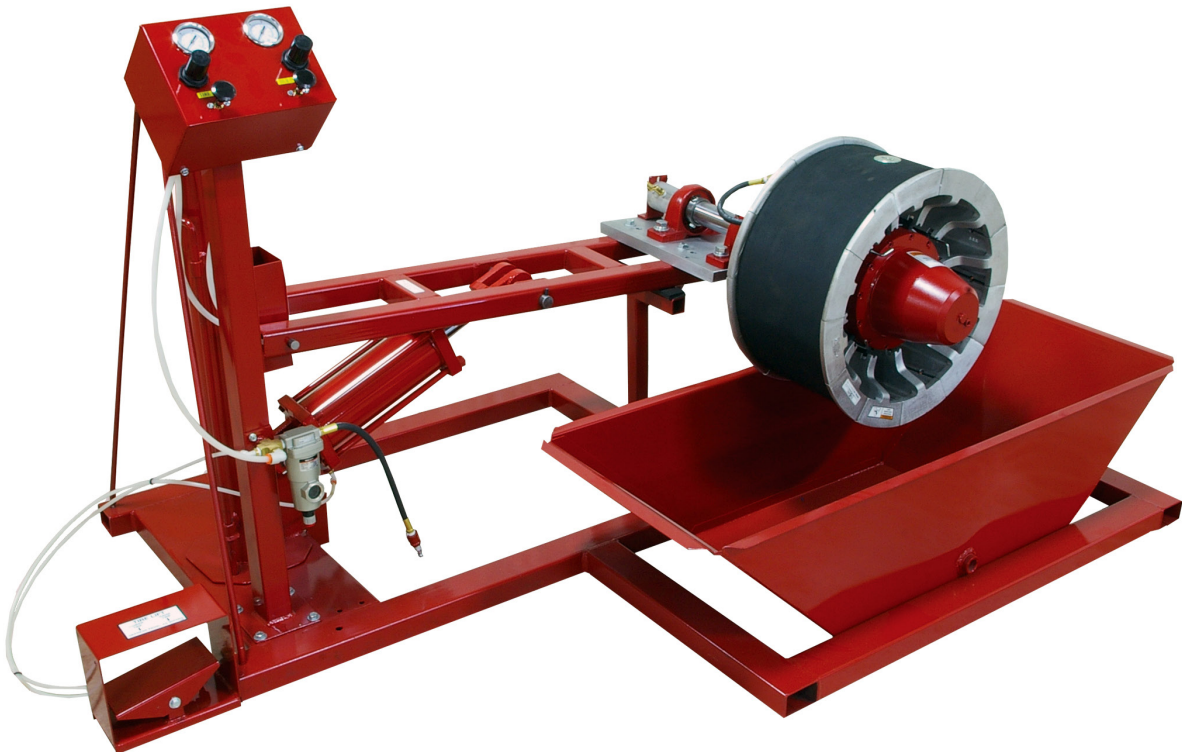




TIRE SERVICE INTERNATIONAL

TI-96 Tire Inspector with Dunk Tank

buyTSI.com - 800.223.4540



READ INSTRUCTIONS THOROUGHLY BEFORE OPERATING

Tire Service International, LLC

3451 S. 40TH ST.
Phoenix, AZ 85040

Office: 602.437.5020
Email: sales@buytsi.com
Fax: 602.437.5025

Contact us for any assistance

800.223.4540

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General Description

The TI-96 Tire Inspector is designed to inspect non mounted tires from 13" to 24.5" using an expandable hub and rim assembly. The TI-96 allows the operator to inspect tires for tread leakage using a dunk test tank. A foot operated power lift will save time and injury by lifting those heavy tires from floor into the test tank. Quick and easy inspection is accomplished by using an expandable hub and expandable rim assemblies. The TI-96 tire and hub assembly rotates easily for inspection and all operating controls are located on the side of the machine for easy operation.

Safety Requirements

1. READ THIS MANUAL BEFORE OPERATING
 2. SAFETY GLASSES ARE REQUIRED
 3. Before each use visually inspect the following items:
 - A. Make sure all fittings, hoses, valves and filters are property fastened and secured before operating unit.
 - B. Floor area around unit is dry
- CAUTION: Operation of this machine for use other than checking tires for air leaks is strictly prohibited.

Installation Requirements

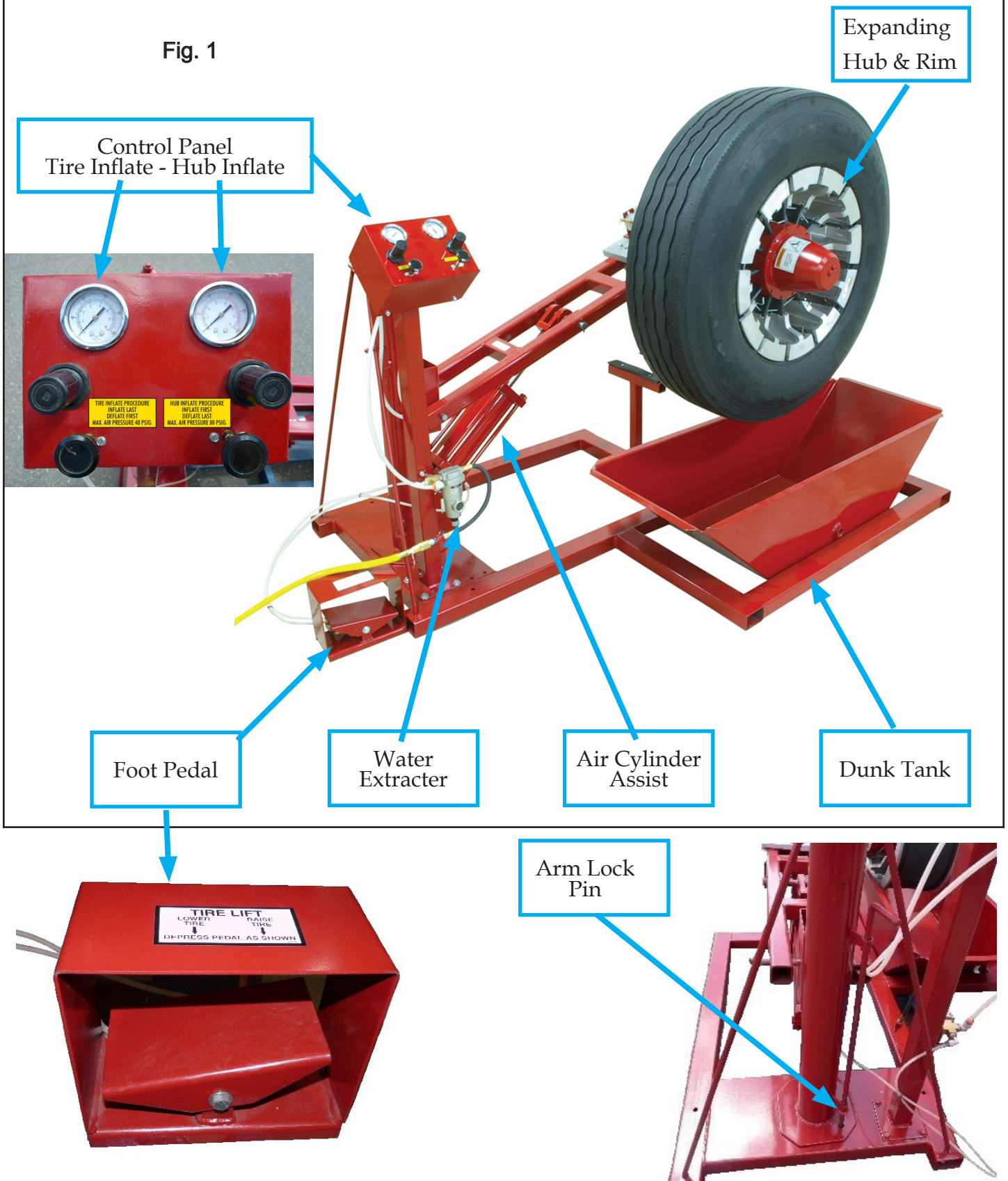
- Suggested incoming air supply to is 125 PSI
- Fasten unit to a flat concrete slab or surface with anchor bolts near a water source and drain. Unit can tip if not secured.

Set-Up Instructions

- Prepare a clean, level surface with adequate room to maneuver.
- Remove machine from packaging materials.
- Connect air supply to 1/4" hose fitting. All pressures are pre-set for 30 PSI for tire pressure and 80 PSI for expanding hub and rim.
- Select the correct size expansion RIM and mount onto expansion HUB
- Add water to the dunk tank. Leave enough space for the tire. Tip: one gallon of windshield solution added to the tank will help identify leaks.

Primary Parts

Fig. 1



Operating Instructions

- CAUTION: Operation of this machine for use other than checking tires for air leaks is strictly prohibited.
- Use the foot pedal to raise the Rotating Lift Arm.
- Disengage the Arm Locking Pin and rotate the Lift Arm and Expandable Hub assembly clockwise from the Pivot Post into a clear workspace. Engage the Locking Pin (the arm rotates 45 degrees).
- Clean tire bead and flanges. Use an oil soap on Expanding Rim belt to assist tire to slide into position.
- Lower the Lift Arm to a manageable height and mount the tire.
- Raise the Lift Arm slightly to get the tire off the ground.
- Pull the knob to the expand the rim.
- After the rim has fully expanded, inflate the tire by pulling the tire knob. Some air loss may occur between the expanded rim and tire.
- Raise the Lift Arm high enough to clear the dunking tank edge using the foot pedal.
- Disengage the Arm Locking Pin and rotate the tire over the dunk tank and engage the pin.
- Lower the tire into the water to within 1½" of the tire bead. Tire MUST NOT touch the bottom of the tank during this process.
- Slowly spin the tire on the Hub and check for air bubbles.
- Follow reverse process for removal - raise, unlock pin, rotate, lock pin, lower
- Push TIRE knob to deflate tire. After the tire is deflated, push the HUB knob to collapse the expansion rim. Warning: Deflate tire fully before deflating the hub. Do not remove tire until hub is fully deflated.
- Remove tire.
- Remove any debris from expansion rim and flanges. Clean the expansion rim.
- If excess water gets inside Hub disassemble the enter hub, clean and dry all parts. Use marine grease and assemble.



WARNING

Be careful when inflating tires! Tire Service International assumes no responsibility and is not liable if tires explode or come off of this rim assembly because of excessive air pressure.

Maintenance

1. Daily, inspect assembly for loose fittings, damaged parts, or water in the expanded rim assembly.
2. Weekly or as needed, empty, clean, and refill water in tank.
3. Every 30 days, grease all zerks with standard Chassis grease.

Expanding Rims

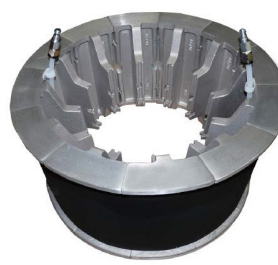
AVAILABLE SIZES



9.410
14" - 17" x 7 1/8"



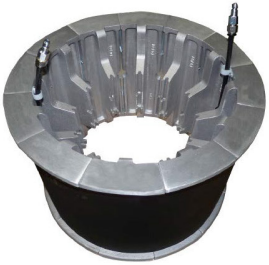
10.410
17" - 20" x 8 1/4"



11.410
20" - 22.5" x 9"



12.410
22" - 24.5" x 9"



13.410
20" - 22.5" x 11 3/4"

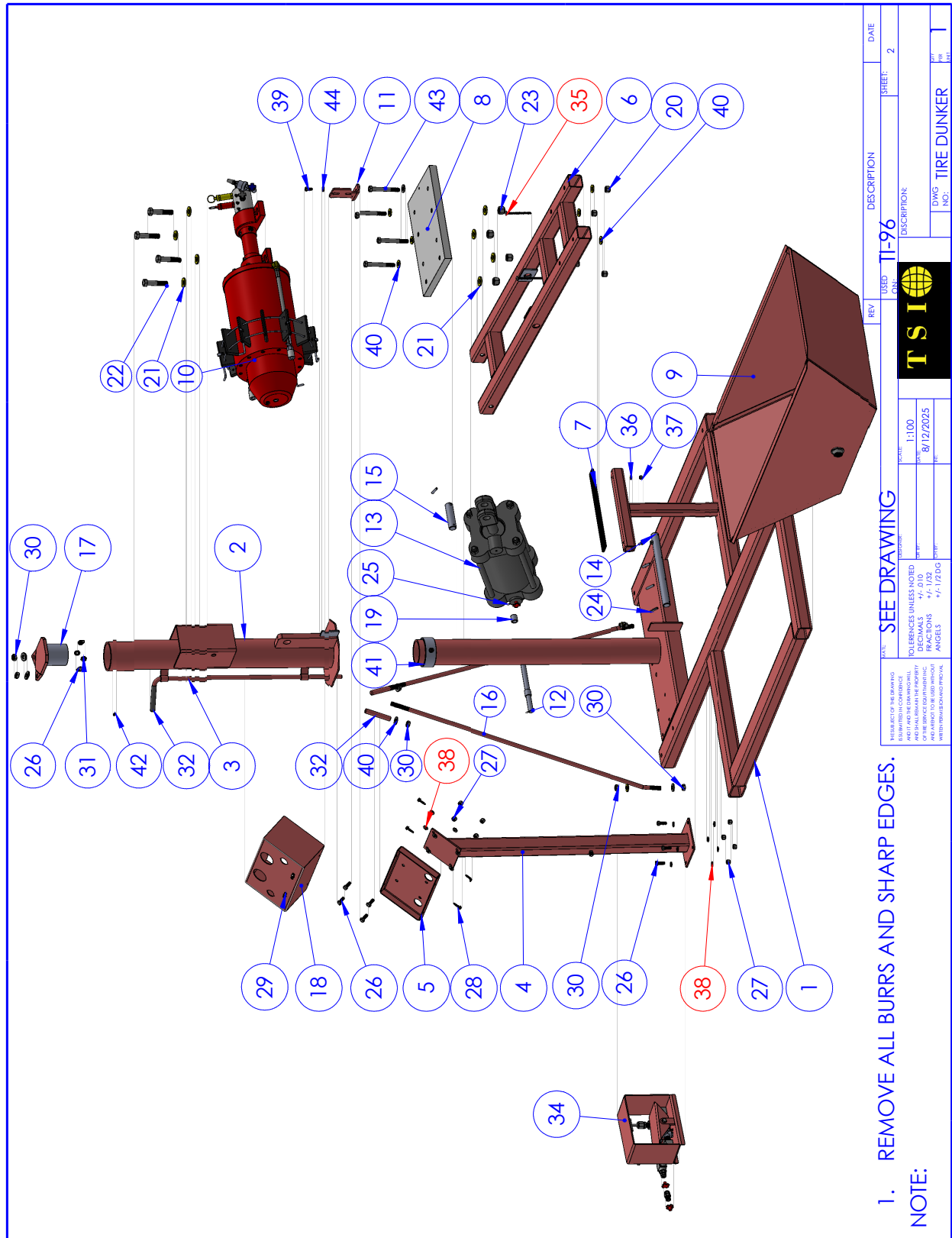


14.710
14" - 17" x 10"



172010
17" - 20" x 10"

Parts Listing



DATE	REV	DESCRIPTION	SHEET	DATE
	11-96		2	
T S I				
SCALE	1:100	DISCUSSION		
DATE	8/12/2025			
BY	+/1/23			
CHECKED	+/1/23			
APPROVED	+/1/23			
WITNESS	+/1/23			
TOLERANCES UNLESS NOTED		DWG NO: TIRE DUNKER		
FRACTIONS				
ANGLES				
DECIMALS				

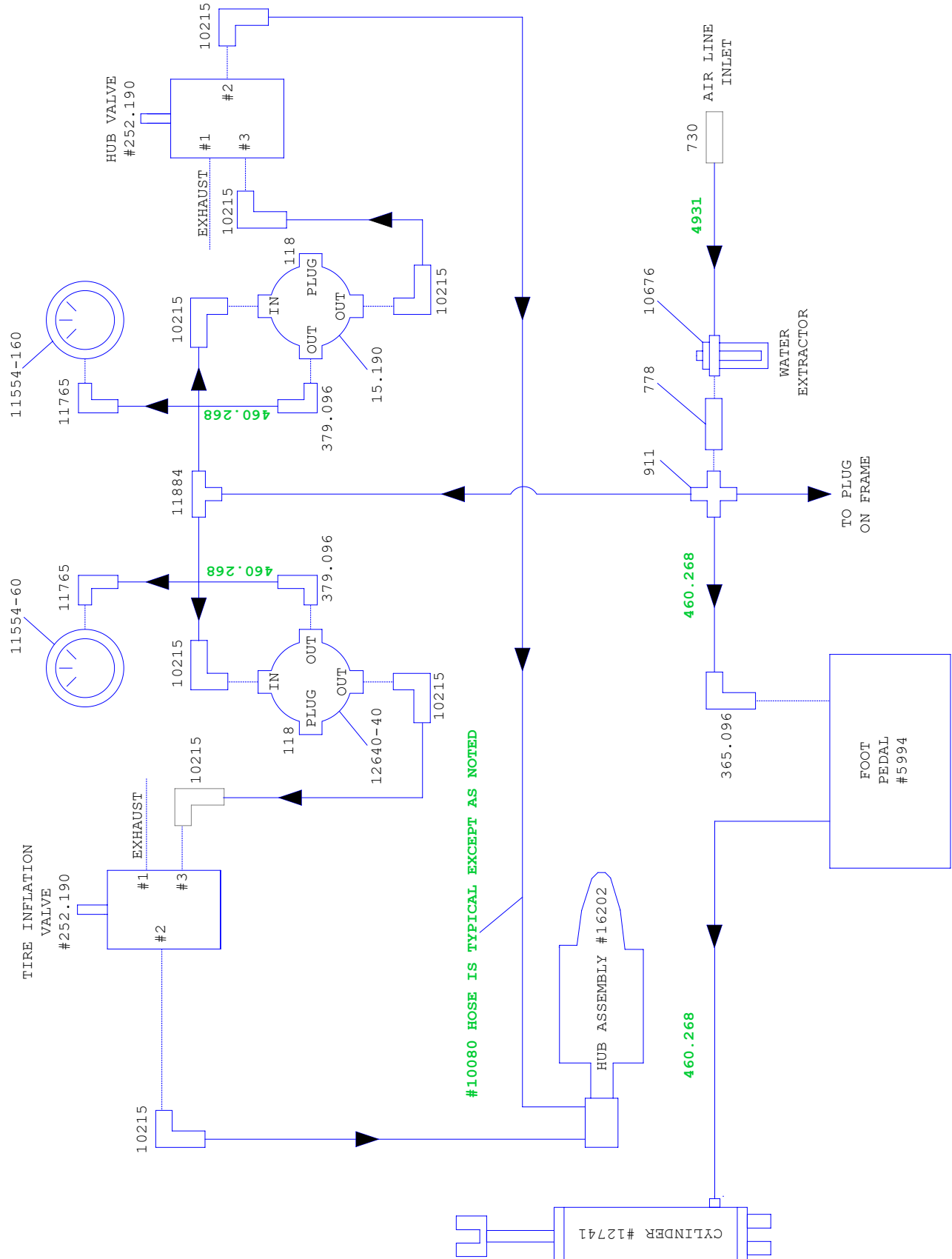
Parts Listing

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.	ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	6226	FRAME WELD ASSY.	1	24	4460	SPRING PIN 1/4 DIA X 1-1/4 LG	6
2	6224	TUBE SWIVEL WELD	1	25	1436	COTTER PIN 1/8 DIA X 1-1/4 LONG	2
3	12420	ROD, SWING LOCK	1	26	1306	HHCS 3/8-16 X 1.0	10
4	6230	CONTROL PANEL MOUNT WELD	1	27	212-N	3/8-16 NYLOC NUT	8
5	12398	PLATE, CONTROL BOX	1	28	4862	HHST 1/4-14 X 1 SELF TAPPING	4
6	6227	LIFT ARM WELDMENT	1	29	265.028	8/32 X 3/8 LNG MACHINE SCREW	4
7	12426	PAD, RUBBER	1	30	26.055	1/2-13 JAM NUT	8
8	12399	PLATE, HUB MOUNT	1	31	398	3/8-16 HEX NUT	2
9	6225	TANK WELD	1	32	230	GRIP	3
10	16202	EXPANDABLE HUB	1	34	5994	FOOT PEDAL ASSEMBLY	1
11	32.878	BRACKET, HUB	1	35	213	1/4-20 X 3.5 LNG CARRIAGE BOLT	2
12	12391	PIN, LIFT PIVOT	1	36	12758	WASHER 1/4 FLAT SAE	2
13	12741	CYLINDER - HYD SINGLE ACTING 5 X 8	1	37	226-N	1/4-20 SELF LOCK	2
14	12407	PIN, CYLINDER TOP	1	38	1318	5/16 WASHER	16
15	12406	PIN, CYLINDER BOTTOM	1	39	1737	5/16-18 x3/4 HHCS	1
16	12418	BRACE, PEDESTAL ROD	2	40	224	FLAT WASHER 1/2 ID	16
17	6229	EAR PLATE WELD	1	41	16201	COLLAR, LOCK	1
18	6231	CONTROL BOX WELD	1	42	210	GREASE ZERK	2
19	12856	LIFT ARM SPACER	2	43	366	1/2-13 x 4 GRADE 8	4
20	223	NUT, 1/2-13 SELF LOCKING	4	44	445	1/4 FLAT WASHER	1
21	987	FLAT WASHER 5/8 ID	8				
22	10402	HHCS 5/8-11 X 3	4				
23	4836	5/8-11 NYLOC HEX NUT	4				

SHEET: 2 OF 2

DWG NO. TIRE DUNKER FULL ASSEMBLY

Pneumatic Schematic



Spare Parts Listing

Item	Description	Qty	UM
4979	Coupling 1/4 NPT Air Quick Female	2	Each
4899	Exp. Hub Machined Cone (Inner)	1	Each
10054	Fitting 1/4 NPT x 3/8 Push-In	1	Each
11554-160	Gauge, 2" x 160 PSI x 1/4 NPT	1	Each
11554-60	Gauge, 2" x 60 PSI x 1/4 NPT	1	Each
230	Handle Grip, Handle 1/2 x 3	3	Each
4931	Hose 1/4 x 14' Oal 300 PSI x 1/4 NPT Male	3	Each
4903-Kit	Hub, Air Inlet Complete	1	Each
4903	Hub, Air Inlet w/bushing - With U-Cups	1	Each
5781	Inner shaft assembly (Exp Hubs)	1	Each
4909	Lock handle 3/16 dia C1018 CR	4	Each
4886	Locking Paddle, Blanks Only ..See 5844 for complete assembly	4	Each
4974	O-Ring, 7 3/4 ID x 8 OD 1/8	1	Each
5844	Paddle, lock assy complete	4	Each
4908	Pin, Dowel 1/4 x 1/2	4	Each
4885	Plain Paddle, Expandable Hub	8	Each
239.50	Pressure Relief Valve Set at 50 PSI For Expanding Hub	1	Each
15.190	Regulator, Air 125 PSI	1	Each
12640-40	Regulator, Air 40 PSI	1	Each
4978	Rod wiper, 3/4 ID x 1 OD Parker SH	1	Each
4926	Spring, Extension 28' (Ref 900512)	2	Each
4977	Spring, Lock Compression	4	Each
4907	Stop 3/5 Sq C1018 CR	4	Each
10080 BLACK	Tubing .375 O.D.x .25 ID	16	Ft
460.268	Tubing, .17 ID x .25 OD - Stiff	10	Ft
4973	U-Cup 1-1/2 ID x 2-1/8 OD Rubber	1	Each
4976	U-Cup 3/4 ID x 1 OD 70 Duro Black	2	Each
4975	U-cup 7-3/8 ID x 8 OD	1	Each
218	Valve, Air Control 1/4 npt	1	Each
252.190	Valve, Mini Push Pull	2	Each
10676	Water Extractor	1	Each

Notes

Notes

California Proposition 65

California's Proposition 65 entitles California consumers to special warnings for products that contain chemicals known to the state of California to cause cancer and birth defects or other reproductive harm if those products expose consumers to such chemicals above certain threshold levels.

WARNING: Some of Tire Service International's products can expose you to chemicals including chromium compounds, which are known to the State of California to cause cancer, birth defects or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

Your risk from exposure to these chemicals varies, depending on exposure time. To reduce your exposure, work in a well-ventilated area and with approved safety equipment, such as dust masks that are specially designed to filter out microscopic particles. Wash your hands after touching TSI's products.

Warranty and Return Policy

Warranty & Workmanship you can depend on.

With over 30 years of manufacturing experience we maintain the ability to provide competitive prices while employing and manufacturing the majority of our products in the USA. Pride in our workmanship and standing behind each and every product is not just our claim but our uncompromising responsibility.

Tire Service International equipment is warranted to be free from defects in materials and workmanship for a period of one year from the date of original purchase to the original owner. Repair labor is warranted for 90 days from the date of original purchase. Bushings, blades, bearings and normal wear and tear are not covered under warranty. Careless handling, negligence, misuse, abuse, mutilation, improper operation, making unauthorized repairs, additions, and or alterations automatically cancel this warranty and relieves TSI of any obligation. Cheetah tanks claimed to be defective while under warranty will be evaluated at our manufacturing plant and either repaired if possible or exchanged and returned or credit issued to the customer account at our discretion. Damage resulting from dropping the tanks will not receive warranty consideration. Warranty parts need to be returned prepaid to the plant for credit. Any replacement parts shipped from the plant will be shipped at the customer's expense. Machines requiring warranty work must be brought to the manufacturing plant in 201 Chelsea Rd, Monticello, MN or to a repair facility authorized by TSI.

!!WARNING!! Goods returned without an RGA will be refused. A Returned Goods Authorization form must be obtained before returning any material or goods. All non-warranty returns will be subject to a 15% restocking fee plus any additional charges for reconditioning/repacking.

Visit www.buyTSI.com for any additional information. Also be sure to follow us on all the Socials, and subscribe to our YouTube channel for all our product videos.

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