



PROFESSIONAL LIFTING EQUIPMENT

MODEL # 791-6021
1-1/2 TON CAPACITY
CRANE



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 device 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 NAPA 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.

! WARNING

- Read, study, understand and follow all instructions before operating this device.
- Inspect crane before each use. Do not use if damaged, altered, modified, in poor condition, leaking hydraulic fluid, or unstable due to loose or missing hardware or parts. Make corrections before using.
- Never get under a load being lifted or suspended.
- Wear eye protection that meets ANSI Z87.1 and OSHA standards.
- Use only on a hard level surface.
- Do not raise the boom if the crane is equipped with a foldable or storable leg feature and the legs are in the upright position. Legs must be secured in the upright position when not used.
- Use only slings or chains with a rated capacity greater than the weight of the load being lifted.
- Do not exceed rated capacity.
- Do not lift or move a load that has a center of gravity extending beyond the front wheels.
- Do not allow load to swing or drop violently while raising, lowering or moving.
- Before moving, lower load to the lowest possible point.
- No alterations shall be made to this product, and do not use any unapproved attachments.
- This product contains 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.

SPECIFICATIONS

Boom Capacity	Pos. 1 @ 750 Lbs.	Pos. 2 @ 1,500 Lbs.	Pos. 3 @ 2,250 Lbs.....	Pos. 4 @ 3,000 Lbs.
Max. Boom Ht.	96.5"	90.5"	84.5"	78.5"
Min. Boom Ht.	0"	0"	5.5"	11.75"
Boom Ext. From End				
to Ram	48"	41.5"	34"	27"
Base Dimensions – Open				
Width Back.....				34"
Width Front				35.5"
Length				69.5"
Base Dimensions – Folded				
Width Back.....				34"
Width Front				24"
Depth				21.5"
Power Unit.....				8 Ton Heavy Duty Fast Rise
Shipping Weight.....				210 Lbs.
(Shipped in 2 boxes)				

OPERATING MANUAL & PARTS LIST FOR 791-6021

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



IMPORTANT: READ THESE INSTRUCTIONS BEFORE OPERATING

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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 secured 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

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- Never get under a load being lifted or suspended.
- Wear eye protection that meets ANSI Z87.1 and OSHA standards.
- Use only on a hard level surface.
- Do not raise the boom if the crane is equipped with a foldable or storable leg feature and the legs are in the upright position. Legs must be secured in the upright position when not used.
- Use only slings or chains with a rated capacity greater than the weight of the load being lifted.
- Do not exceed rated capacity.
- Do not lift or move a load that has a center of gravity extending beyond the front wheels.
- Do not allow load to swing or drop violently while raising, lowering or moving.
- Before moving, lower load to the lowest possible point.
- No alterations shall be made to this product, and do not use any unapproved attachments.
- This product contains 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, failure to understand its OPERATING INSTRUCTIONS, SAFETY WARNINGS, MAINTENANCE INSTRUCTIONS and comply with them, and failure to comply with the METHODS TO AVOID HAZARDOUS SITUATIONS could cause accidents resulting in serious or fatal personal injury and/or property damage.

SETUP INSTRUCTIONS



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

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

1. Secure the index #5 rear caster assemblies to the index #1 base frame with the bolts and washers provided and in accordance with the assembly drawing.
2. Loosely assemble the index #17 upright mast to the index #1 base frame in accordance with the assembly drawing and finger tighten the index #4 bolts, index #3 washers and index #2 nuts.
3. Loosely assemble the index #11 mast braces to the index #17 upright mast by finger tightening the index #18 bolt, index #15 washer and index #16 nut. Loosely assemble the opposite ends of the index #11 mast braces to the index #1 base frame by finger tightening the index #4 bolts, index #3 washers and index #2 nuts.
4. Tighten all the hardware mentioned in steps 2 and 3.
5. Install the index #9L and #9R leg extensions in the index #1 base where the holes in the legs line up with the holes in the base as shown in the assembly drawing. Secure the legs to the base using the index #8 detent pins and index #7 R-clips.
6. According to the assembly drawing, secure the index #14 hydraulic ram in between the mounting brackets on the index #17 upright mast using the index #12 bolt, index #15 washer and index #16 nut. Lean the ram up against the mast.
7. Secure the index #26 boom in between the mounting flanges located on top of the index #17 upright mast using the index #30 bolt, index #23 washer and index #24 nut.
8. Line up the hole in the index #14 hydraulic ram with the holes in the gussets of the index #26 boom and secure the ram to the boom with the index #22 bolt, index #15 washer and index #16 nut. It may be necessary to extend the ram to line up all the holes.
9. Pump the jack so the index #26 boom is horizontal to the ground. According to the assembly drawing, slide the index #27 boom extension inside the index #26 boom so the hole in the boom aligns with any of the four holes in the index #26 boom. Secure the boom and boom extension together using the index #25 detent pin and index #7 R-clip.
10. Slide one of the chain links of the index #29 hook and chain assembly through the slot in the bottom of the index #27 boom extension. Feed the index #28 bolt through the hole on one side of the extension boom, then through the chain link and finally through the hole in the other side of the extension boom. Secure the index #28 bolt with index #3 washer and index #2 nut.
11. Secure the index #19 push bar on the back side of the index #17 upright mast using the index #21 screws and index #20 washers.
12. Install the index #13 pump handle in the index #14 hydraulic ram pump linkage when using or in the index #17 upright mast holder for storage.
13. Sometimes air gets trapped in the hydraulic system during shipment. An air bound hydraulic system feels spongy when pumped and may not allow the jack to pump full incremental strokes.

TO PURGE AIR FROM THE HYDRAULIC SYSTEM

- a. Open the release valve by turning the handle in a counterclockwise direction two full turns.
- b. Pump the handle ten full strokes.
- c. Close the release valve by turning the handle in a clockwise direction until tight.
- d. Pump the jack until the ram is extended to maximum height.
- e. If the condition remains, repeat steps "a" through "d" until all the air is purged from the 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. Before lifting, evaluate the work to be done by:
 - a. Determining the weight of the load to be lifted and secure the boom extension in the boom in the appropriate hole position.
 - b. Determine the crane's boom extension in order to ensure there is enough boom lift/travel to accomplish the work.

IMPORTANT: THE WORKING CAPACITY OF THE CRANE IS DETERMINED BY THE LOCATION OF THE EXTENSION BOOM. THE CAPACITY OF THE EXTENSION BOOM MUST EXCEED THE WEIGHT TO BE LIFTED.

Secure the boom extension in the boom with the appropriate hardware provided, making sure it can not come loose during use.
 - c. The crane's hook and chain assembly must be adjusted to the right length and secured to the end of the boom to prevent the hook from binding with the boom when lifting.
2. Make sure the crane's front wheels extend beyond the extension boom's hook in order to avoid load tipping. Do not lift or move a load with a center of gravity that extends beyond the sides of the crane and the crane's front wheels.
3. Use balancers, levelers, slings, chains or any combination thereof (which are capable of sustaining the load) around the load before using the crane's hook to lift the load. Make sure the complete setup is secure before lifting.
4. Attach the crane's hook to the balancer, leveler, sling, chain or any combination thereof. Turn the release valve on the crane's hydraulic ram in a clockwise direction until tight. Before pumping the crane's jack handle, make sure the engine or load is free from all other restraints and connections that would hinder the raising of the load. Once the engine or load has cleared its location, make sure there is no slope in the floor or any obstructions on the floor that could cause the crane to tip and lose the load.
5. Immediately upon removal of the engine from the engine compartment or load from its position, the engine or load must be as close to the ground as possible when transporting. Lower the load to the proper transport height by slowly and carefully turning the hydraulic ram's release valve in a counter clockwise direction. When approaching the transport height, start turning the crane's release valve in a clockwise direction until tight. This same procedure of lowering the load is also used for moving a load to its final or temporary resting place or location.

OPERATING MANUAL & PARTS LIST FOR 791-6021

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 crane 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. Lubricate the wheels, casters, and all pivot points on the crane according to an acceptable shop maintenance schedule. Maintenance intervals are dependant on time and usage.
3. Every crane owner is responsible for keeping the crane labels clean and readable. Use a mild soap solution to wash external surfaces of the crane but not any moving hydraulic components. Contact NAPA for a replacement label if your crane's label is not readable.
4. Inspect the crane before each use. Do not use the crane if any component is cracked, broken or bent. Do not use the crane if it has loose or missing hardware or components, or is modified in any way. Take corrective action before using the crane again.
5. It should not be necessary to refill or top off the crane's jack 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. IMPORTANT: In order to prevent seal damage and jack failure, never use alcohol, hydraulic brake fluid or transmission oil in the jack. Use NAPA hydraulic Jack Oil #765-1541.

TROUBLESHOOTING

PROBLEM	POSSIBLE CAUSES	ACTION
Crane will not lift load.	Release valve not tightly closed	Close release valve firmly.
	Overload condition.	Use jack with proper capacity.
	Air trapped in hydraulic system.	Purge air from system by following steps "a" through "d" in the "ASSEMBLY INSTRUCTIONS" section of the manual.
	Hydraulic valves not operating properly.	Contact your dealer.
Crane will lift but lowers load slowly.	Release valve not tightly closed	Close release valve firmly.
	Hydraulic valve not tightly closed	Contact your dealer.
Crane will not lower after load has been removed.	Jack's reservoir has too much fluid.	Place jack in its upright position. Retract the ram. Remove the reservoir fill plug. Allow oil to drain out of fill plug hole until oil level is at bottom level of hole. Reinstall fill plug.
Poor lift performance or will not lift maximum height.	Hydraulic fluid low.	Place jack in its upright position. Retract the ram. Remove the reservoir fill plug. Add only high quality jack oil up to the bottom level of the hole. Reinstall fill plug. Purge air from system according to steps "a" through "d" in the "ASSEMBLY INSTRUCTIONS" section of this manual.
	Air trapped in hydraulic system.	Purge air from the system. See steps "a" through "d" in the "ASSEMBLY INSTRUCTIONS" section of this manual.

For a complete list of authorized hydraulic repair centers please visit www.toolwarrantyrepair.com.

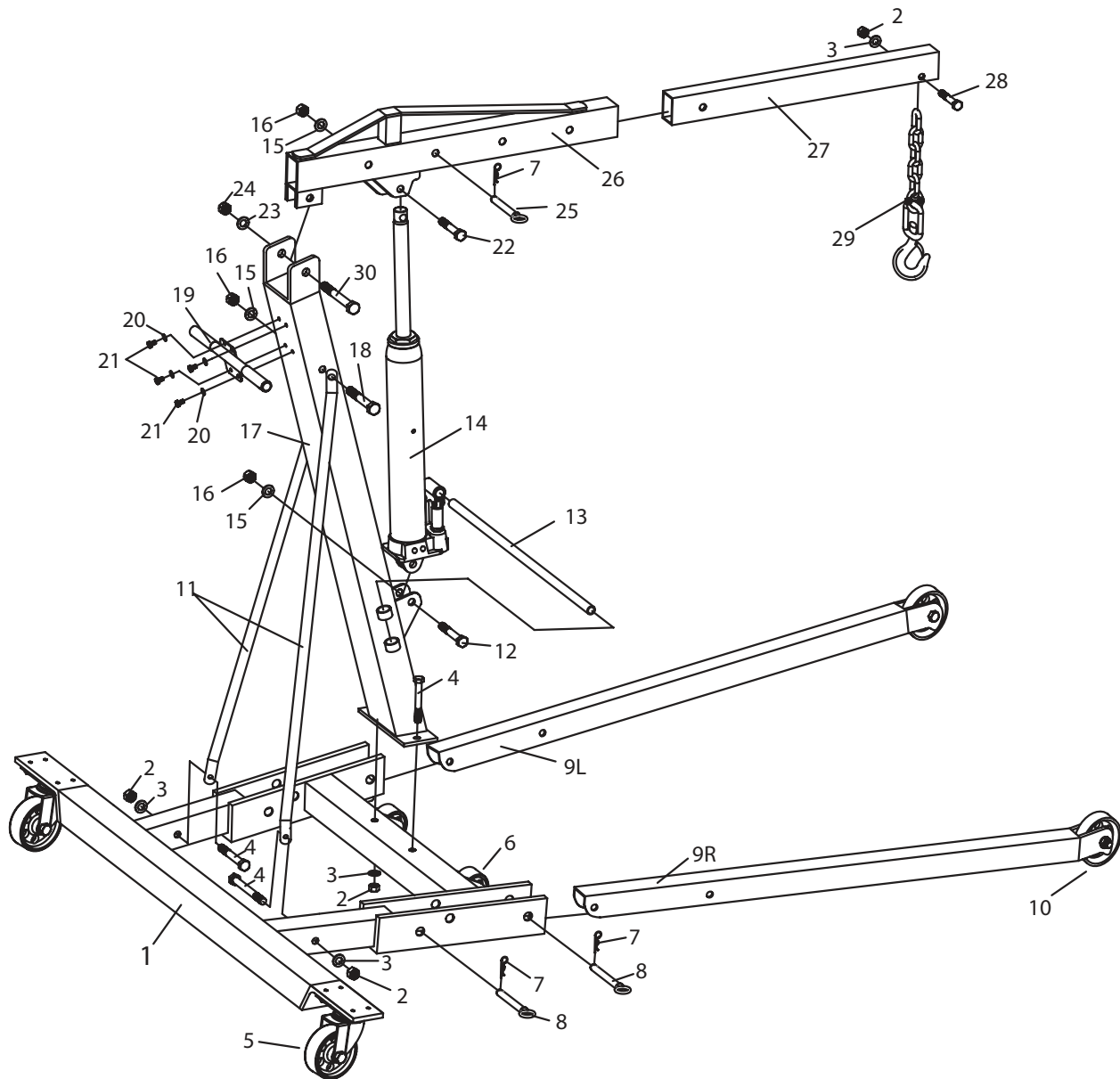
WARRANTY

Please contact your local NAPA Auto Parts Store for details on warranty.



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CRANE



Index No.	Part No.	Description	Qty.	Index No.	Part No.	Description	Qty.
1	RS5218A01Y	Base Frame	1	16	*	Nut M16	3
2	*	Nut M14	5	17	RS521810BL	Upright Mast	1
3	*	Washer 14	5	18	*	Bolt M16×100	1
4	*	Bolt M14×95	4	19	RS521819BL	Push Bar	1
5	RS5218A05	Rear Caster Assembly	2	20	*	Washer 8	12
6	RS521830	Middle Wheel	2	21	*	Screw M8×12	12
7	*	R-Clip	5	22	*	Bolt M16×70	1
8	*	Detent Pins	4	23	*	Washer 18	1
9L	RS5218A09LBL	Left Leg Extension	1	24	*	Nut M18	1
9R	RS5218A09RBL	Right Leg Extension	1	25	*	Detent Pin 16	1
10	RS521831	Front Leg Wheel	2	26	RS521825BL	Boom	1
11	RS5218A11BL	Mast Brace	2	27	RS521826Y	Boom Extension	1
12	*	Bolt M16×90	1	28	*	Bolt M14×70	1
13	RS521812	Pump Handle	1	29	RS5218A29	Hook and Chain Assembly	1
14	RS5218AHR	Hydraulic Ram (Including. #13)	1	30	*	Bolt M18×100	1
15	*	Washer 16	3	31	RS6021LK	Product Label Kit (not shown)	1

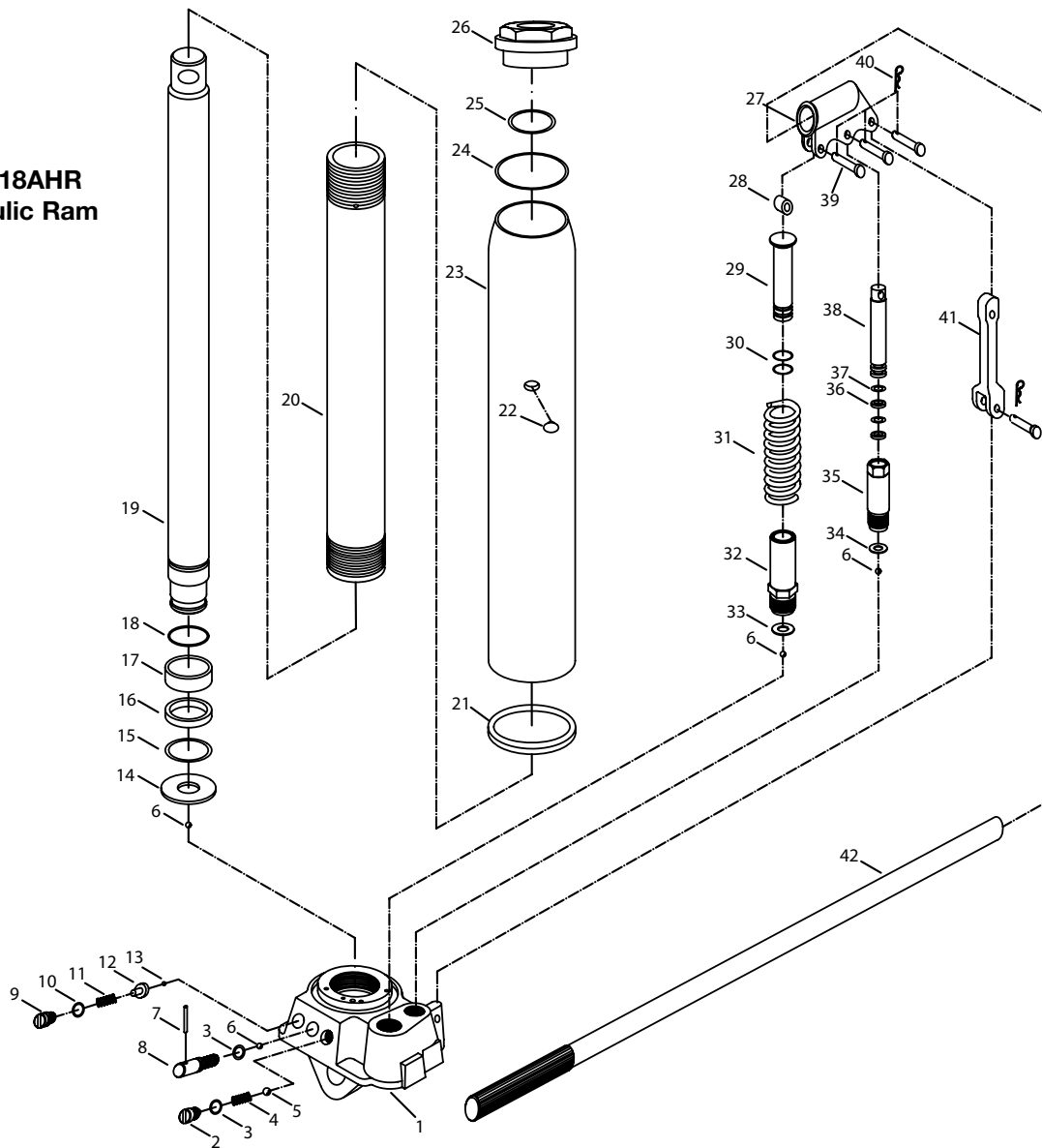
Parts identified by an asterisk, plus the caster hardware, are available in the bolt kit, RS5218ABK



PROFESSIONAL LIFTING EQUIPMENT

MODEL # 791-6021
1-1/2 TON CAPACITY
CRANE

RS5218AHR
Hydraulic Ram



Index No.	Part No.	Description	Qty.	Index No.	Part No.	Description	Qty.
1		Ram Base	1	22	*	Oil Refill Cap	1
2		Screw	1	23		Reservoir	1
3	*	O-Ring	2	24	*	Top Sealing Ring	1
4		Spring	1	25	*	O-Ring	1
5	*	Steel Ball 8	1	26		Top Nut	1
6	*	Steel Ball 6	5	27		Handle Yoke	1
7		Pin	1	28		Roller	1
8		Release Valve	1	29		Pump Piston A	1
9		Pressure Set Screw	1	30	*	O-Ring	2
10	*	O-Ring	1	31		Pump Piston Spring	1
11	*	Pressure Set Spring	1	32		Pump Piston Housing A	1
12		Spring Base	1	33	*	Sealing Ring	1
13	*	Steel Ball 4	1	34	*	Sealing Ring	1
14		Bottom Plate	1	35		Pump Piston Housing B	1
15	*	O-Ring	1	36	*	O-Ring	2
16	*	Washer	1	37		Pump Piston Retaining Ring	2
17		Piston Ring	1	38		Pump Piston B	1
18		Retaining Ring 32	1	39		Pin	4
19		Piston	1	40		R-Clip	4
20		Oil Tank	1	41		Handle Yoke Linkage	1
21	*	Bottom Sealing Ring	1	42	RS521812	Handle	1

Parts identified by an asterisk are available in repair kit, RS5218AHRK. Only Index No.'s identified by Part No. are available individually.