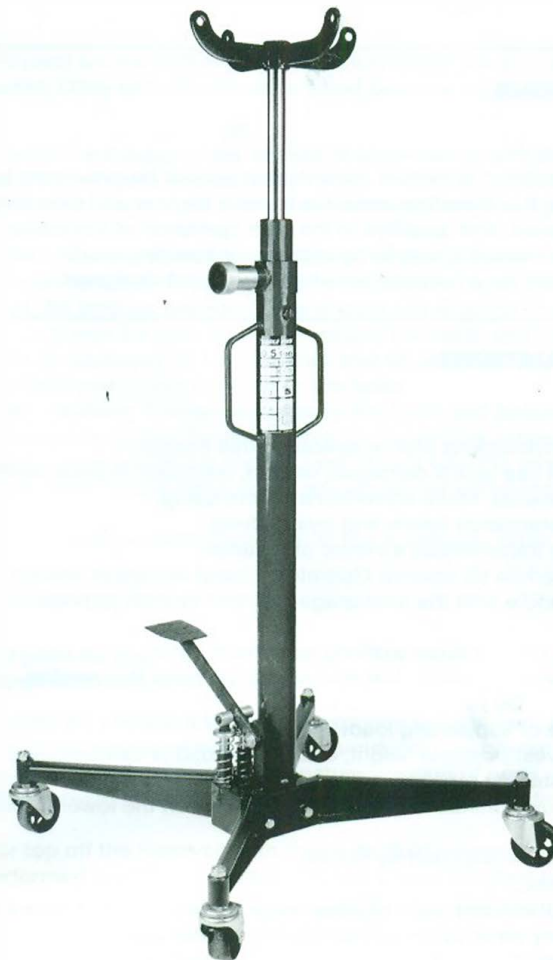


# BATO<sup>®</sup>

Item No.: 68015

## OPERATOR'S MANUAL

# 0.5 TON TRANSMISSION JACK



### SPECIFICATIONS

Lifting Capacity (Ton)	Max. Height (mm)	Min. Height (mm)	Gross Weight (kg)	Net Weight (kg)	Package Size (mm)
0.5	1988	1171	33.60	31.20	1080x280x165

 Read this manual and follow all the safety rules and operating instructions before using this product.

## WARNING INFORMATION



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

### WARNING

WARNING: Indicates a hazardous situation which, if not avoided, could result in death or serious injury.



### IMPORTANT: READ THESE INSTRUCTIONS BEFORE OPERATING

BEFORE USING THIS DEVICE, READ THIS MANUAL COMPLETELY AND THOROUGHLY, UNDERSTAND ITS OPERATING PROCEDURES, SAFETY WARNINGS AND MAINTENANCE REQUIREMENTS.

It is the responsibility of the owner to make sure all personnel read this manual prior to using the device. It is also the responsibility of the device owner to keep this manual intact and in a convenient location for all to see and read. If the manual or product labels are lost or not legible, contact Sunex for replacements. If the operator is not fluent in English, the product and safety instructions shall be read to and discussed with the operator in the operator's native language by the purchaser/owner or his designee, making sure that the operator comprehends its contents.

## THE NATURE OF HAZARDOUS SITUATIONS

### WARNING

The use of portable automotive lifting devices is subject to certain hazards that cannot be prevented by mechanical means, but only by the exercise of intelligence, care, and common sense. It is therefore essential to have owners and personnel involved in the use and operation of the equipment who are careful, competent, trained, and qualified in the safe operation of the equipment and its proper use. Examples of hazards are dropping, tipping or slipping of loads caused primarily by improperly securing loads, overloading, off-centered loads, use on other than hard level surfaces, and using equipment for a purpose for which it was not designed.

## METHODS TO AVOID HAZARDOUS SITUATIONS

### WARNING



- Read, study, understand and follow all instructions before operating this device.

- Inspect the jack before each use. Do not use jack if damaged, altered, modified, in poor condition, leaking hydraulic fluid, or unstable due to loose or missing components. Make corrections before using.



- Wear eye protection that meets OSHA standards (users and bystanders).

- Consult the vehicle manufacturer for the transmission's center of balance.

- Never use a power tool to activate the saddle tilt screws. Operate by hand or socket wrench.

- Secure the transmission to the jack's saddle with the anchorage restraint system provided before raising or lowering the transmission.

- Center load on saddle. Be sure setup is stable before working on vehicle.

- **Support the engine with a stand before unbolting the transmission from the engine.**

- Do not use jack beyond its rated capacity. Do not shock load.

- Use only on a hard level surface capable of supporting load.

- Before moving, lower the load to the lowest possible height, ensure the load is centered and secure with a load restraint device.

- Adequately support the vehicle before starting repairs.

- Use of this product is limited to the removal, installation and transportation in the lowered position, of transmissions, transfer cases and transaxles.

- Do not use any adapters unless approved or supplied by Sunex.

- Always lower the jack slowly and carefully.



- **Do not crawl under transmission or place any part of your body under transmission at any time.**

- Do not use (or modify) the product for any other purpose than that for which it was designed without consulting the manufacturer's authorized representative.

- Failure to heed these warnings may result in serious or fatal personal injury and/or property damage.



**WARNING:** This product can expose you to chemicals including nickel, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

## CONSEQUENCES OF NOT AVOIDING HAZARDOUS SITUATIONS

### WARNING

Failure to read this manual completely and thoroughly and failure to understand its OPERATING INSTRUCTIONS, SAFETY WARNINGS, MAINTENANCE INSTRUCTIONS and comply with them, and neglecting the METHODS TO AVOID HAZARDOUS SITUATIONS could cause accidents resulting in serious or fatal personal injury and/or property damage.

## Part List

Part	DESC	Q'TY	Part	DESC	Q'TY
1	Swivel Caster	4	29	Gasket 16	2
2	NutM12	4	30	Base Assembly	1
3	Bot M10X20	4	31	O-ring	1
4	Washer 10	4	32	Sealing Screw	1
5	Washer 10	4	33	Piston Ring	1
6	Leg	2	34	Piston Rod	1
7	Sealing Screw	2	35	Sealing Ring	1
8	O-ring 8.5X2	2	36	O-ring 40X2.65	1
9	High-pressure Spring	1	37	Handle Knob	1
10	Steel Ball 6.0000 G16	5	38	Screw M6X10	1
11	Steel Ball 4.5000 G16	1	39	Oil Drain Valve Stem	1
12	Valve Boat	1	40	Torsional Spring Cover	1
13	Safety Valve Spring	1	41	Screw M6X10	1
14	Adjust Screw	1	42	Torsional Spring	1
15	Sealing Washer	2	43	O-ring 12X2.65	1
16	Sealing Screw	2	44	Top Cap Base Weldment	1
17	NutM10	1	45	O-ring 43.7X3.55	1
18	Washer 12	1	46	Top Cap	1
19	Fool Pedal	1	47	Y-Ring UNS30X38X5	1
20	Roller Wheel	2	48	Dust Proof Ring LBH30X38X6.5	1
21	Gasket 12	2	49	Saddle Assembly	1
22	Washer	2	50	Foam Pad	1
23	O-ring 15.6X2.6	4	51	Adjust Screw	1
24	Nylon Gasket	4	52	Safety Valve Spring	1
25	Pressure Spring of Pump Core	2	53	Ball Seat Valve	1
26	Pump Core	2	54	Steel Ball 5.0000 G16	1
27	Dust Proof Cover	2	55	High-pressure Spring	1
28	Washer	2			



# OWNER'S MANUAL

## SETUP INSTRUCTIONS

### PLEASE REFER TO THE EXPLODED VIEW DRAWING IN THIS MANUAL IN ORDER TO IDENTIFY PARTS.

1. Secure the legs (#6) to the post with the bolts, washers and nuts as shown in the drawing.
2. Secure the swivel casters (#1) to the legs with the bolts, washers and nuts as shown in the drawing.
3. Secure the power unit (#29) to the top of the post using the bolts, washers and nuts as shown in the drawing.
4. Slip the head assembly (#48) on to the ram of the power unit (#29) and align the holes in the jack's ram with the hole in the head assembly (#48).
5. Sometimes air gets trapped in the jack during shipping and/or handling. Evidence of an air bound jack is when the pump stroke feels spongy and the jack with not pump full incremental pump strokes.

### TO PURGE AIR FROM THE HYDRAULIC SYSTEM:

- A. Open the release valve by turning it two full rotations counterclockwise from its closed position.
- B. Pump the jack 15 full incremental pump strokes without load applied to the jack.
- C. Close the release valve by turning it clockwise until it stops.
- D. Repeat steps "A." through "D." until air is purged from system.

## OPERATING INSTRUCTIONS



This is the safety alert symbol used for the OPERATING INSTRUCTIONS section of this manual to alert you to potential personal injury hazards. Obey all instructions to avoid possible injury or death.

### OPERATION:

1. Lift the vehicle to the desired work height and support the vehicle in accordance with the lift manufacturer's recommended support procedure and all the instructions and warnings in this manual.
2. Use an under hoist stand rated greater than the weight of the engine to support the engine before unbolting the transmission from the engine or bolting the transmission to the engine.
3. Position the transmission jack directly under the transmission. Pump the jack handle in order to raise the saddle to a height very close to the center of balance point of the transmission oil pan but do not touch the transmission.
4. Adjust the fingers on the head so that the bent up section of the fingers will fit in the mounting flange around the perimeter of the transmission oil pan. Slowly and gently pump the jack so the connection is made and then secure the transmission to the jack's saddle with the chain provided. Sometimes it is necessary to turn the fore and aft and side to side tilt knobs so the head is in the proper alignment with the transmission pan before securing the load to the head.
5. Make sure the chain is very tight when securing the transmission to the head and before raising or lowering the transmission.
6. Remove the transmission from the engine according to instructions in the vehicle service manual.
7. Once the transmission has been disconnected from the engine, very slowly turn the release valve in a counterclockwise direction. Make sure the jack's head and transmission do not hang up on any under car components, wiring, fuel lines, etc. Continue to lower the load all the way down.
8. When installing a transmission, follow the above instructions but in the applicable order and according to the vehicle manufacturer's installation procedure.

## PREVENTATIVE MAINTENANCE



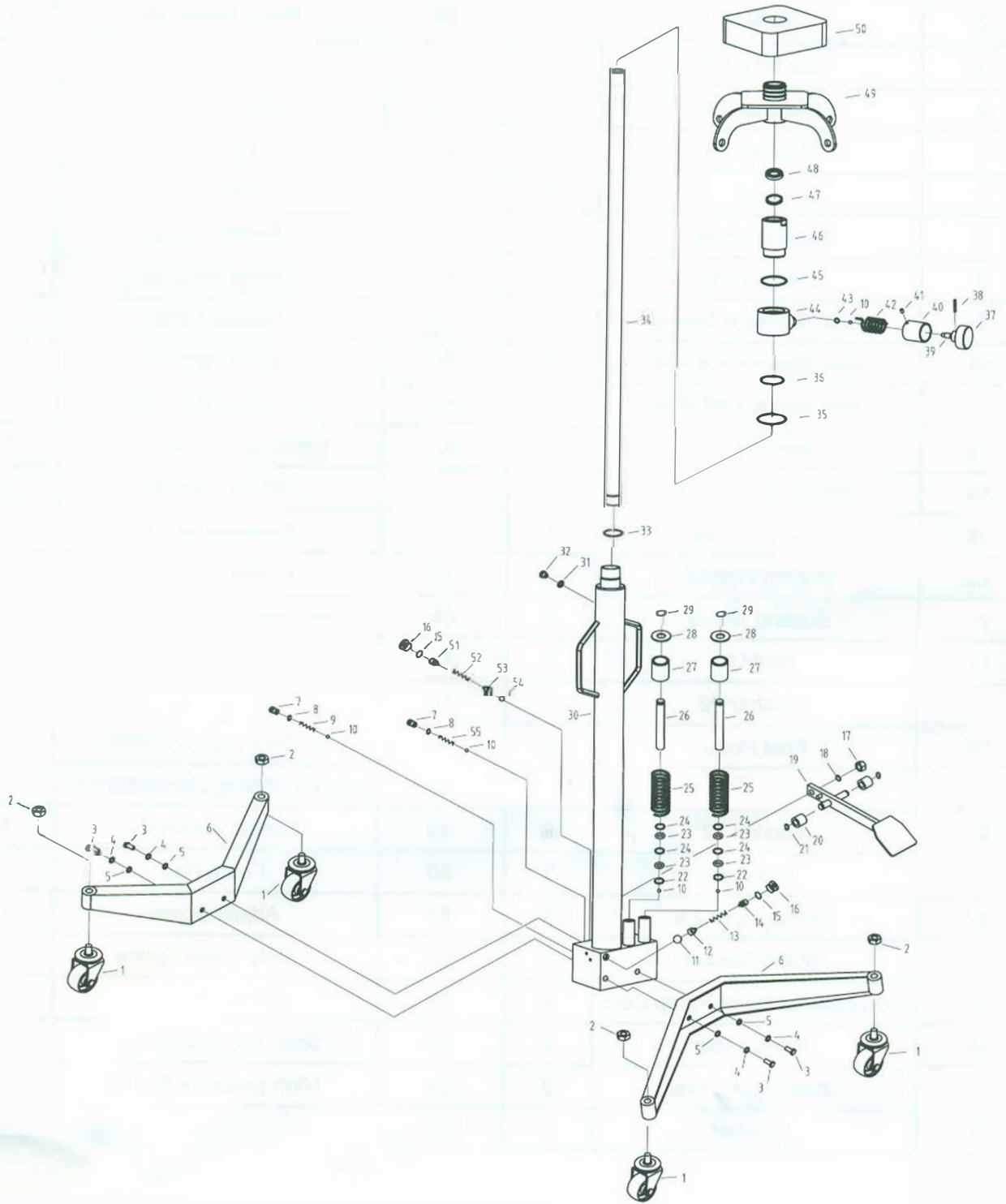
This is the safety alert symbol used for the PREVENTATIVE MAINTENANCE section of this manual to alert you to potential personal injury hazards. Obey all instructions to avoid possible injury or death.

1. Always store the jack in a well protected area where it will not be exposed to inclement weather, corrosive vapors, abrasive dust, or any other harmful elements. The jack must be cleaned of water, snow, sand, grit, oil, grease or other foreign matter before using.
2. The jack must be lubricated periodically in order to prevent premature wearing of parts. A general purpose grease must be applied to all fittings, caster wheels, tilt screws but no hydraulic components. Worn parts resulting from inadequate or no lubrication are not eligible for warranty consideration.
3. It should not be necessary to refill or top off the reservoir with hydraulic fluid unless there is an external leak. An external leak requires immediate repair which must be performed in a dirt-free environment by an authorized service center.

**IMPORTANT:** In order to prevent seal damage and jack failure, never use alcohol, hydraulic brake fluid, or transmission oil in the jack. Use hydraulic jack oil, Chevron Hydraulic Oil #13.

4. Every jack owner is responsible for keeping the jack labels clean and readable. Use a mild soap solution to wash external surfaces of the jack but not any moving hydraulic components.
5. Inspect the jack before each use. Do not use the jack if any component is cracked, broken, bent, shows sign of damage or leaks hydraulic fluid. Do not use the jack if it has loose or missing hardware or components, or is modified in any way. Take corrective action before using the jack again.
6. Any hydraulic repairs within the warranty period must be performed by an authorized service center.

# MAIN BODY ASSEMBLY



# OWNER'S MANUAL

## TROUBLESHOOTING

**Important:** Service jacks are self-contained devices used for lifting, but not sustaining, a partial vehicular load. Lowering within this range is considered normal operation and is NOT a warrantable defect.

PROBLEM	ACTION
1. Unit will not lift rated load.	Purge air from hydraulic system by following procedure under SETUP.
2. Unit will not sustain rated load or feels "spongy" under rated load.	Purge air from hydraulic system as above.
3. Unit will not lift to full height.	Purge air from hydraulic system as above.
4. Unit still does not operate.	Contact Sunex authorized hydraulic service center.

## INSPECTION

Visual inspection should be made before each use of the transmission jack, checking for leaking hydraulic fluid and damaged, loose or missing parts. Each jack must be inspected by a manufacturer's repair facility immediately if accidentally subjected to an abnormal load or shock. Any jack which appears to be damaged in any way, found to be badly worn, or operates abnormally **MUST BE REMOVED FROM SERVICE** until necessary repairs are made by a manufacturer's authorized repair facility. It is recommended that an annual inspection of the jack be made by a manufacturer's authorized repair facility and that any defective parts, decals or warning labels be replaced with manufacturer's specified parts. A list of authorized repair facilities is available from the manufacturer.

## PROPER STORAGE

It is recommended that the jack be stored in a dry location with all wheels touching the ground on a relatively level surface.

## OWNER/USER RESPONSIBILITY

The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using the transmission jack. Personnel involved in the use and operation of equipment shall be careful, competent, trained, and qualified in the safe operation of the equipment and its proper use when servicing motor vehicles and their components. Warning information should be emphasized and understood. If the operator is not fluent in English, the manufacturer's instructions and warnings shall be read to and discussed with the operator in the operator's native language by the purchaser/owner, making sure that the operator comprehends its contents. Owner and/or user must study and maintain for future reference the manufacturer's instructions and pertinent warning information. Owner and/or user is responsible for keeping all warning labels and instruction manuals legible and intact. Replacement labels and literature are available from the manufacturer.

## WARRANTY NOTICE

This service jack is covered under a 1-year limited warranty when used as recommended. Only those items listed with a Part # are available for purchase. For assistance with the operation or the availability of replacement parts. Please have available a copy of your receipt, the model number of the product, serial number regarding your question.

Not all equipment components are available for replacement; illustrations provided are a convenient reference of location and position in the assembly sequence.

**The manufacturer reserves the rights to make design changes and or improvements to product lines and manuals without notice.**