



**PRO**  
*SERIES*

**EQUIPMENT SUPPLY COMPANY**

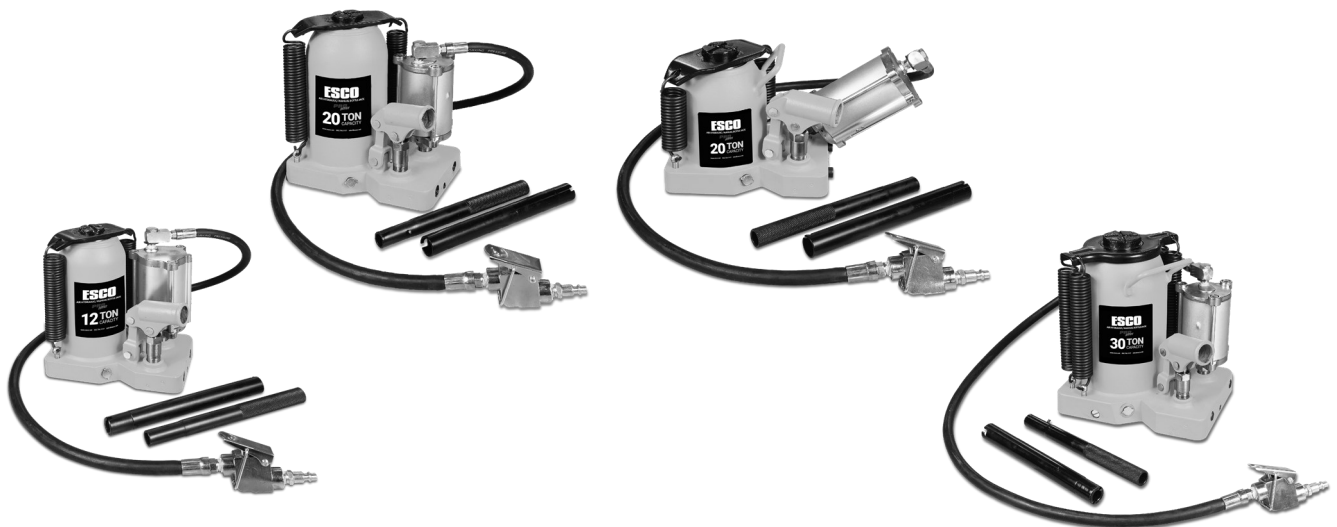
## **INSTRUCTION MANUAL PRO SERIES BOTTLE JACKS**

ESCO #10380 —12 TON

ESCO #10381—20 TON

ESCO #10382—20 TON

ESCO #10383—30 TON



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**Thank you for choosing ESCO tire service tools and equipment. We suggest you read this instruction manual thoroughly before using the product. Save this instruction manual for future use.**

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## INTRODUCTION

The ESCO Pro Series Air Hydraulic Lifting Equipment is designed with the heavy duty tire service market in mind. With lifting capacities from 12 Ton and up to 30 Tons, There is a Jack that will fit any service technician’s needs. Each jack is designed uniquely for specific application including: Commercial truck, Bus, Tractor & Farm Equipment, and much more.

## SPECIFICATIONS

MODEL NO.	CAPACITY	MIN. HEIGHT	STROKE	MAX. HEIGHT	AIR PRESSURE	AIR INLET FITTING
10380	12 TONS	9.625 IN 245 MM	5.75 IN 145 MM	18.5 IN 470 MM	110-125 psi	1/4" NPT
10381	20 TONS	10.25 IN 260 MM	6 IN 150 MM	20.25 IN 512 MM	110-125 psi	1/4" NPT
10382	20 TONS	7 IN 178 MM	3.25 IN 81 MM	12.625 IN 319 MM	110-125 psi	1/4" NPT
10383	30 TONS	10.875 IN 276 MM	6 IN 150 MM	20.625 IN 521 MM	110-125 psi	1/4" NPT

## GENERAL SAFETY RULES

### **WARNING**

- Use a qualified person to maintain the jack in good condition. Keep it clean for best and safest performance.
- **DO NOT** exceed this rated capacity.
- Use this jack for lifting purpose only. **DO NOT** use it for any other purpose it is not designed to perform.
- Keep children and unauthorized persons away from the work area.
- Remove ill fitting clothing. Remove ties, watches, rings and other loose jewelry, and contain long hair.
- Wear ANSI approved safety goggles when operating the jack.
- Keep proper balance and footing, do not overreach and wear nonslip footwear.
- Only use this jack on a surface that is stable, level, dry and not slippery, and capable of sustaining the load.
- Keep the surface clean, tidy and free from unrelated materials and ensure that there is adequate lighting.
- When lifting a vehicle, apply the emergency brake and block all wheels.
- Immediately after lifting, support the load with appropriate supporting equipment such as jack stands of adequate capacity! **DO NOT** work under a load which is supported only by a jack.
- Before lowering load ensure that there are no obstructions underneath and that all persons are stand-ing clear.
- **DO NOT** attempt to move the load while on the jack. The jack must only be used in a static position for lifting and lowering loads. Ensure that the load remains stable at all times.
- **DO NOT** use the jack if damaged, any suspect parts are noted or it has been subjected to a shock load.
- **DO NOT** operate the jack when you are tired or under the influence of alcohol, drugs or any intoxicating medication.
- **DO NOT** allow untrained persons to operate the jack.**DO NOT** make any modifications to the jack.
- **DO NOT** use brake fluid or any other improper fluid and avoid mixing different types of oil when adding hydraulic oil. Only a good quality hydraulic jack oil can be used.
- **DO NOT** expose the jack to rain or any other kind of bad weather.
- If the jack need repairing and/or there are any parts that need to be replaced, have it repaired by authorized technicians and only use the replacement parts supplied by the manufacturer.
- **WARNING:** the warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.
- **Always visually inspect the product before use for damage. Do not use product if damaged, altered, or in poor condition.**

## OPERATING INSTRUCTIONS



**WARNING!** Ensure that you read, understand and apply the safety instructions and warnings before use.



**WARNING!** Ensure that you have familiarized yourself thoroughly with the product and the hazards associated with its improper use.

- Before first use of this product, pour a teaspoon of good quality air tool lubricant into the hose quick coupler-male of the air quick coupler-female, then connect it to air source and turn on the air valve and work for 3 seconds to evenly distribute lubricant.
- Use the slotted end of the handle to turn the release valve(17) clockwise until it is firmly closed.
- Apply the emergency brake and use wheel chocks to block all wheels to prevent any movement of the vehicle being lifted.
- Place the jack into position and adjust the extension screw on part(7) as needed.

**NOTE:** Check in your vehicle owner's manual for the location of recommended lift point.

- Connect the air quick coupler-male into the shop air supply hose quick coupler-female, then turn on the air valve.
- Raise the load to desired height, turn off the air valve and immediately **USE JACK STANDS** with adequate capacity to support the load.
- When air source is not available, insert the big end of the handle into the handle bracket, pump it manually to raise the load to desired height. Then immediately transfer the load to appropriate support devices such as jack stands.



**WARNING!** Be sure all tools and personnel are clear before lowering load.

- When work is done, raise load enough to carefully remove the jack stands. Then **SLOWLY** and **CAREFULLY** lower the load by turning the release valve counter-clockwise (use the slotted end of the handle) in extremely small increments, then lower the extension screw by turning it clockwise as needed and remove the jack.



**WARNING!** Dangerous dynamic shock loads are created by quick opening and closing the release valve when the load is being lowered. The resulting overload may cause hydraulic system failure which could cause severe personal injury and/or property damage.

# MAINTENANCE

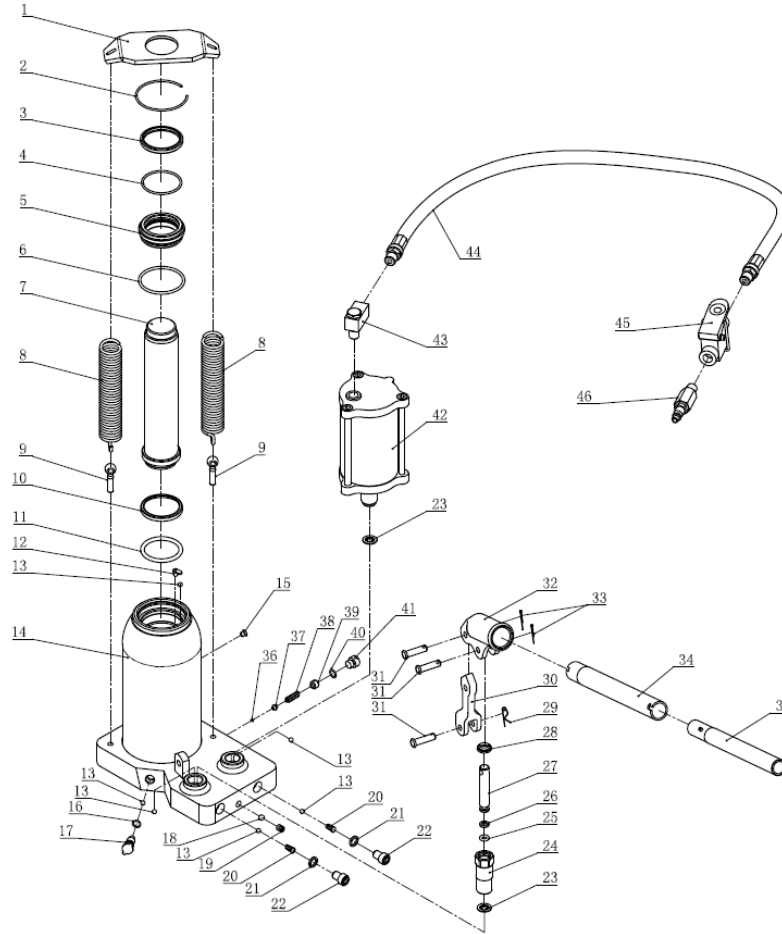
- Clean the outside of the jack with dry, clean and soft cloth and periodically lubricate the joints, extension screw and all moving parts with a light oil as needed.
- When not in use, store the jack in a dry location with ram and extension screw fully lowered.
- Purge the hydraulic system to eliminate any air in the system if jack efficiency drops or jack doesn't work: A. If manual operation performs poorly, use the slotted end of the handle to turn the release valve 1-1/2 turns counterclockwise and remove the oil filler plug by gently pulling, insert the handle into the handle bracket and pump it 10 to 15 times, then replace the filler plug. B. If air operation performs poorly, connect the air inlet fitting to air source, use the slotted end of the handle to turn the release valve 1-1/2 turns counterclockwise and remove the oil filler plug by gently pulling, turn on the air valve to let the pump work for one minute, then replace the filler plug.
- Check the hydraulic oil: place the jack in an upright position, completely lower the ram and remove the filler plug, if it is not adequate, fill with high quality hydraulic jack oil to the lower rim of the fill hole, purge away air from the hydraulic system, top off with more hydraulic oil, then replace the filler plug.
- For best performance and longest life, replace the complete jack oil at least once per year: With the ram fully lowered, remove the oil filler plug, lay the jack on its side and drain the oil into a suitable container, then fill with high quality hydraulic jack oil, reinstall the filler plug.
- **NOTE:** Dispose of hydraulic oil in accordance with local regulations.
- It is recommended that an annual inspection be done by qualified technicians.

# TROUBLESHOOTING

Symptom	Possible Causes	Corrective Action
Jack will not lift load	Release valve not tightly closed Overload condition Air supply inadequate Air trapped in system	Close release valve firmly Remedy overload condition Ensure adequate air supply Purge away air from system
Jack will lift, but will not maintain pressure	Release valve not tightly closed Overload condition Hydraulic unit malfunction	Close release valve firmly Remedy overload condition Contact your dealer
Will not lower after unloading	Reservoir overfilled Linkages binding	Drain oil to proper level Clean and lubricate moving parts
Poor lift performance	Hydraulic oil level low Air trapped in system	Add oil to proper level Purge away air from system
Will not lift to max height	Hydraulic oil level low	Add oil to proper level

# PARTS BREAKDOWN

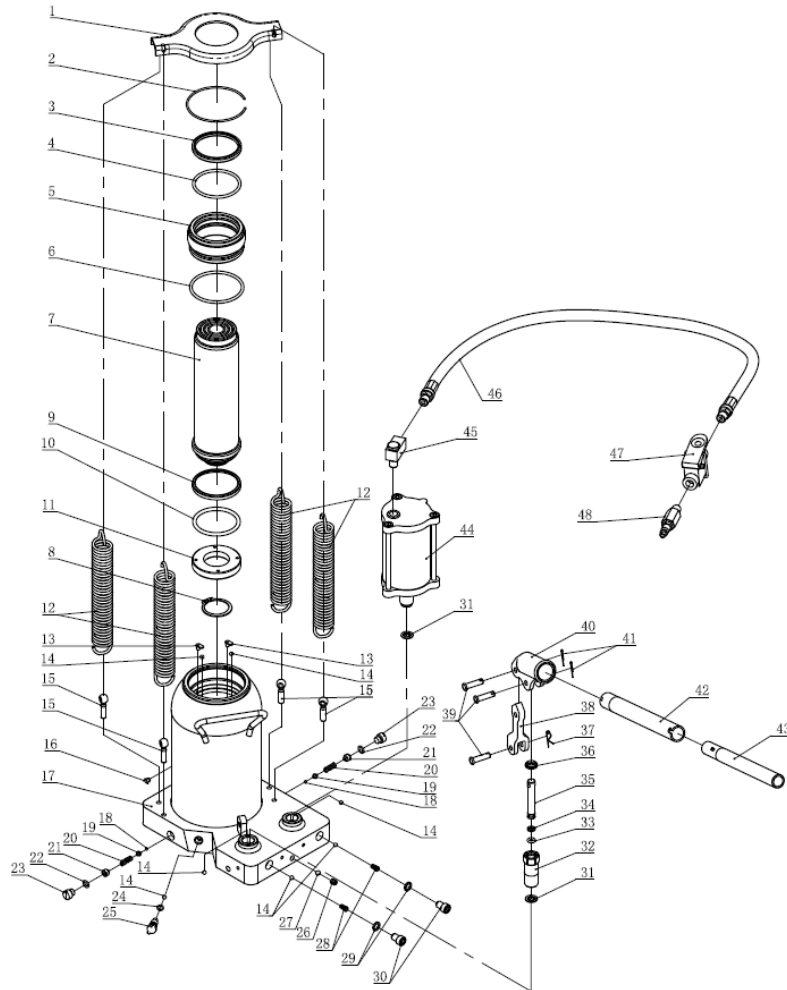
FOR MODEL 10380:



NO.	PART NO.	DESCRIPTION	Q'TY	NO.	PART NO.	DESCRIPTION	Q'TY
1	10380-1	SPRING PLATE	1	24	10380-24	PUMP CORE SEAT	1
2	10380-2	RETAINING RING	1	25	10380-25	O-RING	1
3	10380-3	DUST RING	1	26	10380-26	PTFE	1
4	10380-4	O-RING	1	27	10380-27	PUMP CORE	1
5	10380-5	LIMITING RING	1	28	10380-28	DUST RING	1
6	10380-6	O-RING	1	29	10380-29	R-PIN	1
7	10380-7	PISTON ROD ASSY	1	30	10380-30	CONNECTING ROD	1
8	10380-8	SPRING	2	31	10380-31	PIN	3
9	10380-9	ADJUSTABLE BOLT	2	32	10380-32	HANDLE SOCKET	1
10	10380-10	WASHER	1	33	10380-33	COTTER PIN	2
11	10380-11	O-RING	1	34	10380-34	HANDLE 1	1
12	10380-12	SHIELD	1	35	10380-35	HANDLE 2	1
13	10380-13	STEEL BALL	6	36	10380-36	STEEL BALL	1
14	10380-14	PUMP WELDING ASSY	1	37	10380-37	STEEL BALL SEAT	1
15	10380-15	FILLER PLUG	1	38	10380-38	SPRING	1
16	10380-16	O-RING	1	39	10380-39	SCREW	1
17	10380-17	SCREW	1	40	10380-40	O-RING	1
18	10380-18	STEEL BALL	1	41	10380-41	SCREW	1
19	10380-19	SCREW	1	42	10380-42	AIR PUMP	1
20	10380-20	SPRING	2	43	10380-43	ROTARY JOINT	1
21	10380-21	COPPER WASHER	2	44	10380-44	AIR INLET HOSE	1
22	10380-22	SCREW	2	45	10380-45	AIR VALVE	1
23	10380-23	COPPER WASHER	2	46	10380-46	HOSE CONNECTOR	1

# PARTS BREAKDOWN

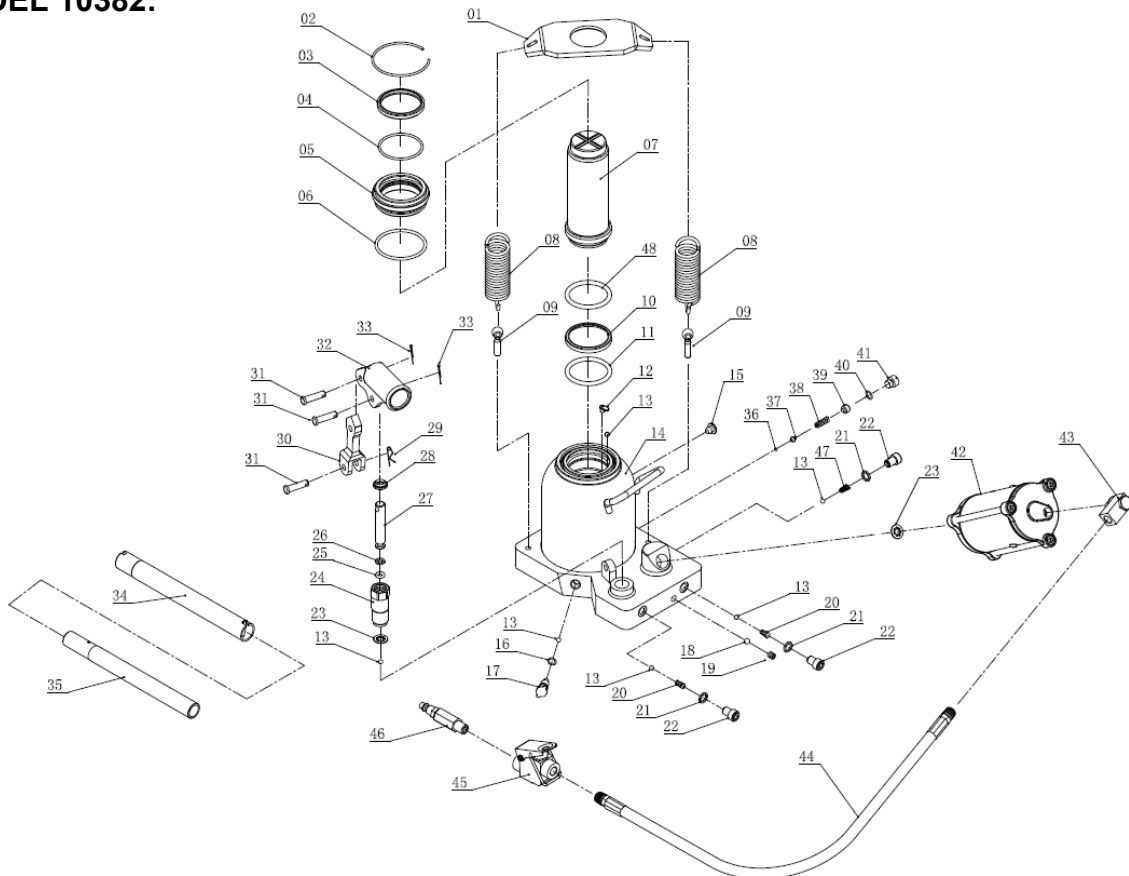
FOR MODEL 10381:



NO.	PART NO.	DESCRIPTION	Q'TY	NO.	PART NO.	DESCRIPTION	Q'TY
1	10381-1	SPRING PLATE	1	25	10381-25	SCREW	1
2	10381-2	RETAINING RING	1	26	10381-26	SCREW	1
3	10381-3	DUST RING	1	27	10381-27	STEEL BALL	1
4	10381-4	O-RING	1	28	10381-28	SPRING	2
5	10381-5	LIMITING RING	1	29	10381-29	COPPER WASHER	2
6	10381-6	O-RING	1	30	10381-30	SCREW	2
7	10381-7	PISTON ROD ASSY	1	31	10381-31	COPPER WASHER	2
8	10381-8	SHAFT RING	1	32	10381-32	PUMP CORE SEAT	1
9	10381-9	WASHER	1	33	10381-33	O-RING	1
10	10381-10	O-RING	1	34	10381-34	PTFE	1
11	10381-11	RETAINING RING	1	35	10381-35	PUMP CORE	1
12	10381-12	SPRING	4	36	10381-36	DUST RING	1
13	10381-13	SHIELD	2	37	10381-37	R-PIN	1
14	10381-14	STEEL BALL	7	38	10381-38	CONNECTING ROD	1
15	10381-15	ADJUSTABLE BOLT	4	39	10381-39	PIN	3
16	10381-16	FILLER PLUG	1	40	10381-40	HANDLE SOCKET	1
17	10381-17	PUMP WELDING ASSY	1	41	10381-41	COTTER PIN	2
18	10381-18	STEEL BALL	2	42	10381-42	HANDLE 1	1
19	10381-19	STEEL BALL SEAT	2	43	10381-43	HANDLE 2	1
20	10381-20	SPRING	2	44	10381-44	AIR PUMP	1
21	10381-21	SCREW	2	45	10381-45	ROTARY JOINT	1
22	10381-22	O-RING	2	46	10381-46	AIR INLET HOSE	1
23	10381-23	SCREW	2	47	10381-47	AIR VALVE	1
24	10381-24	O-RING	1	48	10381-48	HOSE CONNECTOR	1

# PARTS BREAKDOWN

FOR MODEL 10382:

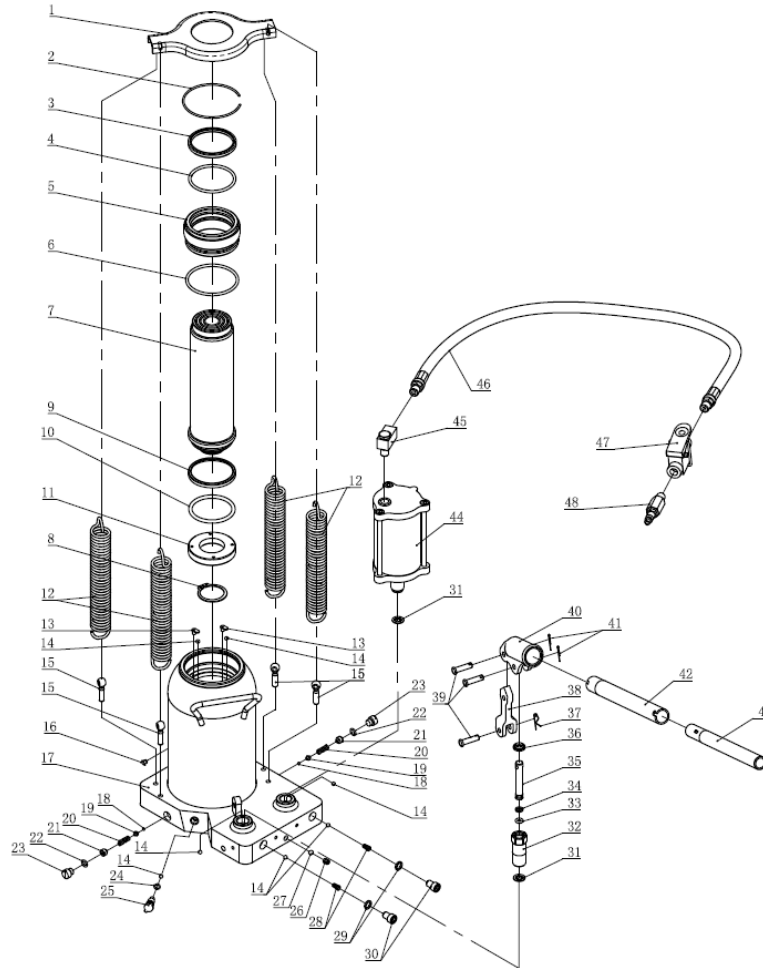


NO.	PART NO.	DESCRIPTION	Q'TY	NO.	PART NO.	DESCRIPTION	Q'TY
1	10382-1	SPRING PLATE	1	25	10382-25	O-RING	1
2	10382-2	RETAINING RING	1	26	10382-26	PTFE	1
3	10382-3	DUST RING	1	27	10382-27	PUMP CORE	1
4	10382-4	O-RING	1	28	10382-28	DUST RING	1
5	10382-5	LIMITING RING	1	29	10382-29	R-PIN	1
6	10382-6	O-RING	1	30	10382-30	CONNECTING ROD	1
7	10382-7	PISTON ROD ASSY	1	31	10382-31	PIN	3
8	10382-8	SPRING	2	32	10382-32	HANDLE SOCKET	1
9	10382-9	ADJUSTABLE BOLT	2	33	10382-33	COTTER PIN	2
10	10382-10	WASHER	1	34	10382-34	HANDLE 1	1
11	10382-11	O-RING	1	35	10382-35	HANDLE 2	1
12	10382-12	SHIELD	1	36	10382-36	STEEL BALL	1
13	10382-13	STEEL BALL	6	37	10382-37	STEEL BALL SEAT	1
14	10382-14	PUMP WELDING ASSY	1	38	10382-38	SPRING	1
15	10382-15	FILLER PLUG	1	39	10382-39	SCREW	1
16	10382-16	O-RING	1	40	10382-40	O-RING	1
17	10382-17	SCREW	1	41	10382-41	SCREW	1
18	10382-18	STEEL BALL	1	42	10382-42	AIR PUMP	1
19	10382-19	SCREW	1	43	10382-43	ROTARY JOINT	1
20	10382-20	SPRING	2	44	10382-44	AIR INLET HOSE	1
21	10382-21	COPPER WASHER	3	45	10382-45	AIR VALVE	1
22	10382-22	SCREW	3	46	10382-46	HOSE CONNECTOR	1
23	10382-23	COPPER WASHER	2	47	10382-47	SPRING	1
24	10382-24	PUMP CORE SEAT	1	48	10382-48	NYLON RING	1



# PARTS BREAKDOWN

FOR MODEL 10383:



NO.	PART NO.	DESCRIPTION	Q'TY	NO.	PART NO.	DESCRIPTION	Q'TY
1	10383-1	SPRING PLATE	1	25	10383-25	SCREW	1
2	10383-2	RETAINING RING	1	26	10383-26	SCREW	1
3	10383-3	DUST RING	1	27	10383-27	STEEL BALL	1
4	10383-4	O-RING	1	28	10383-28	SPRING	2
5	10383-5	LIMITING RING	1	29	10383-29	COPPER WASHER	2
6	10383-6	O-RING	1	30	10383-30	SCREW	2
7	10383-7	PISTON ROD ASSY	1	31	10383-31	COPPER WASHER	2
8	10383-8	SHAFT RING	1	32	10383-32	PUMP CORE SEAT	1
9	10383-9	WASHER	1	33	10383-33	O-RING	1
10	10383-10	O-RING	1	34	10383-34	PTFE	1
11	10383-11	RETAINING RING	1	35	10383-35	PUMP CORE	1
12	10383-12	SPRING	4	36	10383-36	DUST RING	1
13	10383-13	SHIELD	2	37	10383-37	R-PIN	1
14	10383-14	STEEL BALL	7	38	10383-38	CONNECTING ROD	1
15	10383-15	ADJUSTABLE BOLT	4	39	10383-39	PIN	3
16	10383-16	FILLER PLUG	1	40	10383-40	HANDLE SOCKET	1
17	10383-17	PUMP WELDING ASSY	1	41	10383-41	COTTER PIN	2
18	10383-18	STEEL BALL	2	42	10383-42	HANDLE 1	1
19	10383-19	STEEL BALL SEAT	2	43	10383-43	HANDLE 2	1
20	10383-20	SPRING	2	44	10383-44	AIR PUMP	1
21	10383-21	SCREW	2	45	10383-45	ROTARY JOINT	1
22	10383-22	O-RING	2	46	10383-46	AIR INLET HOSE	1
23	10383-23	SCREW	2	47	10383-47	AIR VALVE	1
24	10383-24	O-RING	1	48	10383-48	HOSE CONNECTOR	1