

- *Operating Manual*
- *Warning Information*
- *Parts List*



**THIS OPERATING MANUAL CONTAINS  
IMPORTANT SAFETY INFORMATION.**

**READ CAREFULLY AND UNDERSTAND ALL  
INFORMATION BEFORE OPERATING THIS TOOL.**

**SAVE THIS MANUAL FOR FUTURE USE.**

## **! 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 HARDWARE OR PARTS. MAKE CORRECTIONS BEFORE USING.**
- **CONSULT THE VEHICLE MANUFACTURER FOR THE TRANSMISSION'S CENTER OF BALANCE.**
- **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.**
- **WEAR EYE PROTECTION THAT MEETS ANSI Z87.1 AND OSHA STANDARDS.**
- **DO NOT USE JACK BEYOND ITS RATED CAPACITY.**
- **USE ONLY ON A HARD LEVEL SURFACE.**
- **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 CORNWELL.**
- **ALWAYS LOWER THE JACK SLOWLY AND CAREFULLY.**
- **FAILURE TO HEED THESE MARKINGS MAY RESULT IN SERIOUS OR FATAL PERSONAL INJURY AND/OR PROPERTY DAMAGE.**



### **CTJ1000ATTJB SPECIFICATIONS**

Capacity .....	1000 Lbs.
Required Air Pressure .....	100 psi
Low Height .....	35"
Raised Height .....	75"
Saddle Tilt Forward .....	37°
Saddle Tilt Backward .....	26°
Saddle Tilt Side to Side .....	12°
Base .....	30.25" x 30.25"
Shipping Weight .....	145 Lbs.

*Meets or exceeds ASME PALD-2005  
standards for performance & safety.*

## **CTJ1000ATTJB**

### **1000 Lb.**

### **Air and Hydraulic Operated Telescopic Transmission Jack**

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## 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.

## INSPECTION

Visual inspection should be made before each use of the transmission jack. Any jack which appears to be damaged in any way, is found to be badly worn, or operates abnormally must be removed from service. If the jack is accidentally subjected to an abnormal load or shock it must be inspected by a manufacturer's authorized repair facility immediately. 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. All repairs must be made by a factory authorized service center. A list of authorized repair facilities is available from the manufacturer.

## SETUP

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

1. Place the hydraulic power unit in an upright position. Secure the legs (index #2-4) to the cylinder (index #1-1) with the bolts (index #2-5), washers (index #2-6) and nuts (index #1-29). Do not tighten.
2. Secure swivel casters (index #2-1 and #2-7) to leg caster brackets as shown in the exploded view drawing on page 4.
3. Tighten the hardware that secures the legs (index #2-4) to the cylinder (index #1-1).
4. Place the saddle assembly (index #3-32) on the stud protruding from the top of the hydraulic unit assembly, RS1000ATTJBCYL. Align the hole in the saddle with the hole in the stud and secure with the bolt (index #3-26) and nut (#3-27).
5. Sometimes air gets trapped in the second stage hydraulic system during shipping and /or handling. Evidence of an air bound system is when a jack will not pump full incremental pump strokes.

### TO PURGE AIR FROM THE HYDRAULIC SYSTEM:

- a. With the release valve knob (index #1-67) closed, turn the knob in a counterclockwise direction two full rotations.
- b. Pump the jack handle (index #1-79) fifteen times.
- c. Close the release valve knob (index #1-67) by turning it clockwise until it stops.

- d. Pump the jack to maximum extension. If the condition seems better, repeat steps "a" through "d" until air is purged from the system.

6. The primary stage of the power unit is air activated. The air activated portion will also give the user many years of trouble free operation if the shop air system is properly maintained. The shop air system must have an air regulator adjusted to the proper pressure and a lubricator that provides pneumatic oil periodically. The system must be free from dirt and moisture. Do not drop disconnected air lines on dirty shop floor or dirty environment and then reconnect to the jack. Contaminants in the air system and lack of lubrication can cause the air valve to malfunction and the air cylinder to score.

## 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.

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. Depress the foot pedal marked "UP" to raise the jack to maximum first stage height. Pump the handle on the hydraulic second stage 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 ratchet arms on the saddle so that the bent up section of the arms 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 tie down strap provided. Sometimes it is necessary to turn the fore and aft and side to side tilt knobs so the saddle is in the proper alignment with the transmission pan before securing the load to the saddle.
5. Make sure the tie down strap is very tight when securing the transmission to the saddle 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 on the second stage hydraulic block in a counterclockwise direction. Make sure the jack's saddle and transmission do not hang up on any under car components, wiring, fuel lines, etc. Continue to lower the load until the second stage bottoms out and then depress the first stage "DOWN" pedal to lower the transmission 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 or grit before using.
2. The jack must be lubricated periodically in order to prevent premature wearing of components. A general purpose grease must be applied to all caster wheels, foot pedals, pump linkage, saddle components, and all other external bearing surfaces. Periodic lubrication should be subject to a maintenance schedule based on frequency of use. A weekly lubrication inspection is suggested. **DO NOT** lubricate the telescopic rams. Premature wearing of components due to lack of/or inadequate lubrication is 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 qualified hydraulic repair personnel who are familiar with this equipment.

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

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. Do not attempt to make any hydraulic repairs unless you are a qualified hydraulic repair person that is familiar with this equipment. Repairs must be performed by an authorized service center.
6. Premature wearing of parts or components caused by loose or missing hardware that have not been replaced or tightened in a timely manner are not eligible for warranty consideration.

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## TROUBLESHOOTING

PROBLEM	ACTION
1. Unit will not lift load.	Purge air from hydraulic system by following procedure under SETUP.
2. Unit will not sustain load or feels "spongy" under 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 an authorized service center from enclosed list.

Exploded view diagram of a hydraulic excavator assembly, showing the Complete Saddle Assembly (RS7140C332WH) and the Complete Hydraulic Assembly (RS1000ATTJBCYL). The diagram includes numerous numbered parts (1-100) and callouts for the two main sub-assemblies.

**3-32**  
Complete Saddle  
Assembly  
RS7140C332WH

**Complete**  
Hydraulic Assembly  
RS1000ATTJBCYL

Complete  
Hydraulic Assembly  
RS1000ATTJBCYL

# CTJ1000ATTJB PARTS LIST

Index	Part No.	Description	Qty	Index	Part No	Description	Qty
1-1		Air Cylinder	1	1-66		Pin	1
1-2		Coupler	1	1-67		Release Knob	1
1-3		Pin	3	1-68		Top Base	1
1-4		Pedal A	1	1-69		Lock Washer	3
1-5		Pin	2	1-70		Bolt	2
1-6		Washer	1	1-71	RS7200B171BL2	Pump Seat	1
1-7		Nut	1	1-72	RS7200B172BL2	Pump cylinder	1
1-8		Spring	1	1-73	*	O-ring	2
1-9		Pedal B	1	1-74	*	Nylon Gasket	2
1-10		Pin	2	1-75	RS7200B175	Pump Plunger	1
1-11		Link Rod	2	1-76		Pin	1
1-12		Link Rod	1	1-77		Pin	1
1-13	RS7200B113A	Valve Block (Incl: 1-13 to 1-25,1-28)	1	1-78	RS7200B178BL2	Handle Socket (Incl: 1-76 to 1-78, 1-3)	1
1-14		O-ring	2	1-79	RS7200B179BL2	Handle (Incl: 1-79, 1-80)	1
1-15		Valve Rod	2	1-80		Handle Sleeve	1
1-16		Sealing Washer	2	1-81		Oil Pipe	1
1-17		Cap	2	1-82		Washer	1
1-18		Copper Washer	2	1-83		Washer	1
1-19		Screw	2	1-84		Bolt	1
1-20		Spring	2	1-85		Nylon Ball	1
1-21		Copper Washer	2	1-86		Bolt	1
1-22		Coupler	1				
1-23		Filter	2	2-1	RS7140C21	Non-Locking Swivel Caster (Incl: 2-1 to 2-3)	2
1-24		Snap Ring	1	2-2	**	Lock Washer	4
1-25		Coupler	1	2-3	**	Nut	4
1-26		Plate	1	2-4	RS7200B24BL2	Leg	4
1-27		Bolt	1	2-5	**	Bolt	4
1-28		Cap	1	2-6	**	Lock Washer	4
1-29	**	Nut	8	2-7	RS7140C22	Locking Swivel Caster (Incl: 2-2, 2-3, 2-7)	2
1-30		Pin	1				
1-31	RS7200B131	Air Pipe	1	3-1		Bracket	1
1-32	*	Y-seal	1	3-2	RS7140C32WH	Bracket C	2
1-33		Bushing	1	3-3	RS7140C33WH	Bracket B	1
1-34		Piston	1	3-4	RS7140C34WH	Bracket A	1
1-35		Pneumatic Piston Rod	1	3-5		Retainer Plate Assembly	4
1-36		Cylinder Cap	1	3-5A		Retainer Plate	4
1-37		Guide Ring	1	3-5B	RS7140CSAWH	Spring Assembly (Incl: 3-5A, 3-5B, 3-5C, 3-6, 3-7)	4
1-38	*	O-ring	2	3-5C		Rivet	4
1-39	*	Nylon Gasket	2	3-6		Pin	4
1-40		Screw	1	3-7		Retainer Plate A	3
1-41		Screw Cap	1	3-8		Adjusting Bracket	1
1-42	*	O-ring	2	3-9		Adjusting Bracket A	1
1-43	*	Nylon Gasket	2	3-10	RS7140C310AWH	Screw (Incl: 3-10, 3-12, 3-18)	1
1-44	*	O-ring	2	3-11	RS7140C311AWH	Screw B (Incl: 3-11, 3-13, 3-18)	1
1-45		Piston Cap	1	3-12		Handle B	1
1-46		Guide Ring	1	3-13		Handle A	1
1-47		Oil Container	1	3-14	***	Shaft	2
1-48		Hydraulic Piston Rod	1	3-15	***	Shaft	2
1-49		Oil Cylinder	1	3-16	***	Bushing	4
1-50	*	Copper Washer	3	3-17	***	Pin	4
1-51	*	Steel Ball	2	3-18		Pin	2
1-52		Spring	2	3-19		Bolt	1
1-53	*	Steel Ball	2	3-20		Bolt	1
1-54		Screw	2	3-21		Lock Nut	2
1-55	*	Copper Washer	1	3-22	RS7140C322	Strap	1
1-56		Bolt	1	3-23		Bolt	1
1-57	*	Steel Ball	1	3-24		Lock Washer	1
1-58	*	Ball Seat	1	3-25		Washer	1
1-59	*	Spring	1	3-26	**	Bolt	1
1-60		Screw	1	3-27	**	Lock Nut	1
1-61		Washer	1	3-28		Grip	1
1-62		Bolt	1	3-29		Washer	2
1-63	*	Steel Ball	1	3-30		Bolt	2
1-64	*	O-ring	1	3-31		Washer	4
1-65	RS7200B165	Oil Release Valve Rod	1	3-32	RS7140C332WH	Complete Saddle Assembly	1

Complete Replacement Hydraulic Unit Assembly

RS1000ATTJBCYL

\* Only available in Seal Kit

RS7200BSK

\*\* Only available in Bolt Kit

RS7200BBK

\*\*\* Only available in Saddle Bearing Kit

RS7140SBK

## WARRANTY COVERAGE

Cornwell Quality Tools Company ("Cornwell") warrants against defects in material and workmanship on this product for a period of TWO (2) YEARS from the date of original retail purchase. Subject to the conditions and limitations set forth below, Cornwell will, at its option, either repair or replace any part of the product(s) that proves defective by reason of improper workmanship or materials.

This warranty does not cover any damage to this product that results from accident, abuse, misuse, natural or personal disaster, or any unauthorized disassembly, repair, or modification. Repairs, disassembly and modification are only authorized to be made by Cornwell or a warranty service center approved by Cornwell.

### WARRANTY SERVICE

To obtain warranty service, contact your Cornwell dealer, or you may ship the product to the nearest Cornwell Authorized Warranty Center (see listing), transportation prepaid. You must include your name and address, proof of the date of original retail purchase (receipt), and a detailed description of the problem you are experiencing and suspected defect.

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Repair kits and replacement parts are available for many Cornwell products, regardless of whether or not the product is still covered by a warranty plan.

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