



Operating Instructions

Models 47100, 47101, 47102, 47103

Hydrostatic Test Pumps

Specifications

47100	
DIMENSIONS:	28" (70cm) L x 17" (42.5cm) W x 35" (87.5 cm) H
WEIGHT:	96 lbs. 44 kg
PUMP:	Triplex Piston: Positive Displacement Inlet and outlet ports: 3/8" NPT Capacity: 2.2gpm, 7.6lpm Pressure: 1000psi (68 bar) max Operating Speed: 3450rpm Operating Temp.: 160 degree F max Lubrication: Continuous oil bath, 11.83oz Special Cat Pump Oil Shaft Size: 5/8" diameter
MOTOR:	1½hp, 115/220V Electric 60hz
CONTROL:	Adjustable pressure relieve valve
GAUGE:	Glycerin filled, 0 – 2000psi (136 bar)
DISCHARGE HOSE:	½" x 10' (3m), rated 2000psi (136 bar) working pressure
INLET HOSE:	¾" x 10' (3m) with strainer
47101	
DIMENSIONS:	28" (70cm) L x 17" (42.5cm) W x 35" (87.5 cm) H
WEIGHT:	96 lbs. 44 kg
PUMP:	Triplex Piston: Positive Displacement Inlet and outlet ports: 3/8" NPT Capacity: 2.2gpm, 7.6lpm Pressure: 1000psi (68 bar) max Operating Speed: 3450rpm Operating Temp.: 160 degree F max Lubrication: Continuous oil bath, 11.83oz Special Cat Pump Oil Shaft Size: 5/8" diameter
MOTOR:	220V, 50hz
CONTROL:	Adjustable pressure relieve valve
GAUGE:	Glycerin filled, 0 – 2000psi (136 bar)
DISCHARGE HOSE:	½" x 10' (3m), rated 2000psi (136 bar) working pressure
INLET HOSE:	¾" x 10' (3m) with strainer
47102	
DIMENSIONS:	28" (70cm) L x 17" (42.5cm) W x 35" (87.5 cm) H
WEIGHT:	96 lbs. 44 kg
PUMP:	Triplex Piston: Positive Displacement Inlet and outlet ports: 3/8" NPT Capacity: 1.1gpm, 3.8lpm Pressure: 0 – 2000psi (140 bar) Operating Speed: 3450rpm Operating Temp.: 160 degree F max Lubrication: Continuous oil bath, 11.83oz Special Cat Pump Oil Shaft Size: 5/8" diameter
MOTOR:	115/220V Electric 60hz
CONTROL:	Adjustable pressure relief valve
GAUGE:	Glycerin filled, 0 – 3000psi
DISCHARGE HOSE:	½" x 10' (3m), rated 2000psi (136 bar) working pressure
INLET HOSE:	¾" x 10' (3m) with strainer
47103	
DIMENSIONS:	28" (70cm) L x 17" (42.5cm) W x 35" (87.5 cm) H
WEIGHT:	96 lbs. 44 kg
PUMP:	Triplex Piston: Positive Displacement Inlet and outlet ports: 3/8" NPT Capacity: 1.1gm, 5lpm Pressure: 2000psi (138 bar) max Operating Speed: 3450rpm Operating Temp.: 160 degree F max Lubrication: Continuous oil bath, 11.83oz Special Cat Pump Oil Shaft Size: 5/8" diameter
MOTOR:	220V, 50hz
CONTROL:	Adjustable pressure relieve valve
GAUGE:	Glycerin filled, 0 – 2000psi (136 bar)
DISCHARGE HOSE:	½" x 10' (3m), rated 2000psi (136 bar) working pressure
INLET HOSE:	¾" x 10' (3m) with strainer

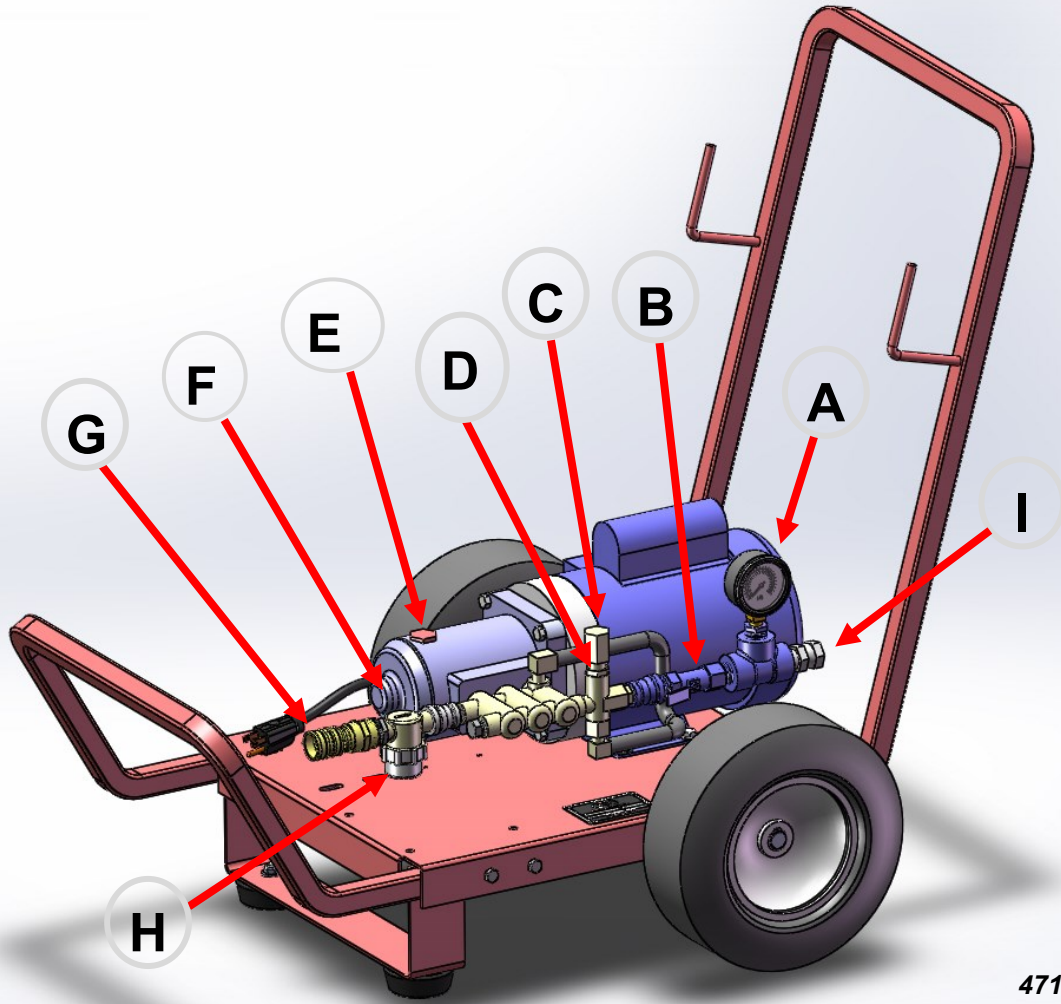




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47100 Shown

A	Gauge
B	Isolation Valve
C	Pressure Relief Knob
D	Jam Nut
E	Oil Cap
F	Oil Sight Glass
G	Water Inlet Connection
H	Strainer
I	High Pressure Hose Connection



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Pressure Feed (or Gravity Feed) Method: (Preferred Methods)

1. Fill the water line (or test vessel) to be tested prior to pump connection.
2. Connect water supply hose to the garden hose inlet connection (G) on the pump.
3. Open valve and turn supply water on.
4. Purge the pump and pressure hose of all air.
5. Connect output (pressure) hose between pump output connection (I) and water line (or vessel) being tested.
6. Turn pump on.
7. Purge water line (or vessel) of all air at the highest point of the system.
8. Bring water line (or vessel) to pressure. Watch the gauge (A) while pumping. When the desired pressure is achieved, turn the isolation valve (B) to the "off" position. The engine can now be turned off. If pressure drops, there is a leak in the line.



Siphon Method

Use a clean water source

1. Fill the water line to be tested.
2. Fill the intake hose (WR PN #34550) with water, then quickly place the hose into a bucket and turn pump on. (The unit is self-priming once primed.) Continue to pump until you see the water coming out of the outlet, with little or no air mixed with it.
3. Connect the output hose to the water line. Continue on with steps 6 through 8 in pressure feed method.

Pre-Setting Your Pump

Your pump can be pre-set to a specific pressure easily by adjusting the pressure relief valve.

1. Unscrew (counterclockwise direction) pressure relief valve knob (C) a few turns. Be sure not to unscrew valve knob all the way as internal parts can be easily lost.
2. Add a ball valve (not supplied with pump) to the end of the high pressure hose.
3. Follow steps 2 through 4 from the 'Pressure Feed Method'.
4. As water is flowing out of the high pressure hose, turn the ball valve to the "off" position.
5. Slowly start turning pressure relief valve knob (C) (in the clockwise direction) by ¼ turn increments, until you reach the desired pressure. Maximum pressure is 1000psi or 2000psi - depending on the model. Tighten jam nut (B) to lock pressure relief knob in place.
6. Your test pump is now pre-set. This eliminates over-pressurizing the water line (or the vessel).



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Troubleshooting Your Pump

Test pressure not being reached:

- Possible air in line (or vessel)
 - ◊ Air needs to be purged from system.
 - ◊ Remove pump from system and follow steps 1 thru 6 of the "Pre-Setting Your Pump" section.
 - ◊ If using the Siphon Method and not getting pressure, try the 'Pressure Feed' or 'Gravity Feed Method' to ensure water is getting into the pump.
 - ◊ Check strainer (H) O-Ring for cracks.
 - ◊ Check inlet quick disconnect (G) O-Ring for cracks
- Pressure relief valve not adjusted properly.
 - ◊ Turn relief valve counterclockwise and watch for change in pressure.

Pump Maintenance

- Pump 50/50 antifreeze/water solution through pump after each use to lubricate internal parts of pump and to avoid freezing in cold weather.
- Check strainer O-Ring (H) for cracks prior to each use.
- Check oil level through oil sight glass (F) located on front of pump prior to each use. CAT recommends changing oil after 50 hours of break-in operation. Change oil every 3 (three) months or after 500 hours of use. Pump requires CAT pump crankcase oil (21oz container), Wheeler Rex PN 276254. Add oil through pump crankcase cap (E).
- Suction Hose Wheeler Rex PN 34550

CAUTION !!!
This pump is designed for water only!!

The pump is equipped with an adjustable pressure relief valve (C), which helps protect the system from being over pressurized. It can be preset by plugging the end of the hose. Turn the adjusting knob clockwise to increase pressure and counterclockwise to decrease.



WHEELER-REX LIMITED LIFETIME WARRANTY

WHEELER-REX covers its products with a Limited Lifetime Warranty, with exception of pipe threading machines which have a Limited Three Year Warranty (including electric motors). Warranties from manufacturers of components used in our products may pre-empt the Wheeler-Rex warranty. Wheeler-Rex warranties against defects in material or workmanship. To take advantage of this warranty, the complete product must be delivered prepaid to Wheeler-Rex or any WHEELER-REX AUTHORIZED SERVICE CENTER. No tools are to be returned to the factory without receiving prior authorization. Obviously, failures due to misuse, abuse, or normal wear and tear are not covered by this warranty. **NO OTHER WARRANTY, WRITTEN, OR ORAL, APPLIES. THERE ARE NO WARRANTIES WHICH EXTEND BEYOND THE DESCRIPTION ON THE FACE HEREOF.** No employee, agent, dealer, or other person is authorized to give any warranty on behalf of Wheeler-Rex. Warranted products will be repaired or replaced at our option, at no charge and returned to you via prepaid transportation. Such replacement or repair is the exclusive remedy available from Wheeler-Rex. Wheeler-Rex is not liable for damage of any sort, including incidental and consequential damages. Some U.S.A. states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitation or exclusion may not apply. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

Form # 1031

WARNING

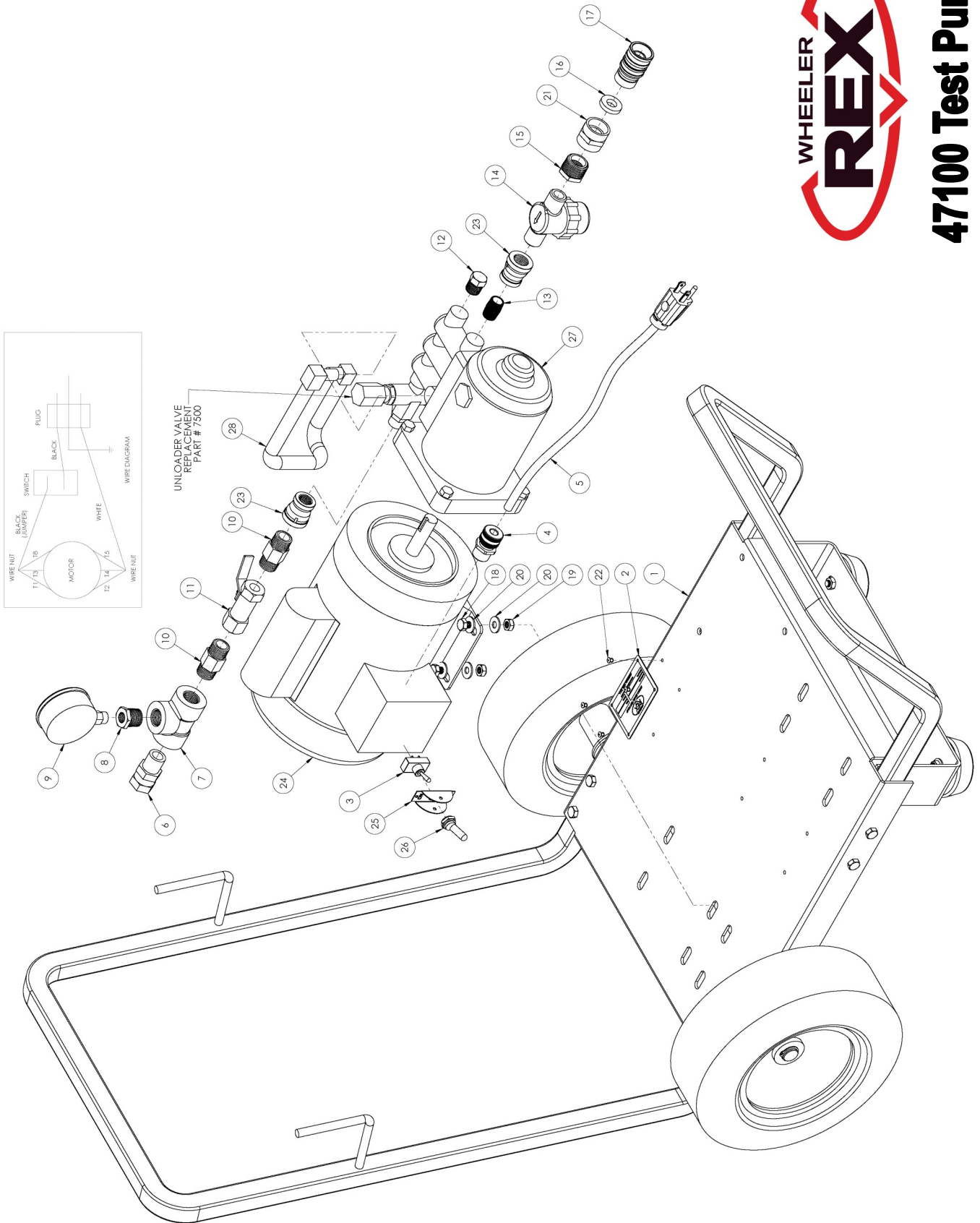
GENERAL TOOL OPERATION WARNINGS

FOR ALL TOOLS-

1. **Keep Guards in Place** and in working order.
2. **Remove Adjusting Keys and Wrenches** from tool before turning it on.
3. **Keep Work Area Clean.** Cluttered areas and benches invite accidents.
4. **Avoid Dangerous Environment.** Don't use power tools in damp or wet locations. Keep work area well lit. Don't expose power tools to rain.
5. **If you must use an electric tool** in a damp or wet location; make sure it is plugged into a circuit which is protected by a ground fault interrupt.
6. **Keep Children Away. ALL VISITORS SHOULD BE KEPT A SAFE DISTANCE FROM WORK AREA.**
7. **Store Idle Tools** in dry, high, or locked-up place out of reach of children.
8. **Don't Force Tool.** It will do a better and safer job at the rate for which it is designed.
9. **Use Right Tool.** Don't force a small tool or attachment to do the job of a heavy-duty tool.
10. **Wear Proper Apparel.** No loose clothing or jewelry to get caught in moving parts. Rubber gloves and footwear are recommended when working outdoors.
11. **Use Safety Glasses.**
12. **Don't Abuse Cord.** Never carry tool by cord or yank it to disconnect from receptacle. Keep cord from heat, oil, and sharp edges.
13. **Secure Work.** Use clamps or vise to hold work when practical. It's safer than using your hand and it frees both hands to operate tool.
14. **Don't Overreach.** Keep proper footing and balance at all times.
15. **Maintain Tools Properly.** Keep tools sharp and clean for best and safest performance. Follow instructions for lubricating and changing accessories. Equipment operators must have proper maintenance & instruction sheets. Be sure the tool operator reads and understands this information. If you don't have current maintenance and instruction sheets, contact the factory & we will supply them at no charge.
16. **Disconnect Tools** when not in use; before servicing; when changing accessories such as dies, cutters, etc.
17. **Avoid Accidental Starting.** Don't carry plugged-in tool with finger on switch. Be sure switch is off when plugging in.
18. **Outdoor Use Extension Cords.** When tool is used outdoors, use only extension cords suitable for use outdoors and so marked.
19. **Wear Ear Protection** if exposed to long periods of very noisy shop operations.
20. **Do not operate tools** while under the influence of alcohol, drugs or medication.



47100 Test Pump

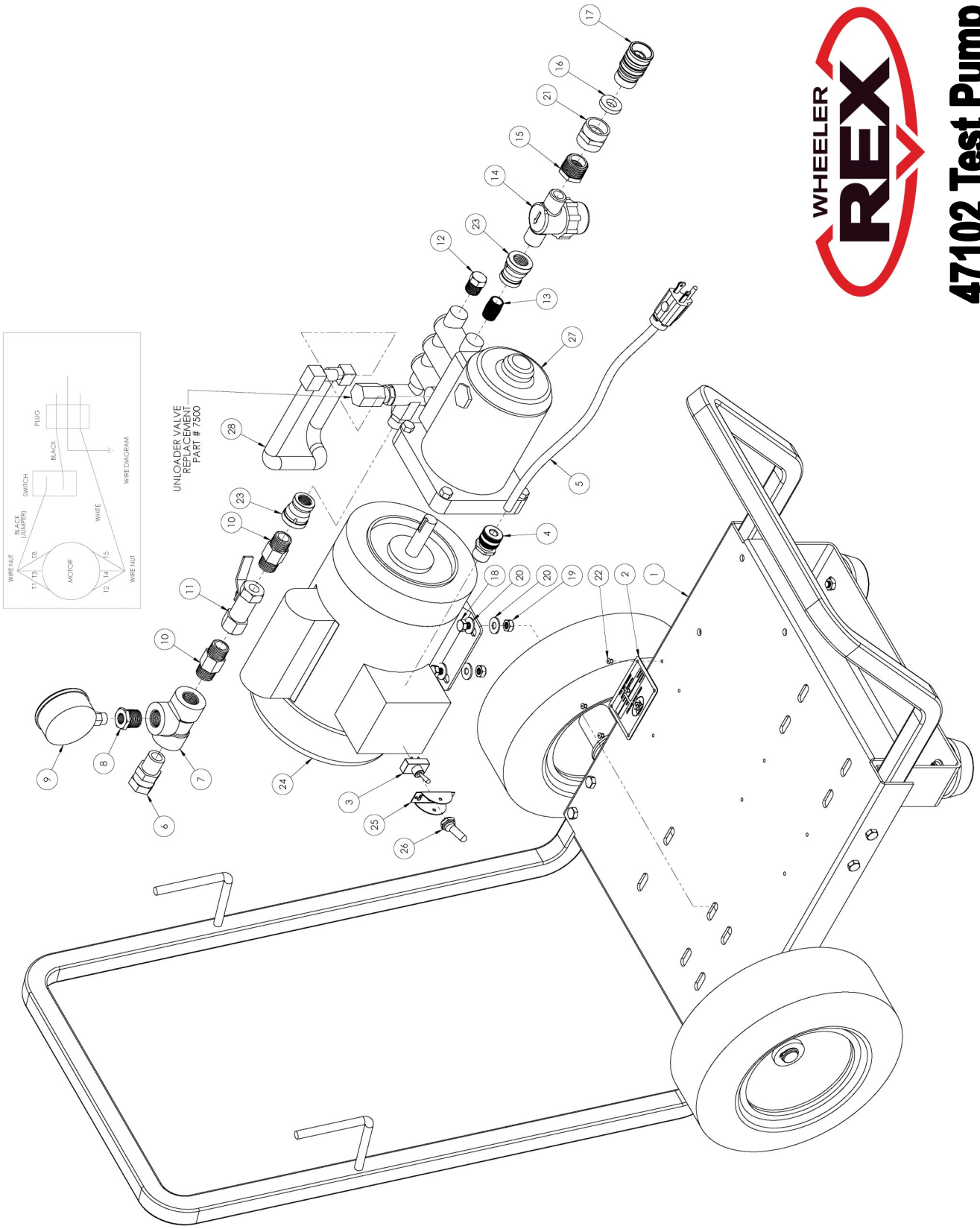


47100 Test Pump Parts			
Item	Part No	Description	Qty
1	700136	PUMP CART	1
2	220874	NAME PLATE	1
3	276143	SWITCH	1
4	275716	CORD CONNECTOR	1
5	221389	CORD SET	1
6	275689	1/2 NPT X 1/2 SWIVEL ADAPTER	1
7	275667	1/2" 2000lb FS SCRD TEE	1
8	275670	1/2 X 1/4 FS SCRD HX BUSH	1
9	275676	GAUGE, 2000psi	1
10	275669	1/2 X CLOSE PIPE NIPPLE	2
11	275675	1/2" VALVE	1
12	275768	3/8" HEX HEAD PLUG	1
13	275866	3/8 CLOSE STEEL NIPPLE	1
14	276420	STRAINER ASSEMBLY	1
15	275647	3/4" NPT X 1/2" NPT BUSHING	1
16	275941	HOSE WASHER	1
17	276099	3/4" HOSE QUICK DISCONNECT	1
18	166	5/16-18 X 3/4 HEX HEAD CAP SCREW	4
19	275857	5/18-18 HEX NYLON INSERT LOCKNUT	4
20	275685	5/16" FLAT WASHER	8
21	275874	3/4" FH X 3/4" FP ADAPTER	1
22	275543	POP RIVER, STAR 4-2AAD	4
23	275668	1/2" NPT TO 3/8" NPT REDUCER COUPLING	2
24	275858	MOTOR, 1.5hp	1
25	276362	SWITCH GUARD	1
26	276363	SWITCH BOOT	1
27	275738	TRIPLEX PLUNGER PUMP	1
28	275915	BYPASS HOSE	1
29	220577	HOSE ASSEMBLY **NOT SHOWN**	1
30	276784	TERMINAL **NOT SHOWN**	1
31	275782	TERMINAL **NOT SHOWN**	1
32	276601	WIRE NUT **NOT SHOWN**	2
33	34550	SUCTION HOSE **NOT SHOWN**	1
34	275718	SEALING LOCK NUT **NOT SHOWN**	1

47101 Test Pump Parts			
Item	Part No	Description	Qty
1	700136	PUMP CART	1
2	220874	NAME PLATE	1
3	276679	SWITCH	1
4	275716	CORD CONNECTOR	1
5	221389	CORD SET	1
6	275689	1/2 NPT x 1/2 SWIVEL ADAPTER	1
7	275667	1/2" 2000LB FS SCRD TEE	1
8	275670	1/2 x 1/4 FS SCRD HX BUSH	1
9	275676	GAUGE-2000 PSI	1
10	275669	1/2 x CLOSE PIPE NIPPLE	2
11	275675	1/2" VALVE	1
12	275768	3/8" HEX HEAD PLUG	1
13	275866	3/8 CLOSE STEEL NIPPLE	1
14	276420	STRAINER ASSEMBLY	1
15	275647	3/4" NPT x 1/2" NPT BUSHING	1
16	275941	HOSE WASHER	1
17	276099	3/4" HOSE QUICK DISCONNECT	1
18	166	5/16-18 x 3/4 HEX HEAD CAP SCREW	4
19	275857	5/16-18 HEX NYLON INSERT LOCKNUTS	4
20	275685	5/16" FLAT WASHER	8
21	275874	3/4" FH x 3/4" FP ADAPTER	1
22	275543	POP RIVET, STAR 4-2AAD	4
23	275668	1/2"NPT TO 3/8" NPT REDUCER CPLG	2
24	276670	MOTOR	1
25	276362	SWITCH GUARD	1
26	276363	SWITCH BOOT	1
27	275738	TRIPLEX PLUNGER PUMP	1
28	275915	BYPASS HOSE	1
29	275661	PLUG, 220V	1
30	275718	SEALING LOCK NUT ***NOT SHOWN***	1
31	220577	HOSE ASSY ***NOT SHOWN***	1
32	276784	TERMINAL ***NOT SHOWN***	1
33	275782	TERMINAL ***NOT SHOWN***	1
34	276601	WIRE NUT ***NOT SHOWN***	2
35	34550	SUCTION HOSE ***NOT SHOWN***	1



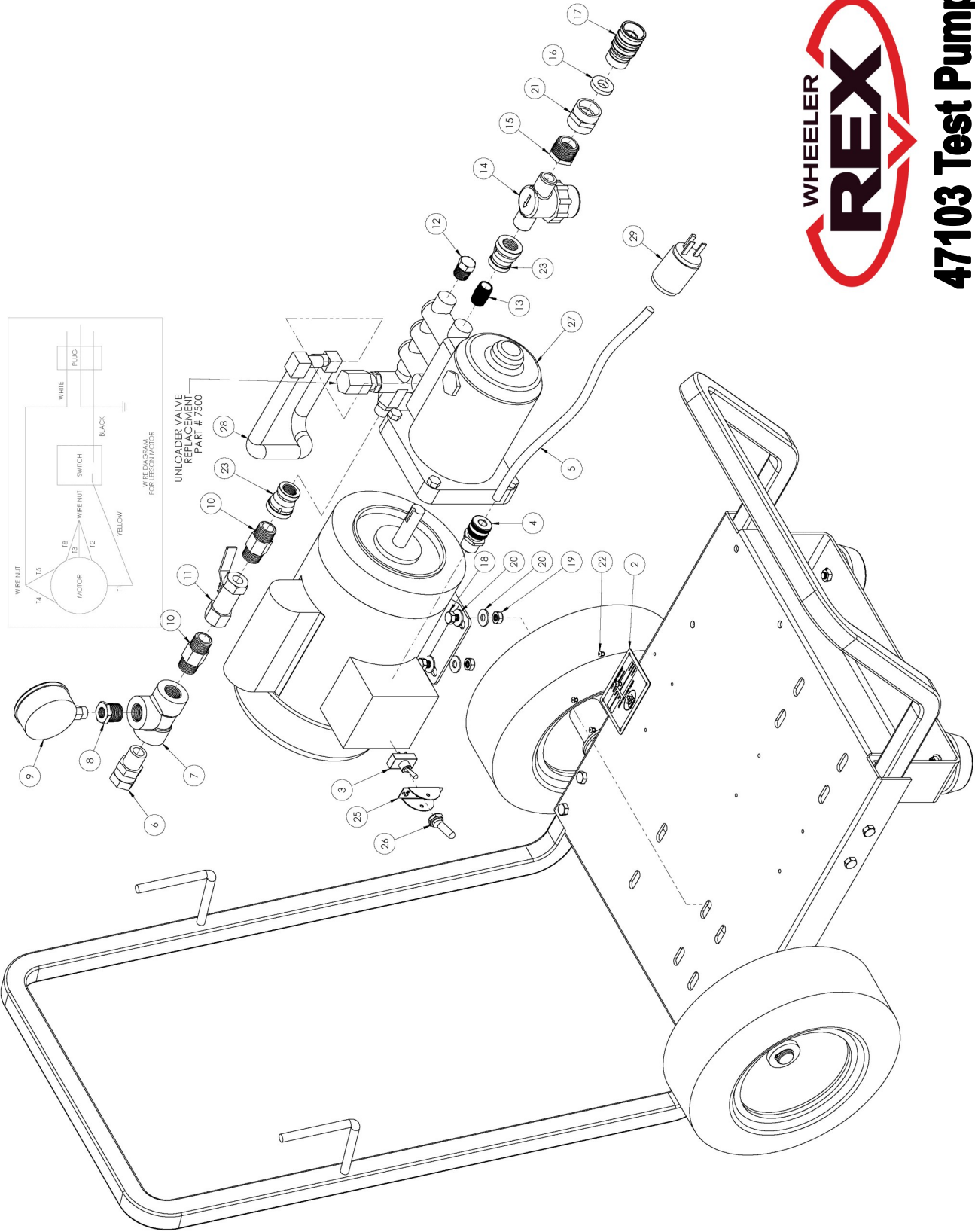
47102 Test Pump



Item	Part No	Description	47102 Test Pump Parts	Qty
1	700136	PUMP CART		1
2	220874	NAME PLATE		1
3	276143	SWITCH		1
4	275716	CORD CONNECTOR		1
5	221389	CORD SET		1
6	275689	1/2 NPT x 1/2 SWIVEL ADAPTER		1
7	276469	1/2" 3000 LB FS SCRD TEE		1
8	275670	1/2 x 1/4 FS SCRD HX BUSH		1
9	276321	GAGE 0-3000 PSI		1
10	277283	1/2 x 1/2 HYDRAULIC PIPE NIPPLE		2
11	276320	1/2" VALVE		1
12	275768	3/8" HEX HEAD PLUG		1
13	275866	3/8 CLOSE STEEL NIPPLE		1
14	276420	STRAINER ASSEMBLY		1
15	275647	3/4" NPT x 1/2" NPT BUSHING		1
16	275941	HOSE WASHER		1
17	276099	3/4" HOSE QUICK DISCONNECT		1
18	166	5/16-18 x 3/4 HEX HEAD CAP SCREW		4
19	275857	5/16-18 HEX NYLON INSERT LOCKNUTS		4
20	275685	5/16" FLAT WASHER		8
21	275874	3/4" FH x 3/4" FP ADAPTER		1
22	275543	POP RIVET, STAR 4-2AAD		4
23	275668	1/2"NPT TO 3/8" NPT REDUCER CPLG		2
24	275858	MOTOR 1.5 HP		1
25	276362	SWITCH GUARD		1
26	276363	SWITCH BOOT		1
27	276772	TRIPLEX PLUNGER PUMP		1
28	275915	BYPASS HOSE		1
29	275718	SEALING LOCKNUT ***NOT SHOWN***		1
30	220577	HOSE ASSY ***NOT SHOWN***		1
31	275471	TERMINAL ***NOT SHOWN***		1
32	276601	WIRE NUT ***NOT SHOWN***		2
33	34550	SUCTION HOSE ***NOT SHOWN***		1
34	275782	TERMINAL ***NOT SHOWN***		1



47103 Test Pump



Item	Part No	Description	47103 Test Pump parts	Qty
1	700136	PUMP CART		1
2	220874	NAME PLATE		1
3	276679	SWITCH		1
4	275716	CORD CONNECTOR		1
5	221389	CORD SET		1
6	275689	1/2 NPT x 1/2 SWIVEL ADAPTER		1
7	275667	1/2" 2000LB FS SCRD TEE		1
8	275670	1/2 x 1/4 FS SCRD HX BUSH		1
9	276321	GAGE 0-3000 PSI		1
10	277283	1/2 x 1/2 HYDRAULIC PIPE NIPPLE		2
11	276320	1/2" VALVE		1
12	275768	3/8" HEX HEAD PLUG		1
13	275866	3/8 CLOSE STEEL NIPPLE		1
14	276420	STRAINER ASSEMBLY		1
15	275647	3/4" NPT x 1/2" NPT BUSHING		1
16	275941	HOSE WASHER		1
17	276099	3/4" HOSE QUICK DISCONNECT		1
18	166	5/16-18 x 3/4 HEX HEAD CAP SCREW		4
19	275857	5/16-18 HEX NYLON INSERT LOCKNUTS		4
20	275685	5/16" FLAT WASHER		8
21	275874	3/4" FH x 3/4" FP ADAPTER		1
22	275543	POP RIVET, STAR 4-2AAD		4
23	275668	1/2"NPT TO 3/8" NPT REDUCER CPLG		2
24	276670	MOTOR		1
25	276362	SWITCH GUARD		1
26	276363	SWITCH BOOT		1
27	276772	TRIPLEX PLUNGER PUMP		1
28	275915	BYPASS HOSE		1
29	275661	PLUG, 220V		1
30	275718	SEALING LOCK NUT ***NOT SHOWN***		1
31	220577	HOSE ASSY ***NOT SHOWN***		1
32	275471	TERMINAL ***NOT SHOWN***		1
33	275782	TERMINAL ***NOT SHOWN***		1
34	276601	WIRE NUT ***NOT SHOWN***		2
35	34550	SUCTION HOSE ***NOT SHOWN***		1



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