

This manual covers the operation, maintenance and spare parts information for Ancra International's Retract-A-Roll conveyor systems.

The Retract-A-Roll system provides for raising and lowering of conveyor rollers within the floor of a truck or trailer body allowing for more versatile use of the vehicle.

Bulk cargo, containers and pallets may be loaded directly on the floor when the systems rollers are retracted. The cargo may be easily moved about and positioned, then the rollers retracted prior to transport.

1.0 NORMAL OPERATIONS

- 1.1 Operate the truck or tractor long enough to charge air reservoir(s) to full brake system operating pressure (100PSI).
Note: On trailer mounted systems the air reservoir is charged only when the trailer is connected to the tractor allowing air flow into the reservoir.
- 1.2 Check air pressure regulator to ensure it is set at 30 PSI. The air pressure regulator can be found within the control box.
- 1.3 All roller conveyors are raised simultaneously by operating the main control valve. Move the valve handle in line with the airflow path to raise the roller system. Move the valve handle across the flow air flow path to lower the system
- 1.4 Installations are set up to allow control of individual lanes of conveyor. You may isolate individual lanes of conveyor by turning the lane control valves located in the control box.

WARNING! NEVER MOVE VEHICLE WITH ROLLERS IN THE UP POSITION

2.0 LOADING

- 2.1 Park the truck/trailer in line with the loading dock. Set brakes on vehicle.
- 2.2 Open the cargo compartment door and check to be sure the floor is clear of debris. If the trailer floor has pallet stops installed, be sure they are in the down position.
- 2.3 Adjust the height of the loading ramp to be ½ in. above the trailer floor. This will allow for roller lift clearance.
- 2.4 Open the R-A-R system control box and move the main control valve handle to the "UP" position.
- 2.5 Move containers into the vehicle one at a time. If the trailer has pallet stops installed, raise behind each unit loaded.
- 2.6 Lower roller floor using the main valve within the control box.

Note: Truck/trailer height may change as a result of cargo loading. This will require adjustment of loading ramp height to maintain proper floor to ramp elevation.

WARNING! VEHICLE MUST BE LEVEL OR SLIGHTLY DOWN IN THE FRONT TO PREVENT CONTAINERS FROM ROLLING OUT UNCONTROLLED WHEN SYSTEM IS RAISED.

3.0 UNLOADING:

- 3.1 Park truck/trailer in line with the loading ramp. Set parking brake on vehicle.
- 3.2 Open Cargo Compartment doors.
- 3.3 Adjust the height of the loading ramp to be ½ in. above the trailer floor. This will allow for roller lift clearance.
- 3.4 Open R-A-R system control box and move main control valve to the “UP” position. This will raise rollers and all containers above the floor.
- 3.5 If pallet stops are installed, lower stop behind aft container and roll container out of the vehicle onto the loading ramp.
- 3.6 Proceed with second, third, etc. until vehicle is unloaded
- 3.7 If vehicle is to be reloaded with bulk or non-containerized cargo, lower conveyor system to avoid damage to system components.

4.0 AUXILIARY AIR OPERATION:

- 4.1 In situations where the air reservoir is empty and normal recharging is not practical, an auxiliary air inlet has been provided.
- 4.2 A “Shrader Valve” (tire valve stem) is located within the system control box. This valve will provide for attachment of a shop airline with standard tire inflation connector with gauge.
- 4.3 For a continuous air supply, attach shop air to auxiliary air inlet and move the main control valve to the “UP” position.
- 4.4 To fill air reservoir, attach shop air to auxiliary air inlet and move the main control valve to the “DOWN” position.

WARNING! NEVER FILL AIR RESERVOIR OVER 100PSI

5.0 MAINTENANCE SCHEDULE

5.1 DAILY MAINTENANCE

- 5.1.A Drain reservoir(s) – Pull relief valve chain located at bottom of air tank(s) to reduce condensation build-up.

5.2 WEEKLY CHECK

- 5.2.A With air tank(s) fully charged to 100 PSI, check regulator to ensure it is functioning properly. The regulator should read 30PSI.
- 5.2.B Raise conveyor and check rollers for damage and smoothness of operation.

5.3 MONTHLY CHECK

5.3.A Perform weekly check

5.3.B Check all airline connections – With rollers in the raised position, check for leaks and damage at reservoir, control box, and under chassis going to the conveyor system

5.3.C Tighten and/or replace components as required

5.4 SEMI-ANNUAL CHECK:

5.4.A Perform weekly and monthly check

5.4.B With conveyor lowered, remove cover plates and remove any accumulated dirt and debris from roller trays and main channel.

RECORD ALL WEEKLY, MONTHLY, AND SEMI-ANNUAL CHECKS FOR FUTURE MAINTENANCE REFERENCE AND WARRANTY COMPLIANCE

6.0 REPAIR / REPLACEMENT

Your Retract-A-Roll system was designed for ease of maintenance and parts replacement. All conveyor system components are easily removed for cleaning or repair without disturbing the adjacent floor or main conveyor channel.

CAUTION! Be sure the main valve is in the “DOWN” or OFF position BEFORE removing any components.

7.0 CONTROL / SUPPLY SYSTEM (See Figure 1 for replacement Parts)

7.1 All airline components, tank, control box, etc. are externally mounted beneath the truck/trailer chassis and are easily accessible for removal and or replacement.

8.0 CONVEYOR DISASSEMBLY: (See Figures 2 & 3)

8.1 If the removal of rollers or air bag is necessary, remove top plate screws, pull up and back to free top plate from retaining pins at the middle and far end of conveyor assembly. To remove roller tray, push down and to the side, rotate tray within channel to clear inside channel flange.

9.0 ROLLER REPLACEMENT

9.1 Remove cover plate and roller tray as mentioned previously. With roller tray removed, individual rollers may be removed by extracting the rue ring at the end of each axle. When replacing rollers, be sure “T” head end of axle is UNDER the flange on the tray extrusion. reinstall rue ring in opposite end of axle. Check to see roller rotates freely on shaft.

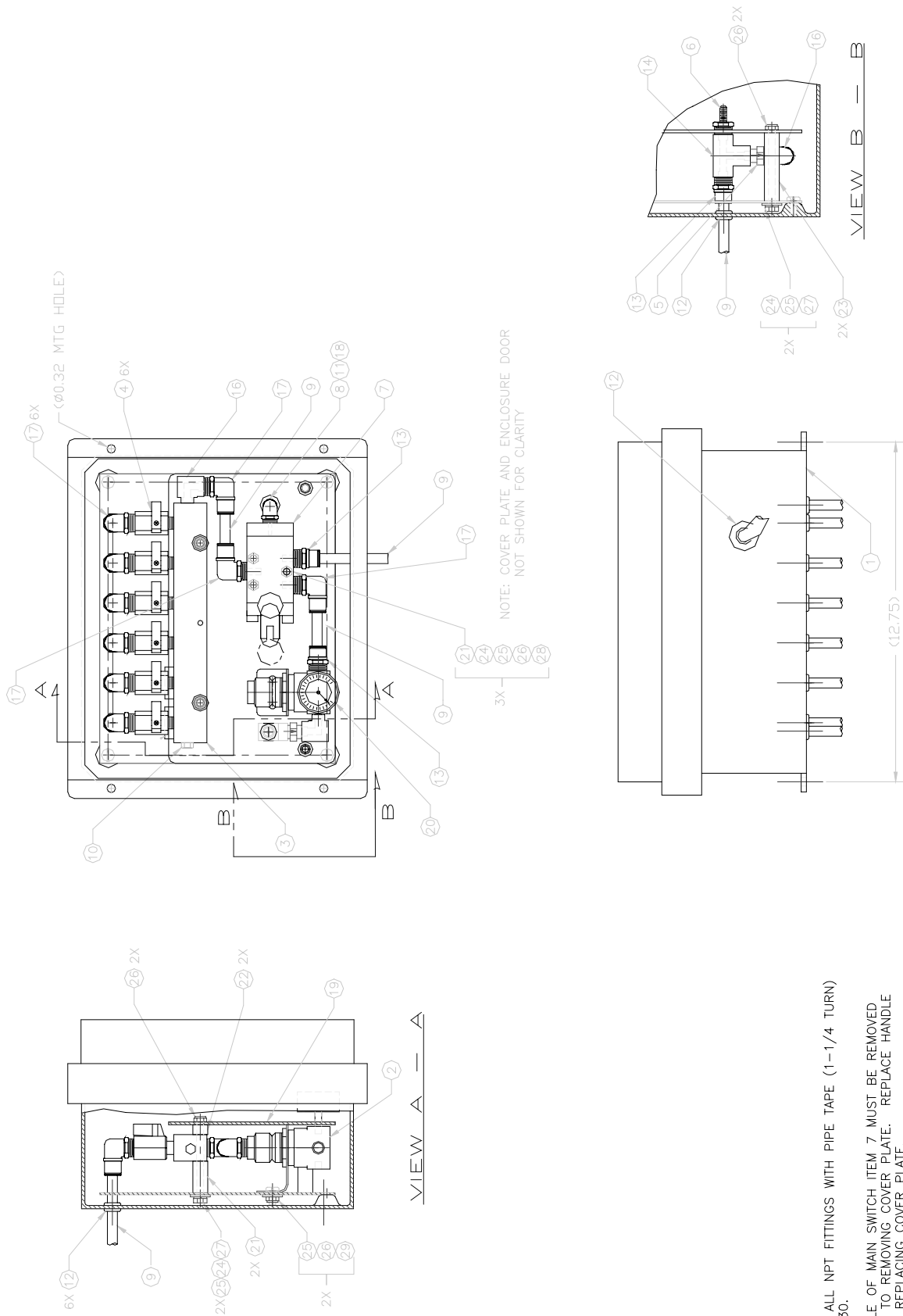
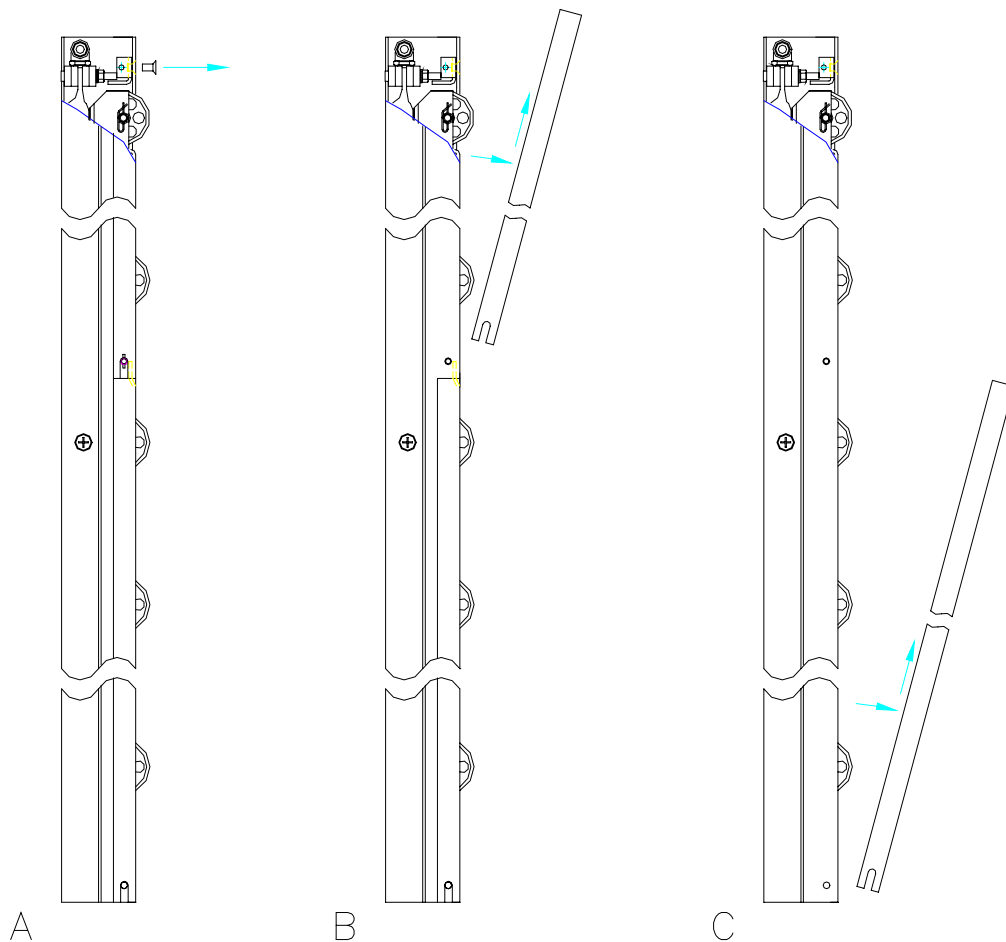


Figure 1: Control Box

- NOTES:
1. WRAP ALL NPT FITTINGS WITH PIPE TAPE (1-1/4 TURN) ITEM 30.
 2. HANDLE OF MAIN SWITCH ITEM 7 MUST BE REMOVED PRIOR TO REMOVING COVER PLATE. REPLACE HANDLE AFTER REPLACING COVER PLATE.

Part list for Figure 1

ITEM	PART NO.	DESCRIPTION	UNITS PER ASSEMBLY	
			62021-10	
1	62025-10	ENCLOSURE	1	
2	62029-10	REGULATOR	1	
3	47231-10	MANIFOLD	1	
4	62027-10	VALVE, BALL 1/4 TURN	6	
5	62030-10	VALVE, CHECK	1	
6	47047-11	VALVE, AUXILIARY AIR	1	
7	47251-10	VALVE, 3-WAY, MAIN	1	
8	47049-10	TUBING, 1/4" x 3"	1	
9	47049-11	TUBING, 3/8" x 3"	10	
10	47055-11	PLUG 1/4"	1	
11	60337-10	GROMMET, RUBBER 1/4 ID 5/8 OD	1	
12	60337-11	GROMMET, RUBBER 3/8 ID 5/8 OD	8	
13	47061-13	FITTING, PRESS FIT TUBE	3	
14	47052-10	TEE, BRASS	1	
15	62033-10	ELBOW, BRASS	2	
16	47062-10	ELBOW, PRESS FIT TUBE	9	
17	47062-12	ELBOW, PRESS FIT TUBE	1	
18	62031-10	PLATE, COVER	1	
19	62032-10	GAUGE, LIQUID FILLED	1	
20	47053-16	SPACER 1.19" LONG	5	
21	47053-17	SPACER 0.37" LONG	2	
22	47053-18	SPACER 2.56" LONG	2	
23	1415FAC0800	WASHER, LOCK, SPRING TYPE	7	
24	1411EAC0800	WASHER, FLAT, USS	9	
25	1354BAC08SL	HEX NUT, SELF LOCK RED. HEIGHT	9	
26	1118AAC0848	BOLT, 1/4-20 x 3.0	4	
27	1118AAC0844	BOLT, 1/4-20 x 2.75	3	
28	1243DAC0808	SCREW, PAN HEAD 1/4-20 x .5	2	
29		PIPE TAPE, TEFLON 1/2" WIDE	2	



TO REMOVE COVER PLATES:

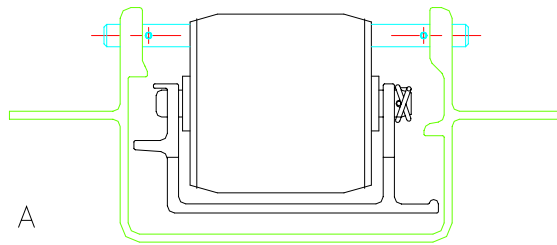
1. REMOVE TWO (2) FLAT HEAD SCREWS FROM FRONT COVER PLATE. (FIG. A)
2. LIFT AND PULL FRONT COVER PLATE TO REMOVE IT. (FIG. B)
3. LIFT AND PULL REAR COVER PLATE TO REMOVE IT. (FIG. C)

TO REPLACE COVER PLATES:

REVERSE ABOVE STEPS. MAKE SURE EACH TOP PLATE IS PROPERLY SEATED ON PINS, AND MAKE SURE TAB ON REAR PLATE IS UNDER FRONT PLATE AFTER INSTALLATION.

NOTE: THE TOP PLATES HAVE A SLIGHT CAMBER TO IMPROVE INSTALLED STRENGTH. IT MAY BE NECESSARY TO DEPRESS THE TOP SURFACE DURING INSTALLATION.

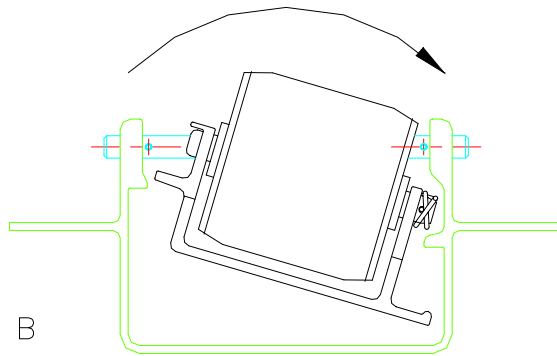
Figure 2: Removing Cover Plate



A

TO REMOVE TRAY:

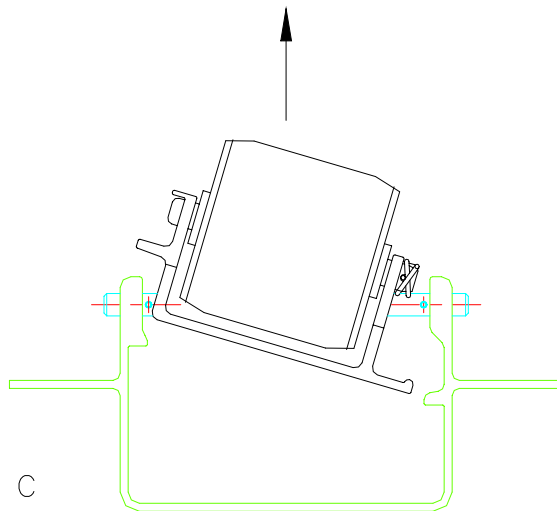
1. BEGIN WITH SYSTEM DEFLATED AND COVER PLATES REMOVED. (FIG. A)
2. PRESS DOWN AND ROTATE TRAY AS SHOWN. (FIG. B)
3. LIFT TRAY CLEAR OF CHANNEL. (FIG. C)



B

TO REINSTALL TRAY:

REVERSE ABOVE PROCEDURE, MAKING SURE NOTCH IN TRAY IS ALIGNED WITH CHANNEL GUIDE.



C

Figure 3: Removing Roller Tray

10.0 AIR BAG REMOVAL:

- 10.1 Remove cover plate and roller tray assembly as described in paragraph 8.1. Disconnect the airline from the airbag fitting by pushing out on the locking collar of the fitting, as shown in Figure 4. Lift the bag out of the main channel. If the bag is suspected of excessive air leakage, proceed with "Leakdown Test" as outlined in Section 11.0

11.0 AIR BAG LEAKDOWN TEST (See Figure 5)

CAUTION! As a safety precaution, you must provide a heavy blanket or tarp to loosely wrap air bag in case the bag ruptures. DO NOT PERFORM THIS TEST WITHOUT THIS SAFEGUARD.

- 11.1 Regulate air source pressure to 30 PSI before attaching bag.
- 11.2 Turn shutoff valve to off position
- 11.3 Attach plastic tube to air bag inlet. Wrap air bag assembly loosely in heavy tarp or blanket
- 11.4 Open "shut off" valve slowly allowing bag to inflate slowly. Allow pressure gage between valve and bag to stabilize at 30 PSI
- 11.5 Close "shut off" valve trapping air in bag and gage.
- 11.6 Allow bag to set for 15 minutes and check for drop of pressure on gage.
- 11.7 Air bag should show no more than 8PSI leakage (22 PSI gage pressure) after 15 minutes.
- 11.8 If loss is greater than 8 PSI, track must be isolated and/or bag replaced.
- 11.9 If leakage is due to damaged bag, or bag end seals, replace entire bag as described in Section 12.

12.0 AIR BAG REPLACEMENT (See Figure 6 for replacement parts)

- 12.1 Remove nuts and bolts securing clamp and adapter to bag at air inlet.
- 12.2 Remove nuts and bolts securing seal plates to opposite end of bag.
- 12.3 Clean any sealant residue from air inlet, adapter, bolts or fitting.
- 12.4 Start assembling new bag at air inlet end. Open bag and apply a thin coating of Silicone sealer all around the inside of the bag for .75 to 1.00 in. from the end.
- 12.5 Place the air inlet adapter in the center of the bag opening with one end of its flat sides up. Its chamfered end must be inside the bag and the outside end of the adapter flush with the end of the bag.
- 12.6 Sandwich the bag between the two aluminum clamps and squeeze the clamp bar together over the inlet adapter. Be sure to keep the edge of the clamps within .06 in. of the end of the bag.

PUSH-IN FITTINGS

Press firmly on collet ring
to remove tubing.

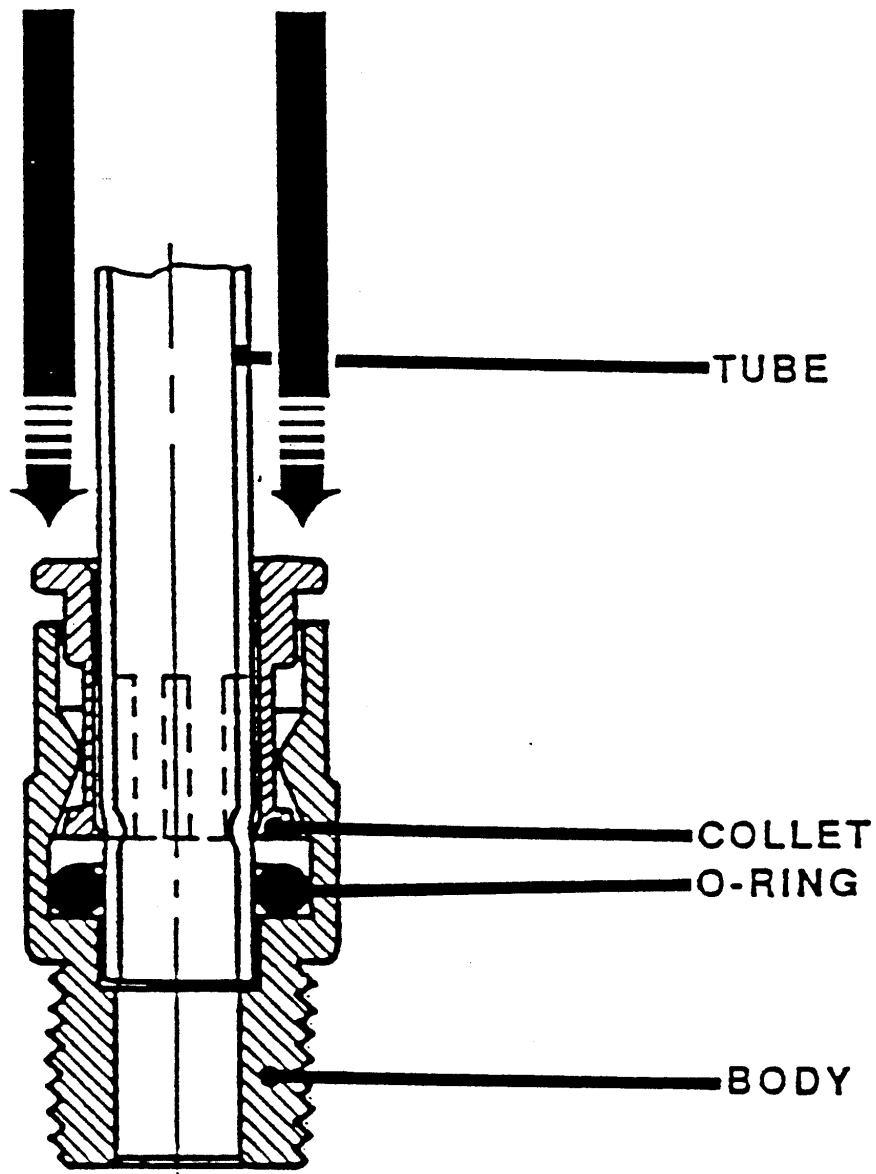


Figure 4: Typical Air Line Fitting Actuation.

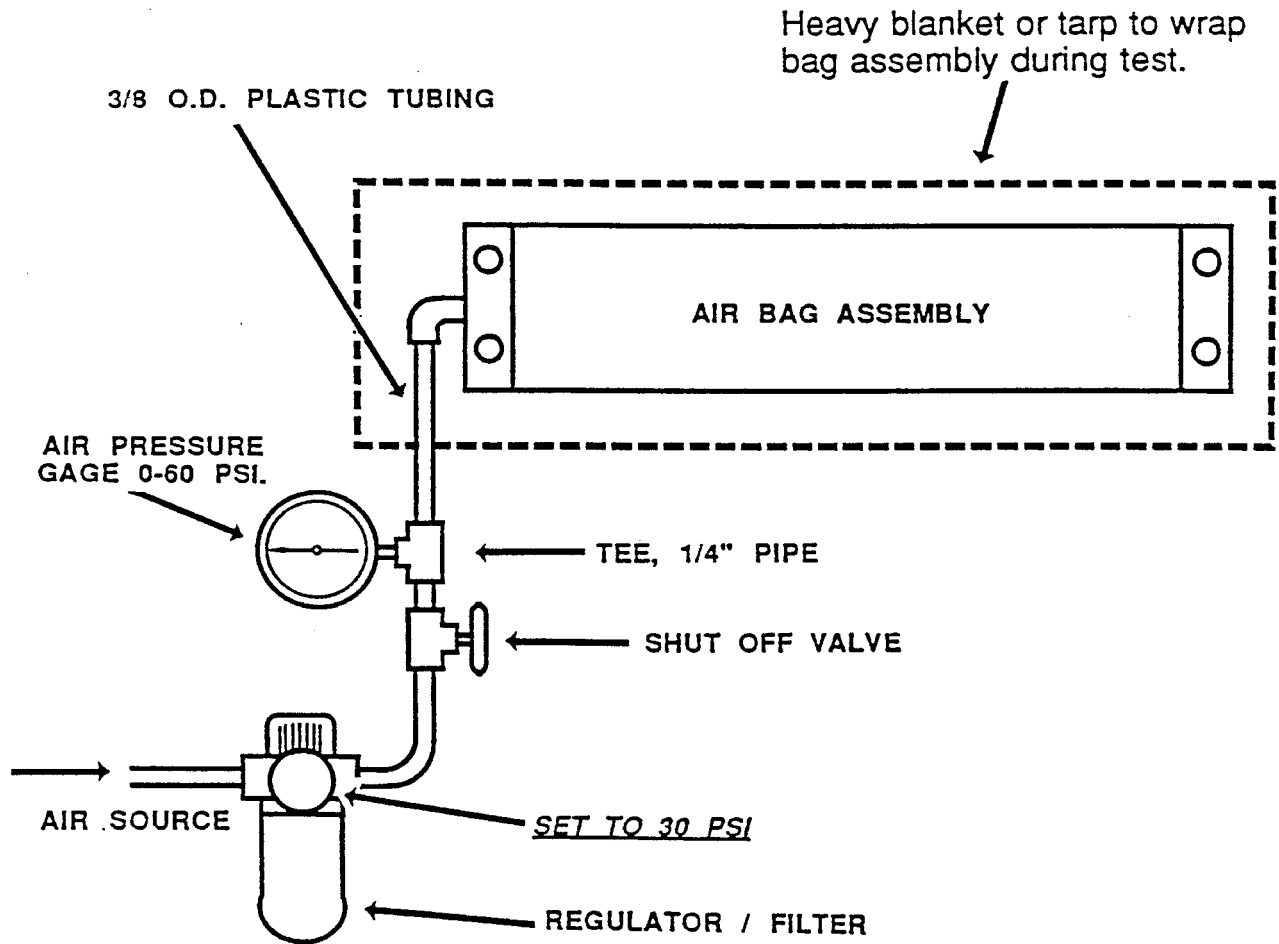


Figure 5: Air Bag Assembly - Leakdown Test Set-Up

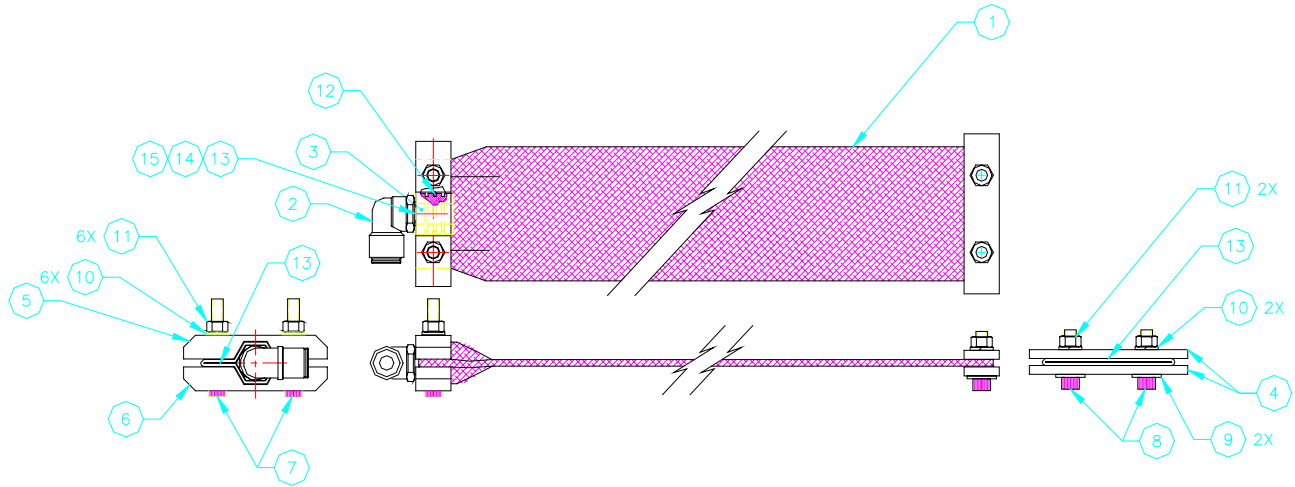


Figure 6: Air Bag

ITEM	PART NO.	DESCRIPTION	UNITS PER ASSEMBLY
			62021-10
1	47416-10-154.75	HOSE, AIR, BAG	1
2	47062-10	90 DEG. ELBOW SWIVEL	1
3	47027-10	ADAPTER, 1/4" PIPE TO TUBE	1
4	47030-10	PLATE	2
5	47028-10	CLAMP	1
6	47028-11	CLAMP W/ C-BORE	1
7	47025-10	BOLT, ALLEN HEAD 1.00"	2
8	47025-11	BOLT, ALLEN HEAD 1.75"	2
9	1412EAC0800	WASHER	2
10	1415EAC0800	WASHER, LOCK	4
11	1343BAC0800	NUT	4
12	AS568-114	O-RING	1
13		SEALANT-RTV CLEAR SILICONE	AR
14	59321	SEALANT, PIPE	AR
15		PIPE TAPE, TEFLON 1/2" WIDE	AR

- 12.7 Hold this assembly together with a “C” clamp or vise and using a .25” dia. drill bit, drill through the clamp holes into the air bag in two places.
- 12.8 Coat the shank of the .25” bolts with silicone sealer and install through clamp bars and bag. Fasten with flat washers and nuts.
- 12.9 Torque nuts to 75 – 100 inch pounds and wipe off excess sealant.
- 12.10 Lay bag out flat on work bench, be sure bag is flat and straight. Measure and mark the distance required between clamp and sealing plate. This distance should be the same as your main channel assembly minus .75 inches.
- 12.11 Open the opposite end of the bag and apply silicone sealant around the inside. Close the bag flat on itself.
- 12.13 Locate the plates to your mark on the bag and transfer drill onto the bag for clamp bolts.
- 12.14 Apply silicone sealant to the shank of the .25 bolts and install through plates, use flat washers and lock nuts on the topsides. Torque to 75 – 100 inch pounds.
- 12.15 Recheck measurements to ensure proper length and trim excess bag protruding beyond the plates.
- 12.16 Set bag aside for 24 hours to allow sealant to cure before applying air pressure or running leak down test.

13.0 ILLUSTRATED PARTS LIST:

The following pages contain schematics of the control and supply systems as well as identification part number information for all components of the 62028-11 and 62053-11 systems.

13.1 PART ORDERING:

Use Only Ancra International original equipment parts for replacement. Parts are available from:

ANCRA INTERNATIONAL LLC
2685 CIRCLE PORT DR.
ERLANGER, KENTUCKY 41018

1-800-233-5135 CUSTOMER SERVICE
1-800-347-2627 FAX

13.2 PART ORDERING

When ordering give part number, description, and quantity required. When ordering length sensitive items such as top plates, roller tray, air bags, etc., be sure to include special length and roller spacing information to insure proper replacement part is shipped.

13.3 SYSTEMS IDENTIFICATION

The system installed in your vehicle can be identified by the part number stamped on the nameplate located inside the control panel door. In the absence of a nameplate the differences between the 62028 Series and the 62053 Series systems are easily recognized as shown in Figure 7 and Figure 8. Control package for both series are the same.

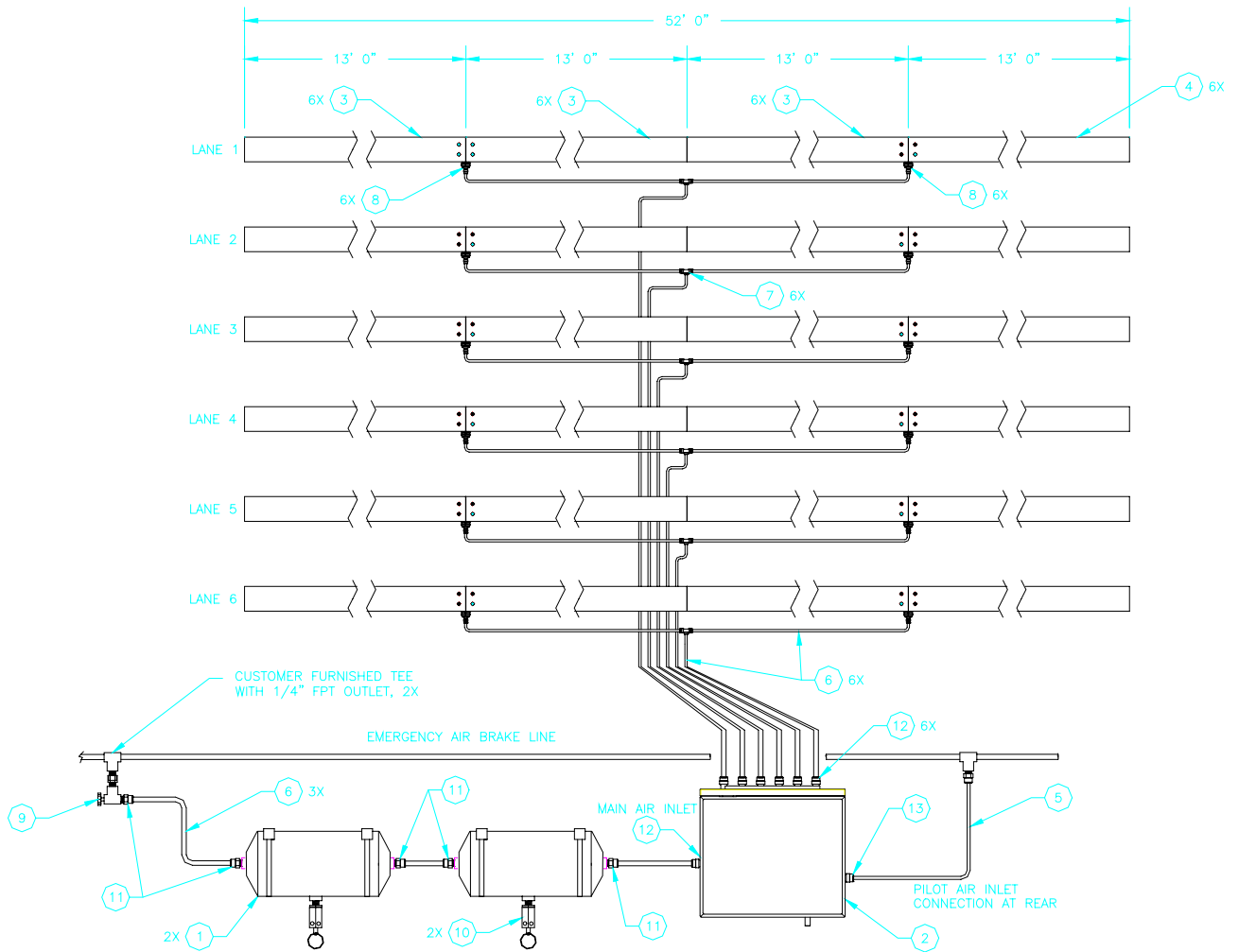


Figure 8: 62053 System

Part List for Figure 7 and Figure 8

ITEM	PART NO.	DESCRIPTION	UNITS PER ASSEMBLY	
			62028-11	62053-11
1	60169-10	AIR TANK KIT	2	2
2	62011-10	SYSTEM CONTROL KIT	1	1
3	62022-20	CHANNEL ASSEMBLY 6" PITCH	6	18
4	62022-21	CHANNEL ASSEMBLY COMBO	6	6
5	47049-10	TUBING, 1/4 DIA.	5 FT.	5 FT.
6	47049-11	TUBING, 3/8 DIA.	100 FT.	200 FT.
7	47065-10	FITTING, TEE TUBE	0	6
8	49267-10	FITTING, TUBE TO TUBE, "Y"	6	12
9	47058-10	VALVE, PRESSURE PROTECTION	1	1
10	47230-10	VALVE, DRAIN - AIR TANK	2	2
11	47061-13	ADAPTER, PIPE TO TUBE	5	5
12	62034-10	FITTING, TUBE TO TUBE, 3/8 DIA.	7	7
13	62034-11	FITTING, TUBE TO TUBE, 1/4 DIA.	1	1

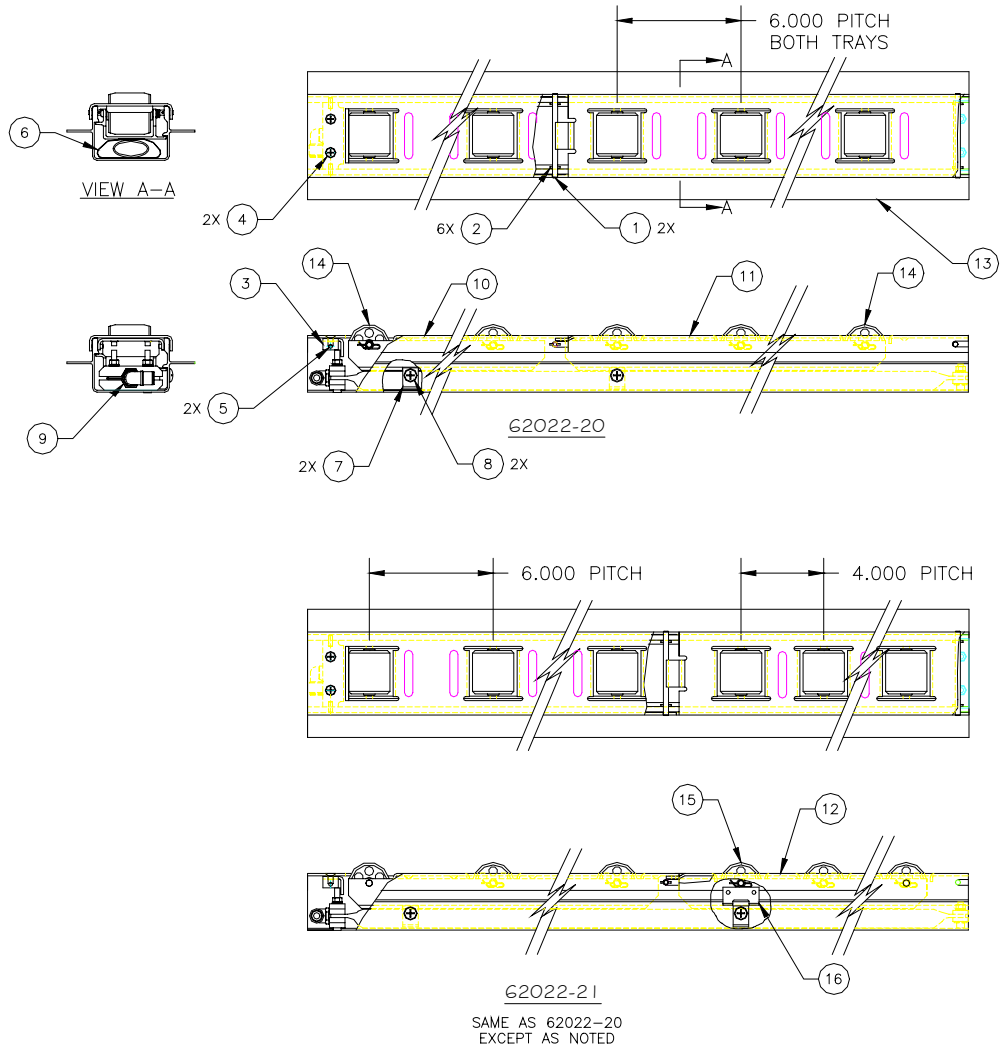


Figure 9: Channel Assy.

Part List for Figure 9.

ITEM	PART NO.	DESCRIPTION	UNITS PER ASSEMBLY	
			62022-20	62022-21
1	62020-10	PIN, COVER PLATE RETAINER	2	2
2	1530PAC0508	PIN, SPIROL - STANDARD DUTY	4	4
3	62019-10	END BLOCK - CHANNEL	1	1
4	93085A557	SCREW, FLAT HEAD PHILLIPS	2	2
5	91385A537	SET SCREW, SELF LOCKING	2	2
6	62024-10-153.00	SLEEVE, AIR BAG PROTECTOR	1	1
7	47410-11	STOP, ROLLER TRAY	2	2
8	90271A578	SCREW, TRUSS HEAD	2	2
9	62021-10	AIR BAG ASSEMBLY	1	1
10	62017-11	COVER PLATE, FRONT	1	1
11	62017-10	COVER PLATE, REAR	1	0
12	62017-12	COVER PLATE, REAR	0	1
13	62018-10	CHANNEL	1	1
14	60108-37	TRAY ASSEMBLY	2	1
15	60108-35	TRAY ASSEMBLY	0	1
16	48816-10	REINFORCEMENT KIT	0	1