

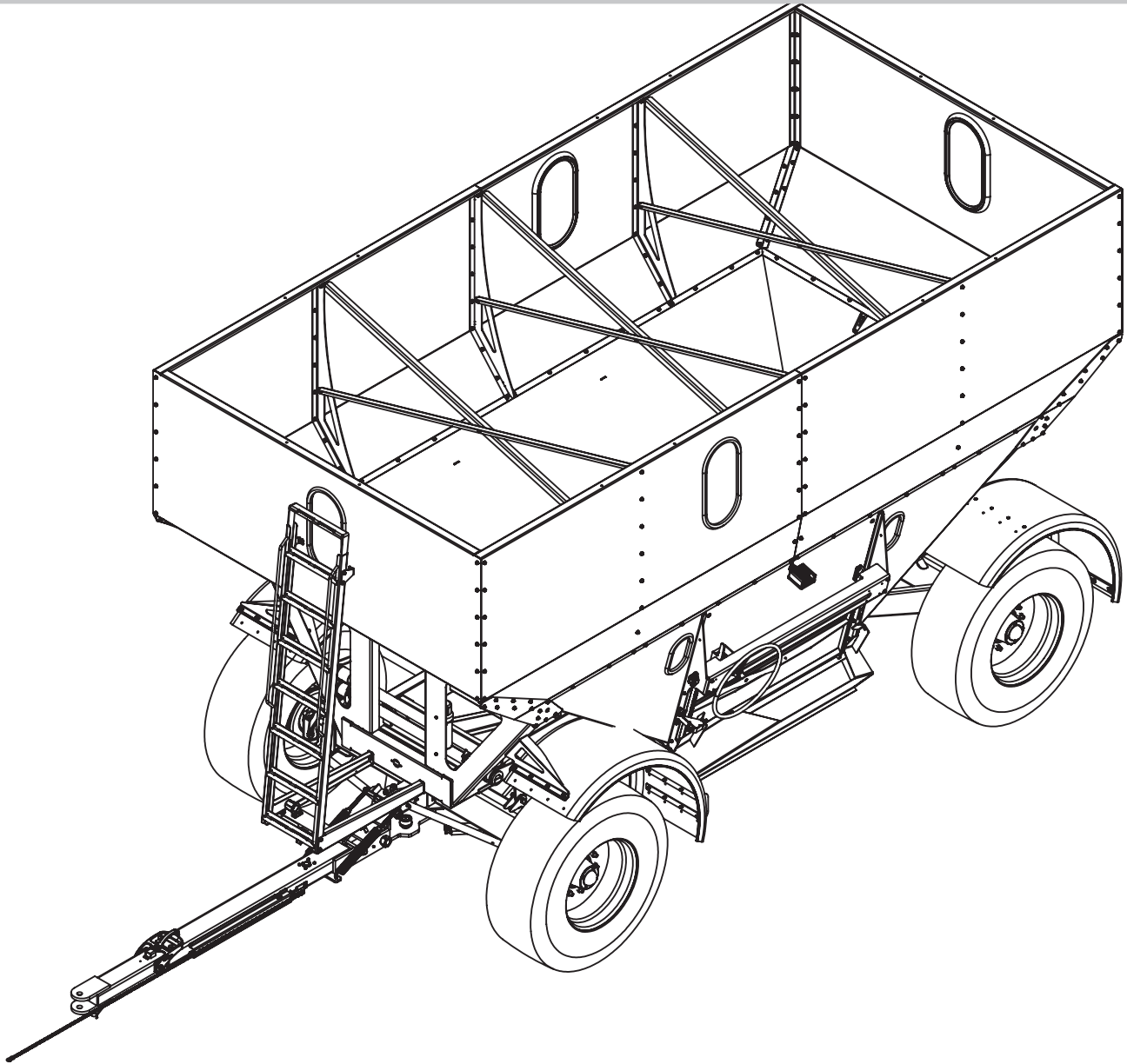


*Doing Our Best to Provide You the Best*

AG20046, Rev 6  
1/24

## GRAVITY FLOW WAGON

### 500 SS, 650 SS & 750 SS



# OPERATOR MANUAL

INTRODUCTION

Thank you for purchasing a Demco Gravity Flow Wagon. We feel you have made a wise choice and hope you are completely satisfied with your new piece of equipment. Proper care and use will result in many years of service.

WARRANTY POLICY, OPERATOR MANUALS & REGISTRATION

Go online to [www.demco-products.com](http://www.demco-products.com) to review Demco warranty policies, operator manuals and register your Demco product.



**WARNING: TO AVOID PERSONAL INJURY OR DEATH, OBSERVE FOLLOWING INSTRUCTIONS:**

- Never overload wagon. Do not exceed the rating of the gear or load rating of the tires, whichever is less.
- Ensure that anybody present is clear before applying power to any machinery used in conjunction with wagon box or when moving box.
- Never allow anyone in, near, or on gravity box during transporting or unloading of grain. Moving grain is dangerous and can cause entrapment, resulting in severe injury or death by suffocation.
- Do not exceed 20 miles per hour when towing wagon.

GENERAL INFORMATION

- 1. Unless otherwise specified, high-strength (grade5) (3 radial-line head markings) hex head bolts are used throughout assembly of this piece of equipment.
- 2. Whenever terms "LEFT" and "RIGHT" are used in this manual it means from a position behind wagon box and facing forward.
- 3. When placing a parts order, refer to this manual for proper part numbers and place order by PART NO. and DESCRIPTION.
- 4. Read assembly instructions carefully. Study assembly procedures and all illustrations before you begin assembly. Note which parts are used in each step. This unit must be assembled in proper sequence or complications will result.

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**TAKE NOTE! THIS SAFETY ALERT SYMBOL FOUND THROUGHOUT THIS MANUAL IS USED TO CALL YOUR ATTENTION TO INSTRUCTIONS INVOLVING YOUR PERSONAL SAFETY AND SAFETY OF OTHERS. FAILURE TO FOLLOW THESE INSTRUCTIONS CAN RESULT IN INJURY OR DEATH!**



**THIS SYMBOL MEANS  
ATTENTION  
BECOME ALERT  
YOUR SAFETY IS INVOLVED!**

**SIGNAL WORDS:**

This manual uses the following signal words--DANGER, WARNING, and CAUTION-- with safety messages. The appropriate signal word has been selected using the following guidelines.

**WARNING:**

Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and includes hazards that are exposed when guards are removed. It may also be used to alert against unsafe practices.

**DANGER:**

Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury. This signal word is to be limited to most extreme situations typically for machine components which, for functional purposes, cannot be guarded.

**CAUTION:**

Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

If you have questions not answered in this manual, require additional copies, or if your manual is damaged, please contact your dealer or Demco, 4010 320th Street, Boyden, IA 51234  
ph: (712) 725-2311 or Toll Free: 1-800-543-3626 Fax: (712) 725-2380  
<http://www.demco-products.com>



## SAFETY...YOU CAN LIVE WITH IT



### EQUIPMENT SAFETY GUIDELINES

Every year many accidents occur which could have been avoided by a few seconds of thought and a more careful approach to handling equipment. You, the operator, can avoid many accidents by observing the following precautions in this section. To avoid personal injury, study the following precautions and insist those working with you, or you yourself, follow them.

In order to provide a better view, certain illustrations in your owners manual may show an assembly with a safety shield removed. However, equipment should never be operated in this condition. Keep all shields in place. If shield removal becomes necessary for repairs, replace shield prior to use.

Replace any caution, warning, danger or instruction safety decal that is not readable or is missing.

Do not attempt to operate this equipment under the influence of alcohol or drugs.

Review safety instructions with all users annually.

Operator should be a responsible adult. **DO NOT ALLOW PERSONS TO OPERATE OR ASSEMBLE THIS UNIT UNTIL THEY HAVE DEVELOPED A THOROUGH UNDERSTANDING OF SAFETY PRECAUTIONS AND HOW IT WORKS.**

To prevent injury or death, use a tractor equipped with a roll over protective system (ROPS). Do not paint over, remove, or deface any safety signs or warning decals on your equipment. Observe all safety signs and practice instructions on them.

Never exceed limits of a piece of machinery. If its ability to do a job, or to do so safely is in question **DON'T TRY IT.**



### LIGHTING AND MARKING

It is the responsibility of customer to know lighting and marking requirements of local highway authorities and to install and maintain equipment to provide compliance with regulations. Add extra lights when transporting at night or during periods of limited visibility.

Lighting kits are available from your dealer or from manufacturer.



### REMEMBER

Your best assurance against accidents is a careful and responsible operator. If there is any portion of this manual or function you do not understand, contact your local authorized dealer or manufacturer.



### SAFETY SIGN CARE

- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or have become illegible.
- Replacement parts that displayed a safety sign should also display current sign.
- Safety signs are available from your distributor, dealer parts department, or factory.

How to install safety signs:

- Be sure that installation area is clean and dry.
- Decide on exact position before you remove backing paper.
- Remove smallest portion of split backing paper.
- Align decal over specified area and carefully press small portion with exposed sticky backing in place.
- Slowly peel back remaining paper and carefully smooth remaining portion of decal into place.
- Small air pockets can be pierced with a pin and smoothed out using piece of decal backing paper.

**TIRE SAFETY**

- Failure to follow proper procedures when mounting a tire on a rim can produce an explosion which may result in a serious injury or death.
- Do not attempt to mount a tire unless you have proper equipment and experience to do job.
- Inflating or servicing tires can be dangerous. Whenever possible, trained personnel should be called to service and/or mount tires.
- Always order and install tires and wheels with appropriate type and load capacity to meet or exceed anticipated weight to be placed on the equipment.
- Refer to "TIRE INFLATION DECAL" in your owners manual and on the front bolster tube for maximum tire pressure for a Demco Grain Wagon.

**BEFORE OPERATION**

- Carefully study and understand this manual and the Owner's Manual.
- Do not wear loose-fitting clothing which may catch in moving parts.
- Always wear protective clothing and substantial shoes.
- It is recommended that suitable protective hearing and eye protection be worn.
- Operator may come in contact with certain materials which may require specific safety equipment relative to handling of such materials. (Examples: extremely dusty, molds, fungus, bulk fertilizers, etc.)
- Keep wheel and lug nuts tightened to specified torque.
- Assure that agricultural implement tires are inflated evenly.
- Give unit a visual inspection for any loose bolts, worn parts, or cracked welds, and make necessary repairs. Follow maintenance safety instructions included in this manual.
- Be sure there are no tools lying on or in equipment
- Do not use unit until you are sure that area is clear, especially around children and animals.
- Don't hurry learning process or take unit for granted. Ease into it and become familiar with your new equipment.
- Practice operation of your equipment and its attachments. Completely familiarize yourself and other operators with its operation before using.
- Make sure that brakes are evenly adjusted (if equipped with brakes)
- Use a tractor equipped with Roll Over Protection System (ROPS) and fasten your seat belt prior to starting the engine.
- Manufacturer does not recommend usage of a tractor with the ROPS removed.
- Move tractor wheels to widest recommended settings to increase stability.
- Do not allow anyone to stand between tongue or hitch and towing vehicle when backing up to equipment.

**DURING OPERATION**

- Beware of bystanders, PARTICULARLY CHILDREN! Always look around to make sure that it is safe to start engine of towing vehicle or move unit. This is particularly important with higher noise levels and quiet cabs, as you may not hear people shouting.
- NO PASSENGERS ALLOWED- Do not carry passengers anywhere on or in tractor or equipment.
- Keep hands and clothing clear of moving parts.
- Do not clean, lubricate, or adjust your equipment while it is moving.

## SAFETY

- When halting operation, even periodically, set tractor or towing vehicles brakes, disengage PTO, shut off engine, and remove ignition key.
- Be especially observant of operating area and terrain. Watch for holes, rocks, or other hidden hazards. Always inspect area prior to operation.
  - DO NOT operate near edge of drop-off or banks.
  - DO NOT operate on steep slopes as overturn may result.
  - Operate up and down (not across) intermediate slopes. Avoid sudden starts and stops.
- Pick the most level possible route when transporting across fields. Avoid edges of ditches, gullies, and steep hillsides.
- Be extra careful when working on inclines.
- Maneuver tractor or towing vehicle at safe speeds.
- Avoid overhead wires or other obstacles. Contact with overhead lines could cause serious injury or death.
- Avoid loose gravel, rocks, and holes; they can be dangerous for equipment operation or movement.
- Allow for unit length when making turns.
- Do not walk or work under raised components or attachments unless securely positioned and blocked.
- Keep all bystanders, pets, and livestock clear of work area.
- Operate towing vehicle from operators seat only.
- Never stand alongside of unit with engine running or attempt to start engine and/or operate machine while standing alongside of unit.
- Never leave running equipment unattended.
- As a precaution, always recheck hardware on equipment following every 100 hours of operation. Correct all problems. Follow maintenance safety procedures.



### FOLLOWING OPERATION

- Following operation, or when unhitching, stop tractor or towing vehicle, set brakes, shut off engine and remove ignition key.
- Store unit in an area away from human activity.
- Do not park equipment where it will be exposed to livestock for long periods of time. Damage and livestock injury could result.
- Do not permit children to play on or around stored unit.
- Make sure all parked machines are on a hard, level surface and engage all safety devices.



### HIGHWAY AND TRANSPORT OPERATIONS

- SAFETY CHAINS: If equipment is going to be transported on a public highway, always follow state and local regulations regarding safety chains and auxiliary lighting. Be sure to check with local law enforcement agencies for your own particular regulations. Only safety chains (not elastic or nylon/plastic tow straps) should be used to retain connection between towing and towed machines in event of separation of primary attaching system. Use a high strength, appropriately sized hitch pin with a mechanical retainer and attach safety chains. Criss cross chains under tongue and secure to draw bar cage, mounting loops, or bumper frame.
- Adopt safe driving practices:
  - Keep brake pedals latched together at all times. NEVER USE INDEPENDENT BRAKING WITH MACHINE IN TOW, LOSS OF CONTROL AND/OR UPSET OF UNIT CAN RESULT.
  - Always drive at a safe speed relative to local conditions, ensure that your speed is low enough for an emergency stop. Keep speed to a minimum.
  - Reduce speed prior to turns to avoid risk of overturning.

- Always keep tractor or towing vehicle in gear to provide engine braking when going downhill. Do not coast.
- Do not drink and drive!
- Comply with state and local laws governing highway safety and movement of farm machinery on public roads.
- Use approved accessory lighting, flags and necessary warning devices to protect operators of other vehicles on highway during transport. Various safety lights and devices are available from your dealer.
- Use of flashing amber lights is acceptable in most localities. However, some localities prohibit their use. Local laws should be checked for all highway lighting and marking requirements.
- When driving tractor and equipment on road under 20 m.p.h. (40 kph) at night or during day, use flashing amber warning lights and a slow moving vehicle (SMV) identification emblem.
- Plan your route to avoid heavy traffic.
- Be a safe and courteous driver. Always yield to oncoming traffic in all situations, including narrow bridges, intersections, etc.
- Be observant of bridge load ratings. Do not cross bridges rated lower than gross weight at which you are operating.
- Watch for obstructions overhead and side to side while transporting.
- Always operate equipment in a position to provide maximum visibility. Make allowances for increased length and weight of equipment when making turns, stopping unit, etc.



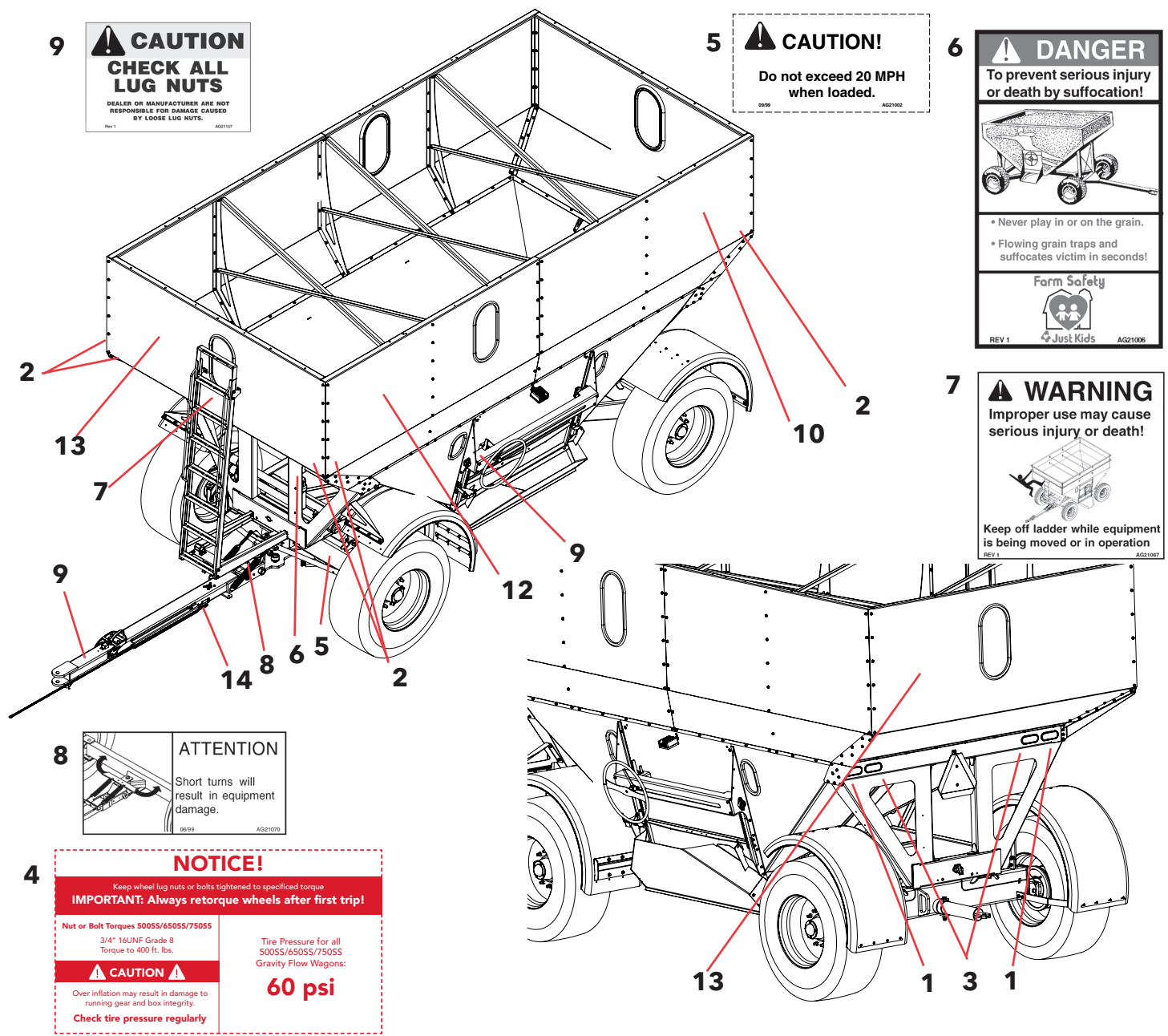
## **PERFORMING MAINTENANCE**

- Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.
- Make sure there is plenty of ventilation. Never operate engine of towing vehicle in a closed building. Exhaust fumes may cause asphyxiation.
- Before working on this machine, stop towing vehicle, set brakes, shut off engine and remove ignition key.
- Always use safety support and block wheels. Never use a jack to support machine.
- Always use proper tools or equipment for job at hand.
- Use extreme caution when making adjustments.
- Follow torque chart in owners manual when tightening bolts and nuts.
- Never use your hands to locate a hydraulic leak on attachments. Use a small piece of cardboard or wood. Hydraulic fluid escaping under pressure can penetrate skin.
- Openings in skin and minor cuts are susceptible to infection from hydraulic fluid. Without immediate medical treatment, serious infection and reactions can occur.
- When disconnecting hydraulic lines, shut off hydraulic supply and relieve all hydraulic pressure.
- Replace all shields and guards after servicing and before moving.
- After servicing, be sure all tools, parts and service equipment are removed.
- Do not allow grease or oil to build up on any steps or platform.
- When replacing bolts, refer to owners manual.
- Refer to bolt torque chart in owners manual for head identification marking.
- Where replacement parts are necessary for periodic maintenance and servicing, genuine factory replacement parts must be used to restore your equipment to original specifications. Manufacturer will not claim responsibility for use of unapproved parts or accessories and other damages as a result of their use.
- If equipment has been altered in any way from original design, manufacturer does not accept any liability for injury or warranty.
- A fire extinguisher and first aid kit should be kept readily accessible while performing maintenance on this equipment



## SAFETY SIGN LOCATIONS

Types of safety sign and locations on equipment are shown in illustration below. Good safety requires that you familiarize yourself with various safety signs, type of warning, and area or particular function related to that area, that requires your SAFETY AWARENESS.



ITEM	PART #	QTY	DESCRIPTION
1	AA21071	2	REFLECTOR RED 2 X 9
2	AA21072	6	REFLECTOR YELLOW 2 X 9
3	AA21073	2	NONREFLECTIVE ORANGE 2 X 9
4	AG21001	1	TIRE PRESSURE AND TORQUE RATING
5	AG21002	1	CAUTION 20 M.P.H.
6	AG21006	1	WAGON SAFETY
7	AG21067	1	KEEP OFF LADDER
8	AG21070	1	ATTENTION DO NOT TURN SHARP
Please order replacement parts by PART NO. and DESCRIPTION			

ITEM	PART #	QTY	DESCRIPTION
9	AG21127	2	CHECK ALL WHEEL NUTS
10	AG21207	2	500 SS
-	AG21208	2	650 SS
-	AG21209	2	750 SS
11	AG21221	1	STRIPING REFLECTIVE- (PER FOOT)
12	DE21018	2	DEMCO LARGE
13	DE21017	2	DEMCO MEDIUM
14	BH21003	1	BRAKE LEVER INDICATOR
Please order replacement parts by PART NO. and DESCRIPTION			





## TORQUE SPECIFICATION

Torque figures indicated are valid for non-greased or non-oiled threads and heads unless otherwise specified. Therefore, do not grease or oil bolts or capscrews unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

\* GRADE or CLASS value for bolts and capscrews are identified by their head markings.

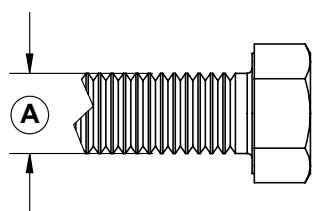
## BOLT TORQUE DATA FOR STANDARD NUTS, BOLTS, AND CAPSCREWS

Tighten all bolts to torques specified in chart unless otherwise noted. Check tightness of bolts periodically, using bolt chart as guide. Replace hardware with same grade bolt.

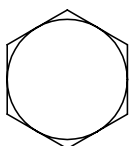
NOTE: Unless otherwise specified, high-strength Grade 5 hex bolts are used throughout assembly of equipment.

Bolt Torque for Standard bolts *						
"A"	GRADE 2		GRADE 5		GRADE 8	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
1/4"	6	(8)	9	(12)	12	(16)
5/16"	10	(13)	18	(25)	25	(35)
3/8"	20	(27)	30	(40)	45	(60)
7/16"	30	(40)	50	(70)	80	(110)
1/2"	45	(60)	75	(100)	115	(155)
9/16"	70	(95)	115	(155)	165	(220)
5/8"	95	(130)	150	(200)	225	(300)
3/4"	165	(225)	290	(390)	400	(540)
7/8"	170	(230)	420	(570)	650	(880)
1"	225	(300)	630	(850)	970	(1310)

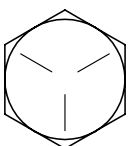
Bolt Torque for Metric bolts *						
"A"	CLASS 8.8		CLASS 9.8		CLASS 10.9	
	lb-ft	(N.m)	lb-ft	(N.m)	lb-ft	(N.m)
6	9	(13)	10	(14)	13	(17)
7	15	(21)	18	(24)	21	(29)
8	23	(31)	25	(34)	31	(42)
10	45	(61)	50	(68)	61	(83)
12	78	(106)	88	(118)	106	(144)
14	125	(169)	140	(189)	170	(230)
16	194	(263)	216	(293)	263	(357)
18	268	(363)	--	--	364	(493)
20	378	(513)	--	--	515	(689)
22	516	(699)	--	--	702	(952)
24	654	(886)	--	--	890	(1206)



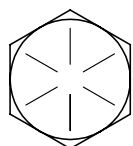
GRADE-2



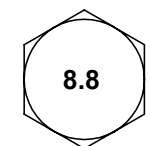
GRADE-5



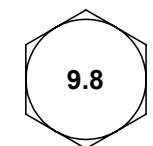
GRADE-8



CLASS 8.8



CLASS 9.8



CLASS 10.9



## LUG NUTTORQUE

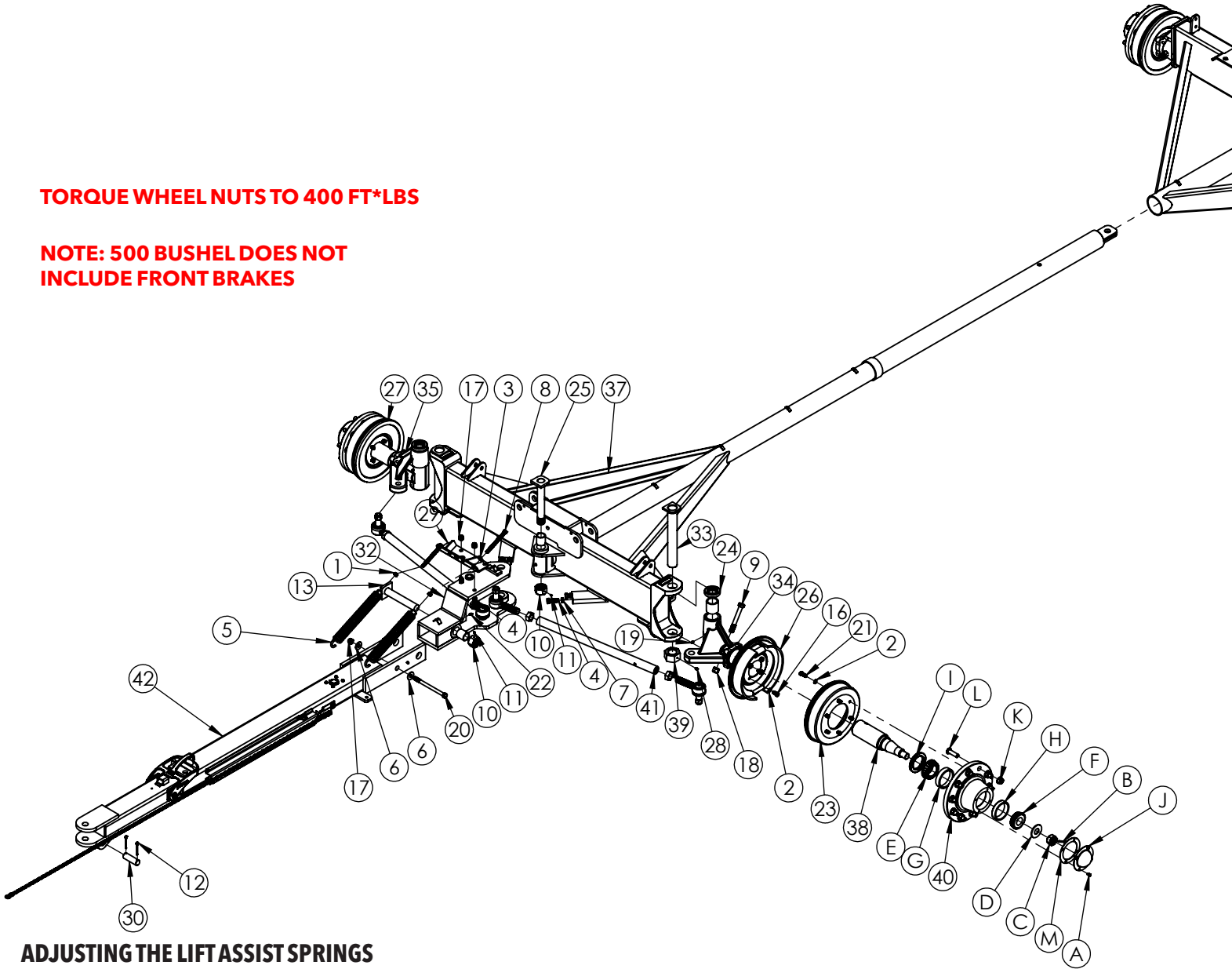
**TORQUE WHEEL NUTS TO 400 ft/lbs (10 BOLT)**

REPLACEMENT PARTS AND MAINTENANCE

RUNNING GEAR PARTS BREAKDOWN

TORQUE WHEEL NUTS TO 400 FT\*lbs

NOTE: 500 BUSHEL DOES NOT  
INCLUDE FRONT BRAKES



ADJUSTING THE LIFT ASSIST SPRINGS

- 1. Raise the tongue and support on a stand.
- 2. Tighten the two 1/2" X 6" bolts equally to take out the slack on the Lift Assist Springs.
- 3. Remove the stand and adjust the tongue height using the two 1/2" x 6" bolts. Do not over tighten the spring. Overtightening may stretch the spring causing permanent damage to the spring.

ADJUSTING THE TURN STOPS

Adjustment of the 5/8" x 2 1/2" bolts on the Pivot Arm should be set from the factory to not overturn. If adjustment is required be careful that tires will not turn into the box frame.

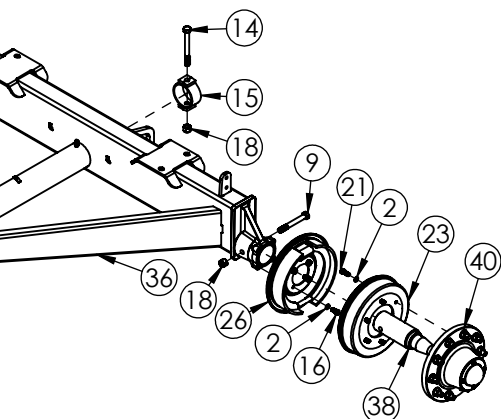
ADJUSTING THE TIE RODS FOR ALIGNMENT

Alignment is present at the factory. To check alignment, the Tie Rods (P) should be adjusted to have 1/4" to 3/8" toe in (measured at tire bead edge of rim). When this adjustment is made, the tongue must be aligned with the round pipe on the front bolster. Be sure both wheels toe in equally.

WHEEL BEARING MAINTENANCE

- 1. Tighten castle or slotted hex nut to initial torque indicated on chart while turning hub in both directions to insure all bearing surfaces are in contact.
- 2. Back nut off and repeat step #1.
- 3. Back nut off, do not allow hub to turn.
- 4. Tighten nut to final torque indicated on chart.
- 5. Install cotter pin, if needed loosen or tighten nut to the next closest locking slot.
- 6. Check hub for end play.
- 7. If end play can be felt, start over and readjust bearings. If end play is felt again, try readjusting with a different castle or slotted hex nut.
- 8. The bearing are set correctly when no end play can be felt after adjustment.

HUB	INITIAL TORQUE	FINAL TORQUE
10 BOLT	75 ft/lbs	50 ft/lbs



ITEM	PART #	DESCRIPTION	QTY
1	00083	NUT .50NC HEX	2
2	00084	WASHER .50 LOCK	40
3	00085	WASHER .50 FLAT	2
4	00290	BOLT .625NC X 2.00 GR5 HEX	6
5	00306-30	LIFT ASSIST SPRING	2
6	00477	WASHER, FLAT, .625	2
7	00489	NUT .625NC JAM RIGHT HAND	4
8	00545	BOLT, .50NC X 6.00 FULL THREAD GR.5 HEX	
9	00638	BOLT .75NC X 6.00 GR5	4
10	01922	NUT 1 1/2-12UNF HEX	2
11	01923	SET SCREW .25NC X .25 SOCKET	2
12	01935	3/16" x 2-1/2" COTTER PIN	2
13	01953-30	TONGUE MTG PIN	1
14	01964	BOLT .75NC X 7.00 GR5 HEX	1
15	01965-30	REACH PIPE COLLAR	1
16	02010	BOLT .50NF X 1.00 GR5 HEX	16
17	02587	NUT .625NC NYLON LOCK	3
18	02961	NUT .75NC NYLON LOCK	5
19	04642	ZERK, GREASE, .25 UNF SF	3
20	04835	BOLT .625NC X 9.00 GR5 HEX	1
21	05031	BOLT .50NF X 1.25 GR5 HEX	24
22	05395	ZERK, 1/8 NPT GREASE 45 DEGREE	1
23	07324	13" BRAKE DRUM F/871 HUB	4
24	07356	THRUST BEARING	2
25	07407-30	PIVOT ARM MOUNTING PIN	1
26	07910	LEFT 13" BRAKE CLUSTER	2
27	07911	RIGHT 13" BRAKE CLUSTER	2

Please order replacement parts by PART NO. and DESCRIPTION

ITEM	PART #	DESCRIPTION	QTY
28	08097	SET SCREW .313NC X .50	2
29	09326-30	SPRING LIFT ASSIST PLATE	1
30	12127	FRONT SAFETY CHAIN ANCHOR PIN	1
31	12154	40,500 LB SAFETY CHAIN (NOT SHOWN)	1
32	16320-30	STEERING PIVOT ARM	1
-	01951	BRONZE BUSHING REPLACEMENT	2
33	16324-30	SPINDLE MOUNTING PIN	2
34	16325-30	LEFT WHEEL CARRIER	1
-	07355	BRONZE BUSHING REPLACEMENT	2
35	16326-30	RIGHT WHEEL CARRIER	1
-	07355	BRONZE BUSHING REPLACEMENT	2
36	16327-30	REAR BOLSTER ASSY 650 & 500	1
-	16322-30	REAR BOLSTER ASSY 750	1
37	16328-30	650 FRONT BOLSTER	1
-	16330-30	500 FRONT BOLSTER	1
-	16323-30	750 FRONT BOLSTER	1
-	01951	BRONZE BUSHING REPLACEMENT	2
38	16329	SPINDLE, GEAR F/ 10 BOLT	4
39	16709	NUT 2.0" NF W/ SET SCREW	2
40	5474	HUB ASSEMBLY 10 BOLT	4
41	6067-30	TIE ROD ASSEMBLY, 1-1/4"	2
-	6068	TIE ROD END W/ LEFT HAND THREADS W/ JAM NUT	1
-	6069	TIE ROD END W/ RIGHT HAND THREADS W/ JAM NUT	1
42	6287	BRAKE TONGUE 650/750	1
-	6286	BRAKE TONGUE 500	1

Please order replacement parts by PART NO. and DESCRIPTION

ITEM	PART #	DESCRIPTION	QTY
40	5474-30	HUB ASSEMBLY 10 BOLT	1
A	04305	BOLT .313 NC X .50 GR5 HEX	4
B	*05088	1/4" X 2" COTTER PIN	1
C	*07353	NUT 1.25-12 UNF CASTLE	1
D	*07354	WASHER 1.25" FLAT	1
E	07357	INNER CONE BEARING (39585)	1
F	07358	OUTER CONE BEARING (460)	1
G	07359	INNER CUP (39520)	1
H	07360	OUTER CUP (453A)	1
I	07361	OIL SEAL (CR30087)	1
J	07362	HUB CAP	1
K	07435	NUT .75 FLANGED WHEEL	10
L	07861	BOLT .75" -16 UNF STUD	10
M	09532	GASKET	1

Please order replacement parts by PART NO. and DESCRIPTION

\* NOT INCLUDED WITH 5474-30

# REPLACEMENT PARTS AND MAINTENANCE

## BRAKE TONGUE MAINTENANCE AND ADJUSTMENT



**WARNING:** Review all of the following instructions before installation and use of the hydraulic brake tongue. Dealers or Distributors must review these instructions with the ultimate user. Failure to follow these instructions, or failure to properly maintain the braking system after installation, can result in loss of braking action which could cause severe property damage, personal injury and/or death.

### TONGUE ASSEMBLY SETTINGS



**CAUTION** Do Not Disassemble or Attempt to Adjust The Tongue Push-Plate Assembly (34)

The brake tongue is assembled and adjusted at the factory. If the tongue needs to be reassembled for any reason below is a list of setting to follow:

- A. The push-off assembly with springs should be adjusted via the adjustment spud on the rear half of the assembly. The two springs need to be compress to 6-1/2".
- B. The front adjustment spud on the push-off assembly needs to be adjusted after the male tongue insert is in place and latched in position. Pull the tongue forward against the latch and adjust the spud until there is a 3/16" gap for 650/750 and 7/16" gap for 500 between spud and rear stop surface of male tongue.
- C. Connect and tighten all brake lines. **Fill the Master Cylinder with DOT 3 or 4 brake fluid. CHECK FOR ANY LEAKS.**

### BLEEDING THE BRAKES

Bleed the brake system using a pressure-type brake bleeder or manually, as follows:

- A. Remove the Lever Guide and the flat Safety Lever Spring. Remove the Lever Guide and the Emergency Lever Spring. Using short strokes, pull forward on the Emergency Lever (#14), pumping the Master Cylinder until the brake fluid within the Master Cylinder stops bubbling.
- B. Attach a bleeder hose to the bleeder valve on one of the wheels (always begin with wheel farthest from the master cylinder and move toward it). Immerse the other end of the hose into a clean, transparent container partially filled with brake fluid. Loosen the bleeder valve one turn and, watching the hose in the transparent container, use the Emergency Lever to pump the Master Cylinder as long as air bubbles continue to leave the hose. When the bubbles stop, close the bleeder valve, move to the next wheel, and repeat the process until all the brakes have been bled. (Note: Check the fluid level in the Master Cylinder frequently while bleeding the brakes (every 4 or 5 strokes). Refill as necessary to keep the level above half full.)
- C. Once bleeding is completed, refill the Master Cylinder and attach the Cap securely. Replace Emergency Lever Spring and Lever Guide.
- D. Test the brakes by pulling the Emergency Lever forward until it locks into its first detent position. (The lever should be approximately straight up.) Attempt to rotate the wheels in a forward direction. If any of the wheels rotate, the brakes must be adjusted on that wheel. To adjust the brakes, release the Emergency Lever from its locked position and set the wheel brake adjustment up 2 or 3 notches (refer to instructions on page 16). Repeat the test procedure as necessary.

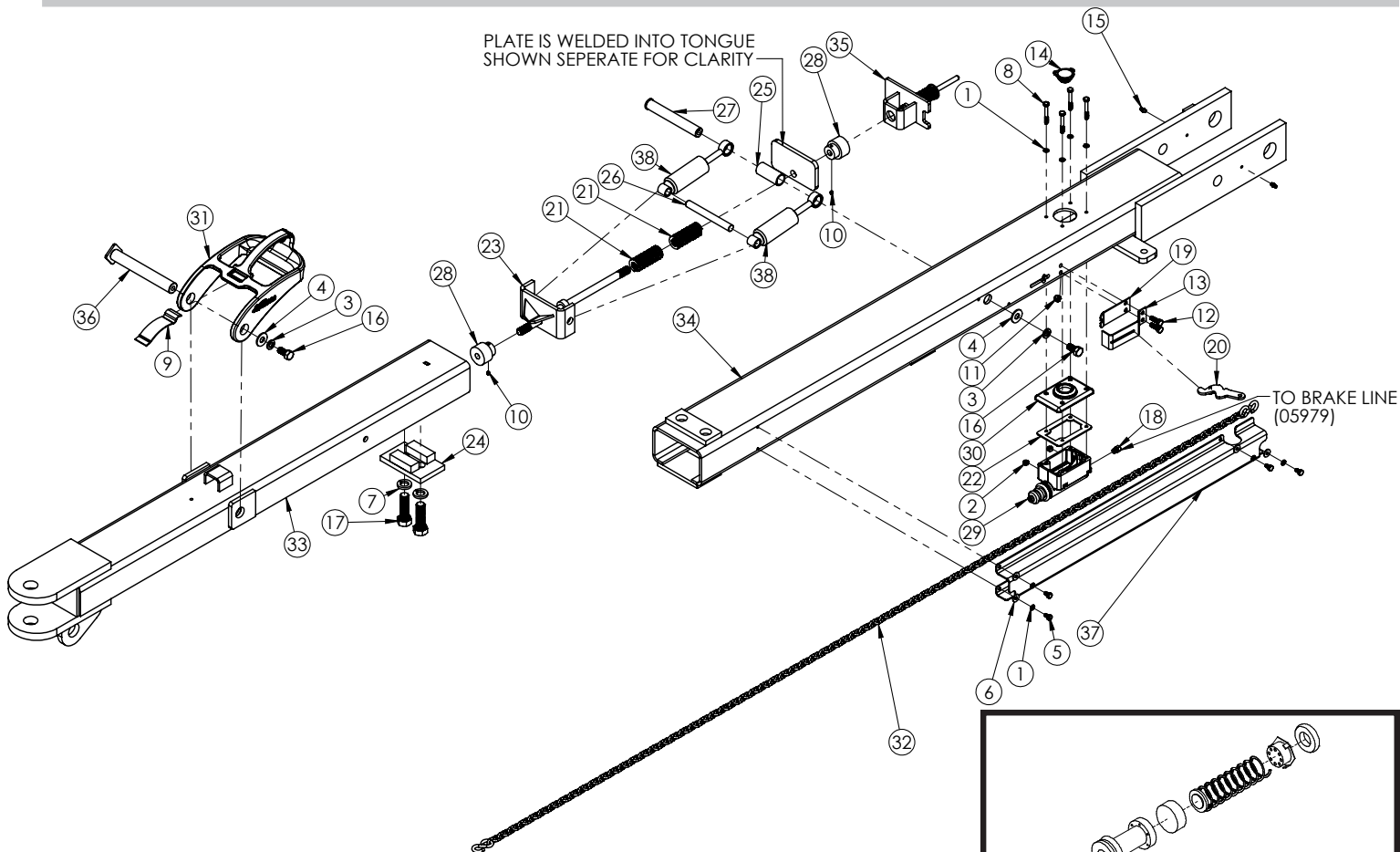
### MAINTENANCE

1. Frequently check the brake fluid level. (Fluid must be approved, clean and uncontaminated.)
2. Inspect the brake tongue and brakes and replace bent, worn or damaged parts.
3. Be constantly aware of the system's braking quality and make periodic checks. Consult a certified brake specialist to make the necessary adjustments and/or repairs. Failure to do so could result in loss of braking.

### SERVICING THE EMERGENCY LEVER

If the Emergency Lever of the tongue is applied, it can be disengaged by using a screwdriver to lift upward on the front of the flat Emergency Lever Spring while pulling the lever forward until it releases. A thorough inspection of the Emergency Lever, Emergency Lever Spring, and the Chain with S-Hooks is required and all damaged parts must be replaced as follows:

- a. Remove the Master Cylinder and the Push Plate Assembly. Be careful not to get dirt into the Master Cylinder. (A new Master Cylinder Gasket should be used when reinstalling.)
- b. Remove the Safety Chain from the Emergency Lever, Emergency Lever Guide, and Emergency Lever Spring, then pull the lever out of the tongue through the slot on the side.
- c. Install the new Emergency Lever from the through the slot in, the tongue. Attach the new Emergency Lever Spring, and the Emergency Lever Guide.
- d. Install a new Master Cylinder Gasket to the Master Cylinder and put the Push Plate Assembly and Master Cylinder back into the inside of the tongue.
- e. Squeeze shut the S-Hook of the Emergency Chain onto the Emergency Lever.
- f. Add adequate brake fluid to the Master Cylinder and bleed the brake system per instructions on BLEEDING THE BRAKES.



**TONGUE ASSEMBLY PARTS LIST**

ITEM	PART #	DESCRIPTION	QTY
-	<b>6286</b>	BRAKE TONGUE 500 (NOT SHOWN)	1
-	<b>6287</b>	BRAKE TONGUE 650 & 750	1
1	<b>00057</b>	WASHER, .25 LOCK	8
2	<b>00062</b>	NUT .25NC HEX	4
3	<b>00084</b>	WASHER .50 LOCK	2
4	<b>00085</b>	WASHER .50 FLAT	2
5	<b>00092</b>	BOLT .25NC X .50 GR5 HEX	4
6	<b>00214</b>	WASHER .25 FLAT	4
7	<b>00254</b>	WASHER .75" LOCK	2
8	<b>00618</b>	BOLT, .25 NC X 2.00 GR.5 HEX	4
9	<b>01158-95</b>	TONGUE LATCH SPRING	1
10	<b>01923</b>	SET SCREW .25NC X .25 SOCKET CUP	2
11	<b>02802</b>	NUT, .313 NC NYLON LOCK	2
12	<b>02990</b>	BOLT, .313 NC X 1.00 GR.5 HEX	2
13	<b>03866-95</b>	EMERGENCY LEVER GUIDE	1
14	<b>03876</b>	MASTER CYLINDER CAP ASSEMBLY	1
15	<b>04642</b>	ZERK, GREASE, .25 UNF SF	2
16	<b>04795</b>	BOLT, .50 NC X 1.00 GR.5 HEX	2
17	<b>05047</b>	BOLT, .75NC X 2.50 GR 5 HEX	2
18	<b>05679</b>	BRAKE FITTING .125 FULL FLOW	1
-	<b>SB12099</b>	BRAKE FITTING .031 ORIFICE (500)	1
19	<b>05693-95</b>	SPRING, SAFETY LEVER	1
20	<b>05951-95</b>	EMERGENCY LEVER	1

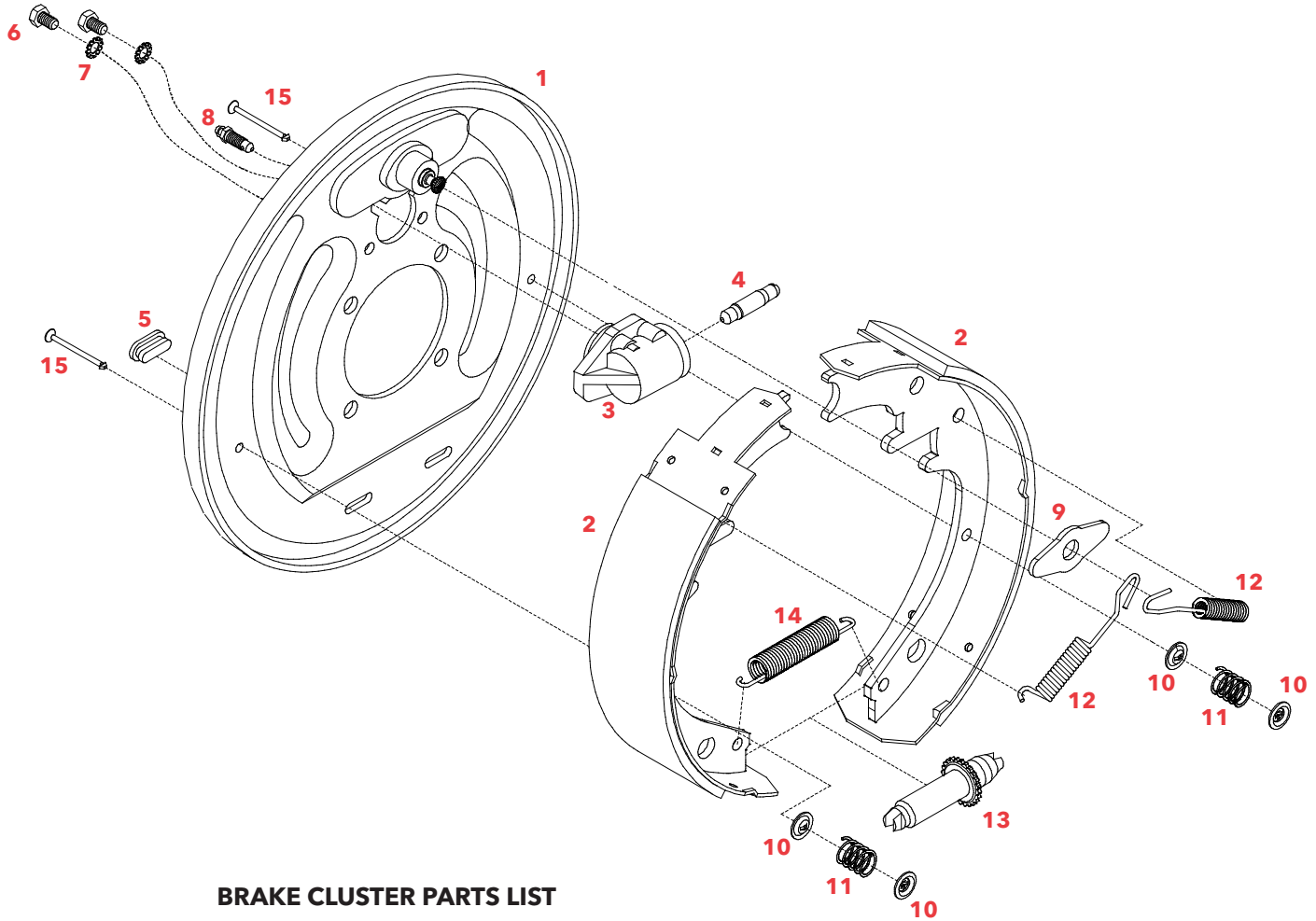
ITEM	PART#	DESCRIPTION	QTY
21	<b>05952</b>	SPRING	2
22	<b>09153</b>	CORK GASKET F/ MASTER CYLINDER	1
23	<b>09305-80</b>	PUSH-OFF ASSY	1
24	<b>09308-30</b>	STOP BLOCK FOR BRAKE TONGUE	1
25	<b>09323-95</b>	REAR SHOCK PIN SPACER	1
26	<b>09324-95</b>	FRONT SHOCK PIN	1
27	<b>09325-95</b>	REAR SHOCK PIN	1
28	<b>09337-95</b>	PUSH-OFF ASSEMBLY ADJUSTMENT SPUD	2
29	<b>10616</b>	MASTER CYLINDER DRUM	1
30	<b>12557</b>	CAP FOR MASTER CYLINDER	1
31	<b>15920-30</b>	CAST TONGUE LATCH	1
32	<b>15969</b>	94" ACTUATOR CHAIN / HOOK	1
33	<b>16315-80</b>	MALE LONG TONGUE INSERT (650 & 750)	1
-	<b>12122-80</b>	MALE TONGUE INSERT (500)	1
34	<b>16316-80</b>	TONGUE, FEMALE	1
35	<b>16317</b>	PUSH-PLATE ASSEMBLY	1
36	<b>16318-95</b>	LATCH PIN	1
37	<b>16319-80</b>	CHAIN COVER	1
38	<b>SB12426</b>	SHOCK, DAMPER	2

**Please order replacement parts by PART NO. and DESCRIPTION**

**Please order replacement parts by PART NO. and DESCRIPTION**

# REPLACEMENT PARTS AND MAINTENANCE

## 13" UNI-SERVO BRAKE CLUSTER PARTS BREAKDOWN



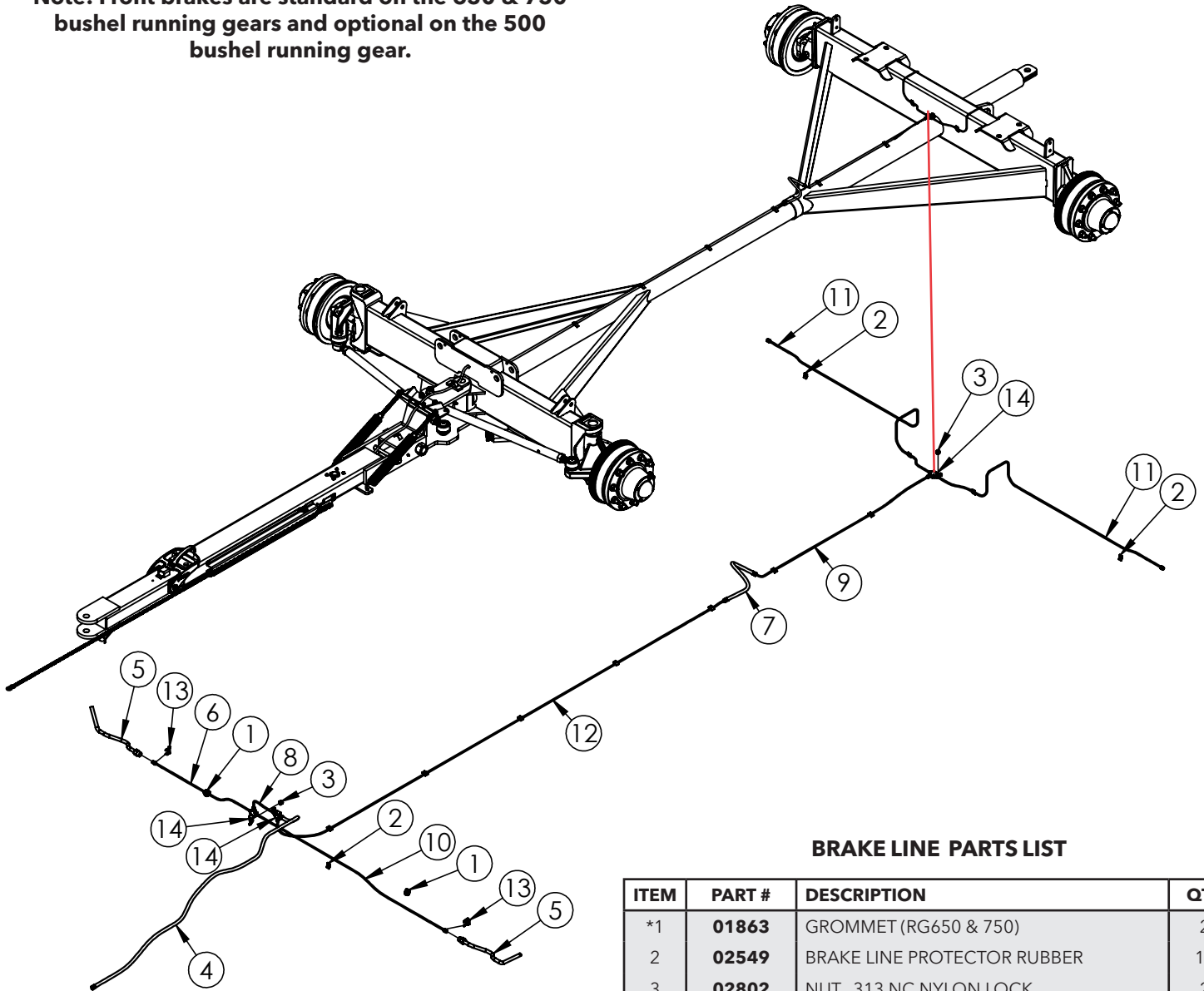
**BRAKE CLUSTER PARTS LIST**

ITEM	PART #	DESCRIPTION	QTY
-	<b>07911</b>	RIGHT HAND CLUSTER (SHOWN)	-
-	<b>07910</b>	LEFT HAND CLUSTER	-
1	-	BACK PLATE (NOT AVAILABLE)	1
2	<b>5509</b>	BRAKE SHOE KIT (2 FRONT & 2 REAR)	1
3	<b>SB9776M</b>	WHEEL CYLINDER ASSEMBLY - RIGHT (SHOWN)	1
-	<b>SB9777M</b>	WHEEL CYLINDER ASSEMBLY - LEFT	1
4	<b>SB9783</b>	PUSH ROD	1
5	<b>SB9254</b>	COVER PLATE - ADJUSTING HOLE	2
6	<b>05961</b>	5/16"-18UNC X 5/9" HEX HEAD BOLT	2
7	<b>05424</b>	5/16" EXTERNAL TOOTH WASHER	2
8	<b>05431</b>	BLEEDER - REPLACEMENT	1
9	<b>SB10961-95</b>	SHOE GUIDE	1
10	-	CUP - SHOE HOLD DOWN (NOT AVAILABLE)	4
11	-	SPRING - SHOE HOLD DOWN (NOT AVAILABLE)	2
12	-	SPRING - SHOE (NOT AVAILABLE)	2
13	-	ADJUSTING SCREW ASSEMBLY (NOT AVAILABLE)	1
14	-	SPRING - ADJUSTING SCREW (NOT AVAILABLE)	1
15	-	#6 HOLD DOWN PIN (NOT AVAILABLE)	2
-	<b>SB15845</b>	WHEEL CYLINDER REPAIR KIT (INCLUDES SPRING, CUP, AND BOOT)	1
Please order replacement parts by PART NO. and DESCRIPTION			



## RUNNING GEAR BRAKE LINE PARTS BREAKDOWN

**Note:** Front brakes are standard on the 650 & 750 bushel running gears and optional on the 500 bushel running gear.



**BRAKE LINE PARTS LIST**

ITEM	PART #	DESCRIPTION	QTY
*1	<b>01863</b>	GROMMET (RG650 & 750)	2
2	<b>02549</b>	BRAKE LINE PROTECTOR RUBBER	12
3	<b>02802</b>	NUT, .313 NC NYLON LOCK	2
*4	<b>05979</b>	BRAKE HOSE 52" (RG650 & 750)	1
*5	<b>05982</b>	BRAKE HOSE 18.875" SOLID MALE & SOLID FEMALE (RG 650 & 750)	2
*6	<b>09098</b>	BRAKE LINE .188 X 24 (RG650 & 750)	1
7	<b>SB13H66</b>	BRAKE HOSE 13" SOLID FEMALE	1
*8	<b>SB5045</b>	BRAKE LINE .188 X 4.50 (RG650 & 750)	1
9	<b>SB537</b>	BRAKE LINE .188 X 37"	1
*10	<b>SB541</b>	BRAKE LINE .188 X 41" (RG650 & 750)	1
11	<b>SB553</b>	BRAKE LINE .188 X .53"	2
12	<b>SB597</b>	BRAKE LINE .188 X 97"	1
*13	<b>SB7764</b>	CLIP, BRAKE HOSE (RG650 & 750)	2
*14	<b>SB7785</b>	FTG, TEE, .188" UNION, W/ MTG BRACKET (500 USES QTY OF 1)	3
-	<b>SBD10</b>	FEMALE TO FEMALE .188" UNION (500)	1

**Please order replacement parts by PART NO. and DESCRIPTION**

NOTE: When bending steel lines, form around a 3/4" diameter pin, be careful not to make the bend too sharp or line failure will occur.

Inspect rubber line protectors and replace as needed. Bend clips carefully making sure not to damage the brake lines

**\* Front brakes on 650 & 750 bushel wagon only.**



# REPLACEMENT PARTS AND MAINTENANCE

## BRAKE SYSTEMS



### **WARNING: To Prevent Serious Injury or Death**

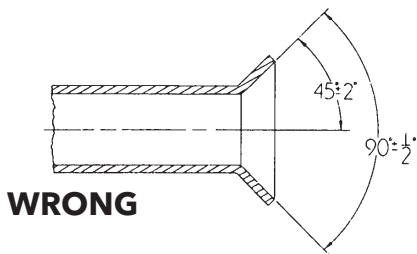
Saltwater, granular fertilizers and other corrosive materials are destructive to metal. To prolong the life of a braking system used under corrosive conditions, we recommend that the actuator be flushed periodically with a high pressure water hose. Be sure to re-grease bearings and oil all moving parts after the unit has dried. At the end of the season, when unit is to be stored, remove the brake drums and clean inside the brakes. Pack wheel bearings before drum is installed.

### **BACKPLATE INSTALLATION**

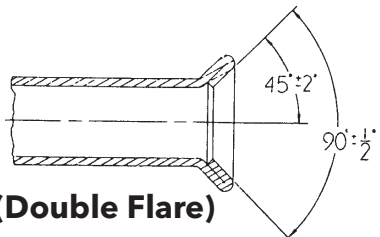
Mount the backplate to the spindle flange. In mounting the brake, be sure the hydraulic wheel cylinder is at the top. Brakes are also marked as "RIGHT" and "LEFT". The brake designated as "LEFT" travels on the driver's side of the road.

### **BRAKE LINE INSTALLATION**

Use care in forming tubing to avoid sharp bends or kinks. Use double flare steel tubing to assure tight leakproof connections. This must be done by a certified brake shop. Anchor all hydraulic lines at two foot intervals to prevent chafing and vibration. Use hydraulic rubber hose at points of flexing. Anchor hose ends to avoid stress on tubing.



**WRONG**



**RIGHT (Double Flare)**

### **BRAKE ADJUSTMENT**

Before removing the ground stand jacks, adjust the brakes. Uni-servo brakes must be adjusted periodically to assure having brakes when they are applied. Insert a brake adjusting tool or a screwdriver into the slotted hole. With the handle up and the bit down and against the adjusting nut, pull down on the handle. While spinning the wheel adjust the cog wheel up until you cannot rotate the wheel forward. Then back off the adjusting wheel 20 notches.

ALWAYS ROTATE DRUM IN DIRECTION OF FORWARD ROTATION ONLY.

### **BRAKE DRUM MAINTENANCE**

Brake drums must be reground if abnormal wear is found, such as brake shoe hitting brake drum once lining is gone, rivets hitting brake drums and or brake drums out of round. NOTE: Maximum diameter allowed 13.060"

### **BRAKE SET-UP**

1. Attach brake line to master cylinder outlet. Make sure all connections are tight.
2. Fill the master cylinder from a sealed container of DOT 3 or 4 brake fluid. A pressure type brake bleeder may be used. If one is not available, you can bleed the system manually as follows.
3. After the master cylinder has been filled, remove the flat spring behind the emergency lever. Pull forward on the lever to pump the master cylinder. Use short strokes until bubbling stops in the master cylinder.

Bleed the rear axle first. Install bleeder hose on the bleeder valve on the first wheel with other end of the hose in a clear container partially filled with brake fluid.

**Hitching The Wagon**

Loosen the bleeder valve one turn and pump the master cylinder until the air bubbles stop coming out of the hose in the glass container, then close the bleeder valve and repeat the process on the other wheels. (Watch the fluid level in the master cylinder and refill so level does not fall below 1/2 full). Refill master cylinder every 4 or 5 strokes. Dispose of contaminated brake fluid according to local regulations.

4. After bleeding is completed, refill the master cylinder and put the filler cap on securely. Replace the flat spring behind the emergency lever.

To test the brakes use a wrench or vise grip and clamp onto the top of the emergency lever to lengthen it. Pull lever forward until lever locks on the second click. The lever should be approximately straight up and down. Now try to rotate each of the four wheels in a forward rotation. You should not be able to rotate the wheels forward. If you can, then release the emergency lever by wedging a screwdriver under the flat spring behind the lever and set each wheel brake adjustment up 2 or 3 notches. Then repeat the test procedure.

5. Be sure Pin and hitch rating is equal to or greater than the wagon GVWR.
6. Connect the emergency chain hook to the towing vehicle and plug in the lights.
7. If the emergency brake lever is accidentally applied while unhitching, release the lever by pulling it forward and with a screwdriver lift up the front of the flat spring until it releases the lever. Many times these parts are damaged when this happens. An inspection of the lever, flat spring, and chain with S-hooks is required and any damaged parts must be replaced.

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**REPLACING THE EMERGENCY LEVER**

Step one: Remove the lever guide and flat spring. Take the S-hook off the lever, take the lever out from the inside.

Step two: Install the new lever from the inside and up through the slot. Replace the new flat spring and the lever guide. Replace the push rod and master cylinder and new gasket.

Step three: Take the new chain and fasten the S-hook to the lever by squeezing the hook shut with a pliers. Check the master cylinder and fill with DOT 3 or 4 brake fluid.

Step four: Re-bleed brake system.

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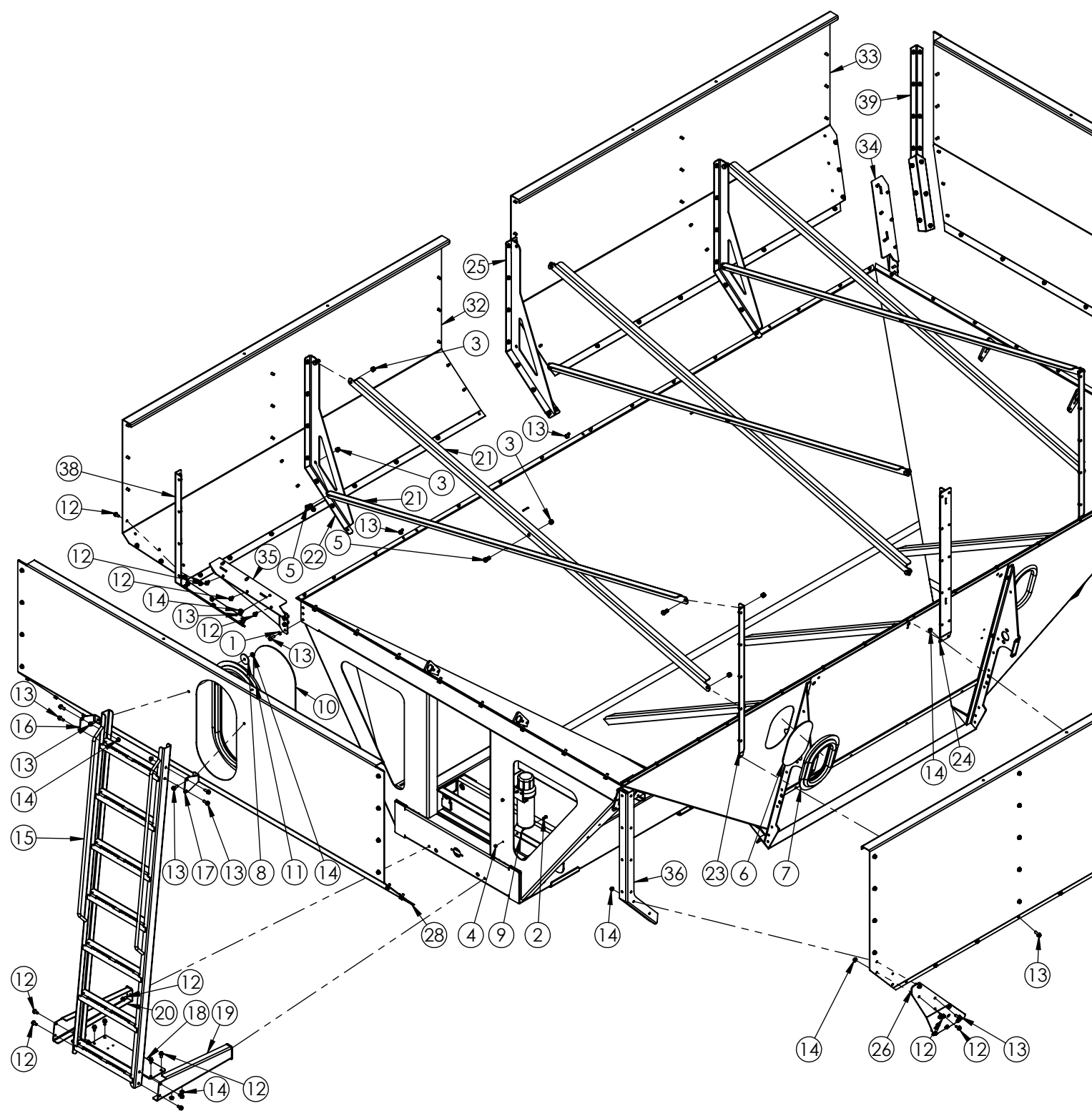
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**BRAKE MAINTENANCE**

1. Before towing check to be sure master cylinder is full of brake fluid and check lines for leaks. Inspect the actuator for bent or worn parts. Replace parts if necessary. Make sure the actuator mounting bolts are tight.
2. Periodically check braking quality, as described above. Failure to do so can result in loss of braking.
3. If units are used in corrosive conditions the actuator and wheels should be washed out with high pressure water. When actuator parts are dry, oil all moving parts.

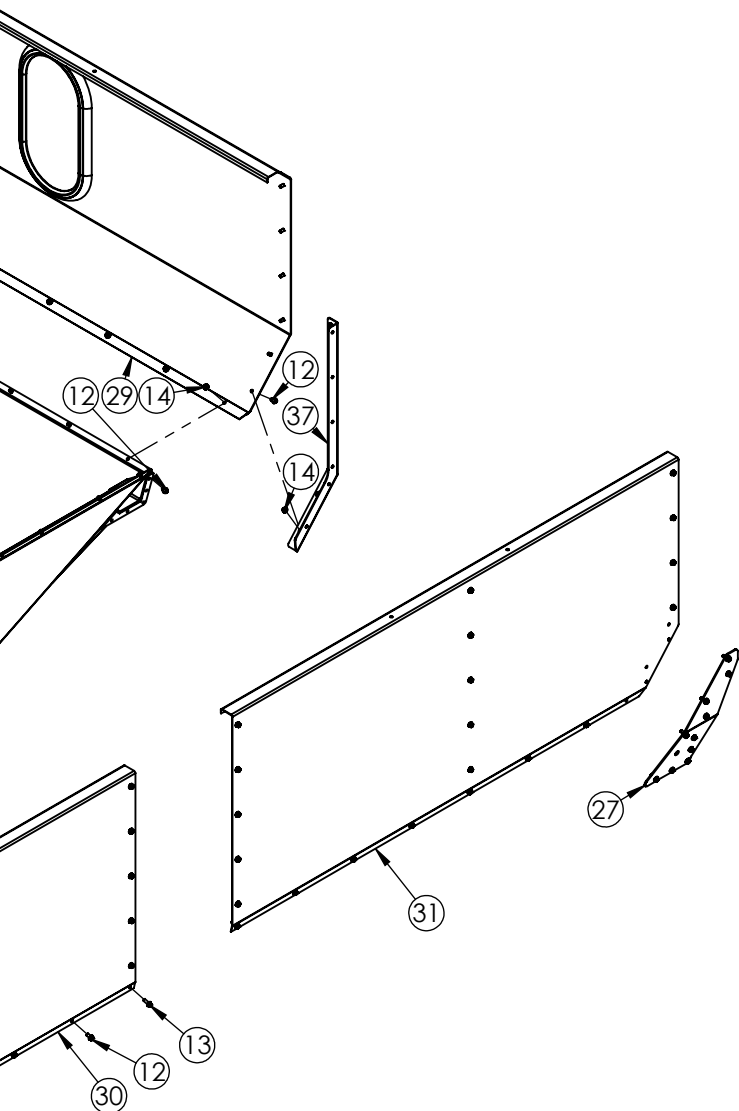
REPLACEMENT PARTS

500 SS BUSHEL WAGON PARTS



Wagons are  
available in 4 colors

-10 =	Red
-20 =	Green
-21 =	Gray
-42 =	Blue

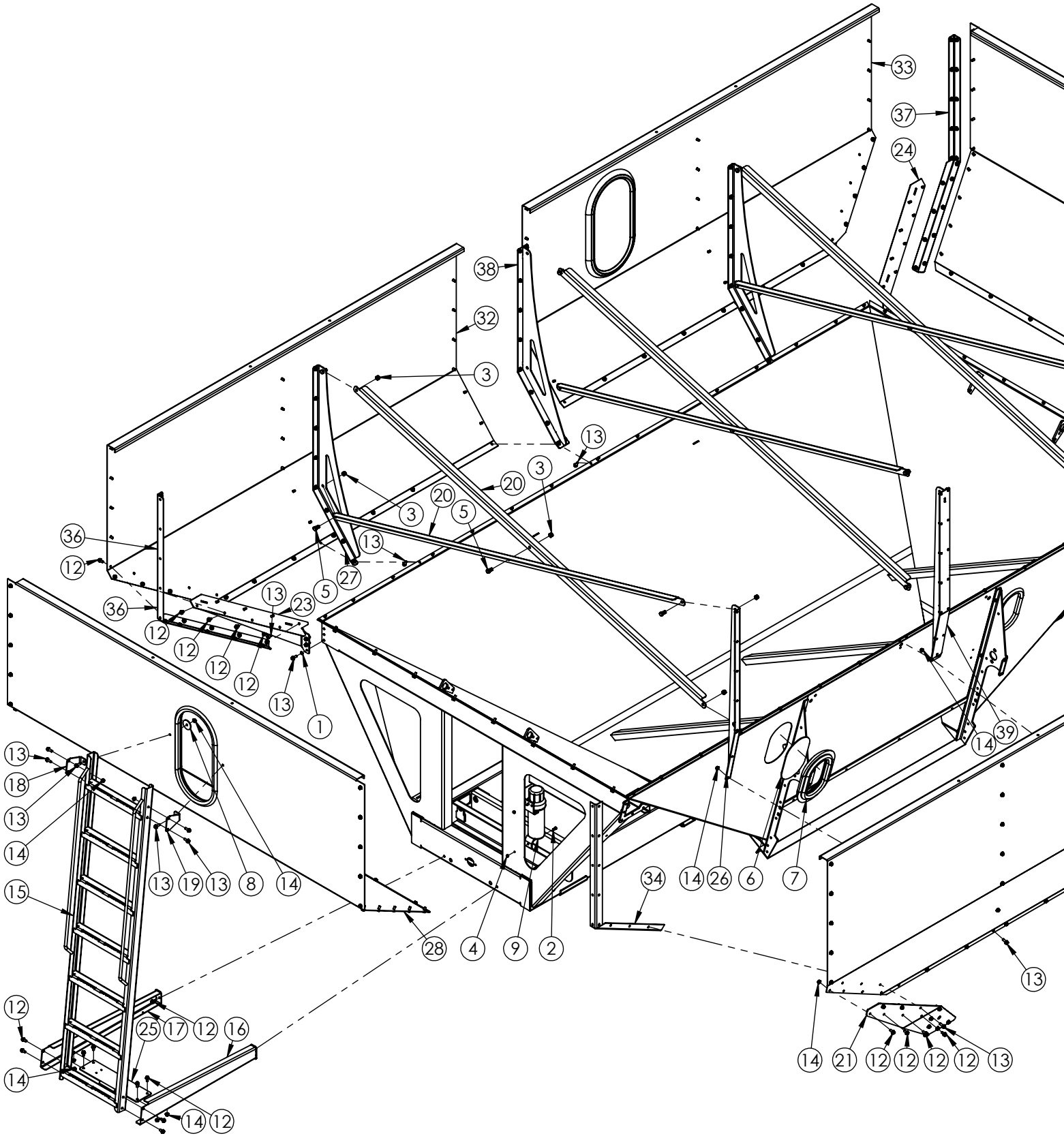


ITEM	PART #	DESCRIPTION	QTY
1	00060	WASHER, LOCK .375	6
2	01076	BOLT .25NC X .75 GR5 HEX	2
3	02178	NUT, .50NC NYLON LOCK	15
4	02772	NUT, .25NC NYLON LOCK	2
5	04795	BOLT, .50 NC X 1.00 GR.5 HEX	15
6	07276	WINDOW GRAVITY FLOW BOX	2
7	07310	WINDOW GASKET SEAL	2
8	10231-95	LADDER WASHER	2
9	10241	CANISTER	1
10	14361	WINDOW GRAVITY FLOW BOX	2
11	14362	WINDOW GASKET SEAL	2
12	16258	BOLT, .375NC X .75 GR5 HEX FLG	144
13	16259	BOLT, .375NC X 1.00 GR5 HEX FLG	42
14	16260	NUT, .375NC NYLON LOCK FLG	180
15	16339-80	WAGON LADDER	1
16	16343-80	LADDER MOUNT UPPER RIGHT	1
17	16344-80	LADDER MOUNT UPPER LEFT	1
18	16392-80	LADDER CONNECTOR	1
19	16416-80	LADDER MOUNT LEFT 500	1
20	16417-80	LADDER MOUNT RIGHT 500	1
21	16419-80	500 WAGON BRACE	6
22	16420-80	RIGHT SIDE BRACE 500	2
23	16421-80	LEFT SIDE BRACE 500	2
24	16422-?	LEFT MIDDLE BRACE 500	1
25	16423-?	RIGHT MIDDLE BRACE 500	1
26	16426-?	OUTER LEFT SUPPORT FRONT	1
27	16427-?	OUTER LEFT SUPPORT REAR	1
28	16428-?	FRONT SHEET 500	1
29	16429-?	REAR SHEET 500	1
30	16430-?	LEFT FRONT SHEET 500	1
31	16431-?	LEFT REAR SHEET 500	1
32	16432-?	RIGHT FRONT SHEET 500	1
33	16433-?	RIGHT REAR SHEET 500	1
34	16435-?	RIGHT REAR BRACE 500	1
35	16436-?	RIGHT FRONT BRACE 500	1
36	16437-?	FRONT SIDE BRACE	1
37	16438-?	REAR SIDE BRACE	1
38	16439-?	RIGHT FRONT CORNER	1
39	16440-?	RIGHT REAR CORNER	1

Please order replacement parts by **PART NO.** and **DESCRIPTION**

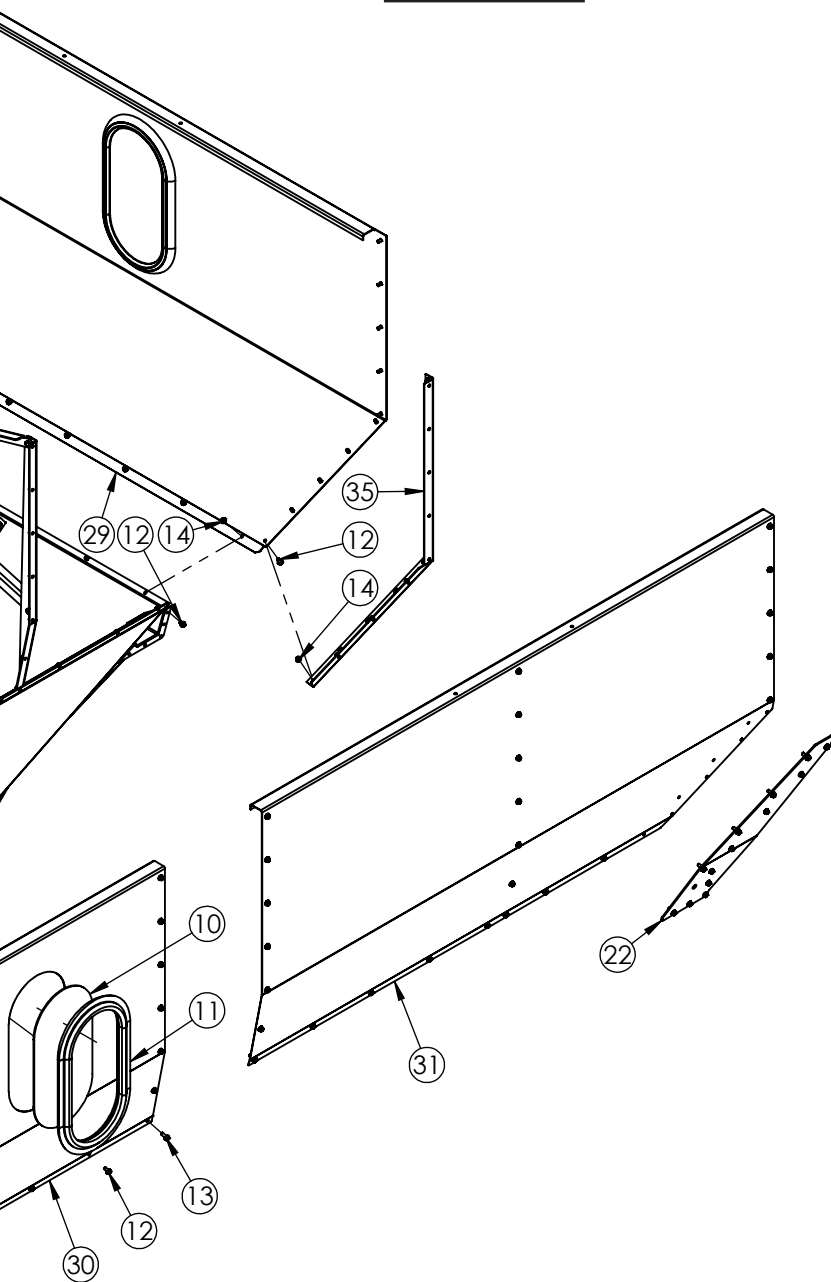
REPLACEMENT PARTS

650 SS BUSHEL WAGON PARTS



Wagons are  
available in 4 colors

-10 = Red  
-20 = Green  
-21 = Gray  
-42 = Blue

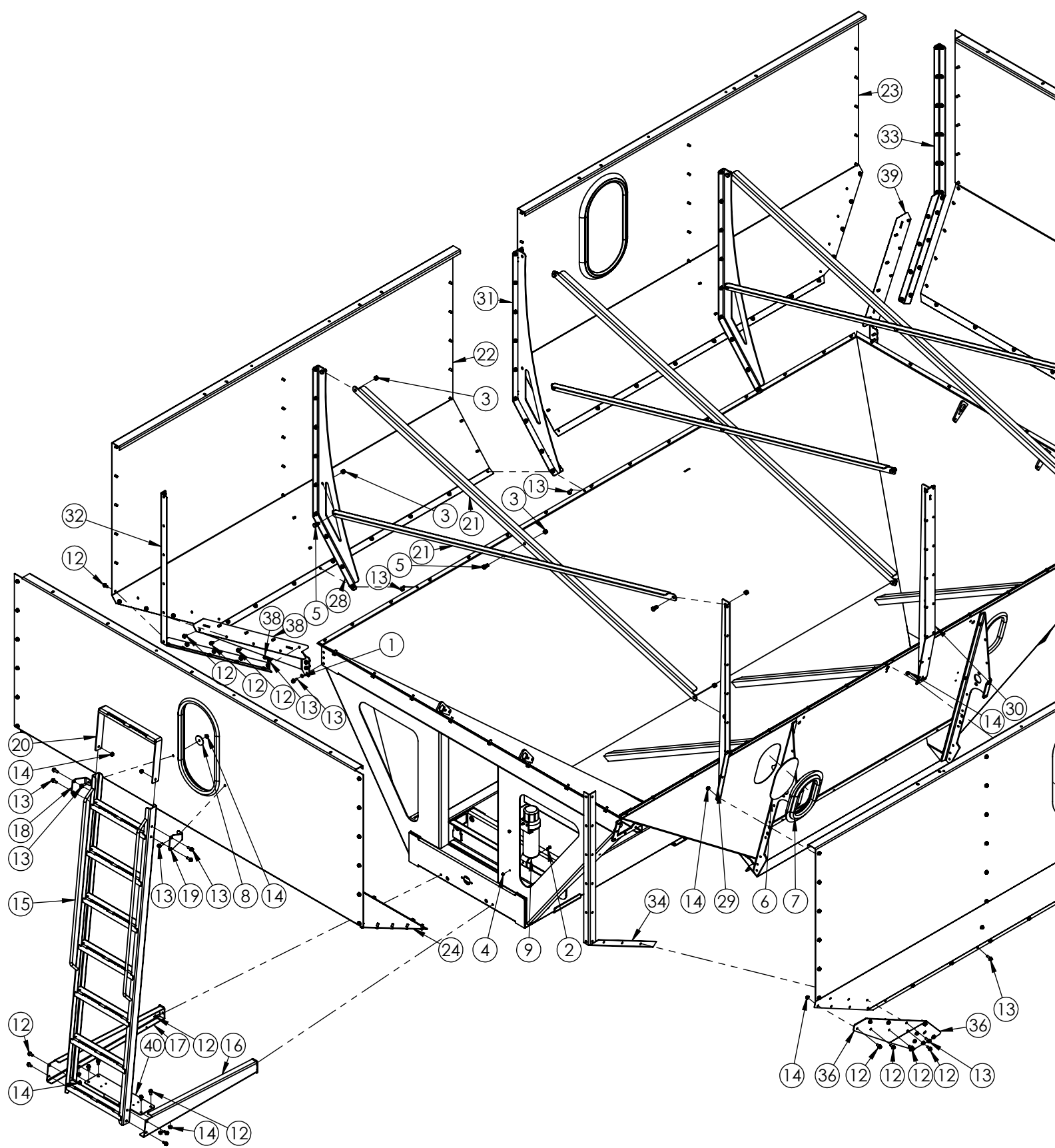


ITEM	PART #	DESCRIPTION	QTY
1	00060	WASHER, LOCK .375	6
2	01076	BOLT .25NC X .75 GR5 HEX	2
3	02178	NUT, .50NC NYLON LOCK	15
4	02772	NUT, .25NC NYLON LOCK	2
5	04795	BOLT, .50 NC X 1.00 GR.5 HEX	15
6	07276	WINDOW GRAVITY FLOW BOX	2
7	07310	WINDOW GASKET SEAL	2
8	10231-95	LADDER WASHER	2
9	10241	CANISTER	1
10	14361	WINDOW GRAVITY FLOW BOX	4
11	14362	WINDOW GASKET SEAL	4
12	16258	BOLT, .375NC X .75 GR5 HEX FLG	180
13	16259	BOLT, .375NC X 1.00 GR5 HEX FLG	46
14	16260	NUT, .375NC NYLON LOCK FLG	220
15	16339-80	WAGON LADDER	1
16	16341-80	LADDER MOUNT LEFT	1
17	16342-80	LADDER MOUNT RIGHT	1
18	16343-80	LADDER MOUNT UPPER RIGHT	1
19	16344-80	LADDER MOUNT UPPER LEFT	1
20	16351-80	WAGON CROSS BRACE	6
21	16373-?	OUTER LEFT FRONT CORNER	1
22	16374-?	OUTER LEFT REAR CORNER	1
23	16376-?	FRONT RIGHT BRACE	1
24	16377-?	REAR RIGHT BRACE	1
25	16392-80	LADDER CONNECTOR	1
26	16454-80	LEFT INNER GUSSET 650	2
27	16455-80	RIGHT INNER GUSSET 650	2
28	16456-?	FRONT SHEET 650	1
29	16457-?	REAR SHEET 650	1
30	16458-?	LEFT FRONT SHEET 650	1
31	16459-?	LEFT REAR SHEET 650	1
32	16460-?	RIGHT FRONT SHEET 650	1
33	16461-?	RIGHT REAR SHEET 650	1
34	16462-?	LEFT FRONT CORNER 650	1
35	16463-?	LEFT REAR CORNER 650	1
36	16464-?	RIGHT FRONT CORNER 650	1
37	16465-?	RIGHT REAR CORNER 650	1
38	16466-?	RIGHT SEAM BRACE 650	1
39	16467-?	LEFT SEAM BRACE 650	1

Please order replacement parts by **PART NO.** and **DESCRIPTION**

REPLACEMENT PARTS

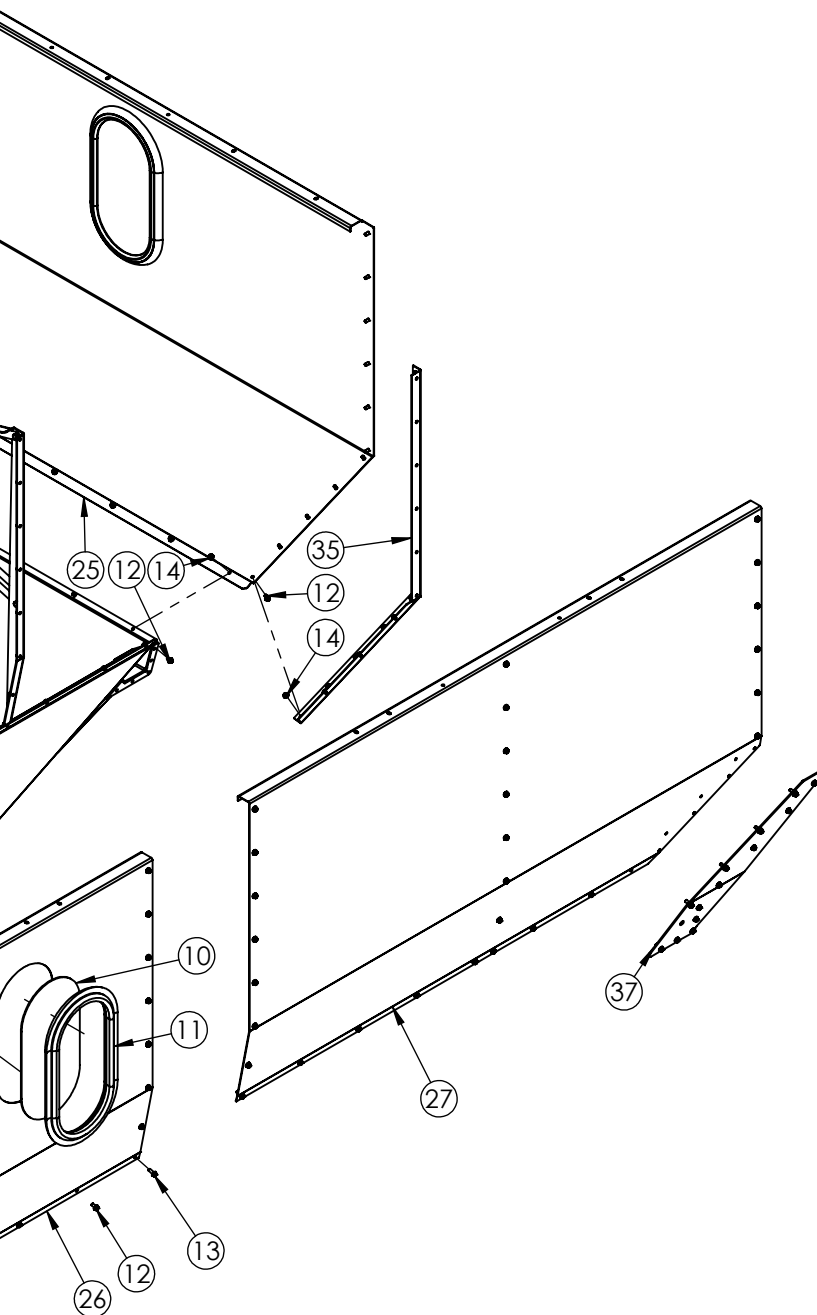
750 SS BUSHEL WAGON PARTS





Wagons are  
available in 4 colors

-10 = Red  
-20 = Green  
-21 = Gray  
-42 = Blue

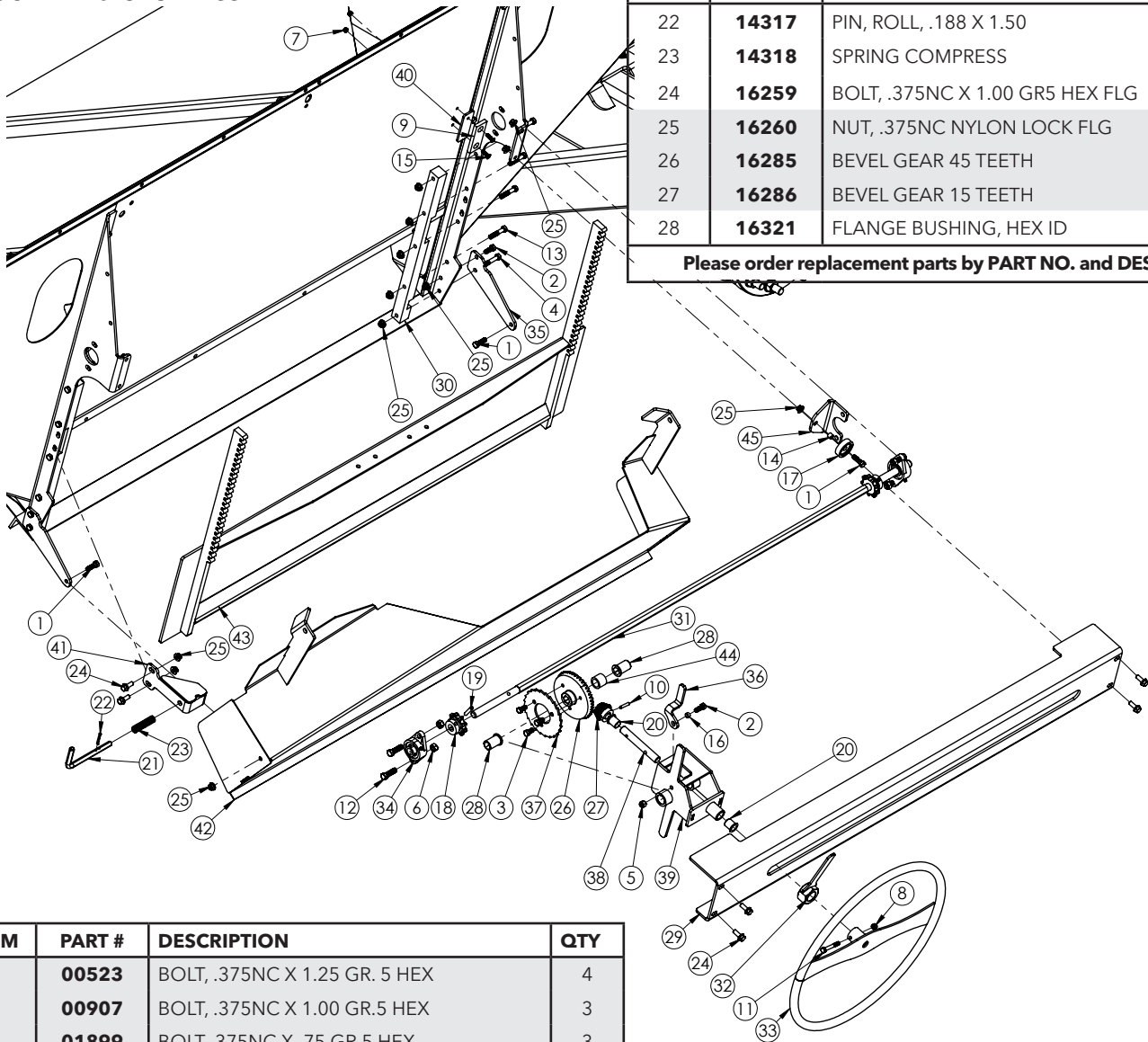


ITEM	PART #	DESCRIPTION	QTY
1	00060	WASHER, LOCK .375	6
2	01076	BOLT .25NC X .75 HEX GR.5	2
3	02178	NUT, .50NC NYLON LOCK	15
4	02772	NUT, .25NC NYLON LOCK	2
5	04795	BOLT, .50 NC X 1.00 HEX GR.5	15
6	07276	WINDOW GRAVITY FLOW BOX	2
7	07310	WINDOW GASKET SEAL	2
8	10231-95	LADDER WASHER	2
9	10241	CANISTER	1
10	14361	WINDOW GRAVITY FLOW BOX	4
11	14362	WINDOW GASKET SEAL	4
12	16258	BOLT, .375NC X .75 GR5 HEX FLG	196
13	16259	BOLT, .375NC X 1.00 GR5 HEX FLG	46
14	16260	NUT, .375NC NYLON LOCK FLG	236
15	16339-80	WAGON LADDER	1
16	16341-80	LADDER MOUNT LEFT	1
17	16342-80	LADDER MOUNT RIGHT	1
18	16343-80	LADDER MOUNT UPPER RIGHT	1
19	16344-80	LADDER MOUNT UPPER LEFT	1
20	16350-80	LADDER TOP CHANNEL	1
21	16351-80	WAGON CROSS BRACE	6
22	16352-?	RIGHT FRONT SHEET 750	1
23	16353-?	RIGHT REAR SHEET 750	1
24	16354-?	FRONT SHEET 750	1
25	16355-?	REAR SHEET 750	1
26	16356-?	LEFT FRONT SHEET 750	1
27	16357-?	LEFT REAR SHEET 750	1
28	16358-80	RIGHT INNER GUSSET	2
29	16359-80	LEFT INNER GUSSET	2
30	16360-?	LEFT SEAM BRACE 750	1
31	16361-?	RIGHT SEAM BRACE	1
32	16362-?	RIGHT FRONT CORNER	1
33	16363-?	RIGHT REAR CORNER	1
34	16364-?	LEFT FRONT CORNER	1
35	16365-?	LEFT REAR CORNER	1
36	16373-?	OUTER LEFT FRONT CORNER	1
37	16374-?	OUTER LEFT REAR CORNER	1
38	16376-?	FRONT RIGHT BRACE	1
39	16377-?	REAR RIGHT BRACE	1
40	16392-80	LADDER CONNECTOR	1

Please order replacement parts by **PART NO.** and **DESCRIPTION**

# REPLACEMENT PARTS

## DOOR LIFT & CHUTE ASSEMBLY



ITEM	PART#	DESCRIPTION	QTY
22	<b>14317</b>	PIN, ROLL, .188 X 1.50	1
23	<b>14318</b>	SPRING COMPRESS	1
24	<b>16259</b>	BOLT, .375NC X 1.00 GR5 HEX FLG	6
25	<b>16260</b>	NUT, .375NC NYLON LOCK FLG	22
26	<b>16285</b>	BEVEL GEAR 45 TEETH	1
27	<b>16286</b>	BEVEL GEAR 15 TEETH	1
28	<b>16321</b>	FLANGE BUSHING, HEX ID	2

Please order replacement parts by PART NO. and DESCRIPTION

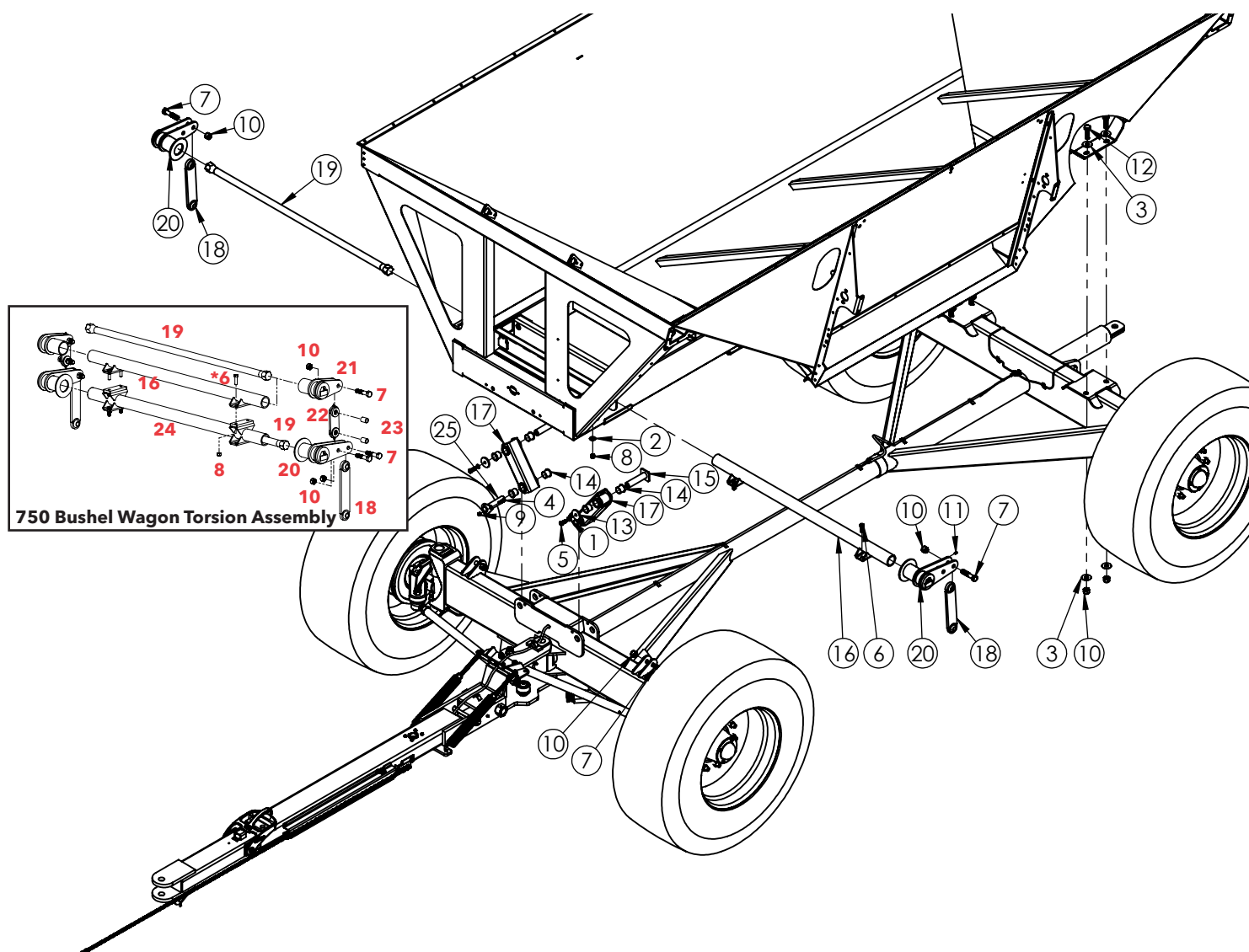
ITEM	PART #	DESCRIPTION	QTY
1	<b>00523</b>	BOLT, .375NC X 1.25 GR. 5 HEX	4
2	<b>00907</b>	BOLT, .375NC X 1.00 GR.5 HEX	3
3	<b>01899</b>	BOLT .375NC X .75 GR.5 HEX	3
4	<b>02494</b>	BOLT, .375NC X 2.25 GR.5 HEX	2
5	<b>02592</b>	NUT, .375NC NYLON LOCK	1
6	<b>02771</b>	NUT, .438NC NYLON INSERT LOCK	4
7	<b>02772</b>	NUT, .25NC LOCK NYLON INSERT	4
8	<b>02802</b>	NUT, .313 NC NYLON LOCK	1
9	<b>02946</b>	PLATE, WEAR	2
10	<b>03096</b>	ROLL PIN, .25 X 1.25	1
11	<b>03547</b>	BOLT .313NC X 2.25 GR.5 HEX	1
12	<b>04050</b>	BOLT .438NC X 2.25 GR.5 HEX	4
13	<b>04226</b>	BOLT, .375 NC X 2.00 GR.5 HEX	8
14	<b>05449-95</b>	BUSHING PIVOT	2
15	<b>07082</b>	.25NC X 1.00 FLAT HD TORX	4
16	<b>11414</b>	BUSHING, LATCH PIVOT	1
17	<b>11457</b>	DOOR CENTERING WHEEL	2
18	<b>11749</b>	SPROCKET, 9 TOOTH #60 CHAIN	2
19	<b>11750</b>	ROLL PIN, .313 X 1.50	2
20	<b>12296</b>	.75 ID X 1.00 PLASTIC BUSHING	2
21	<b>14149-95</b>	PULL PIN	1

Please order replacement parts by PART NO. and DESCRIPTION

ITEM	PART#	DESCRIPTION	QTY
29	<b>16378-80</b>	DOOR GUARD	1
30	<b>16379</b>	PLASTIC DOOR RAIL	2
31	<b>16380-95</b>	DOOR ROD	1
32	<b>16381-80</b>	LOCK HANDLE	1
33	<b>16382-80</b>	DOOR OPENER WHEEL	1
34	<b>16383-30</b>	BEARING .75" 2 BOLT FLANGE	2
35	<b>16384-80</b>	CHUTE MOUNT	2
36	<b>16385-80</b>	WHEEL LATCH	1
37	<b>16386-80</b>	RATCHET PLATE	1
38	<b>16387-95</b>	WHEEL SHAFT	1
39	<b>16389-80</b>	WAGON DOOR GEARBOX HOUSING	1
40	<b>16391-80</b>	DOOR SPACER	2
41	<b>16393-80</b>	CHUTE LATCH	1
42	<b>16394-80</b>	WAGON CHUTE, 2018+ MODELS	1
43	<b>16415-80</b>	WAGON DOOR	1
44	<b>16671-95</b>	SPACER BUSHING	1
45	<b>18220-30</b>	DOOR CENTERING DEVICE	2

Please order replacement parts by PART NO. and DESCRIPTION

## MOUNTING WAGON TO RUNNING GEAR ASSEMBLY



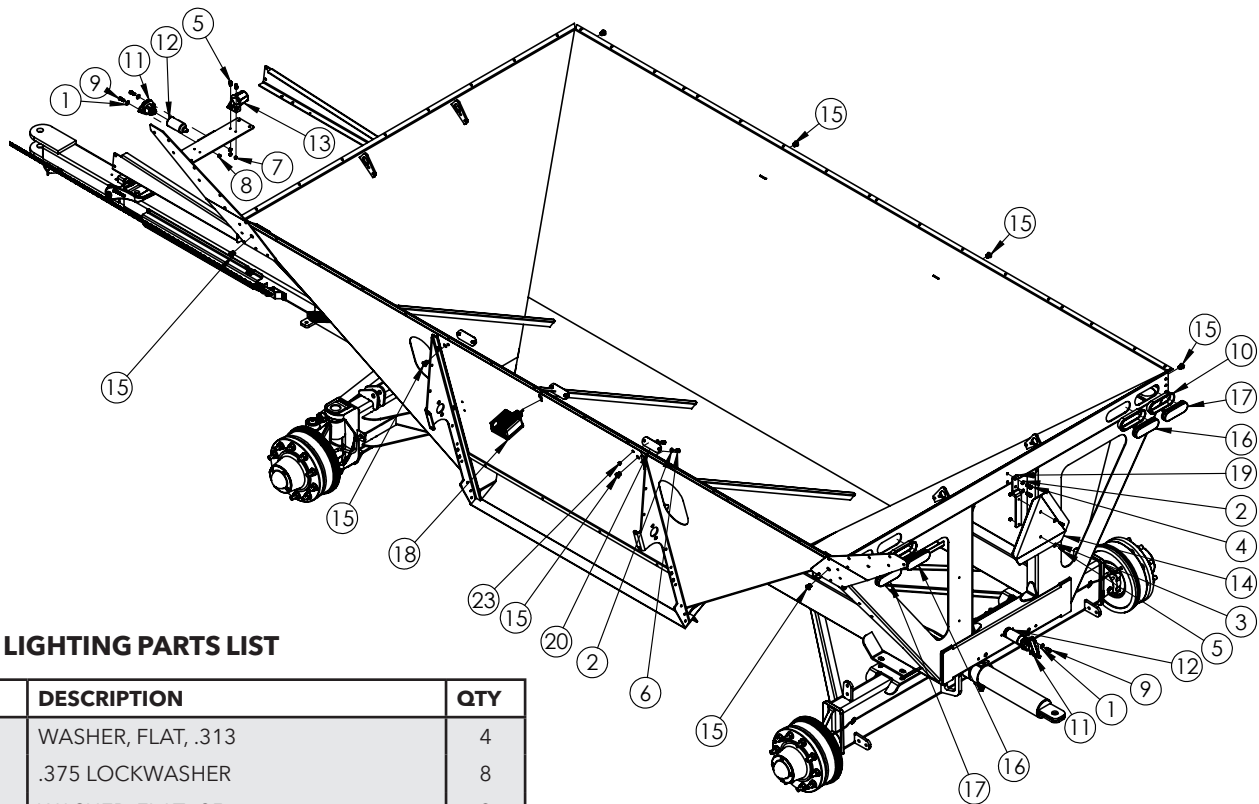
ITEM	PART #	DESCRIPTION	QTY
1	<b>00084</b>	WASHER .50 LOCK	2
2	<b>00085</b>	WASHER .50 FLAT	4
3	<b>00492</b>	WASHER .75 FLAT	8
4	<b>00523</b>	BOLT, .375NC X 1.25 GR. 5 HEX	2
5	<b>00967</b>	BOLT, .50NC X 1.25 GR. 5 HEX	2
6	<b>01254</b>	BOLT, .50 NC X 1.50 GR. 5 HEX	4
-	<b>*01253</b>	BOLT, .50 NC X 1.50 GR. 5 HEX (750)	4
7	<b>01335</b>	BOLT .75 NC x 3.50 GR. 5 HEX	4
-	<b>*01335</b>	BOLT .75 NC x 3.50 GR. 5 HEX (750)	8
8	<b>02178</b>	NUT, .50NC NYLON LOCK	4
-	<b>*02178</b>	NUT, .50NC NYLON LOCK (750)	8
9	<b>02592</b>	NUT, .375NC NYLON LOCK	2
10	<b>02961</b>	NUT, .75NC NYLON LOCK	8
-	<b>*02961</b>	NUT, .75NC NYLON LOCK (750)	12
11	<b>04642</b>	ZERK, GREASE, .25 UNF SF	2
12	<b>05047</b>	BOLT, .75NC X 2.50 GR.5 HEX	4
13	<b>07385-95</b>	BOLSTER WASHER	2
Please order replacement parts by PART NO. and DESCRIPTION			

ITEM	PART #	DESCRIPTION	QTY
14	<b>12293</b>	1.25 ID X 1.25 PLASTIC BUSHING	8
15	<b>13103-30</b>	BOLSTER BOLT	2
16	<b>13107-30</b>	TORSION HOUSING ASSEMBLY	1
17	<b>13108-30</b>	BOLSTER LINK ASSEMBLY	2
18	<b>13109-30</b>	BALL JOINT LINK	2
19	<b>13253</b>	TORSION BAR	1
20	<b>14345-30</b>	TORSION END LINK	2
21	<b>*14346-30</b>	TORSION END LINK, TOP (750)	2
22	<b>*14347-30</b>	CONNECTION LINK (750)	2
23	<b>*14348-95</b>	TORSION LINK BUSHING (750)	4
24	<b>*14349-30</b>	TORSION HOUSING (750)	1
25	<b>16332-95</b>	BOLSTER PIN	2
Please order replacement parts by PART NO. and DESCRIPTION			

\* Quantities or parts used with 750 bushel wagon.

REPLACEMENT PARTS

LIGHT KIT & SMV PARTS



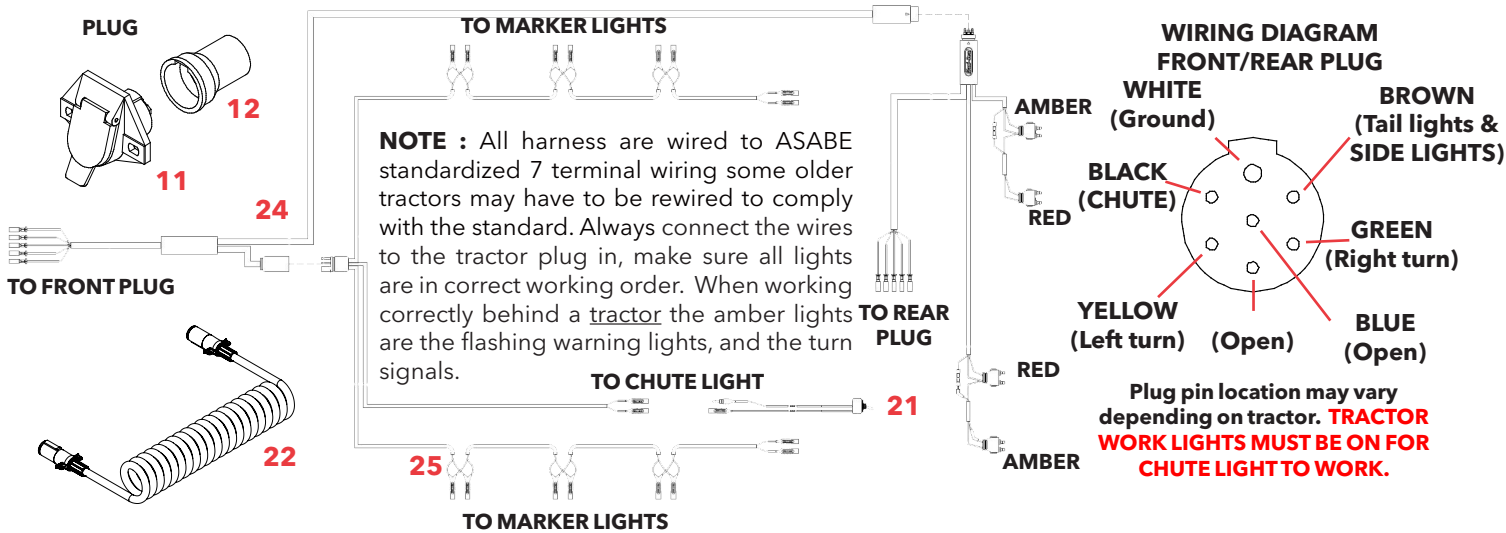
LIGHTING PARTS LIST

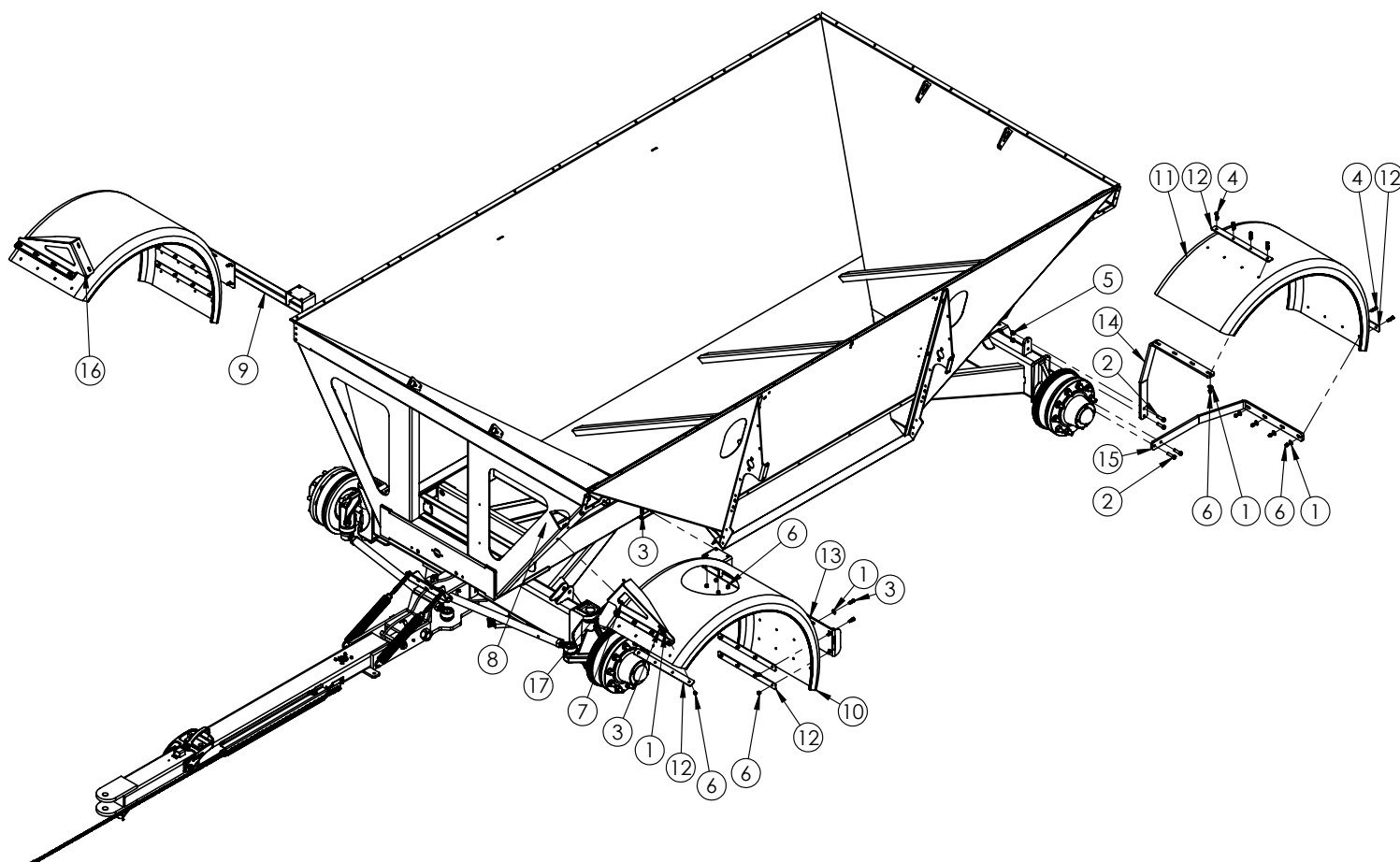
ITEM	PART #	DESCRIPTION	QTY
1	00004	WASHER, FLAT, .313	4
2	00060	.375 LOCKWASHER	8
3	00214	WASHER, FLAT, .25	2
4	00907	BOLT, .375NC X 1.00 GR.5 HEX	2
5	01076	BOLT .25NC X .75 GR5 HEX	4
6	01899	BOLT .375NC X .75 GR5 HEX	6
7	02772	NUT, .25NC LOCK NYLON INSERT	4
8	02802	NUT, .313 NC NYLON LOCK	4
9	02990	BOLT, .313 NC X 1.00 HEX HEAD GR.5	4
10	03652	GROMMET RUBBER OVAL	4
11	07417	WIRE CONNECTOR 7-WAY SOLID PIN FEMALE W/ 2-BOLT FLANGE	2
12	07418	BOOT RUBBER F/FEMALE SOCKET	2
13	10277	ELECTRICAL PLUG HOLDER	1
14	12126	SMV SIGN	1

Please order replacement parts by PART NO. and DESCRIPTION

ITEM	PART #	DESCRIPTION	QTY
15	12963	LIGHT, MARKER, YELLOW 3/4 LED	8
16	14923	LED LIGHT, SEALED RED LAMP	2
17	14924	LED LIGHT, SEALED YELLOW LAMP	2
18	14926	LIGHT WORK LED 12V-36V	1
19	14952-80	SMV HOLDER	1
20	16349-80	LIGHT COVER	3
21	16448	CHUTE LIGHT SWITCH	1
22	16449	7 WIRE PLUG CORD 15'	1
23	16835	HOLE PLUG	1
24	17726	WIRE HARNESS	1
25	17727	CLEARANCE LIGHT HARNESS	1

Please order replacement parts by PART NO. and DESCRIPTION





NOTE: Check front fender clearance after mounting.

ITEM	PART #	DESCRIPTION	QTY
1	00059	WASHER, FLAT .375	40
2	00482	BOLT .50NC X 1.75 GR5 HEX	8
3	00523	BOLT, .375NC X 1.25 GR. 5 HEX	32
4	00914	BOLT, .375 NC X 1.50 GR.5 HEX	16
5	02178	NUT, .50NC LOCK, NY. INSERT	8
6	02592	NUT, .375NC NYLON LOCK	48
7	16259	BOLT, .375NC X 1.00 GR5 HEX FLG	4
8	16260	NUT, .375NC NYLON LOCK FLG	4
9	16266-80	FENDER MOUNT, FRONT SLOPE SIDE	1
10	16269	FENDER FRONT W/ HOLES	2
11	16270	FENDER REAR W/ HOLES	2
12	16271-80	INSIDE FENDER MOUNT	10
13	16273-80	FENDER MOUNT, FRONT DOOR SIDE	1
14	16345-80	FENDER MOUNT, REAR UPPER	2
15	16346-80	FENDER MOUNT, REAR LOWER	2
16	16347-80	FENDER MOUNT FRONT RIGHT	1
17	16348-80	FENDER MOUNT, FRONT LEFT	1
Please order replacement parts by PART NO. and DESCRIPTION			

## MAINTENANCE AND GENERAL OPERATIONS OF GRAVITY WAGON



### CAUTION

To prevent personal injury or property damage, all users of this equipment should read, understand, and follow these instructions.

\* Never overload wagon. Overloading wagon is dangerous and can cause extensive damage to both the box and running gear.

\* Never add more sideboards or extensions to the gravity box, beyond the standard factory manufactured parts, as the box is not designed to handle the added weight.

\* Check box periodically for cracks in welds and other structural damage. Have cracked welds fixed immediately. Failure to do so could result in extensive damage to the gravity box and thus greatly reduce life of box.

\* When pulling gravity box and running gear, be sure that it is fastened securely to tractor. Also connect the emergency brake chain to towing vehicle and be sure lighting is connected and working properly.

\* Be sure to read all warnings, caution, and important labels on equipment, they are designed for your safety and for longer life of equipment.

\* Periodically check all bolts and nuts to ensure proper tension or torque. Torque lug nuts daily.

\* Grease all zerks before each use using a good quality lubricant.

\* Before towing be sure master cylinder is full of brake fluid and check lines for leaks. Inspect the actuator for bent or worn parts. Replace parts if necessary. Make sure the actuator mounting bolts are tight.

\* Periodically check braking quality. If you think they are a little soft, check the movement on the actuator. If it moves more than 7/8", the brake shoes need to be adjusted. Failure to do so can result in loss of braking.

\* If units are used in corrosive conditions the actuator and wheels should be washed out with high pressure water. When actuator parts are dry, oil all moving parts and repack wheel bearing.

**Periodic servicing of this unit will greatly prolong its usable life.**

# DEMCO

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Phone: (712) 725-2311

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Toll Free: 1-800-54DEMCO (1-800-543-3626)

**Demco warranty policies, operator manuals, and product registration  
can be found online:**

**[www.demco-products.com](http://www.demco-products.com)**