	flap,rubber mudflap	800999		XBC39.4		2
19	plate	BC42.4.5-4		XBC39.4		2
20	bolt M8 x 20	CB00000051		XBC39.4		8
21	nut M8	CN00000008		XBC39.4		8
22	fender,wheel	BC42.4.5		XBC39.4		1
23	bracket,pumping system	BC42.4.6		XBC39.4		1
24	toolbox	802719		XBC39.4		1
25	guardrail,left	NA		XBC39.4		1
26	guardrail,right	NA		XBC39.4		1

## 5.1 BOOM REST



No.	Description	Part Number	Material	Parent	Weight	Quantity
1	bolt M16 × 35	CB00000020		XBC39.4		4
2	washer 16	CW00000006		XBC39.4		8
3	washer 16	CW00000007		XBC39.4		8
4	rest,boom frame	BC37D.4.7.1		XBC39.4		1
5	pad,rest pad	BC42.1.7.1.1		XBC39.4		1
6	pad,rest pad	BC42.4.4.7		XBC39.4		1
7	bolt M10 × 20	CB00000003		XBC39.4		4
8	washer 10	CW00000001		XBC39.4		4

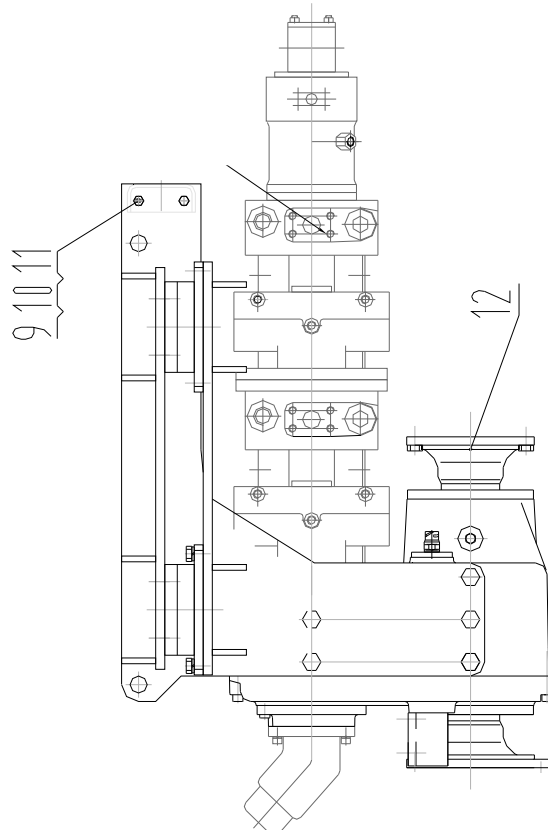
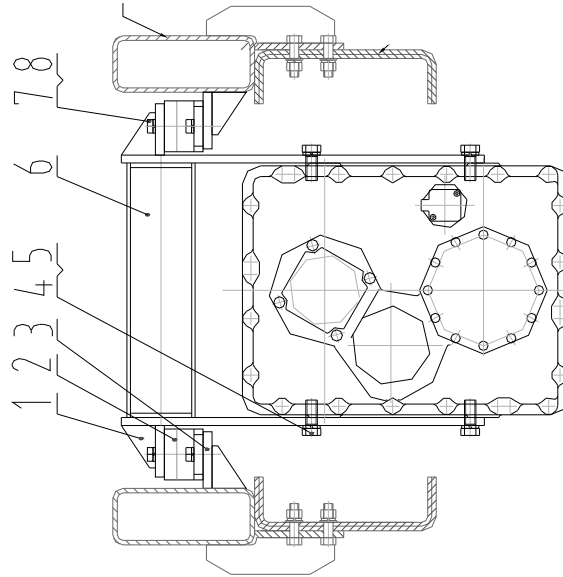
## 5.2 REAR OUTRIGGER LOCK ZBC37.4.5



No.	Description	Part Number	Material	Parent	Weight	Quantity
1	plate, rear bracket	BC37D.4.5.1		XBC39.4		1
2	pad, bumper pad	WAI 103494		XBC39.4		1
3	nut M10	CN00000001		XBC39.4		1
4	washer 10	CW00000001		XBC39.4		1
5	tube, rear rectangular	BC37D.4.5.2		XBC39.4		1



## 5.3 GEARBOX ASSEMBLY BC42.5.2





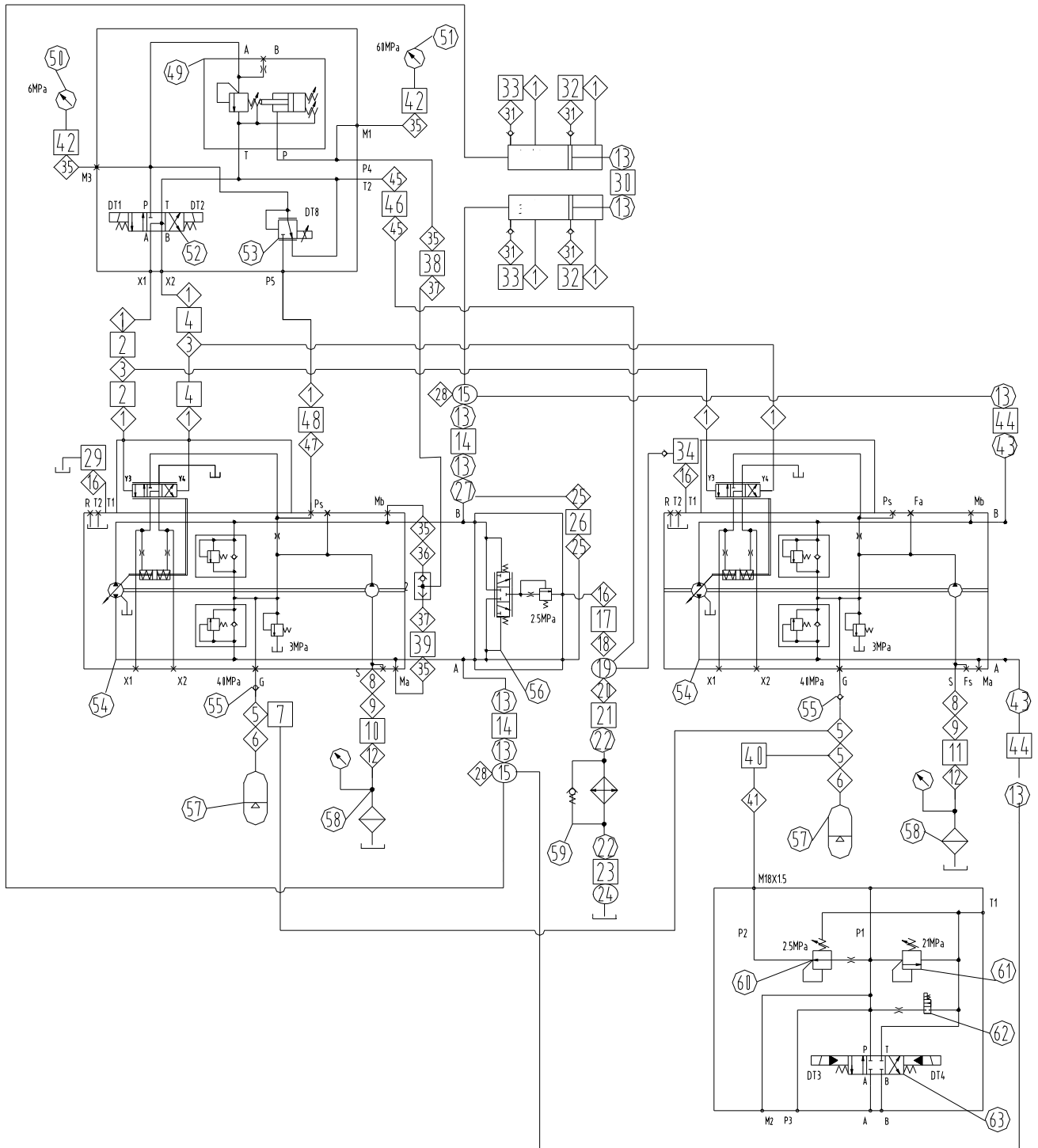
# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	bracket,gearbox pto	BC42.5.2.1		BC42.5.2		2
2	mount pad	SH-500		BC42.5.2		4
3	bracket,frame pto	BC42.5.2.2		BC42.5.2		2
4	bolt M20 × 50	CB00000028		BC42.5.2		10
5	washer 20	CW00000008		BC42.5.2		10
6	brace,pto	BC42.5.2.3		BC42.5.2		1
7	bolt M16 × 35	CB00000020		BC42.5.2		16
8	washer 16	CW00000006		BC42.5.2		16
9	bolt M10 × 30	CB00000006		BC42.5.2		4
10	washer 10	CW00000001		BC42.5.2		4
11	nut M10	CN00000001		BC42.5.2		4
12	gearbox assembly	XBC39.00-5412		BC42.5.2		1

## CHAPTER 6 HYDRAULIC SYSTEM

### 6.1 PUMPING SYSTEM XBC39.6.1





# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	straight thread connector	XBCY39.00-6101		XBC39.6.1		11
2	hose	XBCY39.00-6102		XBC39.6.1		2
3	tee connector	XBCY39.00-6103		XBC39.6.1		2
4	hose	XBCY39.00-6104		XBC39.6.1		2
5	tee connector	XBCY39.00-6105		XBC39.6.1		3
6	straight thread connector	XBCY39.00-6106		XBC39.6.1		2
7	hose	XBCY39.00-6107		XBC39.6.1		1
8	straight thread connector	XBCY39.00-6108		XBC39.6.1		2
9	union elbow	XBCY39.00-6109		XBC39.6.1		2
10	hose	XBCY39.00-6110		XBC39.6.1		1
11	hose	XBCY39.00-6111		XBC39.6.1		1
12	oil absorption joint	XBCY39.00-6112		XBC39.6.1		2
13	flange,split flange	XBCY39.00-6113		XBC39.6.1		16
14	hose	XBCY39.00-6114		XBC39.6.1		2
15	tee block	XBCY39.00-6115		XBC39.6.1		2
16	straight thread connector	XBCY39.00-6116		XBC39.6.1		3
17	hose	XBCY39.00-6117		XBC39.6.1		1
18	straight thread connector	XBCY39.00-6118		XBC39.6.1		1
19	fluid gathering block	XBCY39.00-6119		XBC39.6.1		1
20	straight thread connector	XBCY39.00-6120		XBC39.6.1		1
21	hose	XBCY39.00-6121		XBC39.6.1		1
22	flange joint component	XBCY39.00-6122		XBC39.6.1		2
23	hose	XBCY39.00-6123		XBC39.6.1		1
24	oil return block	XBCY39.00-6124		XBC39.6.1		1
25	hinged joint	XBCY39.00-6125		XBC39.6.1		2
26	hose	XBCY39.00-6126		XBC39.6.1		1
27	flange FS20	XBCY39.00-6127		XBC39.6.1		1
28	bulkhead	XBCY39.00-6128		XBC39.6.1		2
29	hose	XBCY39.00-6129		XBC39.6.1		1
30	hose	XBCY39.00-6130		XBC39.6.1		1
31	transitional joint	XBCY39.00-6131		XBC39.6.1		4
32	hose	XBCY39.00-6132		XBC39.6.1		2
33	hose	XBCY39.00-6133		XBC39.6.1		2
34	hose	XBCY39.00-6134		XBC39.6.1		1
35	straight thread connector	XBCY39.00-6135		XBC39.6.1		5
36	straight thread connector	XBCY39.00-6136		XBC39.6.1		1
37	straight thread connector	XBCY39.00-6137		XBC39.6.1		2

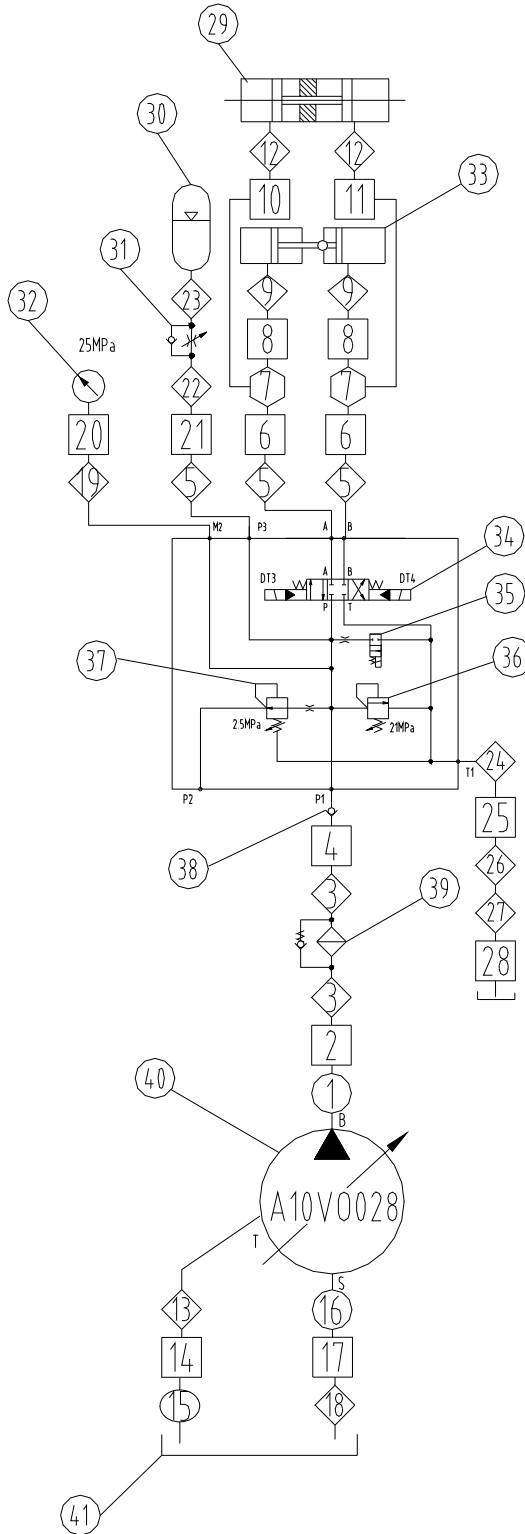


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

38	hose	XBCY39.00-6138		XBC39.6.1		1
39	hose	XBCY39.00-6139		XBC39.6.1		1
40	hose	XBCY39.00-6140		XBC39.6.1		1
41	straight thread connector	XBCY39.00-6141		XBC39.6.1		1
42	hose,check pressure 5m	XBCY39.00-6142		XBC39.6.1		2
43	component of flange joint	XBCY39.00-6143		XBC39.6.1		2
44	hose	XBCY39.00-6144		XBC39.6.1		2
45	straight thread connector	XBCY39.00-6145		XBC39.6.1		1
46	hose	XBCY39.00-6146		XBC39.6.1		1
47	straight thread connector	XBCY39.00-6147		XBC39.6.1		1
48	hose	XBCY39.00-6148		XBC39.6.1		1
49	valve,hp limiter valve	XBCY39.00-6149		XBC39.6.1		1
50	gauge,pressure 6 MPa	XBCY39.00-6150		XBC39.6.1		1
51	gauge,pressure 60 MPa	XBCY39.00-6151		XBC39.6.1		1
52	valve,directional 4/3 valve	XBCY39.00-6152		XBC39.6.1		1
53	valve,proportional valve	XBCY39.00-6153		XBC39.6.1		1
54	pump,A4VG125	XBCY39.00-6154		XBC39.6.1		2
55	valve,check valve	XBCY39.00-6155		XBC39.6.1		2
56	valve,flushing valve	XBCY39.00-6156		XBC39.6.1		1
57	accumulator	XBCY39.00-6157		XBC39.6.1		2
58	filter,oil suction filter	ES094		XBC39.6.1		2
59	cooler,oil	XBCY39.00-6159		XBC39.6.1		1
60	valve,pressure reducing	XBCY39.00-6160		XBC39.6.1		1
61	valve,relief valve	XBCY39.00-6161		XBC39.6.1		1
62	valve,dump valve	XBCY39.00-6162		XBC39.6.1		1
63	valve,directional 4/3 valve	XBCY39.00-6163		XBC39.6.1		1

## 6.2 SHIFTING SYSTEM XBC39.6.2





# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	flange,split flange	XBCY39.00-6201		XBC39.6.2		2
2	hose	XBCY39.00-6202		XBC39.6.2		1
3	straight thread connector	XBCY39.00-6203		XBC39.6.2		2
4	hose	XBCY39.00-6204		XBC39.6.2		1
5	straight thread connector	XBCY39.00-6205		XBC39.6.2		2
6	hose	XBCY39.00-6206		XBC39.6.2		2
7	pipe,steel pipe	XBCY39.00-6207		XBC39.6.2		2
8	hose	XBCY39.00-6208		XBC39.6.2		2
9	joint	XBCY39.00-6209		XBC39.6.2		2
10	hose	XBCY39.00-6210		XBC39.6.2		1
11	hose	XBCY39.00-6211		XBC39.6.2		1
12	straight thread connector	XBCY39.00-6212		XBC39.6.2		2
13	straight thread connector	XBCY39.00-6213		XBC39.6.2		1
14	hose	XBCY39.00-6214		XBC39.6.2		1
15	oil return block	XBCY39.00-6215		XBC39.6.2		1
16	flange joint FL20/L42	XBCY39.00-6216		XBC39.6.2		1
17	hose	XBCY39.00-6217		XBC39.6.2		1
18	straight thread connector	XBCY39.00-6218		XBC39.6.2		1
19	straight thread connector	XBCY39.00-6219		XBC39.6.2		1
20	hose,check 5m	XBCY39.00-6142		XBC39.6.2		1
21	hose	XBCY39.00-6221		XBC39.6.2		1
22	straight thread connector	XBCY39.00-6222		XBC39.6.2		1
23	joint M60/S30	XBCY39.00-6223		XBC39.6.2		1
24	straight thread connector	XBCY39.00-6224		XBC39.6.2		1
25	hose	XBCY39.00-6225		XBC39.6.2		1
26	joint of changeable diameter	XBCY39.00-6226		XBC39.6.2		1
27	bulkhead union elbow	XBCY39.00-6227		XBC39.6.2		1
28	hose	XBCY39.00-6228		XBC39.6.2		1
29	pump,grease pump	XBCY39.00-6229		XBC39.6.2		1
30	accumulator	XBCY39.00-6230		XBC39.6.2		1
31	valve,throttle check valve	XBCY39.00-6231		XBC39.6.2		1
32	gauge,pressure 25 MPa	XBCY39.00-6232		XBC39.6.2		1
33	cylinder,shift	XBCY39.00-6233		XBC39.6.2		2
34	valve,directional 4/3	XBCY39.00-6234		XBC39.6.2		1
35	valve,dump valve	XBCY39.00-6235		XBC39.6.2		1
36	valve,relief valve	XBCY39.00-6236		XBC39.6.2		1



# XT39R4V00

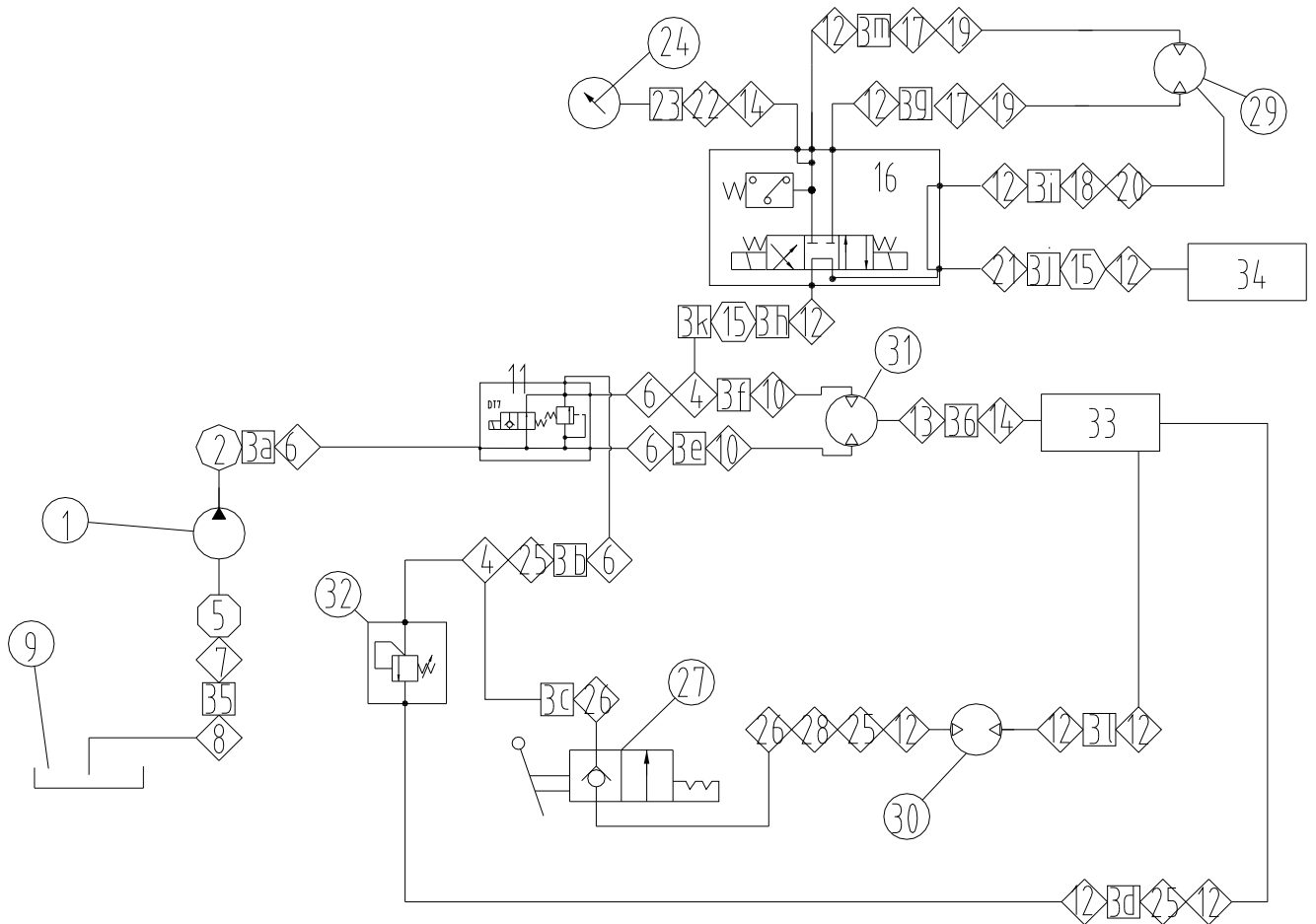
**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
[www.reedpumps.com](http://www.reedpumps.com)

---

37	valve,pressure reducing	XBCY39.00-6237		XBC39.6.2		1
38	valve,check valve	XBCY39.00-6238		XBC39.6.2		1
39	filter,pressure filter	XBCY39.00-6239		XBC39.6.2		1
40	pump,A10	XBCY39.00-6240		XBC39.6.2		1
41	tank,hydraulic tank	XBC39.2.6		XBC39.6.2		1



## 6.3 AUXILARY SYSTEM XBC39.6.3





# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	pump,gear pump	XBCY39.00-6301		XBC39.6.3		1
2	flange,square flange	XBCY39.00-6302		XBC39.6.3		1
3a	hose	XBCY39.00-633a		XBC39.6.3		1
3b	hose	XBCY39.00-633b		XBC39.6.3		1
3c	hose	XBCY39.00-633c		XBC39.6.3		1
3d	hose	XBCY39.00-633d		XBC39.6.3		1
3e	hose	XBCY39.00-633e		XBC39.6.3		1
3f	hose	XBCY39.00-633f		XBC39.6.3		1
3g	hose	XBCY39.00-633g		XBC39.6.3		1
3h	hose	XBCY39.00-633h		XBC39.6.3		1
3i	hose	XBCY39.00-633i		XBC39.6.3		1
3j	hose	XBCY39.00-633j		XBC39.6.3		1
3k	hose	XBCY39.00-633k		XBC39.6.3		1
3l	hose	XBCY39.00-633l		XBC39.6.3		1
3m	hose	XBCY39.00-633m		XBC39.6.3		1
4	tee	XBCY39.00-6304		XBC39.6.3		1
5	square flange	XBCY39.00-6305		XBC39.6.3		1
6	joint	XBCY39.00-6306		XBC39.6.3		3
7	union elbow	XBCY39.00-6307		XBC39.6.3		1
8	joint	XBCY39.00-6308		XBC39.6.3		1
9	tank,hydraulic	XBC39.2.6		XBC39.6.3		1
10	joint	XBCY39.00-6310		XBC39.6.3		2
11	manifold,cooling valve	XBCY39.00-6311		XBC39.6.3		1
12	joint	XBCY39.00-6312		XBC39.6.3		13
13	joint	XBCY39.00-6313		XBC39.6.3		1
14	joint	XBCY39.00-6314		XBC39.6.3		2
15	pipe,steel pipe	XBCY39.00-6315		XBC39.6.3		2
16	manifold,agitator valve	XBCY39.00-6316		XBC39.6.3		1
17	joint	XBCY39.00-6317		XBC39.6.3		2
18	joint	XBCY39.00-6318		XBC39.6.3		1
19	combination pad	XBCY39.00-6319		XBC39.6.3		2
20	combination pad	XBCY39.00-6320		XBC39.6.3		1
21	joint	XBCY39.00-6321		XBC39.6.3		1
22	pressure-testing joint	XBCY39.00-6322		XBC39.6.3		1
23	hose,check 3m	XBCY39.00-6323		XBC39.6.3		1
24	gauge,pressure 25	XBCY39.00-6232		XBC39.6.3		1



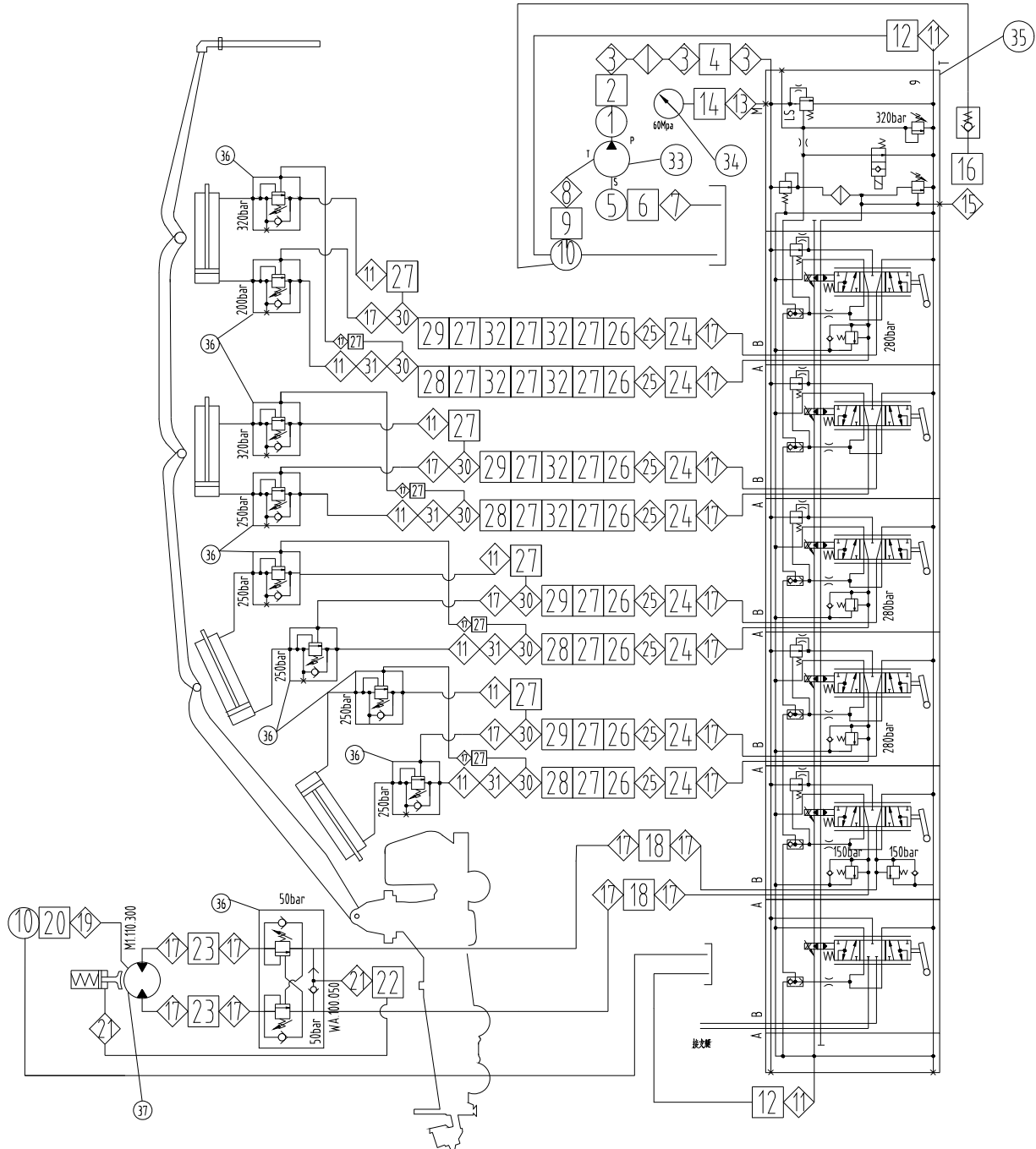
# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

---

25	union elbow	XBCY39.00-6325		XBC39.6.3		2
26	joint	XBCY39.00-6326		XBC39.6.3		2
27	valve,ball valve	XBCY39.00-6327		XBC39.6.3		1
28	movable straight tee	XBCY39.00-6328		XBC39.6.3		1
29	motor,agitator motor	XBCY39.00-6329		XBC39.6.3		1
30	motor,water motor	XBCY39.00-6330				1
31	motor,radiator motor	XBCY39.00-6331				1
32	manifold,pressure valve	XBCY39.00-6332				1
33	return flow block	XBCY39.00-6333				1
34	fluid gathering block	XBCY39.00-6334				1
35	hose	XBCY39.00-6335				1
36	hose	XBCY39.00-6336				1

## 6.4 BOOM SYSTEM XBC39.6.4



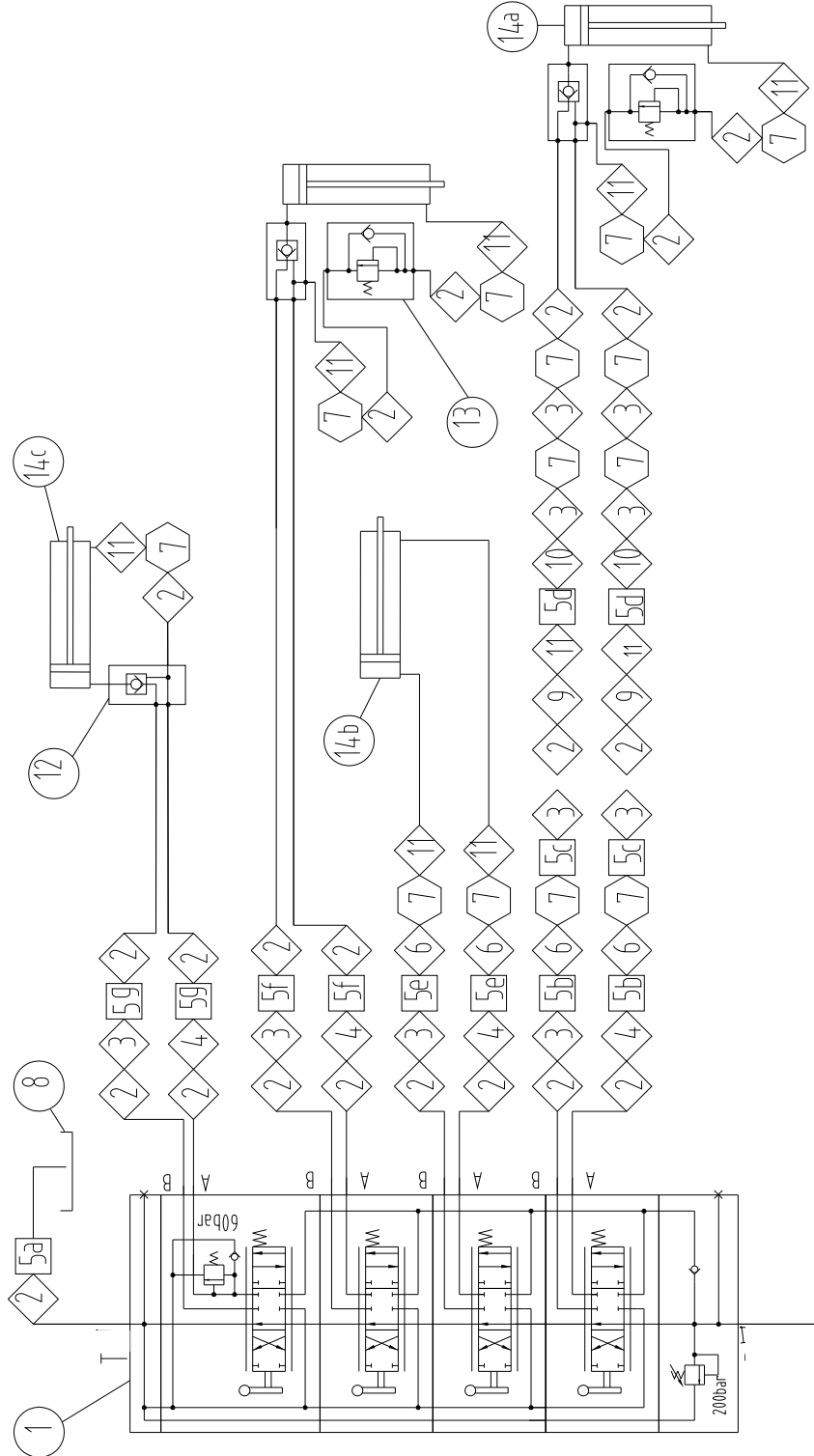


# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	flange,split flange	XBCY39.00-6401		XBC39.6.4		2
2	hose	XBCY39.00-6402		XBC39.6.4		1
3	straight thread connector	XBCY39.00-6403		XBC39.6.4		3
4	hose	XBCY39.00-6404		XBC39.6.4		1
5	flange joint FL12/L42	XBCY39.00-6405		XBC39.6.4		1
6	hose	XBCY39.00-6406		XBC39.6.4		1
7	straight thread connector	XBCY39.00-6407		XBC39.6.4		1
8	straight thread connector	XBCY39.00-6408		XBC39.6.4		1
9	hose	XBCY39.00-6409		XBC39.6.4		1
10	oil return flange of boom	XBCY39.00-6410		XBC39.6.4		1
11	straight thread connector	XBCY39.00-6411		XBC39.6.4		9
12	hose	XBCY39.00-6412		XBC39.6.4		1
13	pressure-testing joint	XBCY39.00-6413		XBC39.6.4		1
14	hose,check .5m	XBCY39.00-6414		XBC39.6.4		1
15	straight thread connector	XBCY39.00-6415		XBC39.6.4		1
16	hose	XBCY39.00-6416		XBC39.6.4		1
17	straight thread connector	XBCY39.00-6417		XBC39.6.4		20
18	hose	XBCY39.00-6418		XBC39.6.4		2
19	straight thread connector	XBCY39.00-6419		XBC39.6.4		1
20	hose	XBCY39.00-6420		XBC39.6.4		1
21	straight thread connector	XBCY39.00-6421		XBC39.6.4		2
22	hose	XBCY39.00-6422		XBC39.6.4		1
23	hose	XBCY39.00-6423		XBC39.6.4		2
24	hose	XBCY39.00-6424		XBC39.6.4		8
25	neighboring straight thread connector	XBCY39.00-6425		XBC39.6.4		8
26	hose	XBCY39.00-6426		XBC39.6.4		8
27	pipe,steel pipe φ12x2	XBCY39.00-6427		XBC39.6.4		40
28	hose	XBCY39.00-6428		XBC39.6.4		4
29	hose	XBCY39.00-6429		XBC39.6.4		4
30	tee connector	XBCY39.00-6430		XBC39.6.4		8
31	union elbow	XBCY39.00-6431		XBC39.6.4		4
32	hose	XBCY39.00-6432		XBC39.6.4		6
33	pump,boom pump	XBCY39.00-6433		XBC39.6.4		1
34	gauge,pressure 60mpa	XBCY39.00-6151		XBC39.6.4		1
35	valve,boom control valve	XBCY39.00-6435		XBC39.6.4		1
36	valve,balancing valve	XBCY39.00-6436		XBC39.6.4		10
37	motor,rotation motor	XBCY39.00-6437		XBC39.6.4		1

## 6.5 OUTRIGGER SYSTEM XBC39.6.5





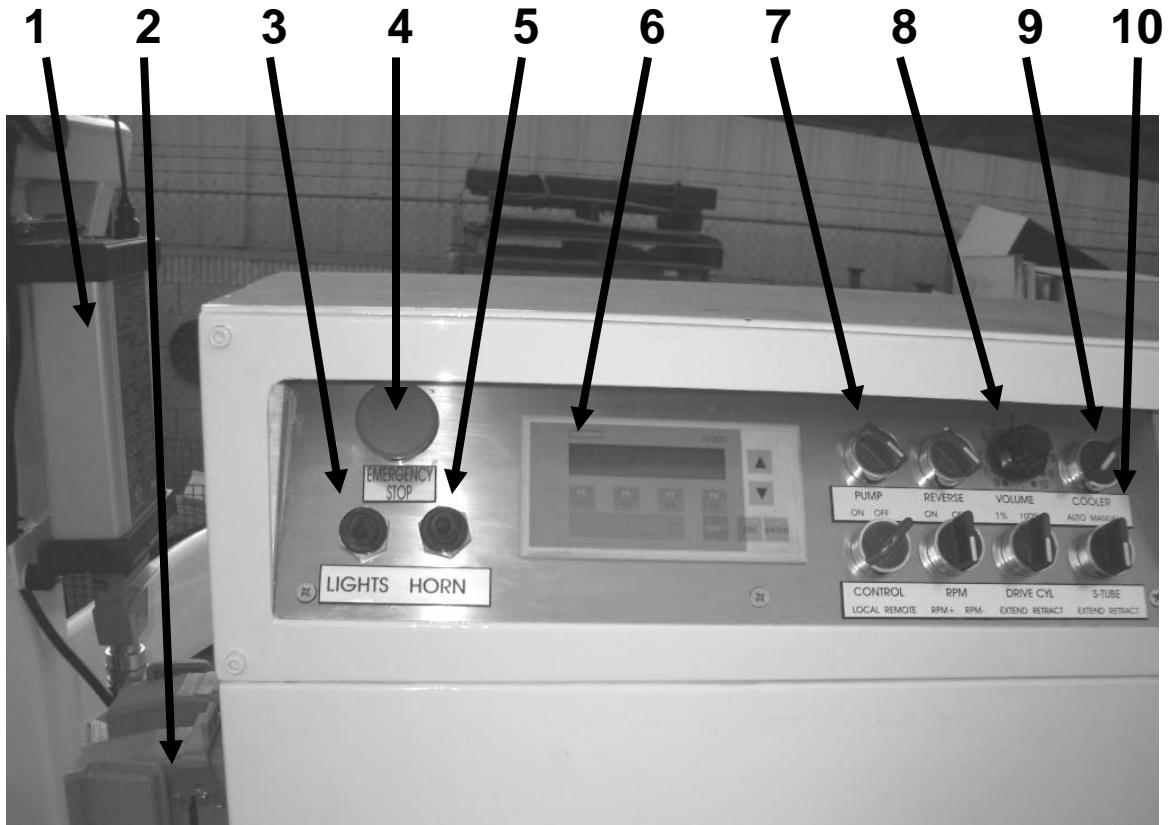
# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	valve,outrigger control	XBCY39.00-6501		XBC39.6.5		2
2	joint	XBCY39.00-6502		XBC39.6.5		44
3	union elbow	XBCY39.00-6503		XBC39.6.5		20
4	joint	XBCY39.00-6504		XBC39.6.5		8
5a	hose	XBCY39.00-655a		XBC39.6.5		2
5b	hose	XBCY39.00-655b		XBC39.6.5		4
5c	hose	XBCY39.00-655c		XBC39.6.5		4
5d	hose	XBCY39.00-655d		XBC39.6.5		4
5e	hose	XBCY39.00-655e		XBC39.6.5		4
5f	hose	XBCY39.00-655f		XBC39.6.5		4
5g	hose	XBCY39.00-655g		XBC39.6.5		4
6	joint	XBCY39.00-6506		XBC39.6.5		8
7	pipe,steel pipe	XBCY39.00-6507		XBC39.6.5		22
8	tank,hydraulic	XBC39.2.6		XBC39.6.5		1
9	rotating joint	XBCY39.00-6509		XBC39.6.5		4
10	joint	XBCY39.00-6510		XBC39.6.5		4
11	hinged joint	XBCY39.00-6511		XBC39.6.5		18
12	valve,check valve	XBCY39.00-6512		XBC39.6.5		6
13	valve,holding valve	XBCY39.00-6513		XBC39.6.5		4
14a	cylinder,jack cylinder	XBC39.00-3012		XBC39.6.5		4
14b	cylinder,extend cylinder	XBC39.2.8		XBC39.6.5		2
14c	cylinder,swingout cylinder	ZBC37.2.7		XBC39.6.5		2

## CHAPTER 7 ELECTRICAL CONTROL SYSTEM

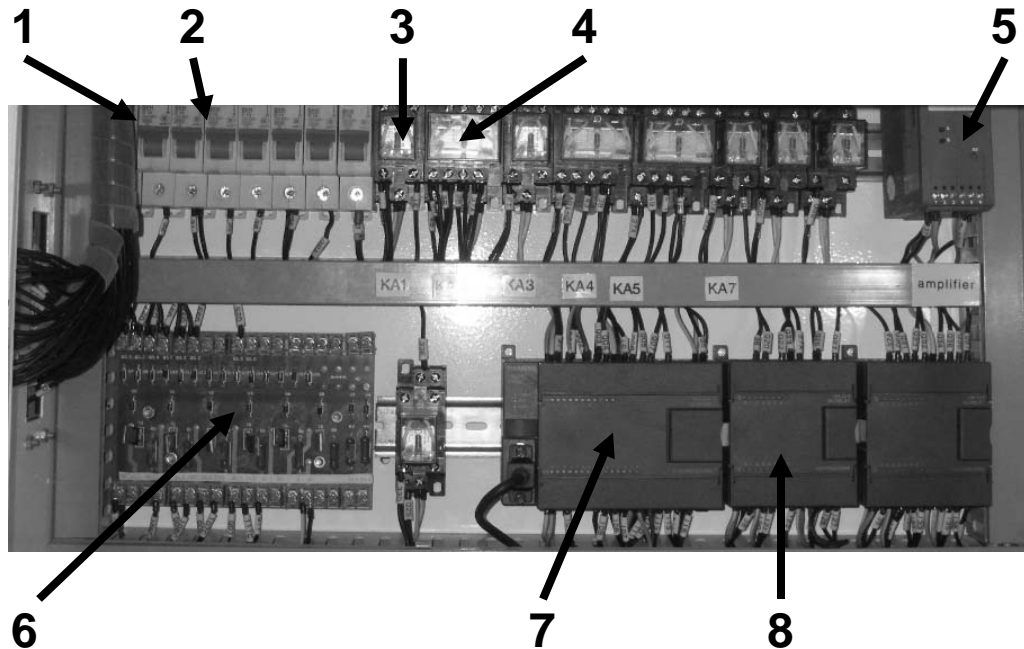
### 7.1 CONTROL SYSTEM XBC39.7



No.	Description	Part Number	Material	Parent	Weight	Quantity
1	receiver,radio receiver	FST719		XBC39.7		1
2	plug	ACJ3X-16A/24		XBC39.7		2
3	switch,toggle	201		XBC39.7		1
4	emergency stop button	ZB2BS54C		XBC39.7		1
5	switch,momentary toggle	212		XBC39.7		1
6	display,text display	TD200		XBC39.7		1
7	switch,2 position knob	ZB2BD3C		XBC39.7		3
8	potentiometer	2-2K		XBC39.7		1
9	switch,2 position knob	ZB2BD2C		XBC39.7		1
10	switch,3 position knob	ZB2BD5C		XBC39.7		3
NA	sensor,proximity sensor	XS1-M18DA210				3
NA	COIL, 24V, 1.25A	900021389.E-66				NA



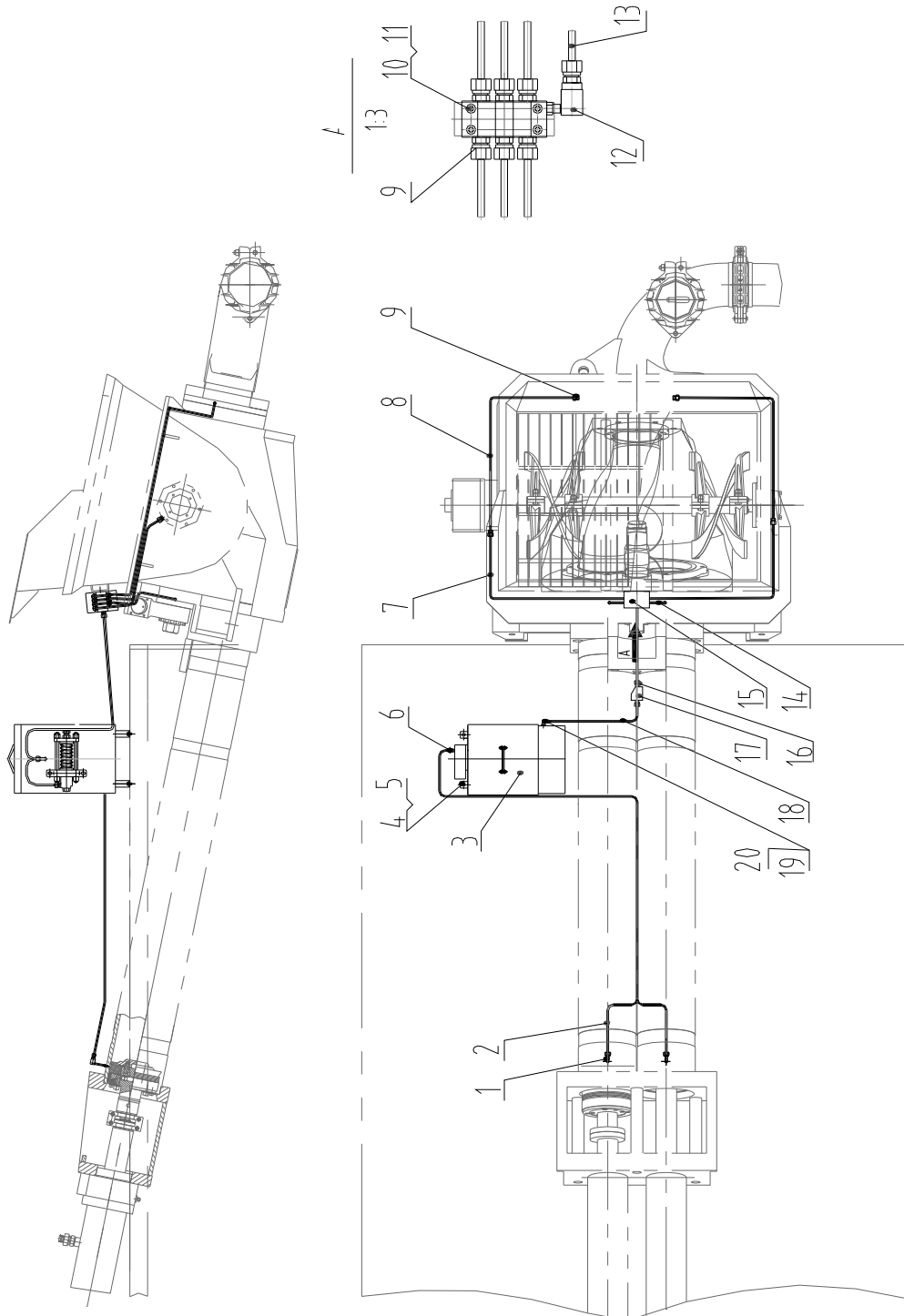
## 7.2 CONTROL BOX



No.	Description	Part Number	Material	Parent	Weight	Quantity
1	breaker,circuit breaker	BKNIP/16A		XBC39.7		1
2	breaker,circuit breaker	BKNIP/10A		XBC39.7		7
3	relay	LY2NJ24V		XBC39.7		5
4	relay	LY4NJ24V		XBC39.7		2
5	amplifier	VT11015-11UB24V		XBC39.7		1
6	board,amplifier board	BC37/42		XBC39.7		1
7	PLC	CPU224		XBC39.7		1
8	module,expansion module	EM223		XBC39.7		2

## CHAPTER 8 LUBRICATION SYSTEM

### 8.1 LUBRICATION SYSTEM





# XT39R4V00

**REED**  
13822 Oaks Avenue  
Chino, CA 91710  
909-287-2100  
www.reedpumps.com

No.	Description	Part Number	Material	Parent	Weight	Quantity
1	elbow,union Z1/8	22646T		XBC39.8		2
2	tube,copper tube $\phi 6 \times 1$	BC37.8-1		XBC39.8		2
3	lubricant reservoir	HA5923800A		XBC39.8		1
4	bolt M8 $\times$ 15	CB00000054		XBC39.8		4
5	washer 8	CW00000017		XBC39.8		4
6	elbow,union Z1/8	22646T		XBC39.8		2
7	tube,copper tube $\phi 6 \times 1$	BC37.8-2		XBC39.8		2
8	tube,copper tube $\phi 6 \times 1$	BC37.8-3		XBC39.8		2
9	straight thread connector	22587-1T		XBC39.8		6
10	bolt M6 $\times$ 65	CB00000055		XBC39.8		4
11	washer 6	CW00000021		XBC39.8		4
12	elbow,union M10 $\times$ 1	22646-1T		XBC39.8		1
13	tube,copper tube $\phi 6 \times 1$	BC37.8-4		XBC39.8		1
14	tube,copper tube $\phi 6 \times 1$	BC37.8-5		XBC39.8		2
15	distributor block	28835-37-022		XBC39.8		1
16	straight thread connector	25732T		XBC39.8		2
17	filter,oil and grease filter	28985-2		XBC39.8		1
18	tube,copper tube $\phi 6 \times 1$	BC37.8-6		XBC39.8		1
19	joint	BC37.8-7		XBC39.8		1
20	elbow,union M10 $\times$ 1	22646-1T		XBC39.8		1