

herkulesTM **T200 PIT BOSS**

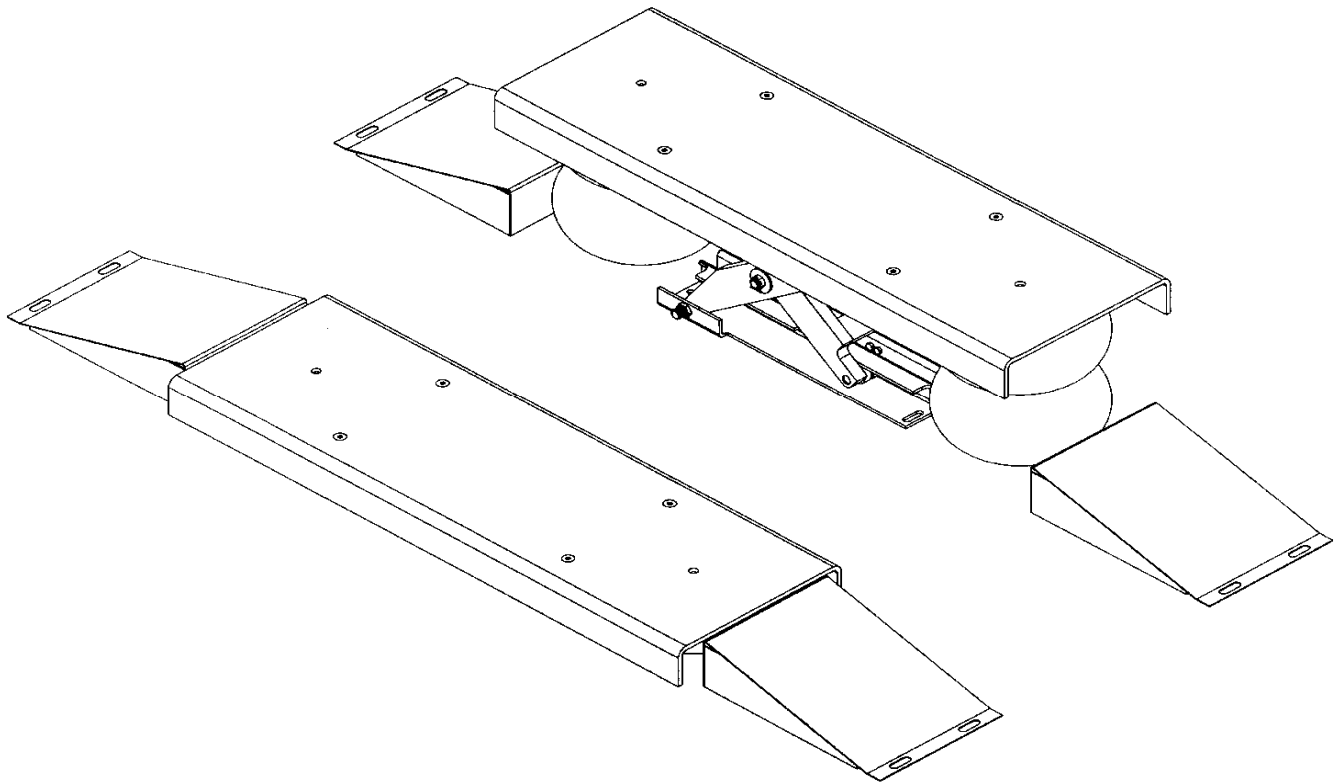
Part# M0200 Rev.11
7/29/2016

OWNERS MANUAL



INSTRUCTIONS

This manual contains important information concerning the installation and operation of the product listed above.
Read manual thoroughly and keep for future reference



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Patents USA 4793369, 4960142, 5174317, 5193561, 5485860, 7070167 Canada 1299468 Made in the USA
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PATENT NUMBERS

This product has patent protection under one or more of the following patent numbers:

7070167, 5485860, 5193561, 5174317
4960142, 4793369, 1299468
and Patents Pending

website: www.herkules.us
1002742

CAUTION

This symbol alerts you to the possibility of damage to or destruction of equipment if you do not follow the instructions.

WARNING

This symbol alerts you to the possibility of serious injury or death if you do not follow the instructions.

Limited Liability Warranty

The limited liability warranty applies to the pneumatic chambers of our Herkules lifts and to the initial user against defective materials for a period of five years from the proof of purchase date. The limited liability warranty applies to other components of our Herkules lifts to the initial user against defective materials for a period of one year from the proof of purchase date.

This warranty does not apply to equipment damaged from accident, abuse, overload, misuse, negligence, improper installation, abrasive or corrosive materials, or shipping damage.

In the event of failure, the defective item must be returned, freight prepaid, to the Herkules manufacturing plant for repair or replacement. If repairs are required Herkules will not be liable for these repairs to take place in the field regardless of the application. Proof of purchase and date of purchase must be confirmed. An RGA number (Return Goods Authorization) and written approval from Herkules must be obtained before any goods can be shipped to Herkules. We reserve the right to determine whether the cause of failure is due to defective material, normal wear, and/or other causes.

THIS MANUAL CONTAINS IMPORTANT INFORMATION CONCERNING THE INSTALLATION AND OPERATION OF INDUSTRIAL SYSTEMS.

WE OFFER TWO SUGGESTIONS:

- READ ALL MANUALS THOROUGHLY BEFORE INSTALLATION.
- KEEP ALL MANUALS FOR FUTURE REFERENCE.

Caution:

- 1 Do not exceed the rated load capacity of the lift.
- 2 Do not continue to push the control lever after lift is fully raised, even though safety valve will prevent over-inflation of air bag.
- 3 Use lift only on level surfaces.
- 4 Keep clear of lift while it is in motion.
- 5 Do not use air supply exceeding 120 PSI.
- 6 Do not leave a vehicle raised on the lift overnight.
- 7 Do not operate lift with defective Control assembly.
- 8 Never for any reason put arm or any other body part inside lift.
- 9 Lift system designed to be used in tandem.
- 10 The load is to be centered between the two lifts.
- 11 The two lifts are to be used together as one unit for the lift cycle.

Warning:

- 1 Herkules will not be held responsible for any personal injury and/or property damaged caused due to owner/operator failure to follow the warnings and cautions listed in this manual.
- 2 Read and understand all warnings, cautions, instructions and manuals before operating this equipment.
- 3 It is the owner/operators responsibility to maintain the legibility of all warning and instruction labels.
- 4 DO NOT alter or modify any part of this equipment.
- 5 DO NOT attempt to bypass the safety lock system.
- 6 DO NOT tamper with pressure relief valve system inside the lift.
- 7 DO NOT operate lift while person(s) are in the vehicle
- 8 MUST anchor each lift to the ground with (4) 1/2" lag bolts
- 9 ALWAYS allow same distance of hose to each lift, this will keep lifts running in tandem.
- 10 ALWAYS center the load between the two lifts to ensure proper lifting.
Lifting with only one lift may cause damage to the lift and cause failure.
- 11 ALWAYS check equipment regularly for proper operation and repair or replace worn or damaged parts immediately.
- 12 ALWAYS remove damaged lifts from service until repairs are made to the unit. Use only manufacturer's approved parts and accessories.
- 13 DO NOT REMOVE ANY WARNING LABELS ON LIFT. REPLACE IF DAMAGED

Operation Instructions

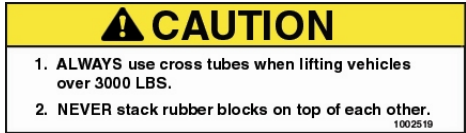
STEP 1

Herkules recommends using cross tubes in every lifting application

STEP 2

Once vehicle is over lift, slide cross tube into position between both lifts. 2-4 rubber lifting blocks need to be placed on cross tubes at the preferred lifting positions of the vehicle.

- a) ALWAYS use cross tubes when lifting vehicles over 3000 LBS
- b) DO NOT stack rubber blocks on top of each other.



STEP 3

Position cross tubes as close to the center of each air bag as possible.

STEP 4

If operator cannot align lifting blocks to the vehicle frame due to a large gap between cross tubes and vehicle, raise the lift slightly to decrease the gap then align the rubber blocks.

STEP 5

Raise the lift by pressing the control lever on the control pedestal to the up position. Release the lever once the vehicle is at the desired height.

Do not continue to push the control lever after lift is fully raised, even though safety valve will prevent over-inflation of air bag.

STEP 6

Lower the lift by pressing the control lever on the control pedestal to the down position. Release the lever once the vehicle is lowered to the desired position or till the lifts collapse fully.

Ensure all personnel and equipment are clear of vehicle and lift prior to lowering the system.

Maintenance Instructions

STEP 1

Check hose connections periodically for tightness to prevent air leakage.

STEP 2

Make sure all moving parts are clean and unobstructed of foreign objects.

STEP 3

Clean filter element every 3 months if filter / regulator option is purchased.

STEP 4

Grease and oil pivot points once every 3 months.

Lubricate daily if lift is in high cycle application

STEP 5

Use 90-weight gear lube (SAE 85W 140 EP) to lubricate the pivots and shafts once every 3 months or as needed.

STEP 6

Grease the upper and lower wheel channels.

STEP 8

Use overhead rigging when anything beyond external lubrication is required

Maintenance Lubrication diagrams

REV.	DESCRIPTION	DATE	APPROVED

OIL SCISSOR PIVOTS (4 LOCATIONS)

OIL OR GREASE PIVOT BETWEEN SCISSORS (2 LOCATIONS)

GREASE WHEEL CHANNELS (4 LOCATIONS)

GREASE UPPER WHEEL CHANNEL

GREASE LOWER WHEEL CHANNEL

OIL SCISSOR PIVOTS (4 LOCATIONS)

OIL OR GREASE PIVOT BETWEEN SCISSORS (2 LOCATIONS)

GREASE UPPER WHEEL CHANNEL

GREASE LOWER WHEEL CHANNEL

GREASE UPPER WHEEL CHANNEL

GREASE LOWER WHEEL CHANNEL

POS.	PART #	DESCRIPTION	QTY	UNIT

herkules™

780 BUREAU COURT • WILLET LAKE, MI 48391-1622

TITLE: T200 LUBRICATION LOCATIONS	MATERIAL:	ORD. BY:	REQ. REF:
DATE:			

Installation Tools Required

- 1 Core Drilling Machine (Drill bits for 1/2 & 1.00)
- 2 Adjustable wrench (for pneumatic component assembly)
- 3 Flat head screw driver
- 4 Wrench (9/16)
- 5 Wrench (3/4)
- 6 Wrench (1-1/16)
- 7 Wrench (1-1/8)
- 8 Allen wrench (5/16)
- 9 Allen wrench (7/32)
- 10 Pipe wrench (for pneumatic component assembly)
- 11 Teflon tape
- 12 Hose cutter or knife
- 13 Caulk gun (for epoxy anchors)
- 14 Tin snips or cutters
- 15 Saw (cut off stud ends)
- 16 Grinder (smooth studs)

Special Installation Notes

STEP 1

Read all installation instructions prior to beginning first step.

STEP 2

Supplied with the lift is a paper drill template. This template will resemble the diagram shown on page 9.

NOTE: This template will need to be reused for each half of the lift

STEP 3

In the event that more access is needed to the base of the unit the top deck can be removed.

To remove the top deck, remove items 10, 11, & 15 from the top deck (see page 11)

NOTE: The stop bar must be in place PRIOR to attempting to remove the top plate

NOTE: The top deck is heavy and a second person may be needed to help move during uninstall and reinstall.

STEP 4

The top plate must be reinstalled and securely fastened with nuts and lock washers prior to installing the air bags to the lifting system.

NOTE: The top deck is heavy and a second person may be needed to help move during uninstall and reinstall.

Installation/Concrete Instructions

STEP 1

Read all concrete installation instructions prior to beginning to drill.

STEP 2

Locate the center line of lift from which all other dimensions will be taken. (see pages 6 & 7)

NOTE: The distance between the center of the two lifts must not exceed 65". The center line of the lift must not be closer to the edge of the pit than 8.5" (see page 6)

STEP 3

Locate hole "B" along the length of the pit and 3.125" from the center line of the lift and mark hole location. (see pages 6 & 7)

NOTE: See tolerance allowed toward the pit allotted for this hole

STEP 4

Drill hole "B" into concrete. (see pages 6 & 7)

STEP 5

Repeat step 2 & 3 for all hole "B" locations. (see pages 6 & 7)

STEP 6

Either perform step 6 or 7, not necessary to perform both steps. (see pages 6 & 7)

NOTE: Acceptable to use hole "C" or hole "D" in any combination provided one hole is on either side of the center line of the lift.

STEP 7

Locate hole "C" along the length of the pit 21.875" behind hole "B" and 3.75" from the center line of the lift and mark hole location. (see pages 6 & 7)

NOTE: See tolerance allowed toward the pit allotted for this hole. Hole "C" to hole "C" must be 7.50"

STEP 8

Locate hole "D" along the length of the pit 21.875" behind hole "B" and 2.50" from the center line of the lift and mark hole location. (see pages 6 & 7)

NOTE: See tolerance allowed toward the pit allotted for this hole. Hole "D" to hole "D" must be 5.00"

STEP 9

Drill hole "C" and / or hole "D" into concrete. (see pages 6 & 7)

STEP 10

Repeat step 5 - 8 for all hole "C" and / or "D" locations. (see pages 6 & 7)

STEP 11

Locate and mark the center of the first airbag along the center line of the lift 7.313" from hole "B" in the opposite direction of hole "C". (see pages 6 & 7)

STEP 12

Locate and mark the center of the second airbag along the center line of the lift 29.687" from hole "B" in the direction of hole "C". (see pages 6 & 7)

STEP 13

Drill the 1.00" diameter hole for the air bag plumbing. Perform this operation for both air bag locations. (see pages 6 & 7)

STEP 14

Repeat steps 10 - 12 for the second lift on the other side of the pit. (see pages 6 & 7)

STEP 15

Locate the two ramp mounting holes (hole "E") 30.930" from hole "B" in the opposite direction of hole "C".
The hole will be 3.357" from the center line of the lift and mark hole location. (see pages 6 & 7)

NOTE: See tolerance allowed toward the pit allotted for this hole

STEP 16

Locate the two ramp mounting holes (hole "E") 53.304" from hole "B" in the direction of hole "C".
The hole will be 5.375" from the center line of the lift and mark hole location. (see pages 6 & 7)

NOTE: See tolerance allowed toward the pit allotted for this hole

STEP 17

Drill hole "E" into concrete. (see pages 6 & 7)

STEP 18

Repeat steps 14 - 16 for second lift on the other side of the pit. (see pages 6 & 7)

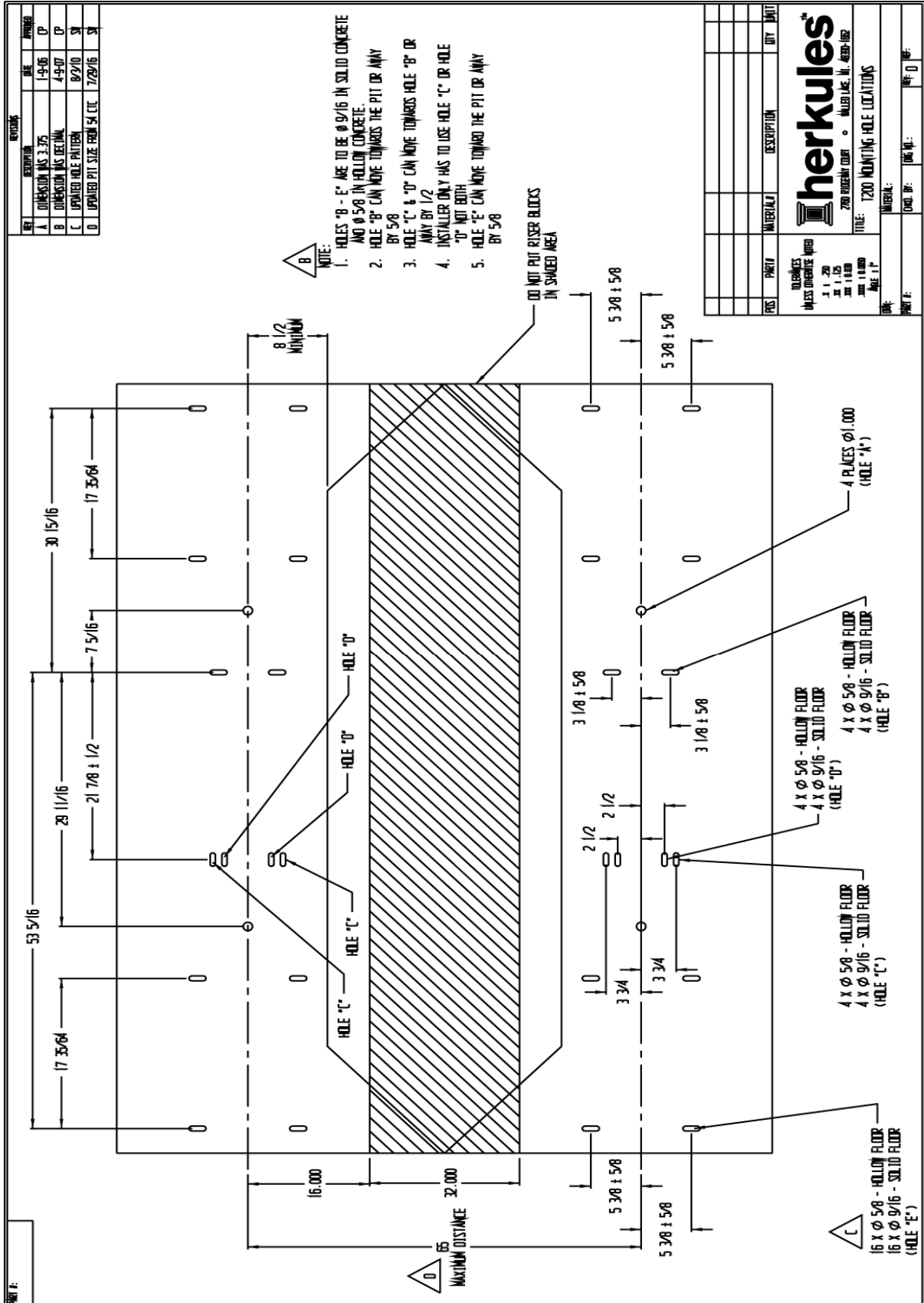
STEP 19

Clean out all holes in the concrete and prepare for wedge anchor installation.

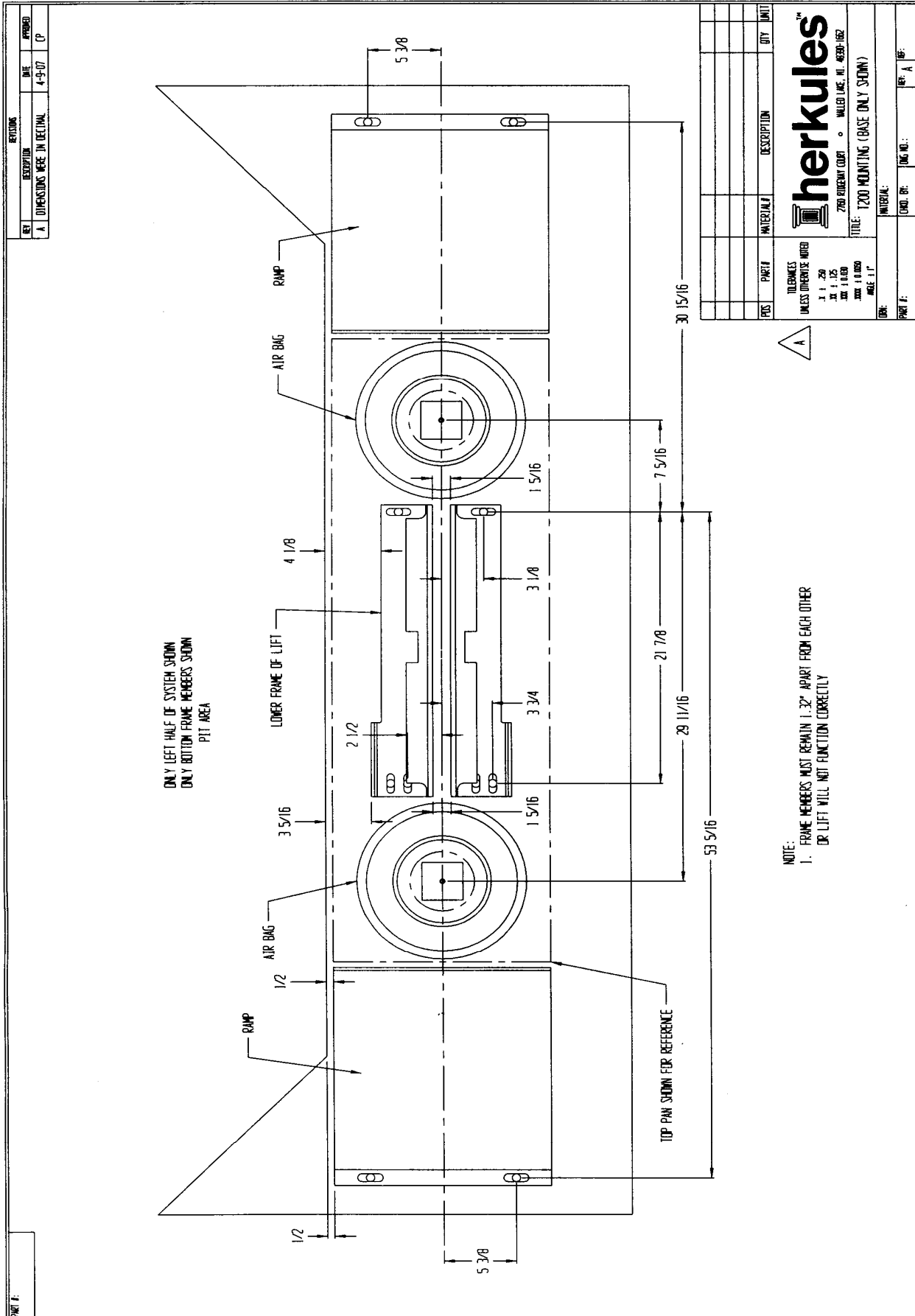
STEP 20

See wedge anchor installation instructions.

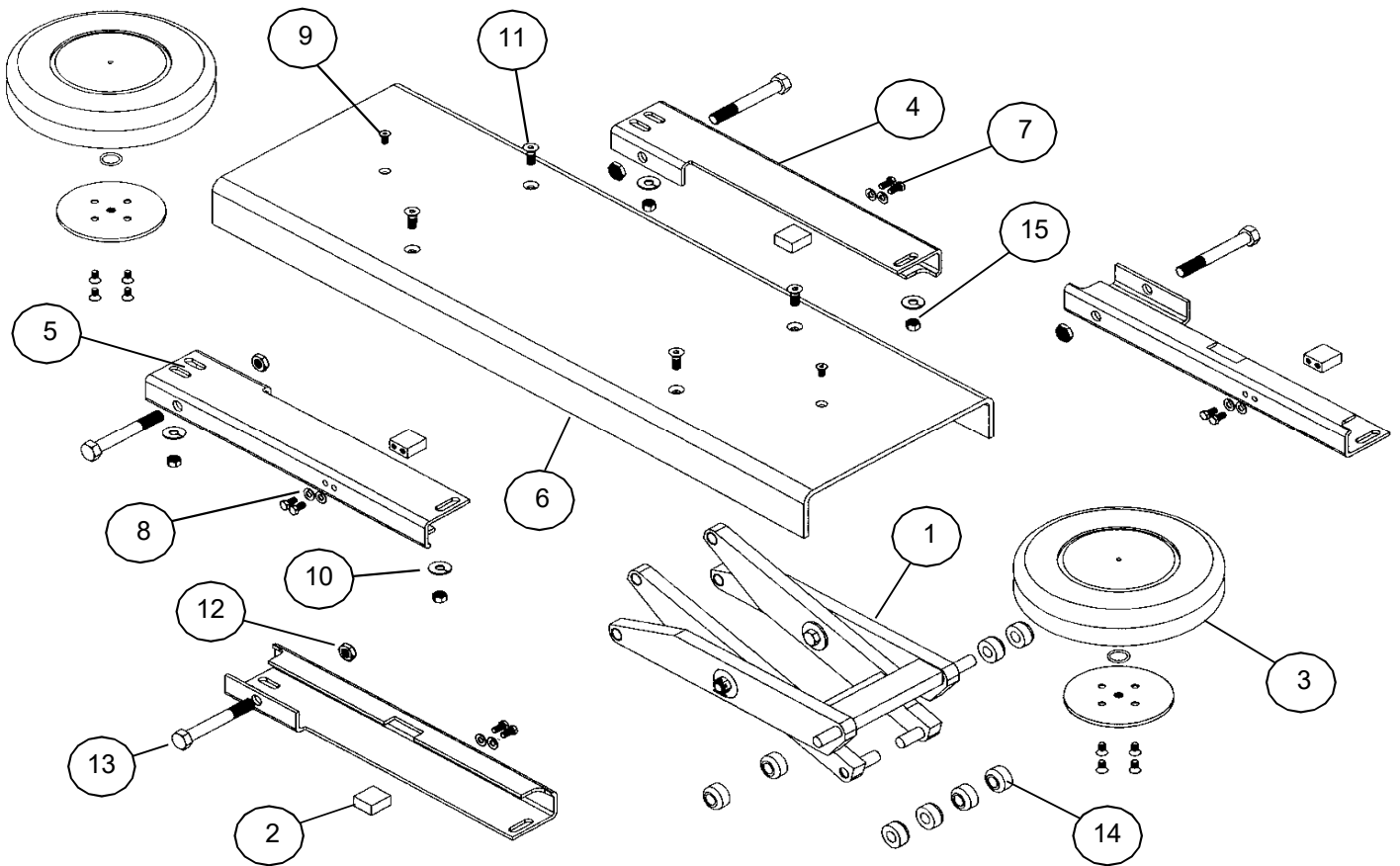
Installation/Concrete diagrams



Installation/Concrete diagrams



Parts contained in T200 kit



ID	Part #	Description	Qty	Units
1	12711	SCISSOR ASSEMBLY FOR T200	2	EA
2	12578	BLOCK WHEEL STOP FOR T200	8	EA
3	13753	AIR BAG DOUBLE FOR K-200	4	EA
4	1002660	FRAME MEMBER A FOR T200	4	EA
5	1002661	FRAME MEMBER B FOR T200	4	EA
6	1002697	TOP PAN FORMED FOR T200	2	EA
7	83G	BOLT HEX 3/8-16 X 3/4 GD 5 Z	16	EA
8	85C	WASHER LOCK 3/8 Z	16	EA
9	1000613	BOLT FHSC 3/8-16 X 3/4 BLACK	20	EA
10	85H	WASHER LOCK 1/2 Z	8	EA
11	1000031	BOLT FHSC 1/2-13 X 1-1/2 BLACK	8	EA
12	1000211	NUT JAM NYLOCK 3/4-10 Z	8	EA
13	1002711	BOLT HEX 3/4-10 X 5 W/3-3/4SHLD	8	EA
14	10881	WHEEL STEEL FOR TILT MODULE 10870	16	EA
15	1001259	NUT HEX 1/2-13 Z	8	EA
-	12368	BLOCK SET 3-7/8 X 5 X 1-1/2 (QTY 4)	1	EA
-	12855	STOP BAR FOR T200 SYSTEM	2	EA

Installation Instructions

STEP 21

Using two people lift the top of the lift system and insert the yellow block stop to keep the lift in the raised position
Repeat this step for the second lift.

NOTE: Ensure the stop is positioned evenly in the slot or the lift may fall causing injury.

STEP 22

Obtain assembled lift system and place lift over threaded rod anchored to the floor.

NOTE: Lift is symmetrical with no front or back. Orientate the lift so the Pit Boss sticker and the warnings are facing away from the pit.

STEP 23

Obtain second assembled lift system and place lift over threaded rod anchored to the floor on opposite side of the pit.

NOTE: Lift is symmetrical with no front or back. Orientate the lift so the Pit Boss sticker and the warnings are facing away from the pit.

NOTE: The rollers of each lift MUST roll in the same direction during the lifting cycle.

STEP 24

Secure lift into position using washers and nuts provided in the installation kit (12693)

STEP 25

Obtain air bag (1000953), and hose barb from plumbing kit (12694). (see fig 1.)

ID	Part #	Description	Qty.
1	1000953	AIR BAG DOUBLE FOR K-200	1
2	1003396	HOSE BARB PTL 3/8 X 1/4 NPT	1

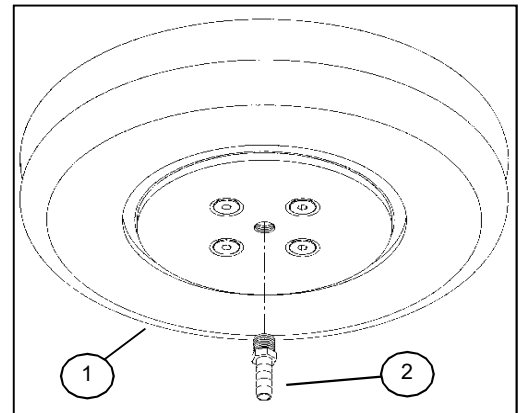


fig 1.

STEP 26

Apply Teflon tape to all male threaded components and secure components together. (see fig 1.)

NOTE: Failure to apply Teflon tape will result in air leaks.

STEP 27

Secure hose barb (1003396) to the air bag base plate (1002825).

NOTE: Air bag base plate (1002825) comes attached to air bag (1000953).

STEP 28

Repeat steps 25 - 27 for each air bag.

STEP 29

Obtain air bags and mounting hardware: (see fig 2.)

ID	Part #	Description	Qty.
1	1000953	AIR BAG DOUBLE FOR K-200	2
2	1000613	BOLT FHSC 3/8-16 X 3/4 BLACK	2

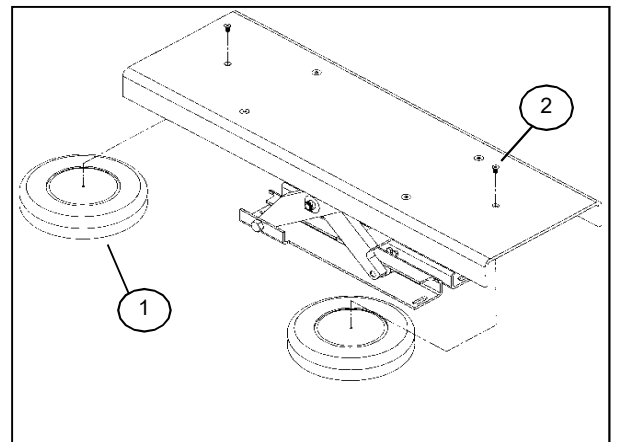


fig 2.

STEP 30

Secure air bags into position on the top pan. (see fig 2.)

STEP 31

Repeat steps 29 - 31 to complete second lift assembly before moving onto the next step.

STEP 31

Obtain components used to build the cross assembly from plumbing kit. (see fig 3.)

ID	Part #	Description	Qty.
1	1003586	HOSE BARB PTL 1/2 X 1/2 NPT	1
2	1003587	VALVE RELIEF 1/2 NPT X 75 PSI	1
3	1003585	HOSE BARB PTL 3/8 X 1/2 NPT	2
4	1002250	CROSS 1/2 NPT BRASS	1

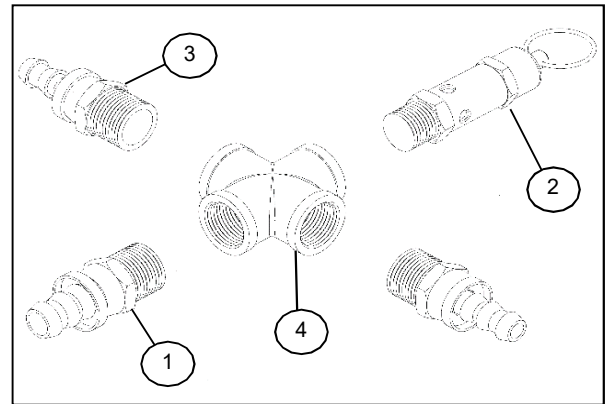


fig 3.

STEP 32

Apply Teflon tape to all male threaded components and secure components together. (see fig 3.)

STEP 33

Repeat steps 31 & 32 to create second cross assembly.

STEP 34

Position the cross assembly between the two air bags and fix to location. (see fig 4.)

STEP 35

Obtain 3/8" hose: (see fig 5)

ID	Part #	Description	Qty.
1	100-334	HOSE 3/8" PUSH TO LOK	(user defined)

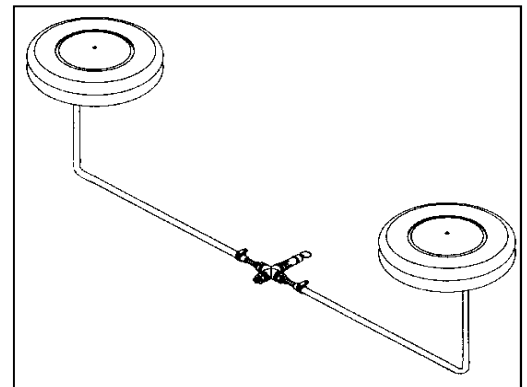


fig 4.

STEP 36

Cut a length of 3/8" hose (100-334) to run from the air bag hose barb to the cross assembly. (see fig 5)

NOTE: This length of hose MUST be the same length in all four positions. (see fig 6.)

NOTE: Failure to have the same length in all 4 positions will cause the lift to function incorrectly and eventual failure

STEP 37

Verify all 3/8" hose lengths (100-334) are the same. (see fig 6)

STEP 38

Push hose onto hose barb at the air bag and secure. (see fig 5.)

NOTE: Hose clamps not needed.

STEP 39

Route hose from air bag to the cross assembly. (see fig 5.)

NOTE: Loop hoses in remote location to keep same length of hose if necessary.

STEP 40

Push hose onto hose barb at the cross assembly and secure. (see fig 5.)

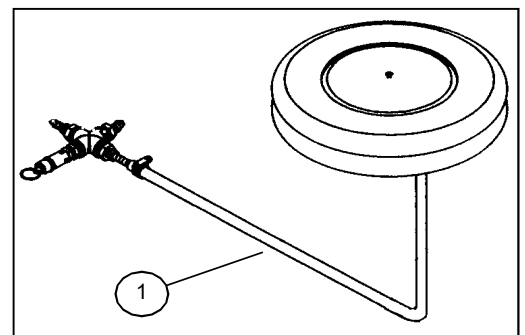


fig 5.

STEP 41

Repeat steps 38 - 40 for each of the four locations. (see fig 6.)

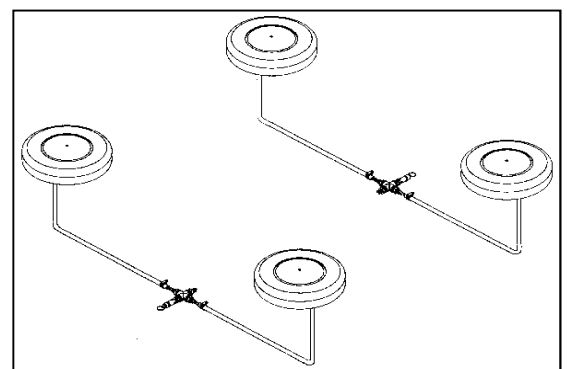


fig 6.

STEP 40

Obtain components used to build the tee assembly from plumbing kit. (see fig 7.)

ID	Part #	Description	Qty.
1	1003586	HOSE BARB PTL 1/2 X 1/2 NPT	3
2	C12G	TEE 1/2 NPT BRASS	1

STEP 41

Apply Teflon tape to all male threaded components and secure components together. (see fig 7.)

STEP 42

Secure hose barbs (1003586) to the tee (C12G). (see fig 7.)

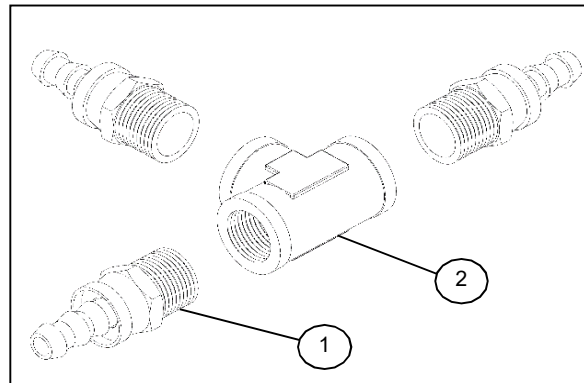


fig 7.

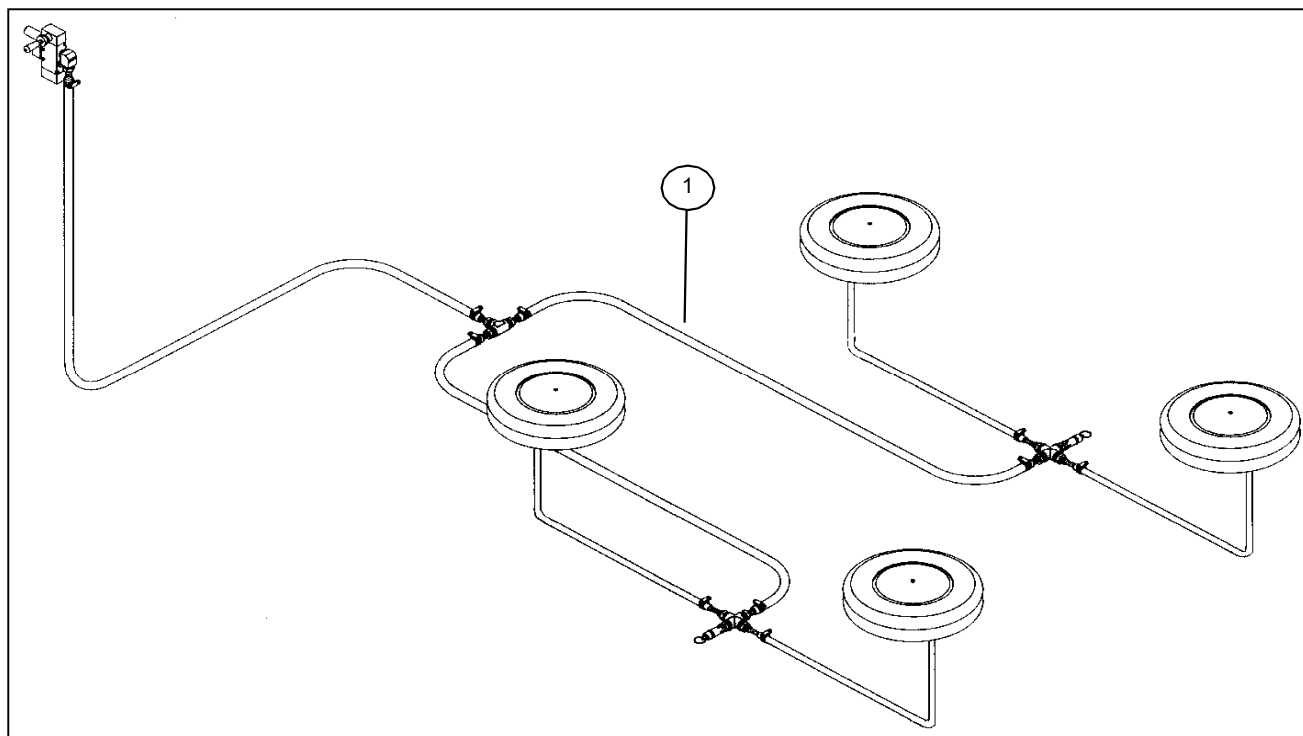


fig 8.

STEP 43

Obtain 1/2" hose: (see fig 8.)

ID	Part #	Description	Qty.
1	100-332	HOSE 1/2 ID 250 PSI RUBBER	(user defined)

STEP 44

Cut a length of 1/2" hose (100-332) to run from the cross assembly to the tee assembly. (see fig 8.)

NOTE: This length of hose MUST be the same length in both positions as shown in fig 8.

Failure to have the same length in both positions will cause the lift to function incorrectly and eventual failure

STEP 45

Verify the 1/2" hose lengths (100-332) are the same. (see fig 8.)

STEP 46

Push hose onto hose barb at the tee assembly and secure. (see fig 8.)

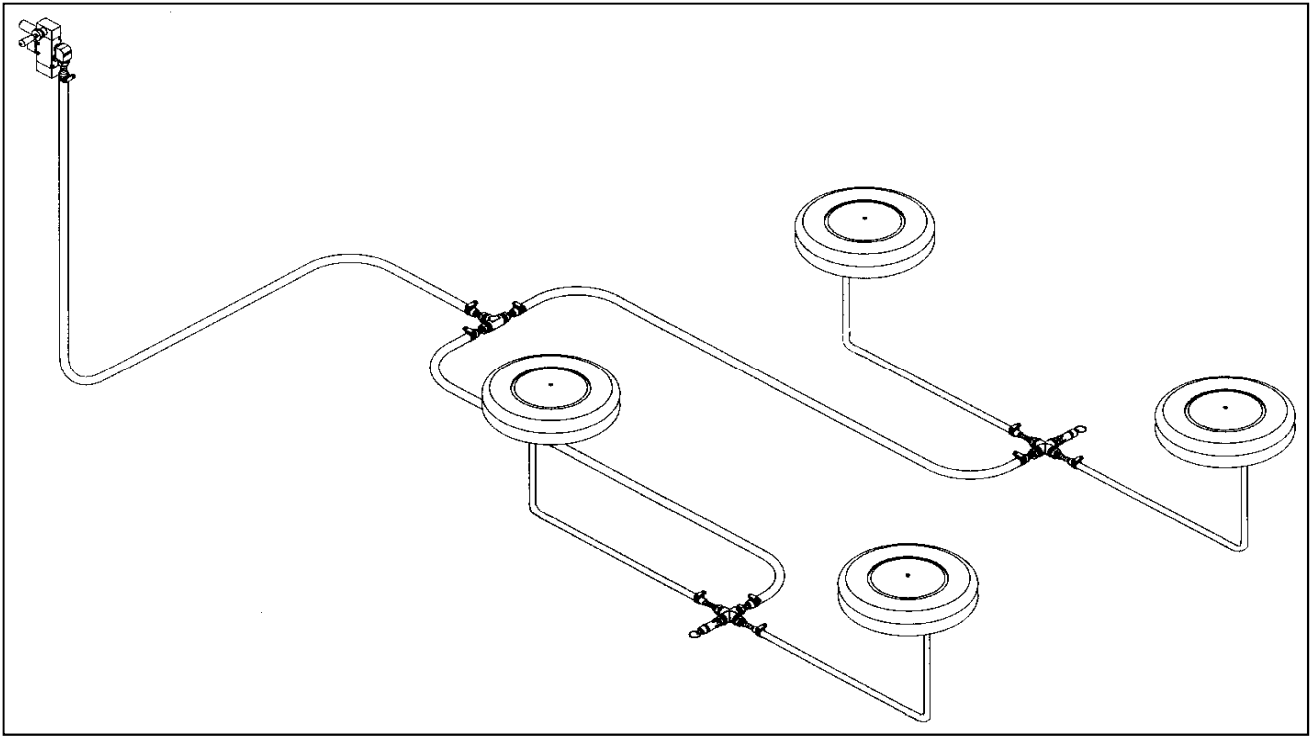


fig 9.

STEP 47

Route hose from tee assembly to the cross assembly. (see fig 9.)

NOTE: Loop hoses in remote location to keep same length of hose if necessary.

STEP 48

Push hose onto hose barb at the cross assembly and secure. (see fig 9.)

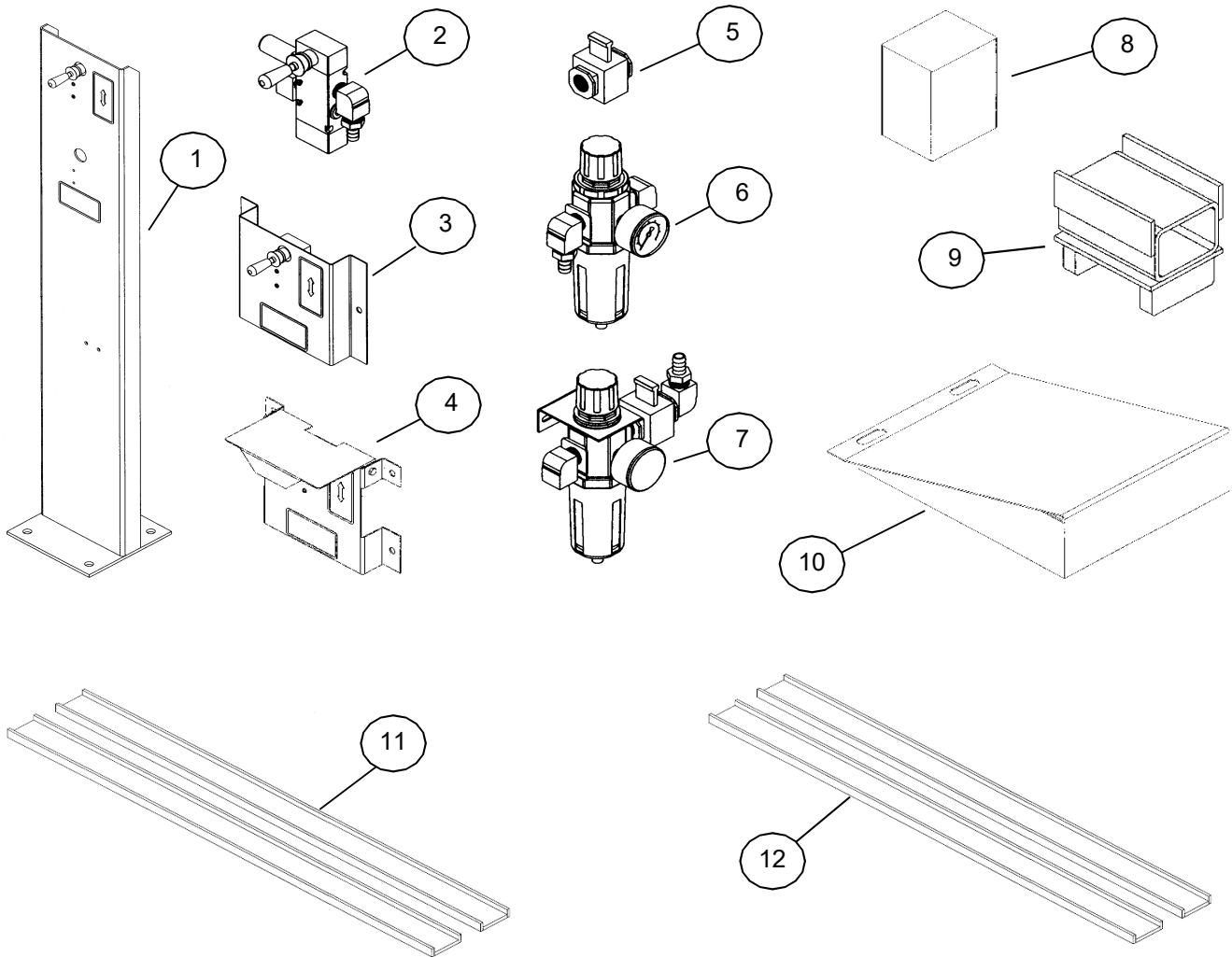
STEP 49

Repeat steps 65 - 70 for each of the opposite side. (see fig 9.)

STEP 50

Use the remaining length of hose (100-332) to join tee assembly to the controller. (see fig 9.)

Optional T200 Accessories



ID	Part #	Description	Qty	Units
1	12591	CONTROL MOUNT ASSY L-ONLY HAND (PED)	1	EA
2	12592	VALVE ASSY HAND LIFT-ONLY W/MUFFLER	1	EA
3	12695	CONTROL MOUNT ASSY L-ONLY HAND (WALL)	1	EA
4	12864	CONTROL MOUNT ASSY (WALL & SAFETY COVER)	1	EA
5	1002450	VALVE LOCKOUT 1/2 NPT BLOCK - AL	1	EA
6	11028	VALVE ASSY FILTER/REG W/GAUGE	1	EA
7	12088	VALVE ASSY FILTER-REG/LOUT BLOCK AL	1	EA
8	12892	BLOCKS 160 X 120 X 100 (SOLD INDIVIDUALLY)	1	EA
9	12826	KIT RISER TRUCK FOR T200 (QTY 4)	1	EA
10	12572	RAMPS SHORT & NARROW (QTY 4)	1	EA
11	12692	KIT CROSS TUBE 10,000 LBS. LOW PROFILE	1	EA
12	12805	KIT CROSS TUBE 5,000 LBS. LOW PROFILE	1	EA
-	12693	KIT INSTALLATION FOR T200	1	EA
-	12694	KIT PLUMBING FOR T200	1	EA

Troubleshooting

Problem	Solution
Lift will not go up	<ol style="list-style-type: none"> 1 Check that air inlet is connected to the controller. 2 Check to ensure lockout is not engaged (if purchased option). 3 Check air hoses to ensure no kinks or cuts in the line. 4 Check to ensure no debris is preventing wheels from rolling in track. 5 Check regulator gauge (if purchased) set to minimum of 80psi
Lift is making a hissing noise	<ol style="list-style-type: none"> 1 Check all air lines to ensure they are properly connected and no leaks. 2 Check pressure relief valve. <i>If pressure relief valve is "leaking" lower lift immediately, the bags are in a state of over pressurization.</i> 3 Check air bag for cuts or holes.
Only 1 lift is functioning	<ol style="list-style-type: none"> 1 Check all air lines to ensure they are properly connected and no leaks. 2 Check air hoses to ensure no kinks or cuts in the line. 3 Check air bag for cuts or holes.
Lift is making a squeaking noise	<ol style="list-style-type: none"> 1 Lubricate center joint and wheel tracks
Lift system raises load unevenly	<ol style="list-style-type: none"> 1 Load is uncentered, recenter the vehicle and repeat lift process 2 Hose lengths are not correct. Verify proper hose lengths as stated in steps 58 - 71 in the "Plumbing Instructions" section of the manual.

Notes
