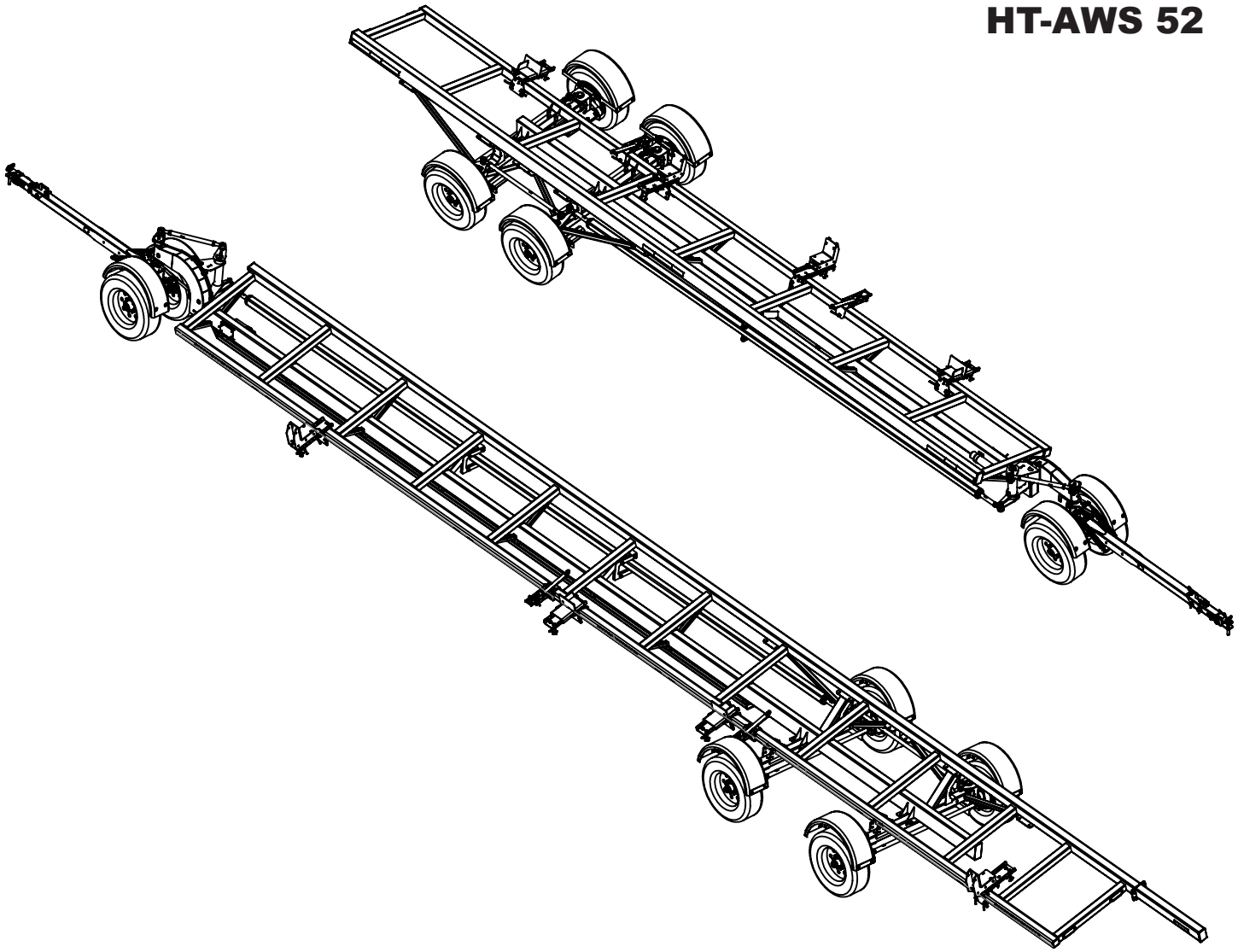
DEMCO

Doing Our Best to Provide You the Best

8H000024, Rev A
10/23

COMBINE HEADER TRANSPORT
ALL WHEEL STEER (HT-AWS)

HT-AWS 32
HT-AWS 38
HT-AWS 42
HT-AWS 48
HT-AWS 52



SERIAL NUMBERS: AWS P00249 - ABOVE

OPERATOR MANUAL

Table of Contents

Thank you for purchasing a Demco Combine Head Transport. 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, PARTS MANUALS & REGISTRATION

Go online to www.demco-products.com to review Demco warranty policies, operator manuals and register your Demco product.

⚠WARNING: To Avoid Personal Injury or Death, Observe the following Instructions:

Never overload combine head transport. Do not exceed the load rating of the axle or load rating of tires, whichever is less.

Ensure that anybody present is clear before applying power to any machinery used in conjunction with the combine head transport or when moving the transport.

Never allow anyone on combine head transport during travel, loading, or unloading of combine head.

DO NOT exceed the tire manufacturer's recommended safe towing speeds.

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 the combine head transport 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.

Throughout this manual, the term IMPORTANT is used to indicate that failure to observe can cause damage to equipment. The terms CAUTION, WARNING and DANGER are used in conjunction with the Safety-Alert Symbol (a triangle with an exclamation mark) to indicate the degree of hazard for items of personal safety.

⚠	This Safety-Alert Symbol indicates a hazard and means ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!
⚠DANGER	Indicates an imminently hazardous situation that, if not avoided, will result in death or serious injury.
⚠WARNING	Indicates a potentially hazardous situation that, if not avoided, could result in death or serious injury, and include hazards that are exposed when guards are removed.
⚠CAUTION	Indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.
IMPORTANT	Indicates that failure to observe can cause damage to equipment.
NOTE	Indicates helpful information.

SAFETY...YOU CAN LIVE WITH

⚠ ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! ⚠

Safety is a primary concern in the design and manufacture of our products. Unfortunately, our efforts to provide safe equipment can be wiped out by an operator's single careless act.

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, and you yourself, follow them.

In addition to the design and configuration of equipment, hazard control and accident prevention are dependent upon the awareness, concern, judgment, and proper training of personnel involved in the operation, transport, maintenance and storage of equipment.

In order to provide a better view, certain illustrations in this 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.

It has been said "The best safety device is an informed, careful operator." We ask you to be that kind of operator.

TRAINING

• Safety instructions are important! Read all attachment manuals; follow all safety rules and safety decal information. Failure to follow instructions or safety rules can result in serious injury or death

• Don't hurry the learning process or take unit for granted in becoming familiar with your new equipment.

• If you do not understand any part of this manual and need assistance, see your dealer. (Replacement manuals are available from selling dealer.)

• Operators must be instructed in and be capable of the safe operation of the equipment, its attachments, and all controls. Do not allow anyone to operate this equipment without proper instructions.

• Never allow children or untrained persons to operate equipment.

• Train all new personnel and review instructions frequently with existing workers. A person who has not read and understood all operating and safety instructions is not qualified to operate the machine. An untrained operator exposes himself and bystanders to possible serious injury or death.

• 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.

• Do not use unit until you are sure that area is clear, especially around children and animals.

PREPARATION

• Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

• Keep wheel and lug nuts tightened to specified torque.

• Assure that 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 in this manual.

• Make sure there are not tools lying on or in equipment.

• Make sure that brakes are evenly adjusted (if equipped with brakes).

• Do not allow anyone to stand between tongue or hitch and towing vehicle when backing up to equipment.

TRANSPORTATION

• Always comply with all state and local laws governing highway safety and movement of farm machinery on public roads.

• Always comply with all state and local laws governing highway safety and lighting and marking requirements.

• 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.

• Coupler must be securely connected to the hitch on the tow vehicle.

• Safety chains must be connected. Crisscross chains under tongue and secure to draw bar cage, mounting loops, or bumper frame.

SAFETY...YOU CAN LIVE WITH

⚠ ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED! ⚠

• For clevis hitch, use a high strength, appropriate size hitch pin with a mechanical retainer

• Transport lights and brakes must be connected and operational.

• Break away cable must be connected to tow vehicle.

• Before transporting flexible platform and draper headers. Lock the header into rigid mode.

• Center combine header front to back, and side to side on the transport to distribute the weight evenly.

• Make certain the entire length of the header is supported and resting on the top rail of the transport.

• The feeder house side of the header should securely rest on the transports mounting brackets.

• Fasten header securely to transport before moving.

• Always position your transport and tow vehicle with the wheels straight before loading combine headers.

• Pulling the transport in a straight motion from the stopped position, will prevent damage to tongue and steering linkages.

• 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, ensuring that your speed is low enough for an emergency stop. Keep speed to a minimum.

• Always keep towing vehicle in gear to provide engine braking when going downhill. Do not coast.

• 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.

• Never allow riders on the tow vehicle or attachment.

• Do not operate or transport on steep slopes.

• Use extreme care and reduce ground speed on slopes and rough terrain.

• Do not operate or transport equipment while under the influence of alcohol or drugs. Consult your doctor about operating this machine while taking prescription medications.

OPERATION

• Never go underneath equipment (lowered to the ground or raised) unless it is properly blocked and secure.

• Beware of bystanders, particularly children, pets, and livestock! Always look around to make sure that it is safe to start engine of towing vehicle or to move unit. This is particularly important with higher noise levels and quiet cabs, as you may not hear verbal warnings.

• Keep hands, feet, hair, and clothing away from equipment while engine is running. Stay clear of all moving parts.

• Never allow riders on the tow vehicle or attachment.

• Always sit in tow vehicle seat when operating controls or starting engine. Securely fasten seat belt, place transmission in neutral, engage brake, and ensure all other controls are disengaged before starting tow vehicle engine.

• Be especially observant of operating area and terrain. Watch for loose gravel, holes, rocks, or other hidden hazards; they can be dangerous for equipment operation or movement. Always inspect area prior to operation. Look down and to the rear and make sure area is clear before operating in reverse.

• Pick the most level possible route when transporting across fields. Use extreme care when working close to fences, ditches, other obstructions, or on hillsides.

• Do not stop, start, or change directions suddenly on slopes as overturn may result. Always operate or transport down slopes, never across the face.

• Use extreme care and reduce ground speed on slopes and rough terrain.

SAFETY...YOU CAN LIVE WITH

ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

• Before leaving tow vehicle or halting operation, even periodically, set tractor or towing vehicle brakes, disengage PTO, shut off engine, and remove ignition key.

• Maneuver tractor or towing vehicle at safe speeds and allow for unit length when making turns.

AFTER SEASON STORAGE

• 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.

• Wheel chocks may be needed to prevent unit from rolling.

MAINTENANCE

• Good maintenance is your responsibility. Poor maintenance is an invitation to trouble.

• Always wear relatively tight and belted clothing to avoid getting caught in moving parts. Wear sturdy, rough-soled work shoes and protective equipment for eyes, hair, hands, hearing, and head; and respirator or filter mask where appropriate.

• 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 equipment, stop towing vehicle, set brakes, shut off engine and remove ignition key.

• When performing maintenance or repairs make sure the equipment is in the lowered position and the mainframe is properly blocked and secured to prevent rolling. Failure to do so can cause serious injury or death. Never use a jack to support equipment.

• As a precaution, always recheck hardware on equipment following every 100 hours of operation. Correct all problems. Follow maintenance safety procedures.

• Use extreme caution when making adjustments.

• Always use proper tools or equipment for job at hand.

• Do not allow grease or oil to build up on any steps or platform.

• Replace all shields and guards after servicing and before moving.

• When replacing bolts, refer to owner's manual.

• Refer to bolt torque chart for head identification marking. Also follow torque chart in this manual when tightening bolts and nuts.

• After servicing, be sure all tools, parts and service equipment are removed.

• 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.

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 & INSTRUCTIONAL DECALS

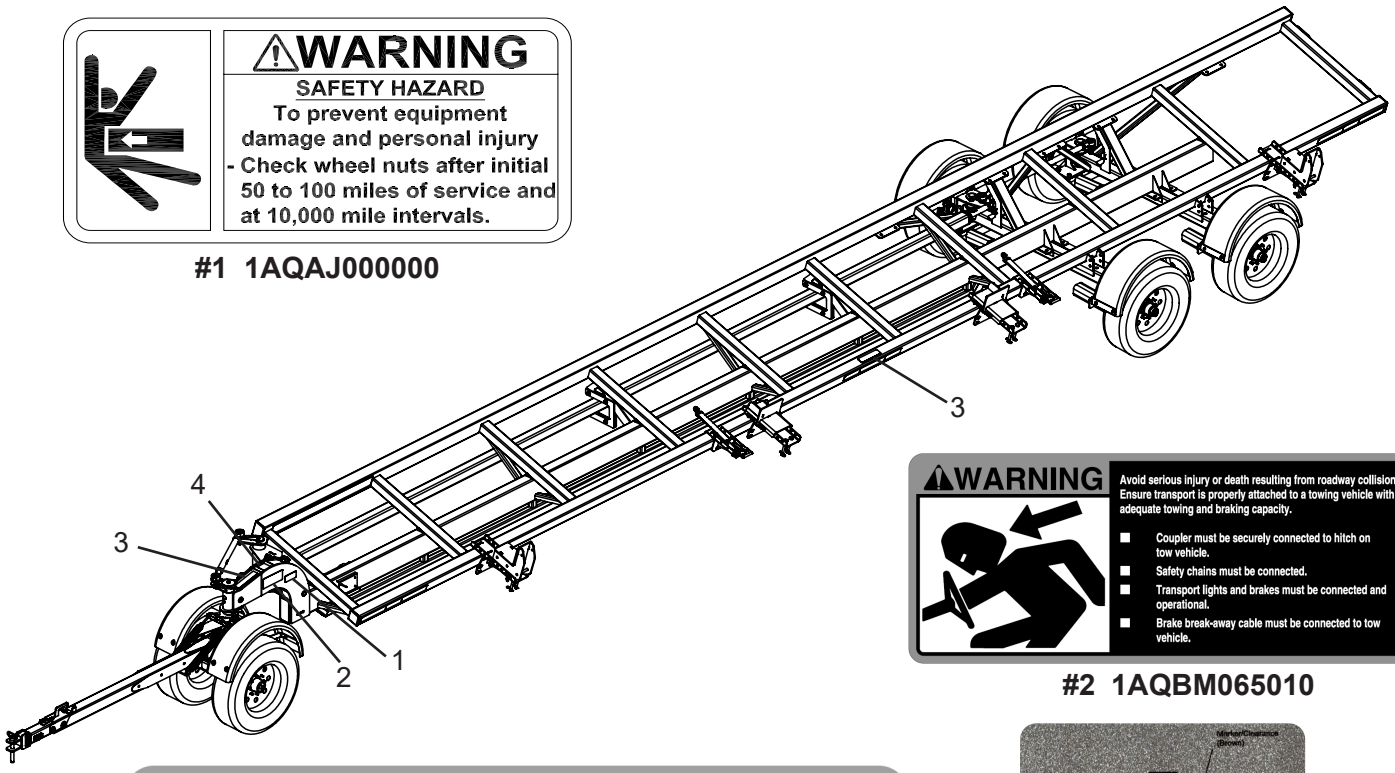
⚠ ATTENTION! BECOME ALERT! YOUR SAFETY IS INVOLVED!

FAILURE TO FOLLOW THESE INSTRUCTIONS COULD RESULT IN SERIOUS INJURY OR DEATH

Replace Decals Immediately If Damaged!

Safety Sign Locations

Types of safety signs and locations on equipment are shown in the 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.



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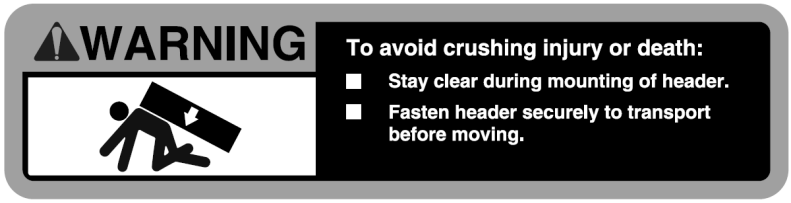

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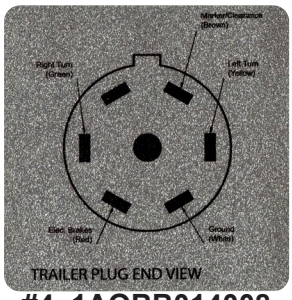

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Safety Sign Care

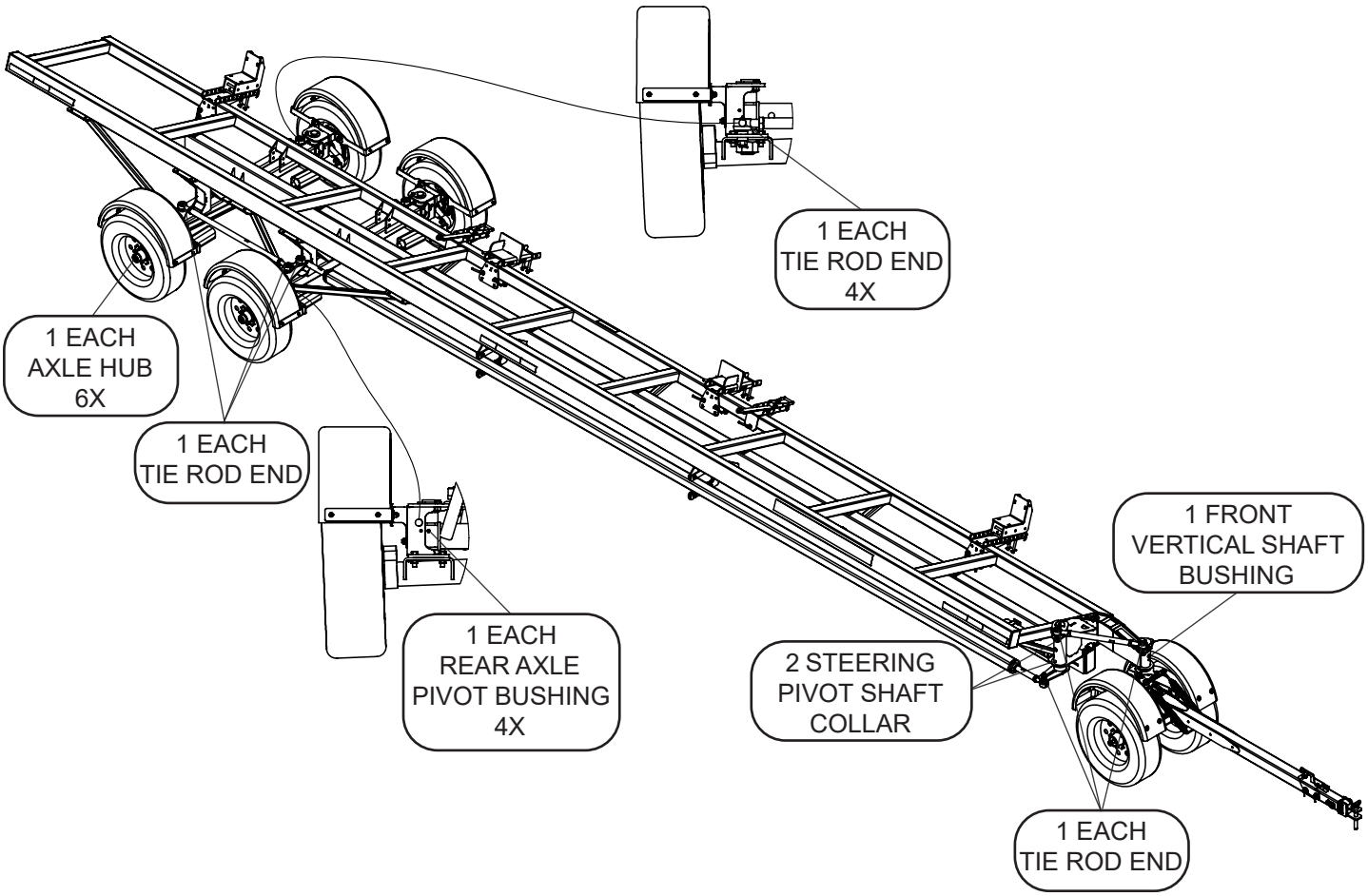
- Keep safety signs clean and legible at all times.
- Replace safety signs that are missing or have become illegible.
- Replacement parts that displayed a safety sign should also display current sign.
- Safety signs are available from your distributor, dealer parts department, or factory.

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 a piece of decal backing paper.

GREASE ZERK LOCATIONS

- See below for diagram of all locations where zerks are located. (17 total)
- Grease Zerks will be located anywhere you see the decal to the right.
- Each axle hub assembly also contains a grease zerk. (6 total on trailer)



Item	Function Required	Weekly	3 Months or 3000 Miles	6 Months or 6000 Miles	12 Months or 12000 Miles
Brakes	Test that they are operational	**At Every Use**			
Brake Adjustment	Adjust to proper operating clearance		**X**		
Brake Magnets	Inspect for wear and current draw			**X**	
Brake Linings	Inspect for wear or contamination				**X**
Brake Controller	Check for correct amperage & modulation			**X**	
Brake Cylinders	Check for leaks, sticking				**X**
Brake Lines	Inspect for cracks, leaks, kinks				**X**
TrailerBrake Wiring	Inspect wiring for bare spots, fray, etc.				**X**
Breakaway System	Check battery charge and switch operation	**At Every Use**			
Hub/Drum	Inspect for abnormal wear or scoring				**X**
Wheel Bearings & Cups	Inspect for corrosion or wear. Clean & repack			**X**	
Seals	Inspect for leakage Replace if removed			**X**	
Springs	Inspect for wear, loss of arch				**X**
Suspension Parts	Inspect for bending, loose fasteners, wear			**X**	
Hangers	Inspect welds				**X**
Wheel Nuts & Bolts	Tighten to specified torque values		**X**		
Wheels	Inspect for cracks, dents or distortion			**X**	
Tire Inflation Pressure	Inflate tires to mfg's specification	**X**			
Tire Condition	Inspect for cuts, wear, bulging, etc.		**X**		

⚠ WARNING TO AVOID PERSONAL INJURY OR DEATH. Only certified mechanic should be allowed to make adjustments to the brake system.

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.

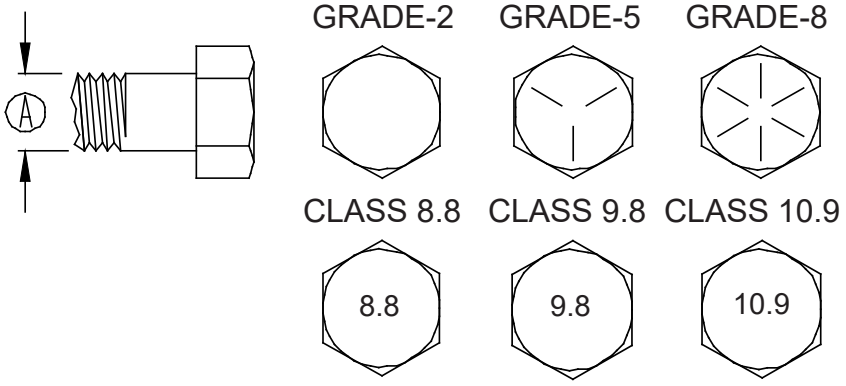
Torque Specifications

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 cap screws unless otherwise specified in this manual. When using locking elements, increase torque values by 5%.

* GRADE or CLASS value for bolts and cap screws are identified by their head markings.

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)

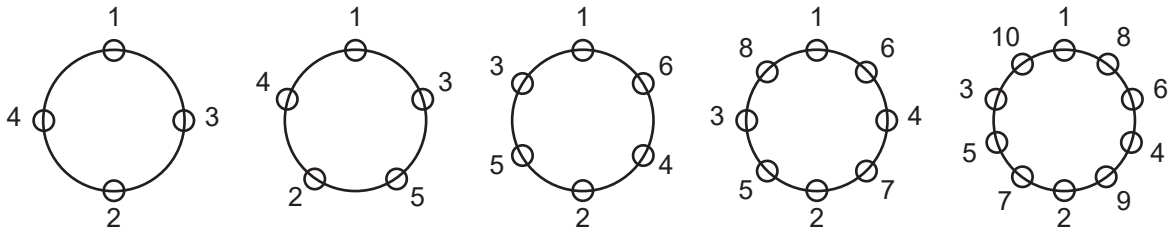


It is extremely important to apply and maintain proper wheel mounting torque on your trailer axle. Torque is a measure of the amount of tightening applied to a fastener (nut or bolt) and is expressed as length times force. For example, a force of 90 pounds applied at the end of a wrench one foot long will yield 90 lbs/ft of torque. Torque wrenches are the best method to assure the proper amount of torque is being applied to a fastener.

NOTE: Wheel nuts or bolts must be applied and maintained at the proper torque levels to prevent loose wheels, broken studs, and possible dangerous separation of wheels from your axle.

Be sure to use only the fasteners matched to the cone angle of your wheel (usually 60° or 90°). The proper procedure for attaching your wheels is as follows:

1. Start all bolts or nuts by hand to prevent cross threading.
2. Tighten bolts or nuts in the following sequence.
3. The tightening of the fasteners should be done in stages. Following the recommended sequence, tighten fasteners per wheel torque requirements diagram:



4 BOLT **5 BOLT** **6 BOLT** **8 BOLT** **10 BOLT**

4. Wheel nuts/bolts should be torqued before first road use and after each wheel removal. Check and re-torque after the first 50 miles (61km) and again at 100 miles (161km). Check periodically thereafter.

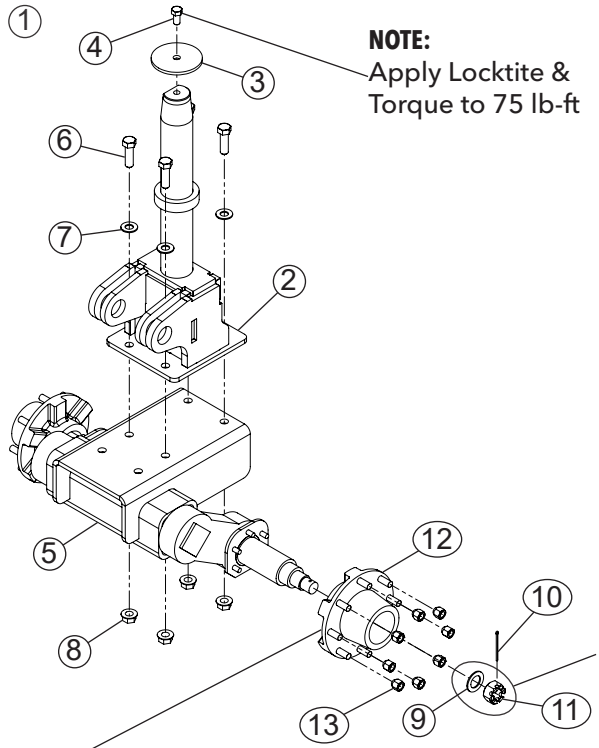
Wheel & Rim Torque Requirements

Description	Application	Minimum Torque		Maximum Torque	
		lb-ft	(N-m)	lb-ft	(N-m)
1/2” Cone nut	12" – 13" Wheel	50	(68)	65	(89)
	14" – 16" Wheel	90	(122)	120	(163)
5/8" Cone nut	Flat disc wheel	175	(238)	225	(305)
5/8" Cone nut	Clamp ring	190	(258)	210	(285)
3/4” Hex nut	Demountable Ring clamp	210	(285)	260	(353)
3/4” Spherical nut	Single wheel	450	(611)	500	(678)
	Inner dual	450	(611)	500	(678)
1-1/8" Spherical nut	Outer dual	450	(611)	500	(678)
5/8" Flange nut	Wheels	275	(373)	325	(441)

7K FRONT IDLER SUSPENSION AXLE & HUB BREAKDOWN

Ref No.	Part Number	Qty	Description	Unit Number
1	5H000473	1	HT-AWS 7K FR SUSP IDLER AX 32* DOWN	P00249-
2	5H000474	1	HT-AWS FR VERTICAL SHAFT ASSY	
3	3H000645	1	HT-AWS FRONT END WASHER CAP	
4	1AFC12HAA00	1	1/2" X 1" HEX BOLT GR. 5	
5	1AAT780162H	1	TOR,7K,865,ID,EZ,W/FRNT SUSP 32* DWN	
6	1AFF12JBA05	4	5/8 X 2 HEX BOLT GR5, FINE THREAD, ZINC	
7	1AF009J000C	4	5/8" SAE FLAT WASHER ZINC	
8	1AFY08J0008	4	5/8-18 FLNG LK NUT DTSMFACE G8	
9	1AF009Q0000	2	1" I.D. X 1-3/4" O.D. X .115 Washer	
10	1AF033CBAD0	2	5/32" X 2-1/4" Cotter Pin	
11	1AFF63Q0000	2	1-14 Hex Slotted Jam Nut, Plain	
12	1AAB08E3A0H	2	COMPLETE HUB 865 W/2.25 ID SEAL	
13	1AFF68H0000	16	1/2" Coned Wheel (Lug) Nut	

Please order replacement parts by Part Number and Description.



NOTE:
Apply Locktite & Torque to 75 lb-ft

1AV9BK32000 8 BOLT BEARING/SEAL KIT

Recommended Wheel Bearing Lubrication Specifications

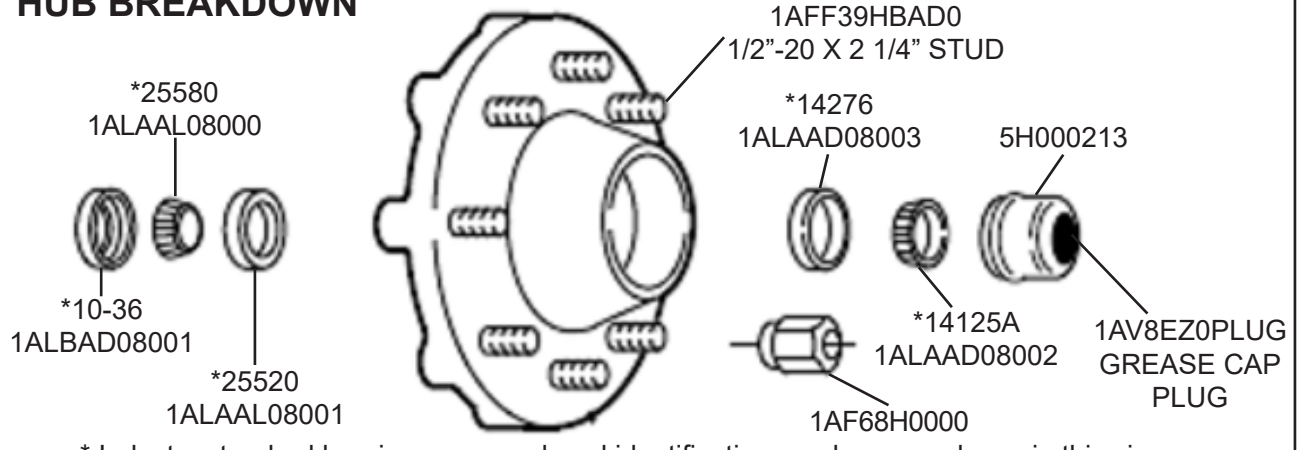
Grease:

Thickener Type ..... Lithium Complex
Dropping Point..... 230°C (446°F) Minimum
Consistency..... NLGI No. 2
Additives..... EP, Corrosion & Oxidation Inhibitors
Base Oil..... Solvent Refined Petroleum Oil
Base Oil Viscosity..... @40°C (104°F) 150cSt(695 SUS) Min.
Viscosity Index ..... 80 Minimum

Approved Sources:

Mobil Oil ..... Mobilgrease HP
Exxon/Standard..... Ronex MP
Kendall Refining Co..... Kendall L-427
Ashland Oil Co. ..... Valvoline Val-plex EP Grease
Pennzoil Prod. Co. ..... Premium Wheel Bearing Grease 707L

HUB BREAKDOWN

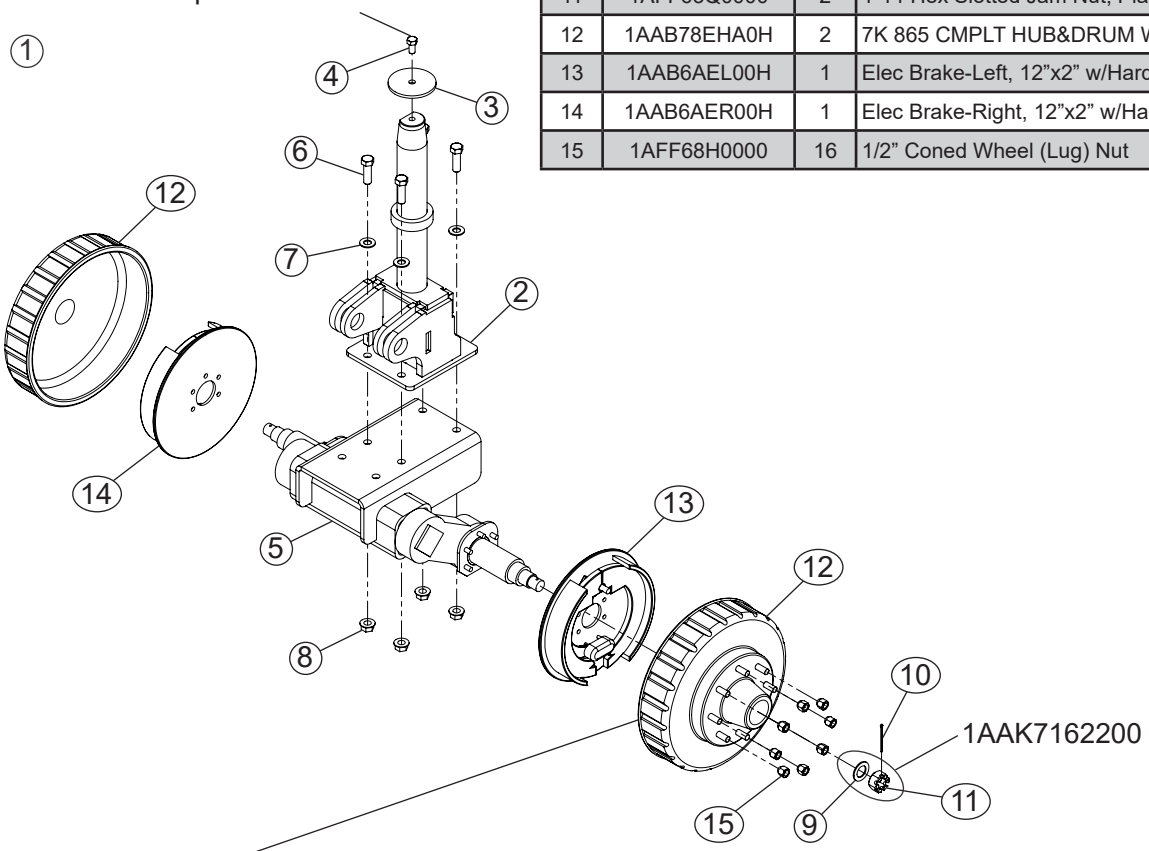


* Industry standard bearing, race, and seal identification numbers are shown in this view.

Please order replacement parts by Part Number and Description.

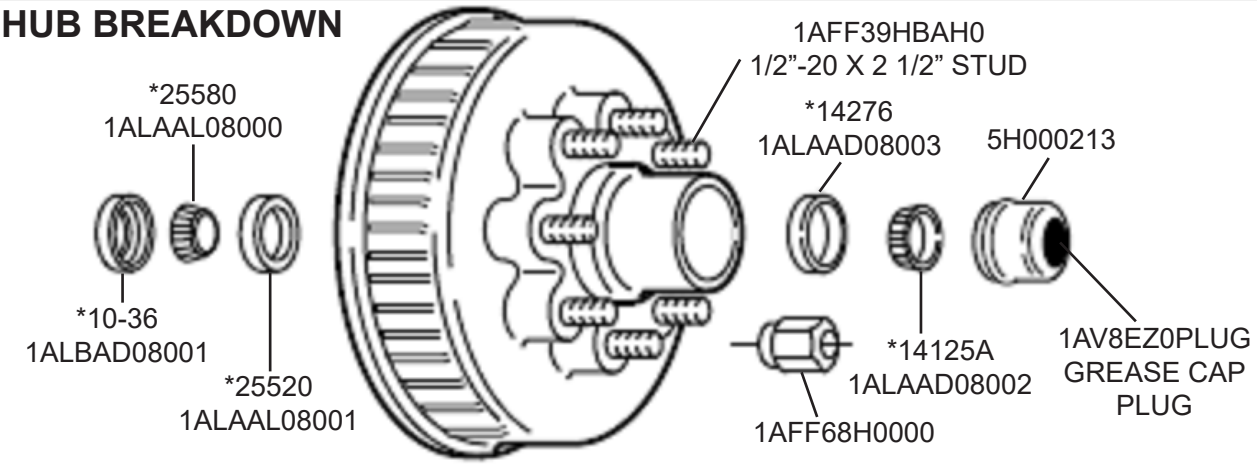
Ref No.	Part Number	Qty	Description	Unit Number
1	5H000475	1	HT-AWS 7K FR SUSP BRAKE AX, 32* DOWN	P00249-
2	5H000474	1	HT-AWS FR VERTICAL SHAFT ASSY	
3	3H000645	1	HT-AWS FRONT END WASHER CAP	
4	1AFC12HAA00	1	1/2" X 1" HEX BOLT GR. 5	
5	1AAT78E162H	1	TOR,7K,865,EL,EZ,W/FRNT SUSP 32* DWN	
6	1AFF12JBA05	4	5/8 X 2 HEX BOLT GR5, FINE THREAD, ZINC	
7	1AF009J000C	4	5/8" SAE FLAT WASHER ZINC	
8	1AFY08J0008	4	5/8-18 FLNG LK NUT DTSMFACE G8	
9	1AF009Q0000	2	1" I.D. X 1-3/4" O.D. X .115 Washer	
10	1AF033CBAD0	2	5/32" X 2-1/4" Cotter Pin	
11	1AFF63Q0000	2	1-14 Hex Slotted Jam Nut, Plain	
12	1AAB78EHA0H	2	7K 865 CMPLT HUB&DRUM W/2.25ID SEAL	
13	1AAB6AEL00H	1	Elec Brake-Left, 12"x2" w/Hardware HT12	
14	1AAB6AER00H	1	Elec Brake-Right, 12"x2" w/Hardware HT12	
15	1AFF68H0000	16	1/2" Coned Wheel (Lug) Nut	

NOTE:
Apply Locktite &
Torque to 75 lb-ft



1AV9BK32000 8 BOLT BEARING/SEAL KIT

HUB BREAKDOWN



* Industry standard bearing, race, and seal identification numbers are shown in this view.

BEARING INSPECTION/LUBRICATION

Bearing Inspection

Wash all grease and oil from the bearing cone using a suitable solvent. Dry the bearing with a clean, lint-free cloth and inspect each roller completely.

⚠CAUTION: Never spin the bearing with compressed air. THIS CAN DAMAGE THE BEARING.

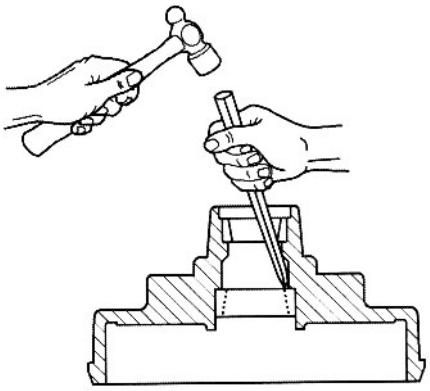
If any pitting, spalling, or corrosion is present, then the bearing must be replaced. The bearing cup inside the hub must be inspected.

IMPORTANT: Bearings must always be replaced in sets of a cone and a cup.

⚠CAUTION: Be sure to wear safety glasses when removing or installing force fitted parts. Failure to comply may result in serious eye injury.

When replacing the bearing cup proceed as follows:

1. Place the hub on a flat work surface with the cup to be replaced on the bottom side.
2. Using a brass drift punch, carefully tap around the small diameter end of the cup to drive out.
3. After cleaning the hub bore area, replace the cup by tapping in with the brass drift punch. Be sure the cup is seated all the way up against the retaining shoulder in the hub.



BEARING LUBRICATION

⚠CAUTION: Do not mix Lithium, calcium, sodium or barium complex greases due to possible compatibility problems. When changing from one type of grease to another, it is necessary to ensure all the old grease has been removed.

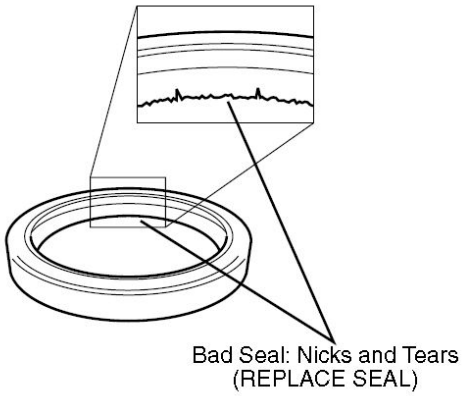
Along with bearing adjustment, proper lubrication is essential to the current function and reliability of your trailer axle. Bearings should be lubricated every 6 months or 6,000 miles (9,655 Km). The method to repack bearing cones is as follows:

1. Place a quantity of grease into the palm of your hand.
2. Press a section of the widest end of the bearing into the outer edge of the grease pile closest to the thumb, forcing grease into the interior of the bearing.
3. Repeat this while rotating the bearing from roller to roller.
4. Continue this process until you have the entire bearing completely filled with grease.
5. Before reinstalling, apply a light coat of grease on the bearing cup.

Seal Inspection and Replacement

Whenever the hub is removed, inspect the seal to assure that it is not nicked or torn and is still capable of properly sealing the bearing cavity. If there is any question of condition, replace the seal.

Note: If hubs are removed from an axle with the E-Z Lube feature, it is imperative that the seals be replaced BEFORE bearing lubrication. Otherwise, the chance of grease getting on brake linings is greatly increased.


Bad Seal: Nicks and Tears
(REPLACE SEAL)

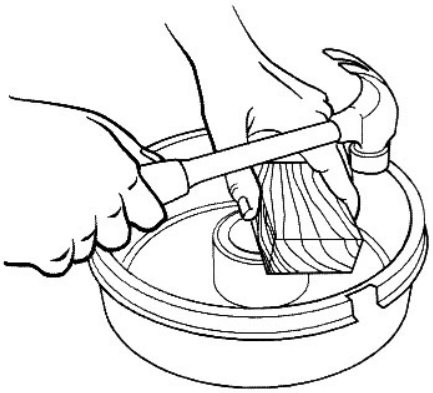
To replace seal:

1. Pry the seal out of the hub with a screwdriver. Never drive the seal out with the inner bearing as you may damage the bearing.

2. Apply a sealant similar to PERMATEX High-Temp Red RTV Silicone Gasket to the outside of the new seal.

Note: A sealant should not be use on rubber encased seals.

3. Tap the new seal into place using a clean wood block.



Bearing Adjustment and Hub Replacement

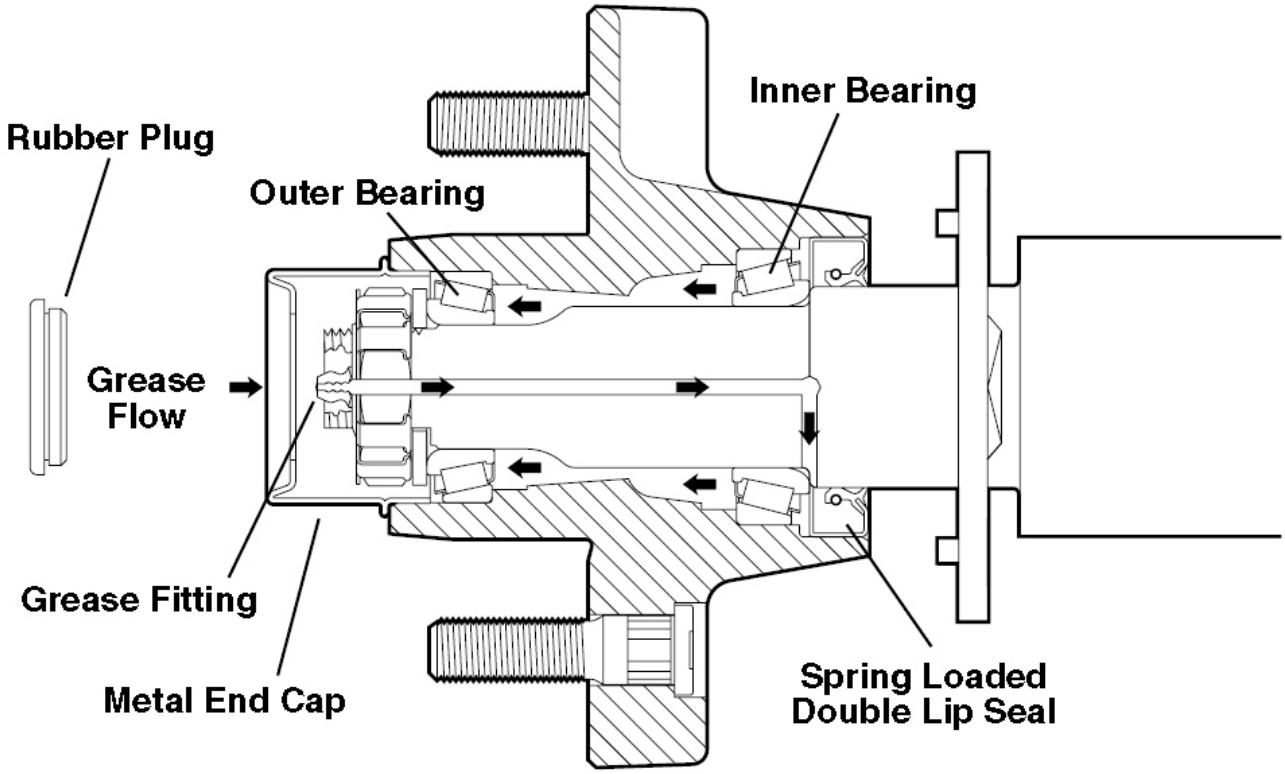
If the hub has been removed or bearing adjustment is required, the following adjustment procedure must be followed:

1. After placing the hub, bearings, washers, and spindle nut back on the axle spindle in reverse order as detailed in the previous section on hub removal, rotate the hub assembly slowly while tightening the spindle nut to approximately 50 lb-ft (68 N-m) (12” wrench or pliers with full hand force).
2. Then loosen the spindle nut to remove the torque. Do not rotate the hub.
3. Finger tighten the spindle nut until just snug.
4. Back the spindle nut out slightly until the first castellation lines up with the cotter key hole and insert the cotter pin (or locking tang in the case of E-Z Lube).
5. Bend over the cotter pin legs to secure the nut (or locking tang in the case of E-Z Lube).
6. Nut should be free to move with only restraint being the cotter pin (or locking tang).
7. Reinstall grease cap.

The procedure is as follows:

1. Remove the rubber plug from the end of the grease cap.
2. Place a standard manual grease gun onto the grease fitting located in the end of the spindle. Make sure the grease gun nozzle is fully engaged on the fitting.
3. Pump grease slowly into the fitting. The old displaced grease will begin to flow back out the cap around the grease gun nozzle.
4. When the new clean grease is observed, remove the grease gun, wipe off any excess, and replace the rubber plug in the cap.
5. Rotate hub or drum while adding grease.

Note: It is strongly recommended to <u>not</u> use pneumatic powerd grease guns as thees can inject grease too fast and force grease past the seal, or in rare cases dislodge the seal.



Brakes should be adjusted (1) after the first 200 miles (322 km) of operation when the brake shoes and drums have “seated”, (2) at 3,000 miles (4,827 km) intervals, (3) or as use and performance requires. The brakes should be adjusted in the following manner:

1. Chock wheels to prevent the trailer form rolling.
2. Jack up the trailer and secure on adequate capacity jack stands. Make sure the wheel and drum rotates freely.

⚠WARNING: Do not lift or support trailer on any part of the axle or the suspension system. Never crawl under your trailer unless it is resting on properly placed jack stands that are rated for the load. Improperly supported vehicles can fall unexpectedly and cause serious injury or death.

3. Remove the adjusting hole cover from the adjusting slot on the bottom of the brake backing plate.
4. With a screwdriver or standard adjusting tool, rotate the starwheel of the adjuster assembly to expand the brake shoes. Adjust the brake shoes out until the pressure of the linings against the drum makes the wheel very difficult to turn.

Note: For drop spindle axles, a modified adjusting tool may be necessary.

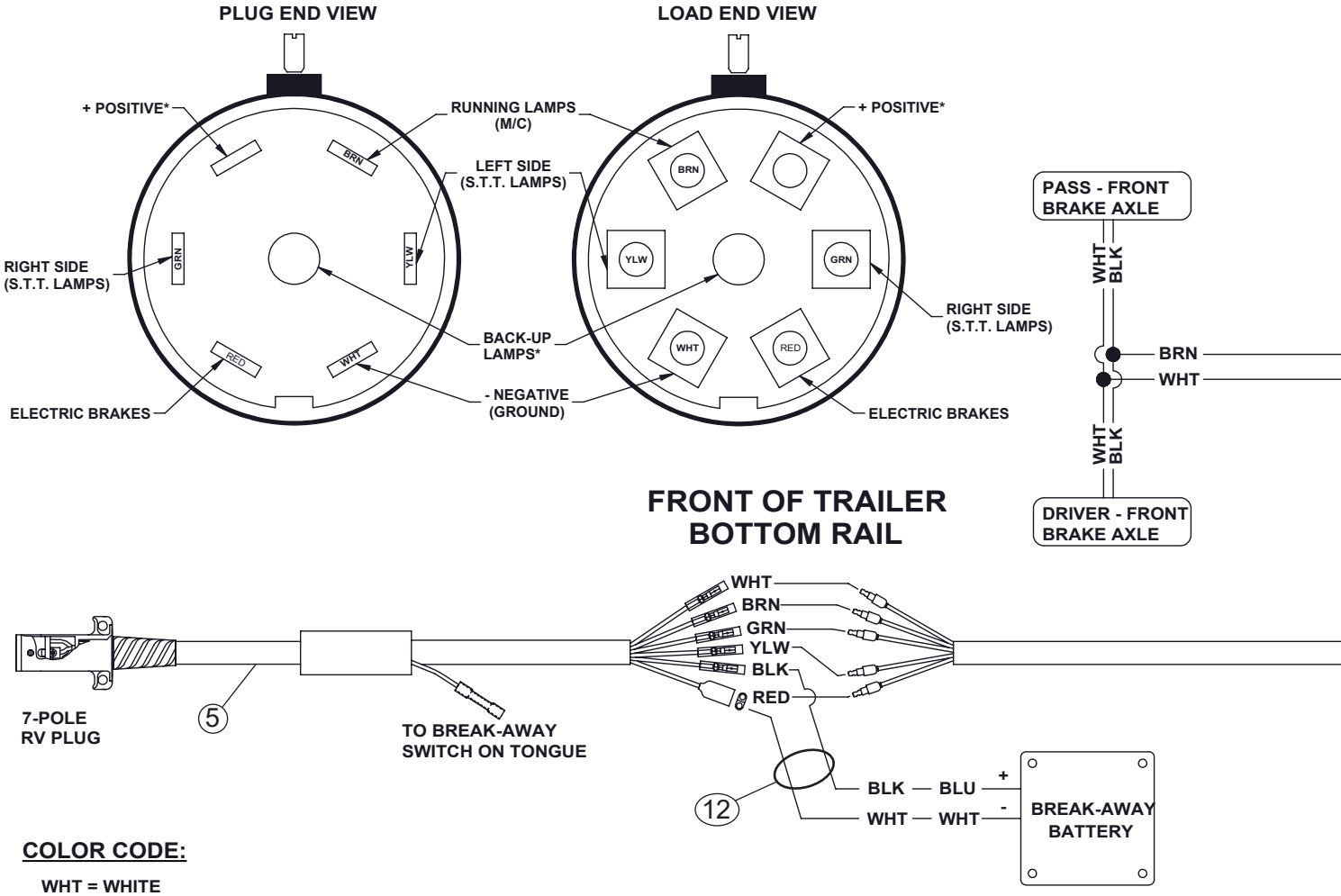
5. Then rotate the starwheel in the opposite direction until the wheel turns freely with a slight lining drag.
6. Replace the adjusting hole cover and lower the wheel to the ground.
7. Repeat the above procedure on all brakes. For best results, the brakes should all be set at the same clearance.

Notes:

1. The (Back-up) and (+ Positive) terminal of the 7-RV plug are not used.
2. The black wire is to be terminated and not hooked into the 7-RV plug.
3. The black wire is only used between the break-away switch and the break-away battery.

* Locate wiring by function ONLY: Color coding is not standard among all manufacturers.
** Shown with optional License Plate Light

IMPORTANT: After the 7-pole RV plug is connected to the towing vehicle, check that all lights and brakes, if equipped, are functioning properly. If they are not functioning properly, get the problem corrected before pulling the head transport.

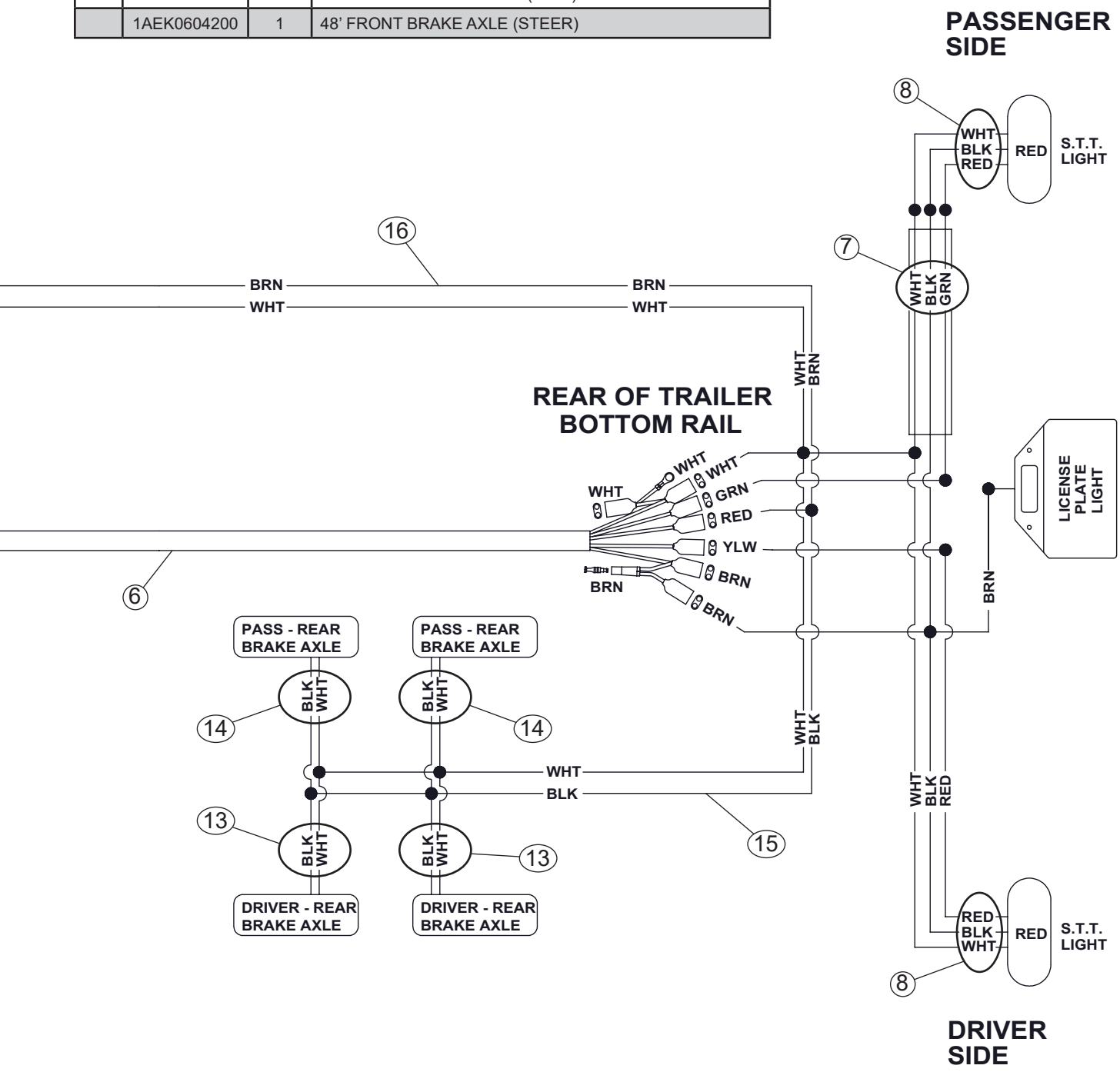


COLOR CODE:

WHT = WHITE
BRN = BROWN
GRN = GREEN
YLW = YELLOW
BLK = BLACK
RED = RED
BLU = BLUE

Ref No.	Part Number	Qty	Description
1	5W000032	1	HT 32' LIGHT KIT, 0 REAR BRAKE
2	5W000038	1	HT 38' LIGHT KIT, 0 REAR BRAKE
3	5W000042	1	HT 42' LIGHT KIT, 0 REAR BRAKE
4	5W000048	1	HT 48' & HT 52' LIGHT KIT, 0 REAR BRAKE
5	4W001240	1	HT FRONT MAIN HARNESS W/BREAK AWAY SWITCH - 240"
6	4W002396	1	HT MAIN HARNESS 396" - HT 32'
	4W002468	1	HT MAIN HARNESS 468" - HT 38'
	4W002516	1	HT MAIN HARNESS 516" - HT 42'
	4W002588	1	HT MAIN HARNESS 588" HT 48' & HT 52'

Ref No.	Part Number	Qty	Description
7	4W005048	1	MID TURN/MARKER HARNESS JUMPER 48”
8	1AEP0094882	2	RIGHT ANGLE S,T,T PLUG W/ M-BULLET
9	5W000002	1	HT TANDEM AXLE 1 REAR BRAKE, 32’, 38’, 42’
10	5W000003	1	HT TANDEM AXLE 2 REAR BRAKE, 32’, 38’, 42’
11	5W000004	1	HT TANDEM AXLE 2 REAR BRAKE KIT, 48 & 52’
12	4W003036	1	JUMPER WIRE, MALE BULLET X BUTT CONNECTOR 36”
13	4W003042	1 or 2	JUMPER WIRE, MALE BULLET X BUTT CONNECTOR 42”
14	4W003081	1 or 2	JUMPER WIRE, MALE BULLET X BUTT CONNECTOR 81”
15	4W004150	1	REAR TANDEM BRAKE HARNESS 150”
	4W004210	1	REAR TANDEM BRAKE HARNESS 210”, 48 & 52’
16	1AEK0478700	1	32’-38’-42’ Front Brake Axle (Steer)
	1AEK0604200	1	48’ FRONT BRAKE AXLE (STEER)



1AEZ4192000 12V BREAKAWAY KIT FOR 1-3 AXLE, NON-CHARGING W/O MOUNTING HARDWARE REF #20003

BRAKEMASTER™

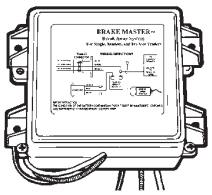
PART # 20001, #20002, #20003* and #20004*

Break-Away System for Single, Tandem, and Tri-Axle Trailers

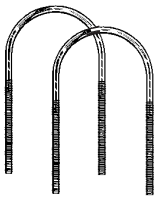
"Safety on the road"

Make sure you have all parts before you start your installation.

* Kits #20003 and #20004 do not include mounting hardware.



Break-Away Box

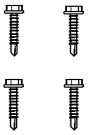


(2) U-Bolts

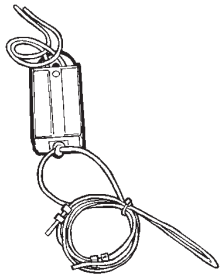
MOUNTING HARDWARE

(4) Small Flat Washers

(4) Locking Nuts



(4) Self-Tap Screws



Break-Away Switch with Cable

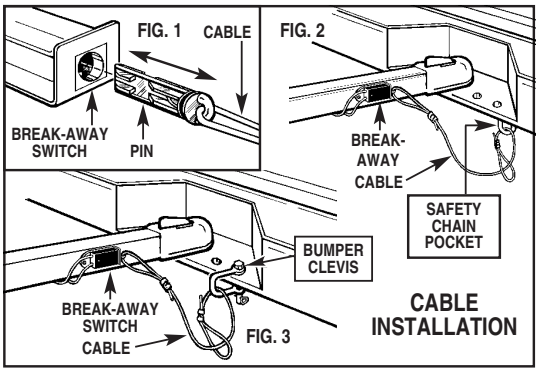
The Break-Away System is designed to bring trailers safely to a stop by activating electric brakes, should a trailer be disconnected while driving. This type of safety system is required in most states on trailers rated over 3,000 GVW. The following instructions must be precisely followed to ensure proper operations. Please read the following instructions thoroughly before installing this product. Your trailer must have operational electric brakes before installation. Once you determine your trailer brakes work, find a secure location on your trailer to mount the Break-Away Kit. You have two options to mount this kit.

OPTION 1-
U-BOLT MOUNTING INSTRUCTIONS:

1. Use included U-Bolts and wrap around secure mounting surface on trailer (jack, frame, etc.).
2. Attach Break-Away Kit by routing U-Bolts through holes provided on each side of the plastic casing.
3. Place one flat washer over each bolt with locking nut. Use 1/2" wrench and tighten. Note: Be careful not to over tighten. Over tightening may cause housing to crack.
4. Next mount Break-Away Switch close enough on trailer that cable can be attached to vehicle.
5. Follow "Wiring Installations".

OPTION 2-
SELF-TAPPING SCREW MOUNTING INSTRUCTIONS:

1. Locate secure surface on trailer to mount Break-Away Kit.
2. With flat washers on each screw, route through provided holes in each corner of the Break-Away Kit plastic casing. Use screwdriver or drill and secure to trailer. DO NOT drill holes in trailer frame. This will weaken the frame and void your trailer warranty.
3. Next mount Break-Away Switch close enough on trailer that cable can be attached to vehicle.
4. Follow "Wiring Installations".



WIRING INSTRUCTIONS:

1. Splice one blue wire of the Break-Away Switch to the electric brake wire coming from the trailer side connector (**A**).
2. Connect other blue wire of Break-Away Switch to the blue wire (labeled "Brake") from the Break-Away Box (**B**). (**Note:** Blue wires are interchangeable on the Break-Away Switch.)
3. Splice white wire from Break-Away Box to existing ground wire on trailer or ground directly to trailer frame (**C**).
4. Splice black wire on Break-Away Box to trailer 12-Volt auxiliary power lead (**D**). This will charge the Break-Away battery when vehicle is in use. (**Note:** Black wire is found only on Model 20001 and 20004.)
5. Test unit by pulling firmly on cable of Break-Away Switch. Battery will activate brakes. (**Note:** Do not use this kit as a parking brake.) Battery should be charged and tested prior to each trailer outing.

OPERATING INSTRUCTIONS:

1. Test your Break-Away Kit before each outing as described in Step 5 of the wiring instructions.
2. Once tested, Break-Away Switch cable should be secured to vehicle bumper or frame. The cable can be attached many different ways. Two of the most common are: (1) Pull the pin out of the Break-Away Switch (Fig. 1) and route through safety chain pocket (Fig. 2), then through cable loop and reconnect pin. (2) Attach cable loop to a bumper clevis (Fig. 3). Do not loop cable over hitch ball, cable may bounce off while vehicle is moving. **Note:** Plunger pin must be facing the rear of the vehicle directly behind where you secure the cable on your vehicle. Any other angle may cause Break-Away Switch failure.

Break-Away Kit Accessories

#20005 Break-Away Switch Complete with Cable
#20006 Box and Hardware
#20009 Replacement Break-Away Switch Cable and Pin
#20007 Break-Away Kit Charger

Look for other trailer wiring products

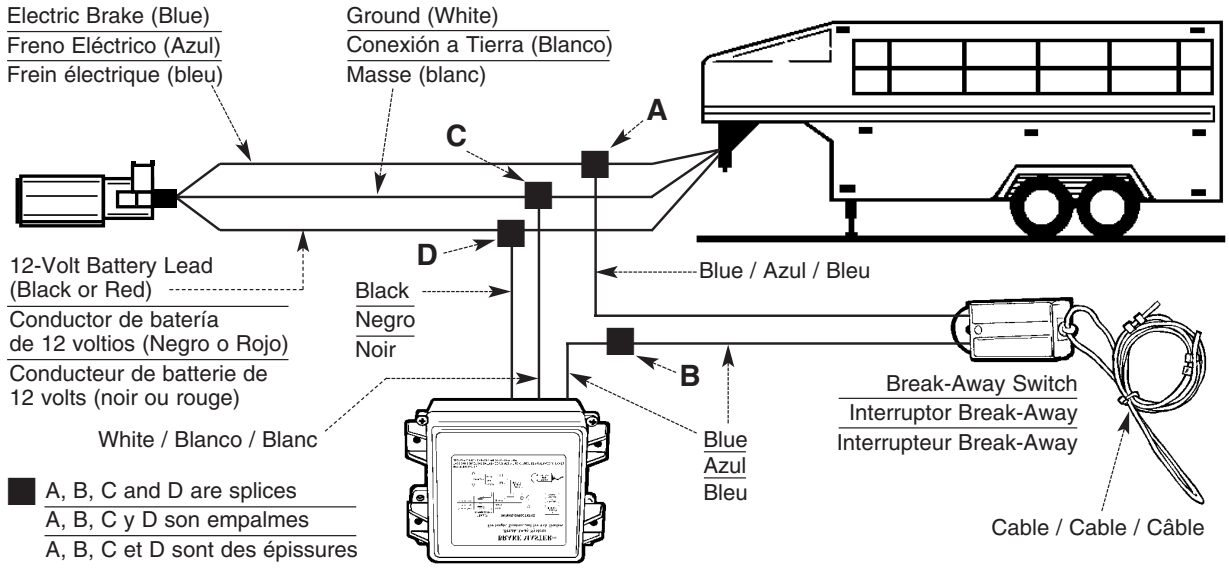
- **Vehicle T-Connectors**
- **Converters**
- **Adapters**
- **Brake Controls**

YOUR TRAILER MUST HAVE OPERATIONAL ELECTRICAL BRAKES TO USE THIS PRODUCT.

SEE WIRING DIAGRAMS ON REVERSE SIDE. ——→

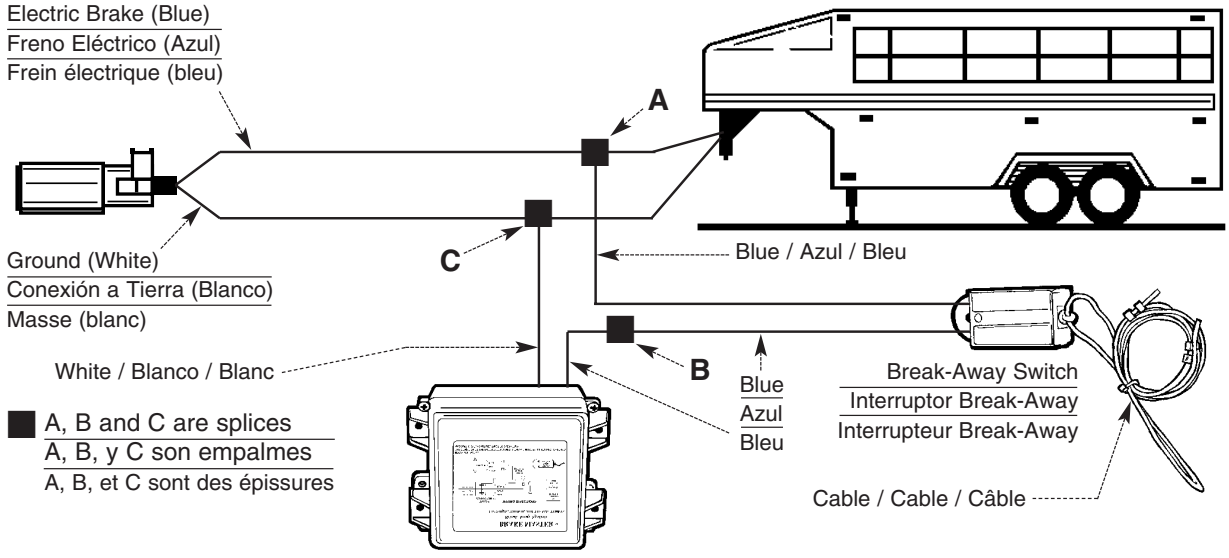
1AEZ4192000 12V BREAKAWAY KIT FOR 1-3 AXLE, NON-CHARGING W/O MOUNTING HARDWARE REF #20003

DIAGRAM WITH CHARGER (Part No's. 20001 & 20004)
DIAGRAMA CON EL CARGADOR (Núm. de Partes 20001 & 20004)
DIAGRAMME AVEC CHARGEUR (Nos de pièce 20001 et 20004)



Break-Away Box / Caja Break-Away / Boîtier Break-Away

DIAGRAM WITHOUT CHARGER (Part No's. 20002 & 20003)
DIAGRAMA SIN EL CARGADOR (Núm. de Partes 20002 & 20003)
DIAGRAMME SANS CHARGEUR (Nos de pièce 20002 et 20003)



Break-Away Box / Caja Break-Away /. Boîtier Break-Away

Note: Wire By Function Only. Color Coding is Not Standard Among Manufacturers.

Nota: Instale el cableado por su función solamente. Código de color no es la norma entre todos los fabricantes.

Remarque: Câbler uniquement selon les fonctions. Le code de couleur peut varier d'un constructeur à l'autre.

QUESTIONS - CALL / PREGUNTAS - LLAME AL / QUESTIONS - APPELER AU 1-800-835-0129

310-0288-215 Rev. E 4/01

Printed in U.S.A. / Impreso en EE.UU. / Imprimé aux États-Unis

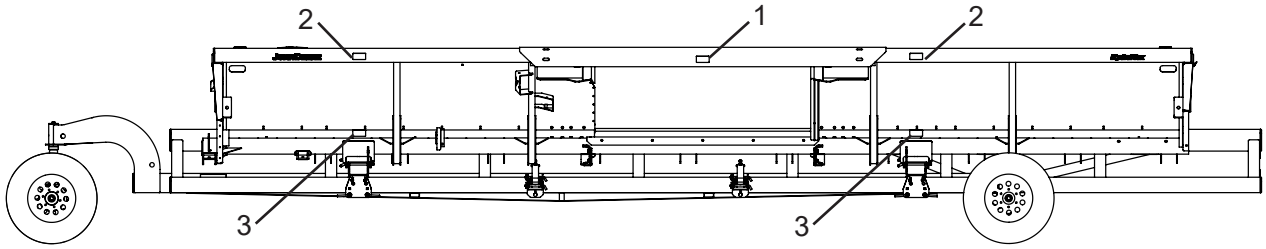
There are 5 strips of yellow conspicuity tape, 2 in x 9 in, part number 1AQBL073000, enclosed in the manifest holder with the Operator's Manual. This tape can be added to the header and transport to aid in aligning the header when mounting it on the transport.

Once the brackets have been set in the desired location and the header mounted on the transport, place a piece of tape in the following locations:

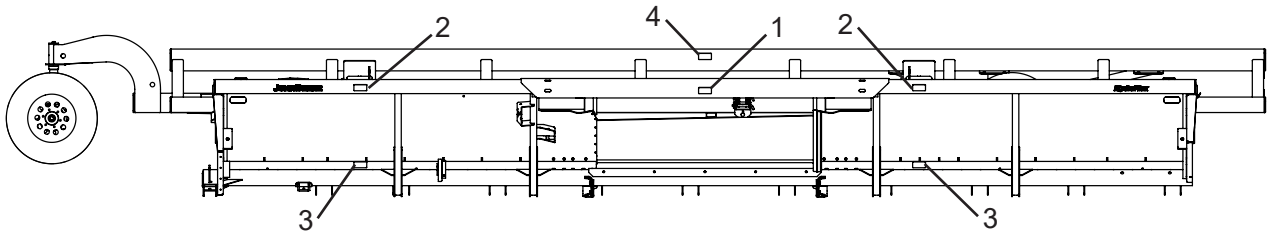
1. Center of header at the top of the feeder house.
2. Top of the header centered above each bracket.
3. Bottom of the header centered above each bracket.
4. Top rail of the transport at the center of the header (may not be the center of the bed, depending on bracket and header placement).

See the figures below for location.

NOTE: The tape can be cut to fit the placement locations.



Header Mounted on Transport



Header Approaching Transport

As the header is moved toward the transport, line up the tape on the top of the header with the tape on the transport and the brackets. The tape at the bottom of the header is then used to ensure that the header is in the proper location for the brackets.

How to install alignment tape:

- Be sure that installation area is clean and dry.
- Decide on exact position before you remove backing film.
- Remove a small portion of backing film.
- Align tape over specified area and carefully press small portion with exposed sticky backing in place.
- Slowly peel back remaining film and carefully smooth remaining portion of tape into place.
- Rub the tape to press it firmly to the surface.

Step 1:

Always position tie-down brackets on bottom rail of transport to create a straight line of pull. (See picture to the left.) Fasten tie-down brackets to bottom rail using carriage bolt and handle nut. Tighten handle nuts to prevent brackets from sliding.

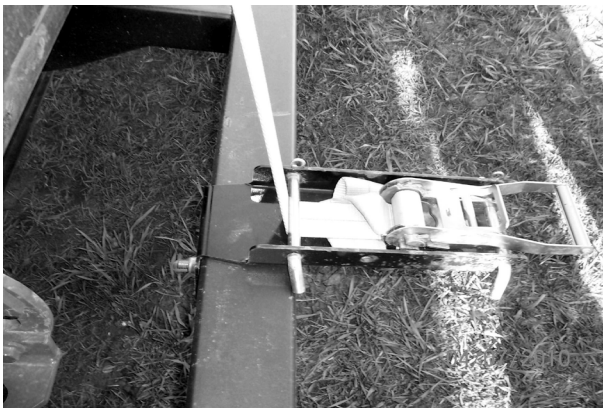
⚠CAUTION TO PROPERLY SECURE HEADER TO TRANSPORT, BOTH BRACKETS AND STRAPS MUST BE USED.

Step 2:

Remove nylon tie-down strap from ratchet. Feed the tail end through the nylon loop on the opposite end, to create a slipknot around the feeder house bar of the combine header. (See picture to the left.)

Step 3:

Feed tail end of strap through the drum slot on the ratchet. Pull tail end through tight and ratchet the connection tightly. (See picture to the left.)

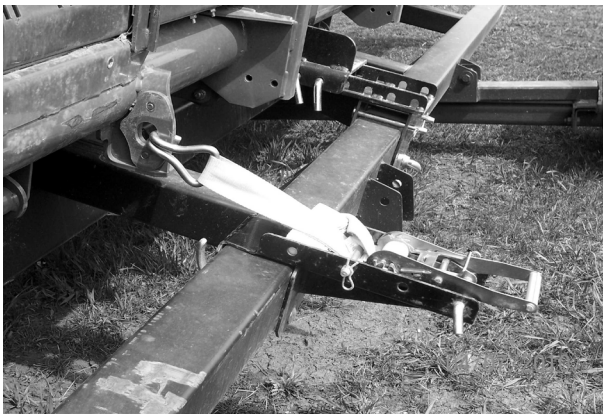


⚠CAUTION BE AWARE OF TRANSPORT WIDTH WHILE TRAVELING ON ROADS AND BEFORE CROSSING BRIDGES.

Operator must comply with all state and local laws governing highway safety regulations while operating on public roads.

Step 4:

Tie-downs are provided long to accommodate different types of headers, and could be cut down and singed, to meet your specific application.



⚠CAUTION PREVENT NYLON STRAPS FROM CONTACTING AND RUBBING ON SHARP EDGES. REPLACE CUT OR WORN STRAPS BEFORE OPERATING EQUIPMENT.

Step 5:

Tie-downs are also provided with a hook to accommodate different types of headers. Hooks can be placed through main frame holes on the header. (See picture to the left.)

⚠ **WARNING**: Tie-rods and connecting rods should only be adjusted 1-2 complete turns at a time! If they are adjusted more than that, at any one time, there is a chance of risk serious injury and/or damage to equipment!

⚠ **WARNING**: Failure to replace worn out or damaged parts and components may cause a potentially hazardous situation that could result in serious injury or death.

IMPORTANT: Before making any adjustments, visually inspect the tongue to make sure it is straight and perpendicular to the front axle. If tongue is not straight and true, or appears to be bent, contact your dealer for assistance.

IMPORTANT: Before making any adjustments, the front steering axle must be square to the center tube frame. This can be done by measuring diagonal dimension from the front axle hubs to a point in the center of the center frame tube. These two dimensions should be ± 1/8" of each other. See figure 2 for an illustration. Once these dimensions are equal, block the front axle from turning.

The tie-rods and connecting rods are adjusted and pre-set at the time of manufacture. Tie-rods and connecting rods should only be adjusted if the trailer is having tracking issues.

1. Chock wheels to prevent the trailer from rolling.
2. Ensure that the front axle and tongue are square to the center tube frame.
3. Loosen the jam nuts on the front, rear connecting adjustment rod. (See Figure 1)
4. For a transport that the rear is tracking to the left (road side) (See Figure 2), the rear connecting rod must be shortened. Rotate the adjustment rod clockwise no more than 2 turns. (See Figure 1)
5. For a transport that the rear is tracking to the right (curb side) (See Figure 2), the rear connecting rod must be lengthened. Rotate the adjustment rod counter-clockwise no more than 2 turns. (See Figure 1)
6. Adjusting the front connecting rod is not recommended. This is set to allow the tongue to turn under the trailer for storing the transport.

Figure 1

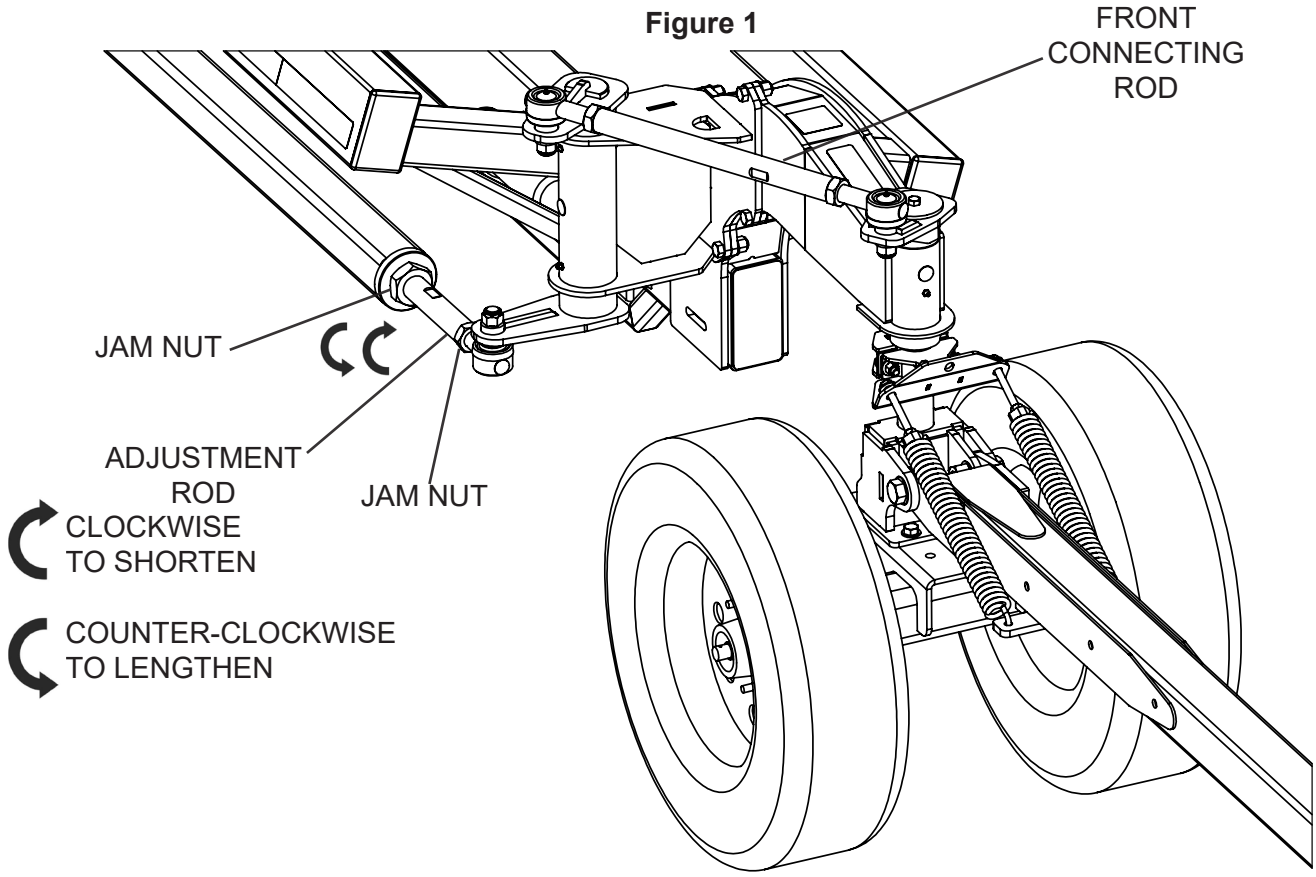


Figure 2

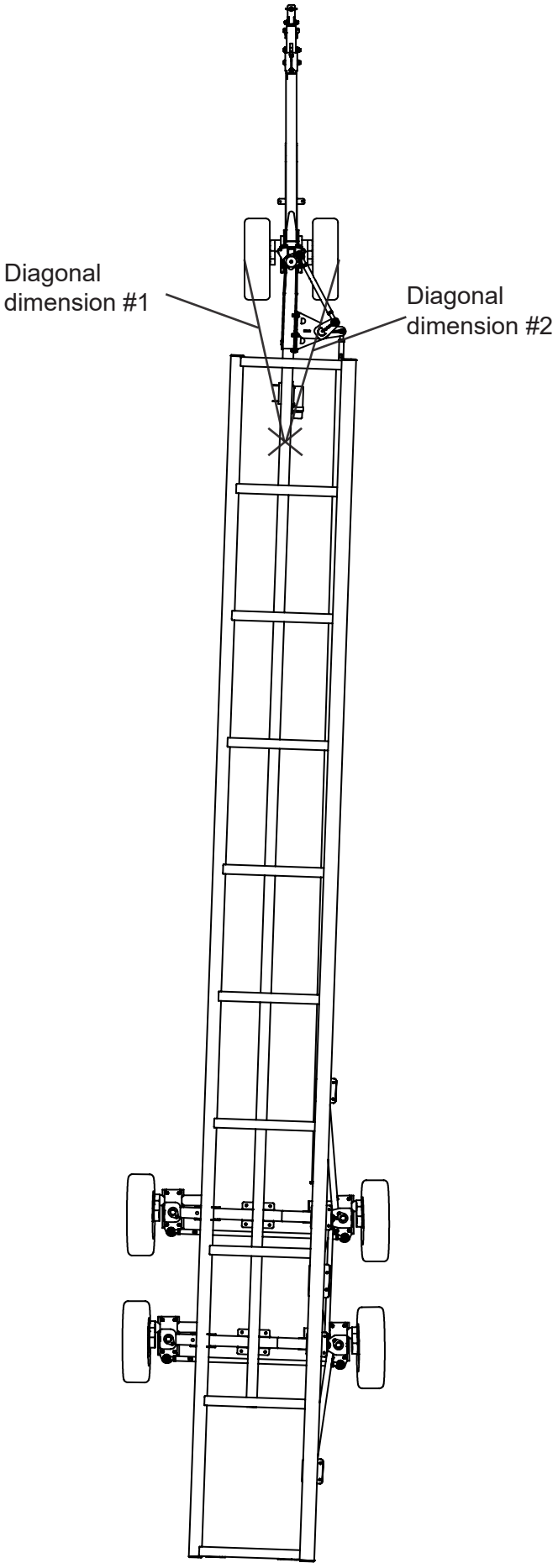
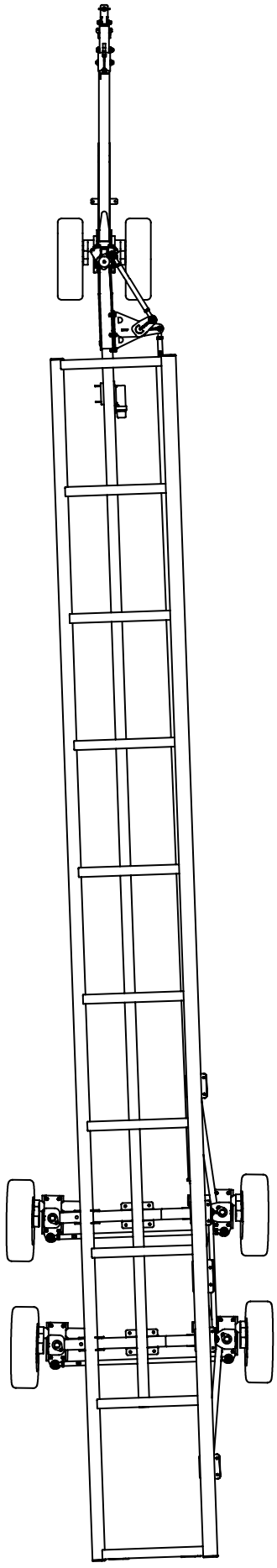


Figure 3



⚠ **WARNING**: Tie-rods and connecting rods should only be adjusted 1-2 complete turns at a time! If they are adjusted more than that, at any one time, there is a chance of risk serious injury and/or damage to equipment!

⚠ **WARNING**: Failure to replace worn out or damaged parts and components may cause a potentially hazardous situation that could result in serious injury or death.

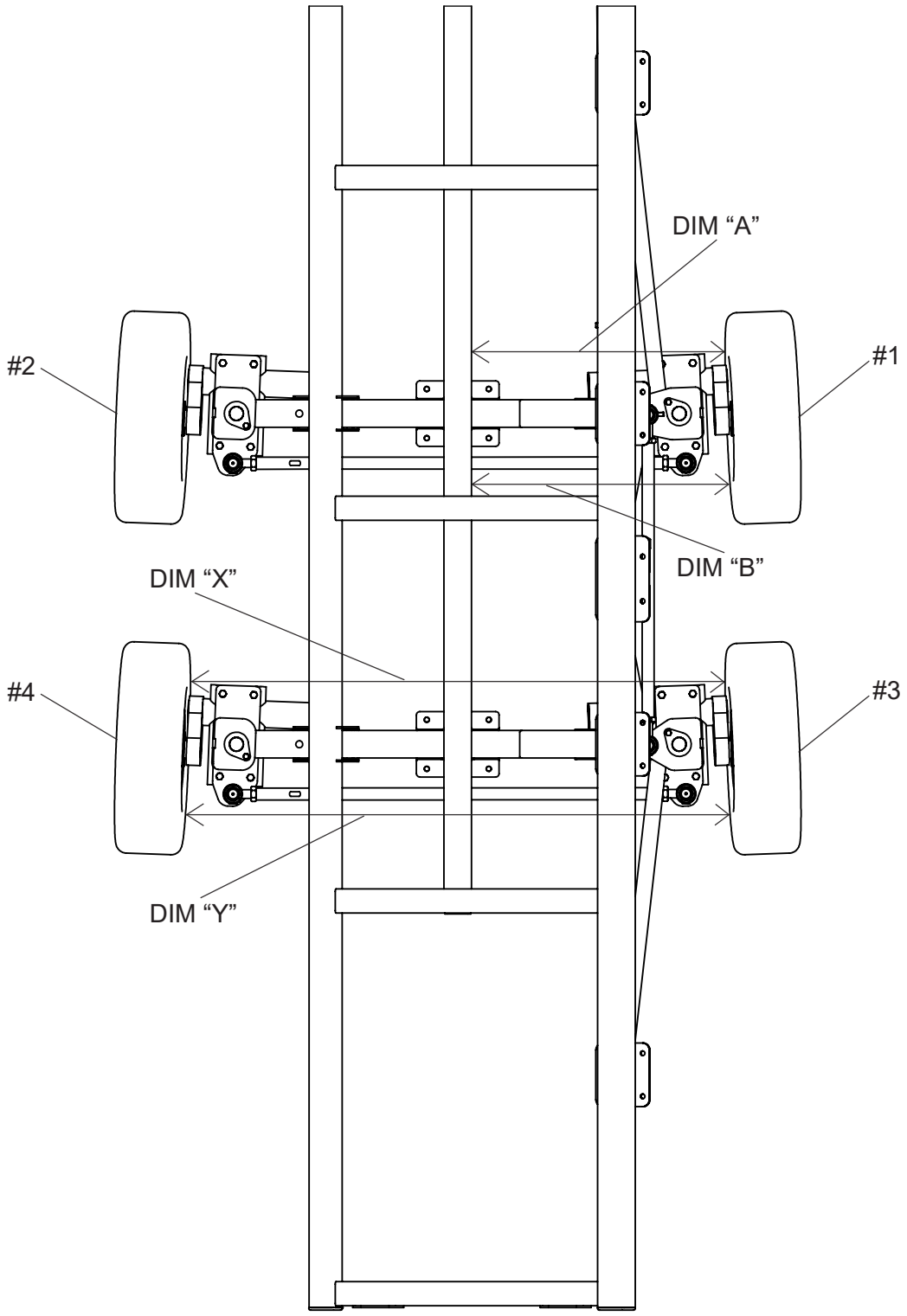
IMPORTANT: Before making any adjustments, visually inspect the tongue to make sure it is straight and perpendicular to the front axle. If tongue is not straight and true, or appears to be bent, contact your dealer for assistance.

IMPORTANT: Before making any adjustments, the front steering axle must be square to the center tube frame. This can be done by measuring diagonal dimension from the front axle hubs to a point in the center on the bottom center tube. These two dimensions should be ± 1/8" of each other. See figure 2 for an illustration. Once these dimensions are equal, block the front axle from turning.

The tie-rods and connecting rods are adjusted and pre-set at the time of manufacture. Tie-rods and connecting rods should only be adjusted if the trailer is having tracking issues. The rear axles are adjusted to have tires and wheels toed-in 1/4" to 3/8" measured at the tire bead edge of the rim. The preceding procedure is also used to set the toe-in of rear wheel (#1). Use the following steps to check and adjust the toe-in of the rear tire and wheels.

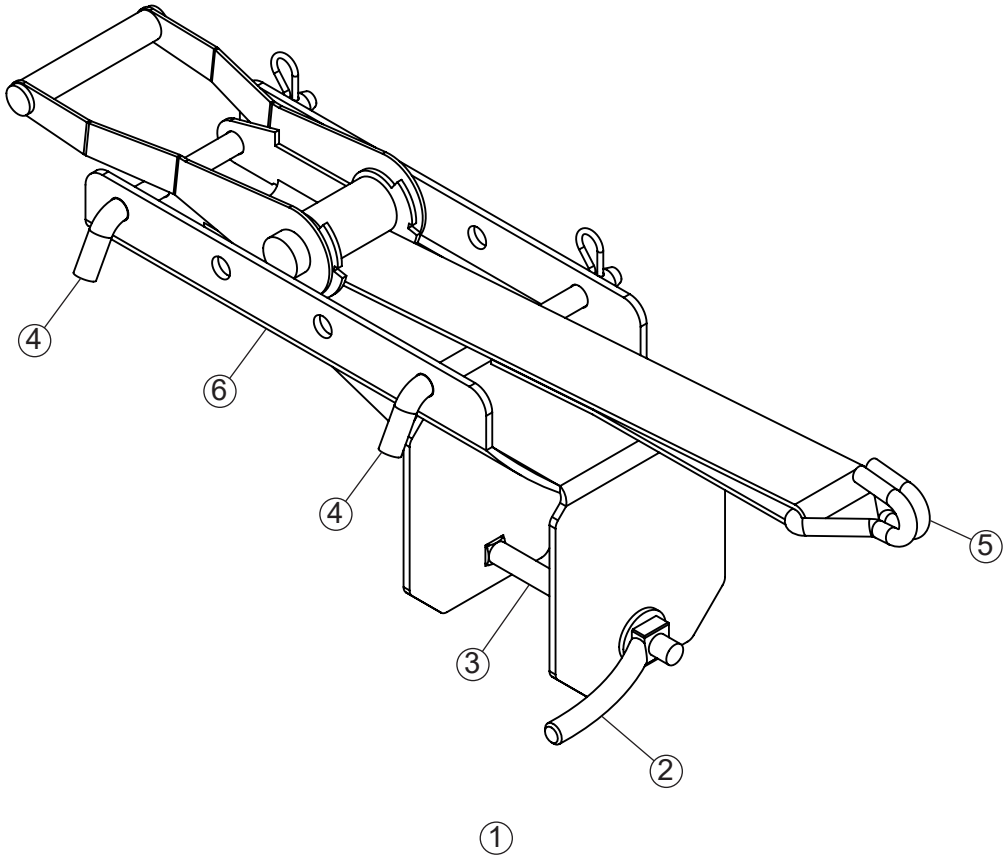
1. Chock wheels to prevent the transport from rolling.
2. Ensure that the front axle and tongue are square to the center tube frame.
3. Check the toe-in of wheel #1 by measuring DIM "A" and DIM "B" from the center tube to the tire bead edge of the rim. DIM "A" should be 1/8" to 3/16" less than DIM "B". (See Figure 4)
4. If an adjustment needs to be made, use the preceding procedure, to adjust the toe-in.
5. Check the toe-in of wheel #2 by measuring DIM "X" and DIM "Y" from the tire bead edge of the rim on wheel #1 to wheel #2. DIM "X" should be 1/4" to 3/8" less than DIM "Y"
6. If an adjustment needs to be made, loosen the jam nuts on the rear axle tie-rod assembly.
7. Repeat steps 3-6, to check and adjust the toe-in of wheel #3 and #4.
8. After the adjustments have been made, pull the transport around a few corners and ensure that the transport is tracking behind the towing vehicle.
9. Visually check the wheels to ensure that they are toed-in when the vehicle is stopped and the tongue is straight.
10. If needed, repeat the these steps to correct the toe-in of the rear wheels.

Figure 4



Ref No.	Part Number	Qty	Description
1	5H000148	1	HT ADJUSTABLE TIE-DOWN ASSEMBLY
2	1AFZ29H0000	1	1/2-13 HANDLE NUT - ZINC PLATED
3	1AFC04HEAH0	1	1/2-13 X 5-1/2” CARR BOLT PLTD
4	1AFZ51HEA00	2	1/2” X 5 BENT PIN W/ CLIP - ZINC PLATED
5	1AU00000196	1	RATCHET W/ HOOK & LOOPED STRAP
6	5H000164	1	HT ADJ TIE DOWN BRACKET

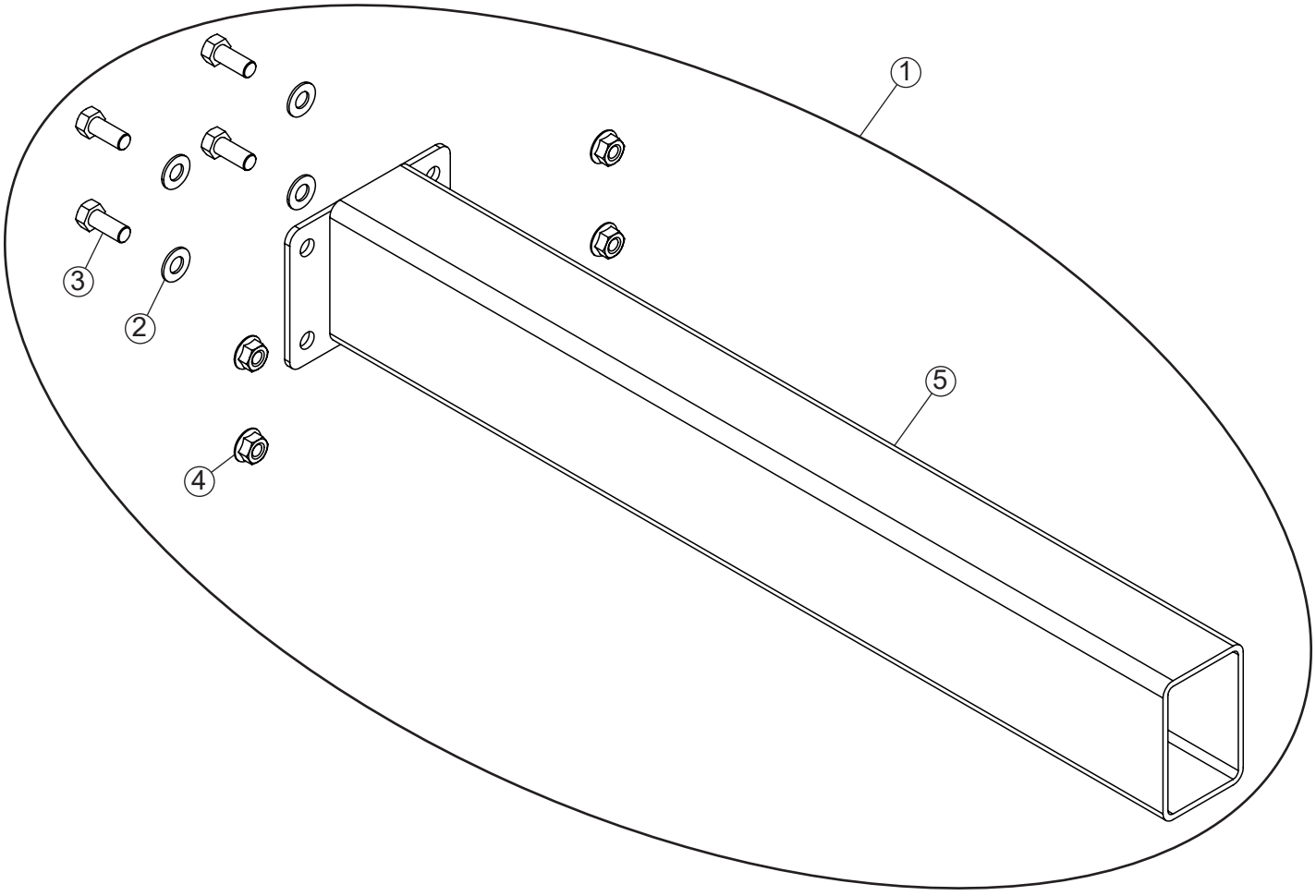
Please order replacement parts by Part Number and Description.



Ref No.	Part Number	Qty	Description
1	5H000439	1	HT TOP RAIL TUBE EXTENSION ASSEMBLY - 52'
2	1AF009J000C	4	5/8" SAE FLAT WASHER
3	1AFF12JAAH5	4	5/8" x 1-1/2" HEX BOLT FINE THREAD GR.5
4	1AFY08J0008	4	5/8-18 FLANGE LOCK NUT DTSM YCP G8
5	5H000558	1	HT TOP RAIL TUBE EXTENSION WMT - 52'

Please order replacement parts by Part Number and Description.

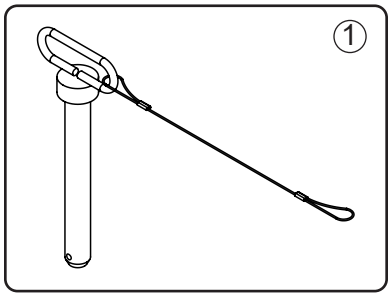
NOTE:
This assembly is only used for HT-AWS-52 models.
It may be shipped un-installed on the transport due to shipping length requirements.
Install it at the end of the transport with the hardware shown here.

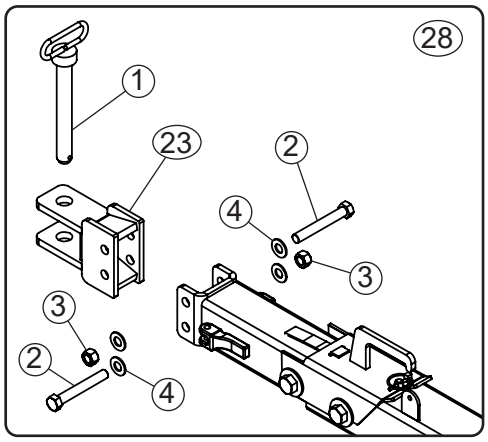


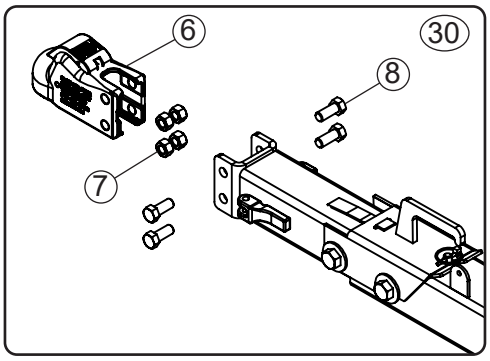
HT-AWS - 91 TELESCOPING TONGUE PARTS BREAKDOWN

Ref No.	Part Number	Qty	Description
1	1AF006QGAH0	1	1” X 7 1/2” RED HANDLE HITCH PIN W/STEEL LANYARD
2	1AFF12JDAH1	2	5/8” X 4-1/2” HEX BOLT FINE THRD GR 8
3	1AFF17J0001	2	5/8”-FINE THRD CROWN LOCKNUT GR 8
4	1AF009J000C	4	5/8” SAE FLAT WASHER
5	1ACB0305651	1	3” LUNETTE EYE ASSEMBLY - DEMCO
6	1ACB0305806	1	2-5/16” ADJUSTABLE BALL COUPLER, 20K
7	1AFC05J0000	4	5/8” CENTER LOCK NUT
8	1AFC12JAAH8	4	5/8”-11 X 1-1/2” HEX BOLT GR 8
9	1AF009L0000	4	3/4” USS FLAT WASHER, PLATED
10	1AF05900000	1	HITCH SPRING - DEMCO
11	1AFC47LEA05	1	3/4” X 5” HEX W/ HOLE @ 4.1562
12	1AFC48LEA05	1	3/4” X 5” HEX W/ HOLE @ 4.5625
13	1AFC63L0000	2	3/4”-10 SLOTTED HEX NUT
14	1AF033CBAD0	2	5/32” X 2-1/4” COTTER PIN
15	1AU00000060	2	HT LATCH SPACER 2 (THICK)
16	1AU00000061	2	HT LATCH SPACER 1 (THIN)
17	1AF034CAAI0	1	3/16 X 1 9/16 LYNCH PIN
18	1AFC12QCA08	2	1”-8 X 3” HEX BOLT COARSE THRED GR8
19	1AFC18Q0002	2	1-8 HEX NUT NYLOK GR2
20	1AFZ76QBAA0	4	1” ID X 2” OD X .048 WASHER-ZINC PL
21	1AU00000153	2	5/16 X 33” GR70 SAFETY CHAIN W/HOOK (NOT SHOWN)
22	3H000649	2	HT-AWS TONGUE MOUNT BUSHING
23	5H000166	1	HT CLEVIS BOLT-ON COUPLER, 20K RATED
24	5H000394	1	HT TELESCOPING INNER TUBE W/ CHANNEL MOUNT, 71.75”
25	5H000397	1	HT-AWS TELESCOPING LATCH ASSEMBLY
26	5H000476	1	HT-AWS 91 TELESCOPING OUTER TUBE ASSEMBLY, 71.25”
27	5H000477	1	HT-AWS 91 TELE TONGUE W/O COUPLER
28	5H000478	1	HT-AWS 91 TELE TONGUE W/CLEVIS
29	5H000479	1	HT-AWS 91 TELE TONGUE W/3" PINTLE
30	5H000480	1	HT-AWS 91 TELE TNGE W/2-5/16” BALL

Please order replacement parts by Part Number and Description.

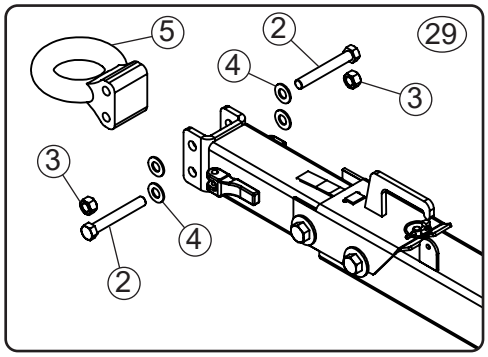


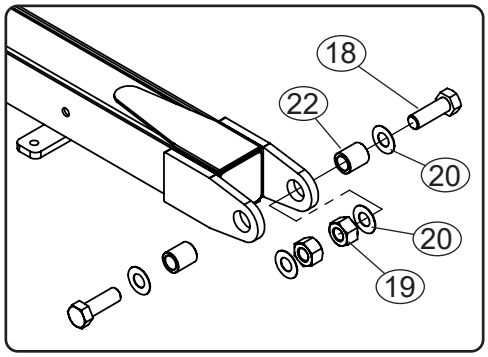


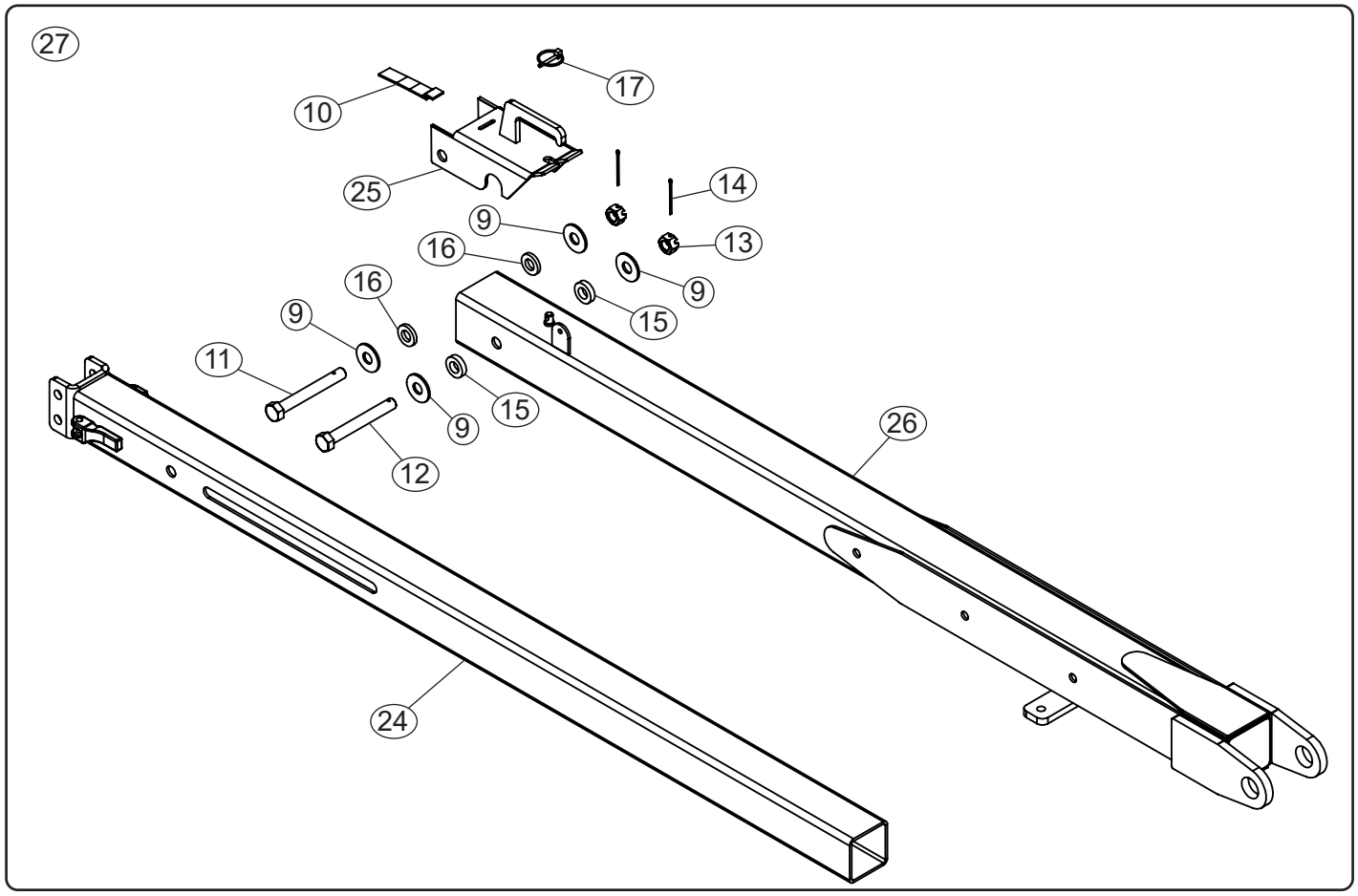


TONGUE TORQUE SPECIFICATIONS

1. Install tongue in front suspension mount.
2. Install tongue mount bushings, Item 22.
3. Install bolts, nuts and washers, Items 18, 19 & 20.
4. Torque bolts to 150-175 ft/lbs
5. There should be no slop in the tongue to mount connection.



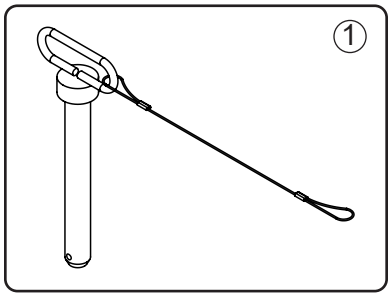


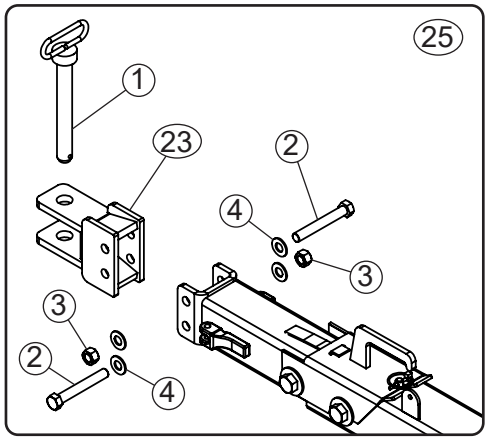


HT-AWS - 139 TELESCOPING TONGUE PARTS BREAKDOWN

Ref No.	Part Number	Qty	Description
1	1AF006QGAH0	1	1” X 7 1/2” RED HANDLE HITCH PIN W/STEEL LANYARD
2	1AFF12JDAH1	2	5/8” X 4-1/2” HEX BOLT FINE THRD GR 8
3	1AFF17J0001	2	5/8”-FINE THRD CROWN LOCKNUT GR 8
4	1AF009J000C	4	5/8” SAE FLAT WASHER
5	1ACB0305651	1	3” LUNETTE EYE ASSEMBLY - DEMCO
6	1AF009L0000	4	3/4” USS FLAT WASHER, PLATED
7	1AF05900000	1	HITCH SPRING - DEMCO
8	1AFC47LEA05	1	3/4” X 5” HEX W/ HOLE @ 4.1562
9	1AFC48LEA05	1	3/4” X 5” HEX W/ HOLE @ 4.5625
10	1AFC63L0000	2	3/4”-10 SLOTTED HEX NUT
11	1AF033CBAD0	2	5/32” X 2-1/4” COTTER PIN
12	1AU00000060	2	HT LATCH SPACER 2 (THICK)
13	1AU00000061	2	HT LATCH SPACER 1 (THIN)
14	1AF034CAAI0	1	3/16 X 1 9/16 LYNCH PIN
15	1AFC12QCA08	2	1”-8 X 3” HEX BOLT COARSE THRED GR8
16	1AFC18Q0002	2	1-8 HEX NUT NYLOK GR2
17	1AFZ76QBAA0	4	1” ID X 2” OD X .048 WASHER-ZINC PL
18	1AU00000153	2	5/16 X 33” GR70 SAFETY CHAIN W/HOOK (NOT SHOWN)
19	3H000649	2	HT-AWS TONGUE MOUNT BUSHING
20	5H000166	1	HT CLEVIS BOLT-ON COUPLER, 20K RATED
21	5H000394	1	HT TELESCOPING INNER TUBE W/ CHANNEL MOUNT, 71.75”
22	5H000397	1	HT-AWS TELESCOPING LATCH ASSEMBLY
23	5H000517	1	HT-AWS 139 TELE OUTER TUBE ASSEMBLY, 120”
24	5H000516	1	HT-AWS 139 TELE TONGUE W/O COUPLER
25	5H000518	1	HT-AWS 139 TELE TONGUE W/CLEVIS
26	5H000519	1	HT-AWS 139 TELE TONGUE W/3” PINTLE

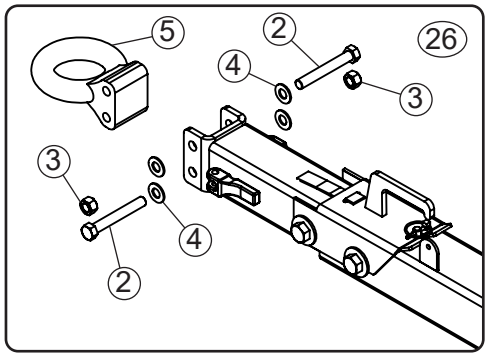
Please order replacement parts by Part Number and Description.

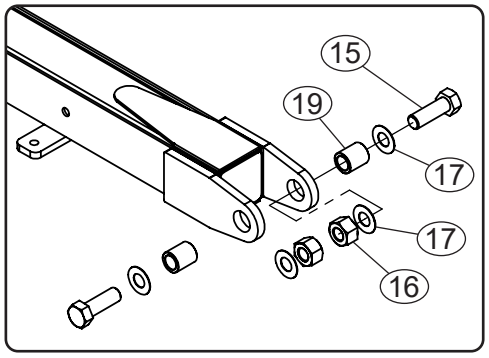


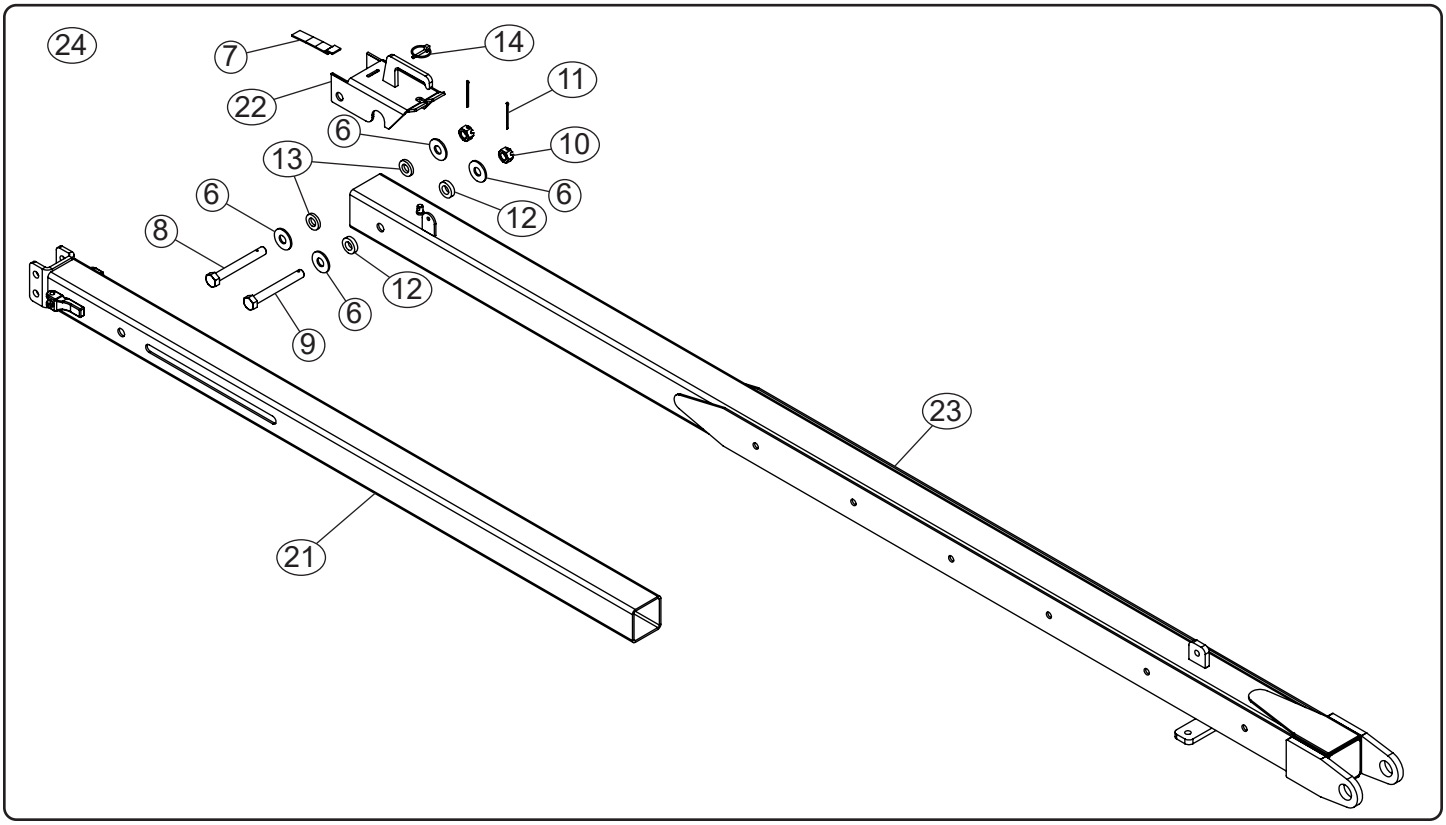


TONGUE TORQUE SPECIFICATIONS

1. Install tongue in front suspension mount.
2. Install tongue mount bushings, Item 19.
3. Install bolts, nuts and washers, Items 15, 16 & 17.
4. Torque bolts to 150-175 ft/lbs
5. There should be no slop in the tongue to mount connection.







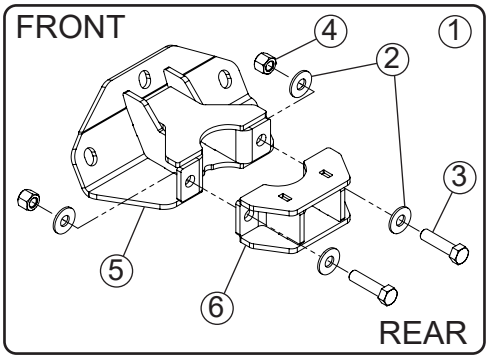
Ref No.	Part Number	Qty	Description
1	5H000507	1	HT-AWS LIFT ASSIST SPRING MOUNT ASSEMBLY
2	1AF009H0000	4	1/2 FLAT WASHER ZINC
3	1AFC12HBA05	2	1/2”-13 X 2” HEX CAP SCREW GR5 ZINC
4	1AFC18H0000	2	1/2-13 NYLON LOCKING NUT ZINC
5	5H000508	1	HT-AWS LIFT ASSIST SPRING MOUNT WELDMENT
6	5H000509	1	HT-AWS LIFT ASSIST SPRING MOUNT CLAMP WELDMENT
7	4H000009	2 or 3	LIFT ASSIST SPRING ASSEMBLY
8	1AF009H0000	1	1/2 FLAT WASHER ZINC
9	1AFC12HFA05	1	1/2-13 X 6 HEX HD BOLT, GR 5, FULL THREAD, ZINC
10	1AFC17H0000	1	1/2”-13 HEX NUT ZINC
11	1AUD0030630	1	LIFT ASSIST SPRING

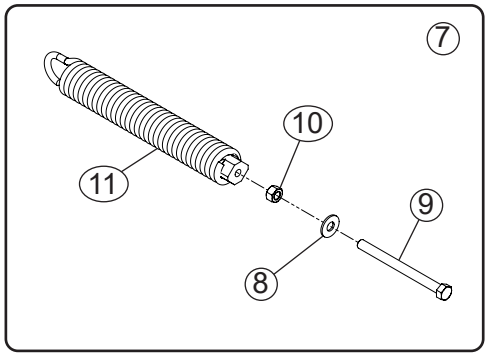
Please order replacement parts by Part Number and Description.

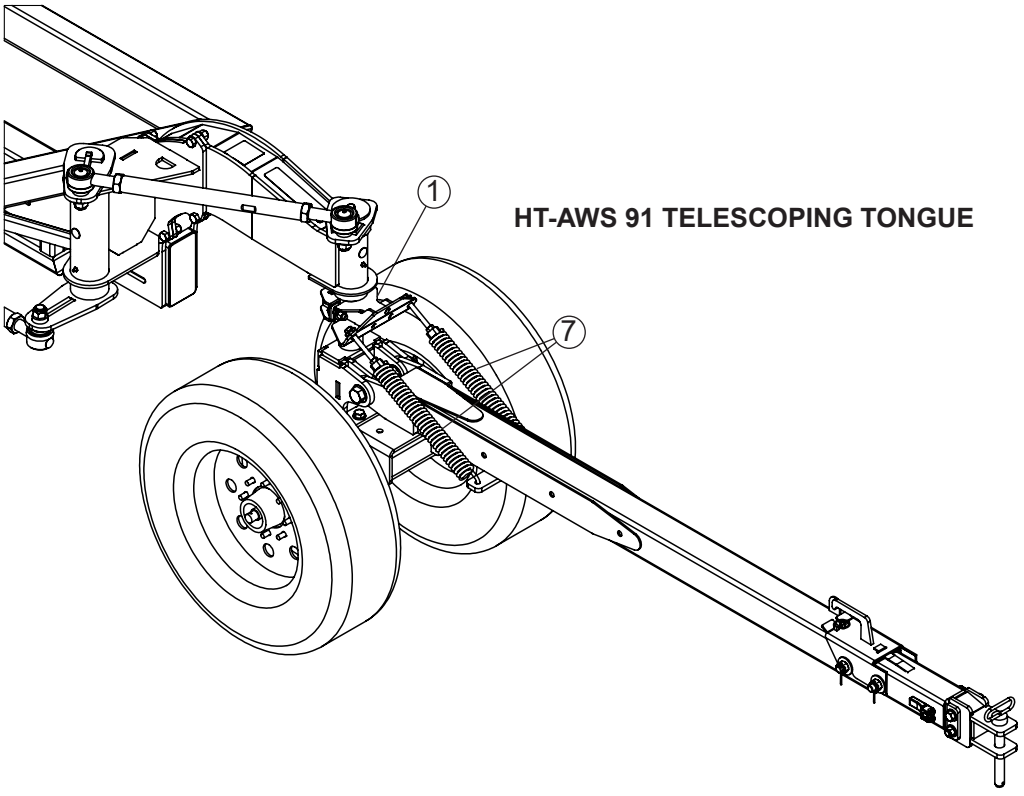
LIFT ASSIST SPRING ADJUSTMENT

1. Raise the tongue and support it on a stand.
2. Tighten the 1/2”-13 x 6” bolts equally to take out the slack on the Lift Assist Springs.
3. Remove the stand.
4. Adjust the tongue height using the 1/2”-13 x 6” bolts.

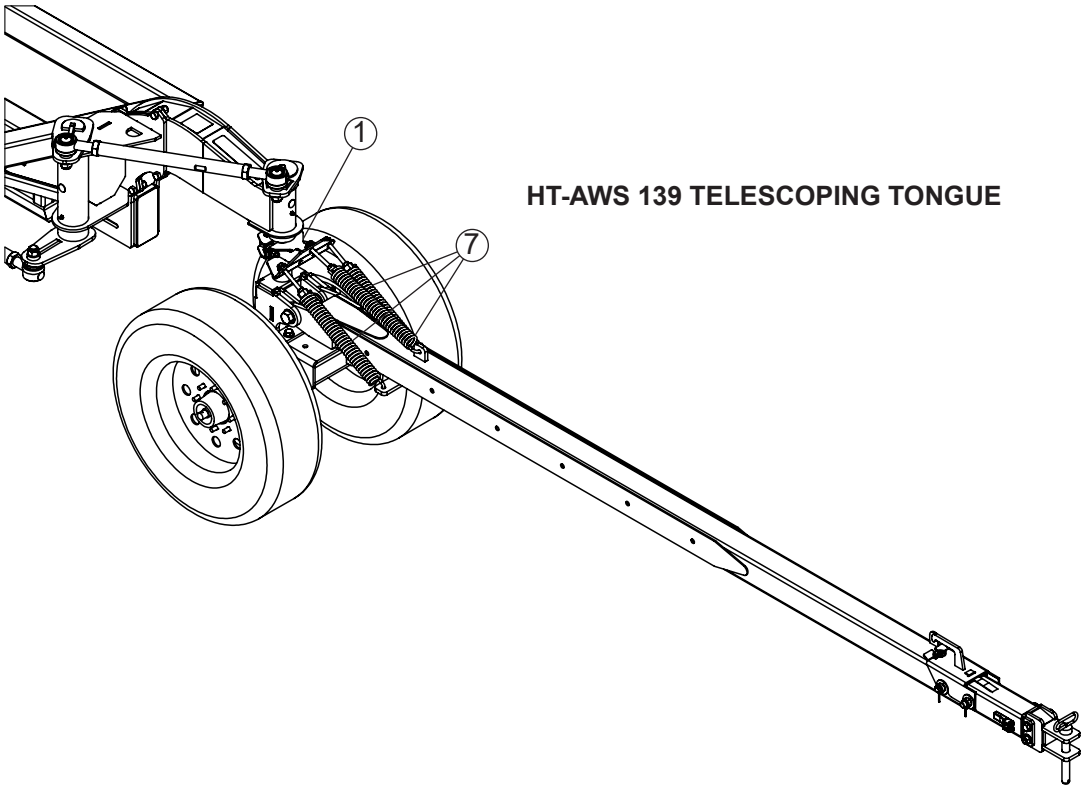
Do not overtighten the springs. Overtightening a spring may stretch it, causing permanent damage to the spring and should be avoided.







HT-AWS 91 TELESCOPING TONGUE

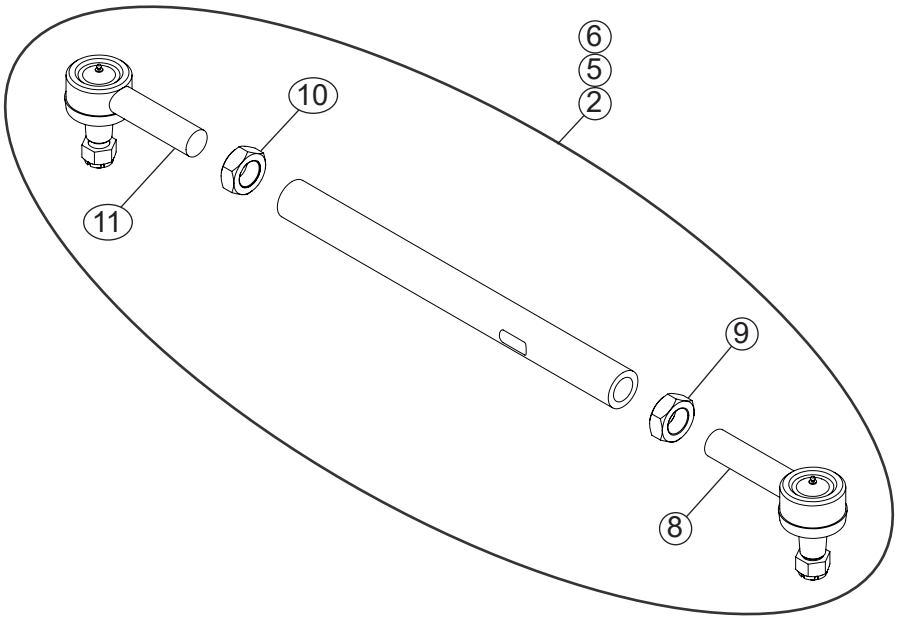


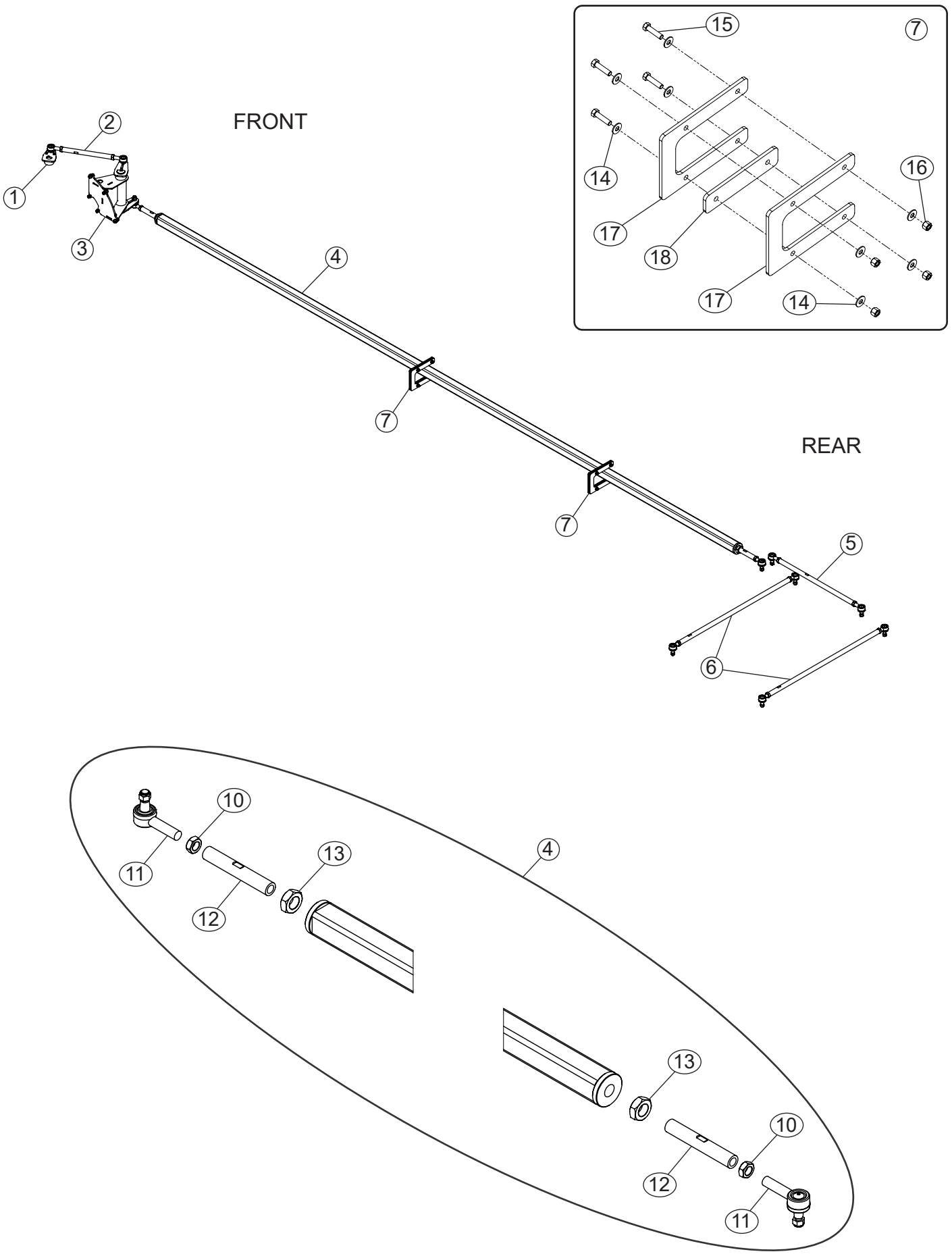
HT-AWS 139 TELESCOPING TONGUE

Ref No.	Part Number	Qty	Description
1	5H000498	1	HT-AWS FRONT STEERING CAM WMT
2	5H000499	1	HT-AWS FRONT CONNECTING ROD ASSY (28.43")
3	5H000497	1	HT-AWS STEERING PIVOT ASSY
4	5H000500	1	HT-AWS 52' REAR CONNECTING ROD ASSY (402.11")
	5H000521	1	HT-AWS 48' REAR CONNECTING ROD ASSY (422.11")
	5H000525	1	HT-AWS 42' REAR CONNECTING ROD ASSY (382.82")
	5H000532	1	HT-AWS 38' REAR CONNECTING ROD ASSY (334.82")
	5H000534	1	HT-AWS 32' REAR CONNECTING ROD ASSY (265.57")
5	5H000501	1	HT-AWS 52' REAR SUSPENSION CONNECTING ROD ASSY (70.25")
	5H000522	1	HT-AWS 48' REAR SUSPENSION CONNECTING ROD ASSY (66.25")
	5H000526	1	HT-AWS 42' REAR SUSPENSION CONNECTING ROD ASSY (48.00")
6	5H000502	2	HT-AWS REAR AXLE TIE-ROD ASSY (65.73")
7	5H000503	1, 2	HT-AWS REAR CONNECTING ROD SUPPORT ASSY
8	07421	1	RIGHT HAND TIE ROD END
9	1AFF29S0005	1	1-1/4"-12 HEX JAM NUT ZINC PL GR 5
10	1AFF29S00L5	1, 2	1-1/4"-12 HEX JAM NUT ZINC PL GR 5, LH
11	1AL0R230071	1, 2	TIE ROD END, LH, 1 1/4-12 X 5.75" LG
12	3H000682	2	HT-AWS REAR CONNECTING ADJUSTMENT ROD
13	1AFF29W0002	2	1-3/4"-12 HEX JAM NUT ZINC PL GR 2 FINE THREAD
14	1AF009H0000	8	1/2 FLAT WASHER ZINC
15	1AFC12HBA05	4	1/2"-13 X 2" HEX CAP SCREW GR5 ZINC
16	1AFC18H0000	4	1/2-13 NYLON LOCKING NUT ZINC
17	3H000686	2	HT-AWS REAR CONNECTING ROD SUPPORT PLATE
18	3H000687	1	HT-AWS REAR CONNECTING ROD SUPPORT SLIDE

Please order replacement parts by Part Number and Description.

NOTE:
Wrench flats on tie-rod tubes indicate that end has right-hand threads.

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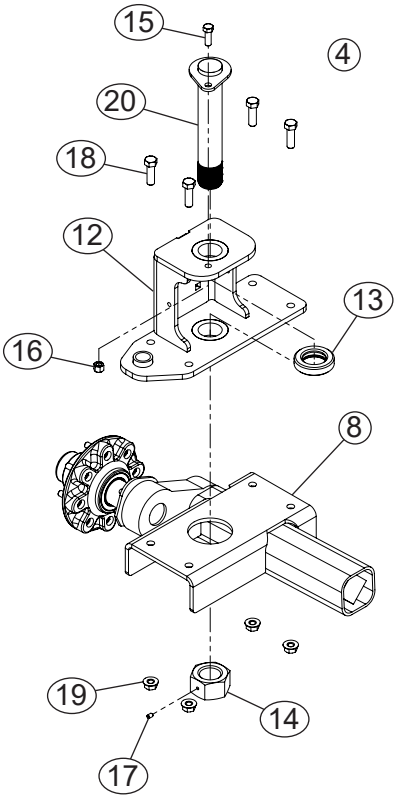
REAR STEERABLE AXLE BREAKDOWN

Ref No.	Part Number	Qty	Description
1	5H000537	1	HT-AWS RIGHT FRONT STEERABLE IDLER AXLE ASSEMBLY
2	5H000488	1	HT-AWS RIGHT FRONT STEERABLE BRAKE AXLE ASSEMBLY (NOT SHOWN)
3	5H000490	1	HT-AWS RIGHT REAR STEERABLE BRAKE AXLE ASSEMBLY
4	5H000536	1	HT-AWS LEFT HAND STEERABLE IDLER AXLE ASSEMBLY
5	5H000486	1	HT-AWS LEFT HAND STEERABLE IDLER BRAKE AXLE ASSEMBLY
6	1AAT78011RA	1	TOR,7K,865,EZ,IDLER,22.5*UP RIGHT HAND STEERABLE STUB AXLE
7	1AAT78E11RA	1	TOR,7K,865,EL,EZ,BRAKE,22.5*UP RIGHT HAND STEERABLE STUB AXLE
8	1AAT78011LA	1	TOR,7K,865,EZ,IDLER,22.5*UP LEFT HAND STEERABLE STUB AXLE
9	1AAT78E11LA	1	TOR,7K,865,EL,EZ,BRAKE,22.5*UP LEFT HAND STEERABLE STUB AXLE
10	5H000489	1	HT-AWS RIGHT FRONT STEERABLE AXLE MOUNT
11	5H000491	1	HT-AWS RIGHT REAR STEERABLE AXLE MOUNT
12	5H000487	1	HT-AWS LEFT HAND STEERABLE AXLE MOUNT
13	07356	1	BEARING THRUST
14	16709	1	NUT 2”-12 NF HEX W/ SET SCREW HOLE
15	1AFC12HAAH0	1	1/2” x 1-1/2” HEX BOLT GR. 5 ZINC
16	1AFC18H0000	1	1/2” NYLOCK NUT ZINC
17	1AFC40E00H0	1	5/16-18 X 1/2 SOC SET CUP PT.
18	1AFF12JBA05	4	5/8-18 X 2 HEX BOLT GR5, FINE THREAD, ZINC
19	1AFY08J0008	4	5/8-18 FLNG LK NUT DTSMFACE G8 CLEAR ZINC FINE THREAD
20	5H000492	1	HT-AWS STEERABLE AX KINGPIN

Please order replacement parts by Part Number and Description.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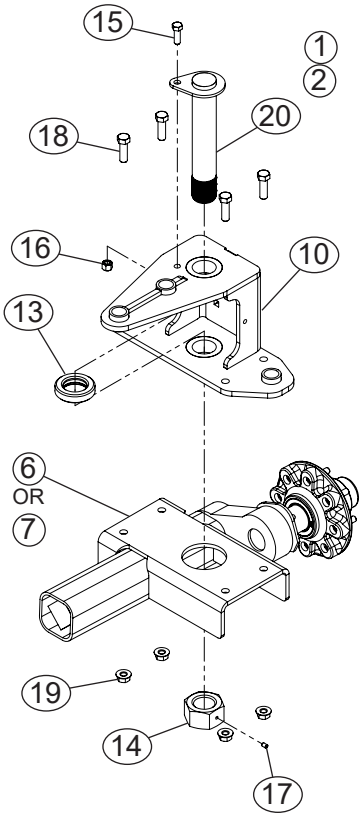
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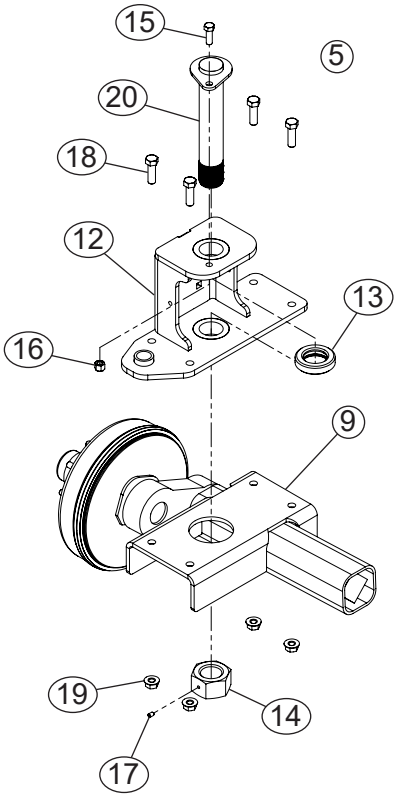
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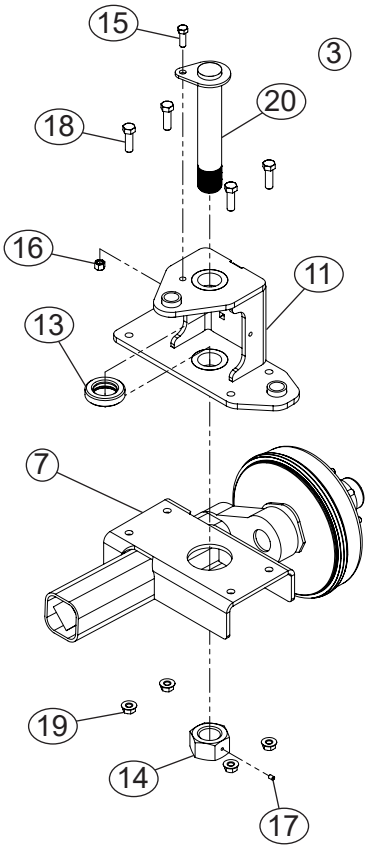
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Ref No.	Part Number	Qty	Description
1	9H000095	-	HT-AWS 52’ HEADER TRANSPORT
-	9H000096	-	HT-AWS 48’ HEADER TRANSPORT
-	9H000097	-	HT-AWS 42’ HEADER TRANSPORT
-	9H000098	1	HT-AWS 38’ HEADER TRANSPORT (SHOWN)
-	9H000099	-	HT-AWS 32’ HEADER TRANSPORT
2	1AF05520000	4	FLEXIBLE PLUG 1.063”(27MM)-BLACK (W/O BRAKES)
3	1AR58GROMET	4	5/8 ID GROMMET (W/ BRAKES)
4	1AR00000056	1	1” ID GROMMET
5	1AR1125GROM	2	1.125 ID GROMMET 1.75”ODX 1”THL 1.375”GD .5GW
6	1ATCLIJ808E	6	235/80R16 WHTE MOD 8B LRE-IMPORT
7	1AFF68H0000	48	1/2” CONED WHEEL (LUG) NUT
8	5H000213	1	FHTHD AXLE END CAP W/PLUG
9	1AU00000011	1	MANIFEST HOLDER MWW
10	1AR00000049*	2	3-1/2” X 3-1/2” X 8-11GA PLASTIC TUBE CAP (48’ & 52’ MODELS)
-	1AR00000050	2	4” X 4” X 7GA PLASTIC CAP
11	1AR00000051	2	4” X 6” X 1/8” PLASTIC TUBE CAP
12	1AQAS000000	**	3M RED/WHT CONSPICUITY TAPE
13	1AEZ4192000	1	12-V BREAK-AWAY KIT FOR 1-3 AXLE
14	1AEL6050000	2	RED 6” OVAL-LED LIGHT
15	1AEL0607003	2	MIDSHIP LIGHT GROMMET
16	5H000148	2	HT ADJUSTABLE TIE DOWN ASSEMBLY
17	DE21028	-	DECAL HIGH SPEED AWS HEADER TRANSPORT 32’ 44” X 3.75
-	DE21029	2	DECAL HIGH SPEED AWS HEADER TRANSPORT 38’ 44” X 3.75
-	DE21030	-	DECAL HIGH SPEED AWS HEADER TRANSPORT 42’ 44” X 3.75
-	DE21031	-	DECAL HIGH SPEED AWS HEADER TRANSPORT 48’ 44” X 3.75
-	DE21032	-	DECAL HIGH SPEED AWS HEADER TRANSPORT 52’ 44” X 3.75
18	5H000510	2	HT-AWS REAR AXLE FRAME W/ FASTENERS
19	5H000511	2	HT-AWS AXLE BRACE ASSEMBLY, LONG W/ FASTENERS
20	5H000512	-	HT-AWS AXLE BRACE ASSEMBLY, MEDIUM, FRONT W/ FASTENERS (48’ & 52’)
-	5H000530	1	HT-AWS AXLE BRACE ASSEMBLY,, SHORT, FRONT W/ FASTENERS (32’, 38’ &48’)
21	5H000513	-	HT-AWS AXLE BRACE ASSEMBLY, MEDIUM, REAR W/ FASTENERS (48’ & 52’)
-	5H000528	1	HT-AWS AXLE BRACE ASSEMBLY, SHORT, REAR W/ FASTENERS (32’, 38’ &48’)

Please order replacement parts by Part Number and Description.

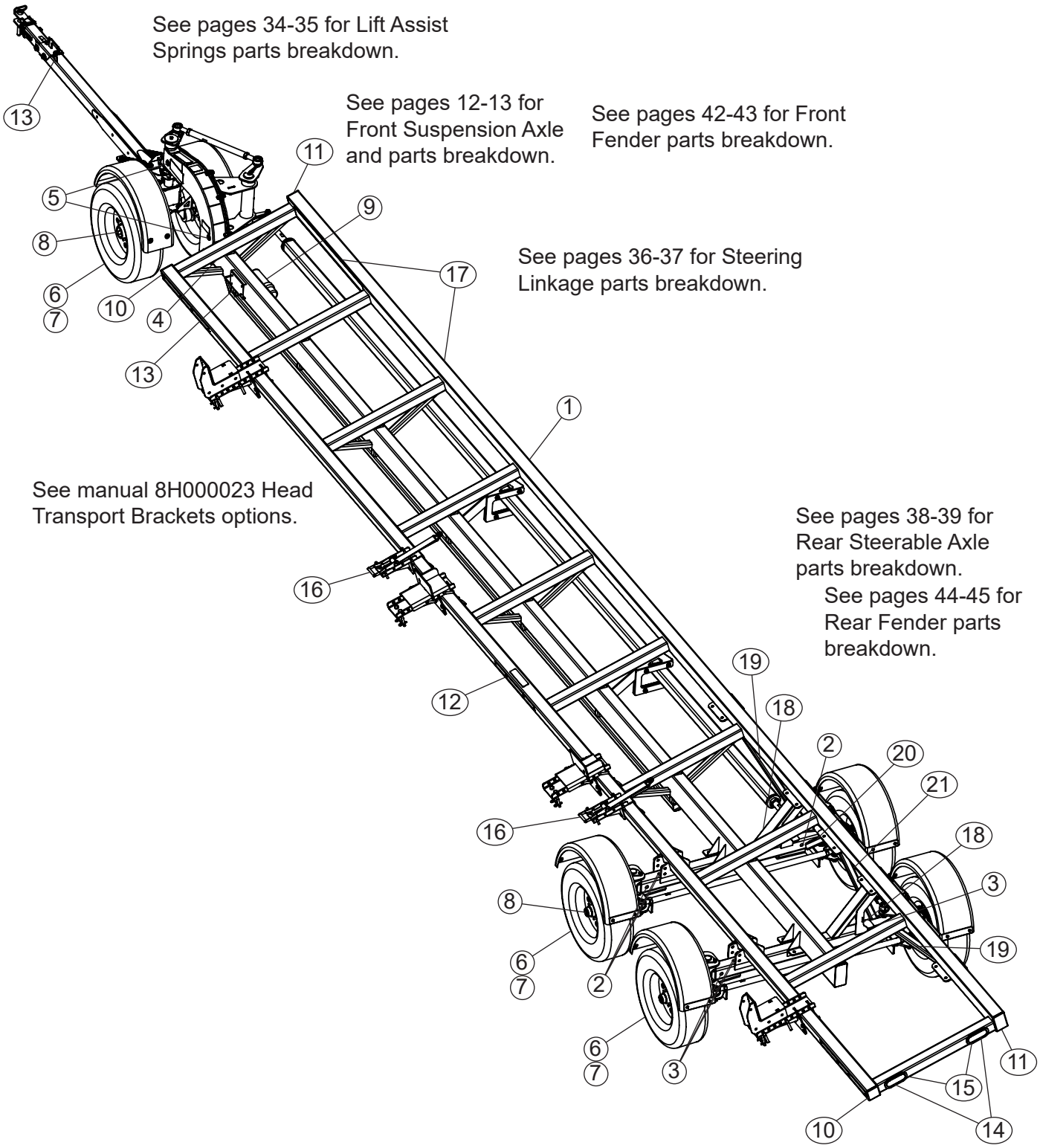
See pages 30-33 for Tongue Options and parts breakdown.

See pages 34-35 for Lift Assist Springs parts breakdown.

See pages 12-13 for Front Suspension Axle and parts breakdown.

See pages 42-43 for Front Fender parts breakdown.

See pages 36-37 for Steering Linkage parts breakdown.



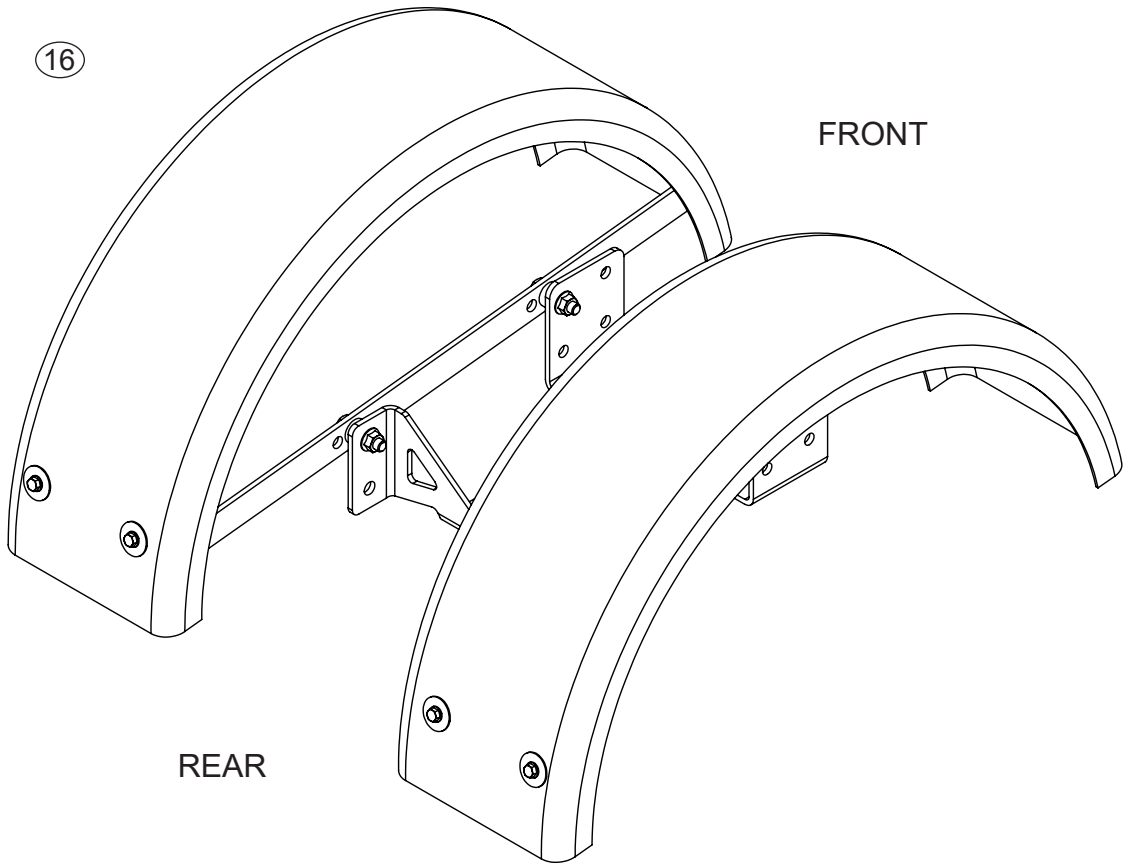
See manual 8H000023 Head Transport Brackets options.

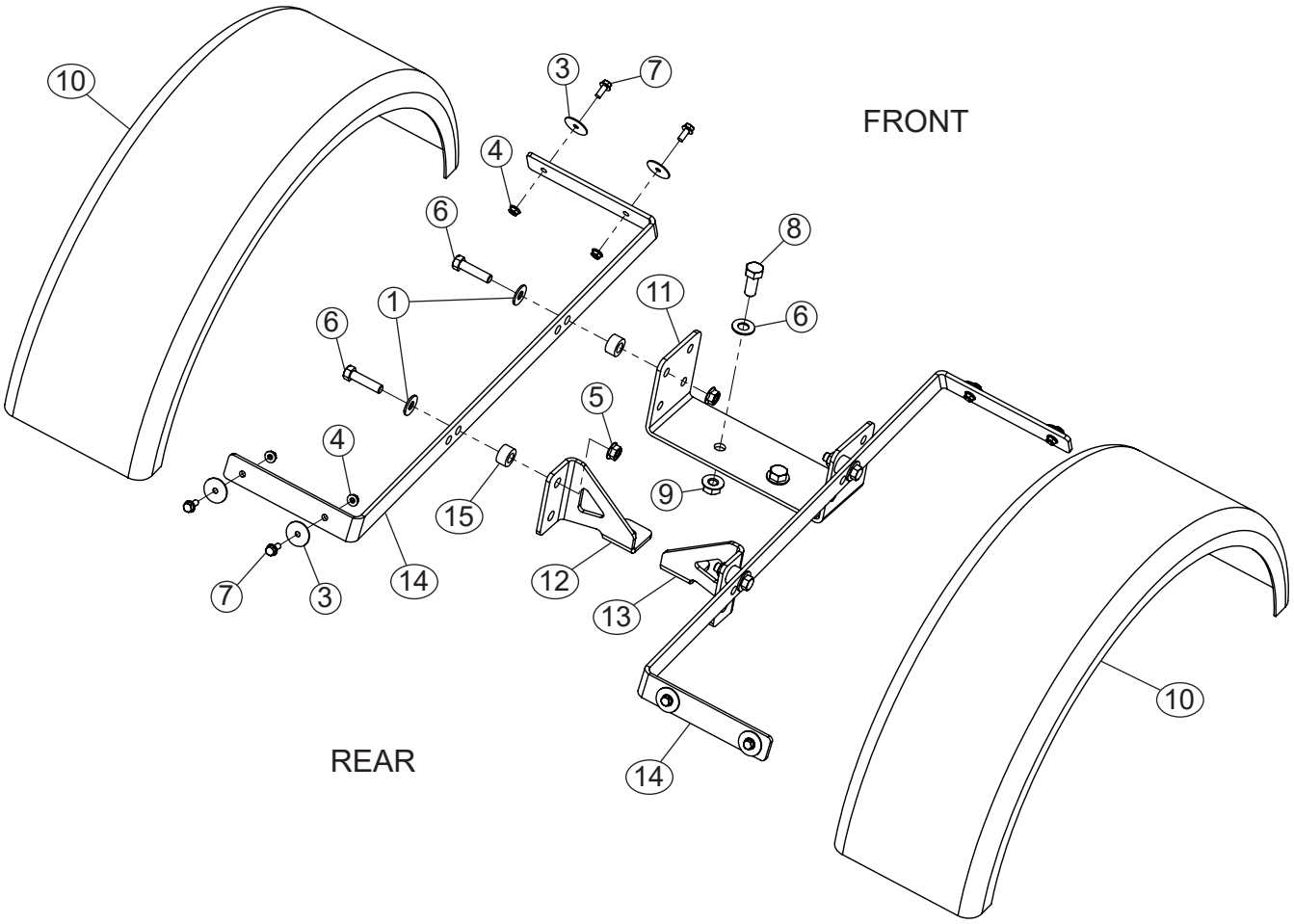
See pages 38-39 for Rear Steerable Axle parts breakdown.

See pages 44-45 for Rear Fender parts breakdown.

Ref No.	Part No.	Qty	Description
1	1AF009H0000	4	1/2” FLAT WASHER
2	1AF009J000C	2	5/8” SAE FLAT WASHER
3	1AF046EAAH0	8	5/16” x 1.5” FENDER WASHER
4	1AFC08E0000	8	5/16”-18 FLANGE NUT
5	1AFC08H0000	4	1/2”-13 FLANGE NUT
6	1AFC12HBAH0	4	1/2”-13 x 2-1/2” HEX BOLT
7	1AFC37E00L0	8	5/16”-18 x 3/4” FLANGE BOLT
8	1AFF12JAAH5	2	5/8” x 1-1/2” HEX BOLT FINE THREAD GR.5
9	1AFY08J0008	2	5/8”-18 FLANGE LOCK NUT DTSM YCP GR.8
10	1AU00000075	2	FENDER - HT SINGLE ARCH - NARROW
11	3H000561	1	HT FRONT FENDER BRACKET
12	3H000562	1	HT FRONT FENDER - LEFT REAR BRACKET
13	3H000563	1	HT FRONT FENDER - RIGHT REAR BRACKET
14	3H000564	1	HT FRONT FENDER BRACKET
15	3H000597	4	HT FRONT FENDER SPACER , SHORT
16	5H000416	1	HT FRONT FENDER WIDE ASSEMBLY

Please order replacement parts by Part Number and Description.

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3
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FRONT
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13
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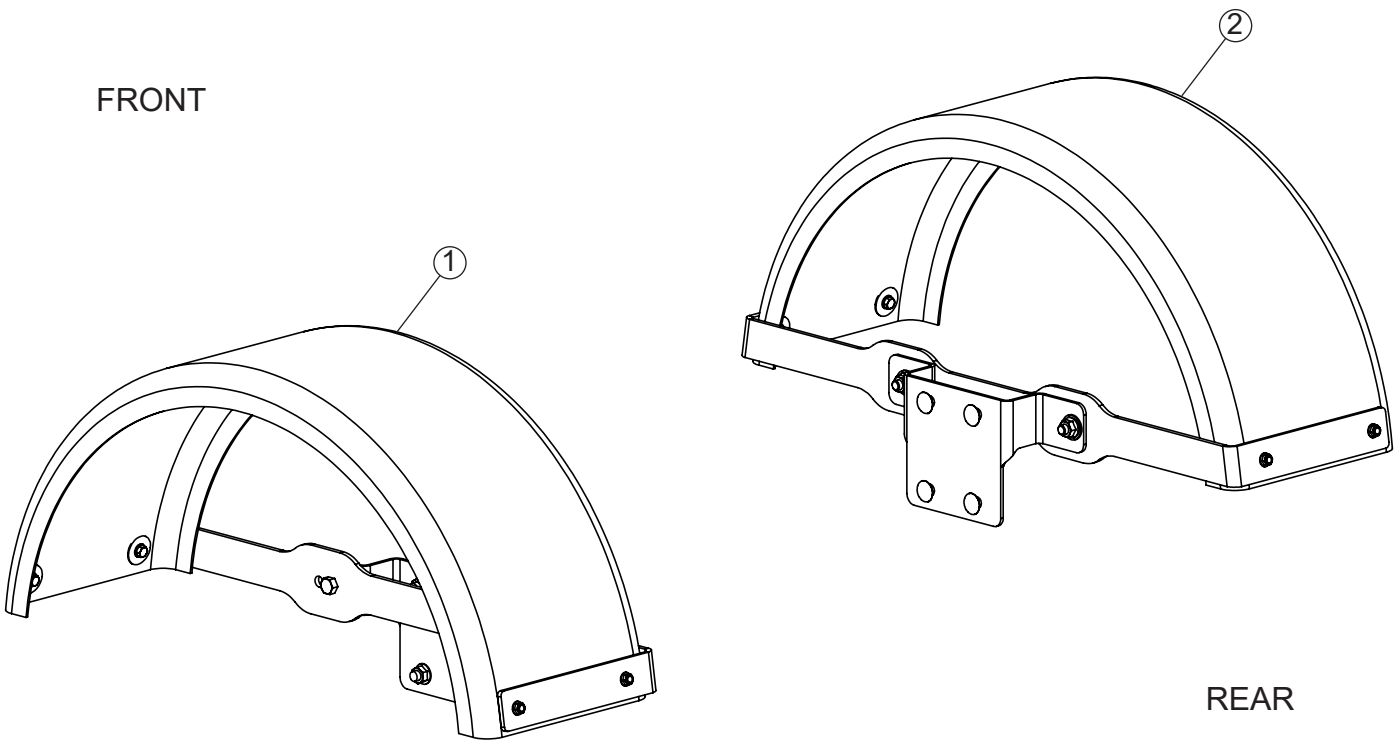
REAR
14

OPTIONAL REAR FENDER PARTS BREAKDOWN

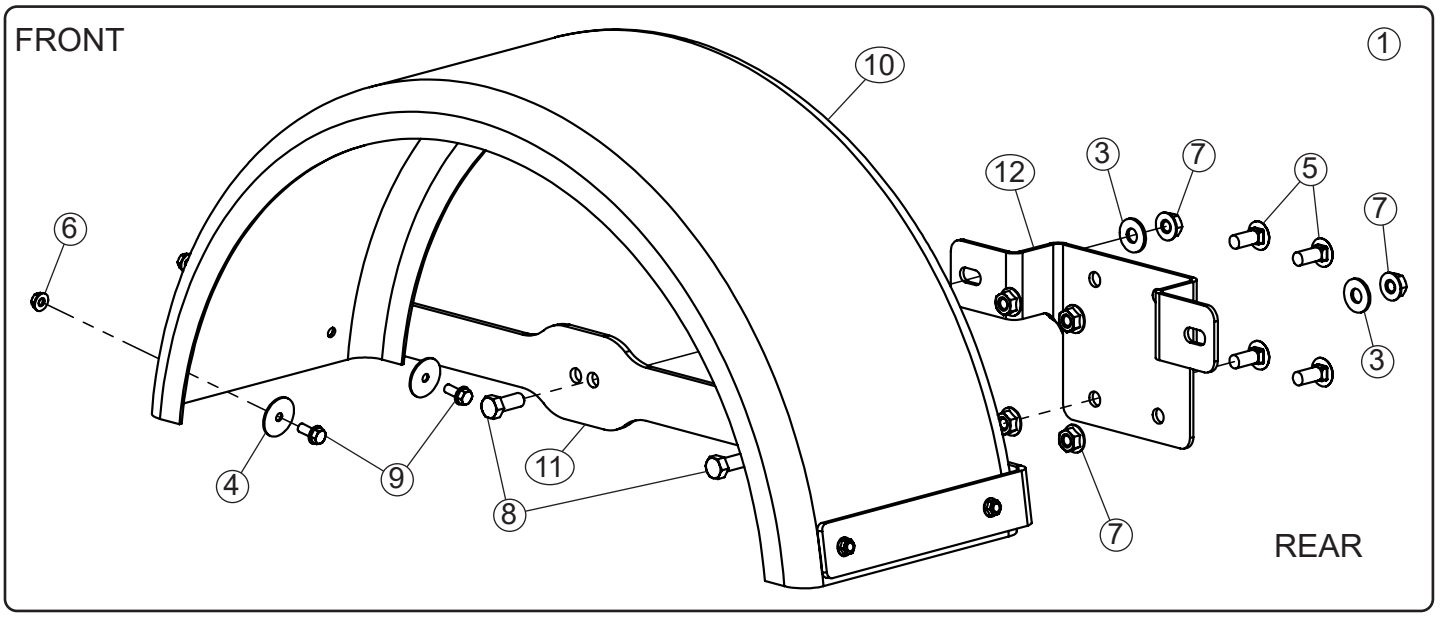
Ref No.	Part No.	Qty	Description
1	5H000514	2	HT-AWS REAR FENDER ASSEMBLY, DRIVER
2	5H000515	2	HT-AWS REAR FENDER ASSEMBLY, PASSENGER
3	1AF009H0000	2	1/2” FLAT WASHER
4	1AF046EAAH0	4	5/16” x 1.5” FENDER WASHER
5	1AFC04HAAD5	4	1/2-13 X 1-1/4 CARRIAGE BOLT ZINC PLATED
6	1AFC08E0000	4	5/16"-18 FLANGE NUT
7	1AFC08H0000	6	1/2”-13 FLANGE NUT
8	1AFC12HAAD5	2	1/2” x 1-1/4” HEX BOLT
9	1AFC37E00L0	4	5/16”-18 x 3/4” FLANGE BOLT
10	1AU00000079	1	FENDER - HT SINGLE ARCH, 11.5” WIDE HL09
11	3H000698	1	HT- AWS REAR FENDER BRACKET, FORMED
12	3H000699	1	HT- AWS REAR FENDER MOUNT, FORMED

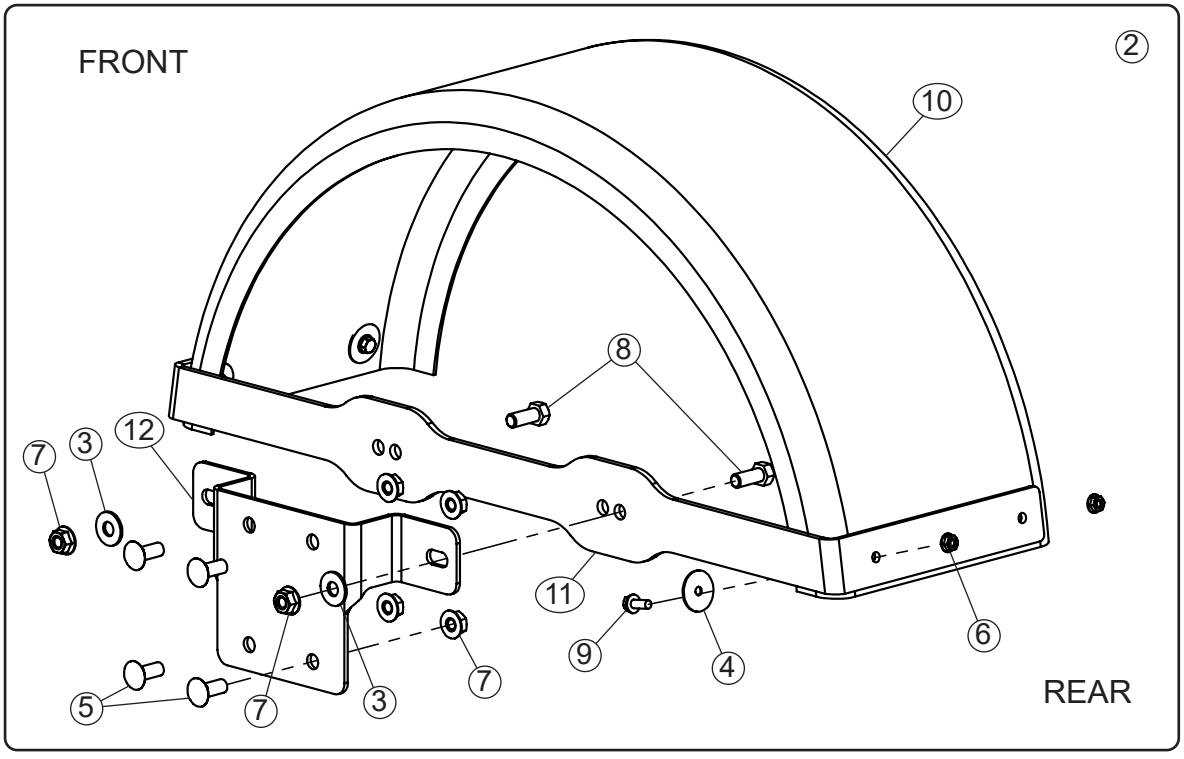
Please order replacement parts by Part Number and Description.

NOTE:
Quantities listed are for one fender assembly.



NOTE:
Item 8, Bolts go in rear hole of Item 11, Rear Fender Bracket.





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Transport Length FEET	Highway Tires GVWR
32 Ft. 4,070 lbs (1,846 kg) Empty Weight	10 Ply on All 20,000 lbs (9,071 kg) GVW
38 Ft. 4,470 lbs (2,027 kg) Empty Weight	10 Ply on All 20,000 lbs (9,071 kg) GVW
42 Ft. 5,020 lbs (2,277 kg) Empty Weight	10 Ply on All 20,000 lbs (9,071 kg) GVW
48 Ft. 5,970 lbs (2,708 kg) Empty Weight	10 Ply on All 20,000 lbs (9,071 kg) GVW
52 Ft. 6,000 lbs (2,722 kg) Empty Weight	10 Ply on All 20,000 lbs (9,071 kg) GVW

	Highway GAWR
Front Axle #1	6,840 lbs or 3,103 kg
Rear Axle #2	6,840 lbs or 3,103 kg
Rear Axle #3	6,840 lbs or 3,103 kg

Tire Size	Tire Capacity	Cold Inflation Pressure	Rim Size	Rim Capacity
ST 235/80R16 (Hwy Serv.) 10Ply LRE	3,420 lbs 1,551 kg	80 psi 551 kPa	16” x 6” (40.6cm x 15.2cm) (8) Bolts on 6.50” (16.5cm) B.C.	3,750 lbs 1,700 kg

MAXIMUM TRANSPORT SPEED = Posted roadway speeds.

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.

Downtime in the fields caused by field breakdowns is costly and time consuming. Many breakdowns can be eliminated by periodic equipment maintenance. By spending a little time running over this checklist, following proper after-season care, you can save time and money later on.

⚠ Warning: To prevent Serious Injury or Death

- Make sure ALL guards and shields are in place.
- Keep hands, feet, and loose clothing away from rotating parts.

Before Going to the Field

1. Visually Inspect

- Inspect tires for cracks and worn spots.
- Inspect head transport, make sure that all guards are in place and in good shape.
- Inspect for any loose bolts, worn parts, or cracked welds, and make any necessary repairs.
- Inspect tie-downs for cuts.

2. Check

- Tires for proper inflation.
- Lug nuts for proper torque.
- Lights for proper operation.
- Zerk locations, wheel bearings, and grease as needed.
- All guards and shields. Replace or repair if necessary to insure proper protection.

3. Replacement Parts

- Replace all worn or damaged parts.
- Replace tie-downs if cuts exist.

After Season Care

- Grease all zerk locations.
- Repack wheel bearings before storage.
- Inspect tires for punctures, holes or any other type of leak and repair as needed.

⚠ Maximum Towing Speed

The ST235/80R16 Import Radial tires are stamped (DOT). This signifies that the tire has passed the required Department of Transportation (DOT) tests for posted highway speeds.

Dealer Checklist

(Dealer's Responsibility)

Inspect the equipment thoroughly to be certain it is set up properly before delivering it to the customer. The following checklist is a reminder of points to inspect.

Check off each item if it is found satisfactory or after proper adjustment is made.

Note: It is important for the dealer to visually check and make sure all parts are intact prior to delivery to customer.

___ Check that all safety decals are installed and in good condition. Replace if damaged.

___ Check that all cotter pins and safety pins are properly installed.

___ Show the customer the safe, proper procedures to be used when mounting, dismounting, and storing equipment.

___ Show customer how to make adjustments.

___ Present Owner's/Operator's Manual and request that the customer and all operators read it before operating equipment. Point out the manual safety rules, explain their meanings and emphasize the increased safety hazards that exist when safety rules are not followed.

___ Point out safety decals. Explain their meaning and the need to keep them in place and in good condition. Emphasize the increased safety hazards when instructions are not followed.

___ Explain to customer the potential crushing hazards of going underneath raised equipment. Instruct customer that service work does not require going underneath unit and never to do so.

DEMCO

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

www.demco-products.com