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1-5 LUBRICATION INSTRUCTIONS
1-6 BLANK
1-7 PREVENTIVE MAINTENANCE SCHEDULE
1-8 BLANK
1-9 SCHEDULED MAINTENANCE RECOMMENDATIONS
1-10 SCHEDULED MAINTENANCE RECORDS

DRAWINGS, MAINTENANCE INSTRUCTIONS & PARTS

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2-2 ELECTRICAL SYSTEM WIRING SCHEMATIC
2-3 ELECTRICAL SYSTEM PARTS LIST
2-4 TYPICAL 7-WAY OUTLETS ON BOX TYPE C/M
2-5 TYPICAL 7-WAY OUTLETS ON “I” BEAM C/M
2-6 STANDARD 12 VOLT WIRING SCHEMATIC
(USING PILOT AIR OR VERSA VALVES-FOR OTHERS SEE SPECIAL OPTIONS)
2-7 SINGLE HOPPER GATE CONTROL SWITCH WIRING
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3-4 FILTER DRAWING AND PARTS LIST
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3-6 PILOT AIR “D” VALVE DRAWING & PARTS LIST
3-7 TASKMASTER VALVE DRAWING & PARTS LIST
3-8 8X30 AIR CYLINDER DRAWING & PARTS LIST
3-9 7X30 & 6X30 AIR CYLINDER DRAWING & PARTS LIST
3-10 ROD SEAL & PISTON SEAL DRAWING & PARTS LIST
3-11 3/8” QUICK RELEASE VALVE DRAWING & PARTS LIST
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3-16 BLANK
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4-1 ABS BRAKE SYSTEM INFORMATION SHEET
4-2 STANDARD TANDEM AXLE ABS BRAKE SYSTEM
4-3 STANDARD TRI-AXLE ABS BRAKE SYSTEM
4-4 BLANK
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5-1 AXLE SYSTEM INFORMATION SHEET
5-2 BLANK
5-3 TYPICAL AXLE DRAWING AND PARTS IDENTIFICATION
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SECTION SIX
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6-1 SUSPENSION SYSTEM INFORMATION SHEET
6-2 SINGLE POINT H-900 SUSPENSION DRAWING
6-3 SINGLE POINT H-900 SUSPENSION PARTS LIST
6-4 FOUR SPRING H-9700 SUSPENSION DRAWING
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6-8 BLANK
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7-2  STATIONARY & REMOVABLE DROP LEG DRAWINGS & PARTS LIST
7-3  PUSH BLOCK AND UNDERIDE DRAWINGS & PARTS LIST
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SPECIAL OPTIONS

IF YOUR TRAILER HAS ANY OF THE FOLLOWING SPECIAL OPTIONS THE DRAWINGS AND PARTS LIST FOR THOSE OPTIONS CAN BE FOUND IN THIS SECTION:

A. TARP
   a. CRAMARO TARP PAGE 1
   b. CRAMARO TARP PAGE 2
   c. CRAMARO TARP PAGE 3
   d. CRAMARO TARP PAGE 4

B. PIN SETTING EQUALIZERS

C. ROSS VALVE
   a. ROSS VALVE PAGE 1
   b. ROSS VALVE PAGE 2
   c. ROSS VALVE PAGE 3

D. PINTLE HITCH
   a. PINTLE HITCH PAGE 1
   b. PINTLE HITCH PAGE 2

E. SWITCH GATE
   a. SWITCH GATE PAGE 1
   b. SWITCH GATE PAGE 2

F. SPECIAL PUSH BLOCKS

ITEMS IN THIS SECTION APPLY ONLY TO THE SPECIFIC TRAILER SERIAL NUMBER THAT THIS PARTS CATALOG IS MADE FOR.
SECTION ONE

CONSUMER INFORMATION

GENERAL OPERATION INSTRUCTIONS

LUBRICATION

PREVENTIVE & SCHEDULED MAINTENANCE
CONSUMER INFORMATION

REPORTING SAFETY DEFECTS

If you believe that your vehicle has a defect, which could cause a crash or could cause injury or death, you should immediately inform the National Highway Traffic Safety Administration (NHTSA) in addition to notifying Ranco Trailers.

If NHTSA receives sufficient similar complaints, it may open an investigation and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, NHTSA cannot become involved in individual problems between you, your dealer or Ranco Trailers.

To contact NHTSA, you may either call the Auto Safety Hot Line toll free at 1-800-424-9393 (or 366-0123 in Washington DC area) or write to NHTSA, U.S. Department of Transportation, Washington, D.C. 20590. You can also obtain other information about motor vehicle safety from the Hot Line.

GENERAL INFORMATION

Maintenance should be performed by a Ranco dealer or other qualified service facility that regularly provide such service. Alterations to a Ranco trailer should not be made without first consulting Ranco.

Alterations could affect the structural integrity of the trailer and void the warranty. Welding or other alterations should never be made to any air reservoir, wheel, rim, air chamber or spring.

The gross axle weight rating (GAWR) that is stamped on the certificate plate is the structural capacity of the lowest rated component of the suspension, springs, hubs, drums, wheels, rims, bearings, axles or tires.

If components are substituted that affect GAWR and are of less capacity than those originally installed, the GAWR on the certificate plate must be lowered to the corresponding lower capacity by adding an “ALTERED VEHICLE” label. If components are substituted that are of equal or greater capacity that those originally installed, then the GAWR label need not be changed.

Protective films such as paints and other coatings, are necessary to prevent corrosion and to protect the metal surfaces. Trailers that operate in environments that are conducive to severe corrosions may require more or different protective coating that those usually applied as standard. Check with your Ranco dealer or the factory for recommendations on coatings for corrosive materials.

There are “WARNING” and “CAUTION” decals prominently displayed on all Ranco Trailers. These should be followed to the letter by all personnel operating or working on the vehicle.
OPERATING INSTRUCTIONS

OPERATOR PRE-START CHECKS

BEFORE BACKING UNDER THE TRAILER, BE SURE THAT THE TRUCK 5TH WHEEL IS PROPERLY GREASED AND THAT THE 5TH WHEEL HEIGHT IS COMPATIBLE WITH THE 5TH WHEEL PIN HEIGHT.

CHECK SPRING BRAKES TO INSURE THAT THEY ARE PROPERLY SET SO THAT THE TRAILER WILL NOT SLIDE BACK WHEN THE TRACTOR IS BACKED UNDER THE 5TH WHEEL. THIS TRAILER IS EQUIPPED WITH SPRING BRAKES THAT WILL LOCK THE BRAKES WHEN ALL AIR LINES ARE DISCONNECTED FROM THE TRACTOR AND WILL ONLY RELEASE AFTER THE AIR BRAKE PRESSURE IN THE AIR TANKS EXCEEDS 100 POUNDS.

STARTING PROCEDURE AND CONTROLS

AFTER BACKING THE TRACTOR UNDER THE TRAILER AND INSURING THAT THE 5TH WHEEL IS LOCKED BY ATTEMPTING TO PULL AHEAD, THE AIR LINES AND ELECTRICAL CONNECTOR SHOULD BE CONNECTED PROPERLY, ENSURING THAT THE SERVICE AND EMERGENCY GLADHANDS ARE CONNECTED TO THE SERVICE AND EMERGENCY GLADHANDS ON THE TRAILER. ALL GLADHANDS SHOULD BE COLOR CODED, SERVICE (BLUE) AND EMERGENCY (RED). AFTER PROPER CONNECTION IS MADE, THE VALVE IN THE TRACTOR THAT ALLOWS AIR TO FLOW TO THE TRAILER SHOULD BE OPENED.

WHILE AIR PRESSURE IS BEING BUILT IN THE TRAILER TANKS THE OPERATOR SHOULD PERFORM THE FOLLOWING INSPECTIONS AND PROCEDURES TO INSURE THAT THE TRAILER IS IN OPERATIONAL CONDITION WHEN THE AIR PRESSURE IS BUILT UP SUFFICIENTLY TO RELEASE THE BRAKES.

1. RAISE THE PARKING LEGS OF THE TRAILER TO THE TRAVEL POSITION.
2. CHECK THE TIRES FOR PROPER INFLATION AND TO INSURE THERE ARE NO CUTS OR BRUISES THAT WILL LEAD TO TIRE FAILURE ON THE ROAD. WHILE CHECKING THE TIRES, THE OPERATOR SHOULD ALSO OBSERVE THE LEVEL OF OIL IN THE STEMCO OIL SEALS. (REFER TO LUBRICATION SECTION)
3. TURN ON THE TRACTOR LIGHTS AND CHECK ALL TRAILER LIGHTS FOR PROPER OPERATION. REPLACE LIGHTS OR BULBS THAT ARE NOT OPERATING PROPERLY.
4. AT THIS TIME THE AIR PRESSURE SHOULD HAVE BUILT UP SUFFICIENTLY TO HAVE RELEASED THE BRAKES ON THE TRAILER. CHECK TO SEE THAT ALL BRAKES HAVE IN FACT RELEASED. IF THEY HAVE NOT RELEASED CHECK TO SEE WHY AIR IS NOT GETTING TO THEM
5. AFTER THE BRAKES HAVE RELEASED, CHECK FOR AIR LEAKS. LISTEN FOR ANY AIR LEAKS IN THE AIR GATE OPERATING SYSTEM AS WELL AS IN THE AIR BRAKE SYSTEM. ANY LEAK DISCOVERED SHOULD BE FIXED PRIOR TO ATTEMPTING TO OPERATE THE TRAILER.
6. CHECK THE GATE CONTROL CHAINS (OR PIN SETTING EQUALIZER) ON THE FRONT AND REAR OF GATES TO ASSURE THEY ARE PROPERLY SET FOR THE PRODUCT BEING DUMPED AND ARE BOTH SET THE SAME
7. AFTER INSURING THAT THE TRAILER IS EMPTY OF ANY PRODUCT, CHECK THE FUNCTION OF THE DUMP VALVE USING THE MANUAL HANDLE ON THE SIDE OF THE TRAILER WHERE THE FILTER AND LUBRICATOR ARE LOCATED. PUSHING UP ON THE HANDLE WILL OPEN THE GATES AND WHEN THE HANDLE IS RELEASED THE GATES WILL CLOSE. (THE ABOVE INSTRUCTIONS APPLY WHEN USING THE STANDARD WABCO AIR VALVE. WHEN USING OTHER OPTIONAL VALVES, CONSULT THE SPECIAL OPTIONS SECTION OF THIS MANUAL FOR OPERATION OF THE TYPE OF VALVE INSTALLED ON THIS UNIT) THIS IS A GOOD TIME TO CHECK TO SEE THAT THE LUBRICATOR IS FUNCTIONING PROPERLY. WHEN THE GATES ARE CYCLED BY USING THE DUMP VALVE, APPROXIMATELY 4 TO 5 DROPS OF LUBRICANT SHOULD DROP FROM THE TUBE VISIBLE IN THE SIGHT GLASS AT THE TOP OF THE LUBRICATOR. IF NO OIL IS OBSERVED OR IS TOO MUCH IS OBSERVED, AN ADJUSTMENT CAN BE MADE USING THE SMALL ADJUSTING SCREW ON TOP OF THE OILER. IF EVERYTHING FUNCTIONS PROPERLY, RETURN TO THE TRACTOR AND USING THE TOGGLE SWITCH, CYCLE THE GATES AGAIN TO INSURE THAT THE ELECTRICAL CONNECTION IS WORKING.
OPERATION OF THE BASIC UNIT

A BOTTOM DUMP TRAILER IS DESIGNED TO HAUL AND DUMP A VARIETY OF MATERIALS, SAND, GRAVE, ROCK, DIRT, COAL, ETC. THERE ARE THREE BASIC WAYS TO DUMP A BOTTOM DUMP TRAILER.

1. DUMP OVER A GRIZZLY: DUMPING OVER A GRIZZLY IS THE SIMPLEST AND REQUIRES ONLY THAT THE DRIVER LOCATE THE HOPPER DOORS OVER THE GRIZZLY AND ACTIVATE THE DUMP SWITCH TO RELEASE THE LOAD. THE GATE CHAINS (PIN SETTING EQUALIZER) WOULD NORMALLY BE SET TO THE FULL OPEN POSITION UNLESS THE GRIZZLY IS VERY NARROW, IN WHICH CASE, THE GATES WOULD BE ADJUSTED ACCORDINGLY. DUMPING IN THIS MANNER IS USUALLY ACCOMPLISHED 10 SECONDS OR LESS. DEPENDING ON THE MATERIAL BEING DUMPED, THE OPERATOR MIGHT WANT TO BANG THE GATES CLOSED AND RE-OPEN THEM TO INSURE A COMPLETE CLEAN-OUT OF MATERIAL PRIOR TO PULLING OFF THE GRIZZLY.


3. SPREADING: SPREADING IS A DUMPING METHOD THAT IS GENERALLY USED WITH ROAD BASE, GRAVEL OR A SIMILAR PRODUCT AND IS USED TO BUILD UP AN EXISTING ROAD. IN THIS METHOD, THE GATES ARE CHAINED (OR PINNED) TO BETWEEN 12 AND 24 INCHES AND THE TRUCK SPEED IS MAINTAINED AT 15 TO 25 MILES PER HOUR. TO OBTAIN THE BEST RESULTS, SOME TRIAL RUNS ARE GENERALLY NECESSARY. THE IDEA IS TO SPREAD THE GRAVEL APPROXIMATELY 40 FEET WIDE BY 100 FEET LONG. DONE PROPERLY, THIS WILL RESULT IN 3 TO 4 INCHES OF GRAVEN IN THE CENTER OF THE ROAD AND 1 TO 1 ½ INCHES ON EACH EDGE OF THE ROAD. THIS METHOD IS USED BY MOST COUNTY AND STATE ROAD DEPARTMENTS TO RESURFACE GRAVEL ROADS.

SAFETY PRECAUTIONS

THE BOTTOM DUMP TRAILER IS BASICALLY A SAFE UNIT SINCE IT DOES NOT HAVE TO BE RAISED IN THE AIR TO DUMP, BUT THERE ARE SEVERAL AREAS THAT REQUIRE OPERATOR ATTENTION TO POTENTIALLY DANGEROUS SITUATIONS.

1. THE OPERATOR SHOULD INSURE THAT THE DUMPING AREA IS FREE OF ANY OBSTRUCTIONS THAT WOULD DAMAGE THE TRAILER. SINCE THE GATE CLEARANCE OF 16 TO 17 INCHES IS MORE THAN THE AXLE CLEARANCE OF THE TRUCK, ANY OBJECT THAT CAN BE CLEARED BY THE TRUCK WILL BE CLEARED BY THE TRAILER.

2. THE OPERATOR SHOULD INSURE THAT THE GROUND IS STABLE AND WILL SUPPORT THE FULLY LOADED TRUCK AND TRAILER WITHOUT BOGGING DOWN.

3. IF DUMPING AT ANY SPEED ABOVE THE LOWEST GEAR THE OPERATOR SHOULD NEVER DUMP IN ANY DIRECTION BUT STRAIGHT AHEAD.
PARTS LUBRICATION

TURNTABLE DETAIL
GREASE FIVE PLACES

AXLE DETAIL
GREASE FOUR POINTS

GATE BEARING
GREASE FOUR POINTS
LUBRICATION INSTRUCTIONS

GREASE:
There are several points on this trailer that require grease. Any standard lithium based multi-purpose grease will suit the requirements for greasing these points. Greasing should be accomplished every 100 hours or every 5000 miles during normal service.

As noted in the drawing on page 4, if you are pulling a pup trailer with a turntable there are 5 grease fittings. If you have a standard 5th wheel we have provided two grease fittings on top of the 5th wheel so that you can apply grease to the 5th wheel without unhooking from the trailer.

There are also 4 grease fittings on the gates, one on each gate bearing.

On each axle there are three grease fittings on the slack adjuster and on the brake camshaft housing.

AXLE LUBRICANT:
Any standard 90 weight gear lube is suitable for use in the axle seal cavity. The level of the lubricant should be approximately ¼ inch below the fill plug in the end of the Stemco oil seal. A line and the work “fill” is in this position. If the oil level should fall below the line marked “add” additional lubricant can be added thru the fill plug using any standard gear lube pump.

AIR LINE LUBRICATOR:
Any good quality 5 weight oil with an SSU of 100 to 110 should be adequate to use in the air line lubricator. (Note: heavier weight oils may plug small openings in the air system. Do not use oil heavier that 5 weight) The rate of oil delivery should be set at 4 to 5 drops for each complete cycle (open & close) of the hopper gate. The rate of oil delivery is controlled by turning the adjusting screw on top of the oiler counter-clockwise for increasing flow and clockwise for decreasing flow.

RECOMMENDED OILS TO USE IN OILER

AMACO-SPINDLE “C” OIL  
TEXACO-SPINDLE “B” OR SPINDLE OIL  
SHELL-TELLUS 21 HYDRAULIC OIL  
MOBILE-VEOCITE “D” OR VEOCITE #10  
EXXON-SPINESTIC 38 OIL  
CONOCO-SPINDLE OIL 24 OR 26

NOTE: DRAWINGS OF THE AIR LINE LUBRICATOR ARE LOCATED IN THE AIR GATE PARTS SECTION OF THIS MANUAL.
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BOTTOM DUMP TRAILER
PREVENTIVE MAINTENANCE

The following is a list of Preventive Maintenance measures that if followed will help keep your RANCO TRAILER in good working order and will result in a minimum of down time for your equipment.

DAILY CHECKS – MAINTENANCE

In addition to the daily inspection items that are required or recommended under DOT Regulations and any inspections/checks required by the Company, RANCO recommends that the following procedures be followed every day that your trailer is in use.

DRAIN ALL AIR TANKS – Refer to Post Shift section of Operating Instructions in Owners Manual & Yellow Decal on Trailer.

DRAIN AIR FILTER – Refer to General Lubrication & Maintenance in Owners Manual & Yellow Decal on Trailer.

CHECK LUBRICATOR FLUID LEVEL – Refer to General Lubrication & Maintenance in Owners Manual & Yellow Decal on Trailer.

CHECK BOTTOM DUMP GATE OPERATION – Refer to General Operating Instructions in Owners Manual.


WEEKLY CHECKS – MAINTENANCE

GREASE GATE HINGES, AXLE CAM BUSHINGS & SLACK ADJUSTERS - Refer to General Lubrication & Maintenance in Owners Manual & Yellow Decal on Trailer.


CHECK TIRE PRESSURE WITH GAGE – Refer to Tire Maintenance Section of General Lubrication & Maintenance in Owners Manual.

MONTHLY CHECKS – MAINTENANCE

CHECK SUSPENSION FOR CRACKS, WEAR & TORQUE VALUES – Refer to Suspension Section of General Lubrication & Maintenance in Owners Manual & Suspension Torque Requirements Decal on Suspension Sub-Frame.
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BOTTOM DUMP TRAILER
SCHEDULED MAINTENANCE

The following is a list of Scheduled Maintenance measures that if followed will help keep your RANCO TRAILER in good working order and will result in a minimum of down time. These Scheduled Maintenance procedures are best performed at your DEALERS shop unless you have a qualified shop of your own capable of handling these procedures.

AFTER 1st MONTH OF USE

TARP ADJUSTMENT - The cables and the tarp material tends to stretch once you start using the trailer. It is very important that the slack be taken out of the cables properly during this first check. -Refer to Tarp Adjustment Section on BACK of this page for adjustment recommendations.

CHECK TORQUE ON ALL SUSPENSION FASTENERS - Once the trailer is placed in service; the fasteners stretch slightly and may lose the torque values that were applied at the factory. It is important that these torque values be maintained in order for the suspension to operate properly. The proper torque values for your suspension are listed in the Suspension Fasteners Section on BACK of this page and on a Decal attached to the sub-frame of your trailer.

CHECK TORQUE ON ALL WHEEL END FASTENERS - The wheel end fasteners stretch just like the suspension fasteners, and the torque should be checked after the ~ month of service. Refer to Wheel End Fasteners Section on BACK of this page for proper torque values for different styles of wheels.

GREASE GATE HINGES, AXLE CAM BUSHINGS & SLACK ADJUSTERS - Proper Lubrication is most important in the operation of any type of dump trailer and a regular schedule should be set up and maintained. -Refer to Grease Section on BACK of this page, Page 1-4 & 1-5 of this Manual & Yellow Decal on Trailer.

CHECK FOR PROPER ADJUSTMENT AND OPERATION OF BRAKES - The air brake system is always set and checked at the factory, but after being in use for a short period of time problems may show up, so brakes should be checked after 1 month and every 6 months after that. - Refer to Air Brake Section on BACK of this page for the proper method of checking brake wear & settings.

CHECK FOR PROPER OPERATION OF GATE SYSTEM - Refer to Operation of Gate System Section on BACK of this page.

CHECK TIRES FOR PROPER INFLATION AND WEAR - Refer to Tire Section on BACK of this page for proper inflation and tread depth information.

AFTER 6 MONTHS OF USE - REPEAT ALL CHECKS FROM 1st MONTH

AT 1 YEAR OF SERVICE - REPEAT ALL CHECKS FROM 6 MONTHS OF SERVICE
**TARP ADJUSTMENT**

<table>
<thead>
<tr>
<th>Item</th>
<th>Recommended</th>
<th>Checked By</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable Tension</td>
<td>Not touching 18&quot; ahead of rear pulley</td>
<td></td>
<td></td>
</tr>
<tr>
<td>V-Belt or Chain</td>
<td>Firm Tension</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tarp Length</td>
<td>Stretched tight</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bow Alignment</td>
<td>All aligned</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CHECK TORQUE ON ALL SUSPENSION FASTENERS:**

**H-900 SINGLE POINT SUSPENSION**

<table>
<thead>
<tr>
<th>Item</th>
<th>Torque</th>
<th>Checked By</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 1/8&quot; Trunion &quot;U&quot; Bolts</td>
<td>880 ft. lbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1&quot; Trunion Hanger Bolts</td>
<td>730 ft. lbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3/8&quot; axle &quot;U&quot; Bolts</td>
<td>300 ft. lbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/8&quot; End Cap Bolts</td>
<td>180 ft. lbs.</td>
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<td></td>
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</tbody>
</table>

**H-970 (4 SPRING OR REYCO 886 SPRING SUSPENSION):**

<table>
<thead>
<tr>
<th>Item</th>
<th>Torque</th>
<th>Checked By</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/8&quot; Axle &quot;U&quot; Bolts</td>
<td>300 ft. lbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/8&quot; Radius Rod Arm Clamp Bolts</td>
<td>155 ft. lbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/8&quot; Spring Retainer Bolts</td>
<td>50 ft. lbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 A&quot; Radius Rod Arm Bolts</td>
<td>50 ft. lbs.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CHECK TORQUE ON ALL WHEEL END FASTENERS:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Torque</th>
<th>Checked By</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inner Lug Nuts</td>
<td>500 ft. lbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Outer Lug Nuts</td>
<td>500 ft. lbs.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hub Piloted Nuts</td>
<td>500 ft. lbs.</td>
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</tr>
</tbody>
</table>

**GREASE GATE HINGES—AXLE CAM BUSHINGS & SLACK ADJUSTERS:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Greased</th>
<th>Checked By</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gate Bushings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Cam Bushings &amp; Slack Adjusters</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CHECK FOR PROPER ADJUSTMENT AND OPERATION OF BRAKES:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Amount of shoe remaining</th>
<th>Checked By</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check Brake Wear</td>
<td>(New is 24/32-Min 8/32 required)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check Push Rod Adjustment</td>
<td>Not more than 1-7/8&quot; stroke</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check Brake Drums</td>
<td>No cracks - excessive wear</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check Brake Operation</td>
<td>No air leaks - All brakes operating</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check ABS System</td>
<td>See Book on System</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CHECK FOR PROPER OPERATION OF GATE SYSTEM:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Operation</th>
<th>Checked By</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check for air leaks</td>
<td>No leaks in hoses &amp; fittings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check Lubricator</td>
<td>4 to 5 drops per cycle minimum</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check Air Filter</td>
<td>Drain works - Filter not clogged</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check for smooth gate operation</td>
<td>No hesitation or sticking</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CHECK ALL TIRES FOR PROPER INFLATION AND EVEN WEAR PATTERN:**

<table>
<thead>
<tr>
<th>Item</th>
<th>Inflation</th>
<th>Tread Depth</th>
<th>LF  /32</th>
<th>LR /32</th>
<th>RF /32</th>
<th>RR /32</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check Inflation</td>
<td>See instructions on tire for proper inflation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Check Tread Depth</td>
<td>(Min. 4/32 Required)</td>
<td></td>
<td></td>
<td></td>
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</tr>
</tbody>
</table>
SECTION TWO

ELECTRICAL SYSTEM
TYPICAL FRONT CROSS MEMBER
7-WAY ELECTRICAL PLUG WITH CIRCUIT BREAKERS- LEFT SIDE
4-WAY ELECTRICAL PLUG- RIGHT SIDE ABOVE GLAD HANDS
SERVICE AND EMERGENCY GLAD HANDS- RIGHT SIDE
BELOW 4-WAY PLUG

TYPICAL REAR LIGHT RAIL
STOP & TAIL LIGHTS- RIGHT AND LEFT SIDES
MARKER LIGHTS-CENTER
LICENSE PLATE LIGHT- LEFT OF CENTER MARKER LIGHTS
REFLECTORS-INSIDE OF STOP & TAIL LIGHTS
BACK UP ALARM- BOTTOM OF SUB-FRAME
ALSO SHOWN IN SUB-FRAME ARE 7 WAY AND 4 WAY PLUG-IN
ADAPTERS FOR A PULL TRAILER
WIRING SYSTEM

TO PILOT AIR VALVE
<table>
<thead>
<tr>
<th>ITEM NUMBER</th>
<th>PART NUMBER</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>10205Y</td>
<td>AMBER MARKER LIGHT</td>
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<td>2</td>
<td>Right Side Harness (Call Factory with Model &amp; VIN #)</td>
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<td>STOP, TURN &amp; TAIL LIGHT GROMMET</td>
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<td>N2948</td>
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<td>383403</td>
<td>FEMALE 7 WAY PLUG</td>
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<td>AMBER MID-TURN LIGHT</td>
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<tr>
<td>9</td>
<td>60700</td>
<td>MID-TURN GROMMET</td>
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TYPICAL 7-WAY & 4-WAY ELECTRICAL PLUG OUTLETS ON FRONT OF TRAILERS USING BOX TYPE CROSS MEMBERS
TYPICAL 7-WAY ELECTRICAL PLUG OUTLET ON FRONT OF TRAILER
GREEN- AIR VALVE
YELLOW- LEFT TURN
BROWN- CLEARANCE
WHITE- GROUND
WHITE/BLUE- GROUND
RED- UNUSED
ORANGE- UNUSED

LEFT SIDE HARNESS

ABS CORD TO ECU VALVE

RIGHT SIDE HARNESS

WHITE/GREEN- ABS LIGHT
RED/BLACK- BACK UP ALARM
WHITE- GROUND
GREEN- RIGHT TURN
BROWN- TAIL LIGHTS
BLACK- CLEARANCE LIGHTS
YELLOW- LEFT TURN
RED- STOP LIGHTS

ELECTRICAL SCHEMATIC FOR SINGLE DUMP VALVE SYSTEM
TM - TO BACK UP SWITCH
A - TO GATE LIFT & LOCK ON SINGLE VALVE SYSTEM
   TO GATE LIFT ONLY ON TWO VALVE SYSTEM
B - TO GATE LOCK ONLY ON TWO VALVE SYSTEM

GATE CONTROL SWITCH

1. SELECT A CONVENIENT- EASY TO REACH LOCATION ON DASH OF TOW VEHICLE
2. DRILL A ½ INCH HOLE AND MOUNT SWITCH (OR SWITCHES) USING JAM NUTS
3. RUN WIRING FROM SWITCH TO REAR OF TOW VEHICLE SELECTING AN OUT OF THE WAY ROUTE AWAY FROM EXHAUST AND ANY MOVING PARTS
4. FOUR WAY PLUG AND CONTROL CABLE SHOULD BE TIED TO MAIN ELECTRICAL CABLE WITH PLASTIC WIRE TIES
5. THE BATTERY WIRE FROM TOGGLE SWITCH SHOULD BE CONNECTED TO A 12 VOLT CIRCUIT ON THE ACCESSORY SIDE OF THE CIRCUIT OR FUSE BOX
6. THE TM WIRE FROM THE FOUR WAY PLUG SHOULD BE CONNECTED TO THE BACK UP SWITCH
SECTION
THREE

GATE SYSTEM
TYPICAL AIR GATE SYSTEM FOR SINGLE HOPPER BOTTOM DUMP TRAILER

SEE AIR GATE SYSTEM FOR PARTS LIST ON NEXT PAGE FOR PART NUMBERS.
## GATE AIR SYSTEM PARTS
(Refer to Page 3-2 for Schematic & Numbers)

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<tr>
<th>ITEM #</th>
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<tr>
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<td>N20415NA</td>
<td>EMERGENCY GLADHAND</td>
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<td>NOT SHOWN</td>
<td>N20415PA</td>
<td>SERVICE GLADHAND</td>
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<td>3.</td>
<td>FILTER</td>
<td>MODULAR FILTER - COMPLETE</td>
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<tr>
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<td>(For individual Filter parts see Pg. 3-5)</td>
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<td>4.</td>
<td>LUBRICATOR</td>
<td>MODULAR LUBRICATOR-COMPLETE</td>
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<td>(For individual Lubricator parts see Pg. 3-6)</td>
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<tr>
<td>5.</td>
<td>40041-0173</td>
<td>PILOT AIR “D” GATE CONTROL VALVE</td>
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<tr>
<td></td>
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<td>(For individual Pilot Air “D” parts see Pg. 3-7)</td>
</tr>
<tr>
<td>5A.</td>
<td>60681-0001</td>
<td>TASKMASTER GATE CONTROL VALVE</td>
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<td>(For individual Taskmaster parts see Pg. 3-8)</td>
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<td>(NOTE: These are the two standard valve used on Ranco Trailers. If your valve is different than what is shown on Page 3-7 or Page 3-8, look in the special options section for your type of valve.)</td>
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<tr>
<td>6.</td>
<td>Refer to Pg. 3-4</td>
<td>MODULAR MANIFOLD BLOCK</td>
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<tr>
<td>7.</td>
<td>Refer to Pg. 3-4</td>
<td>MODULAR CONNECTING END BLOCK PR.</td>
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<tr>
<td>8.</td>
<td>Refer to Pg. 3-4</td>
<td>MODULAR SLEEVE W/O-RING</td>
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<td>9.</td>
<td>CYL8X30CP</td>
<td>STANDARD 8 X 30 CYLINDER</td>
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<td>(For individual 8X30 Cylinder parts see Pg. 3-9)</td>
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<td>CYL6X30CP</td>
<td>STANDARD 6 X 30 CYLINDER</td>
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<td>CYL7X30CP</td>
<td>STANDARD 7 X 30 CYLINDER</td>
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<td>(For individual 6X30 OR 7X30 Cylinder parts see Pg. 3-10)</td>
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<tr>
<td>11.</td>
<td>52935-31</td>
<td>3/8” QUICK RELEASE VALVE</td>
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<tr>
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<td>EV30A2</td>
<td>½” QUICK RELEASE VALVE</td>
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<tr>
<td></td>
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<td>(For individual Quick Release Valve parts see Pg. 3-11 or 3-12)</td>
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<tr>
<td>12.</td>
<td>35339</td>
<td>20” x 48” AIR TANK</td>
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<td>13.</td>
<td>N15902A</td>
<td>PRESSURE PROTECTION VALVE</td>
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<tr>
<td>14.</td>
<td>0229-21</td>
<td>½” BRASS BALL SHUT OFF VALVE</td>
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<tr>
<td>15.</td>
<td>Air Gate Hoses</td>
<td>Refer to pages 3-14, 3-15 &amp; 3-16</td>
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</tbody>
</table>
FILTER

1. FLEX DRAIN
2. P7833
3. O-RINGFITLUB
4. FILT BOWL KIT
   (PLASTIC BOWL, METAL GUARD AND O-RING INCLUDED IN KIT)

WARNING: CERTAIN COMPRESSOR OILS, CHEMICALS, HOUSEHOLD CLEANERS, SOLVENTS, PAINTS AND FUMES WILL ATTACK PLASTIC BOWLS AND CAUSE BOWL FAILURE. WHEN BOWL BECOMES DIRTY, WIPE ONLY WITH A CLEAN, DRY CLOTH. IMMEDIATELY REPLACE ANY CRACKED, DAMAGED, OR DETERIORATED PLASTIC BOWL WITH A NEW ONE.

MAINTENANCE:
1. EACH TIME THE BOWL IS CLEANED OR THE FILTER ELEMENT REPLACED:
   A. DEPRESSURIZE UNIT
   B. INSPECT SEALS AND REPLACE IF CRAZED, CRACKED, DAMAGED OR DETERIORATED.
2. REMOVE FILTER ELEMENT AND CLEAN PERIODICALLY BY TAPPING ON HARD SURFACE AND BLOWING OFF WITH AIR BLOW GUN. REPLACE IF NECESSARY
3. DRAIN BOWL AT LEAST ONCE PER WORK SHIFT
4. BEFORE PLACING UNIT IN SERVICE, BE SURE THAT THE BOWL AND BOWL GUARD ARE INSTALLED AND SECURELY LOCKED IN POSITION.
LUBRICATOR

1. O-RING FILLUB
2. SIPHON TUBE
3. FILL PLUG
4. SIGHT DOME
5. LUB BOWL KIT (Includes O-Ring, Plastic Bowl and Metal Bowl Guard)
**40041-0173 PILOT AIR VALVE**

1. P50570-1  TIE BOLT NUT - LONG
2. 12 VOLT COIL  12 VOLT COIL
3. 536-579  O-RING
4. P50569  STEM
5. PILOTREPAIRKIT  REPAIR KIT
6. P49985-3  TIE BOLT NUT
7. P50570-1  TIE BOTL NUT- SHORT
8. P57662  BALL HANDLE
9. P50402  HANDLE

**NOTE:** ALL SEALS AND RETAINERS ARE INCLUDED IN THE PILOT REPAIR KIT.

“D” PILOT AIR VALVES ARE SPOOL TYPE DIRECTION VALVES WITH TWO-WAY OPERATION. THEY ARE BUILT WITH OPEN EXHAUST PORTS AND WITH TAPPED EXHAUST PORTS. THE “D” PILOT AIR VALVE IS OPERATED BY LEVER, OR SOLENOID

**ADJUSTMENT**

THE “D” PILOT AIR VALVE REQUIRES NO ADJUSTMENT

**MAINTENANCE**

PERIODICALLY DISMANTLE THE “D” PILOT AIR VALVE FOR INSPECTION AND CLEANING. WASH ALL METAL PARTS WITH KEROSENE OF A SOLVENT WITH LIKE CHARACTERISTICS. WASH ALL SEALS WITH SOAP AND WATER AND EXAMINE THEM FOR CRACKS OR SIGNS OF WEAR. DRY ALL PARTS WITH A LOW PRESSURE AIR JET. REPLACE WORN OR DEFECTIVE PARTS.

**KIT ASSEMBLY**

AT TIMES, OPERATORS IN KIT FORM AND ASSEMBLED VALVE PORTIONS ARE STOCKED SEPARATELY, AND COMPLETE “D” PILOT AIR VALVE ARE ASSEMBLED AS NEEDED. THE OPERATOR KITS ARE PACKAGES CONTAINING ALL THE OPERATORS PARTS AND ALL THE FASTENING NEEDED TO ASSEMBLE THE OPERATOR TO THE VALVE.

THE EXPLODED ILLUSTRATIONS ACCOMPANYING THE OPERATORS PARTS LIST IN THIS BOOKLET SHOW HOW THE PARTS FIT TOGETHER

THIS TASKMASTER VALVE IS A UNIQUE SPOOL TYPE, FOUR-WAY DIRECTIONAL CONTROL VALVE WITH THREE REMOTE OPERATORS- A SOLENOID, A HANDLE, AND A BLEEDER PILOT. THE SOLENOID PERMITS REMOTE OPERATION OF THE VALVE AND THE HANDLE AND BLEEDER PILOT OPERATORS PERMIT OPERATION AT THE VALVE SYSTEM OPERATION

TO OPERATE THE VALVE REMOTELY, ENERGIZE THE SOLENOID TO ACTIVATE THE CYLINDER. THE ENERGIZED SOLENOID, IN ADDITION TO PROVIDING PILOT PRESSURE TO OPERATE THE SPOOL, ALSO PRESSURIZES THE SMALL AREA BLEEDER PILOT. WHEN THE SOLENOID IS DEENERGIZED, AIR IS VENTED FROM THE MAIN PILOT, BUT IS PREVENTED FROM BEING VENTED FROM THE SMALL AREA BLEEDER PILOT BY THE BALL CHECK. THE AIR IN THE BLEEDER PILOT ACTS AS A RETURN SPRING TO RETURN THE SPOOL TO ITS ORIGINAL POSITION. THIS AIR MAY EVENTUALLY LEAK OFF.

MANUAL OPERATION CAN BE OBTAINED ONLY WITH A DEENERGIZED SOLENOID. THE BLEEDER PILOT IS USED TO VENT ANY AIR WHICH HAS NOT LEAKED OFF AFTER A REMOTE OPERATION. AFTER THE SOLENOID HAS BEEN DEENERGIZED AND THE BLEEDER PILOT HAS BEEN VENTED, THE MANUAL OPERATOR CAN THEN BE MOVED IN EITHER DIRECTION TO CONTROL THE CYLINDER.

### TASKMASTER VALVE
PART # 60681-0001

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<tr>
<th>ITEM</th>
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<tr>
<td>1.</td>
<td>P60741</td>
<td>O-RING &amp; SUB BASE GASKET KITS</td>
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<td>2.</td>
<td>P62110</td>
<td>LEVER ASSEMBLY</td>
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<tr>
<td>3.</td>
<td>P62111</td>
<td>KNOB ASSEMBLY</td>
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<td>4.</td>
<td>P59397-1</td>
<td>SUB-BASE</td>
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<td>5.</td>
<td>12VOLTCOIL</td>
<td>12 VOLT COIL ASSEMBLY</td>
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8" X 30" STROKE CYLINDER
PART # CYL8X30CP

1. J80003 ROD CLEVIS FOR 1 3/8" ROD
2. RD13/8X321/2 1 3/8" ROD FOR STROKE CYLINDER
3. 8RODENCAP 8" ROD END CAP
4. 8X30CPBARREL 8" X 30" ALMAGE BARREL
5. 5023 5/8" TIE BOLT W/ NUTS
6. 8 PISTON 8" ALUMINUM PISTON
7. RODNUT 1" JAM NUT
8. 8CLEVISENDCAP 8" CLEVIS END CAP
9. PISTONCUSHION PISTON DONUT CUSHION

NOTE: STANDARD CYLINDER ON MOST SINGLE HOPPER TRAILERS
7" X 30" AIR CYLINDER
1. J800003  ROD CLEVIS
2. RD13/8X321/2  1 3/8" X 30" STROKE ROD
3. F1010  6" ROD END CAP
4. 6X30CPBARREL  6" X 30" ALMAGA BARREL
5. 5023  5/8" TIE BOLT W/ BUTS
6. 6PISTON  6" ALUMINUM PISTON
7. ROD NUT  1" JAM NUT
8. 6CELVISENDCAP  6" CLEVIS END CAP
9. PISTONCUSHION  PISTON DONUT CUSHION

NOTE: USE ON DOUBLE HOPPER TRAILERS AND SWITCH GATES

6" X 30" AIR CYLINDER
1. J800003  ROD CLEVIS
2. RD13/8X321/2  1 3/8" X 30" STROKE ROD
3. F1010  6" ROD END CAP
4. 6X30CPBARREL  6" X 30" ALMAGA BARREL
5. 5023  5/8" TIE BOLT W/NUTS
6. 6PISTON  6" ALUMINUM PISTON
7. ROD NUT  1" JAM NUT
8. 6CELVISENDCAP  6" CLEVIS END CAP
9. PISTONCUSHION  PISTON DONUT CUSHION
NOTE: FIBER SPACER NOT USED ON ALL MODELS.  1 ¾” ROD ONLY USED ON 5” CYLINDER

ROD & SEAL KITS

1. 8PSK  8” PISTON SEAL KIT
1A 7PSK  7” PISTON SEAL KIT
1B 6PSK  6” PISTON SEAL KIT
1C 5PSK  5” PISTON SEAL KIT
2  F1002 1 3/8” ROD SEAL KIT
2A 5012  1 ¼” ROD SEAL KIT
3  1 ¼” SNAPRING
3A  1 3/8” SNAPRING
THE QUICK RELEASE VALVE SPEEDS THE EXHAUSTING OF YOUR AIR CYLINDERS. AIR PRESSURE IS VENTED CLOSE TO THE OPERATED DEVICE INSTEAD OF BACK THROUGH THE CONTROL VALVE

OPERATION


3/8” QUICK RELEASE VALVE
PART # 3/8QRVALVE
REPAIR KIT PART # 3/8QRREPRKIT
½" QUICK RELEASE VALVE

PART # EV30A2
REPAIR KIT# 10128-10
HOSE ASSEMBLIES FOR AIR GATES

Each hose and fittings assembly is a different length depending on the type of trailer, size of gate and cylinder. It also depends on if the hose is for the front or rear of the gate.

Please refer to the drawings of the hose assemblies on the next two pages and when ordering hoses have our vehicle identification number (VIN#) available to give to the parts department.

Utilizing the VIN# and your description of the hose (front or back of gate) the parts department will be able to send you the proper hose assembly.
FRONT AIR GATE HOSE ASSEMBLY
GATE BEARING DRAWING

50" X 90" GATE BEARING ASSY

1. HB1C7B8  1" X 7" BOLT
2. LN1C8   1" LOCK NUT
3. BR30480  INNER GATE BEARING
4. BR30482  ADJUSTMENT & RETAINING COLLAR
5. BR30481  GATE BEARING

STANDARD GATE BEARING ASSY

1. HB1.125C7.5B8  1 1/8" X 7 ½" BOLT
2. LN1.125CB8    1 1/8" LOCK NUT
3. BR30123  INNER GATE BEARING
4. BR30124  ADJUSTMENT & RETAINING COLLAR
5. BR30126  GATE BEARING
STANDARD EQUALIZER ASSY

1. 1x3.5pin
2. 1x2pin
3. BR30150

EQUALIZER ASSEMBLY W/ PINs
SECTION FOUR

AIR BRAKE SYSTEM
RANCO ABS BRAKE SYSTEM INFORMATION

RANCO USES MERITOR WABCO EASY-STOP TRAILER ABS SYSTEMS ON ALL OF ITS STANDARD TRAILERS.

PLEASE REFER TO THE DRAWINGS OF THE STANDARD SETUP FOR TANDEM AND TRI-AXLE SYSTEMS ON THE FOLLOWING PAGES.

DRAWINGS FOR OTHER TYPES OF TRAILERS WILL BE FOUND IN THE SPECIAL OPTIONS SECTION.

ABS BRAKE SYSTEMS UNDERGO A NUMBER OF CHANGES, THEREFORE, PLEASE HAVE YOUR TRAILER VIN NUMBER AVAILABLE WHEN YOU CALL INTO THE PARTS DEPARTMENT.

THAT IS THE ONLY WAY WE CAN INSURE THAT YOU RECEIVE THE PROPER PARTS FOR THE BRAKE SYSTEM INSTALLED ON YOUR TRAILER.
TANDEM AXLE SUSPENSION   AIR SYSTEM

AIR BRAKE SYSTEM TYPICALLY USED ON
H-900 SINGLE POINT SUSPENSION
AND H-9700 FOUR SPRING SUSPENSIONS
ON TANDEM AXLE TRAILERS
AIR BRAKE SYSTEM FOR TRI-AXLE TRAILERS
SECTION FIVE

AXLE SYSTEM
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RANCO AXLE SYSTEM INFORMATION

RANCO USES AXLES MANUFACTURED BY SEVERAL DIFFERENT COMPANIES ON OUR STANDARD TRAILERS.

ALTHOUGH MOST OF THE AXLES ARE ALIKE IN SOME MANNER, THE PARTS ARE OFTEN DIFFERENT.

RANCO KEEPS A RECORD OF EXACTLY WHAT BRAND OF AXLE IS PUT UNDER EACH TRAILER.

IN ORDER TO ORDER THE CORRECT PARTS FOR YOUR AXLE, REFER TO THE DRAWING ON THE FOLLOWING PAGE TO IDENTIFY THE AXLE PART YOU NEED.

USING THE PART DESCRIPTION AND YOUR TRAILER VIN NUMBER, RANCO WILL BE ABLE TO IDENTIFY THE CORRECT PART FOR YOUR TRAILER AXLE.

BE SURE TO HAVE YOUR VEHICLE IDENTIFICATION NUMBER (VIN #) WHEN TRYING TO ORDER PARTS.
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<td>Gasket</td>
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<td>Camshaft (left)</td>
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<td>Camshaft (right)</td>
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<td>Lockwasher</td>
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<td>Washer</td>
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<td>Setscrew</td>
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<td>Brake Shoe Return Spring</td>
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<td>Wheel Bearing Adjusting Nut</td>
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<td>Bushing</td>
<td>35</td>
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<td>Snap Ring</td>
<td>36</td>
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<td>Outer Bearing Cup</td>
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<td>Brake Shoe Roller Retainer</td>
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<td>Brake Drum</td>
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<td>Air Chamber</td>
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<td>Wheel Bearing Nut</td>
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<td>Camshaft Bushing Assembly</td>
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<td>Hub</td>
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**TABLE FOR FIGURE 5-3**

**TYPICAL 16.5” X 7” Q SERIES BRAKE INSTALLATION**
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SECTION
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SUSPENSION
SYSTEM
RANCO SUSPENSION SYSTEM INFORMATION

RANCO USES SUSPENSIONS MANUFACTURED BY SEVERAL DIFFERENT COMPANIES ON OUR STANDARD TRAILERS.

ON MOST TANDEM AXLE TRAILERS WE USE A SINGLE POINT SUSPENSION, MODEL H-900 OR A FOUR SPRING SUSPENSION, MODEL H9700. ON MOST TRI-AXLE TRAILERS WE USE A TRANSPO MODEL 88 SUSPENSION.

RANCO KEEPS A RECORD OF EXACTLY WHAT BRAND AND TYPE OF SUSPENSION IS PUT UNDER EACH TRAILER.

IN ORDER TO ORDER THE CORRECT PARTS FOR YOUR SUSPENSION, REFER TO THE DRAWING ON THE FOLLOWING PAGES TO IDENTIFY THE SUSPENSION PART YOU NEED.

USING THE PART DESCRIPTION AND YOUR TRAILER VIN NUMBER, RANCO WILL BE ABLE TO IDENTIFY THE CORRECT PART FOR YOUR TRAILER SUSPENSION.

BE SURE TO HAVE YOUR VEHICLE IDENTIFICATION NUMBER (VIN #) WHEN TRYING TO ORDER PARTS.
OVERSLUNG TRUNION- OVERSLUNG AXLE

TYPICAL H-900 SINGLE POINT SUSPENSION
USED ON BOTTOM DUMP SEMI-TRAILERS
### SUSPENSION PARTS FOR H-900 SUSPENSION

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<td>10376-00</td>
<td>4 ½&quot; X ¾&quot;-16&quot; HEX BOLT</td>
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<td>895-00</td>
<td>4 ½ X 5 ¾&quot; WASHER</td>
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<td>893-01</td>
<td>44,000# TRUNION TUBE</td>
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<td>50,000 TRUNION TUBE</td>
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<td>U-BOLT, TRUNION</td>
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<td>12258-01</td>
<td>SPRING, THREE LEAF</td>
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<td>841-00</td>
<td>¾-16&quot; HEX NUT</td>
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<tr>
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<td>2&quot; X 5/8-18&quot; HEX BOLT</td>
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<td>817-00</td>
<td>13-16&quot; X 1 ½&quot; WASHER</td>
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<tr>
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<td>SPRING SEAT ADJUSTMENT</td>
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<td>5/8-18&quot; HEX NUT</td>
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<td>U-BOLT, AXLE</td>
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<tr>
<td>18</td>
<td>891-00</td>
<td>TRUNION HUB-UPPER</td>
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<tr>
<td>19</td>
<td>890-00</td>
<td>RUBBER BUSHING, TRUNION</td>
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<tr>
<td>20</td>
<td>898-00</td>
<td>TRUNION HUB-LOWER</td>
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<tr>
<td>21</td>
<td>837-00</td>
<td>1 ¼&quot; X 2 ¼&quot; WASHER</td>
</tr>
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<td>22</td>
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<td>1 1/8-12&quot; HEX BOLT</td>
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TYPICAL H-9700 FOUR SPRING SUSPENSION USED ON BOTTOM DUMP SEMI-TRAILERS
## SUSPENSION PARTS FOR H-9700 FOUR SPRING SUSPENSION

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<td>7701-08</td>
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TYPICAL TRANSPRO MODEL 88 SUSPENSION
USED ON TRI-AXLE BOTTOM DUMP SEMI-TRAILERS
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<td>HEX HEAD CAP SCREW, 5/8”-18 X 4-1/2”</td>
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<td>DELRIN LINER</td>
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<td>0079-01</td>
<td>3 LEAF SPRING</td>
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<td>3 LEAF SPRING (CENTER SPRING ON TRI-AXLE)</td>
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<td>AXLE SEAT, 2-1/2</td>
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<td>RIGID TORQUE ARM</td>
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<td>ADJUSTABLE TORQUE ARM BUSHING</td>
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SECTION
SEVEN

MISCELLANEOUS
PARTS

5TH WHEEL PARTS
PARKING LEG PARTS
PUSH BLOCK & UNDERIDE PARTS
STEEL FENDER PARTS
MUD FLAP BRACKET PARTS
FIBERGLASS SHED PARTS
FIBERGLASS FENDER PARTS
5TH WHEEL ASSEMBLY DRAWING

1. BR14010 5TH PLATE ASSEMBLY
2. 11434-00 TRUNION CAP
3. HB.875C2.5P5 7/8" X 2 ½" GRADE 5 BOLT
4. BR14020 H-BEAM TRUNION TUBE ASSEMBLY
   4A BR13022 SPLIT BUSHING
   4B BR10033 THRUST WASHER
   4C 11442-00 RUBBER BUSHING
   4D BR13020 35 ½" TRUNION TUBE
5. BR10022 BOX BEAM TRUNION TUBE ASSEMBLY
   5A BR10022 SPLIT BUSHING
   5B BR10033 THRUST WASHER
   5C 11442-00 RUBBER BUSHING
   5D BR10021 37" TRUNION TUBE
PARKING LEG ASSEMBLY DRAWING

1. BR10210 OUTER STATIONARY LEG TUBE
2. BR10210 INNER STATIONARY LEG W/PAD
3. BR10240 LEG PIN, WIRE AND CLIP
4. BR10515 INNER REMOVABLE LEG W/PAD
5. BR10505 OUTER REMOVABLE LEG W/PAD
6. BR10537 LEG SOCKET
PUSH BLOCK & UNDERIDE ASSEMBLY

BR92100--PUSH BLOCK & UNDERIDE ASSEMBLY

1. BR92150  PUSH BLOCK ASSEMBLY
2. BR92125  UNDERIDE ASSEMBLY
3. BR92142  3 HOLE WASHER (NOT SHOWN)
4. LW.875Z   7/8" LOCK WASHER
5. HB.875C2.5Z8 7/8" X 2 ½" BOLT
6. HN.875C8Z  7/8" NUT
FIBERGLASS FRONT SHED PLATES & FENDERS

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<td>RIGHT FRONT SHED PLATE</td>
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<td>FRONT FENDER</td>
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<tr>
<td>ITEM</td>
<td>DESCRIPTION</td>
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<td>------</td>
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<tr>
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<td>RIGHT REAR SHED PLATE</td>
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<tr>
<td>2</td>
<td>CENTER REAR SHED PLATE</td>
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<tr>
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<td>LEFT REAR SHED PLATE</td>
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<tr>
<td>4</td>
<td>REAR FENDER</td>
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NOTE: WHEN ORDERING THESE ITEM, YOU WILL NEED YOUR TRAILER VIN NUMBER.
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<td>LIGHT WEIGHT 27&quot;</td>
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<tr>
<td>BR90100</td>
<td>STANDARD 27&quot;</td>
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<td>BR90101</td>
<td>STANDARD 34&quot;</td>
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<tr>
<td>BR90102</td>
<td>STANDARD 37&quot;</td>
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![Diagram of windrow deflectors](image)
LOWER HOPPER EXTENSION

WHEN ORDERING REPLACEMENT LOWER HOPPER EXTENSIONS, YOU WILL NEED TO GIVE RANCO PARTS DEPARTMENT THE TRAILER SERIAL NUMBER FOR CORRECT COMPONENTS
SECTION EIGHT

SPECIAL OPTIONS

IF YOUR TRAILER HAS ANY SPECIAL OPTIONS, THE DRAWINGS AND PARTS LIST FOR THOSE OPTIONS CAN BE FOUND IN THIS SECTION.
MAINTENANCE AND OPERATION
FOR CRAMARO SLIDE „N GO TARP SYSTEM

Your Cramaro Slide „N Go tarp system has been designed to provide you with years of reliable service as long as it is properly used and maintained. Improper usage or lack of maintenance can severely impair its operation and will cause premature wear of the tarp. It is important that you follow all maintenance and operating instructions. They are for your benefit.

MAINTENANCE SCHEDULE
Every 2 – 4 weeks the following procedures should be performed

- Check tension of cables
- Clean and lubricate cables
- Inspect the tarp for any tears, cuts or worn areas
- Check condition of cables (frayed wire, cuts, rust)
- Inspect hardware to be sure fasteners haven’t become loose

Every 6 months remove the cable clamps and inspect that area of the cable for corrosion or broken wires. If necessary, replace the cable.

Every 12 months replace the cable and replace any corroded or damaged fasteners.

** IMPORTANT NOTE**

The cables will stretch considerably for the first few weeks after initial installation, it is extremely important that they be kept tight at all times.

CABLE TENSION
The cable tension is correct when you cannot easily touch the cable together when squeezing with one hand 18” from the rear pulley.

CABLE ADJUSTMENT
The cable is adjusted by first loosening the main nut on the rear pulley using a 1 1/8” wrench and then tightening the cable by using a ¾” wrench on the rear spanner nut. Be sure to retighten the pulley nut. Do not over tighten the cable, as this will cause the front shaft to bend or break which can cause the cable to derail.

CABLE LUBRICATION
To clean and lubricate the cable run a clean rag covered with light oil or WD 40 over the entire cable on both sides of the system. In addition, spray WD 40 or a similar product into the slots on the bow ends. Do not use any heavy oil products, as this will cause the dirt to stick to the cables and pulleys.

ADJUSTMENT OF THE V BELT OR CHAIN
If the rubber belt slips or if the chain loosens while operating the system, an adjustment will be necessary. Simply loosen the three bolts on the handle bracket and slide the handle downward until desired tension is achieved. Retighten the bolts.

ADJUSTING THE TARP LENGTH
The tarp should be stretched tight when in the covered position. If the tarp is loose or if the last bow touches the rear cable pulley, the tarp must be shortened or premature wear will result. To shorten the tarp, undo the bolts on the front pipe, and rotate the front pipe until desired length is achieved. Retighten bolts. Do not shorten more than 12” from the original length.

BOW ALIGNMENT
To check for proper bow alignment, crank the system all the way to the front of the vehicle. The ends of all the bows should be touching each other and should be tight against the front pipe. If an adjustment is necessary, loosen the cable on the opposite side from the one that is out of alignment. Crank the handle forward until all the bows are touching then retighten the cable.
OPERATING THE TARPAULIN SYSTEM

All of the Slide „N Go systems will have a longer life expectancy if the systems are cranked to the back of the trailer at all times except when dumping the load. The handle must be locked and tension applied to the tarp.

** SPECIAL WARNING FOR ALL SYSTEMS**

- DO NOT DUMP WITH THE LOAD COVERED
- ALWAYS CRANK THE TARP ALL THE WAY TO THE FRONT BEFORE DUMPING
- FAILURE TO DO SO MAY CAUSE THE BOWS TO BE SUCKED DOWNWARD
- THIS CAN CAUSE EXTENSIVE DAMAGE TO THE BOWS AND TARP

Check the tension of the nylon cables (if a drop side system) when you check your steel drive cables. The nylon cables should not sag when the system is cranked to the front of the trailer.

You must use auto clips, ropes or straps to secure the tarp when the vehicle is in motion.

TROUBLE SHOOTING GUIDE

If the system will not move when cranked, check to see if:

- The V belt or chain is too loose
- The cables are too loose
- The set screw in the shaft chain or V belt pulley is loose
- Check side boards to see if obstructed

If cables are breaking:

- Check the height of your drive cables. The bottom of the cables should be approximately ½” above the running surface of the body. Heights greater than 1” can cause the cable to wear prematurely or even snap.
- Make sure the cables are not loose
- Tarp is too long, creating a lot of wind whipping which can break cables and cause premature wear on system

If the system is hard to crank see if:

- The cables are too tight
- The cables are dirty or not lubricated
- The rear bow is not in alignment
- The bows are not at the same cable centers (You can reshape the bows by pushing upwards or downwards to bend them back into shape. The distance between the ends of each bow must be the same as the center distance of the cable pulleys.)
- For systems with nylon cables, the nylon cables may be too loose
- The sideboards are damaged

IF YOU REQUIRE FURTHER INFORMATION OR ASSISTANCE YOU CAN CONTACT CRAMARO AT (800) 272-6276.
1. 105004  5 IN CABLE PULLEY
2. 105005  7 IN CABLE PULLEY
3. 105010  1 IN PILLOW BLOCK BEARING
108605   97 IN SHAFT ASSY W/ BEARINGS & CABLE PULLEY
108615   103 IN SHAFT ASSY W/ BEARING & CABLE PULLEY
4. 108312  97 IN X 12 IN RISE BOW
108512   103 IN X 12 IN RISE BOW
108518   103 IN X 18 IN RISE BOW
5. 105030  7 IN V-BELT PULLEY
105060   9 IN CHAIN SPROCKET
6. 107105  CRANK ADAPTER PLATE
7. 107257  HANDLE BRACKET ASSY- CHAIN
107256   HANDLE BRACKET ASSY- BELT
8. 107270  HANDLE ASSY ONLY- BELT
107275   HANDLE ASSY ONLY- CHAIN
9. 109005  6I N HOLD DOWN CLIP RIGHT (NOT SHOWN)
109006   6 IN HOLD DOWN CLIP LEFT (NOT SHOWN)
CRAMARO SLIDE "N GO TARP SYSTEM

1. 3/4" X 1 3/4" GRADE 5 BOLT AND NUT
2. 105020  4" PULLEY
3. 10770   REAR CABLE ADJUSTMENT SPANNER W/ NUT
4. 102016  LEFT HAND REAR BRACKET
102015  RIGHT HAND REAR BRACKET
5. 107775  LEFT HAND REAR BRACKET ASSEMBLY
107770  RIGHT HAND REAR BRACKET ASSEMBLY
OPERATION

1. STARTING WITH GATES CLOSED TIGHT PIN IN
   HOLE #1 LOCKS GATE CLOSED
   PIN IN HOLE #2 THRU #8 GIVE APPROXIMATELY
   6" INCRMENTS OF GATE OPENING
2. STARTING WITH GATES FULL OPEN
   PIN IN HOLE #6 LOCKS GATES OPEN
3. BOTH ENDS OF GATE MUST HAVE IDENTICAL
   PIN SETTINGS TO PREVENT DAMAGE TO
   LINKAGE

PIN EQUALIZER ASSEMBLY

1. BR30211 CONTROL BRACKET
2. BR30203 MOUNTING PLATE
3. BR30204 EQUALIZER ADJUSTMENT BAR
4. BR30208 EQUALIZER LINK (4 REQD)
5. 1X3T-GRIP PIN
AIR SYSTEM FOR PINTLE HITCH

1. 3700-10452S  SERVICE GLADHAND
2. 3700-10451E  EMERGENCY GLADHAND
3. 5203-0229-21  BALL VALVE
4. 2202-50010  TERMINAL BOLT
5. 3700-AC80570  PRESSURE PROTECTION VALVE
6. 2201-570  AIR PINTLE HITCH
7. 4605-1425  DRAIN COCK
LEFT SIDE HARNESS
GREEN- AIR VALVE
YELLOW- LEFT TURN
BROWN- CLEARANCE
WHITE- GROUND
RED- A IN FOUR WAY PLUG
ORANGE- GO IN FOUR WAY PLUG

RIGHT SIDE HARNESS
WHITE/GREEN- ABS LIGHT
RED/BLACK- BACK UP ALARM
WHITE- GROUND
GREEN- RIGHT TURN
BROWN- TAIL LIGHTS
YELLOW LEFT TURN
RED- STOP LIGHTS

PART # | LENGTH
-------|--------
2094878 | UP TO 24"
2094879 | 25" TO 35"
2092758 | 36" TO 42"
2096001 | 43" TO 46"

PART # | LENGTH
-------|--------
2094110 | UP TO 24"
2094880 | 25" TO 35"
2092567 | 36" TO 42"
2096676 | 43" TO 46"

ELECTRICAL SYSTEM
FOR SINGLE VALVE W/ PINTLE HITCH
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