INDEX

PAGE #

i. CONSUMER INFORMATION
ii. GENERAL OPERATION INSTRUCTIONS
iii. DUMPING OPERATION INSTRUCTIONS
iv. BLANK

SECTION ONE

1-1 LUBRICATION CHART AND INSTRUCTIONS
1-2 SCHEDULED MAINTENANCE RECOMMENDATIONS
1-3 SCHEDULED MAINTENANCE RECORDS

SECTION TWO
ELECTRICAL SYSTEM

2-1 LIGHT HOUSING DRAWING AND PARTS LIST
2-2 WIRING SCHEMATIC WITH ISO PLUG
2-3 WIRING SCHEMATIC FOR A FOUR-WAY VALVE
2-4 WIRING SCHEMATIC AND PARTS LIST
2-5 BLANK

SECTION THREE
GATE SYSTEM

3-1 GATE CONVERSION INFORMATION
3-2 CONVERTING FROM HIGH LIFT TO SIDE HINGE
3-3 CONVERTING FROM SIDE HINGE TO HIGH LIFT
3-4 COMBINATION GATE ASSEMBLY
3-5 UPPER HINGE ASSEMBLY FOR COMBINATION AND GRAVITY GATES
SECTION FOUR
AIR BRAKE SYSTEM

4-1 ABS INFORMATION PAGE
4-2 FRAMELESS AIR BRAKE SYSTEM
4-3 SINGLE POINT FRAMELESS AIR BRAKE SYSTEM WITH 3RD AXLE AIR RIDE
4-4 QUARTER FRAME AIR BRAKE SYSTEM
4-5 BLANK
4-6 – 4-43 MERITOR WABCO ABS BRAKE MAINTENANCE MANUAL

SECTION FIVE
AXLE SYSTEM

5-1 AXLE SYSTEM INFORMATION PAGE
5-2 TYPICAL AXLE DRAWING
5-3 TYPICAL AXLE PARTS IDENTIFICATION
5-4 BLANK

SECTION SIX
SUSPENSION SYSTEM

6-1 SUSPENSION INFORMATION PAGE
6-2 SINGLE POINT H900 SUSPENSION DRAWING
6-3 SINGLE POINT H900 SUSPENSION PARTS LISTING
6-4 BLANK
SECTION SEVEN
DRAFT ARM HINGE POINTS

7-1  5TH PLATE TO DRAFT ARM CONNECTION
7-2  DRAFT ARM TO CENTER BOLSTER PLATE
7-3  DRAFT ARM TO LEVELING ARM CONNECTION

SECTION EIGHT
MISCELLANEOUS PARTS

8-1  SINGLE ACTING TELESCOPIC CYLINDER OPERATION
8-2  ASPHALT APRON DRAWING AND PARTS IDENTIFICATION
8-3  FRONT FENDER ASSEMBLY DRAWING AND PARTS LIST
8-4  REAR FENDER ASSEMBLY DRAWING AND PARTS LIST
8-5  MUD FLAP BRACKET ASSEMBLY
8-6  HIGH LIFT MUD FLAP BRACKET ASSEMBLY
8-7  BLANK

SECTION NINE
SPECIAL OPTIONS

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

TARP

9-1  CRAMARO TARPAULIN PAGE 1
9-2  CRAMARO TARPAULIN PAGE 2
9-3  CRAMARO TARPAULIN PAGE 3
9-4  CRAMARO TARPAULIN PAGE 4
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 CONDUCTIVE 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.
OPERATION INSTRUCTIONS

1. OPERATOR PRE-START CHECKS
   A. 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
   B. 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 PRESSURE IN THE AIR TANKS EXCEEDS 50 POUNDS.

2. STARTING PROCEDURE AND CONTROLS
   A. 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 CONNECTORS SHOULD BE CONNECTED PROPERLY, ENSURING THAT THE SERVICE AND EMERGENCY GLAD HANDS ARE CONNECTED TO THE SERVICE AND EMERGENCY GLAD HANDS ON THE TRAILER. ALL GLAD HANDS 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.
   B. 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. THIS CAN BE MANUAL OR CRANK.
      2. CHECK THE TIRES FOR PROPER INFLATION AND TO INSURE THAT 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 TRACTOR LIGHTS AND CHECK ALL TRAILER LIGHTS FOR PROPER OPERATION. REPLACE LIGHTS OR BULBS IN ANY THAT IS 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 FOUR BRAKES HAVE IN FACT RELEASED. IF THEY HAVE NOT RELEASE, CHECK TO SEE WHY AIR IS NOT GETTING TO THEM.
      5. AFTER BRAKES HAVE RELEASED, CHECK FOR AIR LEAKS. LISTEN FOR ANY AIR LEAKS IN THE AIR OPERATING SYSTEM AS WELL AS IN THE AIR BRAKE SYSTEM. ANY LEAK SHOULD BE FIXED PRIOR TO ATTEMPTING TO OPERATE THE TRAILER.
END DUMP OPERATION

CAUTION! END DUMP OPERATION CAN BE DANGEROUS!

OPERATOR SHOULD BE ALERT AT ALL TIMES WHEN RAISING TRAILER AND WARN PERSONS TO STAND CLEAR. YOU MUST NOT OPERATE THIS EQUIPMENT UNLESS YOU HAVE BEEN TRAINED IN ITS OPERATION. REMEMBER! AN UNTRAINED OR CARELESS OPERATOR SUBJECTS HIMSELF AND OTHERS TO DEATH OR SERIOUS INJURY. OPERATOR SHOULD FOLLOW THE SAFETY PRECAUTIONS IN THIS MANUAL AND THE PRECAUTIONS SET FORTH BY YOUR COMPANY.

BEFORE DUMPING, OPERATOR SHOULD CHECK DUMP SITE FOR A FIRM LEVEL SURFACE. CHECK FOR OVERHEAD POWER LINES OR OTHER STRUCTURES THAT COULD BE A DANGER.

CYLINDERS CAN NOT WITHSTAND SIDE PRESSURE FROM A DUMP UNIT LEANING. MAKE SURE THE TRACTOR TRAILER UNIT IS LINED UP STRAIGHT WITH EACH OTHER (NOT JACK KNIFED) WHEN DUMPING. AVOID DUMPING IN A HEAVY CROSS WIND, DUMP WITH UNIT FACING INTO THE WIND.

DO NOT OVERLOAD DUMP UNIT. THE LOAD MUST BE EVENLY DISTRIBUTED DURING LOADING AND UNLOADING.

THE OPERATOR SHOULD REMAIN AT THE CONTROLS DURING THE ENTIRE DUMPING OPERATION. IF THE UNIT STARTS TO LEAN TO ONE SIDE, THE OPERATOR SHOULD IMMEDIATELY LOWER THE BODY. IT IS IMPORTANT TO FEATHER THE CONTROL VALVE INTO THE HOLD POSITION TO AVOID A PRESSURE SPIKE IN THE CYLINDER.

DO NOT JERK OR SLINGSHOT DUMP UNIT IN AN ATTEMPT TO FREE A STICKING OR FROZEN LOAD. PULLING FORWARD (OR BACKING UP) AND HITTING THE BRAKES OR LOWERING THE BODY PART WAY AND THEN QUICKLY ENGAGING THE VALVE IN THE “HOLD” OR “RAISE” POSITION WILL CAUSE A TREMENDOUS PRESSURE SPIKE. THIS PRESSURE SPIKE MAY BULGE OR SPLIT ONE OF THE LARGER STAGES OF THE CYLINDER.

WHEN LOWERING A LOAD THAT IS STICKING, THE DUMP UNIT MUST BE FEATHERED DOWN SLOWLY TO AVOID A HIGH PRESSURE BUILD UP IN THE CYLINDER. DO NOT OPERATE CYLINDER AT Pressures ABOVE 2,000 P.S.I.

THE UNIT MUST BE LOWERED COMPLETELY BEFORE MOVING. DO NOT DRIVE WITH P.T.O. OR HYDRAULIC PUMP ENGAGED.

HYDRAULIC HOSES SHOULD BE INSPECTED REGULARLY AND REPLACE IF WORN OR DAMAGED. HYDRAULIC OIL SHOULD BE CHANGED REGULARLY.

A LIGHT FILM OF OIL ON EACH PLUNGER OR STAGE OF A TELESCOPIC CYLINDER INDICATED GOOD CYLINDER OPERATION. AFTER MANY CYCLES OF THE CYLINDER, A SMALL ACCUMULATION OF OIL MAY BE NOTICED ON THE PLUNGERS OR SLEEVES AT THE HEAD NUTS. THIS SHOULD NOT BE MISTAKEN FOR PACKING LEAKAGE

CYLINDER SHOULD BE FREE OF ENTRAPPED AIR. IT IS ADVISABLE TO BLEED AIR FROM CYLINDER WEEKLY FOR A SMOOTH OPERATION.

IF OSCILLATING 5TH WHEEL IS USED IT MUST BE BLOCKED SO IT WILL NOT OSCILLATE.
SECTION ONE

LUBRICATION

PREVENTION MAINTENANCE

AND

SCHEDULED MAINTENANCE
1. HYDRAULIC CYLINDER PIVOT PIN
   GREASE TWO PLACES
2. 5\textsuperscript{TH} PLATE- DRAFT ARM CONNECTION
   GREASE TWO PLACES
3. DRAFT ARM- BOLSTER CONNECTION
   GREASE TWO PLACES
4. HIGH LIFT GATE HINGE
   GREASE FOUR PLACES
5. GATE LATCH HOOK
   GREASE TWO PLACES
6. GATE LATCH CROSS SHAFT
   GREASE THREE PLACES
7. AXLE BRAKE CAM
   GREASE FOUR PLACES

END DUMP LUBRICATION CHART
END 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 loose 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
<table>
<thead>
<tr>
<th>TARP ADJUSTMENT</th>
<th>SCHEDULED MAINTENANCE WORK SHEET</th>
<th>RECOMMENDED</th>
<th>CHECKED BY</th>
<th>DATE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cable Tension</td>
<td>Not touching 18” ahead of rear pulley</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>V-Belt or Chain</td>
<td>Firm Tension</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Tarp Length</td>
<td>Stretched tight</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bow Alignment</td>
<td>All aligned</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**CHECK TORQUE ON ALL SUSPENSION FASTENERS:**

**H-900 SINGLE POINT SUSPENSION**

<table>
<thead>
<tr>
<th>Description</th>
<th>Torque</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>11/8” Trunion “U” Bolts</td>
<td>880 ft. lbs.</td>
<td></td>
</tr>
<tr>
<td>1” Trunion Hanger Bolts</td>
<td>730 ft. lbs.</td>
<td></td>
</tr>
<tr>
<td>3/8” axle “U” Bolts</td>
<td>300 ft. lbs.</td>
<td></td>
</tr>
<tr>
<td>5/8” End Cap Bolts</td>
<td>180 ft. lbs.</td>
<td></td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Torque</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>7/8” Axle “U” Bolts</td>
<td>300 ft lbs.</td>
<td></td>
</tr>
<tr>
<td>5/8” Radius Rod Arm Clamp Bolts</td>
<td>155 ft lbs.</td>
<td></td>
</tr>
<tr>
<td>5/8” Spring Retainer Bolts</td>
<td>50 ft. lbs.</td>
<td></td>
</tr>
<tr>
<td>1” Radius Rod Arm Bolts</td>
<td>50 ft. lbs.</td>
<td></td>
</tr>
</tbody>
</table>

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

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

**GREASE GATE HINGES~ AXLE CAM BUSHINGS & SLACK ADJUSTERs:**

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

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

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

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

<table>
<thead>
<tr>
<th>Description</th>
<th>Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check for air leaks</td>
<td></td>
</tr>
<tr>
<td>No leaks in hoses &amp; fittings</td>
<td></td>
</tr>
<tr>
<td>Check for smooth gate</td>
<td></td>
</tr>
<tr>
<td>operation</td>
<td></td>
</tr>
</tbody>
</table>

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

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

ELECTRICAL SYSTEM
1. ED4115 REAR LIGHT HOUSING FRAMELESS (6" WIDE)
   ED4116 REAR LIGHT HOUSING FRAMELESS (8 ½" WIDE)
2. ED4045 CENTER LIGHT HOUSING FRAMELESS
   ED4130 TANDEM QF
   ED4117 TRI-AXLE QF
ISO PLUG

END DUMP PLUG SCHEMATIC

WITH ISO PLUG

ARS CORD
RED/BLACK STRIPE- BACK UP ALARM
BLUE- GATE CONTROL VALVE
ORANGE- GATE CONTROL VALVE ON TWO VALVE SYSTEM
WHITE- GROUND
BROWN- RIGHT TURN
YELLOW- LEFT TURN
RED- STOP LAMPS
BLACK- CLEARANCE LAMPS
WHITE/GREEN STRIPE- ABS LAMP
TO GATE LOCK WHEN TO VALVES ARE USED

TO GATE LIFT AND GATE LOCK WHEN A SINGLE VALVE IS USED—TO LIFT GATE ONLY WHEN TWO VALVES ARE USED

S

A

GD

TM

TO BACK UP ALARM

END DUMP- SINGLE AND DOUBLE VALVE
WIRING SCHEMATIC FOR FOUR WAY PLUG

TO GROUND
SECTION THREE

GATE SYSTEM
CONVERSION PROCEDURE FOR COMBINATION BARN/LIFT GATE

WARNING!
The gate assembly weighs over 400 pounds so should it become disconnected from the trailer and fall off it could result in serious injury or death.

To insure safety during the conversion, the procedure includes two separate and simultaneous methods to insure that the gate is always secured to the trailer, do not deviate from the conversion procedure outlined below.

Since several ¾” bolts are required to be torqued to 200 ft lbs, it is strongly recommended that a 1-1/8” heavy duty box wrench with a handle length of about 18” or a ¾” drive ratchet wrench with 1-1/8” hex socket be used for the conversion process.

Gates must be fully closed and secured prior to beginning the conversion procedure. This requires that both gate latches are locked closed over the gate lock pins and the four spoke clamp is in position on the forked gate clamp plate and fully tightened so that the gate is clamped against the half round body.

Fully closing and securing the gate serves two important functions:

1. Fully closing the gate should align the alternative hinges close enough that the self aligning pins or bushings can be inserted far enough to engage the tapered self aligning provision and engage enough threads on the ¾” bolt fastener to secure the gate.

2. Securing the gate with the air powered gate latches and the four spoke clamp prevents the gate from coming loose from the trailer regardless of the condition of the self aligning pins and bushings.

Both hinge systems are either a tapered pin or a straight bushing fitting into a tapered collar as the primary connecting device. These tapered fasteners will pull the gate into alignment from a misaligned condition of up to 1/8” which should not be exceeded under normal operating conditions or many years of wear.

The tapered fastener system is also designed so that the alternative tapered fastener can be engaged and tightened before the original tapered fastener is fully removed.

This insures that the gate is always securely attached to the trailer during the conversion process.
CONVERTING FROM TOP HINGE LIFT GATE TO SIDE HINGE BARN DOOR GATE

PROCEDURE:
1. FULLY CLOSE THE GATE AGAINST THE HALF ROUND BODY.
2. SWING THE FOUR SPOKE SIDE CLAMP OVER THE FORKED CLAMP PLATE ON THE GATE AND TIGHTEN THE CLAMP SECURELY.
3. ACTIVATE AND CLOSE THE AIR POWERED GATE LATCHES OVER THE GATE LATCH PINS TO SECURE THE BOTTOM OF THE GATE TO THE TRAILER.
4. REMOVE THE TWO ¾” BOLTS AND THE TWO SELF ALIGNING TAPERED PINS FROM THE GATE ATTACHMENT PLATES.
5. REMOVE THE TWO ¾” BOLTS SECURING THE SIDE HINGE MOUNTING PLATES TO THE SIDE OF THE TRAILER.
6. ROTATE THE SIDE HINGE MOUNTING PLATES 270 DEGREES FROM THE SIDE OF THE TRAILER UNTIL THEY STOP AGAINST THE GATE MOUNTING PLATES.
7. VISUALLY CHECK FOR ALIGNMENT WITHIN 1/8” BETWEEN THE HINGE GUIDE BUSHING AND THE GATE RECEPTOR.
8. CLEAN THE TAPERED PIN SURFACE AND IF NECESSARY THE GUIDE BUSHING AND RECEPTOR.
9. LUBRICATE THE TAPERED PIN AND ATTACHED THREADED FASTENER.
10. INSTALL BOTH TAPERED PINS THROUGH THE GUIDE BUSHING AND INTO THE RECEPTOR AND ENGAGE THE THREADED FASTENERS INTO THE RECEPTOR.
11. BE SURE THAT THE TAPERED PIN FASTENER ENGAGES AT LEAST 4 THREADS (4 COMPLETE 360 DEGREE ROTATIONS OF THE BOLT HEAD) BEFORE GETTING TIGHT. DO NOT FORCE IF STRONG RESISTANCE IS FELT.
12. IF STRONG RESISTANCE IS FELT OR IF THREADS CANNOT BE STARTED BECAUSE MISALIGNMENT IS GREATER THAN 1/8” THEN LOOSEN 4 SPOKE HAND WHEEL ONE TURN AND LOOSEN TOP HINGE BUSHING RETAINER BOLT 4 TURNS WHICH WILL ALLOW THE GATE TO BE PRIED TO WITHIN 1/8” ALIGNMENT.
13. RETURN TO THE SELF ALIGNING TAPERED PINS AND FULLY TIGHTEN UNTIL THE PIN FLANGE SEATS AGAINST THE GUIDE COLLAR.
14. TORQUE THE SELF ALIGNING TAPERED PINS TO 200 FT LBS.
15. INSTALL FOUR AUXILIARY ¾” CLAMP BOLTS THROUGH THE SIDE HINGE MOUNTING PLATE INTO THE CAPTIVE NUTS IN THE GATE MOUNTING PLATE AND TORQUE TO 200 FT LBS.
16. REMOVE THE TOP HINGE BUSHING COMpletely AND REINSTALL INTO THE FORWARD STORAGE LOCATION IN THE BEARING PLATE AND TIGHTEN TO 100 FT LBS.
17. TIGHTEN THE FOUR SPOKE CLAMP AGAINST THE FORKED GATE CLAMP PLATE.
18. GATE IS NOW READY TO BE USED IN THE SIDE HINGE BARN DOOR CONFIGURATION.
CONVERTING FROM SIDE HINGE BARN DOOR TO TOP HINGE LIFT GATE

PROCEDURE:
1. FULLY CLOSE THE GATE AGAINST THE HALF ROUND BODY.
2. SWING THE 4 SPOKE SIDE CLAMP OVER THE FORKED CLAMP PLATE ON THE GATE AND TIGHTEN THE CLAMP SECURELY.
3. ACTIVATE AND CLOSE THE AIR POWERED GATE LATCHES OVER THE GATE LATCH PINS TO SECURE THE BOTTOM OF THE GATE TO THE TRAILER.
4. REMOVE THE FOUR ¾” CLAMP BOLTS FROM THE HINGE TO GATE ATTACHMENT PLATES.
5. REMOVE THE TOP HINGE BEARING BUSHING FROM THEIR STORAGE POSITION IN THE BEARING PLATE.
6. CLEAN THE BUSHING SURFACE AND IF NECESSARY THE GATE BEARING AND TAPERED COLLAR AND BEARING PLATE INSIDE THE TAPERED COLLAR.
7. CHECK THAT THE ALIGNMENT OF THE GATE BEARING AND TAPERED COLLAR ARE WITHIN 1/8”.
8. LUBRICATE THE BEARING BUSHING AND ¾” BOLT FASTENER THREADS.
9. INSTALL BOTH HINGE BEARING BUSHING AND TIGHTEN ¾” BOLT FASTENER UNTIL BUSHINGS OVERLAP THE TAPERED COLLAR OR GREAT RESISTANCE OCCURS. DO NOT FORCE IF GREAT RESISTANCE IS FELT.
10. IF GREAT RESISTANCE IS FELT, MISALIGNMENT IS PROBABLY TOO GREAT, (OVER 1/8”) AND GATE MUST BE ALIGNED MORE CLOSELY USING MANUAL METHOD.
11. TO MANUALLY ALIGN GATE, LOOSEN THE 4 SPOKE ONE COMPLETE TURN ONLY AND LOOSEN THE TWO SELF ALIGNING PINS ATTACHING THE SIDE HINGE MOUNTING PLATE TO THE GATE MOUNTING PLATES FOUR COMPLETE TURNS.
12. THE GATE CAN NOW BE PRIED INTO CLOSE ENOUGH ALIGNMENT TO ENGAGE THE TOP BEARING BUSHING.
13. TIGHTEN THE TWO TOP BEARING BUSHINGS UNTIL THEY SEAT AGAINST THE BEARING PLATE.
14. TORQUE THE TWO TOP BEARING BUSHING FASTENERS TO 200 FT LBS.
15. REMOVE THE TWO SELF ALIGNING PINS FROM THE SIDE HINGE TO GATE MOUNTING PLATES.
16. ROTATE THE SIDE HINGE MOUNTING PLATES 270 DEGREE TO THE STORAGE POSITION AGAINST THE SIDE OF THE TRAILER.
17. INSTALL TWO ¾” BOLTS INTO HINGE MOUNTING PLATE SLOTTED HOLES AND INTO CAPTIVE NUTS TO SECURE PLATES TO SIDE OF TRAILER.
18. INSTALL TWO REMAINING ¾” BOLTS INTO GATE MOUNTING PLATE CAPTIVE NUTS.
19. INSTALL TWO SELF ALIGNING PINS INTO GATE MOUNTING PLATE RECEPTORS AND TORQUE T 100 FT LBS.
20. LOOSEN THE 4 SPOKE CLAMP AND SWING OVER TO THE SIDE FORKED STORAGE PLATE.
21. TIGHTEN THE 4 SPOKE CLAMP AGAINST THE SIDE FORKED STORAGE PLATE.
22. GATE IS NOW READY TO BE USED IN THE TOP HINGE LIFT GATE CONFIGURATION.
1. ED5025 HAND CLAMP ASSEMBLY
2. HB.75XC5B8 ¾" X 5" GRADE 8 BOLT
3. ED5087 SELF ALIGNING TAPER PINS
4. ED 5078 UPPER & ED5078 LOWER ATTACHMENT PLATES
5. ED 5375 SIDE HINGE MOUNTING PLATES
6. ED 5086 GUIDE BUSHING & ED 5085 RECEPTOR
7. ED 5069 HINGE ARM ASSEMBLY
8. ED 5385 BEARING PLATE ASSEMBLY
9. ED 5061 BEARING BUSHING

COMBINATION GATE ASSEMBLY - 46" SIDE
ED5365  HINGE ASSEMBLY

1. ED5069  ARM PLATE ASSEMBLY
2. ED5357  MOUNTING CHANNEL
3. ED5358  BEARING PLATE
4. ED5061  BEARING BUSHING
5. LW.75B  ¾" LOCK WASHER
6. HB.75C5B8  ¾" X 5" GRADE 8 BOLT
ED5110 LW GATE & HINGE ASSEMBLY
(GATE NOT SHOWN)

COMBINATION & GRAVITY GATE UPPER HINGE ASSY
SELF ALIGNING SIDE HINGE ASSEMBLY
FOR COMBINATION GATE
ED 5025 HAND CLAMP ASSEMBLY
1. ED5130 CRANK ASSEMBLY
2. ED5138 STORAGE PLATE
3. ED5137 CLAMP PLATE
4. ED5140 LUB PLATE
5. ED5134 PIVOT PIN

GATE CLAMP ASSEMBLY - COMBO GATE
1. ED6012 ARM LOCK
2. ED6036 MOUNT PLATE & BEARING
3. ED6034 CYLINDER MOUNT PLATE & BEARING
4. ED6033 ARM CRANK LOCK & BEARING
5. 6032 MOUNT PLATE & BEARING
6. ED130 TURNBUCKLE ASSEMBLY
7. ED6325 GATE LATCH ASSEMBLY
8. 1X2 PIN 1" CLEVIS PIN
9. ED6039 CYLINDER MOUNT PLATE & BEARING
10. ED6013 CROSS SHAFT
11. ED5006 HINGE ARM ONLY
12. ED5000 46" TAIL GATE ONLY
13. ED 6050 LIFT ARM (LEFT OR RIGHT)
14. ED6043 SHAFT
15. ED 6046 MOUNT PLATE & BEARING
16. ED6049 BEARING
17. ED6047 MOUNT PLATE & BEARING
18. ED6042 RETAINER
19. ED6044 LIFT BRACKET

HIGH LIFT GATE ASSEMBLY - 46" SIDE
<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART</th>
<th>DESCRIPTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>40041-9873</td>
<td>PILOT AIR VALVE</td>
</tr>
<tr>
<td>2</td>
<td>P61920-4</td>
<td>12 VOLT COIL</td>
</tr>
<tr>
<td>3</td>
<td>P53020-2</td>
<td>3/8&quot; ADJUSTABLE FLOW CONTROL VALVE</td>
</tr>
</tbody>
</table>

HIGH LIFT VALVE ASSEMBLY
1. ED6362 CYLINDER MOUNT PLATE ASSEMBLY
2. 1600-CYL4X8 4" X 8" AIR CYLINDER
3. 1003-11-319 1" X 2" CLEVIS PIN
4. ED6050 CRANK ASSEMBLY- AIR CLAMP
5. ED6130 TURNBUCKET ASSEMBLY
6. ED6359 CLAMP ASSEMBLY- AIR CLAMP
7. ED6359 PRESSURE PLATE

GATE AIR LOCK ASSEMBLY - COMBO GATE
ED6325 LOWER LATCH ASSEMBLY QF
HIGH LIFT GATE

ED6330 LOWER LATCH ASSEMBLY QF
COMBO GATE
1. 4PSKSA
2. 4 PISTON

4" ALUMINUM PISTON

4" PISTON SEAL KIT - SINGLE ACTION

USE ON 26" CYLINDER

4 INCH SINGLE ACTION PISTON SEAL KIT
1. F1002
2. 4 ROD END CAP
3/8" ROD SEAL KIT
4" ROD END CAP

4 INCH ROD SEAL KIT
FOR END DUMP AIR CYLINDERS
1. 4PSKDA
2. 4PISTON

4" PISTON SEAL KIT - DOUBLE ACTION
4" ALUMINUM PISTON

4 INCH DOUBLE ACTION PISTON SEAL KIT
USE ON 8" CYLINDER
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.
FRAMELESS AIR SYSTEM
AS OF MARCH 1, 2001
FRAMELESS AIR SYSTEM SINGLE POINT
WITH 3RD AXLE AIR RIDE/ AIR LIFT
AS OF MARCH 1-2001
QUARTER FRAME END DUMP AIR BRAKE SYSTEM

2550 LINE FILTER

ERV SPRING BRAKE CONTROL VALVE
PART # 110700

TO SPRING BRAKE

TO SPRING BRAKE

TO CONTROL SIDE OF BRAKE CHAMBER

TO CONTROL SIDE OF BRAKE CHAMBER

ECU VALVE
PART # 4005001030

N15902B PRESSURE PROTECTION VALVE

TO PILOT AIR VALVE
SECTION FIVE

AXLE SYSTEM
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.
### TABLE FOR FIGURE 5-2
TYPICAL 16.5” X 7” Q SERIES BRAKE INSTALLATION

<table>
<thead>
<tr>
<th>Item</th>
<th>Description</th>
<th>Item</th>
<th>Description</th>
<th>Item</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Capscrew</td>
<td>14</td>
<td>Bushing Anchor Pin</td>
<td>28</td>
<td>Capscrew</td>
</tr>
<tr>
<td>2</td>
<td>Lockwasher</td>
<td>15</td>
<td>Pin Anchor</td>
<td>29</td>
<td>Slack Adjuster Washer</td>
</tr>
<tr>
<td>3</td>
<td>Hubcap</td>
<td>16</td>
<td>Beam Axle</td>
<td>30</td>
<td>Slack Adjuster Locknut</td>
</tr>
<tr>
<td>4</td>
<td>Gasket</td>
<td>17</td>
<td>Camshaft (left)</td>
<td>31</td>
<td>Automatic Slack Adjuster</td>
</tr>
<tr>
<td>5</td>
<td>Wheel Bearing Jam Nut</td>
<td>18</td>
<td>Camshaft (right)</td>
<td>32</td>
<td>Slack Adjuster Washer</td>
</tr>
<tr>
<td>6</td>
<td>Lockwasher</td>
<td>19</td>
<td>Washer</td>
<td>33</td>
<td>Slack Adjuster Snap Ring</td>
</tr>
<tr>
<td>6A</td>
<td>Setscrew</td>
<td>20</td>
<td>Seal</td>
<td>34</td>
<td>Brake Shoe Return Spring</td>
</tr>
<tr>
<td>7</td>
<td>Wheel Bearing Adjusting Nut</td>
<td>21</td>
<td>Bushing</td>
<td>35</td>
<td>Brake Shoe and Lining Assy.</td>
</tr>
<tr>
<td>8</td>
<td>Outer Wheel Bearing Cone</td>
<td>22</td>
<td>Snap Ring</td>
<td>36</td>
<td>Brake Shoe Retaining Spring</td>
</tr>
<tr>
<td>9</td>
<td>Outer Bearing Cup</td>
<td>23</td>
<td>Capscrew</td>
<td>37</td>
<td>Brake Shoe Roller Retainer</td>
</tr>
<tr>
<td>10</td>
<td>Brake Drum</td>
<td>24</td>
<td>Air Chamber</td>
<td>38</td>
<td>Brake Shoe Roller</td>
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<tr>
<td>11</td>
<td>Inner Bearing Cup</td>
<td>25</td>
<td>Lockwasher</td>
<td>39</td>
<td>Shoe Return Spring Pin</td>
</tr>
<tr>
<td>12</td>
<td>Inner Bearing Cone</td>
<td>26</td>
<td>Locknut</td>
<td>40</td>
<td>Dust Shield</td>
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<tr>
<td>13</td>
<td>Wheel Bearing Nut</td>
<td>27</td>
<td>Camshaft Bushing Assembly</td>
<td>41</td>
<td>Hub</td>
</tr>
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</table>
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SIX
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.

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.
SINGLE POINT H-900 SUSPENSION DRAWING
## SUSPENSION PARTS FOR H-900 SUSPENSION

<p>| | | |</p>
<table>
<thead>
<tr>
<th></th>
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<tbody>
<tr>
<td>1</td>
<td>897-01</td>
<td>TRUNION HANGER</td>
</tr>
<tr>
<td>2</td>
<td>10376-00</td>
<td>4 ½” X ¾-16” HEX BOLT</td>
</tr>
<tr>
<td>3</td>
<td>895-00</td>
<td>4 ½ X 5 ¾” WASHER</td>
</tr>
<tr>
<td>4</td>
<td>893-01</td>
<td>44,000# TRUNION TUBE</td>
</tr>
<tr>
<td></td>
<td>893-02</td>
<td>50,000 TRUNION TUBE</td>
</tr>
<tr>
<td>5</td>
<td>9639-01</td>
<td>U-BOLT, TRUNION</td>
</tr>
<tr>
<td>6</td>
<td>9640-00</td>
<td>TRUNION, TOP PLATE</td>
</tr>
<tr>
<td>7</td>
<td>12258-01</td>
<td>SPRING, THREE LEAF</td>
</tr>
<tr>
<td>8</td>
<td>9937-00</td>
<td>SPRING END CAP</td>
</tr>
<tr>
<td>9</td>
<td>841-00</td>
<td>¾-16” HEX NUT</td>
</tr>
<tr>
<td>10</td>
<td>9293-00</td>
<td>2” X 5/8-18” HEX BOLT</td>
</tr>
<tr>
<td>11</td>
<td>817-00</td>
<td>13-16” X 1 ½” WASHER</td>
</tr>
<tr>
<td>12</td>
<td>814-00</td>
<td>RUBBER PAD</td>
</tr>
<tr>
<td>13</td>
<td>10608-00</td>
<td>ADJUSTMENT PLATE</td>
</tr>
<tr>
<td>14</td>
<td>9934-02</td>
<td>SPRING SEAT ADJUSTMENT</td>
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<tr>
<td>15</td>
<td>10273-00</td>
<td>5/8” WASHER</td>
</tr>
<tr>
<td>16</td>
<td>11513-03</td>
<td>5/8-18” HEX NUT</td>
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<tr>
<td>17</td>
<td>10060-01</td>
<td>U-BOLT, AXLE</td>
</tr>
<tr>
<td>18</td>
<td>891-00</td>
<td>TRUNION HUB-UPPER</td>
</tr>
<tr>
<td>19</td>
<td>890-00</td>
<td>RUBBER BUSHING, TRUNION</td>
</tr>
<tr>
<td>20</td>
<td>898-00</td>
<td>TRUNION HUB-LOWER</td>
</tr>
<tr>
<td>21</td>
<td>837-00</td>
<td>1 ¾” X 2 ¼” WASHER</td>
</tr>
<tr>
<td>22</td>
<td>836-00</td>
<td>1 1/8-12” HEX BOLT</td>
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SECTION
SEVEN

DRAFT
ARMS
HINGE
POINTS
DRAFT ARMS TO 5TH PLATE CONNECTION

<table>
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<tr>
<td>1</td>
<td>ED1012</td>
<td>RETAINER</td>
</tr>
<tr>
<td>2</td>
<td>ED1009</td>
<td>BEARING PIN</td>
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<tr>
<td>3</td>
<td>ED1008</td>
<td>BEARING PIN</td>
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<tr>
<td>4</td>
<td>ED1013</td>
<td>BEARING- DRAFT ARM</td>
</tr>
<tr>
<td>5</td>
<td>ED1007</td>
<td>TRUNION TUBE- 5TH PLATE</td>
</tr>
<tr>
<td>6</td>
<td>ED1011</td>
<td>RETAINER COLLAR</td>
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5TH PLATE TO DRAFT ARM CONNECTION
FRAMELESS & QUARTERFRAME
DRAFT ARM TO CENTER BOLSTER CONNECTION
FRAMELESS & QUARTERFRAME
# DRAFT ARM TO LEVELING ARM CONNECTION

<table>
<thead>
<tr>
<th>PART #</th>
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<tbody>
<tr>
<td>ED3400</td>
<td>DRAFT ARM-MODEL 20-26 QUARTER FRAME</td>
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<tr>
<td>ED3350</td>
<td>DRAFT ARM-MODEL 28-36 QUARTER FRAME</td>
</tr>
<tr>
<td>ED2370</td>
<td>DRAFT ARM-MODEL 24-30-3 QUARTER FRAME</td>
</tr>
<tr>
<td>ED3240</td>
<td>DRAFT ARM-MODEL 24-30 QUARTER FRAME</td>
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</table>

<table>
<thead>
<tr>
<th>ITEM</th>
<th>PART #</th>
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<tr>
<td>1.</td>
<td>ED1013</td>
<td>DRAFT ARM BEARING</td>
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<td>2.</td>
<td>ED3341</td>
<td>BEARING PIN</td>
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<td>3.</td>
<td>ED1008</td>
<td>BEARING</td>
</tr>
<tr>
<td>4.</td>
<td>ED1012</td>
<td>RETAINER</td>
</tr>
</tbody>
</table>
SECTION EIGHT

MISCELLANEOUS PARTS
SINGLE ACTING TELESCOPIC CYLINDER OPERATION

TO EXTEND:

HIGH PRESSURE OIL FROM THE PUMP IS DIRECTED BY THE CONTROL VALVE THROUGH THE PORT (A) TO FILL THE CYLINDER. ANY AIR IN THE SYSTEM IS TRAPPED IN THE END OF THE CYLINDER (B) AND MAY BE BLED OFF THROUGH THE BLEEDER VALVE (C). GENERALLY, BLEEDING IS ONLY NECESSARY ON INITIAL START UP OR IF AIR HAS BEEN ALLOWED TO ENTER THE SYSTEM.

OIL PUSHES ON THE BOTTOM OF THE SLEEVE OR PLUNGER FORCING (F) IT TO MOVE OUT. THE OUTSIDE DIAMETER OR SEALING AREA OF THE SLEEVE OR PLUNGER (D) DETERMINES THE EFFECTIVE AREA.

AS THE SLEEVE OR PLUNGER MOVES OUT, THE OIL IS TRAPPED BETWEEN (E) THE SLEEVE OR PLUNGER WALL IS RELEASED THROUGH HOLES IN THE SLEEVE OR PLUNGER.

TO RETRACT:

A SINGLE ACTING CYLINDER MUST BE RETRACTED BY GRAVITY OR MECHANICAL MEANS.
1. ED9905 LINK ARM ASSEMBLY
2. ED9902 TURNBUCKLE ASSEMBLY
3. ED9907 LINK ARM TRANSFER ASSEMBLY
   A. ED9937 WASHER
   C. ED9906 LINK M ASSEMBLY
   C. ED9943 LINK ARM SHAFT
   D. ED9938 RETAINER
4. ED9901 TURNBUCKLE ASSEMBLY
5. ED9945 STOP
6. ED9908 FIXED ASPHALT PAN
7. ED9909 HINGED ASPHALT PAN

ASPHALT APRON
WITH HINGED EXTENSION
<table>
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<th>ITEM</th>
<th>PART</th>
<th>DESCRIPTION</th>
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</thead>
<tbody>
<tr>
<td>1.</td>
<td>ED4417</td>
<td>84&quot; FRONT FENDER</td>
</tr>
<tr>
<td>2.</td>
<td>ED4485</td>
<td>FRONT FENDER BRACKET</td>
</tr>
<tr>
<td>3.</td>
<td>ED4488</td>
<td>REAR FENDER BRACKET</td>
</tr>
<tr>
<td>4.</td>
<td>ED4422</td>
<td>ANGLE BRACKET</td>
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</table>

FRONT FENDER ASSEMBLY
1. CALL RANCO PARTS WITH VINAGE NUMBER
2. ED4422 ANGLE BRACKET
3. ED4426 ANGLE BRACKET
4. ED4427 ANGLE CLIP
5. ED4435 FENDER MOUNT ASSY - RIGHT OR LEFT
1. ED4018     MUD FLAP BRACKET
2. BR50113     BACK UP STRAP
3. ED4062     BOLSTER FLAP BRACKET
4. RANCOFLAP     RANCO MUD FLAP
HIGH LIFT MUD FLAP BRACKET ASSEMBLY

1. ED4062 FLAP BRACKET- BOLSTER
2. ED4049 HIGH LIFT BRACKET ASSEMBLY
3. 97320A380 MUD FLAP HITCH PIN
4. ED4061 ATTACHMENT PIN
5. ED4077 MUD FLAP BRACKET ASSEMBLY
6. BR50113 BACK UP STRAP
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SPECIAL OPTIONS
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

<table>
<thead>
<tr>
<th>Maintenance Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Check tension of cables</td>
</tr>
<tr>
<td>Check length of tarp</td>
</tr>
<tr>
<td>Clean and lubricate cables</td>
</tr>
<tr>
<td>Check security of cable clamps</td>
</tr>
<tr>
<td>Inspect the tarp for any tears, cuts or worn areas</td>
</tr>
<tr>
<td>Check alignment of rear bow</td>
</tr>
<tr>
<td>Check condition of cables (frayed wire, cuts, rust)</td>
</tr>
<tr>
<td>Check tension of V belt or chain</td>
</tr>
<tr>
<td>Inspect hardware to be sure fasteners haven’t become loose</td>
</tr>
<tr>
<td>Auto clips installed on all vinyl systems</td>
</tr>
</tbody>
</table>

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 TARP 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.
<table>
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<td>105004</td>
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<td>105005</td>
<td>7 IN CABLE PULLEY</td>
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<td>105010</td>
<td>1 IN PILLOW BLOCK BEARING</td>
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<tr>
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<td>108605</td>
<td>97 IN SHAFT ASSY W/ BEARING &amp; PULLEYS</td>
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<td>108312</td>
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</table>

**Description**

1. \(\frac{3}{8}" \times \frac{1}{8}" GRADE 5 BOLT AND NUT
2. 4\(\frac{1}{2}\) PULLEY REAR CABLE ADJUSTMENT SPANNER W/ NUTS
3. LEFT HAND REAR BRACKET
4. RIGHT HAND REAR BRACKET ASSEMBLY
5. LEFT HAND REAR BRACKET ASSEMBLY