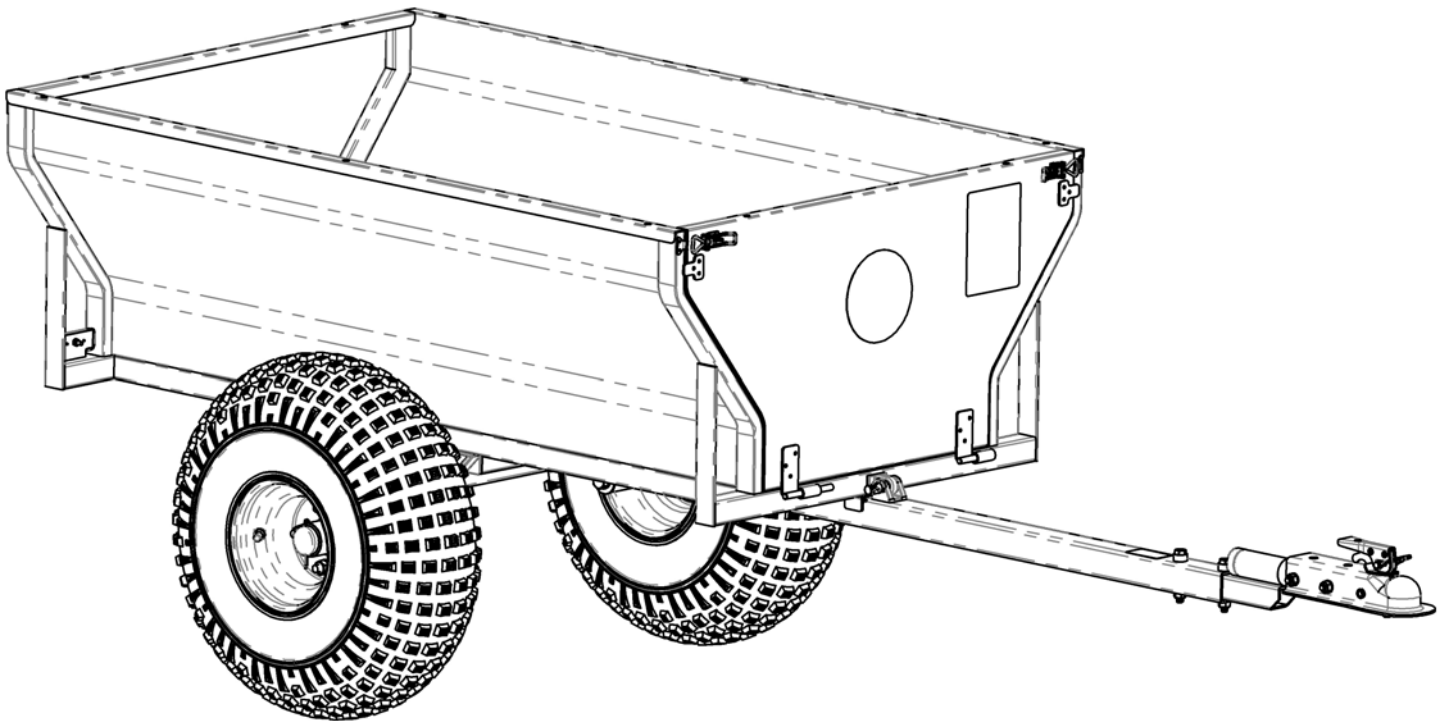


DR[®] 1/2 TON VERSA TRAILER™



SAFETY & OPERATING INSTRUCTIONS



Serial No. _____

Order No. _____

Original Language

DR Power Equipment
Toll-free phone: 1-800-DR-OWNER (376-9637)
Fax: 1-802-877-1213
Website: www.DRpower.com

WARNING

Read and understand this manual and all instructions before assembling and operating the DR 1/2 TON VERSA TRAILER.

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Conventions used in this manual

WARNING

This indicates a hazardous situation, which, if not avoided, **could** result in death or serious injury.

CAUTION

This indicates a hazardous situation, which, if not avoided, **could** result in minor or moderate injury.

NOTICE

This information is important in the proper use of your trailer. Failure to follow this instruction could result in damage to your Trailer or property.

TIP: This is a helpful hint to guide you in getting the most out of your DR 1/2 TON VERSA TRAILER.

NOTE: *This information may be helpful to you in using your DR 1/2 TON VERSA TRAILER.*

Serial Number and Order Number

A Serial Number is used to identify your Trailer and is located on the Serial Number Label on the Dump Bed Frame of your Trailer. An Order Number is used to check and maintain your order history and is located on the upper left portion of your packing slip. For your convenience and ready reference, enter the Serial Number and Order Number in the space provided on the front cover of this manual.

Additional Information and Potential Changes

DR Power Equipment reserves the right to discontinue, change, and improve its products at any time without notice or obligation to the purchaser. The descriptions and specifications contained in this manual were in effect at printing. Equipment described within this manual may be optional. Some illustrations may not be applicable to your Trailer.

WARNING

Read this Safety & Operating Instructions Manual before you assemble and use the DR 1/2 TON VERSA TRAILER. Become familiar with the operation and service recommendations to ensure the best performance from your Trailer. If you have any questions or need assistance, please contact us at www.DRpower.com or call Toll-Free 1-800-DR-OWNER (376-9637) and one of our Technical Support Representatives will be happy to help you.

Labels

Your DR 1/2 TON VERSA TRAILER carries prominent labels as reminders for its proper and safe use. Shown below are copies of all the Safety and Information Labels that appear on the unit. Take a moment to study them and make a note of their location on your DR 1/2 TON VERSA TRAILER as you set up and before use of your Trailer. Replace damaged or missing Safety and Information labels immediately.

WARNING!

AVOID SERIOUS INJURY OR DEATH

- Failure to evenly distribute the load over the axle during loading and dumping may result in unexpected tipping of the trailer bed.
- Read and understand owner's manual before using this trailer. Do not allow the use of the trailer by anyone not familiar or unable to understand the instructions.
- Never exceed the weight limitations of the trailer. Max towing capacity 1000 lbs.
- Never exceed the maximum towing speed of 25 mph.
- Do not operate near dangerous slopes or on slopes over 20 degrees.
- Do not operate under the influence of drugs or alcohol, or if mentally or physically impaired.
- Check the towing capacity of the towing vehicle before use. Do not exceed the stated capacity of the towing vehicle.
- Be sure latches are secure on end panels when towing with dump bed.
- Be sure dump bed is securely pinned to the tow hitch while towing.
- Care should be taken during dumping and pinning the dump bed to avoid pinch points and moving parts.
- Remove rear end panel before dumping.
- All maintenance should be performed on a level surface.
- Do not allow anyone to ride in the dump bed or on the trailer.
- Keep children and pets at least 30 feet away from the trailer and under the observation of a responsible adult.
- Look around and behind the trailer before backing up and back up slowly with caution.
- Only tow trailer in off-road areas. Not intended for use on public roads.
- Vehicle Braking, handling and stability may be affected with the addition of this trailer. Be aware of changing conditions and slopes at all times.
- An improperly coupled trailer could result in death or serious injury. Tighten the coupler adjustment regularly.

30354

#30354

WARNING

- Read and understand owner's manual before using this trailer or the winch
- Max Towing Capacity 1000 pounds
- Never exceed the towing capacity of the tow vehicle
- Check that the coupler is properly adjusted, secured and locked before each use
- Not intended for use on public roads

30371

#30371

Protecting Yourself and Those Around You

WARNING

You must operate the Trailer safely. Unsafe operation can create a number of hazards for you, as well as anyone else in the nearby area. Always take the following precautions when using your trailer:

- Never exceed the rated towing capacity of the Tow Vehicle. Keep in mind that the operator or user is responsible for accidents or hazards occurring to other people, their property, and themselves.
 - We recommend wearing gloves and protective goggles or safety glasses with side shields while assembling or using the DR 1/2 TON VERSA TRAILER.
 - Wear shoes with non-slip treads when assembling or operating your Trailer. If you have safety shoes, we recommend wearing them. Do not assemble or use the Trailer while barefoot or wearing open footwear.
 - Wear long pants while assembling or operating the DR 1/2 TON VERSA TRAILER and a long sleeved shirt to protect from accidental scrapes, cuts, or abrasions that may result.
 - Do not transport people on or inside the Trailer. The transport of people puts their lives at risk and may be illegal, as the Trailer has not been designed to carry passengers.
 - Do not transport flammable, explosive, poisonous, or other dangerous materials in your Trailer.
-

Safety for Children and Pets

WARNING

Tragic accidents can occur if the operator is not alert to the presence of children and pets. Children are often attracted to the Trailer and the hauling activity. *Never* assume that children will remain where you last saw them. Always follow these precautions:

- Keep children and pets at least 30 feet away from the working area and ensure they are under the watchful care of a responsible adult.
 - Be alert and stop what you are doing if children or pets enter the work area.
 - Never allow children to operate the tow vehicle or the DR 1/2 TON VERSA TRAILER.
 - Use care when backing up to make sure the area is clear of children, pets, and other objects that could result in damage or injury.
-

General Safety

WARNING

Operating your DR 1/2 TON VERSA TRAILER safely is necessary to prevent or minimize the risk of death or serious injury. Unsafe operation can create a number of hazards for you. Always take the following precautions when operating your Trailer:

- Your DR 1/2 TON VERSA TRAILER is not a plaything. Exercise extreme caution at all times. The Trailer is designed for hauling material. Do not use it for any other purpose.
 - Know how to operate and stop the Tow Vehicle quickly; refer to the Tow Vehicle's Owner's Manual.
 - Never, under any conditions, remove, bend, cut, fit, weld, or otherwise alter standard parts on the DR 1/2 TON VERSA TRAILER. Modifications to your Trailer could cause personal injuries and property damage and will void your warranty.
 - Before performing any maintenance or inspection procedure on the DR 1/2 TON VERSA TRAILER, park first on flat, level ground. Place Vehicles with Automatic Transmission in Park. For Vehicles with Manual Transmission, place Vehicle in the configuration recommended by the Vehicle's Owner's Manual. Set the Tow Vehicle's Parking Brake (if equipped), shut the Engine OFF, and remove the Key. Chock the wheels of the Trailer to ensure that the Trailer cannot move. Ensure that the Bed of the Trailer is completely lowered and is securely latched to the Tow Bar of the Trailer with the supplied Pin.
 - Never allow people who do not understand and/or have not read this Safety and Operating Instructions Manual to use the DR 1/2 TON VERSA TRAILER. Allow only responsible individuals who are familiar with these rules of safe operation and the safe operation of your Tow Vehicle to use your Trailer.
 - Never overload the Trailer. Personal injury or damage to the Trailer could result.
 - While using the DR 1/2 TON VERSA TRAILER, don't hurry or take things for granted. When in doubt, stop the Tow Vehicle and take the time to look things over.
 - Never operate the Trailer when under the influence of alcohol, drugs, medication, or if mentally or physically impaired.
 - Stay alert for hidden hazards or traffic.
 - Keep all nuts and bolts tight and keep the Trailer in good operating condition as outlined in Chapter 4: Maintaining the DR 1/2 TON VERSA TRAILER.
-

Safely Towing your DR VERSA TRAILER

BEFORE towing your DR 1/2 TON VERSA TRAILER, read the following:

WARNING

- Driving a vehicle with a Trailer in tow is vastly different from driving the same vehicle without a trailer in tow. When towing a Trailer, you need more room to turn and more distance to stop. You will need to spend time adjusting to the different feel and maneuverability of the Tow Vehicle with a loaded Trailer.
- Never exceed the maximum tow rating for the Vehicle being used. Do not exceed the maximum towing capacity of your Tow Vehicle. Check the Tow Vehicle's Owner's Manual on tow capacity limitations.
- An improperly coupled Trailer may result in death or serious injury. Before coupling the DR 1/2 TON VERSA TRAILER to your Tow Vehicle, be sure the size of the Ball is 2". Make sure that the Hitch Ball is not worn or cracked and is tight on the Tow Vehicle's Hitch. Also check the Coupler for cracks and deformations and make sure that the Coupler is securely fastened and locked to the Trailer Tongue with the Safety Snap Pin installed. Lubricate the Hitch Ball and the inside of the Coupler with a thin layer of grease. Make sure the Tow Hitch is adjusted properly to the Ball Hitch.
- Assure that the Trailer Wheel Lug Nuts are tight before towing as outlined in Chapter 4: Maintaining the DR 1/2 TON VERSA TRAILER.
- Improper Tire pressure can result in a blowout and loss of control, which can lead to death or serious injury. Be sure the Tires are properly inflated to the pressure indicated on the sidewall of the Tire(s) before towing the Trailer.
- Make sure the Optional Trailer Jack is fully retracted and secured with the Pin before towing.
- Use caution when towing the Trailer over rough terrain and hillsides to prevent loss of control and rolling over. Never operate near, or on slopes of 20 degrees or greater. Before operating the Tow Vehicle and DR 1/2 TON VERSA TRAILER on any sloped surface or hill, refer to the Safety Rules in the Tow Vehicle's Owner's Manual on proper operation on slopes.
- Slow down for bumps and release the Tow Vehicle's accelerator when crossing the bump to avoid unintended acceleration.
- Do not brake while in a curve unless absolutely necessary. Instead, slow down before you enter the curve and power through the curve. This way, the Towing Vehicle remains in charge.
- Do not apply the brakes to correct extreme Trailer swaying. Continuing to pull the Trailer, with slight acceleration will provide a stabilizing force.
- Be careful when towing the Trailer in icy, wet, or snowy conditions, which could impair the braking ability and the stability of the Trailer and Tow Vehicle.
- Driving too fast for conditions can result in loss of control and may cause death or serious injury. Decrease your speed as ground, weather, and lighting conditions deteriorate.
- Never exceed 25 mph.
- Use lower gears when climbing and descending grades.
- Your Tow Vehicle's braking and stability may be affected when towing the DR 1/2 TON VERSA TRAILER.
- Do not ride the brakes while descending grades, as they may get so hot that they stop working. This may lead to a runaway Tow Vehicle and Trailer.
- Make sure the DR 1/2 TON VERSA TRAILER is not overloaded and that the load is properly distributed front to back and side to side and properly secured. The Trailer's maximum towing capacity is 1000 pounds.
- Do not tow the Trailer on highways or on public thoroughfares. **The DR 1/2 TON VERSA TRAILER is designed for off road use only.**

A Note to All Users

No list of warnings and cautions can be all-inclusive. If situations occur that are not covered by this manual, the operator must apply common sense and operate your DR 1/2 TON VERSA TRAILER in a safe manner. Contact us at www.DRpower.com or call Toll Free: 1-800-DR-OWNER (376-9637) for assistance.

Chapter 2: Assembling the DR 1/2 TON VERSA TRAILER

It may be helpful to familiarize yourself with the features of your DR 1/2 TON VERSA TRAILER as shown in **Figure 1** before beginning these procedures. If you have any questions at all, please feel free to contact us at www.DRpower.com.

DR 1/2 TON VERSA TRAILER Features

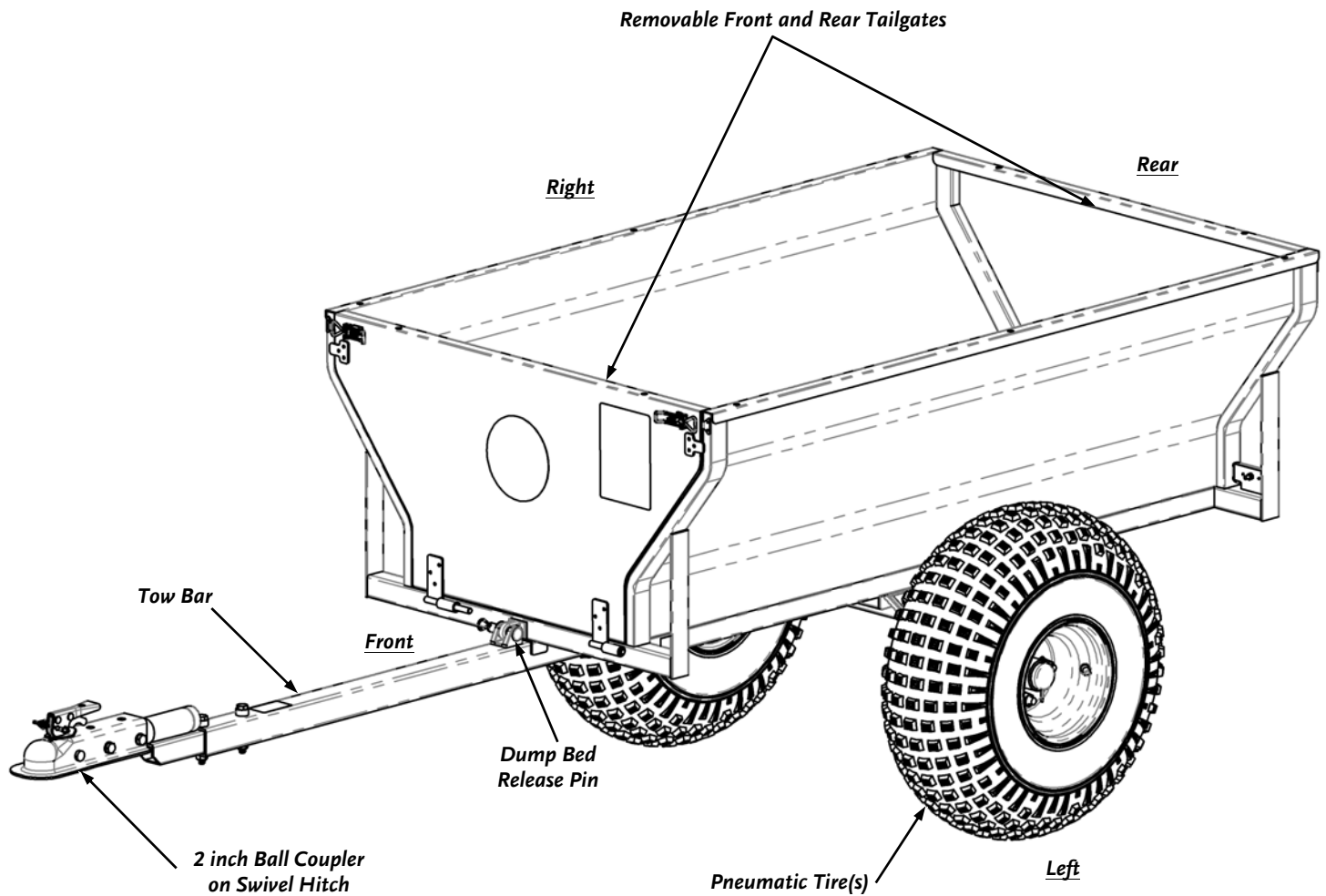


Figure 1

Specifications

Tire Size	22 x 11-8
Trailer Dimensions	107" L x 45-1/2" W x 36-1/4" H
Operating Weight	240 pounds
Shipping Weight	300 pounds
Shipping Dimensions	64" L x 41" W x 33" H
Towing Capacity	1000 pounds
Dumping Capacity	1000 pounds
Tongue Weight	30 pounds
Dump Angle	35°
Required Tow Ball Size	2"
Ground Clearance	10"
Bed Volume	16.85 Cubic Feet

Unpacking the DR 1/2 TON VERSA TRAILER

WARNING

Due to the weight of the components of the DR 1/2 TON VERSA TRAILER, we strongly recommend that you have the help of at least one other person in unpacking and assembling your new Trailer.

Tools and supplies needed:

- Utility Knife
 - Protective Goggles or Safety Glasses
 - Gloves
1. Cut the Banding from the Packaging and remove the Shipping Cover from the Shipping Crate and set it aside (**Figure 2**).
 2. Remove all of the Parts supplied from inside the Dump Bed.
 3. Using a Utility Knife carefully cut the wrap from the parts.
 4. Compare the contents (**Figure 3** on page 8) with the parts supplied list. If you have any questions, **contact 1-800-DR-OWNER (376-9637)**. Do not discard your packaging material until you are fully satisfied with your new DR 1/2 TON VERSA TRAILER, as you will need it if you decide to return your Trailer.

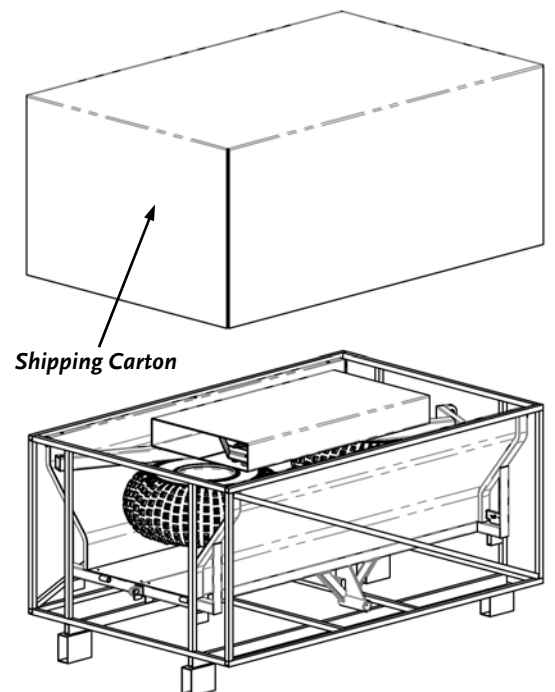
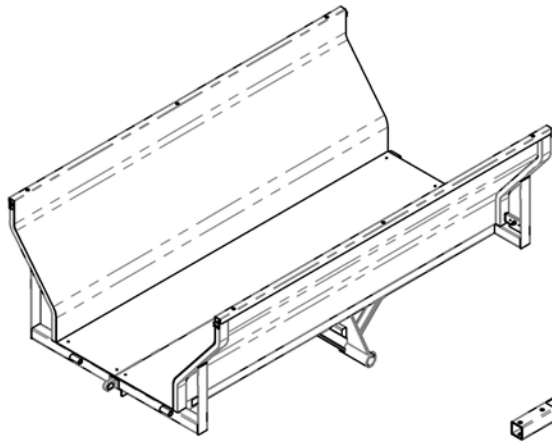
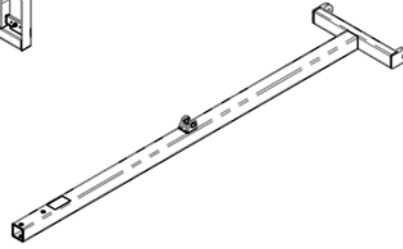


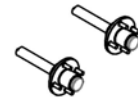
Figure 2



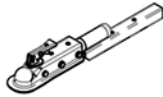
Dump Bed, 30290



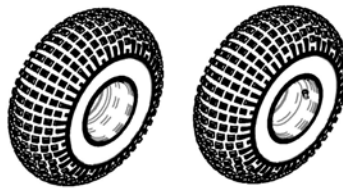
Tow Bar, 30372



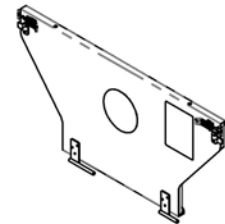
(2) Spindle Hub Assembly, 30355



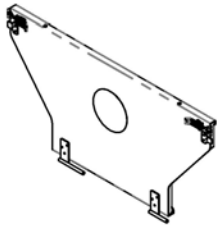
Tow Hitch, 30386



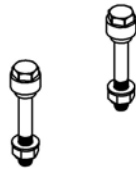
(2) Wheel and Tire Assembly, 30385



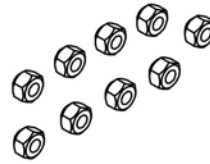
Front Tailgate, 30353



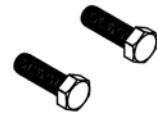
Rear Tailgate, 30294



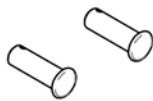
(2) M10-1.5 x 80mm Bolt, 30248



(9) Lug Nut, 29978



(2) M16-2 x 30mm Bolt, 30238



(2) Clevis Pin, 30388



(4) M16 Washer, 30361



(2) M16 Lock Washer, 30360



(2) Cotter Pin, 25547



(2) Safety Snap Pin, 30275



Dump Bed Pin, 30258



Hitch Clip Pin, 16003



(2) M10-1.5 x 40mm Bolt, 30388



(2) Reflector, 30285



(2) M6-1 Lock Nut, 30286



Wheel Stud, 29960

Assembling the DR 1/2 TON VERSA TRAILER

Tools Needed:

- Utility Knife
- Protective Goggles or Safety Glasses
- Gloves
- 10mm, 16mm and 24mm Sockets
- 1/2" Drive 5" Socket Extension
- (2) Adjustable Wrench
- 17mm Wrench
- 1/2" Drive Torque Wrench
- 1/2" Drive 21mm Socket
- Needle Nose Pliers
- Jack Stand

WARNING

- The Bed of the Trailer is very heavy and must be removed from the Shipping Crate by at least two adults.
- Always be aware of where your Hands and Feet are positioned as they can be crushed if you lose your grip while turning over the Shipping Crate.
- Never allow children or pets to play around you, the Bed, Shipping Crate, or Trailer when you are performing these steps.

1. Remove the Bed from the Steel-Shipping Crate with the assistance of at least one other person by turning the Shipping Crate over into its top with the Bed still inside (**Figure 4**) and lifting the Crate off of the Bed leaving the Bed upside down on level ground (**Figure 5**).

CAUTION

The Bed of the Trailer is not secured to the crate. Hold on to the lip of the Trailer Bed and the Crate while turning over to avoid injury from the Bed falling out of the Crate.

2. To remove the Blue Plastic Film from the exterior and underside of the Bed, use a Utility Knife to cut around the Black Frame of the Trailer (**Figure 5**). Once you have cut around the Black Frame, use the point of the Knife to begin peeling at the edge of the Film.
3. Lay the Tow Beam on the bottom of the Dump Bed with the Dump Bracket pointing down. Position the Pivot Brackets of the Tow Bar between the Female Brackets of the Bed Frame (**Figure 6**).
4. Insert a Pivot Pin from the inside through the Female Bracket and place a Flat Washer on the Pin from the outside (**Figure 6**). Repeat for the other side.
5. Insert a Cotter Pin through the Hole in the Pivot Pin and bend the Legs over using Needle Nose Pliers (**Figure 7**). Repeat for the other side.

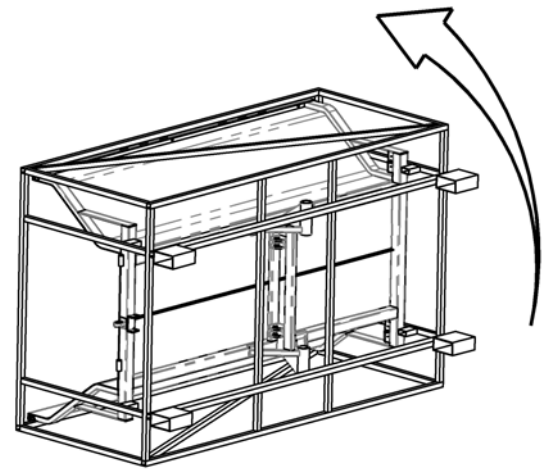


Figure 4

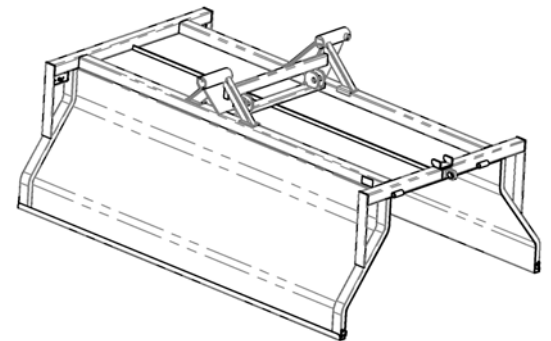


Figure 5

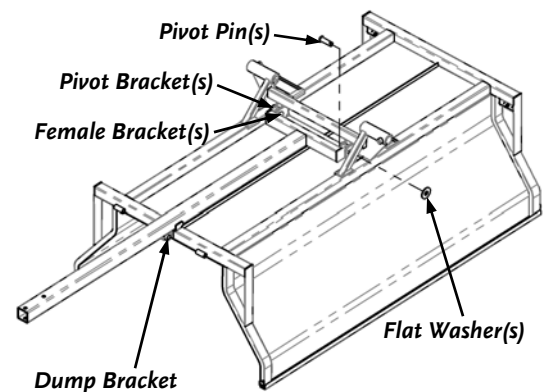


Figure 6

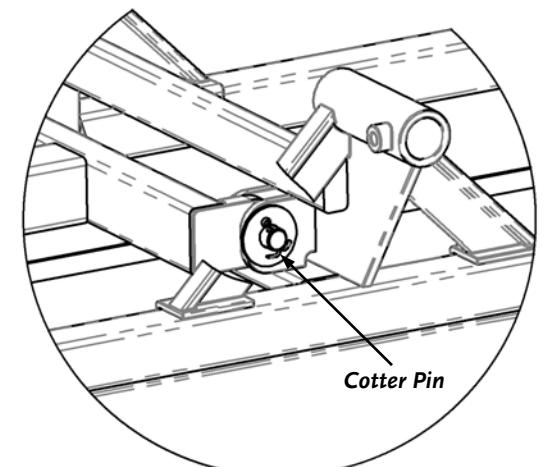


Figure 7

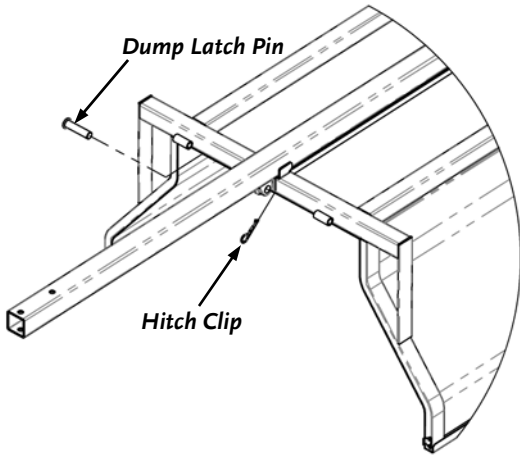


Figure 8

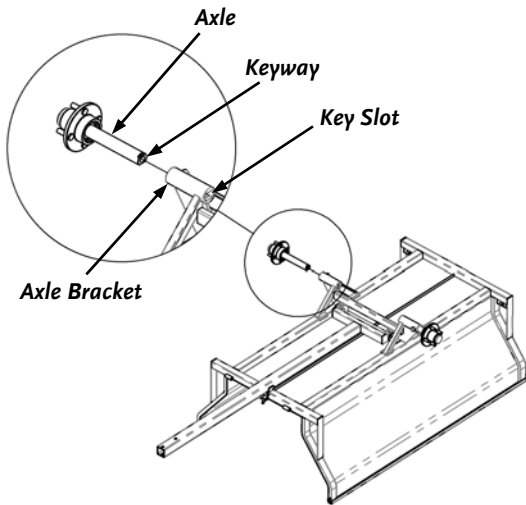


Figure 9

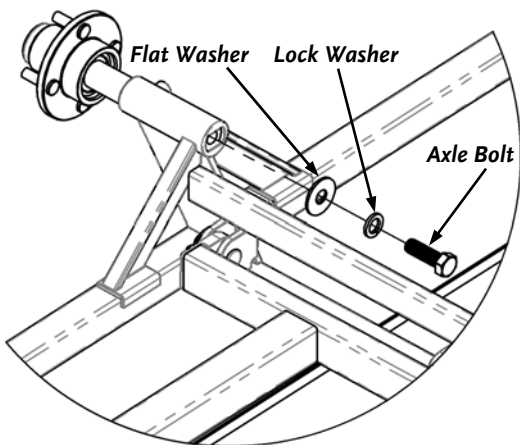


Figure 10

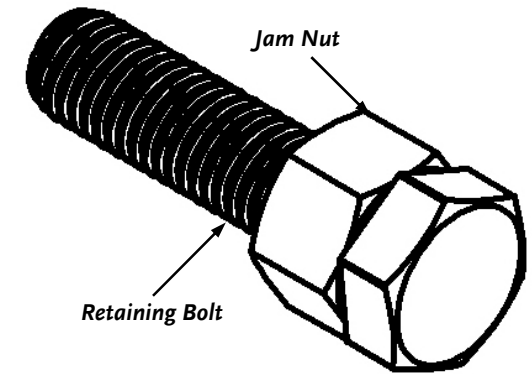


Figure 11

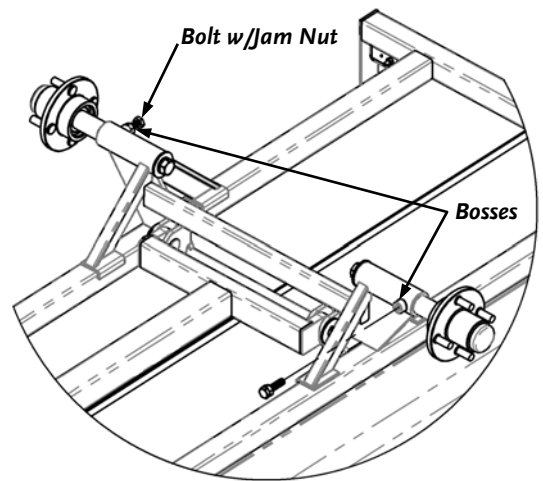


Figure 12

6. Insert the Dump Latch Pin through the Dump Bracket on the Tow Beam and the Dump Bracket on the Bed and secure with a Hitch Clip (**Figure 8**).
 7. Insert an Axle into the Axle Bracket (**Figure 9**) with the Keyway on the end of the Axle aligned with the Key Slot in the Axle Bracket. Repeat for the other side.
 8. Install a M16 x 30mm Axle Bolt, Lock Washer and Flat Washer (**Figure 10**) into the Axle End and tighten with a 24mm Socket or Adjustable Wrench. Repeat for the other side.
 9. Back the Jam Nuts on the two M10 x 40mm Retaining Bolts (**Figure 11**) all the way to the Head of the Bolts.
- NOTE:** You will need to back all Jam Nuts up to the head of the Retaining Bolts for all hardware shipped in the Hardware Kit prior to installation (**Figure 11**). Be sure to tighten the Bolt first and then secure it by tightening the Jam Nut.
10. Insert the two M10 x 40mm Retaining Bolts into the Axle Bracket Boss(es) (**Figure 12**) and tighten the Bolt with a 16mm Socket. Tighten the Jam down against the Boss using a 17mm Wrench.

11. Install the Wheel with the Valve Stem on the outside of the Wheel. Install the four Lug Nuts with the tapered end facing inward (**Figure 13**). Tighten the Lug Nuts using a 5" Socket Extension and a 21mm Socket. The Lug Nuts will be torqued later with the Wheels on the ground. Repeat for the other side.

! WARNING

Before performing the next step, assure that you inserted the Dump Bed Pin and installed the Hitch Clip (**Figure 8**) otherwise the Tow Bar may swing loose while turning the Trailer over.

- 12. Grasp the Tow Bar and carefully stand the Trailer on end (**Figure 14**). Reposition yourself on the other side of the Trailer and gently lower the Trailer onto its Wheels.
- 13. Position a Jack Stand under the Tow Bar and slide the Swivel Tow Hitch w/Coupler into the end of the Tow Beam (**Figure 15**) with the Swivel facing up.

NOTE: If you have purchased the Optional Trailer Jack, install it before installing the Swivel Tow Hitch. To install the Trailer Jack, loosen the hardware installed in the Jack, and slide the Jack approximately 12" onto the Tow Bar with the Mounting Boss facing left. Tighten the Bolt with a 24mm Socket. Tighten the Jam Nut down against the Boss using a 24mm Wrench.

- 14. Install two M10 x 80mm Bolts and Spacers, with the smaller diameter Shoulder(s) down, (**Figure 16**) through the Tow Bar and Swivel Tow Hitch. Install a Flat Washer, Lock Washer, and M10 Lock Nut on each Bolt and tighten with a 16mm Socket while holding the Nut with a 17mm Wrench.
- 15. Remove the Blue Plastic Protective Film from the Inside of the Bed. Use your Fingernail, or the point of a Utility Knife to peel up one end of the plastic at the edges of the Bed and begin to peel off the Film.

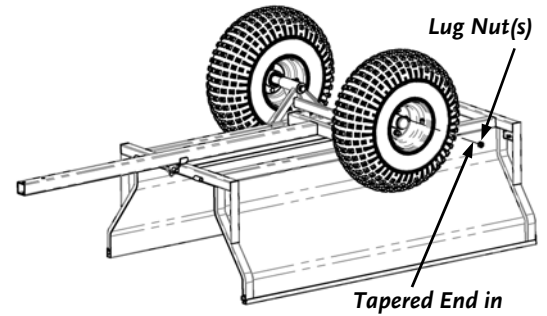


Figure 13

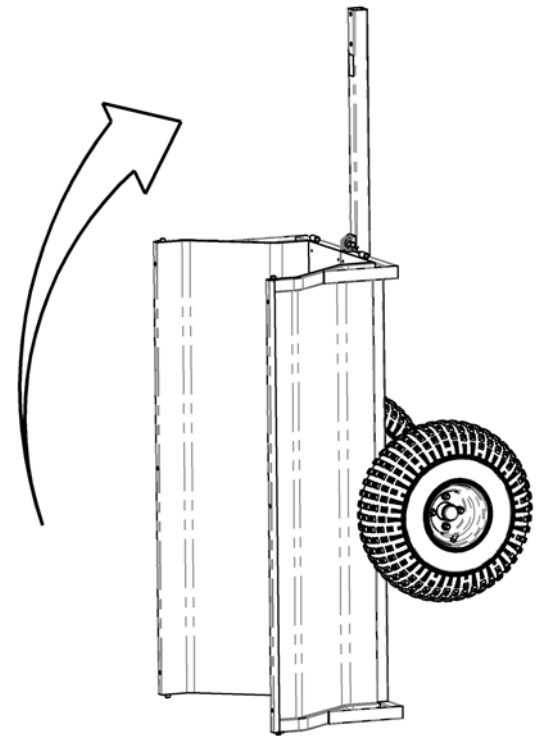


Figure 14

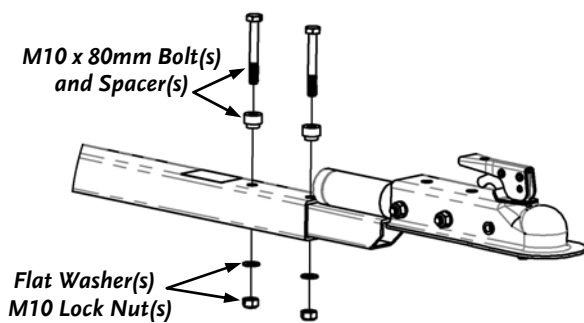


Figure 16

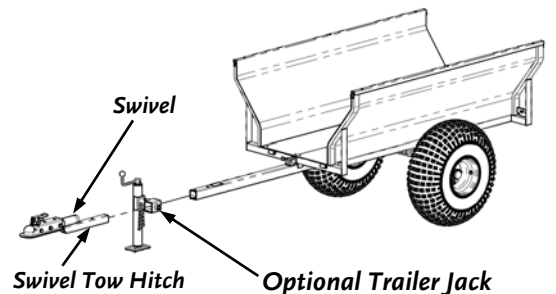


Figure 15

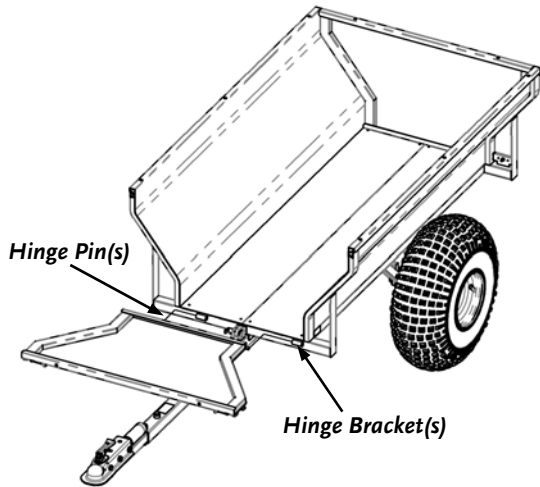


Figure 17

16. Install the Front and Rear Tailgates by aligning the Hinge Pins on the Tailgates with the Hinge Brackets on the Frame and slide the Tailgates to the Right (**Figure 17**).
17. Close the Tailgates and adjust the Latches, by threading the Latching Arm inwards or outwards to adjust the length of the Latching Arm (**Figure 18**).
18. Secure the Tailgates by latching the adjusted Latching Arms into the Hooks on the Bed Frame, and then push the Latch backwards to lock (**Figure 19**).
19. Install the Reflector Lights onto the rear of the Trailer (**Figure 20**) using the supplied M6 Lock Nuts and 10mm Socket.
20. Torque the Lug Nuts on each Wheel to 70-80 ft-lbs using a Torque Wrench, a 5" Extension and a 21mm Socket.
21. Check and adjust the Tire Pressures to 25-28 PSI prior to use.

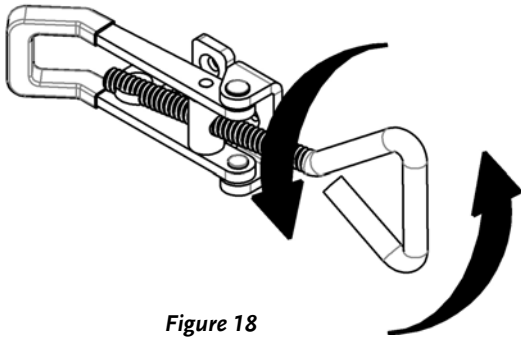


Figure 18

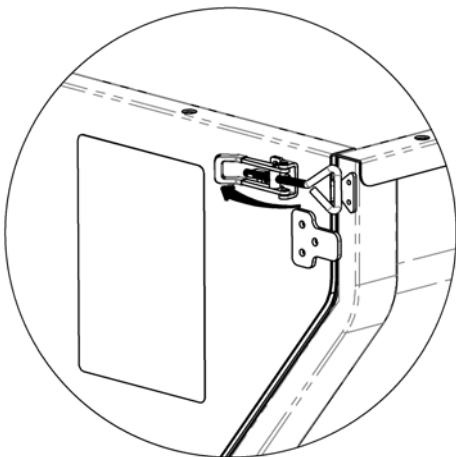


Figure 19

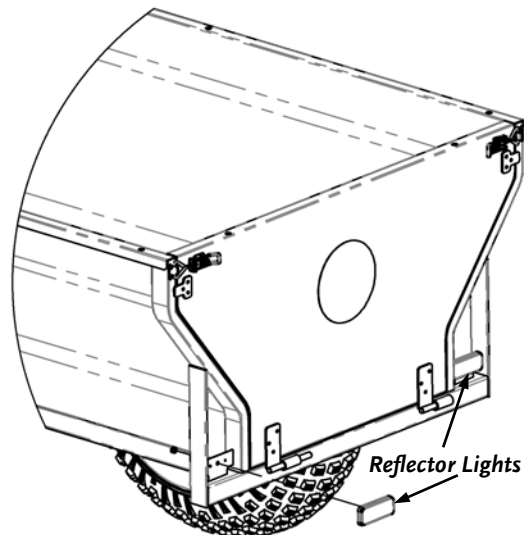


Figure 20

⚠ WARNING

- Make sure your 2" Hitch Ball is correctly tightened to the Receiver and that the Receiver is properly connected to your Towing Vehicle. A loose Ball or Receiver can result in the Trailer detaching from the Tow Vehicle during use.
- A worn, corroded, cracked, or otherwise damaged Hitch Ball can fail while towing. Always inspect your Ball before attaching to your Trailer.
- Always use a 2" Hitch Ball with your Trailer.
- Never operate your Trailer if the Coupler is not locked and the Safety Snap Pin is not installed.
- When the Trailer's Coupler is connected to the Ball and is in the locked position, rock the Tow Bar up and down as well as side-to-side to make sure the Ball is tight to the Coupler. A properly fastened and locked Coupler will raise the rear of the Tow Vehicle when it is pulled upwards without coming off of the Ball.

22. Attach the Trailer to your Tow Vehicle using a 2" Ball, making sure to properly latch the Coupler, and locking it with the supplied Safety Snap Pin (**Figure 21**).

NOTE: You may need to adjust the Coupler prior to installation. Please refer to Chapter 4: "Maintaining the DR 1/2 TON VERSA TRAILER".

23. CONGRATULATIONS! Your DR 1/2 TON VERSA TRAILER is now ready to use! See the next Chapter for operating suggestions and tips.

Optional Wall Extenders

1. Install the Long Wall Extenders first by inserting three M8 x 35mm Bolts through the Extender and the pre-drilled Holes in the sheet metal of the Bed (**Figure 22**). Secure with three M8 Lock Nuts under the Lip of the Bed. Repeat for the other side.

NOTE: Orient the Locking Hooks on the Wall Extenders to the outside of the Bed Frame (**Figure 22**).

2. Install the Short Wall Extenders by inserting two M8 x 35mm Bolts through the Extender and the pre-drilled Holes in the sheet metal of the Tailgate (**Figure 23**). Secure with two M8 Lock Nuts under the Lip of the Tailgate. Adjust the Latches per step 17 on page 12. Repeat for the other end.

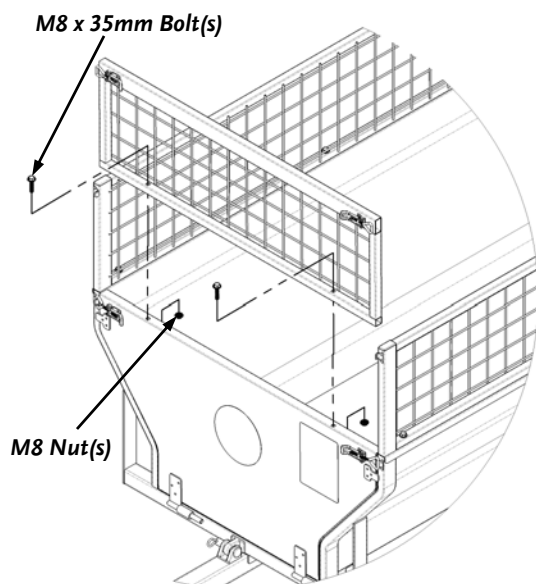


Figure 23

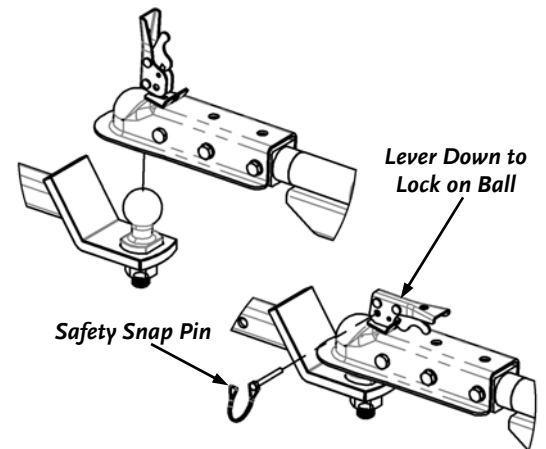


Figure 21

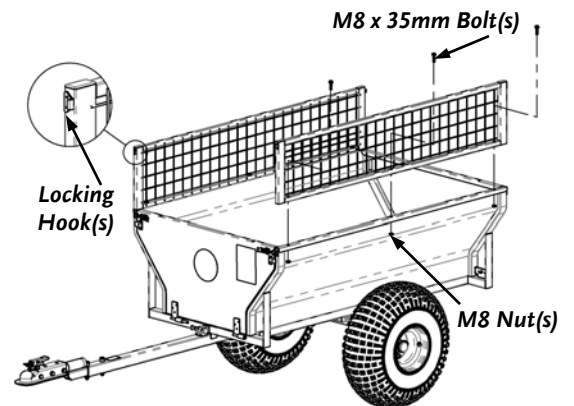


Figure 22

Chapter 3: Operating the DR 1/2 TON VERSA TRAILER

This chapter covers the basic operation procedures for your new DR 1/2 TON VERSA TRAILER. It may be helpful to better familiarize yourself with the features of your Trailer by reviewing **Figure 1** in Chapter 2 before beginning the steps outlined in this chapter.

WARNING

Read and understand the warnings listed in “**Chapter 1 General Safety Rules**” before operating the DR 1/2 TON VERSA TRAILER.

Before You Begin

- Assure that the Tires are properly inflated.
- Assure that the Wheel Lug Nuts are properly torqued.
- Assure that the Trailer is securely fastened and properly adjusted to your Tow Vehicle. Always use a 2" Ball and properly latch and lock the Tow Hitch with the Safety Snap Pin.
- Assure that all hardware is tight.

Loading the Trailer

WARNING

- Never load, or unload the Trailer if it is not securely attached to a suitable Tow Vehicle.
 - Never load, or unload the Trailer if it is on, or near a slope as the Trailer may tip, or drag the Tow Vehicle down the slope.
 - Always securely set the Parking Brake and ensure the Tow Vehicle is in Park before dismounting to load, or unload the Trailer.
 - When loading the Trailer it is best to evenly distribute the weight front to rear to provide the proper Tongue Weight. If too much weight is concentrated to the Rear of the Trailer you will cause a negative Tongue Weight, which could lift the rear of the Tow Vehicle, which could cause you to lose control during Towing. Adversely, too much weight at the front of the Trailer can cause too great of a Tongue weight on the Trailer and Lift the front of the Tow Vehicle off the ground, diminishing your ability to effectively turn and stop.
 - Load the Weight evenly side to side to avoid overloading the Tires.
 - Always keep the Center of Gravity low to improve the stability of the Trailer.
 - Always secure any load placed in the Trailer to limit shifting of the cargo as this can cause loss of control of the Trailer and Tow Vehicle. Always use properly sized Straps, Ropes, etc.
 - Always follow the Towing instructions and ratings found in your Tow Vehicle's Manual. Familiarize yourself with the Gross Vehicle Weight Rating (GVWR) of your Tow Vehicle, which is the total weight of the load plus the weight of the Trailer itself. Never exceed this rating.
 - Never use the Trailer to transport People, Containers of Hazardous, Flammable, or Explosive Substances.
 - Always make sure the Latches are properly adjusted and locked while towing the Trailer.
-

Using the Dump Bed

! WARNING

- Never stand in, or under the Bed when dumping material from the Bed.
- Never place anything under the raised bed and always ensure that no other adults, children, or pets are near, or around the Bed when lowering it back into place.
- Never load more than 1000 lbs of material into the Bed.
- When dumping material from the Bed, the load may shift causing the Bed to move more quickly.
- Keep hands clear of all potential pinch points when lowering the Bed after dumping.

1. The Dump Bed may be used to haul and dump a number of things from dirt, rocks, stones and logs, to name a few. To dump material from the Bed of the Trailer, remove the Rear Tailgate.

NOTE: To remove the Tailgate, release the Latches on the Tailgate by pulling the Red Handles of the Latches away from the Tailgate (**Figure 24**). Pivot the Tailgate down and then push the Tailgate to the Left to uncouple the Hinges (**Figure 25**).

2. Once the Tailgate has been removed, remove the Dump Latch Pin and raise the Bed to dump the material out by grasping under the front of the Bed and lifting upwards.

NOTE: Over time you may need to adjust your Tailgate Latches. To do so, open the Latch (**Figure 24**) and thread the Latching Arm inwards or outwards to adjust the length of the Latching Arm (**Figure 26**).

Using the Optional Trailer Jack

Prior to towing your Trailer, you must rotate the Optional Trailer Jack into the towing position.

1. Raise the Jack to the highest position by rotating the Jack Handle Clockwise.
2. Attach the Trailer to the Tow Vehicle using a 2" Ball. Make sure to properly latch and lock the Coupler with the Safety Snap Pin.
3. Remove the Hitch Clip and Pin from the Jack Stand Pivot and rotate the Jack up away from the Swivel Tow Hitch (**Figure 27**).
4. Reinstall the Pin and Hitch Clip to hold the Jack in the Tow Position.

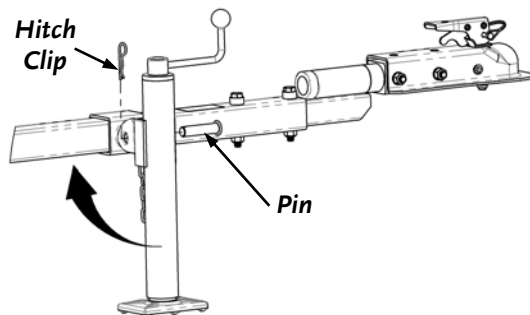


Figure 27

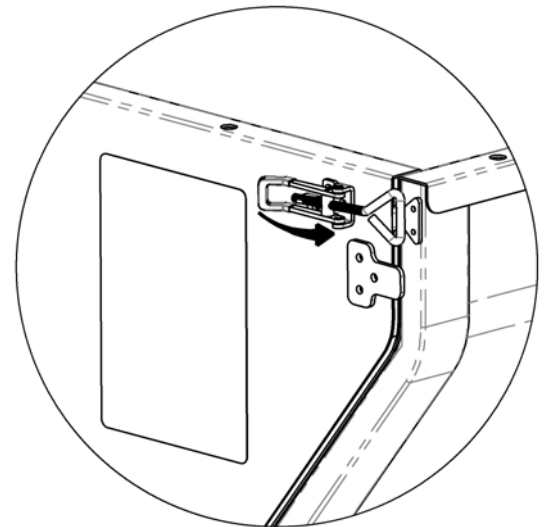


Figure 24

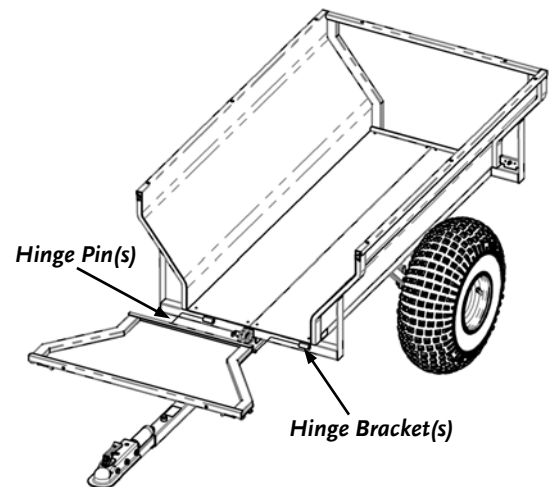


Figure 25

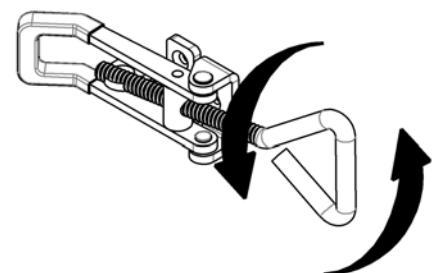


Figure 26

Chapter 4: Maintaining the DR 1/2 TON VERSA TRAILER

Regular maintenance is the way to ensure the best performance and long life of your Trailer. Please refer to this manual for maintenance procedures.

Regular Maintenance Checklist

WARNING

- Before inspecting, or performing any Maintenance make sure the Tow Vehicle is properly Parked on Level Ground and the Wheels of the Trailer are chocked.
- Never position yourself or anyone else under the Bed when it is raised.

PROCEDURE	BEFORE EACH USE	EVERY 12 MONTHS
Check General Equipment Condition	▲	
Inspect the Tow Hitch Coupler and the 2" Ball	▲	
Check all Hardware to ensure everything is properly tightened	▲	
Check Tire Pressure	▲	
Torque Wheel Lug Nuts	▲	
Grease the Swivel of the Tow Hitch, the Receiver and the 2" Ball	▲	
Grease the Wheel Bearings <i>NOTE: If the Trailer is submerged to the Wheel Bearings, or is exposed to large amounts of Debris, grease the Wheel Bearings sooner to avoid damage.</i>		▲

Greasing the Tow Ball, Tow Hitch, and Grease Fittings

Your DR 1/2 TON VERSA TRAILER'S Wheel Bearings were greased at the Factory. Prior to using your Trailer for the first time, you need to lubricate the Swivel of the Tow Hitch, the Tow Hitch Coupler, and the 2" Ball you will be using. You should also periodically lubricate the Tow Hitch Swivel, Tow Hitch Coupler, and 2" Ball to reduce wear and rust on these components.

Tools and Supplies Needed:

- Flexible hose grease gun
- Lithium grease
- Clean cloth

1. Wipe all dirt, etc., from the Grease Fitting(s) with a clean cloth.
2. Apply enough quality general-purpose lithium grease with a hand-pumped grease gun to the Tow Hitch Swivel Zerk Fitting, so a small amount of Grease comes out of the Swivel Fitting (**Figure 28**)
3. Apply the grease to your 2" Tow Ball to reduce friction on the Tow Hitch Coupler and to help prevent rusting and seizing of the ball to the Coupler.
4. Apply the grease to the Pivot Pins of the Latch on the Coupler and to the underside of the Coupler (**Figure 29**).

TIP: The Tow Hitch is designed to rotate 360° to ease greasing of the underside of the coupler.

Adjusting the Tow Hitch

WARNING

A loose connection between the Trailer and Tow Vehicle may cause the Hitch to disconnect or rattle during use. Always check the Hitch for proper tension prior to use.

Tool Needed:

19mm Socket or Wrench

1. Attach the empty Trailer to the Tow Vehicle and latch the Locking Lever. Check for horizontal and vertical play between the Tow Hitch and the 2" Tow Ball. If the Tow Hitch is loose on the Ball allowing for play, the Hitch needs to be adjusted. Inversely, if the Latch is difficult to connect, or disconnect, the Hitch is adjusted too tightly and needs to be loosened.
2. Unlatch the Locking Lever and remove the Trailer from the Tow Ball.
3. Locate the Adjustment Nut on the underside of the Hitch (**Figure 30**). Using a 19mm Socket, or Wrench, rotate the Nut clockwise to tighten and counterclockwise to loosen.
4. Re-attach the Trailer to the Tow Vehicle and latch the Locking Lever. Check for horizontal and vertical play between the Tow Hitch and the Tow Ball. Repeat steps 1-3 until a snug fit is obtained.

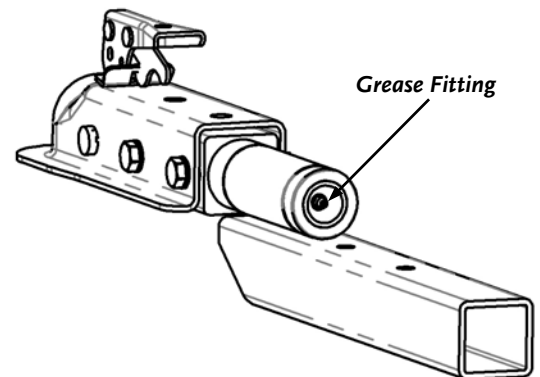


Figure 28

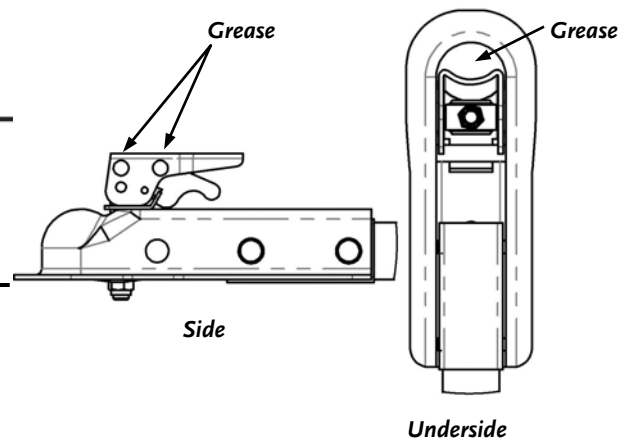


Figure 29

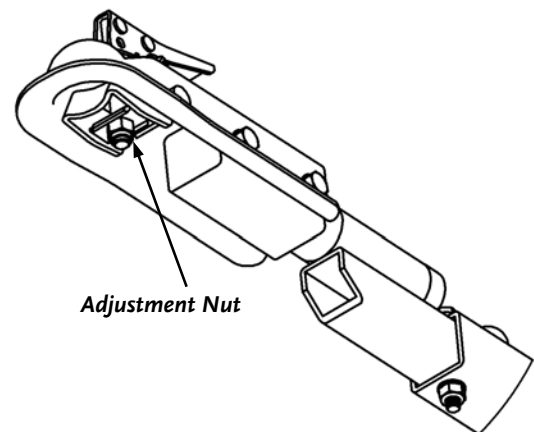


Figure 30

! WARNING

- Lug Nuts and Wheel Studs are prone to damage if loose. Lug Nuts may loosen after installation. Check the Lug Nuts individually for tightness before each use or after a Wheel has been replaced on the Trailer.
- Inspect the Lug Nuts to ensure all are present and tight before operation. Never operate the Trailer if a Lug Nut is missing, or is not properly torqued.
- Always torque the Lug Nuts to 70-80 ft-lbs in an alternating pattern.
- Inspect the Wheel Studs for damage. Never operate the Trailer with a damaged or missing Wheel Stud.
- To check the Wheel Bearings of your Trailer, jack the Trailer off of the ground and check the Wheels for side-to-side looseness. If the Wheels are loose, or Spin with a Wobble, the Bearings must be replaced.
- Before operating the Trailer always check the Tire Pressures of the Trailers Tires with no load in the Bed. They should be adjusted to 25-28 PSI and never in excess of 36 PSI.
- Inspect the Wheels for damage, or bending. Never operate the Trailer if a Wheel is damaged; replace the Wheel immediately.
- Inspect the Tires for damage or cuts. Even if the Tire is not leaking air, damage or cuts could lead to a blow out when the Trailer is loaded. Never operate the Trailer if a Tire is damaged; replace the Wheel and Tire immediately.
- Inspect the Valve Stems of each of the Tires. If any of the Valve Stems are damaged, do not use the Trailer; have the Valve Stem(s) replaced, or replace the Wheel(s) and Tire(s).
- Clear all debris from the area of the Valve Stem(s) before operation to avoid damaging the Stem(s).

Wheel Bearing Replacement and/or Greasing

Tools and Supplies Needed:

- Safety Glasses
 - Gloves
 - Rags
 - Wheel Bearing Grease
 - Flathead Screwdriver
 - Needle Nose Pliers
 - Wire Cutters (Dikes)
 - Soft Faced Hammer
 - 1/2" Drive 5" Socket Extension and 21mm Socket
 - 1/2" Drive Torque Wrench & 1/2" Drive Socket Wrench
1. Using a 1/2" Drive 5" Socket Extension and 21mm Socket, break the Wheel Lug Nuts loose.
 2. Remove the Tailgates and make sure the Dump Pin is correctly inserted and the Hitch Clip installed.
 3. Using the Tow Bar, flip the Trailer over onto its top (**Figure 31**).
 4. Remove the Lug Nuts and the Wheel.

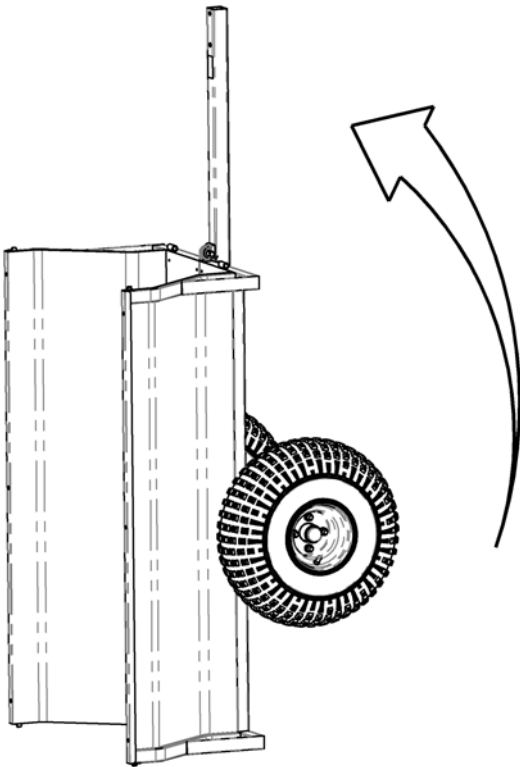


Figure 31

5. Using a Hammer and Flathead Screwdriver, tap the Blade of the Screwdriver into the groove between the Hub and Dust Cap all the way around the Dust Cap with a twisting action of the Screwdriver until the Dust Cap can be removed (**Figure 32**).
6. Using Needle Nose Pliers straighten the Legs of the Cotter Pin and remove it from the Castle Nut (**Figure 33**) and then unscrew and remove the Nut from the Axle Shaft counterclockwise.
7. Pull the Hub off the Axle (**Figure 34**) which will bring the Outer Bearing with it.
8. Slide the Inner Bearing and Dust Shield from the Axle Shaft.
9. Repack the Inner and Outer Bearings (also pack if replacing) with Bearing Grease making sure to fully pack the Rollers.
10. Grease the Axle Shaft and slide a new Dust Shield, Inner Bearing (taper end pointing out) and the Hub back onto the Axle Shaft (**Figure 34**).
11. Grease the inside and outside chamfer of the Hub and slide the Outer Bearing back onto the Axle Shaft with the tapered end facing in until it is firmly seated inside the Hub (**Figure 34**).
12. Reinstall the Castle Nut on the Axle Shaft (finger tight) until it is firmly against the Outer Bearing.

NOTE: Make sure that Hub rotates freely with no side-to-side or up and down play on the Axle Shaft.

13. Align a Slot in the Castle Nut with the Hole in the Axle Shaft and insert a new Cotter Pin fully into the Castle Nut (**Figure 33**). Bend over the Legs of the Cotter Pin with Needle Nose Pliers and cut off the excess using Wire Cutters.
14. Reinstall the Dust Cap using a Soft Faced Hammer and repeat steps 4 thru 14 for the other side.
15. Reinstall the Wheels, flip the Trailer back onto the Wheels and torque the Lug Nuts to 70-80 ft-lbs.

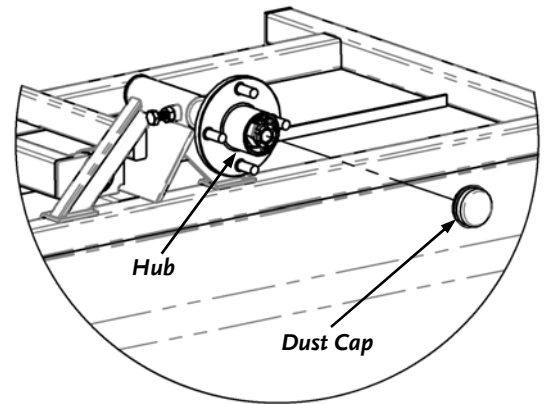


Figure 32

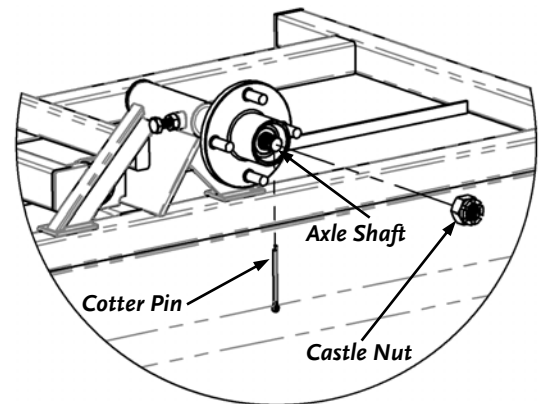


Figure 33

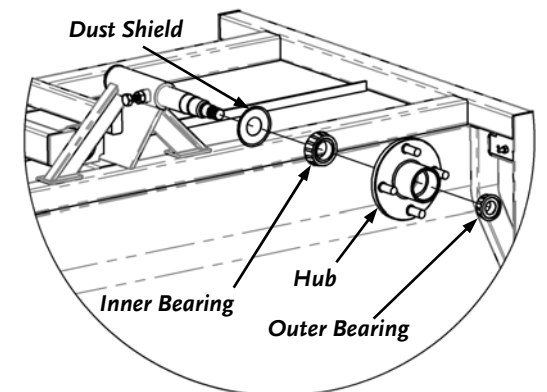


Figure 34

Chapter 5: Troubleshooting

Most problems are easy to fix. Consult the Troubleshooting Table below for common problems and their solutions. If you continue to experience problems, contact us at www.DRpower.com or call toll-free 1-800-DR-OWNER (376-9637) for support.

WARNING

Shut down the Tow Vehicle Engine and apply the Parking Brake before performing any maintenance procedure or inspection on the DR 1/2 TON VERSA TRAILER.

Troubleshooting Table

SYMPTOM	POSSIBLE CAUSE
<i>Trailer binds when turning.</i>	⇒ Grease and adjust the Tow Hitch (see Chapter 4: Maintaining the DR 1/2 TON VERSA TRAILER).
<i>Bed does not sit on the Frame when lowered.</i>	⇒ Be sure the Bed is centered.
<i>Tailgates do not stay latched when transporting the Trailer over rough terrain.</i>	⇒ Adjust the Tailgate Latches (see Chapter 3: Operating the DR 1/2 TON VERSA TRAILER).
<i>Tow Hitch is difficult to connect or disconnect from the Tow Ball.</i>	⇒ Ensure the Tow Ball is a 2" Ball. ⇒ Grease and adjust the Tow Hitch (see Chapter 4: Maintaining the DR 1/2 TON VERSA TRAILER).

NOTES:

Chapter 6: Parts Lists and Schematic Diagrams

Parts List – DR 1/2 TON VERSA TRAILER Dump Bed Assembly

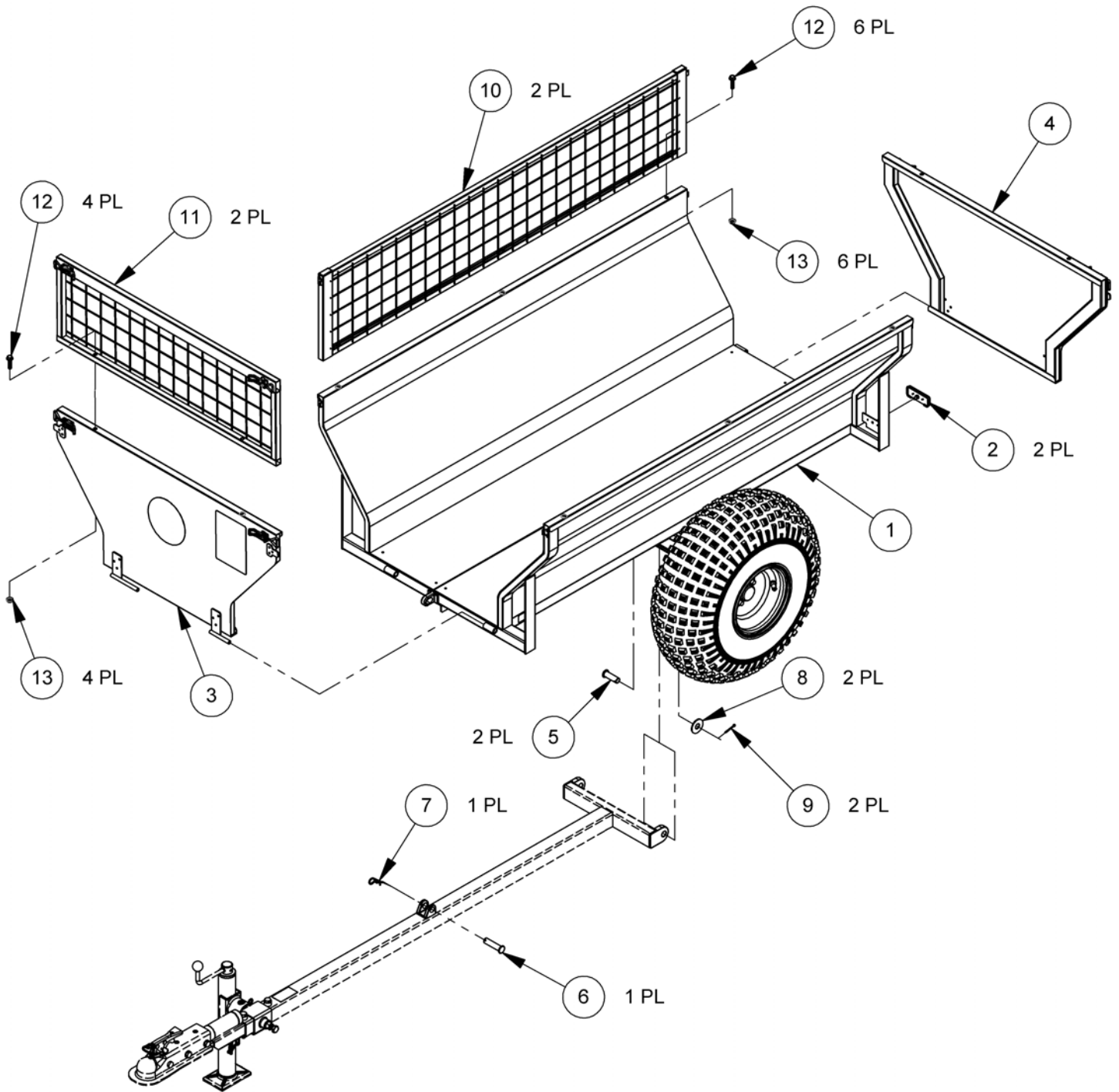
NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description
01	30290	5ft Dump Bed w/Labels
02	30285	Reflector
03	30353	Front Tailgate
04	30294	Tailgate
05	30388	Clevis Pin, 16mm x 50mm
06	30258	Pin, 16mm x 65mm
07	16003	Hitch Clip Pin, 1/2" to 9/16", .12" Wire
08	30361	Washer, M16
09	25547	Cotter Pin, 9/64" x 1-1/4"

Optional

10	30375	Wall Extender, Long
11	30374	Wall Extender, Short
12	30376	Bolt, HHCS, M8-1.25 x 35mm, Class 8, ZP
13	30377	Serrated Hex Nut, M8-1.25

Schematic – DR 1/2 TON VERSA TRAILER Dump Bed Assembly



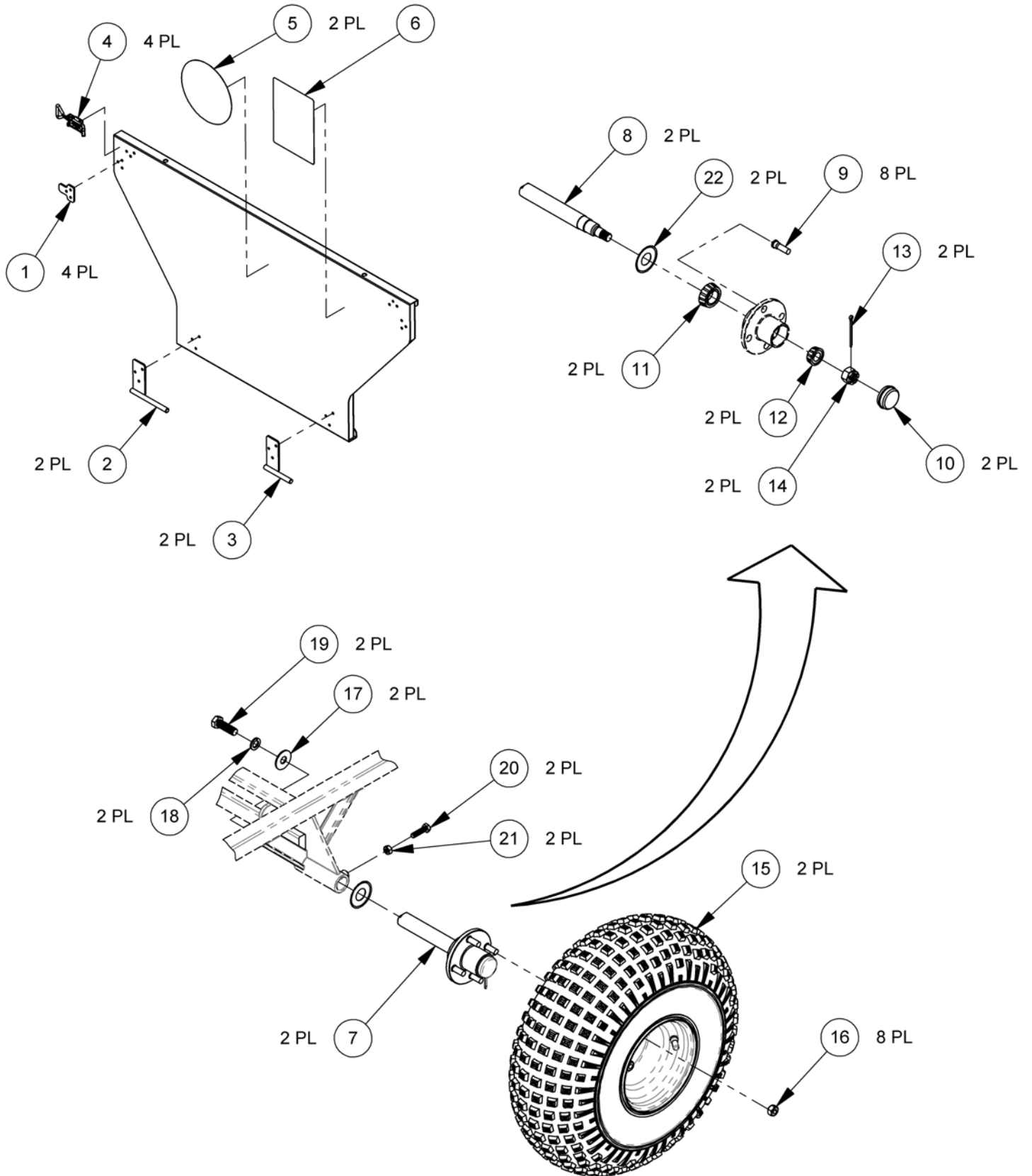
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Parts List – DR 1/2 TON VERSA TRAILER Tailgate and Axle Assembly

NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description
01	30287	Tab Stop, Tailgate
02	29982	Long Hinge, Tailgate
03	29983	Short Hinge, Tailgate
04	29981	Latch, Tailgate
05	23494	DR Logo Label, 6" Round, 4 Colors
06	30354	Operator Label
07	30355	Spindle Hub Assembly
08	30356	Spindle Axle Assembly
09	29960	Wheel Stud
10	29961	Wheel Dust Cap
11	30242	Inner Wheel Bearing, Taper Roller, 30206M
12	30241	Outer Wheel Bearing, Taper Roller, 30204M
13	25311	Cotter Pin, 3/16" x 2-1/2"
14	30243	Slotted Hex Nut, M18-1.5, Class 8, ZP
15	30385	Wheel and Tire Assembly, Off Road
16	29978	Lug Nut
17	30361	Washer, M16
18	30360	Lock Washer, M16
19	30238	Bolt, HHCS, M16-2 x 30mm, Class 8, ZP
20	30358	Bolt, HHCS, M10-1.5 x 40mm, Class 8
21	30359	Hex Nut, M10-1.5
22	31077	Axle Dust Shield

Schematic – DR 1/2 TON VERSA TRAILER Tailgate and Axle Assembly



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Parts List – DR 1/2 TON VERSA TRAILER Tow Bar and Tow Hitch Assembly

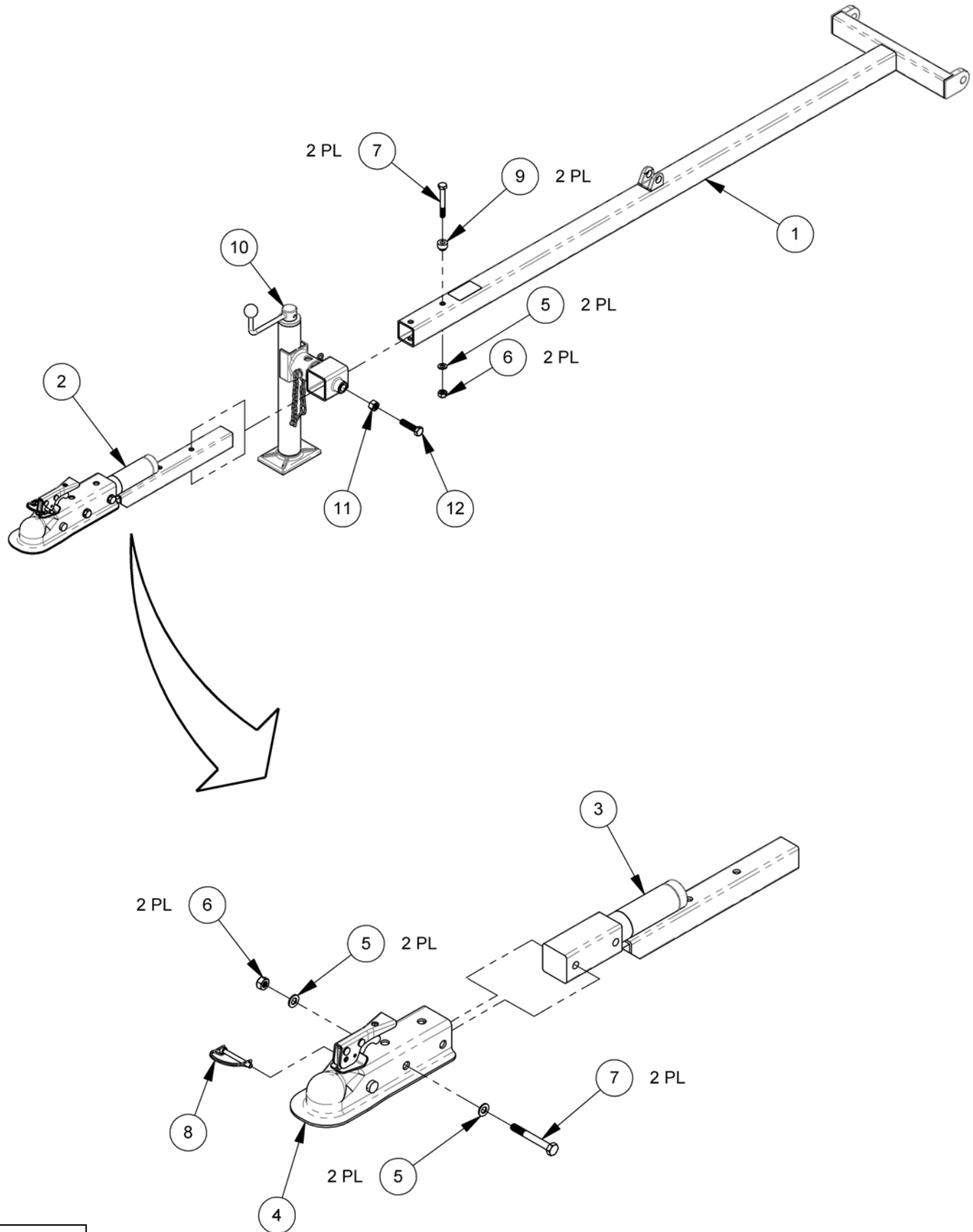
NOTE: Part numbers listed are available through DR Power Equipment.

Ref#	Part#	Description
01	30372	Tow Bar w/Label
02	30386	Tow Hitch Subassembly
03	30387	Swivel Hitch
04	27724	Ball Coupler, 2"
05	30250	Washer, M10
06	30249	Nylon Lock Nut, M10-1.5
07	30248	Bolt, HHCS, M10-1.5 x 80mm, Class 10, ZP
08	30275	Safety Snap Pin, 6.25mm x 55mm
09	30284	Tow Hitch Spacer

Optional

10	30462	Trailer Jack
11	30240	Heavy Hex Nut, M12-1.75, Class 8, ZP
12	30239	Bolt, HHCS, M12-1.75 x 50mm, Class 8, ZP

Schematic – DR 1/2 TON VERSA TRAILER Tow Bar and Tow Hitch Assembly



120424

Daily Checklist for the DR 1/2 TON VERSA TRAILER

To help maintain your DR 1/2 TON VERSA TRAILER for optimum performance, we recommend you follow this checklist each time you use your Trailer.

⚠ WARNING

Before performing any maintenance procedure or inspection, stop the Tow Vehicle Engine and set the Parking Brake.

- [] Check the general condition of the Trailer, e.g.; nuts, bolts, welds, etc.
- [] Inspect the Tow Hitch Coupler and the 2" Ball.
- [] Check all Hardware to ensure everything is properly tightened.
- [] Check Tire Pressure.
- [] Torque Wheel Lug Nuts.
- [] Grease the Axle Pivot Pins, Swivel of the Tow Hitch, the Receiver, and the 2" Ball.

End of Season and Storage

⚠ WARNING

Before performing any maintenance procedure or inspection, stop the Tow Vehicle Engine and set the Parking Brake.

- Clean the exterior of the unit to remove all dirt, grease, and any other foreign material. To prevent rust, touch up painted surfaces that have been scratched or chipped.
- Be sure all nuts, bolts, and screws are securely fastened.
- If possible, store the DR 1/2 TON VERSA TRAILER in a dry, protected place. If it is necessary to store the Trailer outside, cover the Trailer with a suitable protective cover that does not retain moisture. Do not use plastic as this material cannot breathe; it also allows condensation to form, which will cause your Trailer to rust.



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