



**SIDE DUMP
OPERATION – MAINTENANCE & PARTS MANUAL
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- A. PINTLE HITCH**
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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 THAN 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 THAN 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.

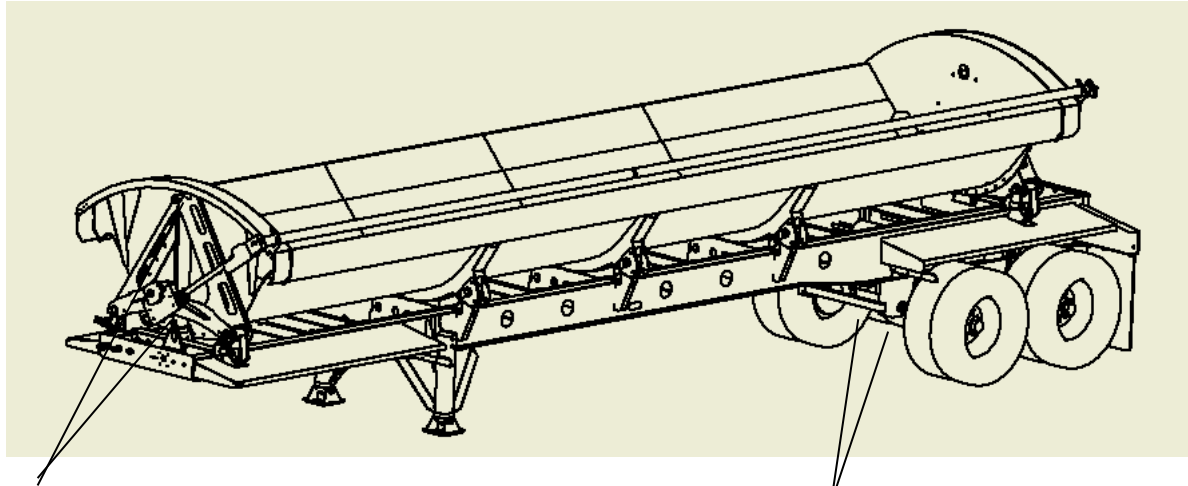
STARTING PROCEDURE AND CONTROLS

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. PRIOR TO USE, MAKE SURE THE CYLINDERS ARE RETRACTED AND THE TUB IS SITTING IN ITS SADDLES..

PARTS LUBRICATION



TUB - GREASE TWO POINTS
(ON BOTH CYLINDERS)

AXLE DETAIL
GREASE FOUR POINTS

LUBRICATION INSTRUCTIONS

GREASE:

THERE ARE SEVERAL POINTS ON THIS TRAILER THAT REQUIRES 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, 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.

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.

SIDE 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.

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

GREASE 5TH WHEEL & KING PIN – Refer to General Operating Instructions in Owners Manual.

WEEKLY CHECKS – MAINTENANCE

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

ADJUST AND LUBRICATE TARP – Refer to Tarp Maintenance Section of General Lubrication & Maintenance in Owners Manual.

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.

SIDE 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 tarp material tends to stretch once you start using the trailer. It is very important to check the spring takeup of the tarp during this first check. – If necessary, there is internal adjustment inside the tarp spring housings mounted to the front/rear of unit.

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 TUB CYLINDERS, 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 TUB DUMP SYSTEM - Refer to Operation of Tub Dump 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.

CHECK TURNABLE RING BOLTS FOR PROPER TORQUE – All bolts to be visually checked and torqued on the turntable dolly ring. Torque to be 200 ftlbs dry.

CHECK THE IDLER HINGES FOR PROPER SEATING – All the hinges/roller must seat fully into their respected saddles. Loosen and readjust the rollers so they sit snugly, and retighten the bolts holding the idlers. A quick visual inspection will determine an adjustment need

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

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

SIDE DUMP OPERATION

CAUTION! SIDE DUMP OPERATION CAN BE DANGEROUS!

OPERATOR SHOULD BE ALERT AT ALL TIMES WHEN RAISING TUB 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 ENSURE THAT THE LATCHES ARE ENGAGED ON THE SIDE OF THE PLANNED DUMP, AND UNENGAGED ON THE OPPOSITE SIDE. FAILURE TO VERIFY COULD RESULT IN CATASTROPHIC FAILURE TO TUB.

CHECK DUMP SITE FOR A FIRM LEVEL SURFACE. CHECK FOR STRUCTURES THAT COULD BE A DANGER.

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. 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 TUB IN AN ATTEMPT TO FREE A STICKING OR FROZEN LOAD. RAISING THE TUB PART WAY AND THEN QUICKLY ENGAGING THE VALVE IN THE LOWER POSITION WILL CAUSE A TREMENDOUS PRESSURE SPIKE. THIS PRESSURE SPIKE MAY BULGE OR SPLIT THE CYLINDER, OR CAUSE FRAME DAMAGE TO THE TRAILER.

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.

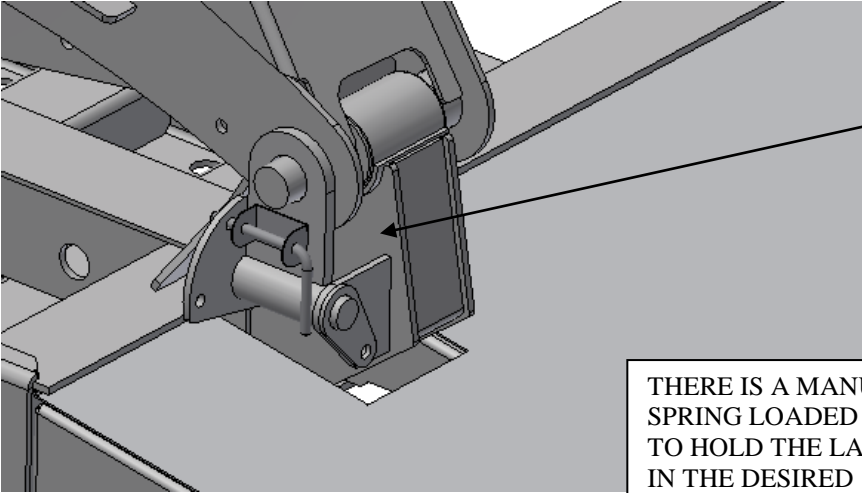
THE UNIT MUST BE LOWERED COMPLETELY BEFORE MOVING. DO NOT DRIVE WITH P.T.O. OR HYDRAULIC PUMP ENGAGED.

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

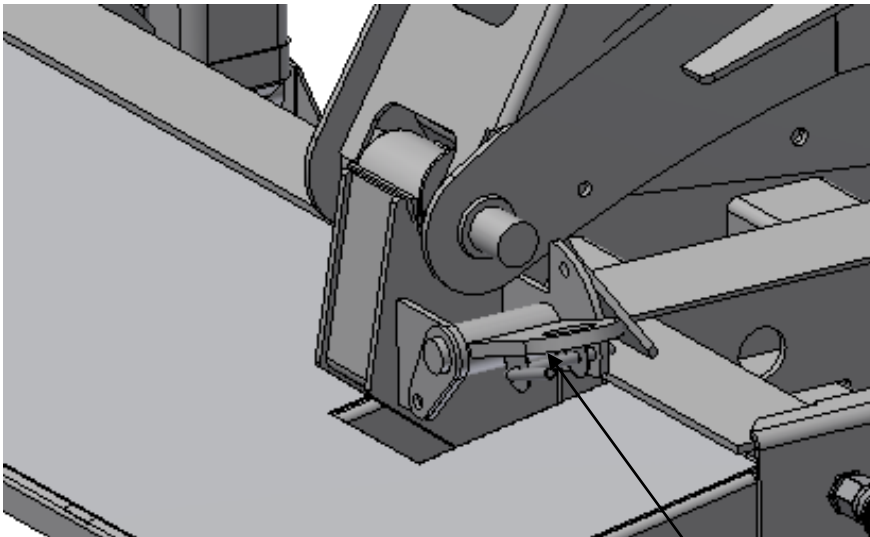
CYLINDER SHOULD BE FREE OF ENTRAPPED AIR. IT IS ADVISABLE TO BLEED AIR FROM CYLINDER WEEKLY FOR A SMOOTH OPERATION. THE BREATHER VALVE IS LOCATED ON THE UPPER PORTION OF THE CYLINDER NEAR THE MOUNT.

SIDE DUMP OPERATION



ON THE DUMPING SIDE OF THE TRAILER, MAKE SURE THE CATCH IS ENGAGED IN THE FRONT AND REAR

THERE IS A MANUAL SPRING LOADED PIN TO HOLD THE LATCH IN THE DESIRED POSITION



ON THE LIFTING SIDE OF THE TRAILER, MAKE SURE THE CATCH IS **NOT** ENGAGED IN THE FRONT AND REAR

SCHEDULED MAINTENANCE WORK SHEET

<u>TARP ADJUSTMENT</u>	<u>RECOMMENDED</u>	<u>CHECKED BY</u>	<u>DATE</u>
Bolts on tarp arm	Secured	_____	_____
Springs	Firm Tension	_____	_____
Tarp Length	Stretched tight	_____	_____

CHECK TORQUE ON ALL SUSPENSION FASTENERS:

<u>H-900 SINGLE POINT SUSPENSION</u>	<u>RECOMMENDED TORQUE</u>	<u>CHECKED BY</u>	<u>DATE</u>
1 1/8" Trunion "U" Bolts	880 ft. lbs.	_____	_____
1" Trunion Hanger Bolts	730 ft. lbs.	_____	_____
A" axle "U" Bolts	300 ft. lbs.	_____	_____
5/8" End Cap Bolts	180 ft. lbs.	_____	_____

CHECK TORQUE ON ALL WHEEL END FASTENERS:

Inner Lug Nuts	500 ft. lbs.	_____	_____
Outer Lug Nuts	500 ft. lbs.	_____	_____
Hub Piloted Nuts	500 ft. lbs.	_____	_____

GREASE TUB LATCHES~ AXLE CAM BUSHINGS & SLACK ADJUSTERS:

<u>CHECKED BY</u>	<u>GREASED</u>	<u>DATE</u>
Latch Bushings	_____	_____
Cam Bushings & Slack Adjusters	_____	_____

CHECK FOR PROPER ADJUSTMENT AND OPERATION OF BRAKES:

Check Brake Wear	Amount of shoe remaining (New is 24/32-Min 8/32 required)	<u>LF</u> _____ /32	<u>LR</u> _____ /32
	RECOMMENDED	<u>RF</u> _____ /32	<u>RR</u> _____ /32
		<u>CHECKED BY</u>	<u>DATE</u>
Check Push Rod Adjustment	Not more than 1-7/8" stroke	_____	_____
Check Brake Drums	No cracks - excessive wear	_____	_____
Check Brake Operation	No air leaks - All brakes operating	_____	_____
Check ABS System	See Book on System	_____	_____

CHECK FOR PROPER OPERATION OF TUB DUMP SYSTEM:

Check for air leaks in hydraulic lines	No leaks in lines & fittings	_____	_____
Check for smooth tub dump operation	No hesitation, stopping, or sticking, or hydraulic leaks	_____	_____

CHECK ALL TIRES FOR PROPER INFLATION AND EVEN WEAR PATTERN:

Check Inflation	See instructions on tire for proper inflation	<u>LF</u> _____ /32	<u>LFI</u> _____ /32
Check Tread Depth	(Min. 4/32 Required)	<u>LR</u> _____ /32	<u>LRI</u> _____ /32
		<u>RF</u> _____ /32	<u>RFI</u> _____ /32
		<u>RR</u> _____ /32	<u>RRI</u> _____ /32

SECTION TWO

ELECTRICAL SYSTEM



TYPICAL FRONT CROSS MEMBER

SERVICE AND EMERGENCY GLADHANDS – LEFT SIDE

7-WAY ELECTRICAL PLUG WITH CIRCUIT BREAKERS- RIGHT OF GLADHANDS

2 PRONG ELECTRICAL TARP (IF PURCHASED) – CENTER OF TRAILER

6-WAY ELECTRICAL PLUG- LEFT SIDE OF HYDRAULIC CONNECTIONS

4-WAY ELECTRICAL PLUG- (ON LEAD UNITS ONLY) LEFT SIDE OF 6-WAY

HYDRAULIC CONNECTIONS – RIGHT SIDE OF TRAILER –

FEMALE CONNECTION - PRESSURE LINE

MALE CONNECTION - RETURN LINE



TYPICAL REAR LIGHT RAIL

STOP & TAIL LIGHTS- RIGHT AND LEFT SIDES

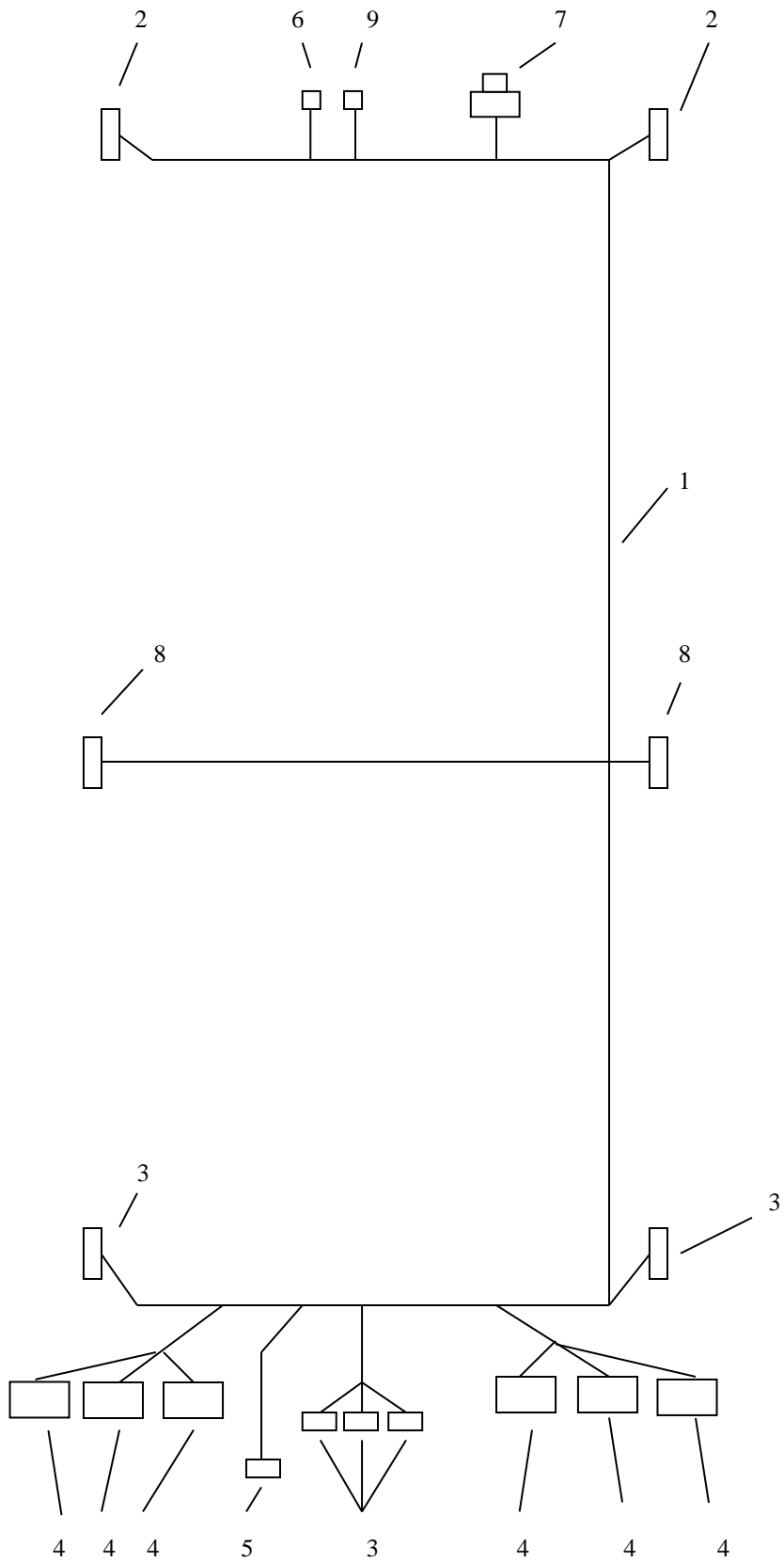
MARKER LIGHTS-CENTER

LICENSE PLATE LIGHT-LEFT OF CENTER MARKER LIGHTS

REFLECTORS-INSIDE OF STOP & TAIL LIGHTS

ALSO SHOWN IN SUB-FRAME ARE 7 WAY AND 4 WAY PLUG-IN

ADAPTER FOR A PULL TRAILER



WIRING

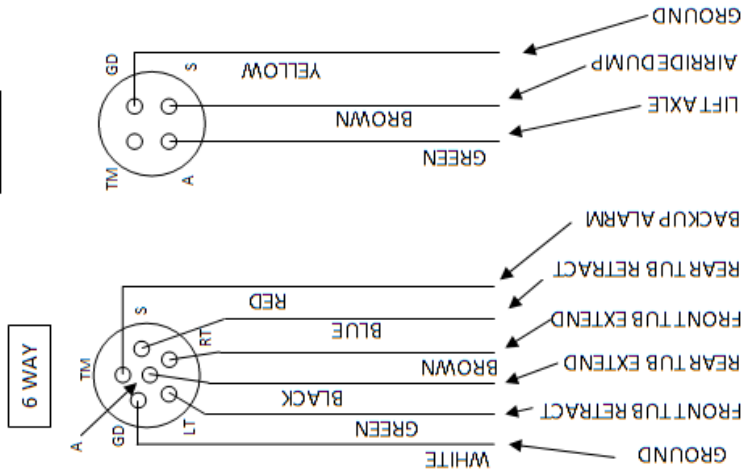
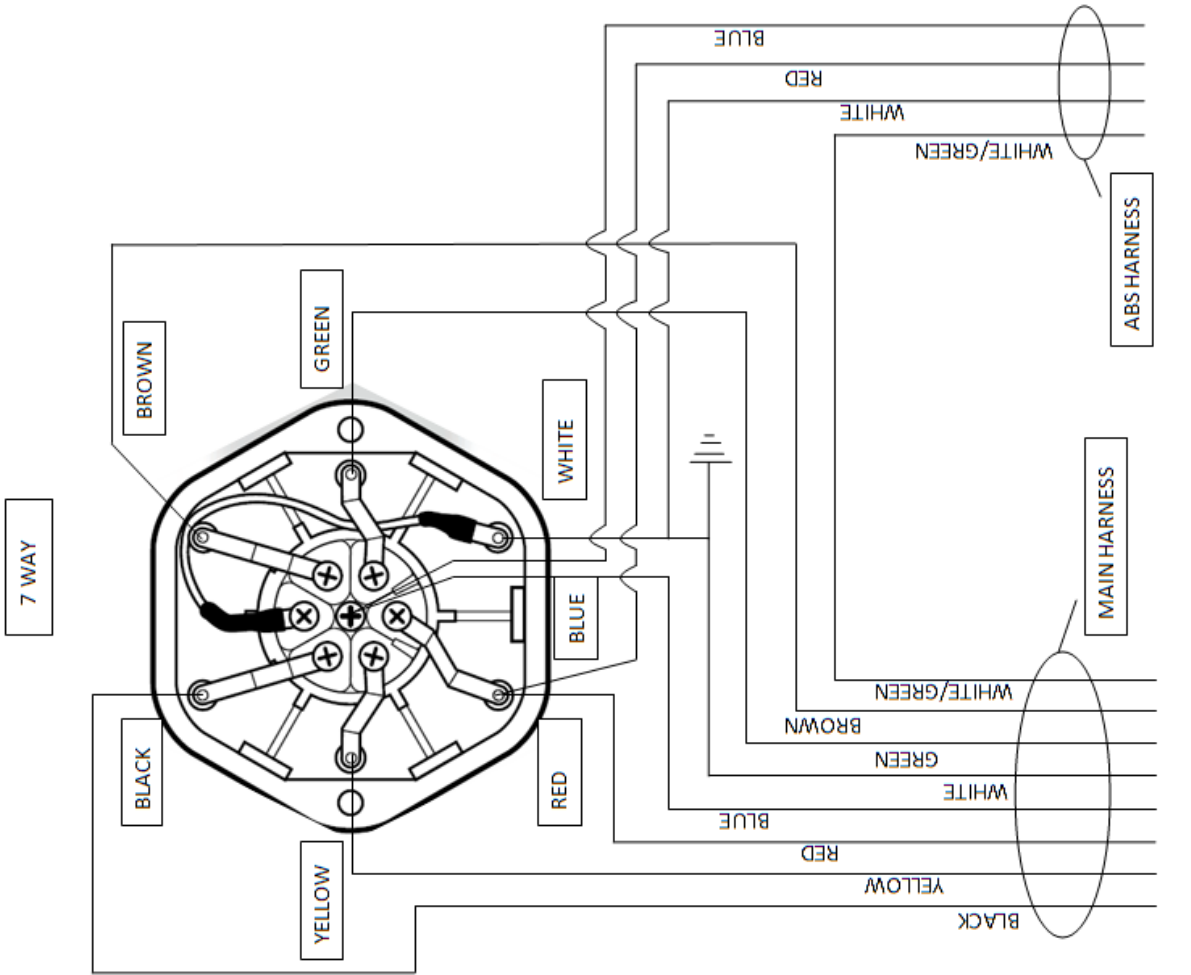
ELECTRICAL SYSTEM PARTS LIST

ITEM NUMBER	PART NUMBER	DESCRIPTION
1	HARNESS (CALL FACTORY WITH MODEL & VIN #)	
2	M181A	AMBER MARKER LIGHT
3	M181R	RED MARKER LIGHT
4	816R	STOP, TURN & TAIL LIGHT
	426-18	STOP, TURN & TAIL LIGHT GROMMET
5	150C	LICENSE LAMP
6	N2947	FEMALE 4 WAY PLUG
7	383403	FEMALE 7 WAY PLUG
8	356A	AMBER MID-TURN LIGHT
	421-18	MID-TURN GROMMET
9	N2948	FEMALE 6 WAY PLUG

SAE J560 Standards

Conductor Id	Wire Color	Lamp and Signal Circuits
Whit	White	Ground return to towing vehicle
Bk	Black	Clearance, side marker & license plate lamps
Yel	Yellow	Left hand turn signal & hazard signal lamps
Red	Red	Stop lamps and antilock devices
Grn	Green	Right hand turn signal & hazard signal lamps
Bm	Brown*	Tail, clearance, side marker lamps & identification lamps
Blu	Blue	Auxiliary

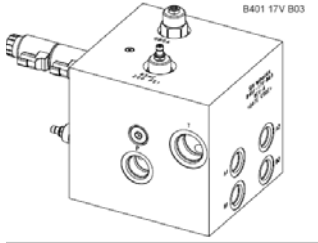
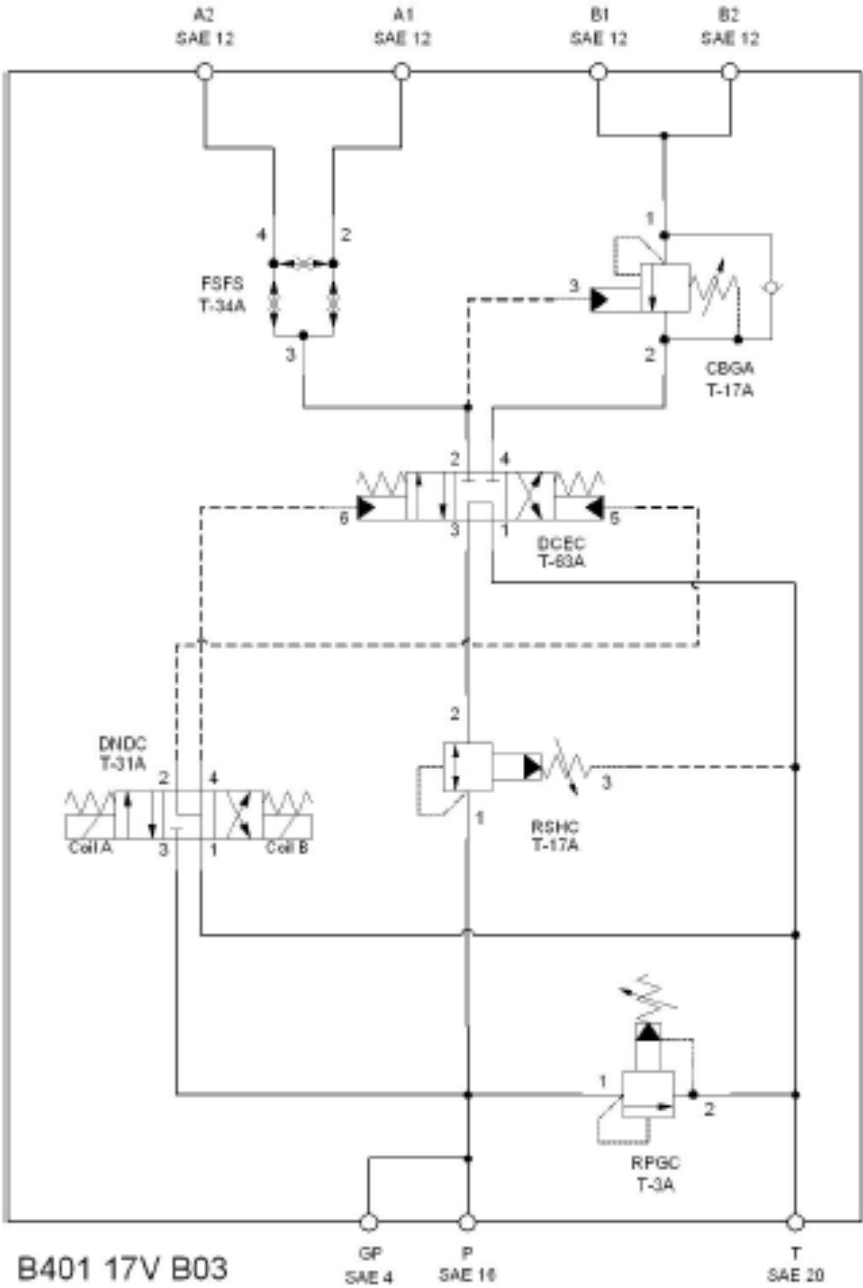
* It is recommended to balance the circuits as practicable.



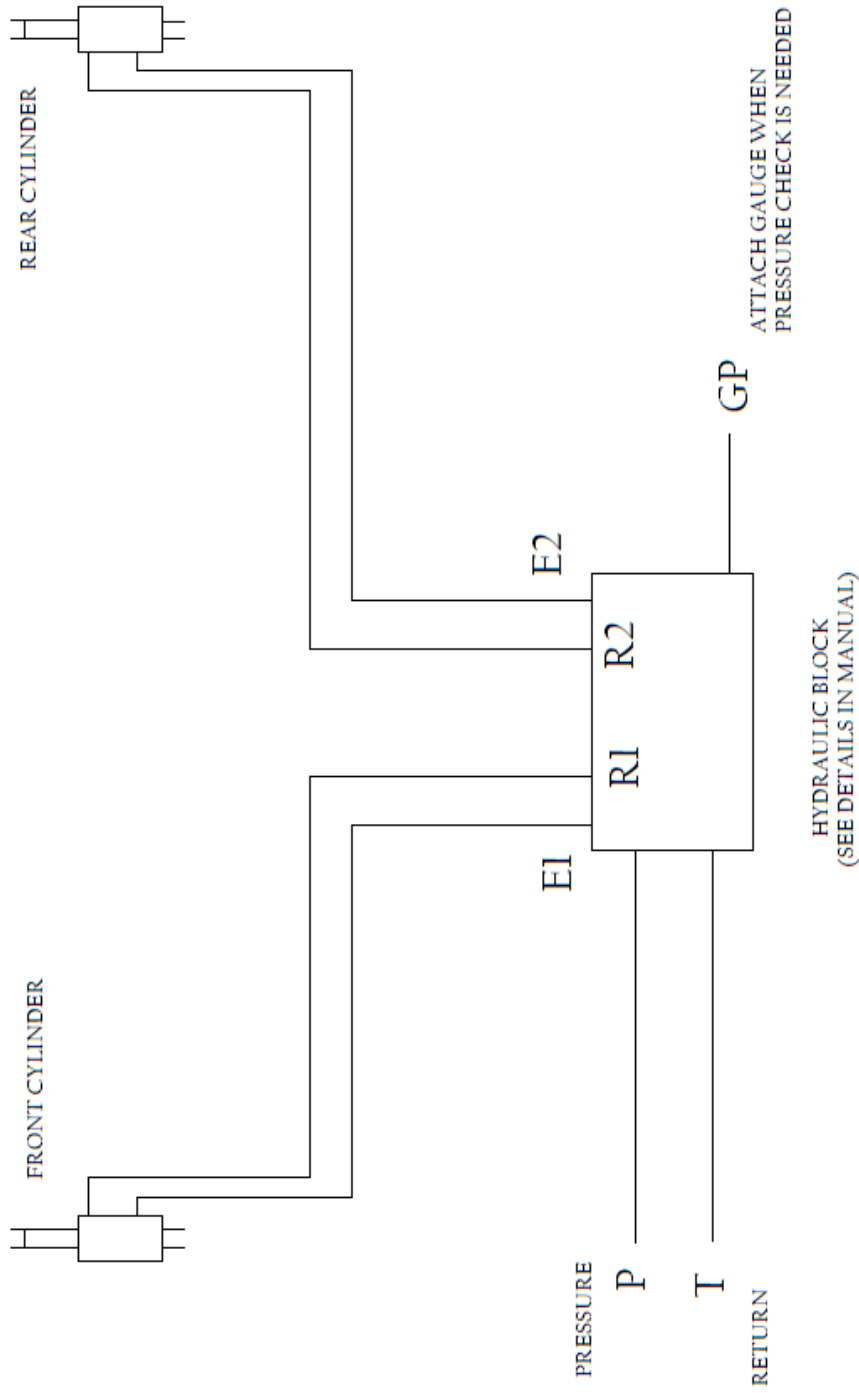
**SECTION
THREE**

HYDRAULIC SYSTEM

HYDRAULIC MANIFOLD SCHEMATICS



HYDRAULIC DUMP CIRCUIT



HOSE ASSEMBLIES FOR HYDRUALIC SYSTEM

EACH HOSE AND FITTING ASSEMBLY IS DIFFERENT LENGTH DEPENDING ON THE TYPE AND SIZE OF TRAILER. PLEASE REFER TO THE DRAWINGS OF THE HYDRAULIC SCHEMATICS AND WHEN ORDERING HOSES HAVE YOUR VEHICLE IDENTIFICATION NUMBER (VIN#) AVAILABLE TO GIVE TO THE PARTS DEPARTMENT.

UTILIZING THE VIN# AND YOU DESCRIPTION OF THE HOSE (STRAIGHT, OR 90 DEG ENDS), THE PARTS DEPARTMENT WILL BE ABLE TO SEND YOU THE PROPER HOSE ASSEMBLY.

SECTION FOUR

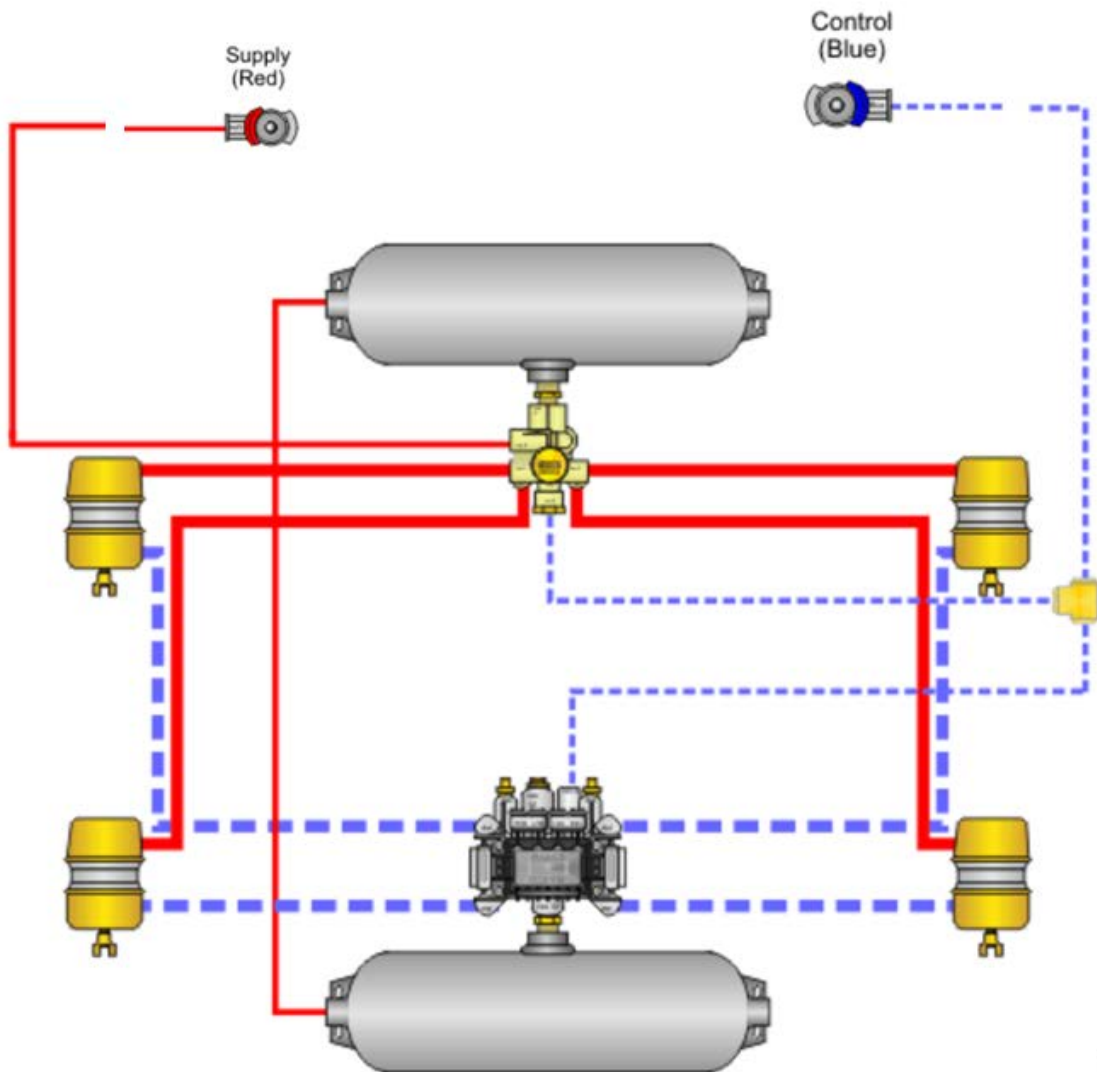
AIR BRAKE SYSTEM

RANCO ABS BRAKE SYSTEM INFORMATION

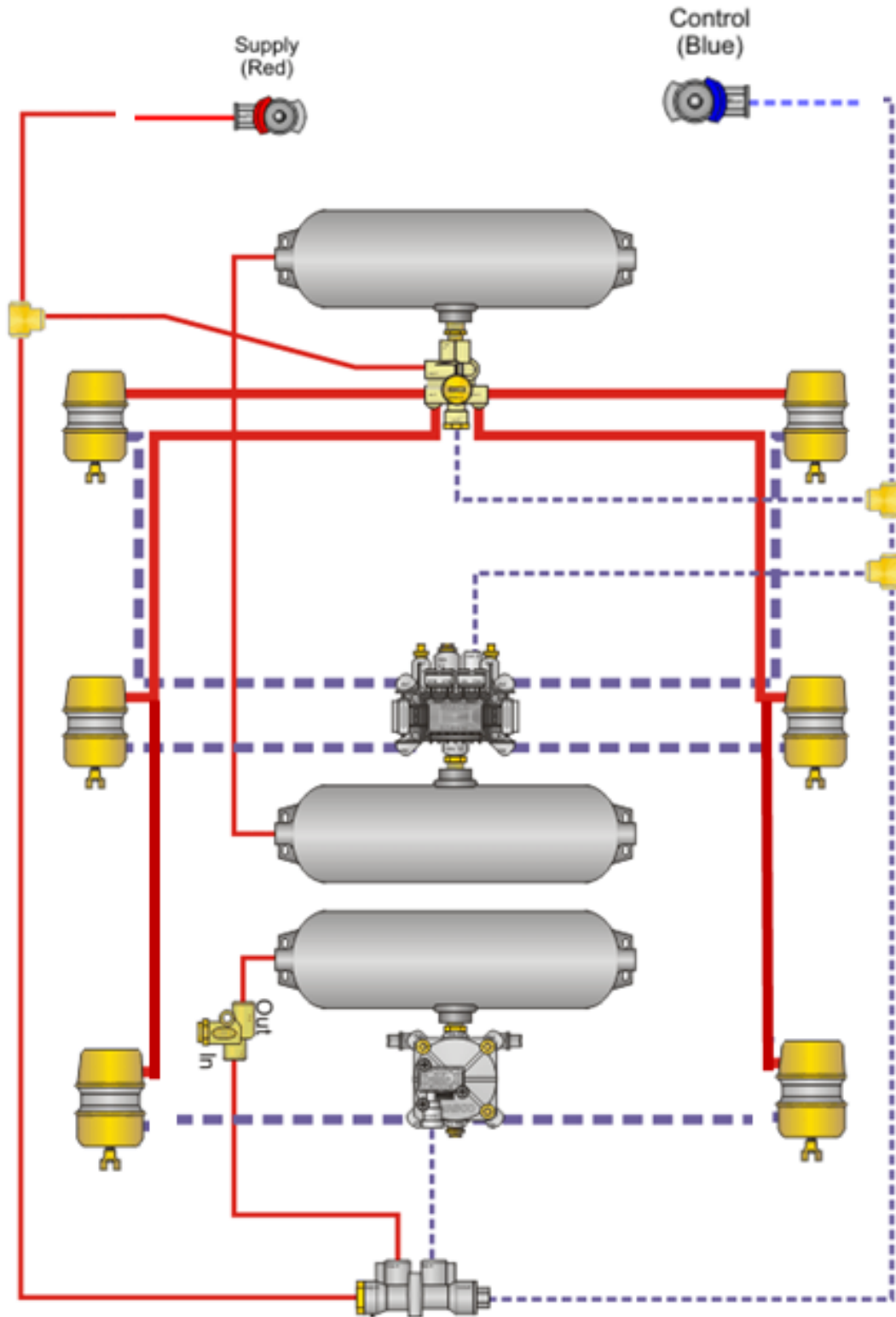
PLEASE REFER TO THE DRAWINGS OF THE STANDARD SETUP FOR TANDEM AND TRI-AXLE SYSTEMS ON THE FOLLOWING PAGES.

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 AIR BRAKE KIT WITH TWO RESERVOIRS



TRIDEM AIR BRAKE KIT WITH THREE TANKS

SECTION FIVE

AXLE SYSTEM

RANCO AXLE SYSTEM INFORMATION

RANCO USES WATSON CHALIN SUSPENSIONS AND AXLES MANUFACTURED BY SEVERAL DIFFERENT COMPANIES ON OUR STANDARD TRAILERS.

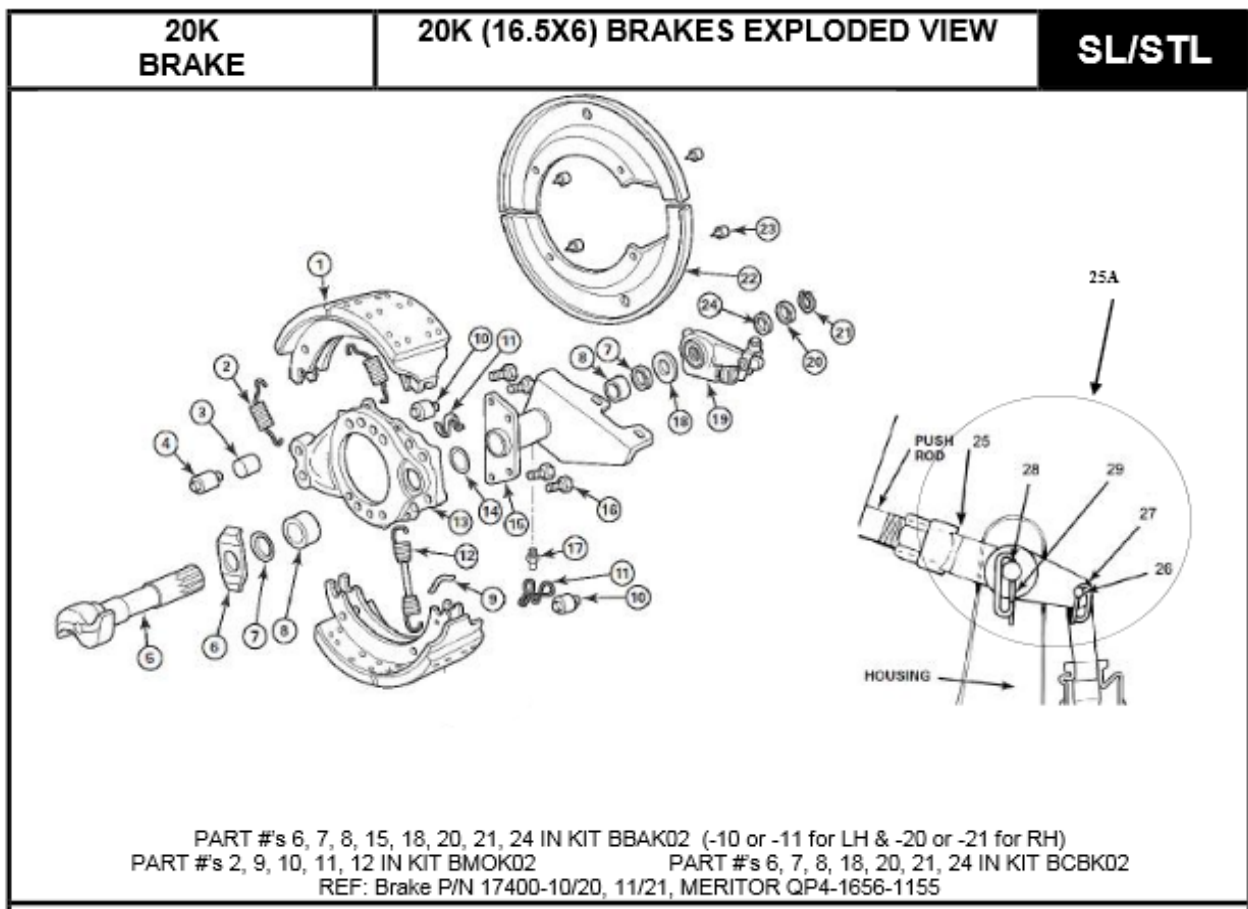
ALTHOUGH MOST OF THE AXLES ARE ALIKE IN SOME MANNER, THE PARTS ARE OFTEN DIFFERENT.

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.



PARTS LIST

NO.	QTY PER BRAKE	W/C #	DESCRIPTION	NO.	QTY PER BRAKE	W/C #	DESCRIPTION
1	2	Not Sold By W&C	SHOE & LINING ASSEMBLY(MA312) OEM P/ N SMA3124715QP (16.5X6QP w/ MA312)	16	4	S2810B210	CAPSCREW CHAMBER BRACKET
2	2	2258H1230	SHOE RETAINING SPRING	17	1	1199N1860	GREASE FITTING
3	2	1225B496	BUSHING ANCHOR PIN	18	1	1229S2697	CAMSHAFT WASHER (THICK)
4	2	1259N274	ANCHOR PIN BRAKE SHOE	19***	1	R802446	SLACK ADJUSTER AUTOMATIC 17400-10-11. OEM P/N A413275Z1144
5	1	2210C7595	CAMSHAFT LH 13.25 USED ON 17400-11		1	R802447	SLACK ADJUSTER AUTOMATIC 17400-20-21. OEM P/N A413275A1145
	1	2210B7594	CAMSHAFT RH 13.25 USED ON 17400-21	20	1	1229N4590	WASHER SPACING
	1	2210E7493	CAMSHAFT LH 10.50 USED ON 17400-10	21	1	1229D2942	CAMSHAFT SNAP RING
	1	2210D7492	CAMSHAFT RH 10.50 USED ON 17400-20	22	1	MPS3979	DUST SHIELD ASSEMBLY (2 Halves) OEM P/N's 3264S227 & 3264T228
6	1	1229E4685	WASHER CAMHEAD	23	6	S264B	CAPSCREW DUST SHIELD
7	2	A1205V1556	CAMSHAFT SEAL	24	2	1229J3130	WASHER SPACING FLAT
8	2	1225L1208	CAMSHAFT BUSHING	25A	1	R810019	CLEVIS ASSEMBLY INCLUDES

ITEMS 25-26-27-28-29								
9	2	1218G85	RETURN SPRING PIN	25A	25	1	1245Z1066	SLACK CLEVIS
10	2	2297T7222	BRAKE SHOE ROLLER		26	1	19X127	SMALL CLEVIS PIN
11	2	3105B210	BRAKE SHOE ROLLER RETAINER		27	1	2257C1173	SMALL CLEVIS PIN CLIP
12	1	2258Y1273	BRAKE SHOE RETURN SPRING		28	1	19X1116	LARGE CLEVIS PIN
13*	1	A3211B5566	SPIDER CAST LEFT HAND OEM P/N A23211B5566		30	1	C773276D30	BRAKE CHAMBER ASSEMBLY LH For p/n 17400-10 & 11
	1	A3211A5565	SPIDER CAST RIGHT HAND OEM P/N A23211A5565					
14	2	1205G761	CHAMBER BRACKET SEAL	NOTE 1	1	C763276D30	BRAKE CHAMBER ASSEMBLY RH For p/n 17400-20 & 21	
15**	1	C113299Z6786	CAMSHAFT & CHAMBER BRACKET LH For p/n 17400-10	31	2	1229N1626	BRAKE CHAMBER WASHER	
	1	C113299A6787	CAMSHAFT & CHAMBER BRACKET RH For p/n 17400-20	32	2	N3101	BRAKE CHAMBER MOUNTING NUT	
	1	C83299Z6786	CAMSHAFT & CHAMBER BRACKET LH For p/n 17400-11					
	1	C83299A6787	CAMSHAFT & CHAMBER BRACKET RH For p/n 17400-21					
^	Each Assembly Includes Spider Plus (2 #3s) & (1 #7) & (1 #8) & (1#14)			***	Each Assembly Includes a Slack Adjuster and Clevis Assembly (#Item 25A)			
**	Each Assembly Includes a Camshaft Plus (1 #7) & (1 #8)			NOTE 1	Brake Chamber does not include mounting hardware. (Item 31 & 32)			

**SECTION
SIX**

**SUSPENSION
SYSTEM**

RANCO SUSPENSION SYSTEM INFORMATION

RANCO USES SUSPENSIONS MANUFACTURED BY WATSON CHALIN ON OUR STANDARD TRAILERS.

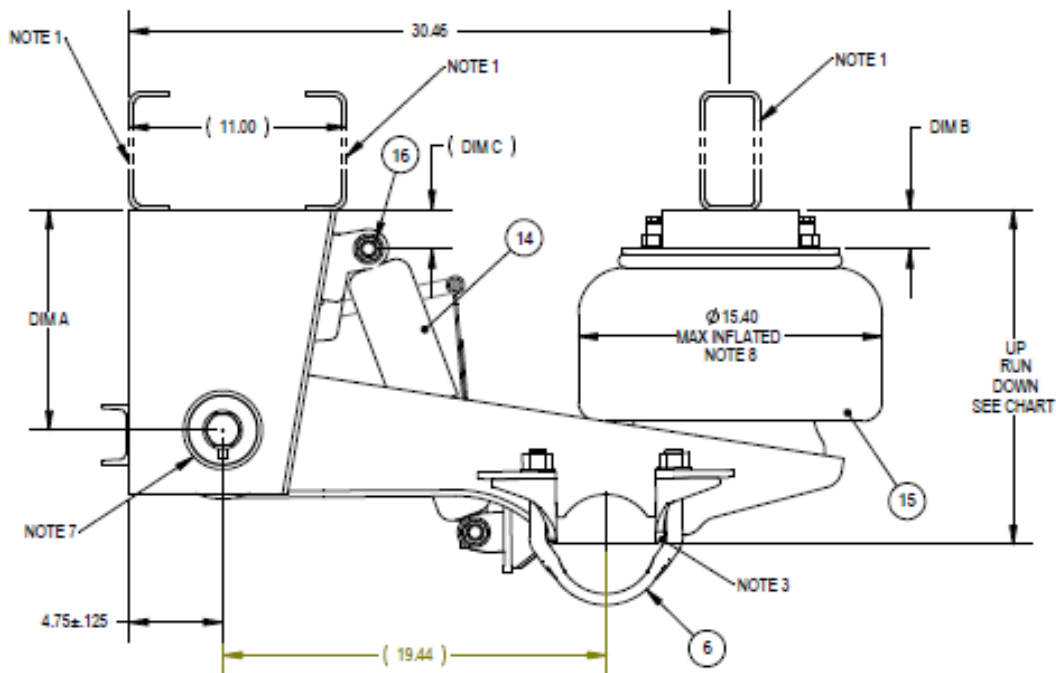
RANCO KEEPS A RECORD OF EXACTLY WHAT BRAND AND TYPE OF SUSPENSION IS PUT UNDER EACH TRAILER.

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.

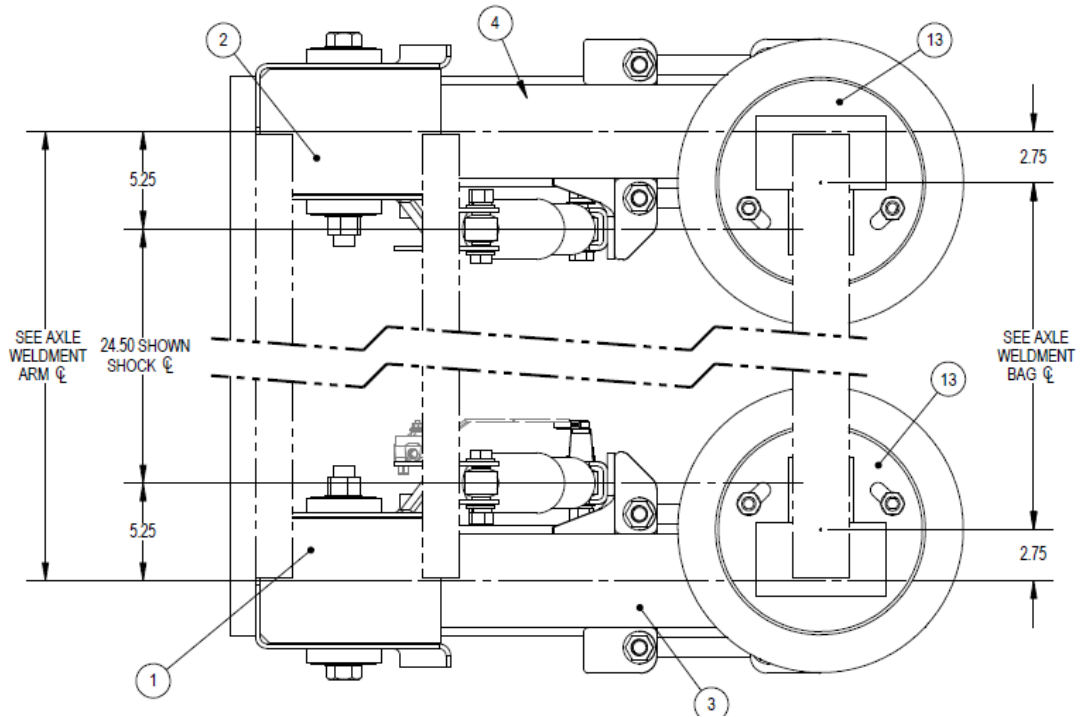
WATSON CHALIN TA300 AIR RIDE SUSPENSION



MODEL NUMBER

MODEL NO.	OPTION	COLLAR	RIDE HEIGHT	UP***	DIM A	DOWN	DIM B	DIM C	ITEM # 1	ITEM # 2	ITEM # 3	ITEM # 4	ITEM # 5	ITEM # 13 (REF.)	ITEM # 14 (REF.)
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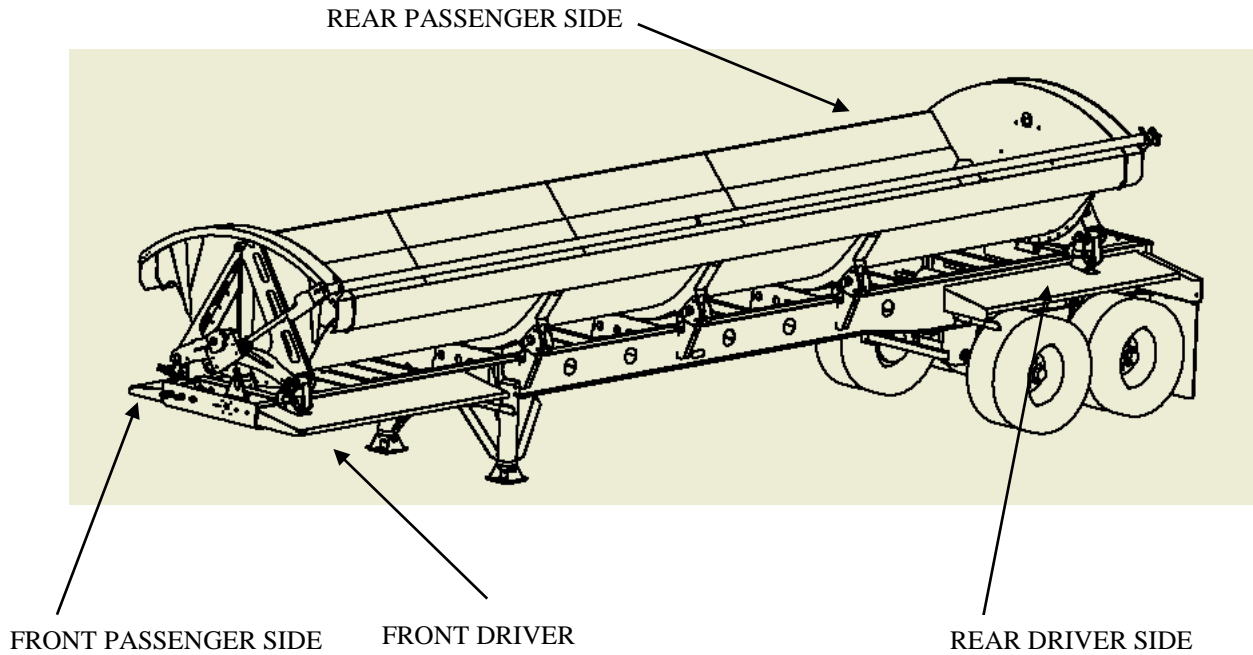
T300T2021XW.XXX	21XW	W	21.00	17.25	14.00	25.25	6.00	5.44	H0A1PWSE3XXXXX	H0A2PWSE3XXXXX			16079-01	950167-06	17186
T300T2021XE.XXX	21XE	E							H0A1PWEE3XXXXX	H0A2PWEE3XXXXX			16079-02		



SECTION SEVEN

MISCELLANEOUS PARTS

FENDER PARTS
TUB LATCH PARTS



FENDERS (BASED ON TRAILER LENGTH/SUSP CONFIGURATION)

<u>TRAILER LENGTH/AXLE</u>	<u>FRONT PASS</u>	<u>FRONT DRIVER</u>	<u>REAR PASS</u>	<u>REAR DRIVER</u>
40FT / TANDEM 34'TUB	2419-0119-1	2419-0119	2419-0120	2419-0120-1
42FT / TANDEM 36' TUB	2419-0119-1	2419-0119	2419-0120	2419-0120-1
44FT / TRIDEM 36' TUB STANDARD AXLE SPACING	2419-0119-1	2419-0119	2419-0139/140	2419-0139-1/140-1



1

2

4

3

TUB LATCH PARTS

1	2419-1008	LOWER CYLINDER PIN ASSEMBLY	QTY 2
	2419-1014	LOWER CYLINDER PIN ASSEMBLY	QTY 2
2	2419-1009	CATCH PLATE ASSEMBLY	QTY 2
3	2419-1007	CATCH PLATE PIN ASSEMBLY	QTY 2
4	2419-1006	MAIN HINGE PIN ASSEMBLY	QTY 4
5	2419-1004	IDLER HINGE SIDE PLATE ASSEMBLY	QTY 12
6	2419-0063	NYLON BEARING ROLLER	QTY 10
7	2419-1005	IDLER HINGE PIN ASSEMBLY	QTY 6



5

6

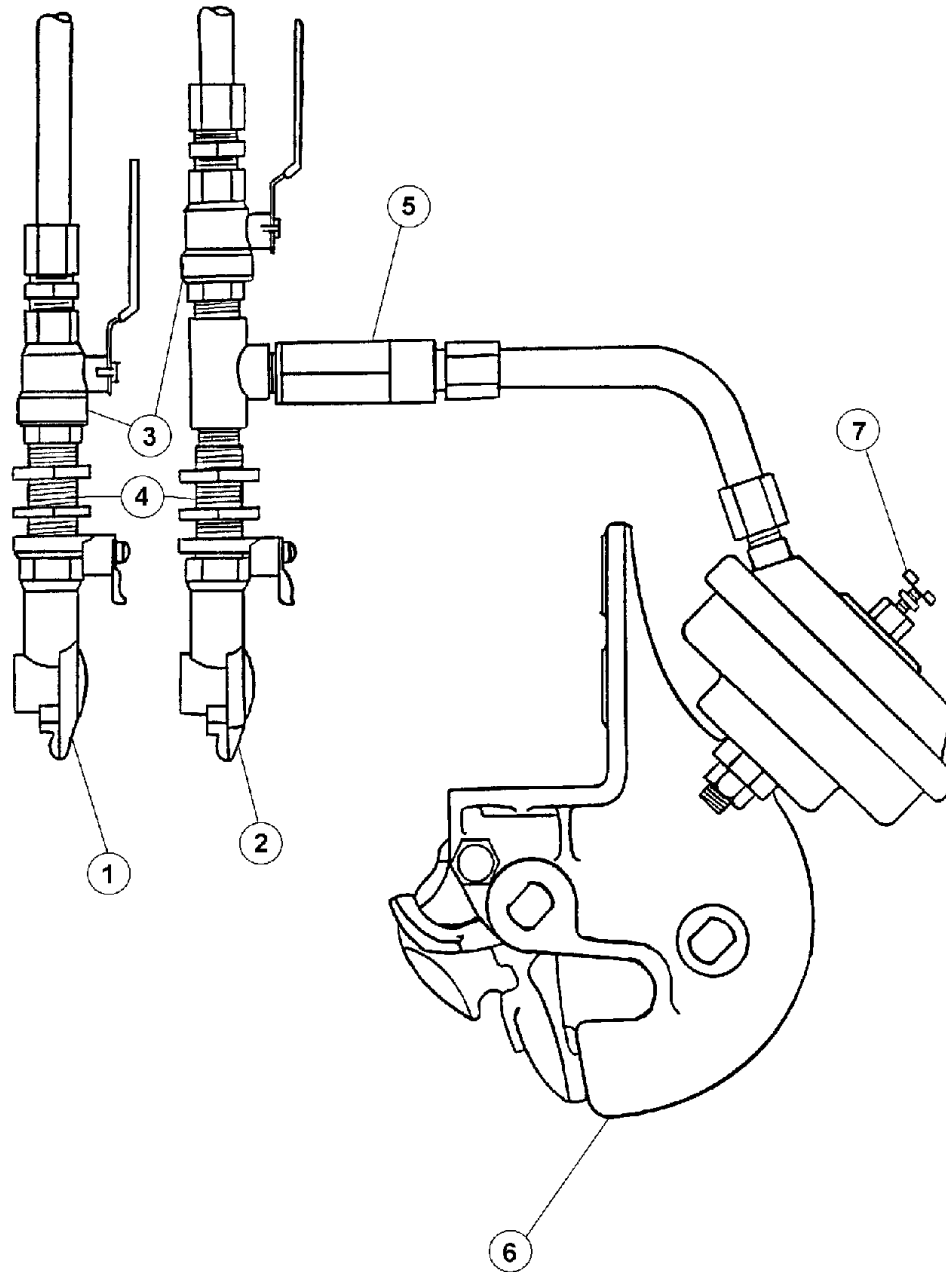
7

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.**

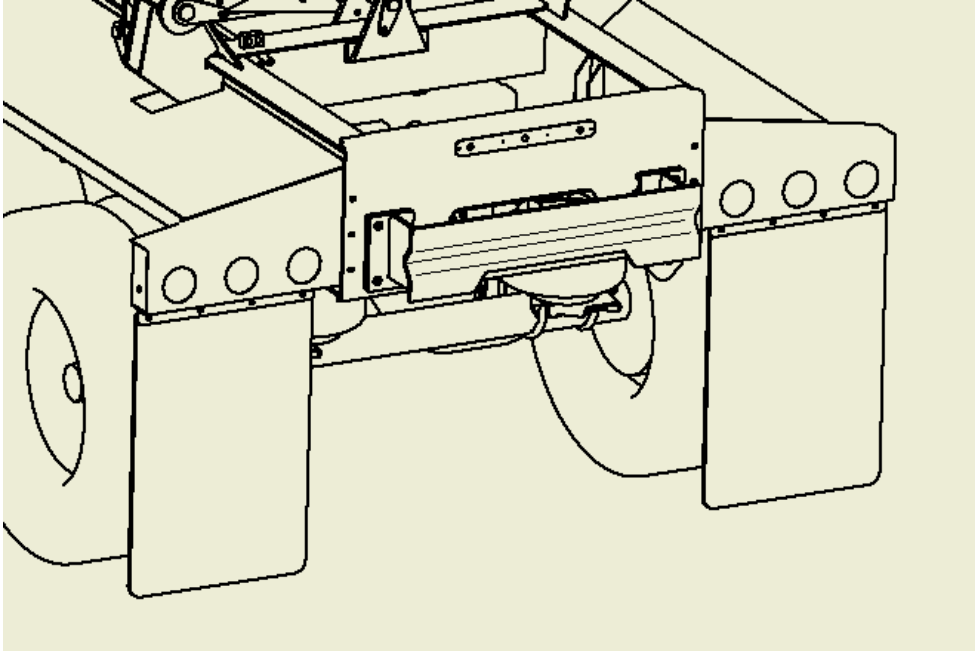
PINTLE ASSEMBLY



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 |

**BR 92165 SMALL
LIGHT WEIGHT
PUSH BLOCK**



**2237-1001 LARGE
PUSH BLOCK**

