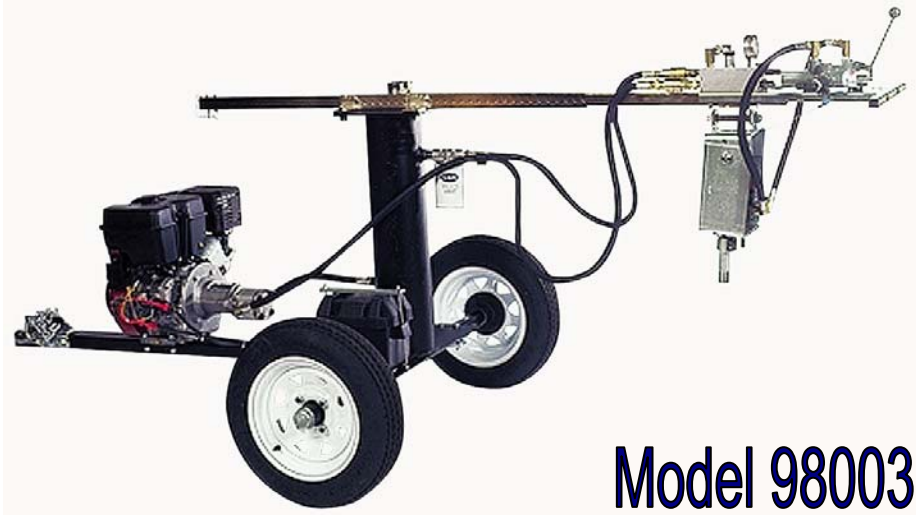


ValveMaster

Portable Valve Exerciser



Model 98003

- ◆ Flow Rate: 8gpm
- ◆ Pressure Range: 0 - 2000psi
- ◆ RPM: 60 (load free)
- ◆ Torque: 600 ft lb
- ◆ HP: 13 Honda Engine
- ◆ Features: Auxiliary Flat Faced Male and Female Quick Disconnects
- ◆ Ship Weight: 510 lbs
- ◆ Reservoir Capacity: 2.5 Gallons
- ◆ Adjustable Torque Control Valve

Please read all instructions before operation!!

The **Model 98003** is a totally new concept in Valve Exercisers, but is relatively simple to operate. Please note the following:

1. The unit is shipped with oil in the engine and in the hydraulic reservoir.
2. Always check oil levels before operating. Check with the unit in a level position.
3. The engine is equipped with a manual fuel shut-off valve. Always set in the off position for storage and transportation or flooding of the carburetor / engine will occur.
4. The unit is fitted with a coupler to fit a standard 2" ball. Always use the safety chains when towing. Maximum towing speed is 35mph.
5. Check tire pressure regularly and fill per the rating on the tire sidewall.

Before using:

1. Remove "shipping plug" from hydraulic oil reservoir and replace with breather cap (11) (supplied). Note: Allen Key or wrench is not supplied to remove shipping plug.
2. Read engine operating manual. Take note of engine's maintenance schedule.

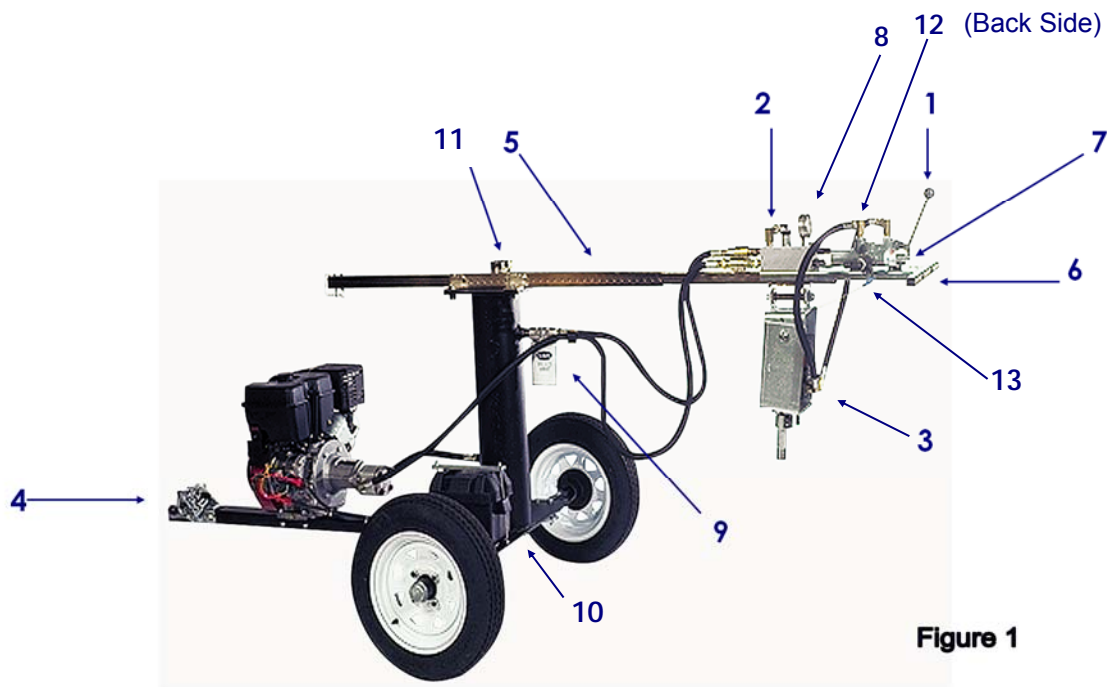


Figure 1

ValveMaster Controls

All controls, except for starting the engine are located within easy reach of the operator. Review the above image (Figure 1) to familiarize yourself with the location and function of these controls:

- (1) **Valve Lever**- operates the hydraulic motor forward or reverse. The handle will self-center to the neutral position.
- (2) **Torque Control Valve** - controls pressure to the hydraulic motor. Turn clockwise to increase pressure.
- (3) **Hydraulic Motor**
- (4) **Coupler**
- (5) **Pin**
- (6) **Handle**
- (7) **Counter** - comes with a forward and reverse counter. The counter and the count starts at zero with counts in both positive and negative directions.
- (8) **Gauge**
- (9) **Hydraulic Fluid Filter**
- (10) **Hydraulic Drain Plug**
- (11) **Breather Cap**
- (12) **Auxiliary Ports (Quick Disconnect Male and Female)**
- (13) **Valve**

ValveMaster Operating Instructions

See Figure 1, Page 3

1. Disconnect coupler and safety chains from truck hitch.
2. Check engine oil (should be in a level position).
3. Turn gas valve to the "ON" position.
4. Start engine.
5. Push/pull the valve lever (1) in both directions to know which way you want the hydraulic motor to turn (clockwise / counter-clockwise).
6. Remove pin (5) and pull out boom to full extension, give a sharp pull on the handle (6) extending boom as fast as possible. Replace pin in boom to hold boom in open position.
7. Press down on handle (6) and move valve operator to desired position over valve.
8. Place valve key 8806 / 8808 on valve. Remove valve key pin and adjust height as necessary to fit valve key tubing over hydraulic motor shaft end. (It may be necessary to slowly turn hydraulic motor to align shaft end to fit with valve key) Replace pin in valve key to keep this height.
9. Zero out the counter by pressing the reset button.
10. Open or close valve by either pushing or pulling on valve lever. Loosen jam nut on torque control valve (2) and turn torque control valve knob counter clockwise. This will allow you to start at "0" psi. Slowly turn torque control valve knob clockwise to increase pressure. Continue to increase pressure until valve turns freely. Record keeping of valves is good practice. Record both number of turns, pressure required to turn each valve and date. This information helps to speed up the valve exercising process so the operator has an idea where to set the pressure for the next time exercising this valve. There is a chart on the ValveMaster next to the pressure gauge (8) for operator convenience. Having too much pressure can result in bent valve keys or broken valves. Use enough pressure to turn the valve - don't over power it. It is ok if the relief valve slips a little. You can always increase the pressure if needed.

PSI vs Torque	
PSI	Ft / Lb
500	150
750	225
1000	300
1250	380
1500	435
1750	530
2000	600

11. Shut off engine.
12. Turn gas valve to the "OFF" position. Failure to shut off gas valve can result in flooding of engine, therefore making engine difficult to start and degrading of engine oil.
13. Remove the pin in the boom and push the boom to the collapsed position, replace pin in boom to hold boom in closed position
14. After valve operation has been completed, move operator so that coupler (4) is over truck hitch.
15. Latch coupler (4) to truck hitch and secure safety chains.

Using the Auxiliary Ports

The ValveMaster can be used as a power pack to operate other hydraulic tools with the auxiliary ports. To use the auxiliary ports:

1. Connect hoses to male and female quick disconnects auxiliary ports (12)
2. Start Engine
3. Close Valve (13)
4. Output pressure can be regulated through torque control valve (2).

Output Pressure: 0 - 2000psi

Volume: 8gpm

Maintenance

Oil requirements:

Engine:	See Engine Manual
Hydraulic reservoir:	10w Hydraulic oil (2 gallons)

See Figure 1, Page 3:

Hydraulic Oil Filter #9

Oil Drain Plug #10

Breather Cap #11 (remove to fill / add hydraulic oil)

Hydraulic Fluid and Maintenance Schedule

- Change hydraulic oil filter after the first 25 hours of use. Then change every 50 hours or annually after that.
- Replace the hydraulic oil after every 100 hours of use
- Use 2 gallons of 10W Hydraulic Oil - Wheeler-Rex PN 3804 one gallon of Hydroyl.
- Check hydraulic hoses for wear before and after use and replace worn and abraded hose immediately.

Recommended spare parts list:

- ◆ Hydraulic Oil Filter - Wheeler Rex PN 276323
- ◆ Gauge - Wheeler Rex PN 276321
- ◆ Hydraulic Fluid (2 to 3 gallon minimum) Wheeler Rex PN 3804



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.

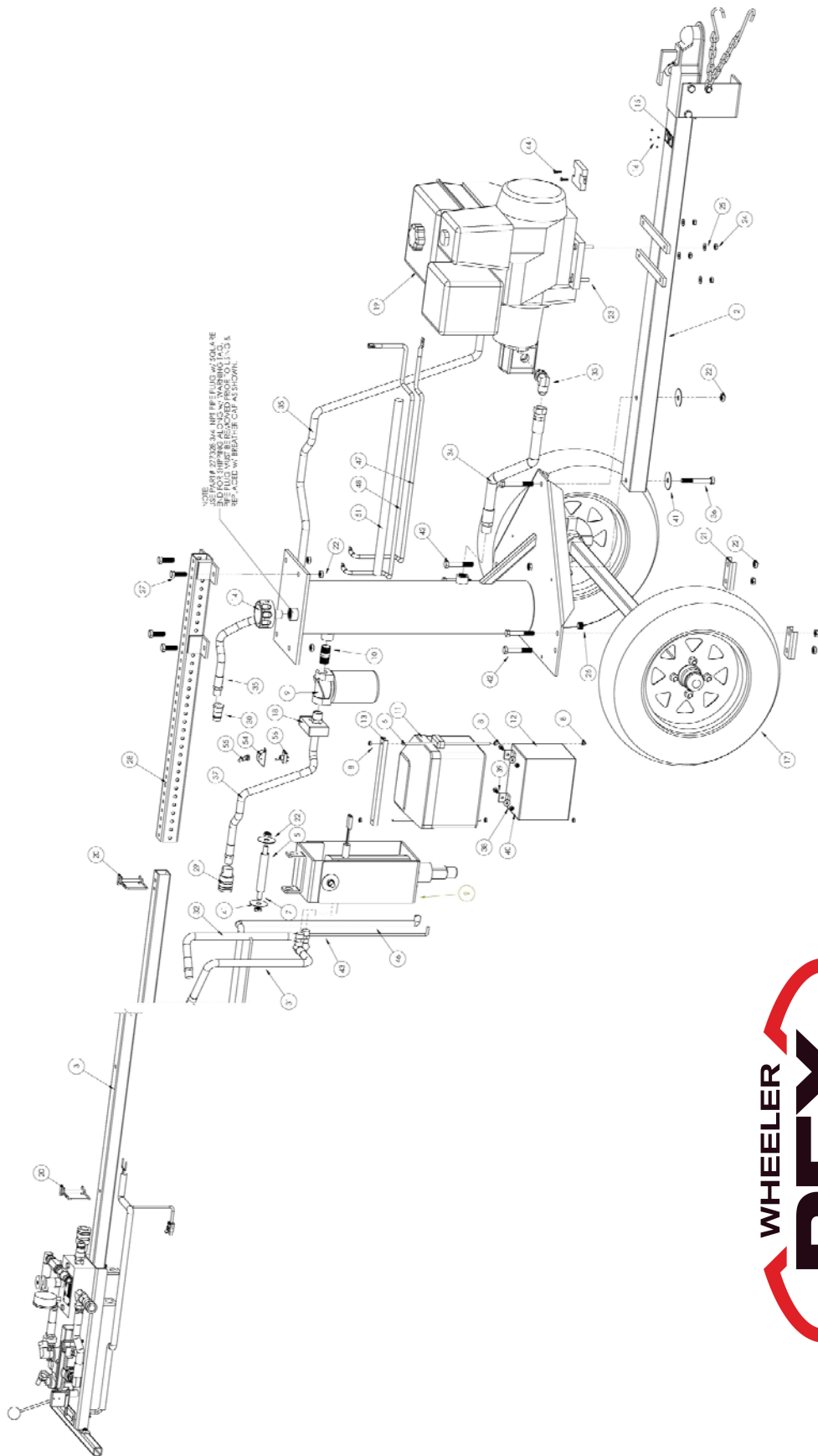
Form # 1031

WARNING

GENERAL TOOL OPERATION WARNINGS

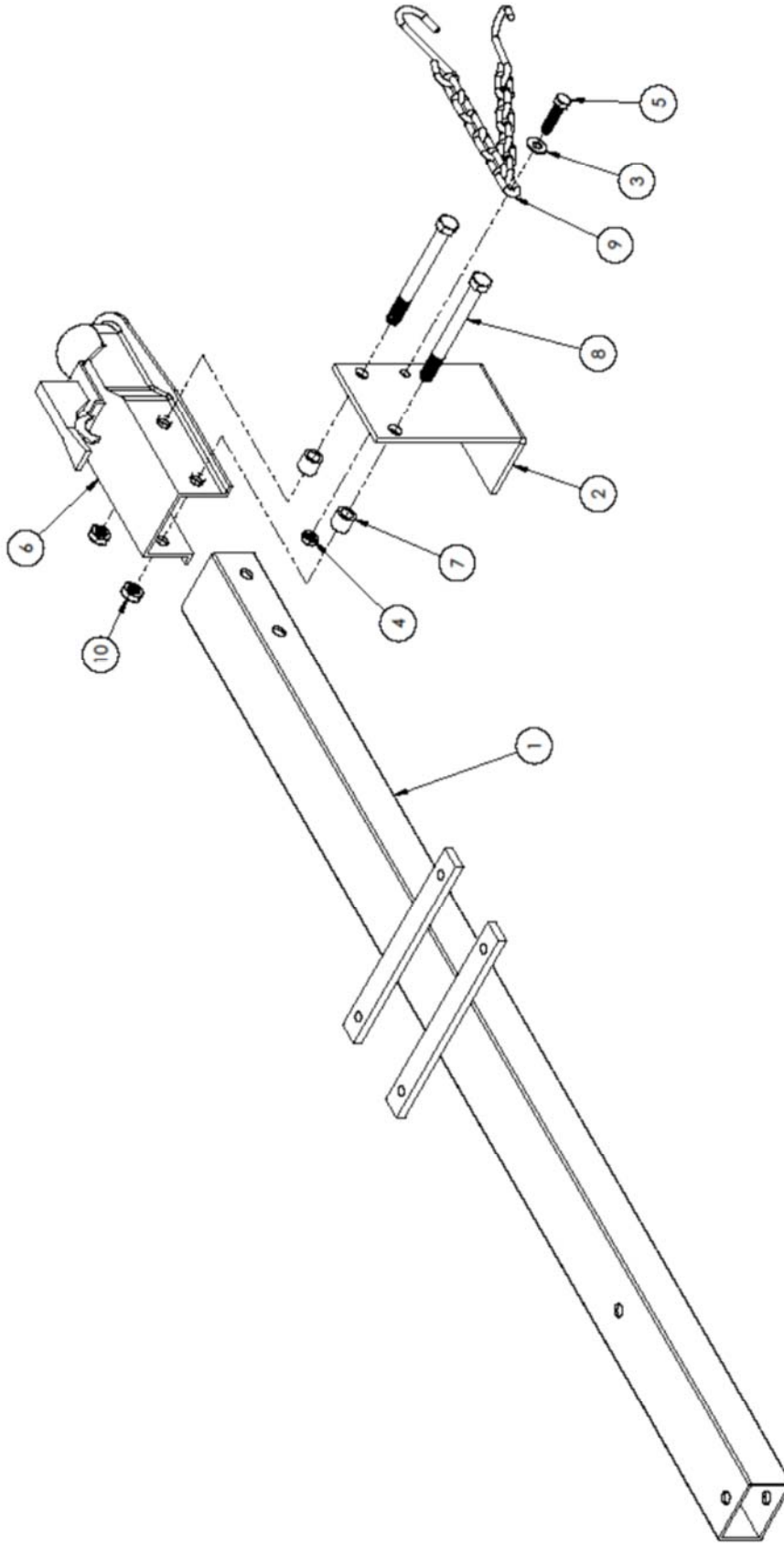
FOR ALL TOOLS-

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.



98003 Valve Exerciser

Item	Part No	Description	Qty	Item	Part No	Description	Qty
1	700264	VM TANK ASSEMBLY	1	30	276333	1/2" FM PIPE x M QD	1
2	700284	TOUNGE SUB ASSEMBLY	1	31	700279-r	24" HOSE	1
3	700771	VALVE / MANIFOLD SUB ASSEMBLY	1	32	700279-l	24" HOSE	1
4	700772	MOTOR & MOUNT SUB ASSY	1	33	276520	SAE-12 ORB MALE SWIVEL X 12 JIC MALE 90 DEG FITTING	1
5	700266	MOTOR MOUNT PIPE BEARING, SHORT	1	34	700521	18" HOSE	1
6	700281	BATTERY BOX STUD	2	35	700277	86" HOSE	1
7	700291	MOTOR MOUNT STUD, SHORT	1	36	5527	1/2-13 x 3 1/2" Long HHCS	2
8	729	1/4-20 THIN ESNA NUT	6	37	700278	49" HOSE	1
9	276307	FILTER ASSEMBLY	1	38	276540	1/4" FLAT WASHER	2
10	275650	3/4" x 2" NIPPLE	1	39	560081	1/4-20 x 3/4" HHCS	2
11	276308	BATTERY BOX	1	40	275426	1/4-20 ESNA STOP NUT	2
12	276309	BATTERY	1	41	276329	FENDER WASHER	4
13	700280	BATTERY HOLD DOWN	1	42	275242	1/2-13 x 3" HHCS	4
14	700257	BREATHER CAP	1	43	700874	20" WIRE	1
15	700595	NAME PLATE	1	44	276960	#10-32 x 3/4" PAN HEAD SCREW	2
16	276203	METAL TAK	4	45	277246	DOUBLE SIDED TAPE ***NOT SHOWN***	12"
17	700306	WHEEL & AXLE ASSEMBLY	1	46	701532	SMALL LOOM 90"	1
18	276325	TWIN PIPE CLAMP	1	47	700290	NEGATIVE WIRE	1
19	700549	HONDA ENGINE ASSEMBLY	1	48	700289	POSITIVE WIRE	1
20	276093	COTTERLESS HITCH PIN	2	49	277291	CABLE TIE (LONG) ***NOT SHOWN***	2
21	700253	BOLT PLATE	2	50	277299	CABLE TIE (SHORT) ***NOT SHOWN***	6
22	275789	1/2"-13 ESNA NUT	12	51	701534	LARGE LOOM 32"	1
23	276326	3/8-16 x 2" HEX HEAD BOLT	4	52	275471	RING TERMINAL ***NOT SHOWN***	2
24	105	3/8"-16 ESNA NUT	4	53	276755	FORK TERMINAL ***NOT SHOWN***	1
25	5110	3/8" FLAT WASHER	4	54	276362	SWITCH GUARD	1
26	275368	HEX SOCKET 1/2" NPT PIPE PLUG	1	55	276363	SWITCH BOOT	1
27	275693	1/2-13 x 1 1/2" HEX HEAD CAP SCREW	4	56	276143	SWITCH	1
28	700259	EXTERNAL BOOM ASSY	1	57	701537	WIRE 10" ***NOT SHOWN***	1
29	276332	1/2" FM PIPE x FM QD	1	58	277328	3/4" NPTM PIPE PLUG W/SQUARE END***NOT SHOWN***	1

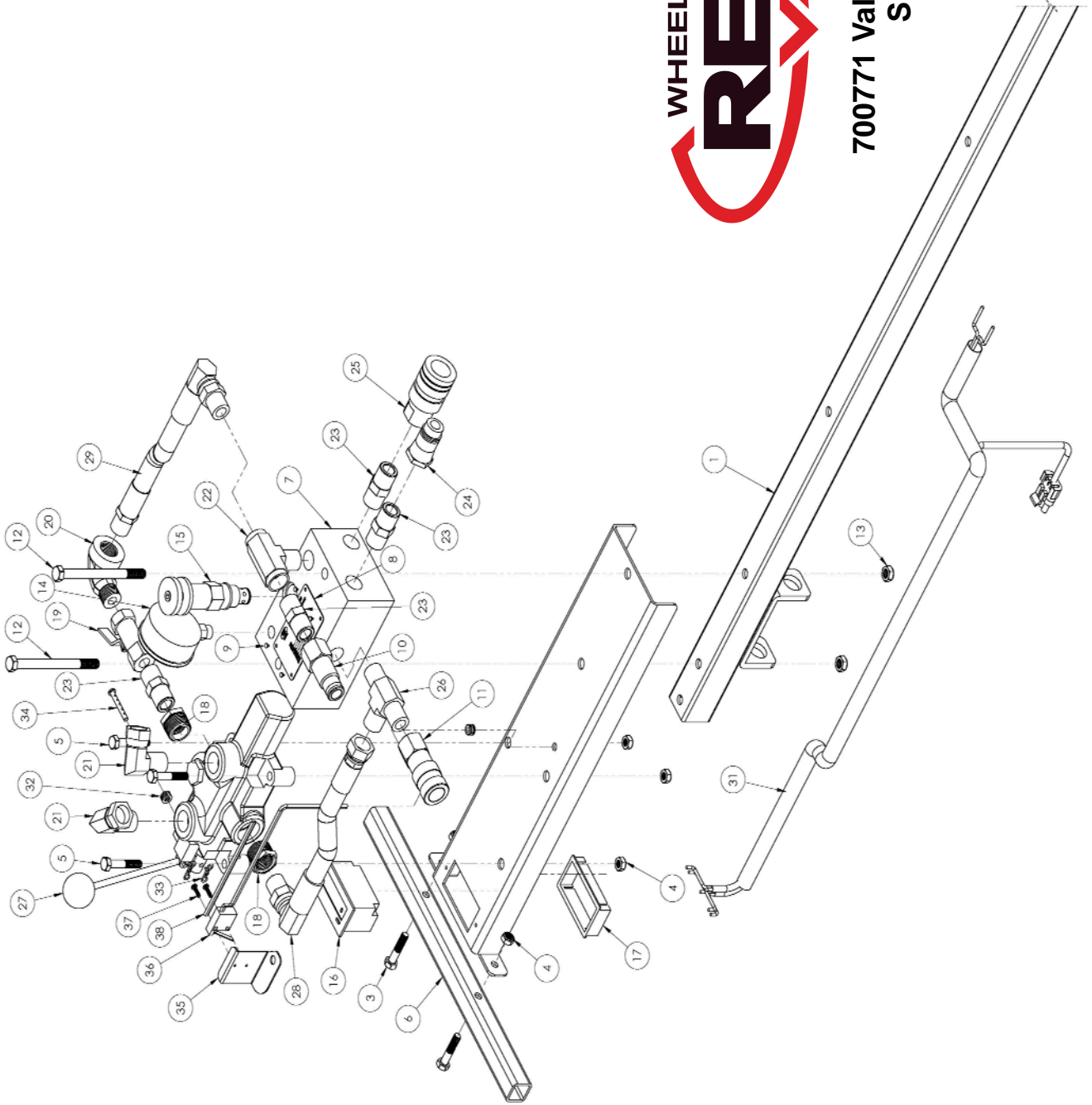


700284 Tongue Sub Assembly

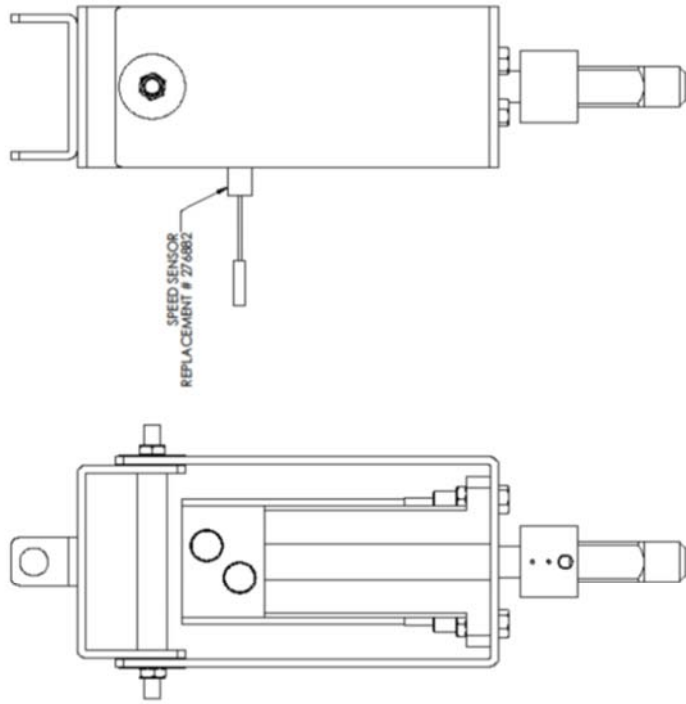
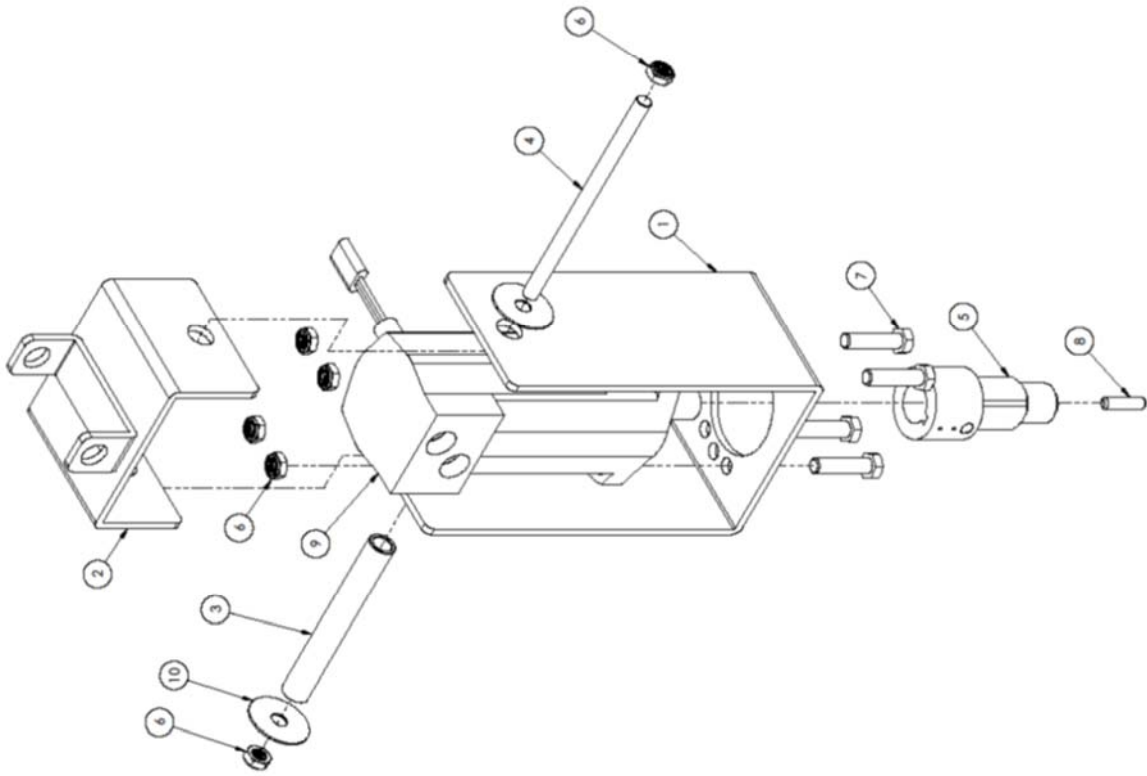
		Tongue Sub Assembly	700284	
Item	Part Number	Description		Qty
1	700262	TONGUE WELDMENT		1
2	700260	SKID		1
3	5110	3/8" FLAT WASHER		1
4	276198	3/8" NYLON INSERT LOCKNUTS		1
5	276122	3/8-16 x 1 1/2" HEX HEAD CAP SCREW		1
6	276291	COUPLER		1
7	2983	JAW SPACER, LONG		2
8	276317	1/2"-13 x 5" HHCS		2
9	276300	SAFETY CHAIN		1
10	275789	1/2"-13 ESNA NUT		2



700771 Valve / Manifold Sub Assembly

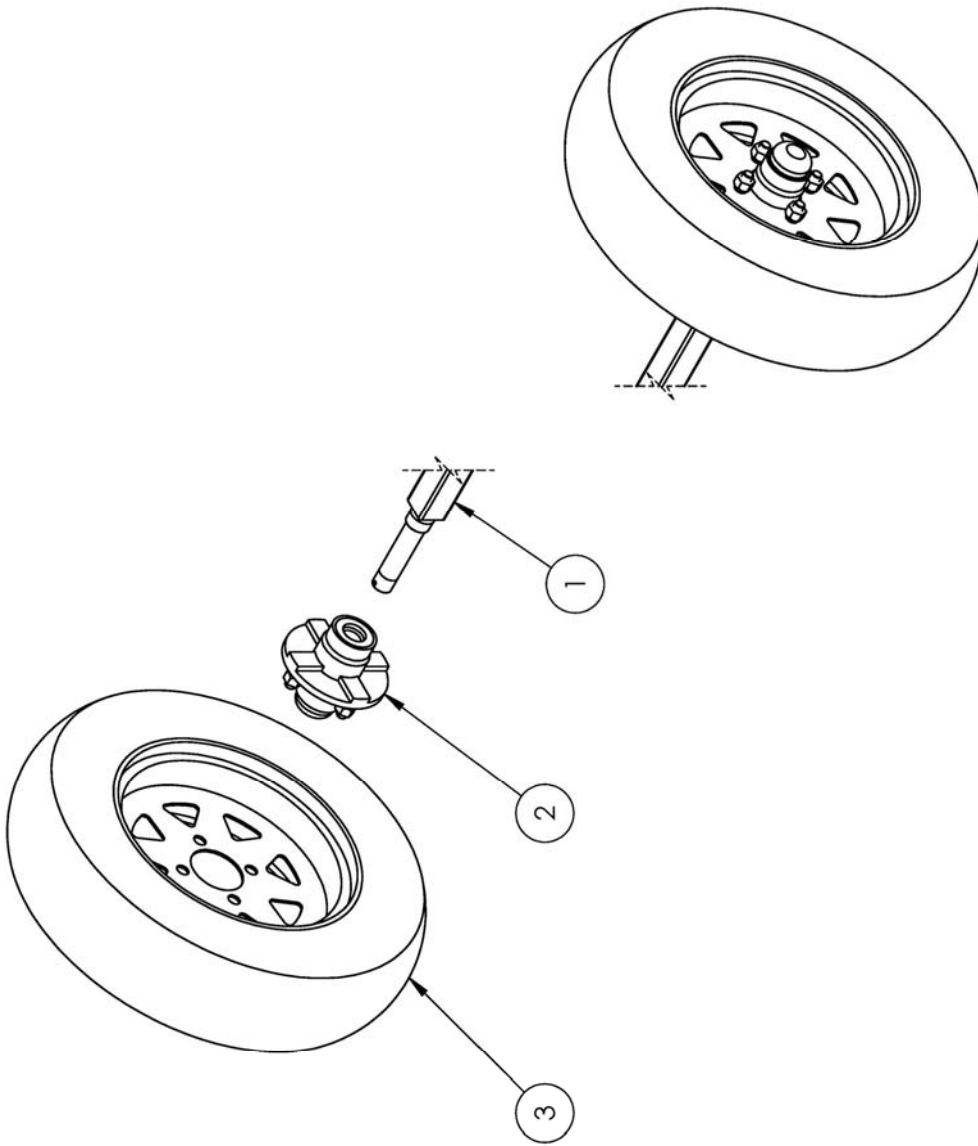


Item	Part No	Description	Qty
1	700265	INNER BOOM ASSEMBLY	1
2	700272	VALVE MOUNTING PLATE	1
3	275638	5/16 x 1 1/2" HEX HEAD CAP SCREW	2
4	275857	5/16-18 HEX NYLON INSERT LOCKNUTS	5
5	275639	5/16-18 x 1 3/4" HHCS	3
6	700261	HANDLE	1
7	700271	MANIFOLD	1
8	700319	FT LB PLATE FOR VALVEMASTER	1
9	276203	METAL TAK	4
10	276288	QD MALE	1
11	276289	QD FEMALE	1
12	3895	3/8"-16 x 4 1/2" HHCS	2
13	105	3/8"-16 ESNA NUT	2
14	276321	GAGE 0-3000 PSI	1
15	276729	RELIEF VALVE	1
16	276452	ELECTRICAL COUNTER	1
17	276452	CLIP (PART OF ELECTRICAL CTR.)	1
18	275647	3/4" NPT x 1/2" NPT BUSHING	2
19	276320	1/2" VALVE	1
20	275666	1/2" FS SCRD STREET ELL	1
21	276313	HYD 90 ELL 1/2 NPT x 1/2	2
22	276384	1/2 NPT M x F x F TEE	1
23	276310	1/2" HYDRAULIC NIPPLE	4
24	276333	1/2" FM PIPE x M QD	1
25	276332	1/2" FM PIPE x FM QD	1
26	276682	1/2 NPT M TEE	1
27	276305	4 WAY VALVE	1
28	700719	RETURN HOSE	1
29	700326	PRESSURE HOSE 12.5" LONG	1
30	276754	GROMMET	1
31	700802	WIRE HARNESS	1
32	600211	6mm WASHER	4
33	277297	BOW TIE COTTER PIN	2
34	277296	ADJUSTABLE LENGTH CLEVIS PIN	1
35	701528	SWITCH BRACKET	1
36	277295	SWITCH	1
37	277015	#6-32 x 1/2" LG PAN HEAD SCREW	2
38	276425	SHRINK TUBING	1
39	277299	CABLE TIE (SHORT)***NOT SHOWN***	3



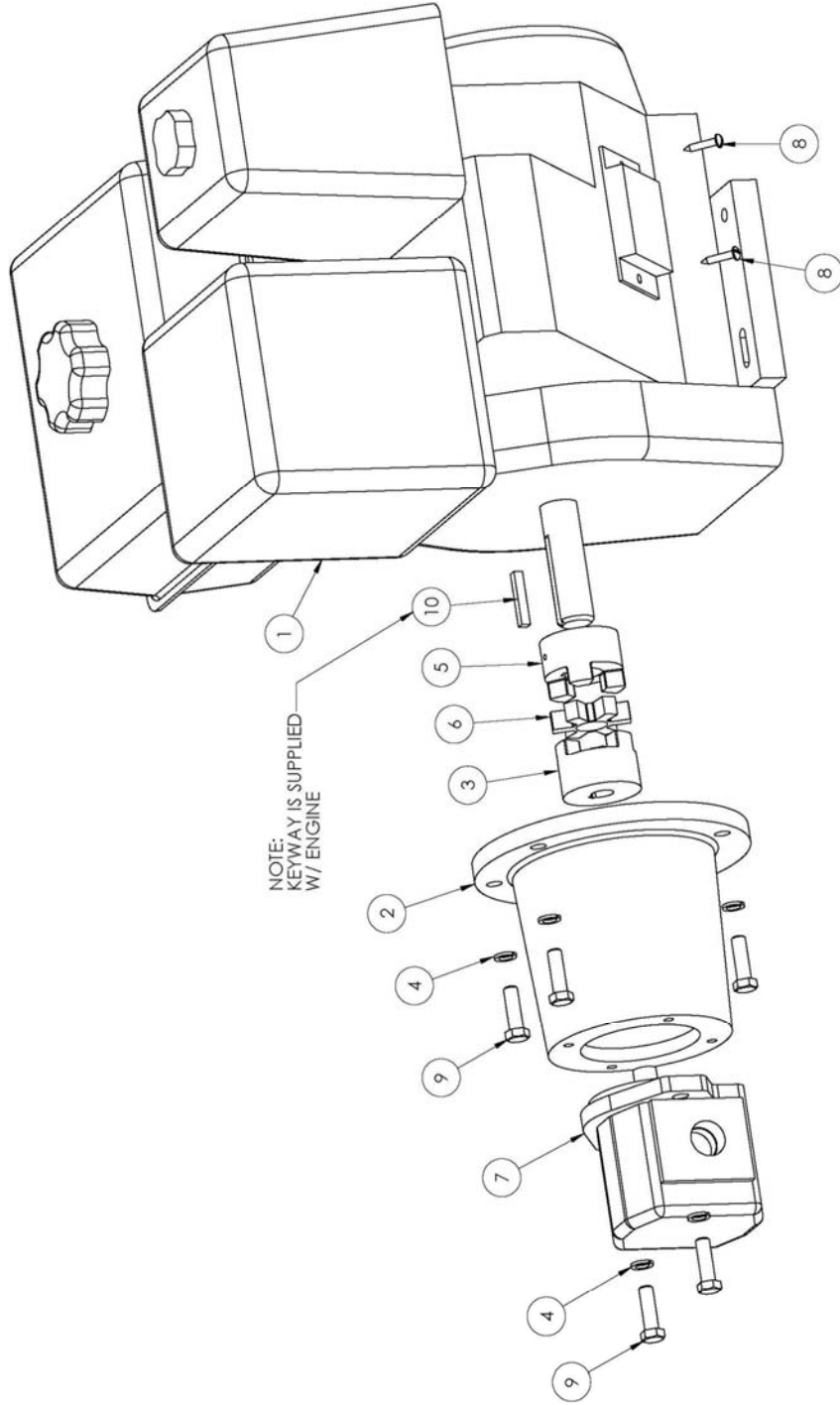
700772 Motor & Mount Assembly (Forward / Reverse)

Motor & Mount Assembly Fwd/Rev 700772			
Item	Part Number	Description	Qty
1	700408	MOTOR MOUNT	1
2	700274	MOTOR MOUNT CLEVIS ASSEMBLY	1
3	700270	MOTOR MOUNT PIPE BEARING, LONG	1
4	700283	MOTOR MOUNT STUD, LONG	1
5	700538	KEY ADAPTER	1
6	275789	1/2"-13 ESNA NUT	6
7	165	1/2-13 x 2" HHCS	4
8	276531	3/8-16 x 1 1/2" SET SCREW	1
9	276455	HYDRAULIC MOTOR	1
10	276329	FENDER WASHER	2



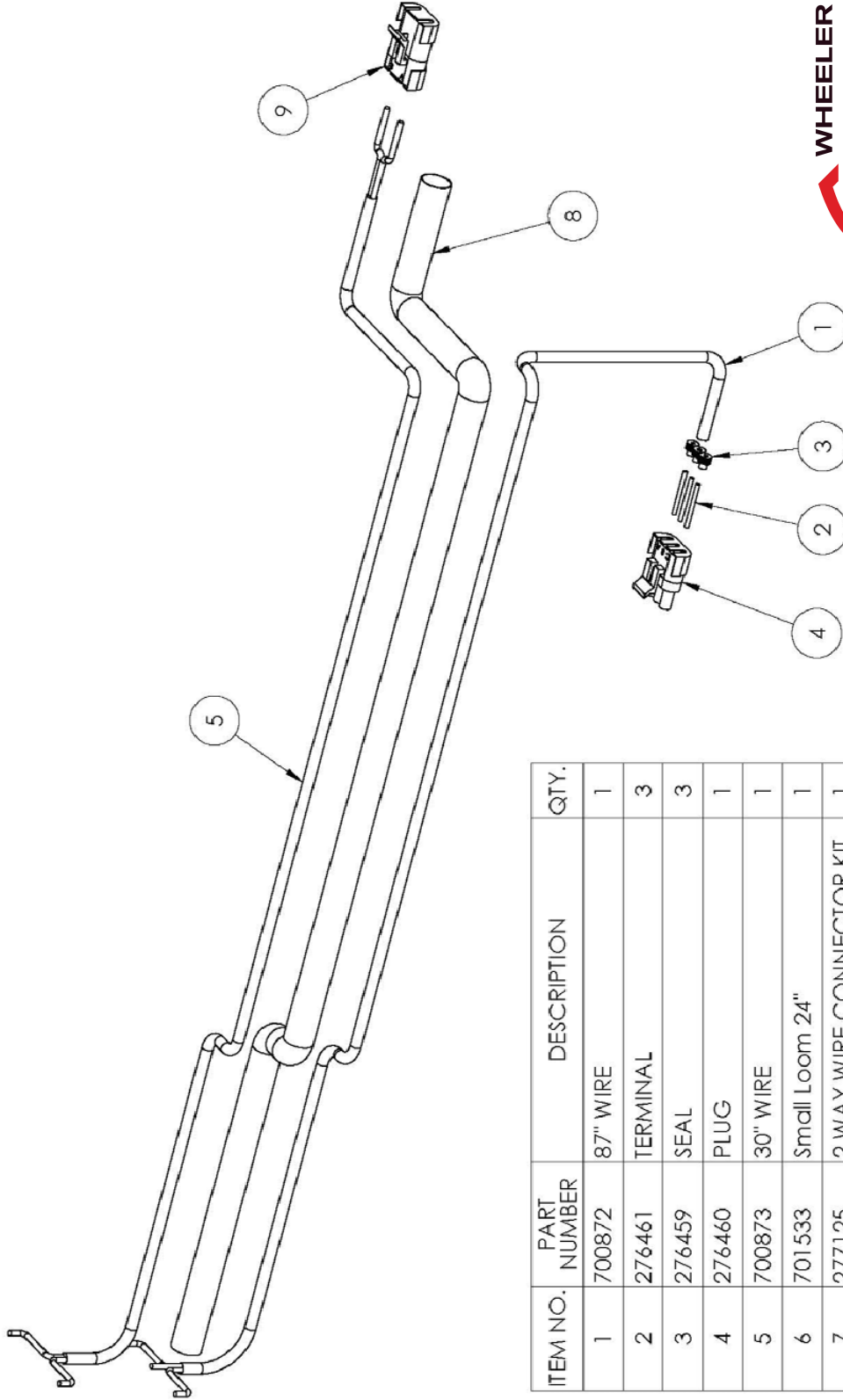
700306 Wheel & Axle Assembly

Wheel & Axle Sub Assembly 700306			
Item	Part Number	Description	Qty
1	700369	AXLE ASSEMBLY	1
2	276293	HUB ASSEMBLY	2
3	276365	TIRE & WHEEL ASSEMBLY	2



700549 Honda Engine Assembly

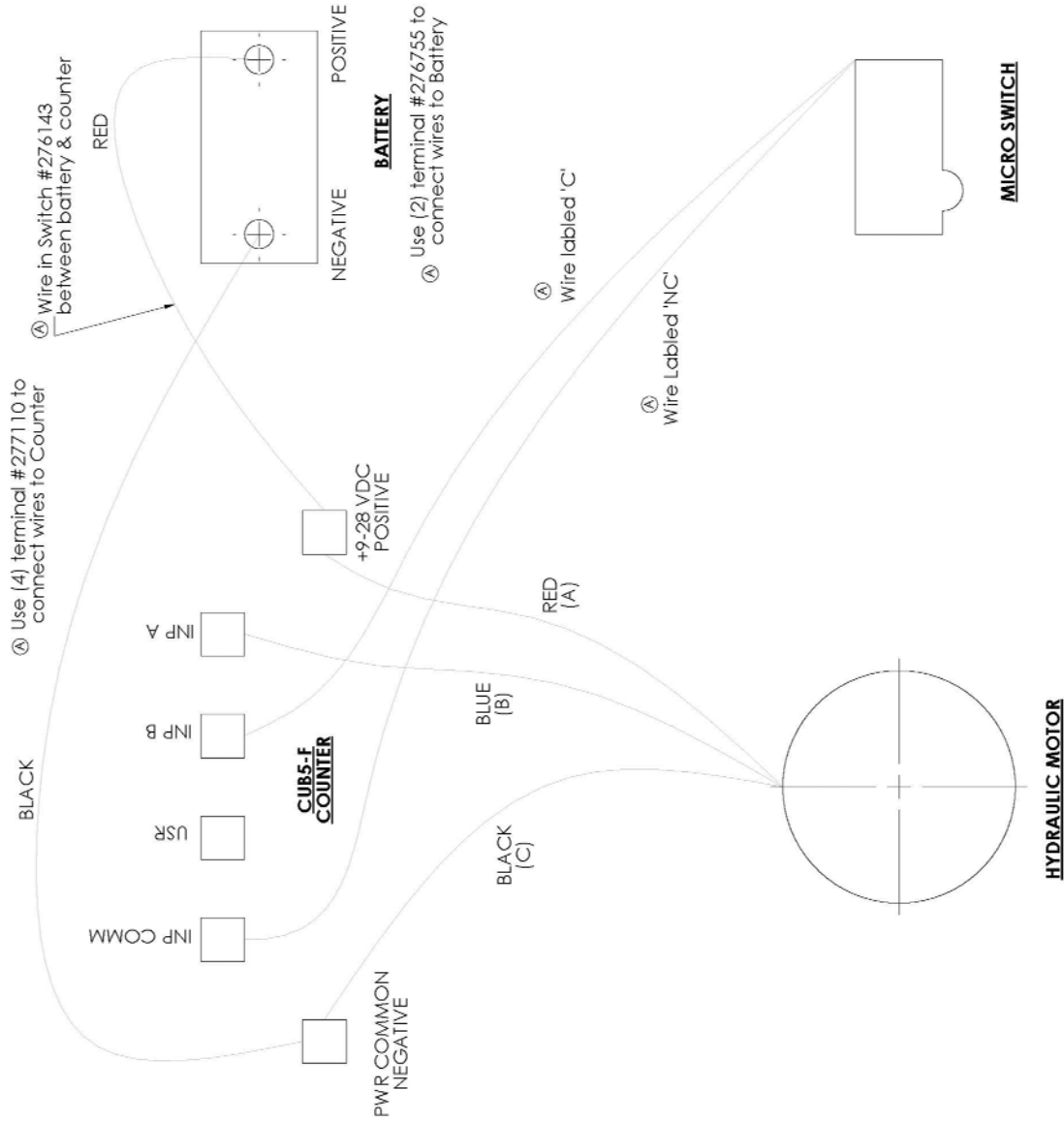
		Honda Engine Assembly	700549	
Item No	Part Number	Description		Qty
1	276408	13hp HONDA ENGINE		1
2	276327	PUMP / ENGINE MOUNT		1
3	36353	5/8" LOVE-JOY COUPLING HALF		1
4	7179	3/8" SPLIT LOCK WASHER		6
5	36333	1" LOVE-JOY COUPLING HALF		1
6	36334	CENTER DISK		1
7	276318	GEAR PUMP		1
8	276680	10 x 1 PAN HEAD TAPPING SCREW		2
9	276328	3/8-16 x 1 1/4 HHCS		6
10	275648	1/4" KEY		1



ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	700872	87" WIRE	1
2	276461	TERMINAL	3
3	276459	SEAL	3
4	276460	PLUG	1
5	700873	30" WIRE	1
6	701533	Small Loom 24"	1
7	277125	2 WAY WIRE CONNECTOR KIT	1



700802



WIRING DIAGRAM FOR
CUB5-F RED LION REVERSABLE COUNTER

PARAMETER	VARIABLE	PARAMETER	VARIABLE
Pro	NO	INP A-b	Cnt Ud
	1-INPUT	CntA Dp	0
		CntA Scf	0.0333
		CntA rst	to Zero
		CntA dir	Nor
		CntA Ld	500
		RSt P-UP	NO
		USr INP	rESet
Pro	NO		
	2-rAE	RatE Enb	YES
		RatE dP	0
		RatE dSP	001000
		RatE INP	1000.0
		LO-Udt	1.0
		HI-Udt	1.0
Pro	NO		
	3-dSPAY	SEL Enb	YES
		RSt Enb	YES
		d-Scroll	NO
		d-COLOR	Red
		d-LEVEL	5
		Code USr	NO
		Pro-CodE	000
		FACT Set	NO
Pro	NO		
END			

Bold italic parameters are for CUB5B with backlighting



Wiring Diagram



Wheeler-Rex ▪ 3744 Jefferson Road ▪ Ashtabula, OH 44004
Tel: 800-321-7950 ▪ Fax: 440-992-2925
wheeler@wheelerrex.com ▪ www.wheelerrex.com