STRONGARM®

PROD. NO. **030642**
MOD. NO. **721**

OPERATOR'S MANUAL
20-Ton Air/Hydraulic Truck Axle Jack

WARNING:

FOR YOUR SAFETY, PLEASE READ THESE INSTRUCTIONS CAREFULLY. THE OWNER AND OPERATOR SHALL HAVE AN UNDERSTANDING OF THIS PRODUCT AND SAFE OPERATING PROCEDURES PRIOR TO INITIAL USE. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE TO PROPERTY AND/OR SERIOUS PERSONAL INJURY. PLEASE KEEP THIS INSTRUCTION MANUAL SAFE FOR FUTURE USE.

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1. SPECIFICATIONS

Prod. No.	Capacity (tons)	Low height	High height with extensions	Ram Lift	Screw extension height
030642	20	8.66"	23.35"	3.94"	2.78"
Chassis Length	**Overall Width**	**Saddle Diameter**	**Wheel Diameter**	**Handle length**	**Shipping weight**
17.78"	8.9"	2"	5"	35.5"	55 lbs

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

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 a 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.

2. WARNING INFORMATION

FAILURE TO HEED THESE WARNINGS MAY RESULT IN PROPERTY DAMAGE AND/OR PERSONAL INJURY.

- Read, study, understand, and follow all instructions before operating this device
- Inspect the jack before each use. Do not use the 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
- Do not use the jack beyond its rated capacity
- **No person should be under the vehicle when the jack is in use**
- **This is a lifting device only. Immediately after lifting support the vehicle with appropriate means**
- No alterations shall be made to this product
- Use only on a hard, level surface capable of supporting the load
- Do not move or dolly the vehicle while on jack
- Always lower the jack slowly and carefully
- Do not use saddle adapters or saddle extenders between the stock lifting saddle and the load
- Failure to heed these warnings may result in serious or fatal personal injury and/or property damage

Failure to read this manual completely and thoroughly, failure to understand its operating instructions, safety warnings, and maintenance instructions, and comply with them and the failure to comply with the above warnings could cause accidents resulting in serious or fatal personal injury and/or property damage

3. SETUP INSTRUCTIONS

PLEASE REFER TO THE EXPLODED VIEW DIAGRAM IN THIS MANUAL TO IDENTIFY PARTS

1. Assemble the two handle halves together using the bolt and locknut provided, making sure the release shaft guide tabs are on the same side of the handle
2. Insert the release shaft with knob through the top handle guide tab and then through the bottom handle guide tab
3. The second release shaft half has a receiver on its end. Install the end of the release shaft with knob into the receiving end of the second release shaft receiver and secure them together with the screw provided
4. Insert the handle assembly in the handle receiver of the jack base while simultaneously inserting the end of the release shaft in the release valve receiver at the base of the jack. Align the hole in the handle tube with the hole in the handle receiver of the jack and secure with the bolt and lock nut provided.

5. Install the air quick disconnect of your choice in the air valve at the end of the hose. Affix the air valve to the L-shaped bracket on the handle. Hook the shop's system air hose up to the air valve.
6. Air sometimes gets trapped in the hydraulic system during shipment. An air-bound hydraulic system feels spongy when pumped

PURGING AIR FROM THE HYDRAULIC SYSTEM

A. Open the release valve by turning the knob at the top of the handle in a counterclockwise direction two full turns from the closed position
B. Depress the air valve for approximately 15 seconds
C. Close the release valve by turning the knob in a clockwise direction until tight
D. Depress the air valve until the ram raises to a maximum height
E. Repeat steps "A" through "D" until all the air is purged from the system

4. OPERATING INSTRUCTIONS

1. Become familiar with the identification and function of the operating jack components
   a. The ram is the shaft that comes out of the jack when you depress the air valve and lift the load
   b. The ram 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 of the top of the extension screw
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, Turn the knob at the top of the handle all the way in a clockwise direction until tight
4. 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 the load
5. In most cases 100 psi input air pressure (do not exceed 200 psi) will lift the maximum capacity load. Depress the air valve 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 the appropriate setup corrections after the load is fully lowered.

6. When the vehicle or load is lifted to its desired height, immediately place safety support 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 to support both ends or one side of a vehicle. Slowly and carefully turn the release knob in a counterclockwise direction to gently lower the vehicle onto the safety support stands. Make sure the vehicle is safely supported by the safety support stands' saddles and not the locating lugs of the saddles. Inspect the relationship of the safety support stands with the ground and the safety support stand columns and saddles with the vehicle to prevent any unstable conditions. If conditions look unstable, close the jack's release knob and depress the air valve to raise the vehicle off the safety support stands. Make the appropriate setup changes and slowly and carefully lower the vehicle onto the safety support stand saddles. **DO NOT CRAWL UNDER THE VEHICLE WHILE LIFTING VEHICLE OR PLACING OR REMOVING THE JACK STANDS.**
7. After the work is done, close the release knob and depress the air valve until the jack is high enough to remove the vehicle or load from the safety support stand saddles. Be sure the load is stable. If it is not stable, lower the load back onto the safety support stands. Make appropriate setup corrections and repeat the step again. Remove the safety support stands from under the vehicle being careful not to move the vehicle.
8. Turn the release knob in a counterclockwise direction very slowly and carefully to lower the vehicle or load down to the ground.

5. INSPECTION

Prior to each use, visually inspect for leaking hydraulic fluid, 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 load. Any jack that 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 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.

6. 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.

7. PREVENTATIVE MAINTENANCE

1. Always store the jack in a well-protected area where it will not be exposed to inclement weather, corrosive vapours, 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 of 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 an authorized service centre.
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 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 centre.

8. TROUBLESHOOTING

Symptom	Cause	Remedy
Jack will not lift the load	1. The release valve is not tightly closed 2. The jack is overloaded 3. Inadequate air supply	1. Tighten the release valve 2. Rectify the overload condition. 3. Check and ensure adequate air supply
Jack bleeds off after lifting	1. The release valve is not tightly closed 2. The jack is overloaded 3. The hydraulic unit malfunctions	1. Tighten the release valve 2. Rectify the overload condition 3. Contact the local service centre
Jack will not lower after unloading	1. The reservoir is overfilled with hydraulic fluid. 2. Linkage binding	1. Drain fluid to the proper oil level 2. Clean and lubricate moving parts
Poor lifting performance	1. Low fluid level 2. Air is trapped inside the hydraulic system	1. Ensure proper fluid level 2. With the ram retracted, remove the oil filler plug. Pump the jack with the release valve open to pressurize the air. Reinstall the oil filler plug.
The jack will not lift to its maximum height	Low fluid level	Ensure proper fluid level

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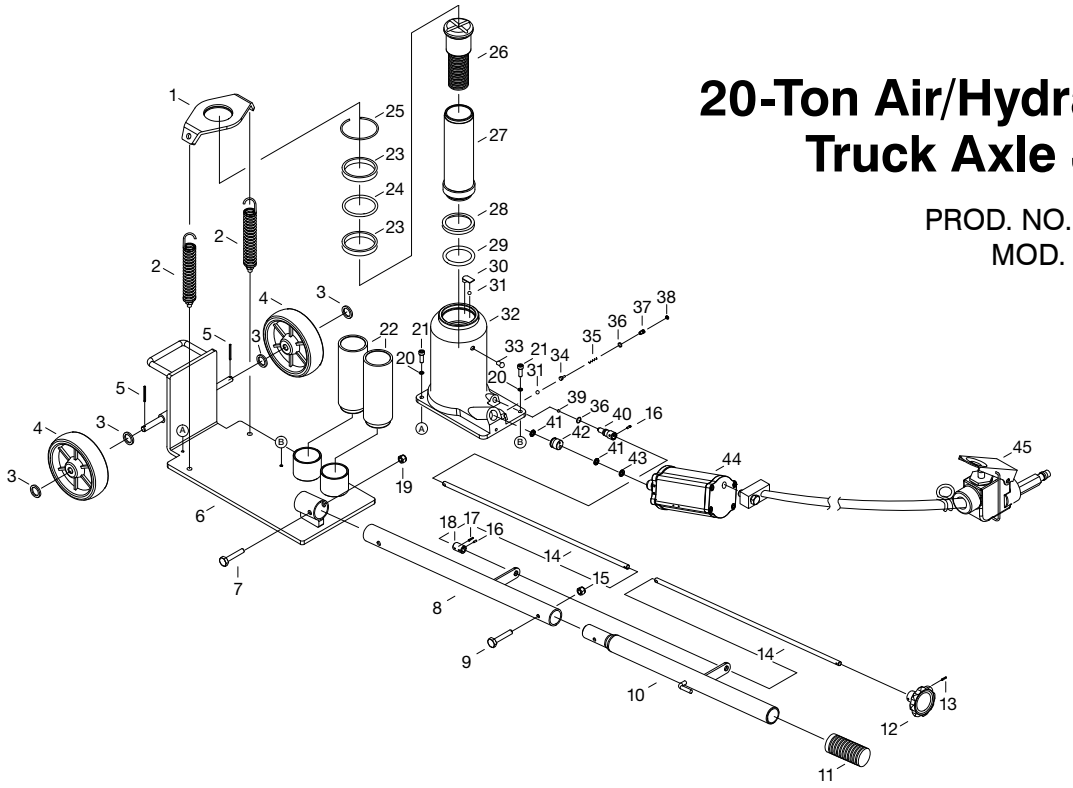

REF	PART NUMBER	DESCRIPTION	REQ	REF	PART NUMBER	DESCRIPTION	REQ
01	PCN-721-P01	TENSION SPRING PLATE	1	24	PCN-721-P24	O-RING	1
02	PCN-721-P02	TENSION SPRING COMPONENTS	2	25	PCN-721-P25	SNAP RING	1
03	PCN-721-P03	WASHER	4	26	PCN-721-P26	SCREW ROD UNIT	1
04	PCN-721-P04	WHEEL	2	27	PCN-721-P27	PISTON ROD	1
05	PCN-721-P05	PIN	2	28	PCN-721-P28	SEALING WASHER	1
06	PCN-721-P06	FRAME	1	29	PCN-721-P29	O-RING	1
07	PCN-721-P07	BOLT	1	30	PCN-721-P30	STEEL PLATE	1
08	PCN-721-P08	FRONT HANDLE	1	31	PCN-721-P31	STEEL BALL	2
09	PCN-721-P09	BOLT	1	32	PCN-721-P32	PUMP CYLINDER	1
10	PCN-721-P10	REAR HANDLE	1	33	PCN-721-P33	OIL FILLER PLUG	1
11	PCN-721-P11	HANDLE GRIP	1	34	PCN-721-P34	BALL VALVE SEAT	1
12	PCN-721-P12	RELEASE KNOB	1	35	PCN-721-P35	SAFETY VALVE SPRING	1
13	PCN-721-P13	PIN	1	36	PCN-721-P36	O-RING	2
14	PCN-721-P14	DRIVE ROD	2	37	PCN-721-P37	SCREW	1
15	PCN-721-P15	NUT	1	38	PCN-721-P38	NUT CAP	1
16	PCN-721-P16	BOLT	2	39	PCN-721-P39	STEEL BALL	1
17	PCN-721-P17	PIN	1	40	PCN-721-P40	RELEASE ROD	1
18	PCN-721-P18	BUSHING	1	41	PCN-721-P41	COPPER WASHER	2
19	PCN-721-P19	NUT	1	42	PCN-721-P42	OIL VALVE ASSEMBLY	1
20	PCN-721-P20	WASHER	2	43	PCN-721-P43	NYLON GASKET	1
21	PCN-721-P21	BOLT	2	44	PCN-721-P44	AIR PUMP ASSEMBLY	1
22	PCN-721-P22	ADAPTER	2	45	PCN-721-P45	AIR FITTING WITH AIR HOSE	1
23	PCN-721-P23	RETAINING RING	2				