

BCT80 – Avro Cart



USER MANUAL

Avro Cart BCT80 – User Manual

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Manual Coverage

This manual is intended exclusively for **Avro Cart BCT80 – Covered Baggage Cart** with manufacture year of 2025 (MY2025). It provides instructions, guidelines, and specifications specific to this equipment and should not be used for any other products.

Using this manual for equipment other than those listed may result in incorrect operation, improper maintenance, or potential safety hazards.

Reading This Manual

Read and understand this manual thoroughly before using the equipment to ensure safe and proper use. Failure to follow the instructions may result in damage or injury.

	WARNING Explains something that, if not obeyed, could cause death or injury to people.
	NOTICE Explains something that, if not obeyed, could cause damage to or a malfunction in the equipment.
	DO NOT Means “Do not”, “Do not do this” or “Do not let this happen”
	PART/S INVOLVED Contains information about the part/s.

Pictures in this manual may be different to actual cart. They are only used as a guide to identify specific components.

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Introduction

The **Avro Cart BCT80** is a durable and efficient baggage transport solution designed for demanding environments. Built with high-quality materials, it ensures long-lasting performance and reliability.

With its sturdy design, smooth maneuverability, and customizable features, it is an excellent choice for seamless baggage handling in airports and transportation hubs.



Specifications & Features

- **Carrying Capacity:** 5,000lbs.
- **Weight:** 1,550lbs. (703kg.)
- **Torsion Axles:** Smooth and stable ride, perfect for heavy-duty use.
- **Galvanneal Finish:** Exceptional resistance to rust and corrosion, extending the cart's lifespan.
- **Double Safety Braking System:** Enhanced safety with a reliable braking mechanism and ensuring zero runaway carts.
- **Double-Actuated Brake Bar:** Provides additional control and safety.
- **Turntable Steering:** Excellent maneuverability in tight spaces with NYCAST bushing and disk.
- **4.00 x 8.00 Inch Solid Tires:** Durable and maintenance-free, designed for various terrains.
- **E-Hitch:** Convenient and secure hitching system.
- **Reinforced Vinyl Curtain:** Protects cargo from the elements, ensuring safe transport.
- **Corner Bumpers:** Extra protection against bumps and collisions.

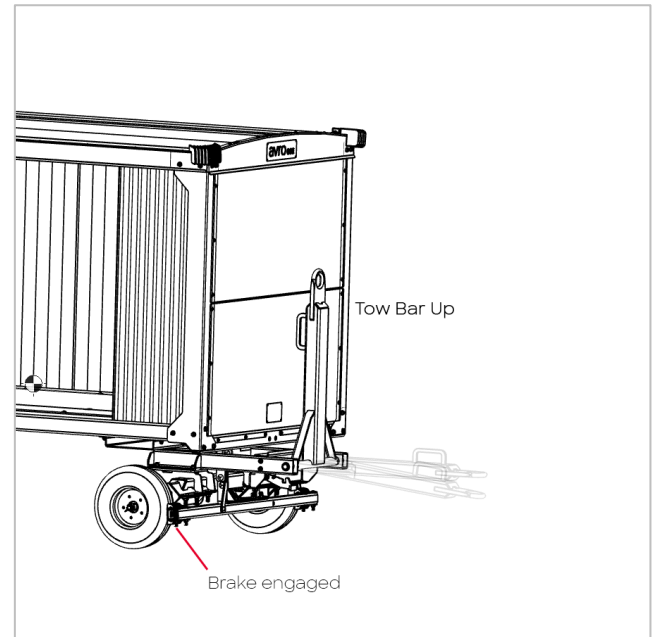
Options

- **Flat pack** for easy storage and transportation.
- **Middle shelf** to maximize storage capacity.

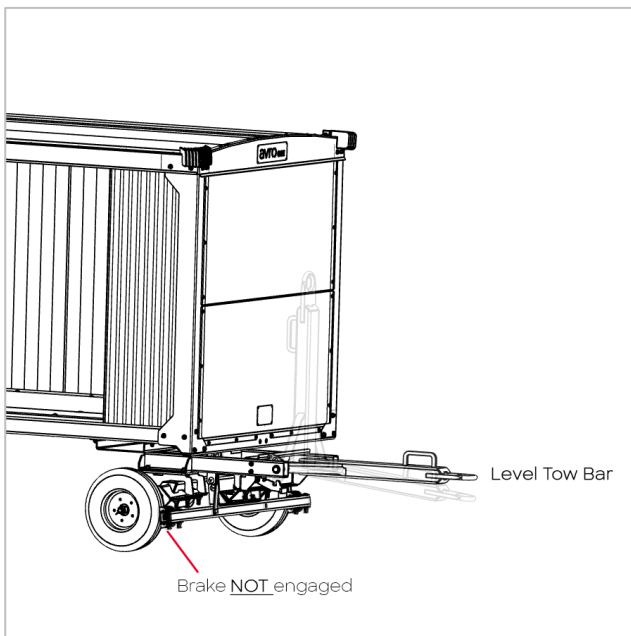
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Double Safety Braking System Action

- Brake Engaged



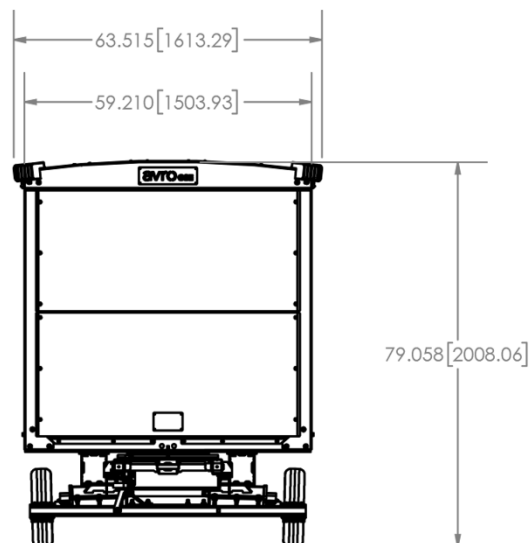
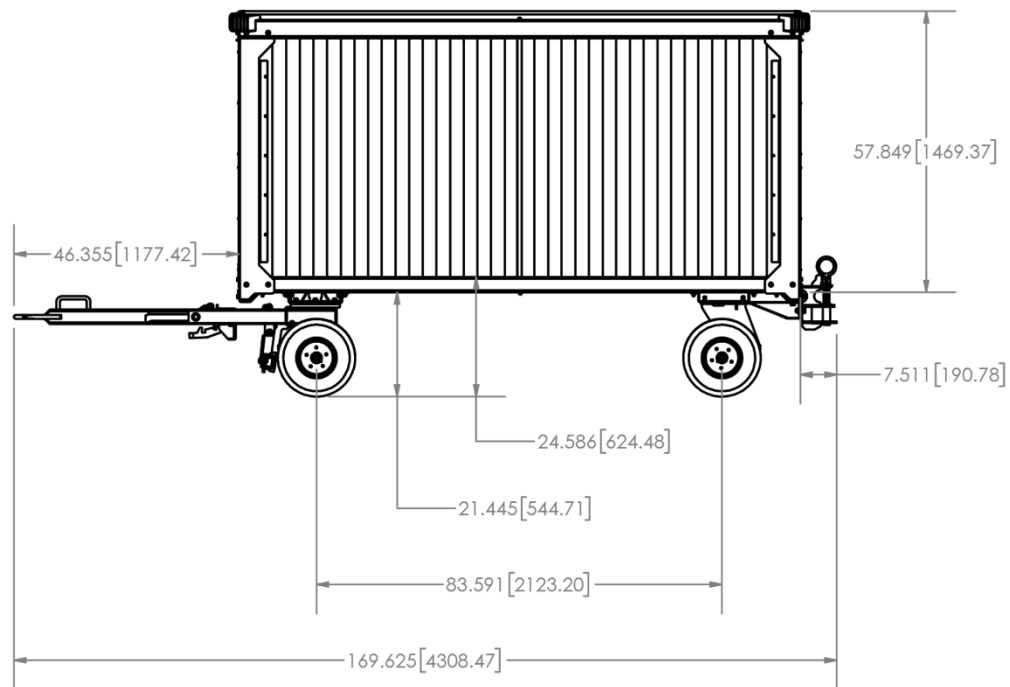
- Brake NOT Engaged



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Dimensions

inch (mm)



Warranty

This equipment is covered by a limited 12-month warranty against defects in materials and workmanship under normal use and service. However, consumable parts – bearings, tires, brake pads, Nycast bushing, corner bumpers, and curtains – are not covered under this warranty.

Unauthorized modifications, improper use, or failure to follow maintenance guidelines may void the warranty.

If you require a copy of our Warranty Policy, please contact us using the contact details indicated on page 26 of this manual.

Operating the Equipment



Stay Aware of the Surroundings: Watch for other GSE vehicles, personnel, and aircraft.



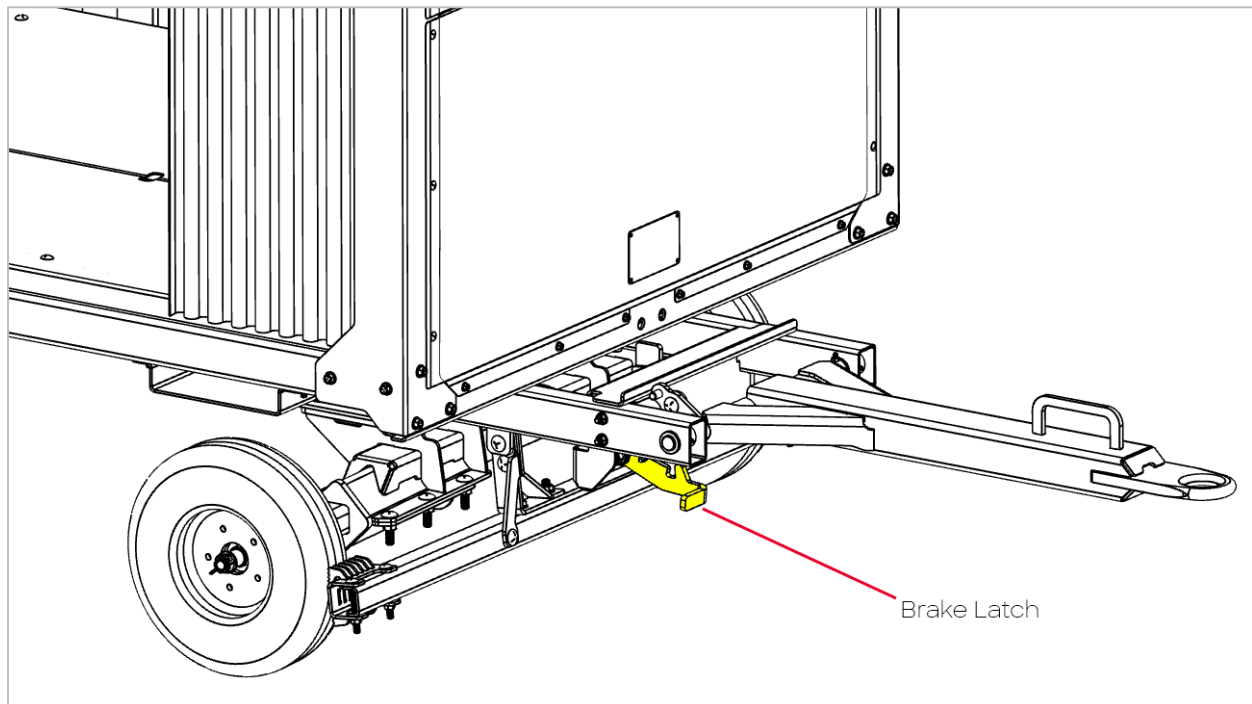
Prior and Post-Use Inspection: Perform a visual inspection on the equipment, ensuring all bolts, connections, tires, brakes, and structural components are secure, intact, and free from damage or excessive wear. Report any issues to maintenance before operation.



Do not leave the cart unattended without engaging the brakes.
Do not exceed the maximum carrying capacity of the cart to avoid tipping and mechanical failure.

Hitching the Avro Cart

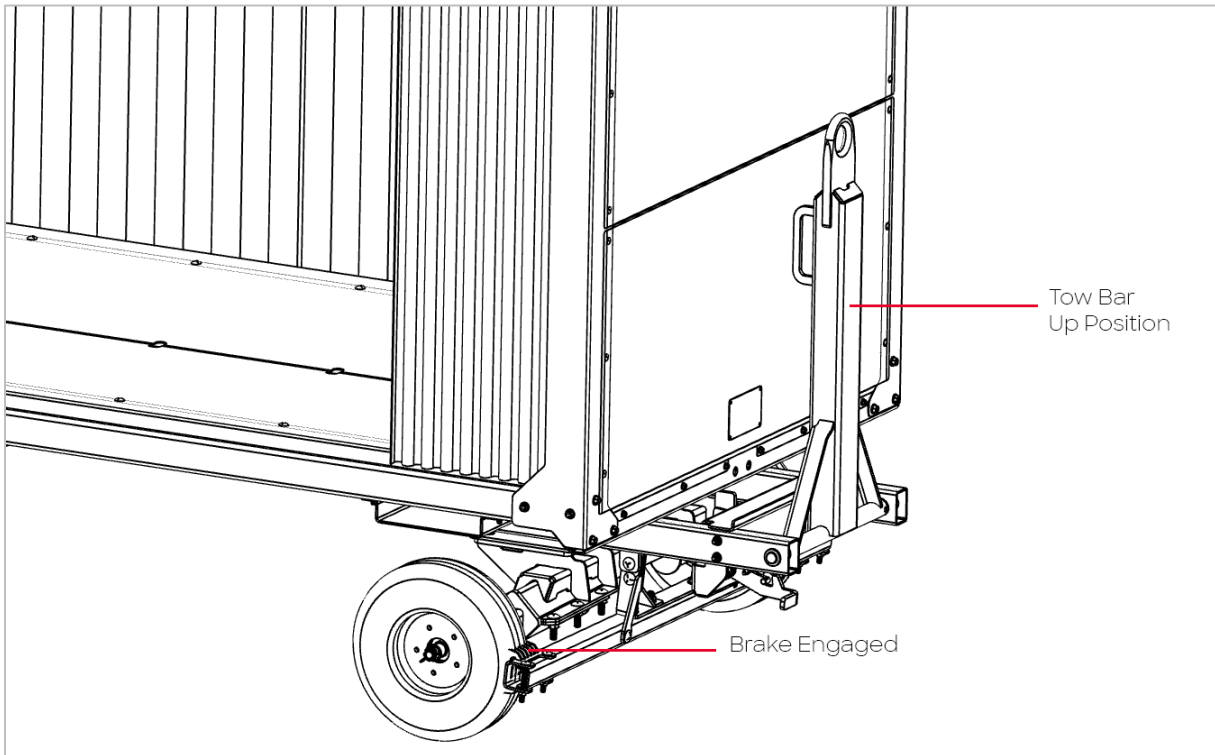
- Ensure that the parking brake is engaged.
- Align the Avro Cart tow bar with the towing vehicle's hitch.
- Secure the hitch using the tow pin lock.
- Release the brake by pressing down on the brake latch with your foot.



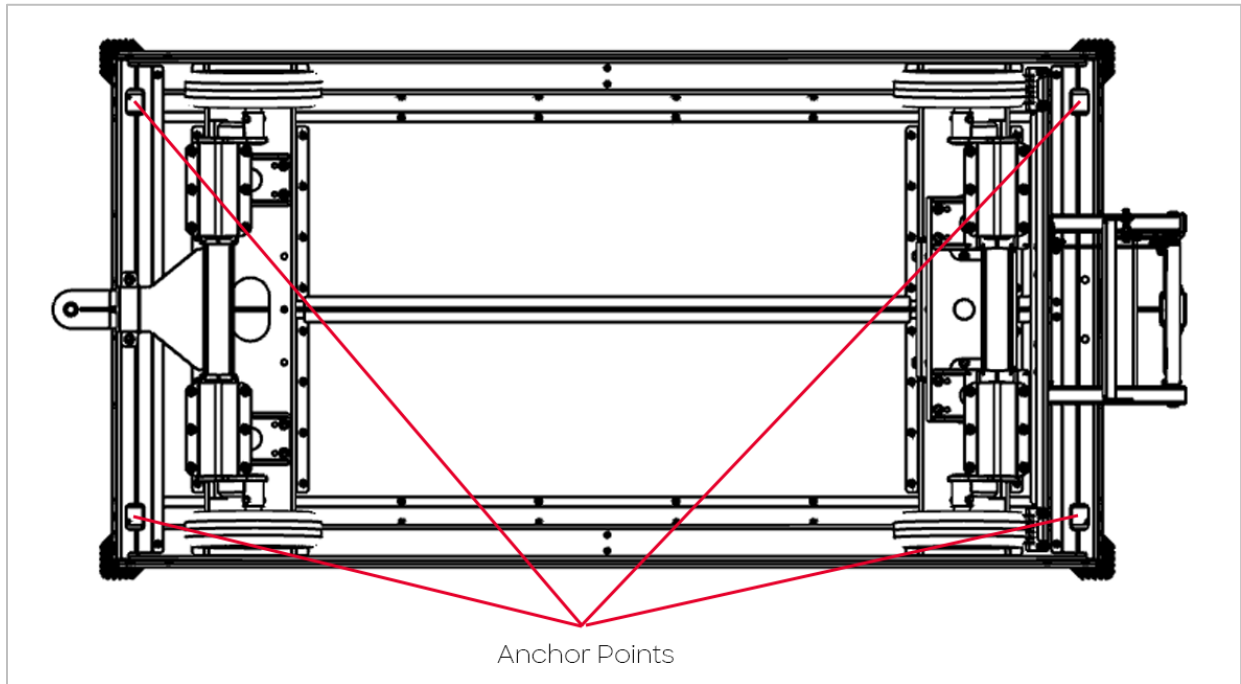
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Parking the Avro Cart

- Park in the designated area.
- Remove the tow pin lock to disconnect the Avro Cart.
- Pull up the tow bar to secure the cart and engage the parking brake.



Transporting the Avro Cart



Use of Proper Equipment: Always secure the cart with lifting equipment, straps or chains rated for its weight capacity. Using improper equipment may cause shifting, damage, or accidents during transport, unloading and loading.



Use Designated Lifting Points: Ensure hoisting equipment does not contact the rear face of the cart to prevent damage or instability.

The Avro Cart can be transported with up to 9 units on a step deck trailer, positioned vertically for optimal space utilization.

Unloading the Avro Cart

1. Park the transport vehicle on a level and stable surface.
2. Clear the unloading area of any obstacles and unauthorized personnel.
3. Remove the transport straps from the step deck trailer.
4. Position the lifting equipment for easy access.
5. Attach lifting chains and hooks securely to the anchoring points of the Avro Cart.
6. Ensure connections are secured and balanced to prevent tilting.
7. Slowly lift the Avro Cart off the transport vehicle.
8. Lower the cart gently to the designated unloading area.
9. Remove the tow bar lock plate.

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10. Tilt the Avro Cart carefully using the lifting equipment until all four wheels are on the ground.
11. Detach the lifting chains and hooks from the anchor points.
12. Position the tow bar to its normal state.



Loading the Avro Cart for Transport

To load the Avro Cart onto the transport vehicle, follow the unloading steps in reverse order, ensuring all connections are secure and the cart is properly positioned and strapped for transit.

Equipment Maintenance

Inspection Activities

Part / Assembly	Frequency		
	Monthly	Every 6 months	Yearly
Brake Assembly	✓		
Suspension Rubber		✓	
Hub Assembly		✓	
Tow Bar Mechanism	✓		
Bolts and Nuts		✓	
Curtain		✓	
Corner Bumpers	✓		
Tires	✓		
Paint Finish			✓

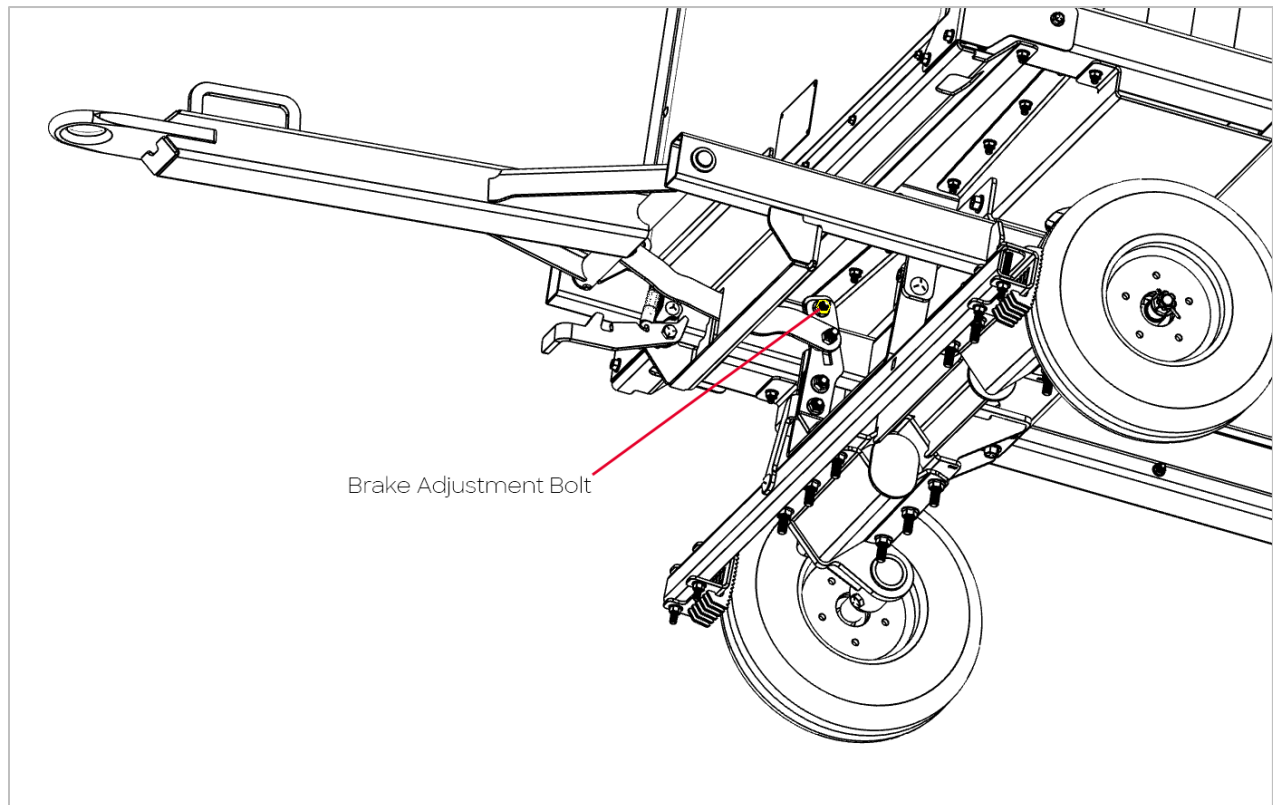
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Adjusting Brakes (As Needed)



Ensure the baggage cart is on a flat surface before starting any adjustments.

1. Inspect the brake system for any mechanical failure or wear and tear. Request replacement if needed.
2. Locate the brake adjustment bolt and nut found under the front chassis.
3. Use 1/2-inch (13mm) wrench to loosen the locking nut on the brake adjustment bolt.
4. Adjust in small increments and check the braking force after each adjustment.
5. Once desired braking force is achieved, tighten the locking nut to secure adjustment with 57 ft.-lbs. torque.
6. Check all components to ensure all are properly tightened.
7. Conduct a final brake test before using the cart back in service.



Suspension Rubber Replacement (As Needed)

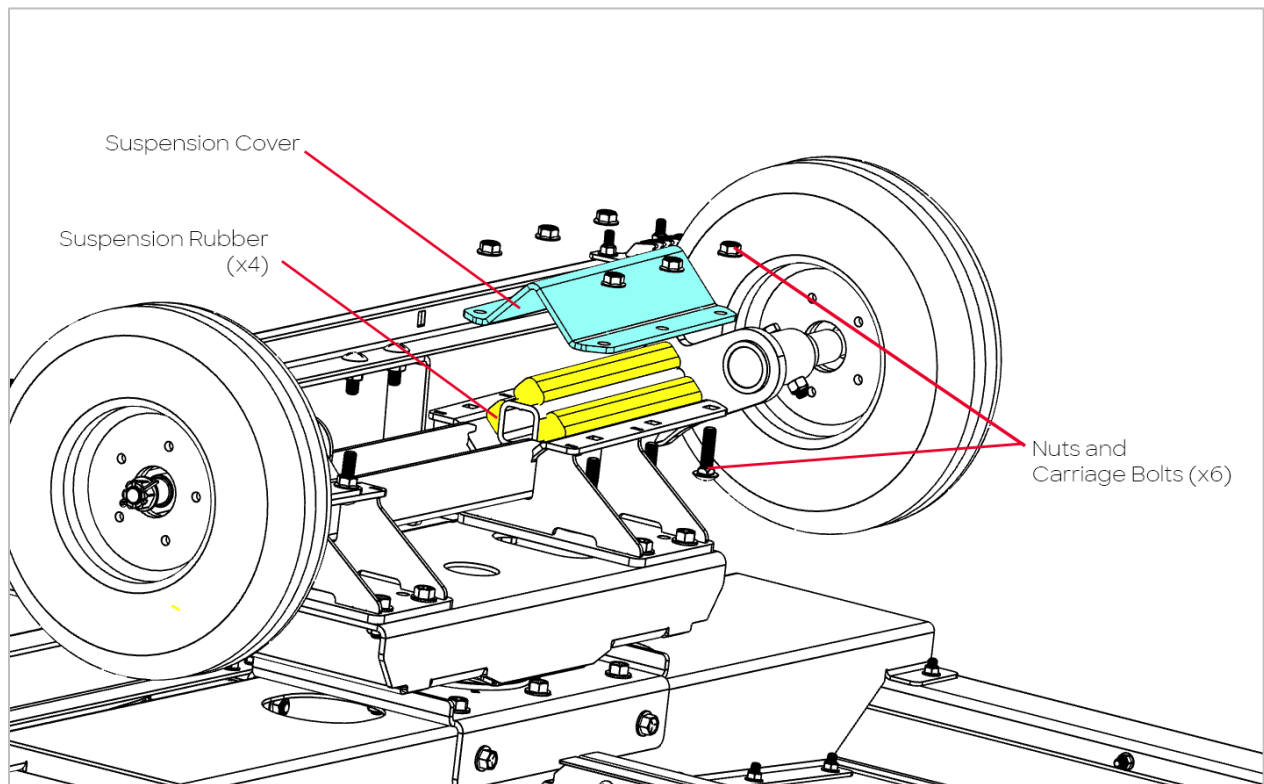


Park the baggage cart on a flat surface and block the wheels to prevent movement before starting.



ITEM	P/N
Suspension Rubber	PRNP00552

1. Identify the wheel side that requires suspension rubber replacement.
2. Lift the baggage cart using a jack and secure it with a jack stand.
3. Use 3/4-inch (19mm) wrench to remove the nuts and carriage bolts (x6).
4. Remove the suspension cover.
5. Replace the suspension rubber with a new one.
6. Reattach the suspension cover.
7. Insert the bolt and tighten the nut with 57ft.-lbs. torque.
8. Lower the baggage cart to normal state.



Hub Assembly Lubrication and Replacement (As Needed)

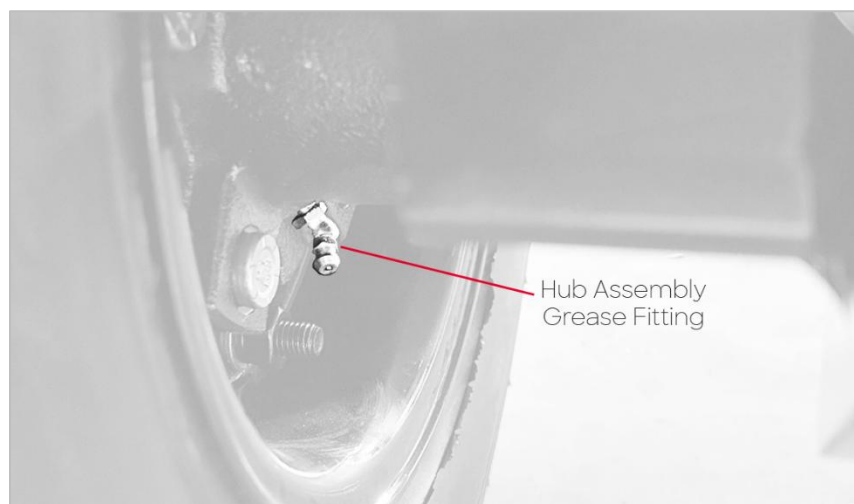


Park the baggage cart on a flat surface and block the wheels to prevent movement before starting.



ITEM	P/N
Hub Assembly	PRNP00555

1. Use 1/2" (13mm) wrench to loosen the lug nuts.
2. Lift the baggage cart using a jack and secure it with jack stand.
3. Remove the lug nuts (x5).
4. Using pliers, remove the cotter pin.
5. Use a 1 1/8" wrench to remove the castle nut.
6. Remove the wheel to access the hub assembly.
7. Detach the hub assembly from the wheel shaft.
- 8a. For Lubrication (each hub assembly):
 - Locate the grease fittings on the hub assembly.
 - Wipe off any dirt and debris to prevent contamination.
 - Using a grease gun, pump all-purpose grease to fittings until fresh grease is coming out.
 - Remove any dripping or excess to avoid dirt buildup.

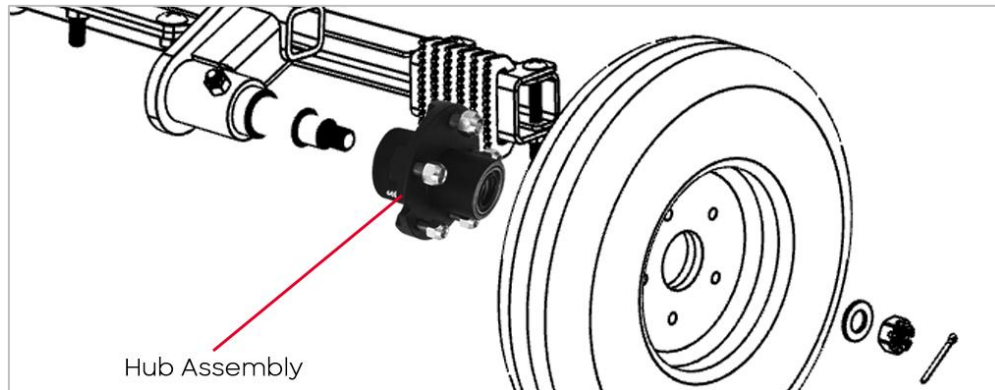


8b. For Replacement:

- Apply an all purpose grease to the hub bearing.
- Install the new hub assembly to the wheel shaft.

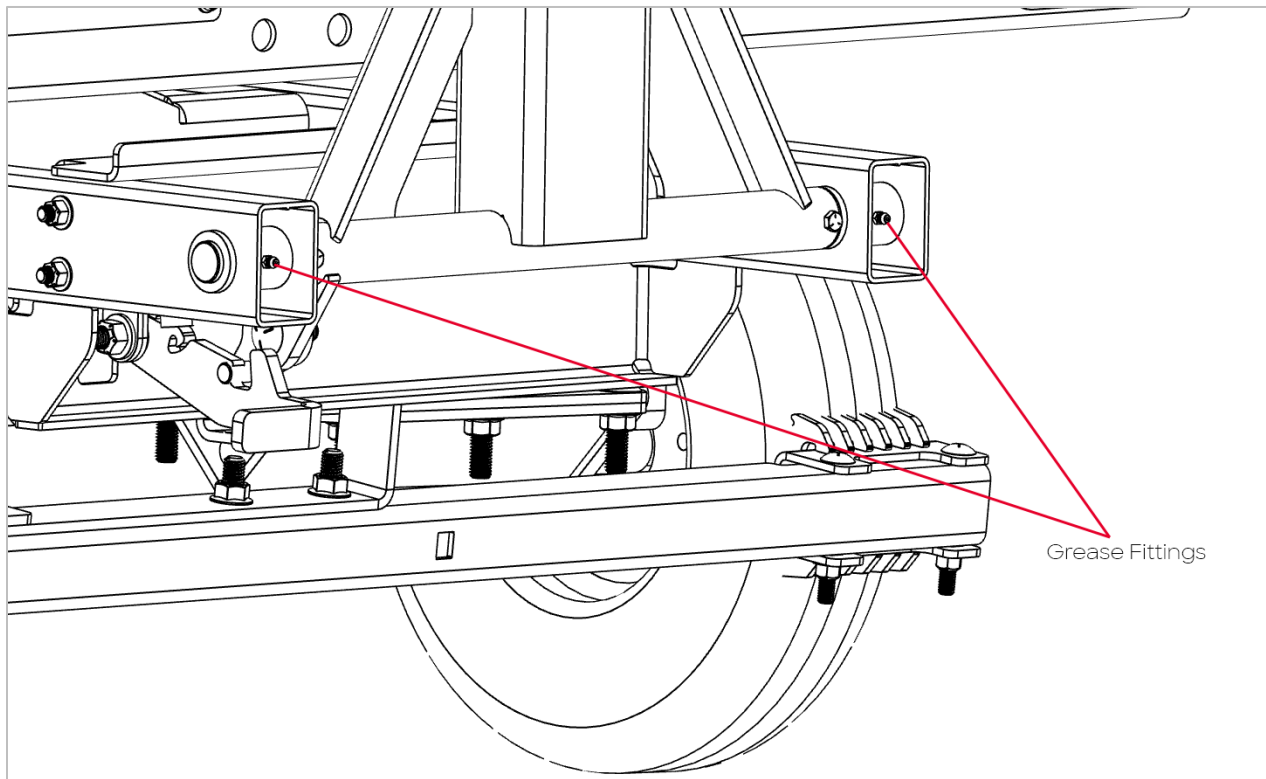
9. Reinstall the wheel, castle nut, cotter pin, and lug nuts.

10. Lower the baggage cart to normal state.



Tow Bar Mechanism Lubrication (Monthly or As Needed)

1. Pull up the tow bar to access grease fittings.
2. Wipe off any dirt and debris to prevent contamination.
3. Using a grease gun, pump all-purpose grease to fittings until fresh grease is coming out.
4. Remove any dripping or excess to avoid dirt buildup.



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Brake Pad Replacement (As Needed)

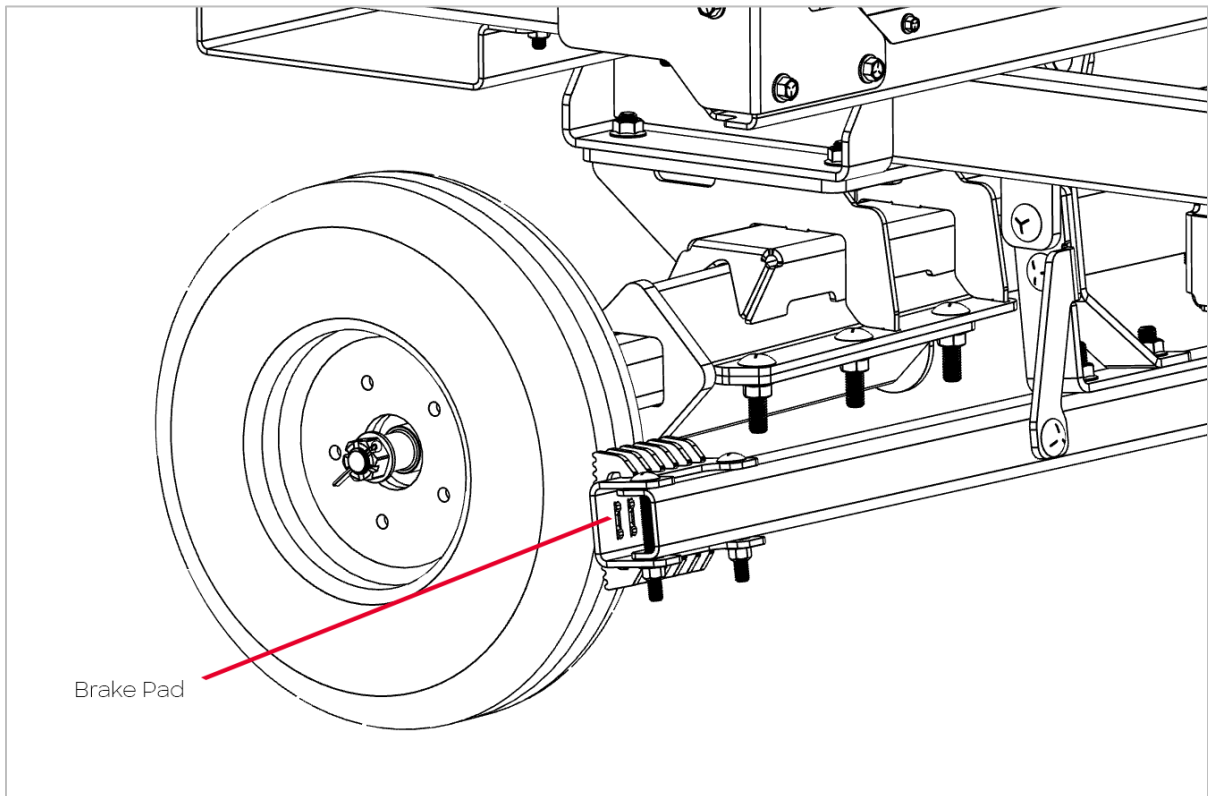


Park the baggage cart on a flat surface and block the wheels to prevent movement before starting.



ITEM	P/N
Brake Pad	PRNP00553

1. Lift the baggage cart using a jack and secure it with jack stand.
2. Use 9/16" (14mm) wrench to remove the locking nuts and bolts (x2).
3. Remove the worn-out brake pads.
4. Clean the brake area from dirt and debris.
5. Install the new brake pads and bolts and locking nuts with 23 ft.-lbs. torque.
6. Lower the baggage cart to normal state.



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Bolts and Nuts Retightening (Monthly)

Inspect and verify the torque of all bolts and nuts on a monthly basis. Refer to the torque guide table on page 25 to ensure correct values are applied.

Cleaning the Baggage Cart

Activities	Frequency
Remove all the loose debris, luggage tags, etc.	Every after use
Remove mud, dust, and small debris build up on wheels and brake pads assembly.	Every before use
Check for visible damage.	Every before use
Wipe the interior platform with damp cloth.	Daily
Apply rust preventive spray to exposed metal parts.	Once a month
Apply dry film lubricant on curtain's bottom rod.	Once a month / As needed



DO NOT use corrosive cleaning agents (acid-based cleaners, alkali-based cleaners, oxidizing cleaners, bleach).

Troubleshooting

Problem	Possible Cause/s	Solution
Baggage cart not moving properly	Wheels are obstructed (dirt, ice, or other objects)	Inspect wheels and clear for any obstruction.
	Worn out suspension rubber.	Inspect suspension rubber and replace if needed.
	Towing hitch is not properly installed.	Inspect hitch connection.
	Overloading.	Ensure maximum load capacity is followed.
	Load not distributed evenly.	Redistribute the baggage properly.
Unusual Noises and Vibration	Loose bolts and fasteners.	Inspect bolts and rivets. Tighten accordingly.
	Dried grease.	Apply all-purpose lithium-based grease.
Brake malfunction	Worn out brakes.	Replace brake pads.
	Brake pad misalignment.	Inspect brake components and tighten nuts and bolts.
	Dirty brakes.	Clean brakes from any dirt or debris.
Hitch disconnecting during use	Improperly secured connection.	Securely lock the hitch before towing.

Replacement Parts List

Item	Description	Part Number
	Corner Bumper – Diamond Rubber	PRNP00550
	Reinforced Vinyl Curtain	PRNP00551
	Solid Tire & Rim, Size 4”x8”	PRNP00003
	Suspension Rubber	PRNP00552
	Brake Pads Assembly	PRNP00553
	Nycast Bushing	PRNP00554
	Hub Assembly	PRNP00555
	Hub Bearings	PRNP00566 (Inner) PRNP00567 (Outer)

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Item	Description	Part Number
	Axle	PRNP00564
	Brake Bar	PRNP00558
	Brake Bar Link	PRNP00559
	Brake Release Foot Pedal	PRNP00560
	Spindle	PRNP00557
	Wheel Nut	PRNP00562
	Suspension Cover Bolt and Nut	PRNP00561 (Bolt) PRNP00565 (Nut)

Appendices

Tightening Torque Guide

SAE Grade 5 Coarse Thread

Thread Size	Plain (ft. lbs.)	Plated (ft. lbs.)
1/4 - 20	8	<i>76 in. lbs.</i>
5/16 - 18	17	13
3/8 - 16	31	23
7/16 - 14	50	37
1/2 - 13	76	57
9/16 - 12	109	82
5/8 - 11	150	112
3/4 - 10	266	200
7/8 - 9	430	322
1 - 8	644	483

Notes

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