

JSAZOA



PARTS BREAKDOWN AND OPERATING MANUAL

MODEL JSA20A 20 Ton Capacity Air Hydraulic Jack

TRI-CITY HYDRAULIC JACK SERVICE

4628 N. Florida Avenue Tampa, Florida 33603-3700 (813) 236-8551



Inspection:

To Raise: Turn release valve at top of handle clockwise to tighten.

To Lower: Turn counter clockwise.

Plug air hose into air valve and depress trigger.

Put oil in air line at least once a day to lubricate pump mechanisms and prevent wear.

To change position of handle, raise lever, align with hole and release to lock.

Assembly Instructions:

This tool comes pre-assembled except for the handle. Place handle into handle block and tighten screw into handle.



WARNING



FOR YOUR SAFETY & TO PREVENT INJURY

This is a lifting device ONLY. Immediatley support load by other appropriate means after lifting. DO NOT OVERLOAD. Overloading can cause damage to or failure of the jack. Make sure load is centered on ram. Lift only on areas of the vehicle as specified by the vehicle manufacturer. This jack is designed for use only on hard, level surfaces capable of sustaining the load. Use on other than hard level surfaces can result in instability of jack and possible loss of load. Read, study and understand all manufacturers instructions before using the jack. Failure to heed these warnings may result in loss of load, damage to jack and/or failure resulting in personal injury or property damage. Visual inspection should be made before each use of the jack. checking for leaking hydraulic fluid and damaged, loose or missing parts.

Visual inspection should be made before each use of the air over jack, checking for leaking hydraulic fluid and damaged, loose or missing parts. Any air over jack which appears to be damaged in any way, is found to be badly worn, or operated abnormally MUST BE REMOVED FROM SER-VICE. If the air over 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 air over jack be made by manufacturer's autho-

Owner/User Responsibility:

rized repair facility

able from the manufacturer.

The owner and/or user must have an understanding of the manufacturer's operating instructions and warnings before using the transmission jack. 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.

and that any defective parts, decals, or warning labels be replaced with manufacturer's specified

parts. A list of authorized repair facilities is avail-

Owner and/or user must study and maintain for future reference the manufacturer's instructions.

MODEL JSA20A PARTS BREAKDOWN LIST

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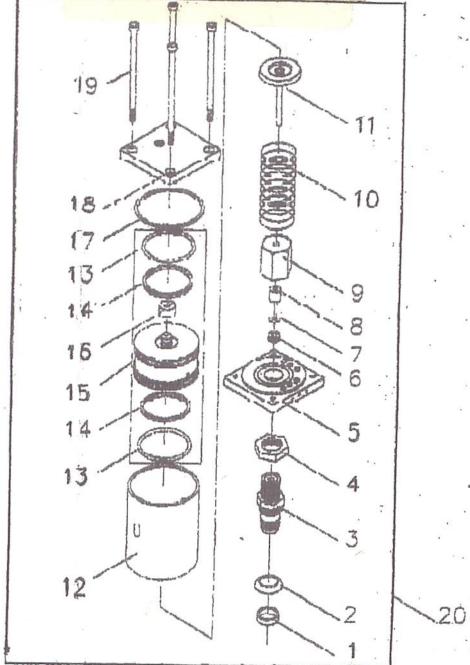
No. 1 2 3 * 4 * 5 6 * 7 * 8 9 * 10 11 12 * 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Screw Ext. Saddle Cylinder Rod Teflon Ring Cup Seal Brass Bushing Snap Ring Wiper Seal Spanner Ring O-Ring Oil Resevoir Pump Housing Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Screw Spring Screw Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 80 81 82 83 84 85	Screw (Spring) Nut Lock Washer Hex Screw Air Pump Motor Screw End Cap Screw Threaded Pipe Joint Pipe Joint Elbow (Hose) Pipe Joint Hose Clamp Hose Spring Pipe Joint (Air Valve) Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1 1 4 1 4 4 1 1 1 2 1 1 1 1 1 2 2 1 6 1 1 1
2 3 4 5 6 7 8 9 * 10 11 12 * 13 * 15 * 15 * 15 * 15 * 15 * 15 * 15	Saddle Cylinder Rod Teflon Ring Cup Seal Brass Bushing Snap Ring Wiper Seal Spanner Ring O-Ring Oil Resevoir Pump Housing Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 80 81 82 83 84	Lock Washer Hex Screw Air Pump Motor Screw End Cap Screw Threaded Pipe Joint Pipe Joint Elbow (Hose) Pipe Joint Hose Clamp Hose Spring Pipe Joint (Air Valve) Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1 4 1 1 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1
* 4 5 6 7 8 9 10 11 12 * 13 14 15 14 15 14 15 14 15 14 15 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Cylinder Rod Teflon Ring Cup Seal Brass Bushing Snap Ring Wiper Seal Spanner Ring O-Ring Oil Resevoir Pump Housing Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				64 65 66 67 68 69 70 71 72 73 74 75 76 77 80 81 82 83 84	Hex Screw Air Pump Motor Screw End Cap Screw Threaded Pipe Joint Pipe Joint Elbow (Hose) Pipe Joint Hose Clamp Hose Spring Hose Spring Pipe Joint (Air Valve) Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	4 1 4 4 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
* 4 5 6 7 8 9 10 11 12 14 15 15 14 1	Teflon Ring Cup Seal Brass Bushing Snap Ring Wiper Seal Spanner Ring O-Ring Oil Resevoir Pump Housing Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Screw Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				65 66 67 68 69 70 71 72 73 74 75 76 77 78 80 81 82 83 84	Air Pump Motor Screw End Cap Screw Threaded Pipe Joint Pipe Joint Elbow (Hose) Pipe Joint Hose Clamp Hose Spring Hose Spring Pipe Joint (Air Valve) Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1444111211111112216111
* 5 6 7 8 9	Cup Seal Brass Bushing Snap Ring Wiper Seal Spanner Ring O-Ring Oil Resevoir Pump Housing Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Screw Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				66 67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84	End Cap Screw Threaded Pipe Joint Pipe Joint Elbow (Hose) Pipe Joint Hose Clamp Hose Spring Pipe Joint (Air Valve) Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	4 1 1 1 2 1 1 1 1 1 1 2 2 1 6 1 1 1
6 * 7 * 8 9 * 10 11 12 * 13 14 15 * 15 15 15 15 15 15 15 15 15 15 15 15 15	Brass Bushing Snap Ring Wiper Seal Spanner Ring O-Ring Oil Resevoir Pump Housing Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Screw Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				67 68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84	Threaded Pipe Joint Pipe Joint Elbow (Hose) Pipe Joint Hose Clamp Hose Spring Pipe Joint (Air Valve) Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1 1 1 2 1 1 1 1 1 1 2 2 1 6 1 1 1
* 7 * 8 9 * 10 11 12 * 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Snap Ring Wiper Seal Spanner Ring O-Ring Oil Resevoir Pump Housing Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				68 69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84	Pipe Joint Elbow (Hose) Pipe Joint Hose Clamp Hose Spring Pipe Joint (Air Valve) Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1 1 2 1 1 1 1 1 1 2 2 1 6 1 1 1
* 8 9 * 10 11 12 * 13 14 15 15 15 15 15 15 15 15 15 15 15 15 15	Wiper Seal Spanner Ring O-Ring Oil Resevoir Pump Housing Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Seperator Steel Ball Spring Copper Ring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				69 70 71 72 73 74 75 76 77 78 79 80 81 82 83 84	(Hose) Pipe Joint Hose Clamp Hose Spring Hose Spring Pipe Joint (Air Valve) Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	121111112216111
9 * 10 11 12 * 13 14 15 * 16 17 18	Spanner Ring O-Ring Oil Resevoir Pump Housing Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1 1 1 1 1				70 71 72 73 74 75 76 77 78 79 80 81 82 83 84	Hose Clamp Hose Spring Hose Spring Pipe Joint (Air Valve) Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	2 1 1 1 1 1 2 2 1 6 1 1 1
* 10 11 12 * 13 * 14 15 * 16 17 18 * 20 * 20 * 20 * 20 * 20 * 20 * 20 * 30 * 30 * 30 * 30 * 30 * 30 * 30 * 3	O-Ring Oil Resevoir Pump Housing Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Seperator Steel Ball Spring Copper Ring Copper Ring Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 2 1 1 1 1 1 1 1 1 1				71 72 73 74 75 76 77 78 79 80 81 82 83 84	Hose Spring Hose Spring Pipe Joint (Air Valve) Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1 1 1 1 1 1 2 2 1 6 1 1 1
11 12 * 13 * 14 15 * 16 17 18 19 * 20 * 20 * 20 * 20 * 20 * 20 * 20 * 2	Oil Resevoir Pump Housing Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Seperator Steel Ball Spring Copper Ring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 2 1 1 1 1 1 1 1 1 1				72 73 74 75 76 77 78 79 80 81 82 83 84	Hose Spring Pipe Joint (Air Valve) Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1 1 1 1 1 2 2 1 6 1 1 1
12 * 13 14 15 16 17 18 19 18 19 18 19 18 19 18 19 18 19 18 19 18 19 18 19 18 19 18 19 18 19 18 19 18 19 18 19 18 19 18 19 18 18 18 18 18 18 18 18 18 18 18 18 18	Pump Housing Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Seperator Steel Ball Spring Copper Ring Copper Ring Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 2 1 1 1 1 1 1 1 1 1				73 74 75 76 77 78 79 80 81 82 83 84	Pipe Joint (Air Valve) Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1 1 1 1 2 2 1 6 1 1 1
* 13 14 15 * 16 17 18 * 20 * 20 * 20 * 20 * 20 * 20 * 20 * 30 * 30 * 30 * 30 * 30 * 30 * 30 * 3	Steel Ball Overload Spring Flat Screw O-Ring Screw Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				74 75 76 77 78 79 80 81 82 83 84	Screen Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1 1 1 2 2 1 6 1 1 1
14 15 * 16 17 18 * 20 * 21 * 22 * 22 * 22 * 23 * 23 * 23 * 23 * 23	Overload Spring Flat Screw O-Ring Screw Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				75 76 77 78 79 80 81 82 83 84	Trigger, Valve Housing Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1 1 2 2 1 6 1 1
15 * 16 17 18 * 20 * 22 * 22 * 22 * 22 * 23 * 23 * 23 * 23	Flat Screw O-Ring Screw Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1				76 77 78 79 80 81 82 83 84	Air Chuck Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1 1 2 2 1 6 1 1
* 16 17 18 * 20 * 22 * 22 * 22 * 22 * 22 * 23 * 33 * 33	O-Ring Screw Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1				77 78 79 80 81 82 83 84	Trigger Lock Ring Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1 2 2 1 6 1 1
17 18 19 * 20 * 22 * 22 * 22 * 22 * 23 * 23 * 23 * 23	Screw Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1				78 79 80 81 82 83 84	Universal Joint Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	2 2 1 6 1 1
* 20 * 20 * 20 * 20 * 20 * 20 * 20 * 20	Spring Seperator Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder O-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1 1				79 80 81 82 83 84	Connecting Block Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	2 1 6 1 1
* 20 * 21 * 21 * 21 * 21 * 21 * 31 * 3 * 3 * 3 * 3	Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder C-Ring Leather Packing Brass Bushing	1 1 1 1 1 1 1				80 81 82 83 84	Universal Joint (Long) Roll Pin Roll Pin Universal Joint Connecting Rod	1 6 1 1 1
* 20 * 21 * 22 * 25 * 25 * 25 * 25 33 * 3 * 3 * 3 * 3 * 3	Steel Ball Spring Copper Ring Screw Copper Ring Plunger Cylinder C-Ring Leather Packing Brass Bushing	1 1 1 1 1 1				81 82 83 84	Roll Pin Roll Pin Universal Joint Connecting Rod	6 1 1 1
* 22 * 25 * 25 * 25 * 25 33 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Copper Ring Screw Copper Ring Plunger Cylinder C-Ring Leather Packing Brass Bushing	1 1 1 1 1				82 83 84	Roll Pin Universal Joint Connecting Rod	1 1 1
* 22 * 25 * 25 * 25 * 25 30 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Copper Ring Screw Copper Ring Plunger Cylinder C-Ring Leather Packing Brass Bushing	1 1 1 1 1				83 84	Universal Joint Connecting Rod	1
* 24 * 25 * 25 * 25 * 25 30 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	Screw Copper Ring Plunger Cylinder C-Ring Leather Packing Brass Bushing	1 1 1 1				84	Connecting Rod	1
*25 *27 *27 *27 *33 *33 *33 *33 *33 *33	Plunger Cylinder C-Ring Leather Packing Brass Bushing	1 1 1 1					Connecting riod	
* 20 * 21 20 30 30 30 * 30 * 30 * 30 * 30 * 30 * 30	O-Ring Leather Packing Brass Bushing	1 1 1					Trigger Over Pin	1
* 22 22 23 33 33 * 33 * 33 * 33 * 33 * 3	Leather Packing Brass Bushing	1 1				86	Trigger Lever Pin Brass Trigger Valve	1
20 20 30 30 30 30 30 30 30 30 30 30 30 30 30	Brass Bushing	1				87	O-Ring	1
29 33 33 *3 *3 *3 *3		1				88	O-Ring	1
33 33 *3 *3 *3 *3	DI	:				89	Plunger (Trigger)	1
3 3 * 3 * 3 * 3 * 3		1				90	Cup Washer	1
3 3 * 3 * 3 * 3 * 3	Spring	1				91	Spring Trigger	. 1
3. *3 *3 *3		1				92	Stopper (Rod)	1
3 *3 *3 *3		1				93	Spring	1
*3 *3 *3		1				94	Washer	1
*3 *3	4 Air Piston	1				95	Cotter Pin	1
*3		4				96	T-Handle	1
3	6 O-Ring	4			*	97	Lever (Lock)	1
		1				98	Roll Pin	1
		4				99	Bolt	2
*3		1			0.13	100.	Handle Grip	2
#4		1				101	Handle Connecting Rod	1
4		1				102	Roll Pin	1
	2 Piston Guide	2				103	Release Knob	1
* 4		1				104	Screw (Handle)	1
* 4	4 O-Ring	i				105	Lock Washer	1
	5 Trigger Lever	i			·	106	Handle Fork	1
	6 Air Pump Case, End	i				107	Handle Fork Bracket	1
* 4		i				108	Frame (Left)	1
	8 End Cap	1				108-1	Frame (Right)	1
* 4		i				109	Wheel	2
* 5		r i				110	Bolt	4
* 5		1				111	Screw	4
		1				112	C-Screw	2
* 5	Release Valve	1				113	Screw	4
	Brass Packing	1	*Indicates t	hese items ar	re only avail-	114	Flat Washer	2
		1			A-SK). Items	115	Screw	4
	Snan Ring	1				116	Lock Washer	4
	Snap Ring Tellon Ring	3			ilable as the	117	Cover (Upper)	1
	7 Teflon Ring		handle ass	y. (JSA20A-H	HA)	118	Cover (Lower)	4
		4				119	Lock Washer	4

MAC TOOL PARTS PRICING MODEL JSA20A

1	TRI-CITY HYDRAULIC JACK SERVICE
1	4628 N. Florida Avenue
A	Tampa, Florida 33603-3700
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PART NUMBER	DESCRIPTION
6620-01	SCREW EXT.
6620-02	SADDLE
6620-03	CYLINDER ROD
6620-30	SPRING
6620-32	PLUNGER
6620-34	AIR PISTON
6620-54	RELEASE VALVE
6620-59	RETURN SPRING
6620-60	SPRING GUIDE
6620-75	TRIGGER, VALVE HOUSING
6620-78	UNIVERSAL JOINT
6620-79	CONNECTING BLOCK
6620-80	UNIVERSAL JOINT (LONG)
6620-81	ROLL PIN
6620-82	ROLL PIN
6620-83	UNIVERSAL JOINT
6620-84	CONNECTING ROD
6620-106	HANDLE FORK
6620-109	WHEEL
6620HNDLASSY	HANDLE ASSEMBLY
6620-SK	SEAL KIT

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TAIWAN AIR MOTOR