

SPECIFICATIONS

Maximum Capacity . . .22 Ton @ 100 psig	Overall Width12-7/16"
Maximum Height17-5/8"	Handle Length48-3/8"
Minimum Height8-7/8"	Saddle Diameter1-13/16"
Extension Screw Adjustment4"	Wheel Diameter8"
Ram Travel4-3/4"	Net Weight83.8 Lbs.
Overall Length23-1/2"	Shipping Weight88.2 Lbs.



CTJTRJ22T

22 Ton Air/Hydraulic Truck Jack - Blue

Manufactured to comply with the
ASME PASE-2014 Safety Standard

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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 Cornwell 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 are 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.



- Lift only on areas of the vehicle as specified by the vehicle manufacturer.



- Wear eye protection that meets ANSI Z87.1 and OSHA standards, users and bystanders.



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



- **This is a lifting device only. Immediately after lifting, support the vehicle with jack stands capable of sustaining the load before working on the vehicle.**

- Use only on a hard level surface free from obstructions so the jack is free to reposition itself during lifting and lowering operations.

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

- Do not move or dolly the vehicle while on the jack.

- Do not use any materials that may serve as risers, spacers or extenders between the stock lifting saddle and the load.

- Do not use any adapters that replace the stock lifting saddle unless approved or supplied by the jack manufacturer.

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

- Always lower the jack slowly and carefully.

- This product may contain one or more chemicals known to the State of California to cause cancer and birth defects or other reproductive harm. *Wash hands thoroughly after handling.*

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

CONSEQUENCES OF NOT AVOIDING HAZARDOUS SITUATIONS

WARNING

Failure to read this manual completely and thoroughly, understand its OPERATING INSTRUCTIONS, SAFETY WARNINGS, MAINTENANCE INSTRUCTIONS and not 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.

INSPECTION

Visual inspection should be made before each use of the 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 subjected to an abnormal load or shock. Any jack which appears to be damaged in any way, is 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.

SETUP

Please refer to the exploded view drawing on page 6 in this manual in order to identify parts:

1. Feed the black hose (#64) and orange hose (#63) coming out of the bottom of the handle (#60) through the handle (#52) while at the same time lining up the hole in the handle (#52) with the hole in the handle connector (#55). Secure them together with the screw (#54).
2. Thread two nuts (#53) all the way on the bottom of the tie rod (#50). Thread the bottom of the tie rod all the way inside the slotted pin (#49). Now tighten one nut (#53) down on top of the slotted pin (#49) and tighten. Slip the spring (#51) down on the tie rod (#50). Insert the tie rod (#50) through the bottom of the bracket that is welded to the handle (#52) so that the spring is trapped between the bracket and the nuts (#53) that are tightened against the slotted pin (#49). Compress the spring until the cross hole in the tie rod (#50) is visible on the other side of the welded bracket and install the R-Pin (#71) through the hole.
3. Thread another nut (#53) all the way on the tie rod (#56). Hold the handle lock (#58) down and away from the t-handle (#60) while simultaneously threading the tie rod (#56) nut onto the tie rod (#50).
4. Raise the handle lock (#58) up so the slotted pin (#49) does not come in contact with any of the three holes in the handle position seat assembly (#7). Remove the screw (#73) from the handle socket (#11). Insert the handle (#52) in the handle socket (#11) while simultaneously inserting the slotted pin (#49) in the handle socket (#11) guide holes. Make sure the hole in the lower portion of the handle (#52) aligns with the threaded hole in the handle socket (#11) and secure them together with the screw (#73). Move the handle up and down while simultaneously pulling the handle lock down so the slotted pin (#49) will engage with any of the three locking holes in the handle position seat assembly (#7). Make sure the slotted pin will engage all three holes. It might be necessary to adjust the threaded connection between tie rods (#50 and #56) in order to get proper engagement. After final adjustment, tighten the nut (#53) to secure the connection.
5. There are two air hoses that must be firmly inserted into the couplers (#48A and #48B). The orange hose (#63) fits in the coupler (#48B) while the black hose (#64) fits in the coupler (#48A).
6. Install the air quick disconnect of your choice in the cross valve (#65). Put at least two wraps of pipe dope tape around the disconnect threads before installation to prevent air leaks.
7. Install the bracket assembly (#77) on the handle tube in the position as shown on the cover of the Owner's Manual and secure the adapters in the bracket holes using the R-Pins (#69).
8. Due to the vacuum release system design of this jack, the jack's hydraulic system very rarely becomes air bound. Indication of an air bound system is a ram that does not rise smoothly. In some extreme case of an air bound system, air can be purged by following this procedure:

PURGING AIR FROM THE HYDRAULIC SYSTEM:

- a. Raise the ram (#32) to maximum height and then lower it all the way down following the activation directions on top of the handle.
- b. Repeat step 'a' until all the air is purged out of the system.

OPERATION



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. **IMPORTANT:** Before attempting to raise any vehicle, check vehicle service manual for recommended lifting surfaces.

1. Become familiar with the identification and function of the operating jack components.
 - a. The ram (#32) is the shaft that comes out of the jack when you rotate the air lever to the right.
 - b. The ram (#32) is equipped with an extension screw which can be unscrewed to extend from the ram if there is not enough hydraulic stroke to raise the load to the desired height. If additional height is required, extension adapters can be inserted in the hole on top of the extension screw.
 - c. Larger diameter saddles can be inserted in the extension screw when requiring a larger diameter saddle surface.
2. Chock the vehicle's tires that will not be lifted off the ground prior to lifting the vehicle and if available, apply the emergency brake or any other method of braking.
3. Position the jack at the designated lift point. Estimate the required ram travel to raise the vehicle to the desired height. If the desired vehicle height exceeds the entire ram travel, unscrew the extension screw to make up the difference and add an extension adapter if necessary.
4. Lock the handle in a position that will not interfere with the vehicle when raised or lowered. Keep the handle in that locked position until the work is completed and you are ready to remove the jack from use.
5. With the jack in the lowered position, push the jack under the vehicle.

IMPORTANT: Use the vehicle manufacturer's recommended lifting procedures and lifting points before lifting loads.

6. In most cases 100 psig input air pressure (do not exceed 200 psig) will lift the maximum capacity load not to exceed 22-tons. Rotate the air lever to the right until the top of the ram comes close to the designated lift point. Make sure the designated lift point is flat, parallel to the ground and free from grease, any kind of lubricant, and debris. Proceed with pumping the jack in order to lift the vehicle to the desired height. During lifting, inspect the position of the jack in relation to the ground and the ram in relationship to the load to prevent any unstable conditions from developing. If conditions look like they are becoming unstable, slowly lower the load and make appropriate setup corrections after the load is fully lowered.
7. When the vehicle or load is lifted to its desired height, immediately place safety support stands (jack stands) in their designated locations and adjust the stands' support columns up as close to the designated vehicle support points as possible. Although jack stands are individually rated, they are to be used in a matched pair to support one end of the vehicle only. Stands are not to be used to

simultaneously support both ends or one side of a vehicle. Rotate the air lever to the left to lower the vehicle onto the safety support stands (jack stands). Make sure the vehicle is safely supported by the safety support stands' (jack stands) saddles and not the locating lugs of the saddles. Inspect the relationship of the safety support stands (jack stands) with the ground and the safety support stand (jack stand) columns and saddles with the vehicle to prevent any unstable conditions. If conditions look unstable, rotate the air lever to the right to raise the vehicle off the safety support stands (jack stands). Make the appropriate setup changes and slowly and carefully lower the vehicle onto the safety support stand saddles.

8. After the work is done, rotate the air lever to the right until the jack is high enough to remove the vehicle or load from the safety support stand saddles. Be sure load is stable. If it is not, lower load back onto safety support stands. Make appropriate setup corrections and repeat the step again. Remove the safety support stands from under the vehicle, being very careful not to move the vehicle.
9. Rotate the air lever to the left to lower the vehicle or load down to the ground.

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.

IMPORTANT: The number one cause of jack failure in air/hydraulic jacks is dirt and moisture in the air motor and/or hydraulic system. The shop air supply should be equipped with water and dirt filter traps that should be emptied or cleaned according to a monthly maintenance schedule. An in line oil lubricator will extend the life of air/hydraulic jacks. Inoperable jacks caused by poorly equipped or maintained shop air systems are not eligible for warranty consideration. Contaminants can also enter the air/hydraulic system when the shop air line is disconnected from the jack air line and the line is dropped on the floor. Contaminants in the air couplers, once reconnected, will be driven into the system.

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 the threads on the extension screw. Do not lubricate any portion of the lift saddle and make sure the saddle is free from grease, any kind of lubricant, or debris before using the jack. Jacks found to be defective due to 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 qualified hydraulic repair personnel who are familiar with this equipment. Authorized Service Centers are recommended. 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 only.
4. Every jack owner is responsible for keeping the jack label 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.

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.

TROUBLESHOOTING

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 Cornwell Customer Service.

WARRANTY COVERAGE

Cornwell Quality Tools Company ("Cornwell") warrants against defects the hydraulic pump on this product for a period of TWO (2) YEARS from the date of original retail purchase. Cornwell Quality Tools Company ("Cornwell") warrants against defects the balance of components on this product for a period of 90 days 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.

EXCLUSIONS AND LIMITATIONS

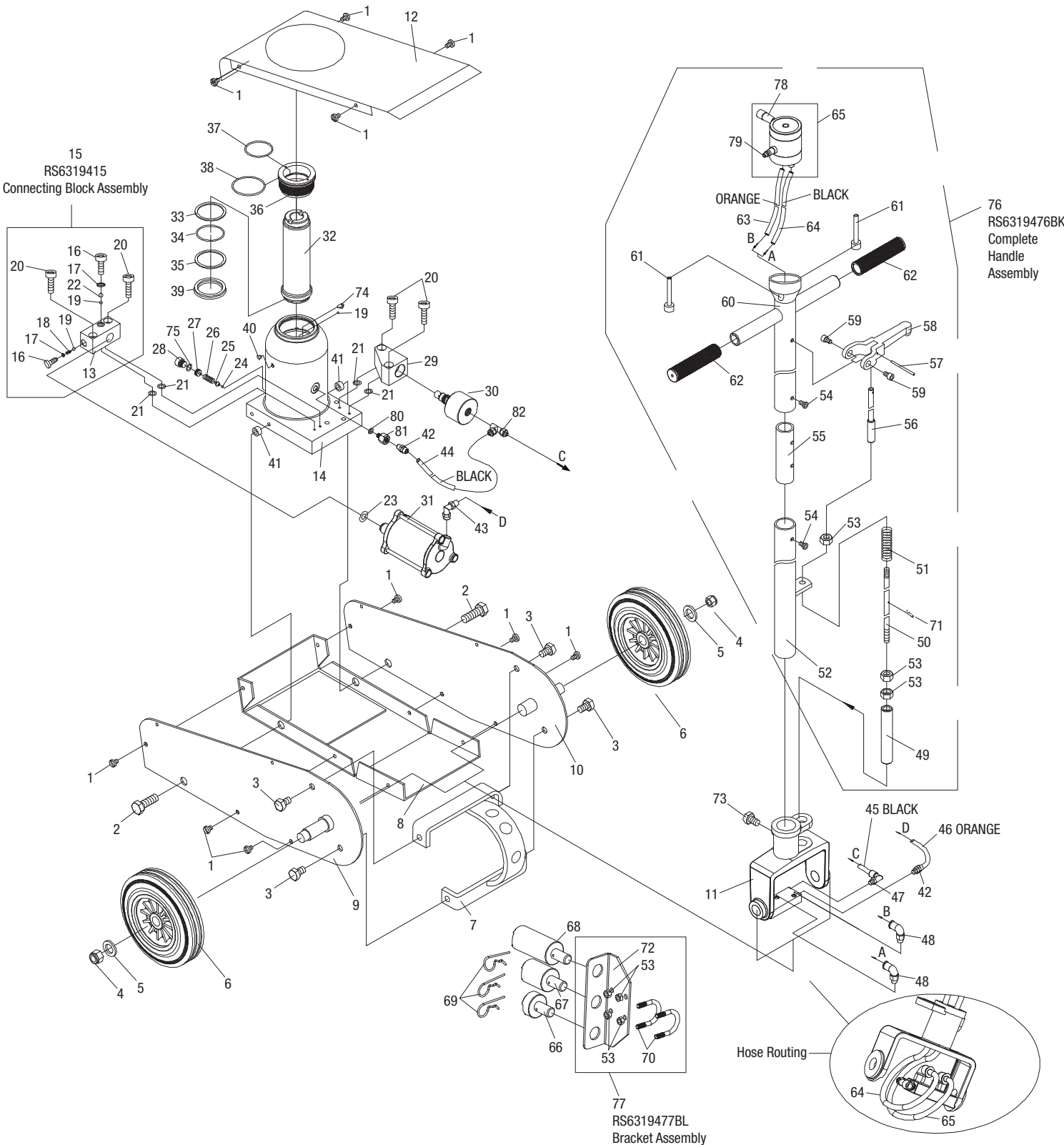
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Some states do not allow the exclusion or limitation of incidental or consequential damages or exclusions or limitation on the duration of implied warranties or conditions, so the above limitations or exclusions may not apply to you. This warranty gives you specific legal rights, and you may also have other rights that vary by state.

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.

CTJTRJ22T: 22 TON AIR/HYDRAULIC TRUCK JACK (BLUE)

PARTS



CTJTRJ22T: 22 TON AIR/HYDRAULIC TRUCK JACK (BLUE)

PARTS

Item No.	Part No.	Description	Qty.	Item No.	Part No.	Description	Qty.
1		Bolt	10	43	RS6319443	Connector (Angle)	1
2		Bolt	2	44	**RS6319444	Short Hose - Orange	1
3		Bolt	4	45	**RS6319445	Short Hose - Black	1
4	RS6319404	Nut	2	46	**RS6319446	Hose - Orange	1
5	RS6319405	Flat Washer	2	47	RS6319447	Connector (Angle)	1
6	RS6319406	Wheel	2	48		Connector (Right Angle)	2
7		Handle Position Bracket	1	49		Handle Position Pin	1
8		Base Plate	1	50		Rod	1
9		Left Side Plate	1	51	*	Spring	1
10		Right Side Plate	1	52		Lower Handle	1
11	RS6319411BL	Handle Socket - Blue	1	53		Nut	7
12	RS6319412BL	Cover Plate - Blue	1	54		Screw	2
13		Connector Block	1	55		Handle Connector Tube	1
14		Cylinder Base Assembly	1	56		Rod	1
15	RS6319415	Connecting Block Assembly	1	57		Pin	1
16		Screw	2	58		Handle Lock	1
17		Washer	2	59		Screw	2
18	*	Spring	1	60		Upper Handle	1
19	*	Steel Ball	3	61		Screw	2
20		Screw	4	62		Handle Cover	2
21	*	O-Ring	4	63	**RS6319463	Hose - Orange	1
22	*	Steel Ball	1	64	**RS6319464	Hose - Black	1
23	*	Copper Washer	1	65	RS6319465A	Air Valve Assembly (incl. #78, 79)	1
24	*	Steel Ball	1	66	RS6319466	Saddle A	1
25		Regulating Ball Seat	1	67	RS6319467	Saddle B	1
26	*	Spring	1	68	RS6319468	Saddle C	1
27		Screw	1	69	RS6319469	R-Pin	3
28		Screw	1	70		U-Bolt	2
29	RS6319429	Release Valve Plate	1	71		R-Pin	1
30	RS6319430A	Release Valve Assembly	1	72		Saddle Base Bracket	1
31	RS6319431	Air Motor	1	73		Screw	1
32	RS6319432	Ram	1	74	RS6319474	Steel Ball Block Slice	1
33	*	Nylon Washer	1	75		O-Ring	1
34	*	O-Ring	1	76	RS6319476BK	Complete Handle Assembly - Black	1
35	*	PTFE Washer	1	77	RS6319477BL	Bracket Assembly - Blue	1
36	RS6319436	Cylinder Nut	1	78	RS6319478ABK	Air Lever - Black	1
37	*	O-Ring	1	79		Air Hose Connector	1
38	*	O-Ring	1	80		Ring	1
39		U-Ring	1	81		Base	1
40		Oil Plug	1	82		Connector	1
41		Block	2		RSCTJTRJ22TPLK	Product Label Kit (not shown)	1
42	RS6319442	Connector (Straight)	2				

Only items identified by part number are available for purchase.

* Available in Hydraulic Repair Kit, RS63194HRKA

** Available in Hose Kit, RS63194HK