HYUNDAI TRANSLEAD

OPERATOR'S MANUAL

Chassis (Extendable/Fixed) | Flatbed | Dolly

This manual contains important safety and operations information. Read this manual carefully and keep it with the trailer at all times.

About this document

This document explains how to use various features of your trailer and provides essential maintenance information.

- Carefully read the safety information and follow the precautions for every trailer feature.
- This document covers optional specifications. It may include descriptions for features your trailer is not equipped with.
- Images of the trailer in this document may differ from the actual trailers.

❖ NOTE

Always keep this document with your trailer for future reference.

All information in this document is current at the time of publication. However, Hyundai Translead reserves the right to make changes at any time to carry out our policy of continual product improvement.

This document applies to the Hyundai Translead chassis, flatbed, and dolly models, and it includes descriptions and explanations of optional and standard equipment. As a result, you may find material in this manual that does not apply to your specific trailer.

About the product's models

The standard chassis, flatbeds, and dollies are designed and constructed for operation within legal highway speed limits on appropriate road surfaces in accordance with the weight restrictions of weight ratings shown on the certification label.

Chassis

The chassis includes the following models.

Extendable

- **20′/40′ Tri-Axle 12-Pin**
  - Carries various types of containers and works in multiple configurations.
  - Carries one 40′ container, one 20′ container, or two empty 20′ containers.
- **40′/45′ Extendable**
  - Carries various types of containers and works in multiple configurations.
  - Carries one 40′ container, or 45′ container.
- **20′/40′ Tandem 6-Pin**
  - Built with extra strength and durability
  - Carries one 20 or 40-foot ISO container.
  - Provides a locking pin release mechanism fully contained within the main beams for added protection against shearing
- **20′/40′ Tandem Spread 12-Pin**
  - Carries various types of containers and works in multiple configurations.
  - Carries one 40′ container, one 20′ container, or two empty 20′ containers.
  - Built with 109″ spread axles that provide increased capacity over standard axle spacing.

Fixed

- **40′/53′ Gooseneck**
  - Built with extra strength and durability.
  - Carries one 40 or 53-foot ISO container.
- **40′ Lightweight Gooseneck**
  - Built to be lightweight and durable with aluminum wheels and two leaf medium arch suspension springs.
  - Carries one 40-foot ISO container.
- **20′ Slider Tandem**
  - Built with extra strength and durability.
  - Carries a 20-foot ISO container.
- **20′ Tri-Axle Slider**
  - Built with high-strength alloy steel and additional strength and stability is added by the third axle.
  - Carries a 20-foot ISO container.

Flatbeds

The flatbeds include the following models.

- **HT Combo Flatbed**
  - Built with fully hot dipped galvanized frames (corrosion-free) and combination floor with aluminum and Apitong wood planks for better protection against the elements.
  - Provides operator-friendly cargo restraint devices.
- **HT Drop-Deck Flatbed**
  - Equipped with a "gooseneck" design feature which provides a lower trailer height, allowing for a lower center of gravity for heavy loads.

Dollies

The dollies include the following models.

- **Single-Axle Dolly**
  - Custom-built with lightweight yet sturdy and hot-dipped galvanization
  - Equipped with air ride suspension (optional)
- **Wide-Base Single Dolly**
  - Built with hot-dipped galvanization
  - Equipped with air ride suspension (optional)
- **Tandem-Axle Dolly**
  - Built with hot-dipped galvanization
  - Hinged drawbar with swivel eye and corrosion resistant features.

Customized chassis, flatbeds and dollies

Customized (Customer design) chassis, flatbeds and dollies can be designed and built to meet your desired specifications and features.

Target users

The trailer should only be operated by users who possess the required skills, experience, and knowledge relevant to the trailer’s operation and maintenance.

Guide to genuine parts

What are Hyundai Translead GENUINE PARTS™?

Hyundai Translead GENUINE PARTS™ are the same parts used by Hyundai Translead to manufacture trailers. They are designed and tested for the optimal safety, performance, and reliability for customers.

Why Hyundai Translead GENUINE PARTS™?

Hyundai Translead GENUINE PARTS™ are engineered and built to meet rigid manufacturing requirements. Damage caused by using imitation, counterfeit, or used salvage parts is not covered under Hyundai Translead's limited warranty or any other warranty offered by Hyundai Translead.

Additionally, any damage to or failure of Hyundai Translead GENUINE PARTS™ caused by the installation or failure of imitation, counterfeit, or used salvage parts is not covered by any warranty offered by Hyundai Translead.

How can you tell if you are purchasing Hyundai Translead GENUINE PARTS™?

Look for the Hyundai Translead GENUINE PARTS™ logo on the package. Hyundai Translead GENUINE PARTS™ are only sold through authorized Hyundai Translead dealers.

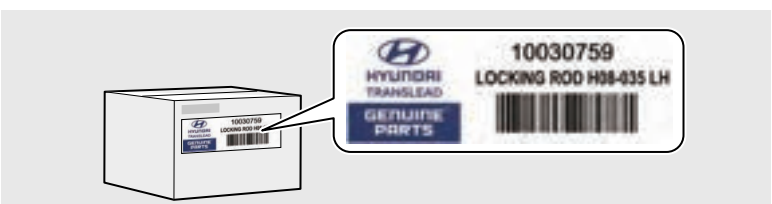


Table of contents

Table of contents

Safety information

Symbols used in this document

The following symbols are used in this document.

Safety symbols

Safety symbols are used to provide information about potential hazards and safety instructions to avoid them.

WARNING

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

CAUTION

Indicates a hazardous situation which, if not avoided, could result in minor injury or damage to or malfunction in the vehicle.

NOTICE

Indicates information considered important but not hazard-related.

Tips and information

The following symbol is used in this manual to provide useful tips or additional information about your vehicle.

NOTE

Indicates helpful tips and additional information about your vehicle.

Safety and instructions labels on the trailer

CAUTION

Do not operate any equipment if you have not read and understood the safety labels attached to the trailer.

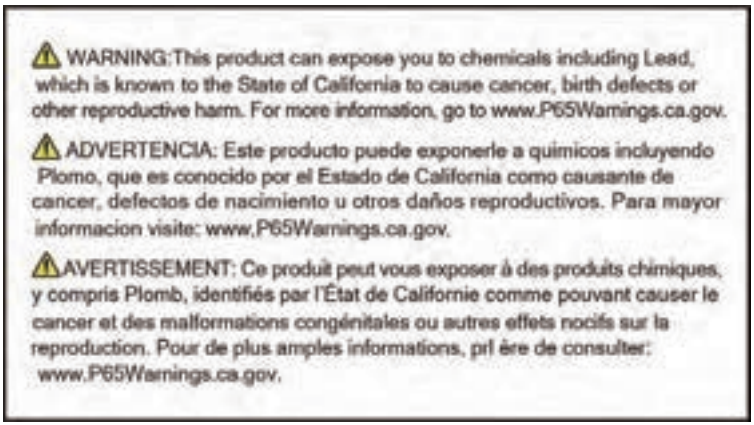
The safety and instructions labels attached to the trailer are intended to deliver safety alerts for safe trailer operation and maintenance. Be sure to read and understand all the safety labels and follow the instructions on the labels.

Operation

Warning for user responsibility

Warning for towing capacity

Caution for slippery floor



Warning for chemical exposure

Loading and weight distribution

Warning for load distribution

Warning for overload hazard

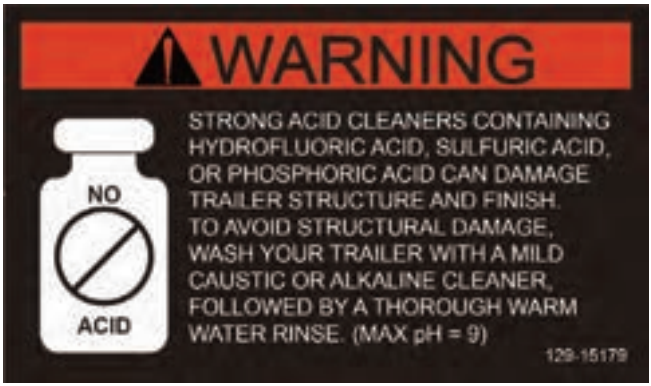
Warning for load support

Warning for forklift operation

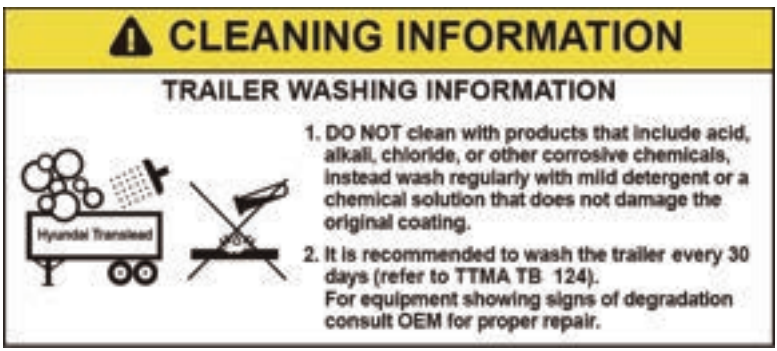
Inspection and maintenance

Warning for wheel nuts inspection

Safety information



Warning for trailer cleaner



Caution for trailer cleaning

FMCSA - PERIODIC INSPECTION

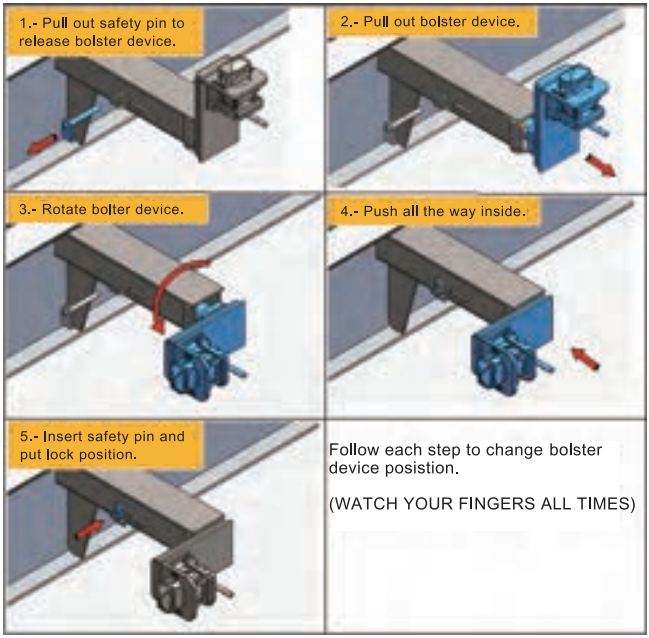
CERTIFICATION

This vehicle has been inspected and repaired as necessary to comply with 49 C.F.R. 396.17 through 396.23 information on the contents of the inspection report can be obtained by contacting the owner/lessee.
Hyundai Translead
8880 Rio San Diego Dr., Suite 600
San Diego, CA 92108

DATE OF INSPECTION:
MONTH: 1 2 3 4 5 6 7 8 9 10 11 12
YEAR: 2017 2018 2019 2020 2021

Certification of inspection

Component instructions



Instruction for bolster device operation

⚠ WARNING

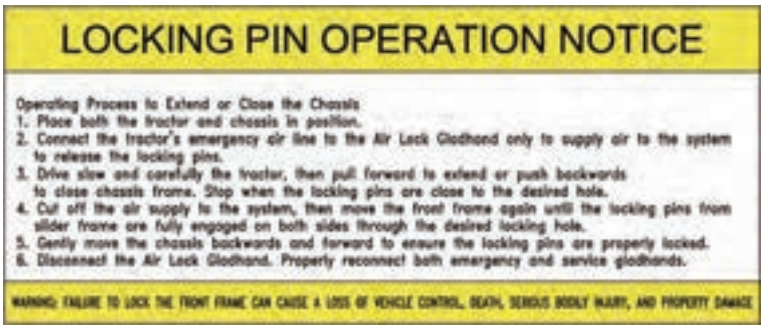
PREVENT LOSS OF CONTROL

DO NOT operate vehicle without all slider pins completely engaged through body rail holes. Unsecured slider suspension can cause loss of vehicle control and result property damage, server personal injury or death. Inspect carefully to ensure complete engagement of all four slider pins through body rail holes.

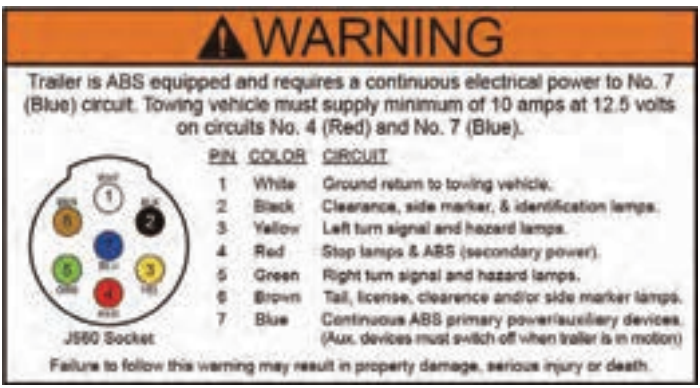
TO POSITION THE SLIDING SUSPENSION:

1. Set both tractor and trailer brakes.
2. If trailer is equipped with movable stop bar, move bar to desired location.
3. Retract slider positioning pins from body rails.
4. If any of the lock pins do not retract, gently rock the trailer back and forth with the trailer brakes applied. As soon as any binding between the pins and the body rail is relieved, the lock pins will retract.
5. Carefully drive foward or backward until the sliding suspension is at the desired location, then apply brakes again.
6. Return lock pins to locked position and visually check that each one completely engages the body rails holes.
7. If available, lock the locator bar in the body rails immediately behind the slider.
8. Inspect the slider at each stop to ensure that all lock pins are fully engaged in the body rails.

Caution for slider operation



Caution for locking pin operation



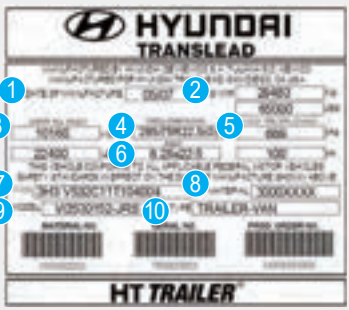
Warning for ABS socket connections

MEMO

About the trailer

Vehicle Identification Number (VIN)

To comply with the Federal Law regulations, each trailer must have its own Vehicle Identification Number (VIN). The VIN plate includes the model designation, date of manufacture, the Gross Vehicle Weight Rating (GVWR), the Gross Axle Weight Rating (GAWR), and other specifications. For more information on the VIN plate's location on the trailer, refer to "Overview of the trailers" on page 25.



1. The date when the trailer was manufactured
2. Gross Vehicle Weight Rating (GVWR)
3. Gross Axle Weight Rating (GAWR) of all axles
4. Tire dimensions
5. The proper cold tire inflation pressure
6. The size of the rims
7. Vehicle Identification Number (VIN)
8. Material number
9. Trailer model number
10. Trailer type

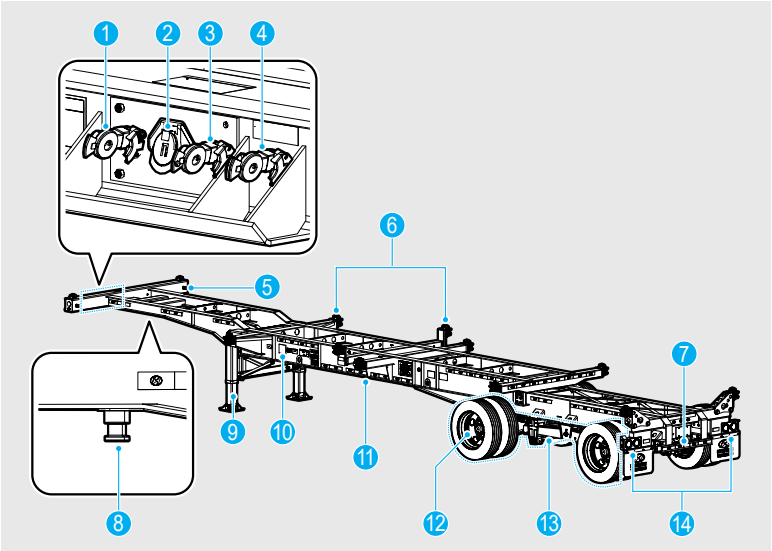
NOTICE

- Do not remove or alter the Vehicle Identification Number (VIN) plate on the trailer. Doing so violates federal laws and regulations.
- Check each state's regulations for the maximum legal loads allowed.
- Any records for this trailer or any reference to this trailer in any correspondence must include the VIN.

Overview of the trailers

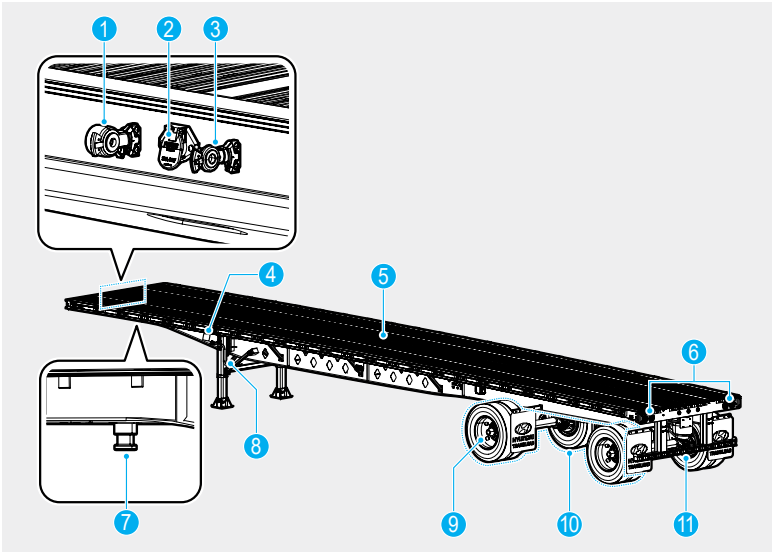
View the location of exterior parts of the trailers.

Chassis



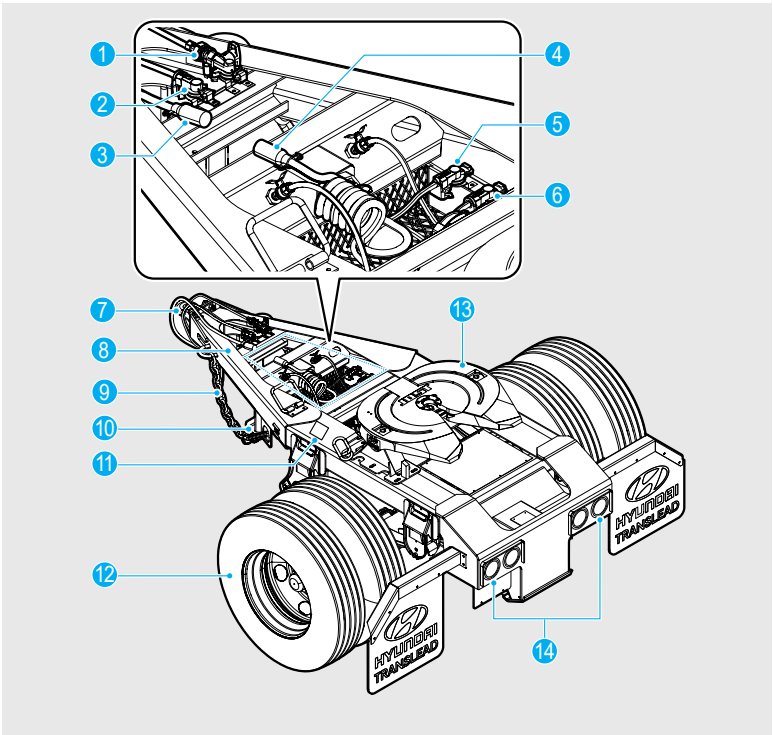
1. Service air line connection (p.60, 105)
2. Electrical 7-way connection (p.60, 142)
3. Emergency air line connection (p.60, 105)
4. Air Lock Gladhand (Pneumatic Locking)(p.79)
5. Locking pin (p.137)
6. Twist lock (p.137)
7. Rear impact guard (p.49)
8. Kingpin (p.31, 58, 102)
9. Landing gear (p.28, 112, 132)
10. Vehicle Identification Number (VIN) plate (p.24)
11. Main beam (p.138)
12. Wheels & tires (p.39, 113, 136)
13. Running gear assembly (p.35, 134)
14. Rear lights (p.107, 142)

Flatbed



1. Service air line connection (p.60, 105)
2. Electrical 7-way connection (p.60, 143)
3. Emergency air line connection (p.60, 105)
4. Vehicle Identification Number (VIN) plate (p.24)
5. Floor (p.101, 140)
6. Rear lights (p.107, 143)
7. Kingpin (p.31, 58, 102)
8. Landing gear (p.28, 112, 132)
9. Wheels & tires (p.39, 113, 136)
10. Running gear assembly (p.35, 134)
11. Rear impact guard (p.49)

Dolly



1. Service gladhand (to lead trailer) (p.68, 105)
2. Emergency gladhand (to lead trailer) (p.68, 105)
3. Electrical 7-way connector (to lead trailer)(p.68, 145)
4. Electrical 7-way connector (to rear trailer) (p.70, 145)
5. Service gladhand (to rear trailer) (p.70, 105)
6. Emergency gladhand (to rear trailer) (p.70, 105)
7. Eye (p.68, 76)
8. Drawbar (p.104, 141)
9. Chains (p.141)
10. Support leg (p.141)
11. Vehicle Identification Number (VIN) plate (p.24)
12. Wheels & tires (p.39, 113, 136)
13. Fifth wheel (p.34, 103)
14. Rear lights (p.107, 145)

Essential parts

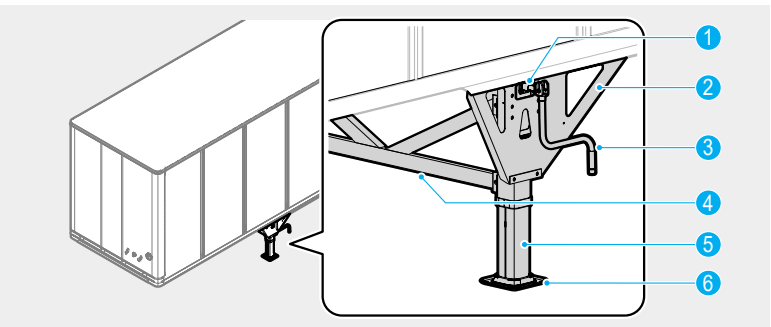
Carefully read the principles and instructions for the essential trailer parts. For safe trailer operation, regularly perform scheduled inspections and maintenance for each component of the trailer.

Landing gear

The trailer landing gear assembly is located on the lower front of the trailer and is used to lower or raise the trailer in order to couple the trailer to the tractor. To ensure safe operation of the landing gear, inspect the components of the landing gear assembly regularly.

❖ NOTE

Both internal and external gear boxes share the same crank direction. For more information on lubrication specifications, refer to “Lubricating the landing gear” on page 127.



1. Crank shaft
2. Landing gear bracket
3. Crank handle
4. K-brace
5. Support leg
6. Cushion foot

WARNING

To avoid potentially dangerous situations that could result in serious injury or death, follow the instructions below.

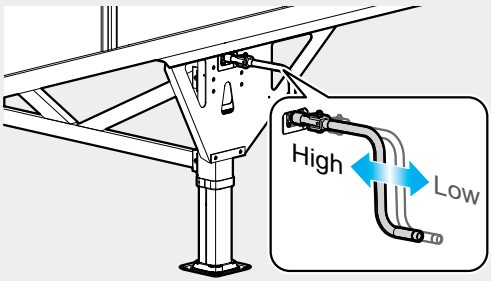
- Before operating the landing gear, visually inspect all braces at each attachment point, including the "hinge bolt," which allows the handle to fold out of the way.
- Only uncouple trailers on level and solid surfaces.
- Before beginning the coupling or uncoupling process, ensure the trailer parking brakes are applied or that the wheels are well chocked.
- Do not uncouple the trailer from the truck without first fully extending the landing gear legs to make contact with the ground and support the trailer weight.
- Before moving the trailer, ensure the lower leg of the landing gear is fully retracted and the crank handle is properly placed in its keeper.
- Remove the crank handle from the keeper, engage in the operating position, and select low or high gear. Make sure the handle shank is fully engaged with the crank shaft. The "hinge bolt" is not adequate to use for cranking the landing gear.
- For safe use of the landing gear, stand facing the handle with two handed grip or one hand on the trailer and the other on the handle.
- Lubricate all moveable parts, bushings and bearing regularly in accordance with the landing gear leg manufacturer's specifications.
- Always place the support legs on a plank for flotation to prevent them from sinking into soil or soft asphalt when a loaded trailer is uncoupled from a tractor.
- Do not force the landing gear beyond its normal raised or lowered positions.

Operating the landing gear

Changing the gear

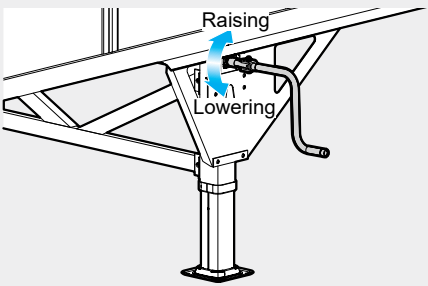
The landing gear provides two speeds.

- The low gear provides the power required to lift the trailer under load. To set the landing gear to the low gear, pull the crank handle.
- The high gear provides quick leg extension and retraction without a load. To set the landing gear to the high gear, push the crank handle.



Raising or lowering the landing gear

To raise the support legs, turn the crank handle clockwise. To lower the support legs, turn the crank handle counterclockwise.



Coupling components

WARNING

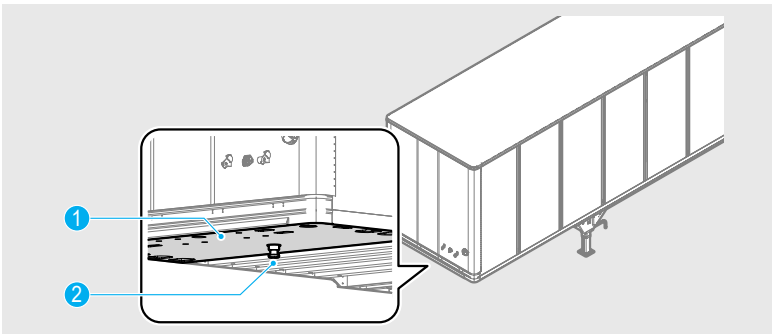
Improper coupling between a tractor and a trailer may cause serious accidents, which may result in property loss, serious injury, and death. Ensure the following before each trip:

- The trailer has been properly coupled with the tractor.
- The tractor has the sufficient capacity and specifications to safely tow the trailer.

The principle of the coupling system is to connect the tractor to the trailer. The integral components of the coupling system are the trailer kingpin on the upper coupler and the tractor's fifth wheel.

Upper coupler and kingpin

The upper coupler is located on the front bottom side of the trailer, and it transfers the weight of the front of the trailer to the tractor's fifth wheel plate. This fabricated steel assembly incorporates the kingpin connected with the tractor fifth wheel to pull the tractor.



1 Upper coupler
2 Kingpin

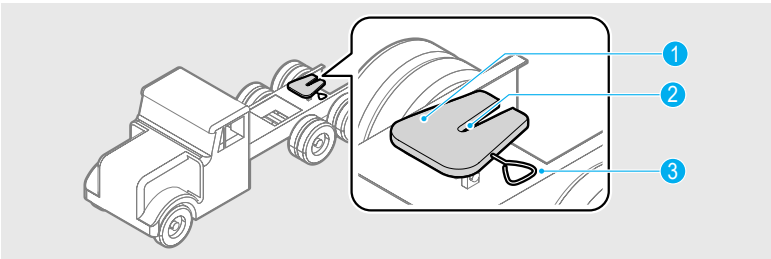
About the trailer

WARNING

- Frequently inspect the coupling components of the tractor and trailer. Property loss, serious injury, or death may result if damaged coupling components fail during trailer operation.
- Damage to the upper coupler or kingpin and any fasteners to the adjacent trailer structure can compromise the structural integrity of the trailer. Therefore, you must inspect the upper coupler and kingpin for damage and immediately report any damage to your supervisor before operating the trailer.
- Do not operate the trailer if you have not visually inspected the upper coupler and kingpin to ensure proper coupling and locking by the fifth wheel jaws. This visual inspection is mandatory and required by law, as instances can occur when a pull test will not dislodge an improperly coupled trailer. Listening for the lock to close is insufficient as a test.
- When repairs are required, be sure a certified repair facility uses certified fasteners identical to ones used by the original equipment manufacturer, both in size and strength rating. Any structural repairs to the upper coupler or installation of a replacement kingpin must be done with extreme caution to replicate the original structure.

Fifth wheel (of a tractor)

The tractor fifth wheel is located in front of the rear axle of the tractor and is used to couple the trailer to the tractor. Before coupling the trailer to the tractor make sure the tractor fifth wheel is properly lubricated.



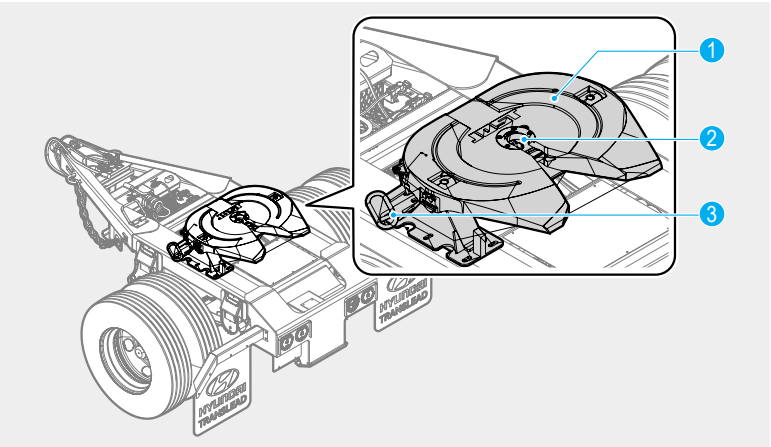
1. Fifth wheel plate
2. Fifth wheel jaw
3. Release lever

WARNING

- Do not use any tractor fifth wheel that fails to operate properly. Always check the fifth wheel for proper lubrication and operation before coupling.
- Do not couple to a closed fifth wheel. Doing so may damage the tractor fifth wheel and trailer kingpin.

Dolly's fifth wheel

The dolly's fifth wheel connects the trailer's kingpin to the dolly. Before connecting the dolly to the tractor, make sure the dolly's fifth wheel is properly lubricated and that it is not damaged to ensure safe operation of any dolly/trailer combination.



1. Fifth wheel plate
2. Fifth wheel jaw
3. Release lever

WARNING

- To avoid dolly/trailer separation, which could result in serious injury or death, operate or maintain the fifth wheel properly.
- Do not couple the fifth wheel while it is closed. Doing so may damage the dolly's fifth wheel and trailer kingpin.

Running gear

The running gear is composed of the moving parts of the trailer including a suspension system, hubs, wheels, drums, rims, bearings, brakes, axles, and tires.

NOTICE

- If the tires or other components of the running gear have been replaced or altered since the trailer was manufactured, the GAWR value on the VIN plate must be changed.
- The upper running gear rail weld attachment to the trailer must be inspected for weld fatigue cracks in compliance with the annual FMCSA inspection requirements.

Suspension system

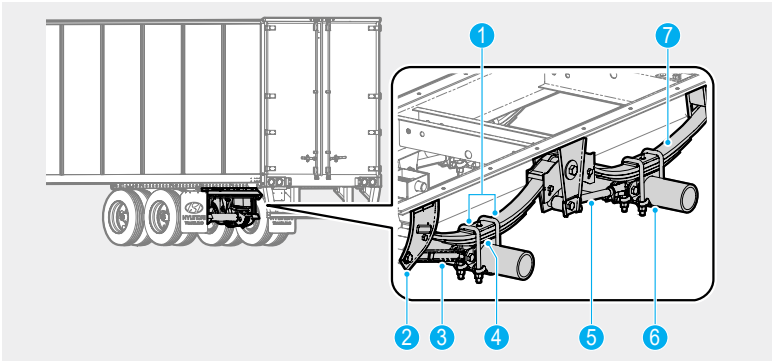
The suspension system is composed of the air spring suspension or leaf spring suspension. It provides a cushioned, level platform, which allows the trailer to operate properly under all legal loads for which it was designed.

❖ **NOTE**

For more information on the specifications for inspections, torque bolts, and the individual air suspension assembly, visit the manufacturer's website or visit the Hyundai Translead website at www.hyundaitranslead.com.

Leaf spring suspension (optional)

The leaf spring suspension assembly is an integral part of the trailer's suspension system, which supports the entire weight of the trailer.



1. U-bolt
2. Front hanger
3. Fixed torque arm
4. Seat riser
5. Adjustable torque arm
6. Bottom plate
7. Spring leaves

WARNING

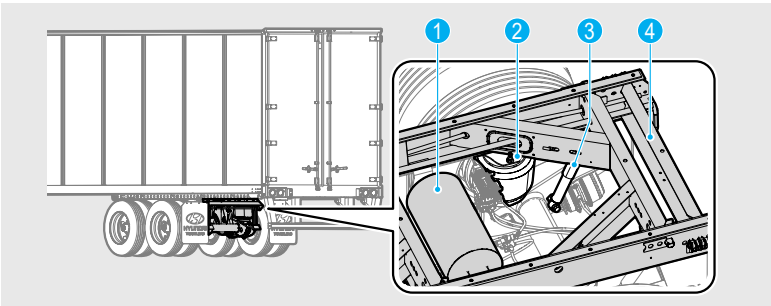
Before operating the trailer, always check if there are any missing or broken parts in the leaf spring suspension. Broken spring leaves, missing or loose U-bolts, or other defective conditions likely to cause axle shifts are hazardous and can cause accidents or breakdowns.

CAUTION

The spring leaves must always be securely clamped to the axle and spring seats to prevent any movement within the U-bolts. Even a slightly loose connection can cause misalignment of the axles, resulting in excessive tire wear and poor trailer tracking.

Air spring suspension (optional)

The air spring suspension assembly helps to protect cargo, ensure driver comfort, and keep equipment operating at peak efficiency. The trailer is equipped with a spring brake priority to ensure the release of the spring brakes before air is directed to the air tank to inflate the air springs. The height control valve regulates the air pressure in the air spring suspension system to control the ride height of the trailer.



1. Air tank
2. Air spring
3. Shock absorber
4. Bogie frame

CAUTION

Do not move the trailer until the tractor's air gauges indicate that the system is fully charged and stabilized. Doing so may damage the suspension system.

NOTICE

In accordance with the Department of Transportation regulations, the following must be inspected before and after operation:

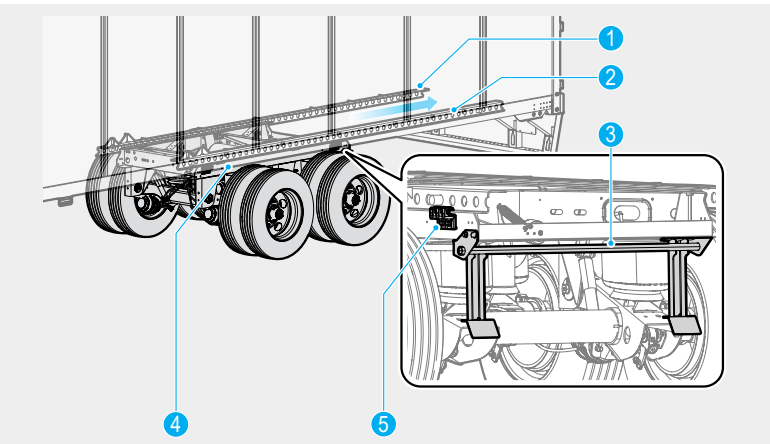
- Inspect each airbag for damage and sufficient inflation.
- Inspect all shock absorbers for damage or internal leakage.
- Inspect the height control valve for secure attachments and proper operation.

Sliding suspension

The sliding suspension assembly is used to adjust the position of the running gear beneath the trailer in order to affect the turning radius and/or adjust the amount of weight between the tractor drive axles and the trailer axles. The sliding suspension can be repositioned in 4” or 6” increments within the length of the upper running gear rail.

❖ NOTE

- For more information on positioning the sliding suspension, refer to “Sliding the trailer tandems” on page 88.
- The both slider rails are perforated at equal intervals to accept the bullet-nosed locking pins from the upper running gear top rail.



1. Right slider rail
2. Left slider rail
3. Surelok
4. Slider frame
5. Rail clip

WARNING

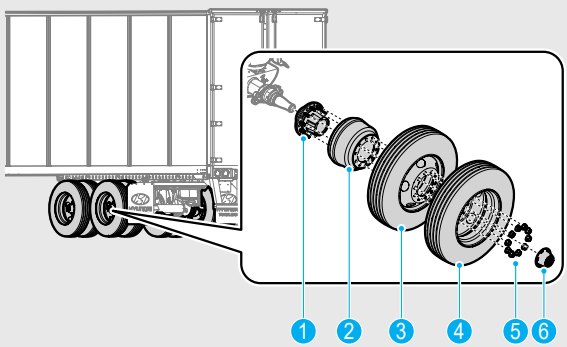
Always lock the sliding suspension. Failure to lock the sliding suspension when operating or parking the trailer can cause a loss of vehicle control, property damage, serious injury, or death.

Wheels and tires

Refer to the following diagram for each component of the wheel assembly. Install the rims and wheels properly to ensure safe operation of the trailer and economical, trouble-free service. Also, use only the specified sizes of studs and nuts.

NOTE

Every tire has its size, load limit, maximum air pressure, and date of manufacture molded into the sidewall of each tire. The Vehicle Identification Plate (VIN), located on the lower front of the trailer, states the Gross Axle Weight Rating (GAWR), the tire size, the load rating, and inflation pressure. For more information on the VIN plate, refer to "Vehicle Identification Number (VIN)" on page 24.



1. Hub assembly
2. Brake drum
3. Inner wheel (rim and tire)
4. Outer wheel (rim and tire)
5. Lug nuts
6. Hub cap

About the trailer

WARNING

- To avoid serious accidents that may result in death or serious injury, frequently inspect the tires for the following:
  - Wear and tear, cuts, and other damage
  - Nails and other sharp objects stuck in the rubber and stones and other objects lodged between the wheels
  - Any damaged valve stems
  - The rated air pressure for safe operation
  - Adequate tread conditions for safe operation
- Before each trip, inspect the wheel-end assembly for loose or missing wheel nuts (lug nuts) and lubricant leaks from wheel hubs to avoid serious wheel-end failures that may result in death or serious injury. For more information on lubricating the wheel-end assembly and tightening the wheel nuts, refer to “Lubricating the wheel-end assembly” on page 119.
- Servicing tires and wheel/rim is very dangerous and must only be performed by trained personnel using proper tools and procedures. To obtain more information on tire and wheel servicing, visit the websites of the US Department of Labor and NHTSA.
- Tires must only be inflated while in a restraining device/safety cage.
- Tires and wheels are very heavy. Be careful when carrying or handling them.
- Always check for any damage to the hubs and wheel ends, and check the oil level before moving the trailer. Cracked or damaged wheels, rims, rings, loose or missing lug nuts or studs can cause wheel loss and result in serious injury or death.
- Do not operate the trailer if the rims or rings are excessively damaged or corroded. Also, deflate the tires before removing the rims or wheels from the running gear.

Brake system

The trailer's brake system consists of an air delivery system that includes plumbing, air tank, emergency valve, service valve, and the Anti-Lock Brake System (ABS). The brake system also includes foundation brakes made up of slack adjusters, S-cams, brake chambers, and brake shoes or pads.

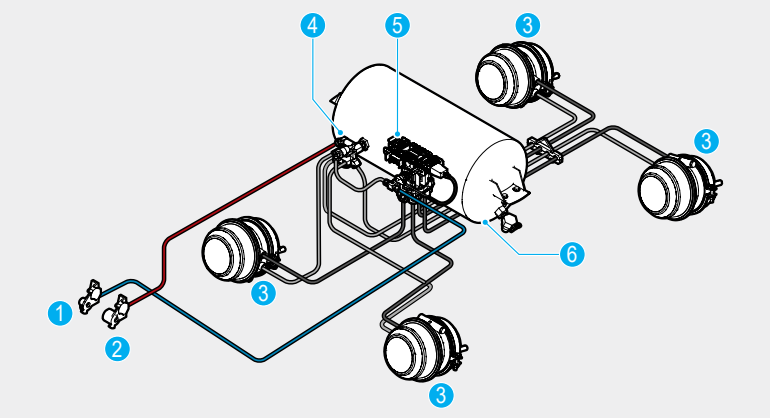
Air system

The trailer's air system is supplied by the tractor brake system and it consists of plumbing throughout the trailer, the gladhands for both the "Service (blue) and Emergency (red)" lines, the air tank, the suspension, and the brake valves. Refer to the following diagram for each component of the air system and its configuration.

❖ NOTE

- The supply system from the tractor is connected to the red gladhand (emergency supply) and provides a constant air supply that releases the parking brakes and maintains consistent air pressure in the air tank.
- The service system from the tractor is connected to the blue gladhand (service supply) and provides a signal for trailer brake activation when the tractor brakes are applied.
- The supply system (emergency supply) allocates air for releasing the spring brakes before charging the air tank and supplying the suspension system.

About the trailer



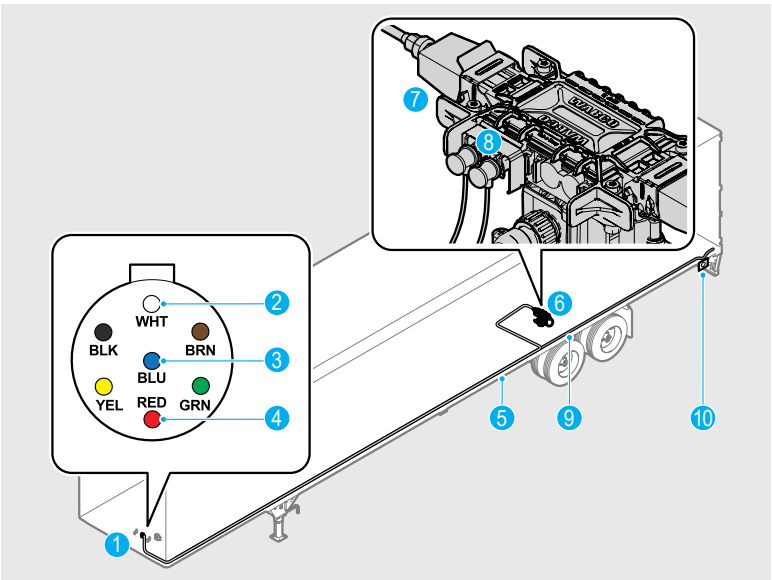
1. Service supply
2. Emergency supply
3. Brake chambers
4. Spring brake valve
5. Electronic Control Unit (ECU) valve
6. Air tank

WARNING

- Do not operate the trailer if the brake system is defective or has not been adjusted adequately.
- Trailer brake systems must be inspected frequently by a qualified service technician for any issues, such as loose fittings or missing or damaged components. Missing or damaged components can result in accidents or breakdowns.
- Serious air loss is very dangerous and can result in accidents or breakdowns.
- After coupling the tractor and the trailer, follow the instructions below.
  - Wait until the air pressure is normal.
  - Turn off the tractor's engine and check for any air leaks on the trailer brake system.
  - Check the brake pressure gauge for signs of major air loss.
- Do not operate the trailer if the indications from the tractor's instruments show improper or insufficient air pressure for brakes, or if you hear any audible warning alarms.

Anti-lock Brake System (ABS)

The Anti-lock Brake System (ABS) monitors the wheel rotation speed and controls braking during extreme braking applications. When a wheel loses traction with the road surface and locks in extreme braking situations, the sensors transmit this dynamic to the Electronic Control Unit (ECU) which regulates air pressure to that brake to release the brake for an instant to regain traction. Refer to the following diagram for each component of the ABS system for the trailer brake system.



1. 7-Way connector
2. White wire to white post (ground)
3. Blue wire to blue post (constant power)
4. Red wire to red post (stop lamp)
5. Main harness
6. ECU valve
7. Power cable connector (of the ECU valve)
8. Sensor cable connectors (of the ECU valve)
9. Indicator light harness
10. ABS indicator light

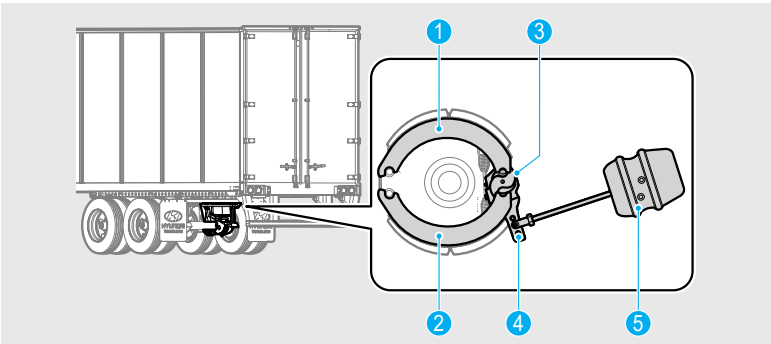
About the trailer

WARNING

- The ABS indicator light located in the trailer's lower-left rear corner, or on near the bottom rail, turns on when electrical power is first applied to the ABS system. If the ABS indicator light does not turn on, the ABS system may be malfunctioning and needs to be serviced. If the light illuminates and stays lit while power is being supplied, the ABS system needs to be examined and repaired by a qualified service technician. Failure to do so can result in property damage, serious injury, or death.
- Avoid driving too fast for the conditions. Operate your vehicle within a safe speed range for the road conditions and payload weight to prevent death, personal injury, or property loss. While the ABS system can help you brake your vehicle under control and safely stop in severe braking situations, the ABS system cannot compensate for excessive speed, inattentive driving, or improper control of your vehicle.

Brake system

The brake system consists of brake chambers, slack adjusters, S-cams, and shoes or pads. During service braking, the brake chambers convert air pressure to mechanical force through the slack adjusters and camshafts to apply the brakes using the brake shoes or pads.



1. Upper brake shoe
2. Lower brake shoe
3. S-cam
4. Slack adjuster
5. Brake chamber

WARNING

- Do not disassemble or repair a brake chamber. Doing so may result in property damage, serious injury, or death due to the accidental sudden release of a high-energy spring.
- Before entering traffic, check the trailer brake operation to ensure they work properly. Also, operate the foot pedal, dash control valves, and hand valve to verify that the brakes are applied and released each time. Always be alert for air leaks during each type of brake application.

- Service brakes and parking brakes must be inspected by the driver. Do not operate a trailer with defective brakes. Inspect the following before and after operation.
  - Check if the chamber plastic end cap is placed properly to prevent dirt and contaminants.
  - Check if any of the components of the brake system are defective, missing, damaged or corroded.
  - If a defect is suspected, place the vehicle out of service until a qualified service technician repairs it.

Slack adjuster

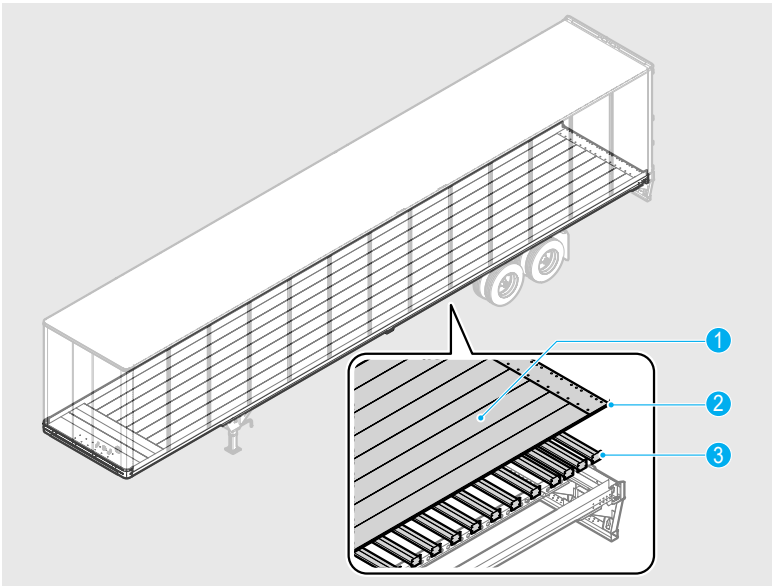
The automatic slack adjusters installed on the trailer maintain a constant brake shoe to drum clearance that ensures constant brake shoe force.

Brake chambers

All trailer brake chambers perform both service and parking brake functions. The service brake stops the trailer after receiving a signal from the tractor. The parking brake is applied when you apply the parking brake. The parking brake is also applied automatically when the air supply is unintentionally lost. To move the trailer before air pressure can be restored, such as during routine maintenance or in emergency situations, the mechanical spring brakes can be manually backed off and released using the cage bolt.

Floor assembly

The floor assembly consists of floor boards and crossmembers. For the reefer trailer, the floor boards are made of extruded aluminum and include a sub floor and composite floor sills above the crossmembers. Refer to the following diagram for each component of the floor assembly.



1. Floor boards
2. Threshold plate
3. Crossmember

About the trailer

WARNING

- Do not damage the integrity of the wood floor boards with excessive nailing in one area.
- To prevent a damage to the floor assembly during forklift entry into the trailer, use dock boards or leveling equipment.
- Do not transport people in the trailer.
- Do not transport hazardous materials without proper permission and safeguards.
- When replacing components of the floor assembly, use materials with identical properties, thickness, and specifications.
- All repairs and adjustments of the components must be performed by trained service personnel.

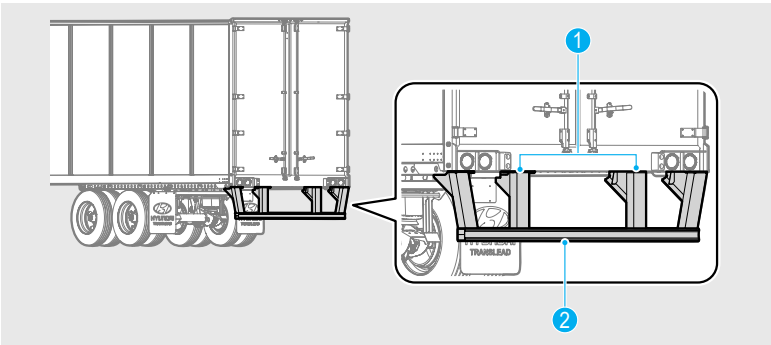
CAUTION

- Do not expose any part of the floor assembly to corrosive materials or solvents. Doing so may void the trailer warranty.
- For safe trailer operation, regularly perform the scheduled inspections of the floor assembly.

Rear impact guard

The rear impact guard is used to reduce injuries and fatalities associated with lighter vehicles by preventing intrusions underneath the rear side of the trailer during impacts and absorbing some of the collision energy. It is mounted on the underside of the rear end of the trailer as an integral part of the trailer rear frame and understructure.

The rear impact guard consists of both vertical and horizontal structural components, forward bracing and numerous welds, hardware, and a certification label or a plate.



1. Vertical bracket assembly
2. Step guide assembly

About the trailer

CAUTION

- Inspect the rear impact guard before operating the trailer.
- Ensure that there are no cracks in the welds, all fasteners are properly secured and no structural members are bent or deformed. Replace or repair any component that does not comply with the dimensional requirements of the Federal Motor Vehicle Safety Standards (FMVSS).
- A damaged rear impact guard that does not satisfy the performance requirements mandated by the National Highway Traffic Safety Administration (NHTSA) and the Federal Motor Carrier Safety Administration (FMCSA) must be replaced or repaired.
- The integrity of rear impact guard must be maintained to meet NHTSA standards.
- Broken welds, bent components, missing or loose fasteners, excessive corrosion or other damage to the rear impact guard can affect its performance if a rear-end collision occurs.
- Detailed guard inspection, service, and repair records must be maintained on all guards for your protection.
- Repairs must be made in accordance with the guard's original design specifications.
- Replace the damaged rubber bumpers.
- The rear impact guard is subjected to impacts and stress during docking and loading operations. If these impacts and the stresses are excessive, the rear impact guard may be damaged.

NOTICE

- Federal Law requires the rear impact guard to meet the specifications listed in the Federal Motor Vehicle Safety Standards 49 CFR Sections 571.223 and 571.224. These federal standards include the requirements on strength and energy absorption, dimensional measurements as to width and road surface to lower horizontal member clearance, and certification of testing.
- At the time of manufacture a label or plate attesting to the certification is placed on the forward-facing surface of the lower horizontal member verifying it meets all standards. Do not remove or alter this label. Doing so is prohibited by law.
- You must take the photographs of any accident involving the rear impact guard to accurately show the condition of the trailer and structure and any vehicle or vehicles involved. These photographs should be taken at the time of the accident and before performing any repairs. The following views of the photographs should be taken.
  - Overall views of the trailer and impacting vehicle or vehicles from different angles showing the positions of all vehicles involved in relation to each other and to the roadway
  - Views of the relative condition of the trailer structure
  - Views of damaged areas
  - Close-up views of the damaged areas, including any surrounding structures

MEMO

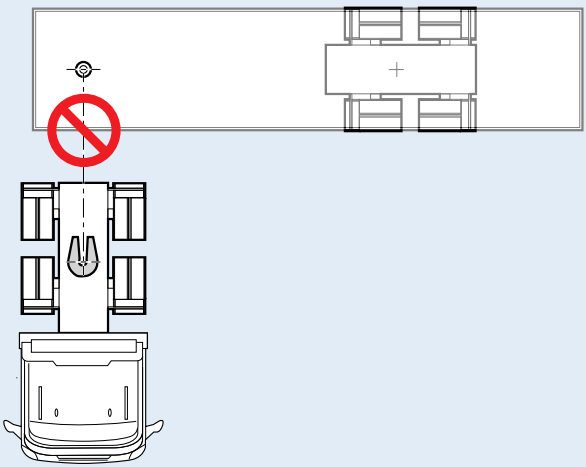
Operating the trailer

Coupling and uncoupling the trailer

Coupling and uncoupling properly can ensure safe operation of both the tractor and trailer, and it prevents potential risks during trailer operation.

WARNING

- Incorrect coupling and uncoupling may result in serious injury or death.
- Do not attempt to couple or uncouple the tractor and the trailer at an angle that may cause jackknifing. Doing so may damage the trailer's body.



- To prevent serious injuries and damage to the trailer or nearby objects, use a spotter during coupling or uncoupling.

CAUTION

Use chock blocks or apply the trailer brakes when uncoupling or coupling the tractor and trailer on the road or in the terminal area. Also, use chock blocks for unusual conditions.

NOTE

- Additional lighting is required if coupling and uncoupling are performed in low-light conditions.
- The coupling and uncoupling procedures may vary based on the specific tractor's model.

Coupling

WARNING

Improper coupling between a tractor and a trailer may cause serious accidents, which could result in property loss, serious injury, or death. Ensure the following before each trip:

- The trailer has been properly coupled with the tractor.
- The tractor has the sufficient capacity and specifications to safely tow the trailer.

Preparations before coupling

Follow the instructions on inspecting the trailer and tractor below before coupling.

Inspecting the tractor's fifth wheel and the trailer's kingpin

Exit the tractor and inspect the fifth wheel and kingpin.

- Check for corroded, damaged, or missing parts (plate, release lever, jaw, and fasteners) on the fifth wheel.
- Check if the mounting on the tractor is secure.
- Check if the fifth wheel plate is in the correct position for coupling.
  - The fifth wheel is tilted down at the rear.
  - The jaws are open.
  - The release lever is in the automatic lock position.
- Lock the fifth wheel in place if your fifth wheel is the sliding type.
- Check if there is enough lubricant on the plate.
- Check the kingpin for damage.

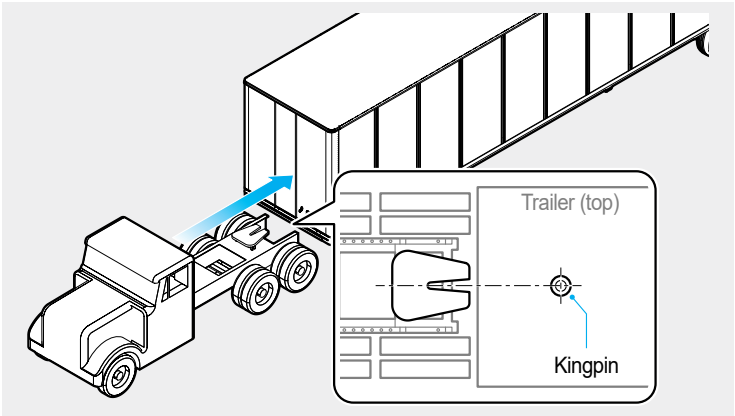
Inspecting the area around the trailer and tractor

Inspect the area for proper coupling and also inspect the exterior of the trailer.

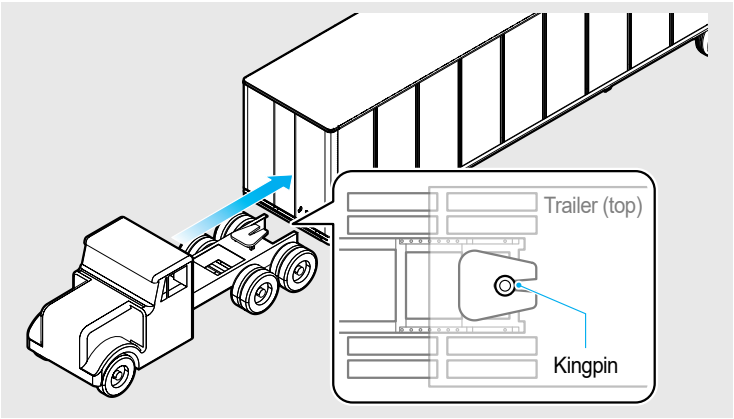
- Check if the area is level and firm enough to support the landing gear.
- Check if the trailer parking brakes are applied.
- Check if the cargo is properly secured.

Connecting the tractor to the trailer

1. Enter the tractor and release the parking brake.
2. Back up the tractor slowly and approach the trailer with the tractor as straight as possible.
   - Ensure the tractor is aligned with the trailer. You should have the tractor roughly in a straight line with the trailer.



3. Back up the tractor slowly until the fifth wheel connects to the kingpin.
   - You must listen for and feel the fifth wheel latching into its locked position.



4. Apply the parking brake, check the trailer coupler height, and inspect the upper coupler and kingpin.
   - The trailer's height must be low enough that it can be raised slightly by the tractor when the tractor is connected to the trailer. If required, raise or lower the trailer adequately.

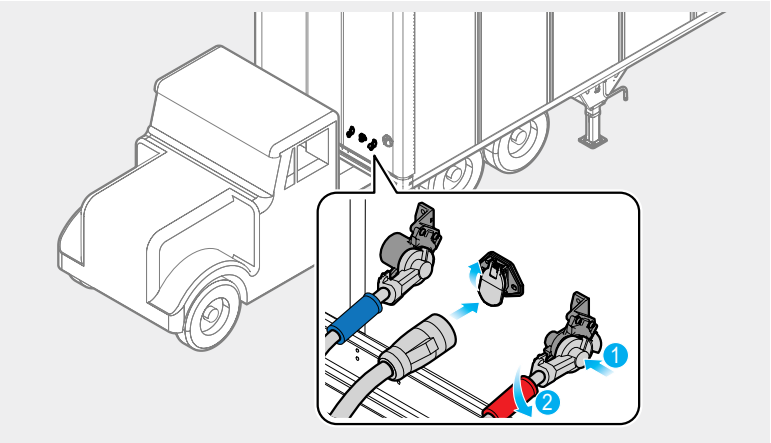
CAUTION

Do not raise or lower the trailer excessively. Doing so may damage the nose of the trailer or the trailer may not be coupled with the tractor properly.

   - Check if the upper coupler and kingpin are aligned.

Connecting the air and electrical lines

Connect the air lines (service and emergency) and 7-way connector from the tractor to the air and electrical system connections on the trailer's front wall.



CAUTION

To prevent air leaks in the gladhands, check for leaks, damage, or wear on the rubber seal of the gladhands. In addition, to properly supply air to the trailer brake system, check if the filter screens on the rubber seals are clean and that they are not blocked by contaminants.

NOTE

- In case of any unexpected movement, wait for a few seconds after making the air connections.
- Ensure the air lines are safely supported so that they are not crushed or caught when the tractor is backing under the trailer.
- Ensure there is enough slack so that air supply lines and the 7-way connector are not disconnected.

Supplying air to the trailer

1. Enter the tractor, open the trailer supply valve to supply air to the trailer brake system, and wait until the air pressure gauges indicate a normal range for the pressure level.
2. Perform the following to check the brake system for crossed air lines.
   - Turn off the tractor's engine and check for air leaks in the brake system.
   - Apply the service brakes, check if the air pressure is within the normal range, and listen for air leaks at the service gladhand.
3. If there are no air leaks, turn on the tractor's engine.

Raising the landing gear

❖ NOTE

For more information on each component of the landing gear and instructions, refer to "Landing gear" on page 28.

1. Pull the crank handle of the landing gear to set it to the low gear.
2. Turn the crank handle clockwise until the landing gear is completely raised and then secure the crank handle.

Checking the coupling connection (test lock)

Using the lowest forward gear and keeping the engine idling, move the tractor forward to check if the fifth wheel is properly engaged and locked.

❖ NOTE

If the fifth wheel is not fully engaged and locked, it will release and the tractor will move forward. If this happens, properly engage and lock the fifth wheel again.

Inspecting the coupling status

Inspect the following to ascertain the coupling status. If necessary, use a flashlight during inspection.

- Ensure there is no space between the upper coupler and fifth wheel.
- Ensure the fifth wheel's jaws lock around the kingpin shank.
- Ensure the fifth wheel's locking lever is in the "Locked" position.
- Ensure there is proper clearance between the air lines and the 7-way connector cable.

⚠ WARNING

You must perform a visual inspection and verify a proper coupling. A visual inspection is required by law.

Uncoupling

Preparations before uncoupling

1. Select a location suitable and firm enough to support the weight of trailer and tractor.
2. Move the tractor in a straight line with the trailer.

> **CAUTION**
> Do not pull out the tractor at an angle. Doing so may damage the support legs of the landing gear and upper coupler.

3. Shut off the trailer air supply valve to lock the trailer brakes.
4. Back up the tractor slightly to ease the pressure on the fifth wheel locking jaws, which allows you to release the fifth wheel locking lever easily, and then apply the trailer parking brake while the tractor is pushing against the kingpin.

Lowering the landing gear

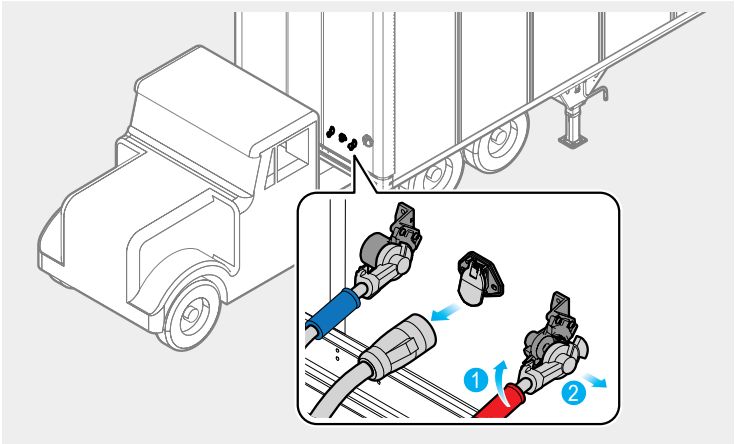
> **NOTE**
> For more information on each component of the landing gear and instructions, refer to "Landing gear" on page 28.

1. Push the crank handle of the landing gear to set it to the high gear.
2. Turn the crank handle counterclockwise until the landing gear touches the ground, and then secure the crank handle. (Do not raise the trailer from the fifth wheel.)

> **NOTE**
> If necessary, place an appropriate support under the landing gear to prevent the trailer from sinking into the ground.

Disconnecting the air and electrical lines

1. Disconnect the air lines (service and emergency) and 7-way connector from the trailer.



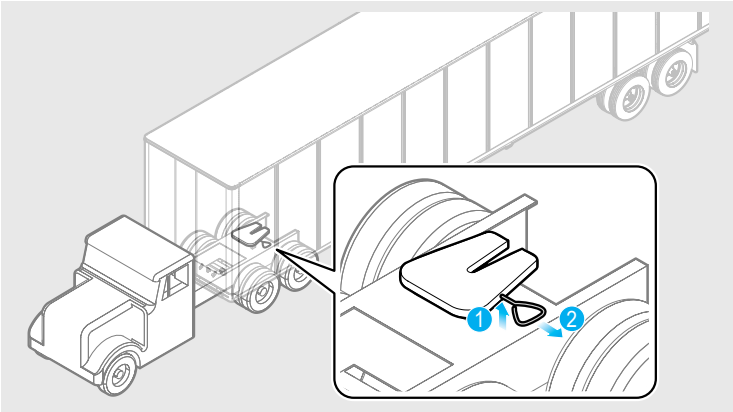
2. Connect the air line gladhands and the 7-way connector to their receivers at the back of the tractor.

CAUTION

Stow the air lines and the 7-way connector into their receivers properly to ensure they are not damaged while driving the tractor.

Disconnecting the tractor from the trailer

1. Raise the release lever of the fifth wheel, and then pull the release lever fully until it is in the "open" position.



WARNING

While handling the release lever, keep your legs and feet away from the rear tractor wheels to prevent serious injuries in case the tractor suddenly moves.

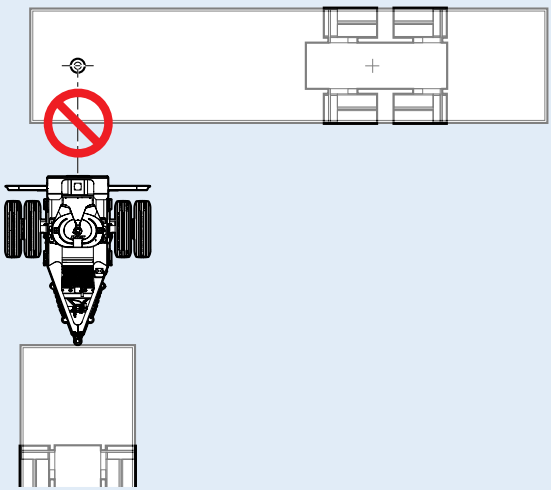
2. Move the tractor forward until the fifth wheel is disconnected from the kingpin, and then stop the tractor when the fifth wheel is fully out from under the trailer. The tractor frame should be still under the front of the trailer.
3. Apply the tractor parking brake, shift to "N" (Neutral), and then turn off the tractor's engine.
4. Exit the tractor and check the trailer and its landing gear for damage.

Coupling and uncoupling the dolly

Coupling and uncoupling properly can ensure safe operation of both the dolly and the trailer, and it prevents potential risks during trailer operation.

WARNING

- Incorrect coupling and uncoupling may result in serious injury or death.
- Do not attempt to couple or uncouple the dolly and the trailer at an angle that may cause jackknifing. Doing so may damage the trailer's body.



- To prevent serious injuries and damage to the trailer or nearby objects, use a spotter during coupling or uncoupling.

NOTE

- Additional lighting is required if coupling and uncoupling are performed in low-light conditions.
- The coupling and uncoupling procedures may vary based on the specific trailer's model.

Coupling

⚠ WARNING

Improper coupling between a dolly and a trailer may cause serious accidents, which could result in property loss, serious injury, or death.

Preparations before coupling

Follow the instructions on inspecting the dolly and trailer below before coupling.

Inspecting the dolly's fifth wheel and the trailer's kingpin

- Check for corroded, damaged, or missing parts (plate, release lever, jaw, and fasteners) on the dolly's fifth wheel.
- Check if the mounting on the tractor is secure.
- Check if the dolly's fifth wheel plate is in the correct position for coupling.
  - The fifth wheel is tilted down at the rear.
  - The jaws are open.
  - The release lever is in the automatic lock position.
- Lock the fifth wheel in place if the dolly's fifth wheel is the sliding type.
- Check if there is enough lubricant on the dolly's fifth wheel plate.
- Check the kingpin for damage.

Inspecting the area around the dolly and trailer

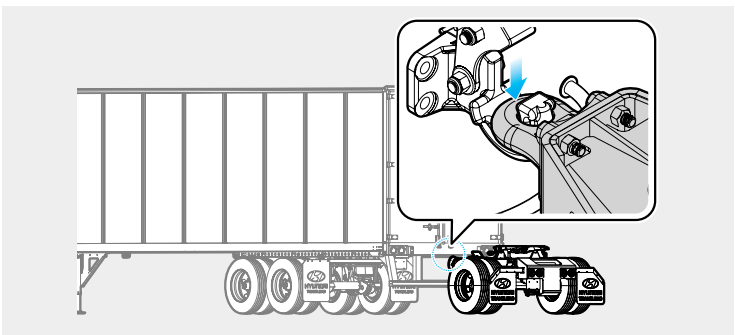
- Inspect the area for proper coupling and also inspect the exterior of the trailer.
- Check if the area is level and firm enough to support the landing gear.
- Check if the trailer parking brakes are applied or that the wheels are well chocked.

Connecting the dolly to the lead trailer

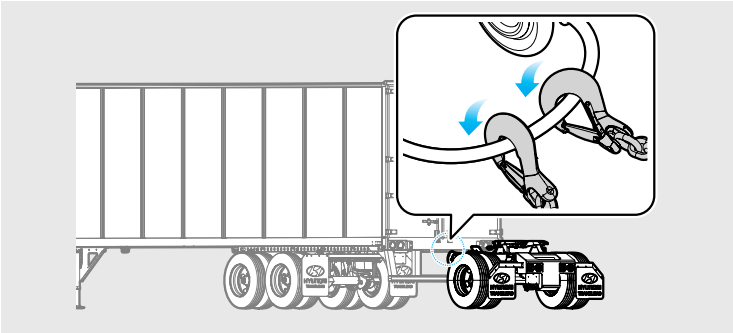
NOTICE

- If the rear trailer is not equipped with spring brakes, drive the tractor close to the trailer, connect the emergency line, charge the trailer air tank, and disconnect the emergency line. This will apply the trailer emergency brakes if the slack adjusters are correctly adjusted.
- For safe operation, the more heavily loaded trailer must always be in the first position behind the tractor. The lighter trailer should be in the rear.

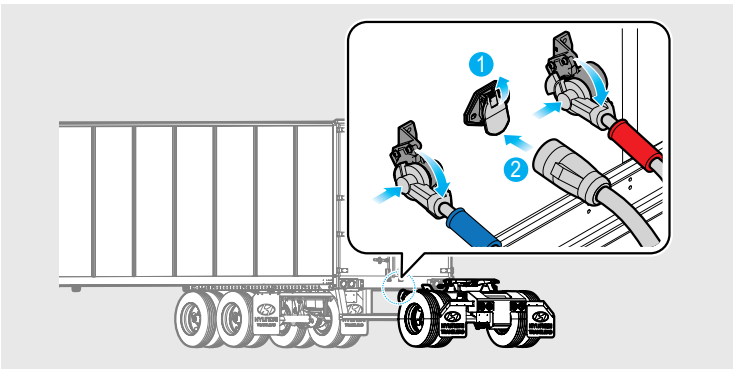
1. Position the dolly in front of the lead trailer.
2. Release the pintle hitch on the back of the lead trailer, and then connect the dolly's eye to the pintle hitch. Make sure no hands are touching the dolly's eye while hooking the dolly to the lead trailer.



3. Connect the safety chains to the lead trailer.



4. Connect the air lines (service and emergency) and 7-way connector from the dolly to the air and electrical system connections on the lead trailer.

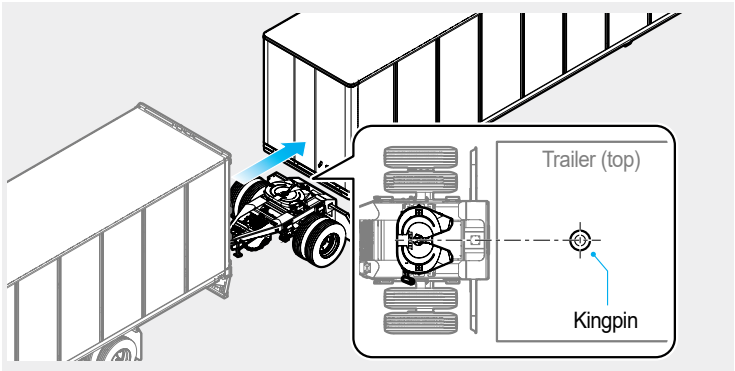


CAUTION

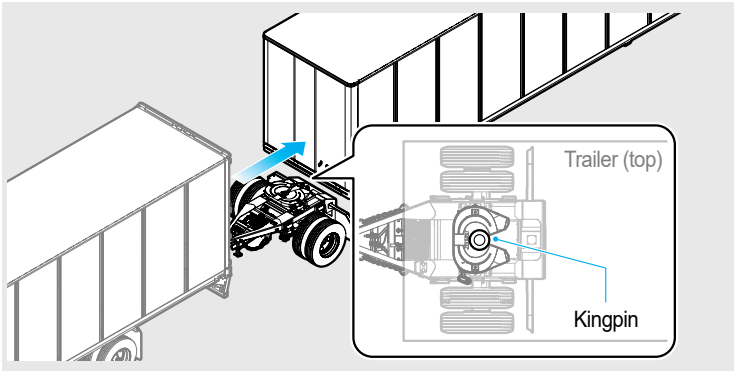
To prevent air leaks in the gladhands, check for leaks, damage, or wear on the rubber seal of the gladhands. In addition, to properly supply air to the trailer brake system, check if the filter screens on the rubber seals are clean and that they are not blocked by contaminants.

Connecting the dolly to the rear trailer

1. Enter the tractor and release the parking brake.
2. Back up the tractor slowly and approach the rear trailer with the dolly as straight as possible.
   - Ensure the tractor with the dolly is aligned with the rear trailer. You should have the tractor roughly in a straight line with the trailer.



3. Back up the tractor slowly until the dolly's fifth wheel connects to the rear trailer's kingpin.
   - You must listen for and feel the fifth wheel latching into its locked position.

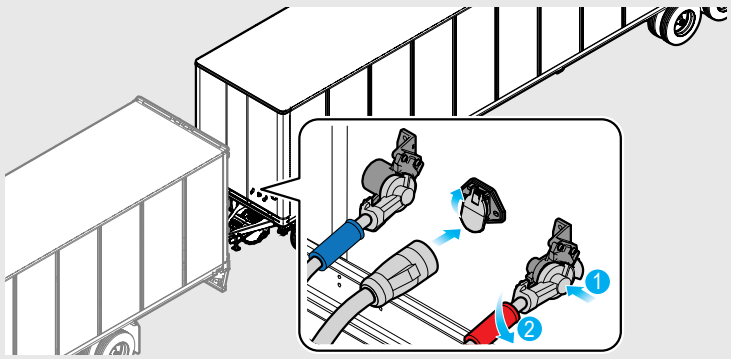


4. Apply the parking brake, check the trailer coupler height, and inspect the upper coupler and kingpin.
   - The trailer's height must be low enough that it can be raised slightly by the tractor when the dolly is connected to the rear trailer. If required, raise or lower the trailer adequately.

CAUTION

Do not raise or lower the trailer excessively. Doing so may damage the nose of the trailer or the trailer may not be coupled with the tractor properly.

   - Check if the upper coupler and kingpin are aligned.
5. Connect the air lines (service and emergency) and 7-way connector from the dolly to the air and electrical system connections on the rear trailer.



CAUTION

To prevent air leaks in the gladhands, check for leaks, damage, or wear on the rubber seal of the gladhands. In addition, to supply air to the trailer brake system properly, check if the filter screens on the rubber seals are clean and not blocked by contaminants.

Supplying air to the rear trailer

1. Enter the tractor, open the trailer supply valve to supply air to the trailer brake system, and wait until the air pressure gauges indicate a normal range for the pressure level.
2. Perform the following to check the brake system for crossed air lines.
   - Turn off the tractor's engine and check for air leaks in the brake system.
   - Apply the service brakes, check if the air pressure is within the normal range, and listen for air leaks at the service gladhand.
3. If there are no air leaks, turn on the tractor's engine.

Raising the rear trailer's landing gear

❖ NOTE

For more information on each component of the landing gear and instructions, refer to "Landing gear" on page 23.

1. Pull the crank handle of the rear trailer's landing gear to set it to the low gear.
2. Turn the crank handle clockwise until the landing gear is completely raised and then secure the crank handle.

Checking the coupling connection (test lock)

Using the lowest forward gear and keeping the engine idling, move the tractor forward to check if the dolly's fifth wheel is properly engaged and locked.

Inspecting the coupling status

Inspect the following to ascertain the coupling status. If necessary, use a flashlight during inspection.

- Ensure there is no space between the upper coupler and dolly's fifth wheel.
- Ensure the fifth wheel's jaws lock around the kingpin shank.
- Ensure the fifth wheel's locking lever is in the "Locked" position.
- Ensure there is proper clearance between the air lines and the 7-way connector cable.

Uncoupling

Preparations before uncoupling

1. Select a location suitable and firm enough to support the weight of the trailers and dolly.
2. Move the tractor in a straight line with the trailers and dolly.

> **CAUTION**
>
> Do not pull out the tractor at an angle. Doing so may damage the support legs of the landing gear and upper coupler.

3. Shut off the trailer air supply valve to lock the trailer brakes.
4. Back up the tractor slightly to ease the pressure on the dolly's fifth wheel locking jaws, which allows you to release the fifth wheel locking lever easily, and then apply the trailer parking brake while the tractor is pushing against the kingpin.

Lowering the rear trailer's landing gear

❖ NOTE

For more information on each component of the landing gear and instructions, refer to "Landing gear" on page 23.

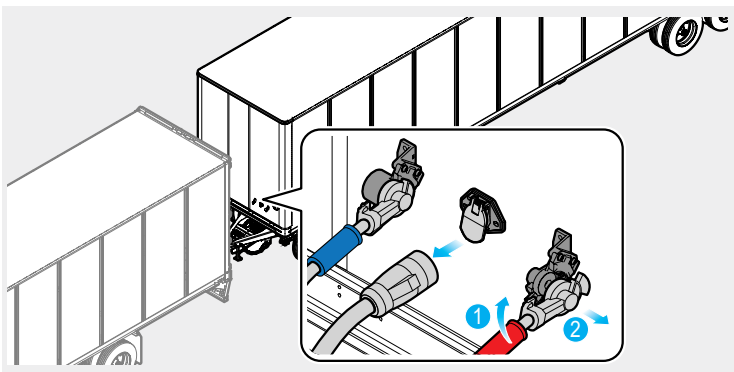
1. Push the crank handle of the rear trailer's landing gear to set it to the high gear.
2. Turn the crank handle counterclockwise until the landing gear touches the ground, and then secure the crank handle. (Do not raise the trailer from the fifth wheel.)

❖ NOTE

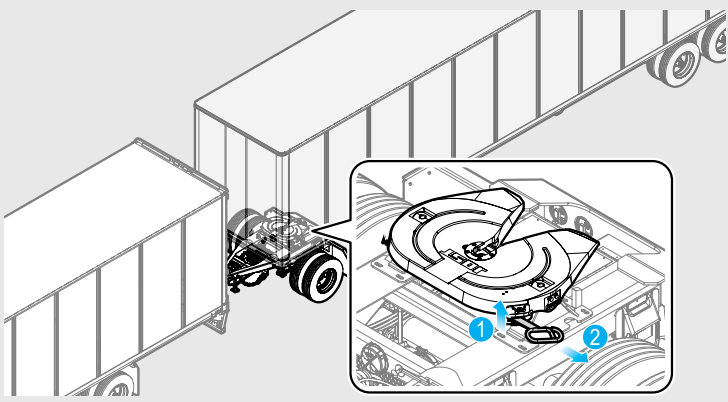
If necessary, place an appropriate support under the landing gear to prevent the trailer from sinking into the ground.

Disconnecting the dolly from the rear trailer

1. Disconnect the air lines (service and emergency) and 7-way connector from the rear trailer.



2. Connect the air line gladhands and the 7-way connector to their receivers at the back of the dolly.
3. Raise the release lever of the dolly's fifth wheel, and then pull the release lever fully until it is in the "open" position.



WARNING

While handling the release lever, keep your legs and feet away from the dolly's wheels to prevent serious injuries in case the dolly suddenly moves.

4. Move the tractor forward until the dolly's fifth wheel is disconnected from the rear trailer's kingpin, and then stop the tractor when the fifth wheel is fully out from under the trailer.

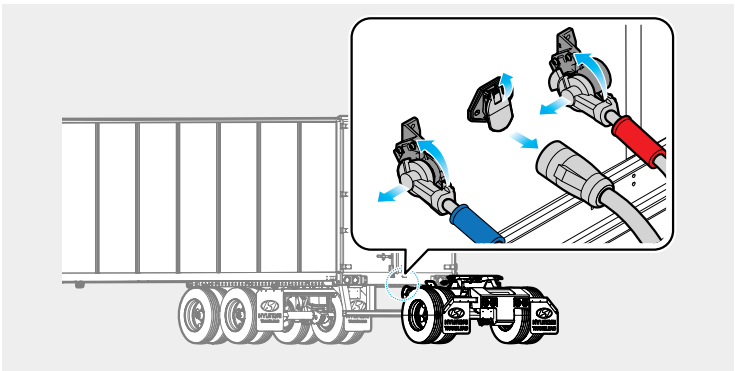
WARNING

Do not disconnect the dolly from the pintle hitch on the back of the lead trailer. The dolly tow bar may fly up, which may result in serious injury or death.

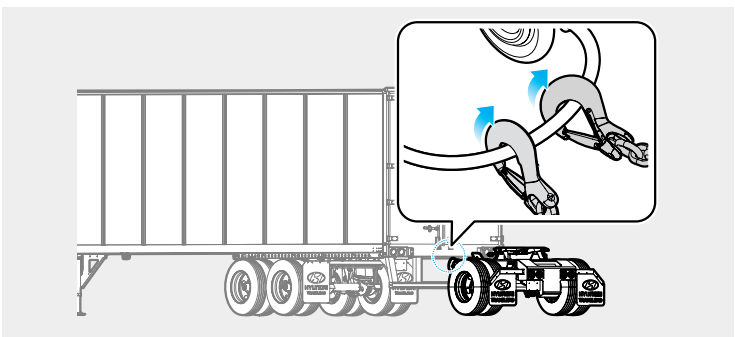
5. Apply the tractor parking brake, shift to "N" (Neutral), and then turn off the tractor's engine.

Disconnecting the dolly from the lead trailer

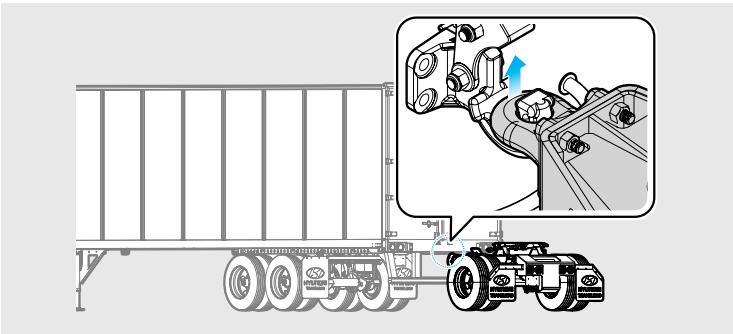
1. Disconnect the air lines (service and emergency) and 7-way connector from the air and electrical system connections on the lead trailer.



2. Connect the air line gladhands and the 7-way connector to their receivers at the back of the dolly.
3. Disconnect the safety chains from the lead trailer.



4. Disconnect the dolly's eye from the pintle hitch on the back of the lead trailer, and then drop the dolly gently to the ground. Make sure no hands are touching the dolly's eye while removing the dolly from the lead trailer.



Extending and closing the chassis

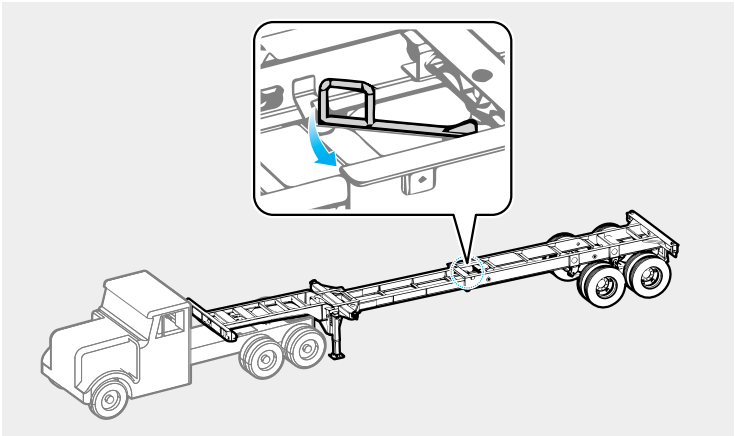
The chassis can be extended or closed depending on the size of the container. Extend or close the chassis when the tractor and chassis are properly coupled.

WARNING

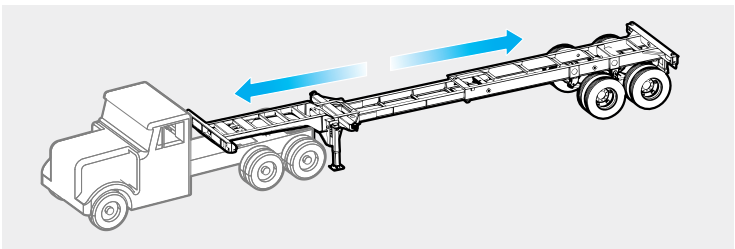
- Always lock the front frame to prevent the loss of vehicle control. Failure to do so can result in property damage, serious injury, or death.
- While extending and closing the chassis, stay clear of open area to avoid potentially hazardous situations that may result in serious injury or death.

Using the manual locking pin

1. Straighten the tractor and chassis, and apply both the tractor and chassis parking brakes.
2. Pull down handle on the locking pin actuator. The locking pins will be retracted into the locking position.



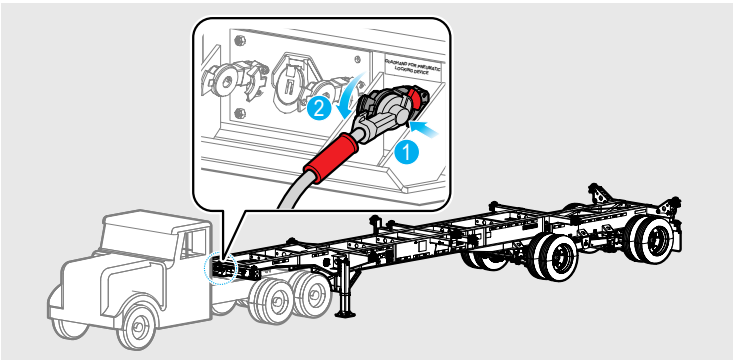
3. Pull the tractor forward to extend or retract the chassis frame until the locking pins are close to the desired hole.



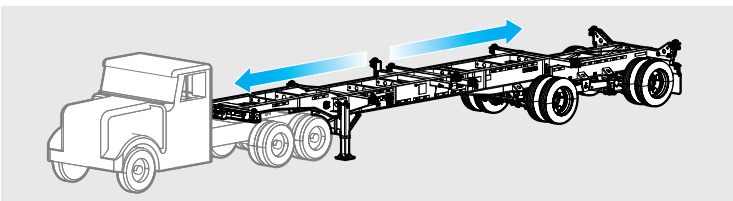
4. Gently rock the trailer forward and backward to make sure both pins are properly locked.

Using the pneumatic locking pin (optional)

1. Straighten the tractor and chassis, and apply both the tractor and chassis parking brakes.
2. Connect the tractor's emergency air line to the Air Lock Gladhand ("GLADHAND FOR PNEUMATIC LOCKING DEVICE") to the locking pin system to release the locking pins.



3. Pull the tractor forward to extend or retract the chassis frame until the locking pins are close to the desired hole.



4. Gently rock the trailer forward and backward to make sure both pins are properly locked.
5. Disconnect the tractor's emergency air line from the Air Lock Gladhand (GLADHAND FOR PNEUMATIC LOCKING DEVICE), and then reconnect both the emergency and service gladhands.

Loading the trailer

To load the trailer properly, always use the access equipment safely and ensure the proper weight distribution.

WARNING

To avoid serious injury or death, do not overload the trailer. Overloading the trailer beyond the rated GVWR creates potentially hazardous operating conditions, including fatal loss of vehicle control and premature failure of the trailer components.

For more information on the trailer's GVWR, refer to "Vehicle Identification Number (VIN)" on page 24.

NOTICE

- Reefer trailers transport food and food products. The interior of the reefer trailer's body structure must be clean before loading. Refer to the FDA Food Safety Modernization Act (FSMA) regulations of 2011 to keep the trailer clean for food transportation.
- Follow the instructions below to maintain the products' cleanness and freshness for reefer trailers.
  - Do not load products that may contaminate food products.
  - Do not use cleaning agents that may contaminate food products when cleaning the inside of the reefer trailer's body structure.
  - Products being transported should be loaded at a temperature as cold as or colder than the required temperature of the products at the time of delivery.

Accessing the trailer

The access equipment, such as the steps and handholds, are used for safe entry and exit of the trailer body structure.

To access the trailer from the ground when the trailer is properly supported by extended landing gear, you must use a step ladder or other equipment designed for ascent and decent with suitable height to reach the bottom-most step safely. Also, maintain three points of contact (both hands and one foot or both feet and one hand) at all times to prevent falls.

CAUTION

- Do not climb onto or into a trailer unless it is properly secured on a solid, level surface, and steps are firmly attached to it.
- Always maintain three points of contact when ascending or descending trailer steps or ladder rungs.
- Check if the components, such as welds, fastener connections, latches, hold downs, etc. function properly, and repair them if necessary. These items must be kept clean, degreased, and free of materials that may cause them to become slippery.
- If the tractor does not provide proper steps, handholds, and a slip-resistant deck plate for the rear of the tractor, do not access to the trailer steps from the tractor.
- Do not climb on steps while holding anything in your hands. Your hands must be free.
- Always face the trailer while ascending and descending.
- Wear slip-resistant footwear to avoid slipping and falling.
- Do not step on the tires, fenders, tractor frames, or mud flap supports.
- Do not step on air and electrical lines that run between the tractor and the trailer, and disconnect and store them properly if they are not in use.
- Do not use the access equipment if it is wet, icy, or slippery.

Operating the trailer

- Do not use steps and handholds provided on the trailer's front corner to inspect, or maintain any heating or cooling unit.
- Do not remain on steps and handholds provided on the trailer's front corner while the trailer is being coupled with or uncoupled from the tractor.
- Do not jump from the trailer deck. Doing so may result in serious injury.
- Do not use any part of the trailer, such as the strap or lift handle, as an aid when entering or exiting the trailer.
- Walk carefully inside the trailer. The floor may be slippery.
- All interior lights must be turned off before closing the trailer door.
- Retractable steps must be returned and secured in their stowed position before moving the trailer.

NOTICE

Inspect the access equipment in accordance with the regular Trailer Preventive Maintenance (TPM) Program.

Load distribution

The cargo must be properly loaded, blocked, and secured to avoid load shifting.

⚠ CAUTION

- Improper loading, load distribution or cargo securement may damage the components of the floor assembly.
- Do not use pallets with small sized footprints. Doing so may damage the floor assembly.
- The sliding suspension must be placed in the rear most position during loading.
- Ensure the trailer is on a firm and level ground during loading.
- To prevent the trailer from moving forward during loading, chock wheels, or use dock locking devices.

NOTICE

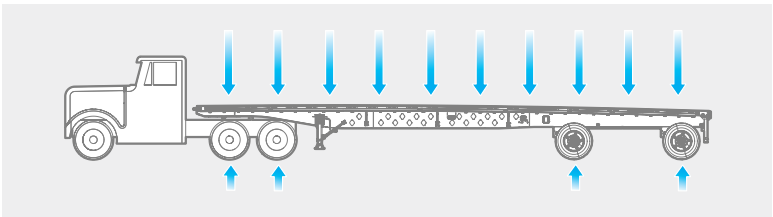
- Before operating the trailer, check the highway's legal load regulations. They may differ from the maximum load indicated on the VIN plate.
- For proper trailer load distribution, you must comply with the following sections of Title 49 of the Department of Transportation (DOT) Federal Motor Carriers Safety Regulations (FMCSR) at the FMCSA Official website (www.fmcsa.dot.gov).
  - Section 393.100 General rules for protection against shifting or falling cargo.
  - Section 393.102 Securement Systems
  - Section 393.104 Blocking and Bracing
  - Section 393.106 Front End Structure

Distributing weight

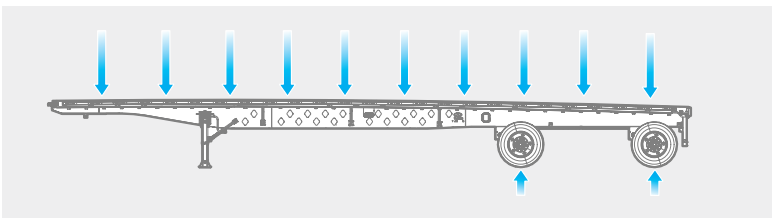
WARNING

Before each trip, ensure that the payload has been evenly distributed and securely fixed in the trailer's storage compartment. Uneven distribution of payload weight creates potentially hazardous operating conditions, which may result in fatal loss of vehicle control.

The cargo must be equally distributed from the front to the rear. Refer to the following diagram for uniform load distribution.

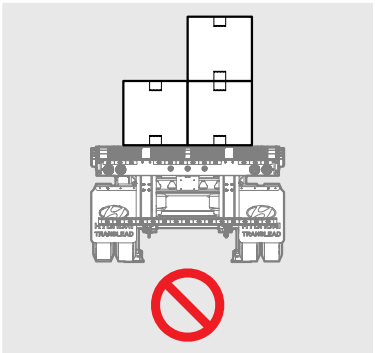


When coupled

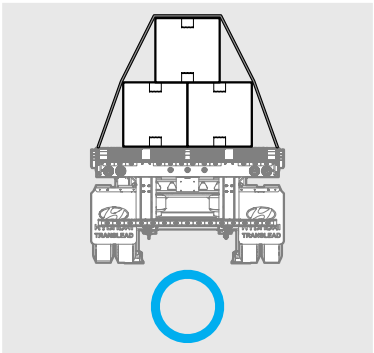


When uncoupled

Also, refer to the following examples of proper weight distribution on the cargo. To distribute equal weight on all rear tires on the trailer, position the load equally between sides.



Incorrect distribution position



Correct distribution position

CAUTION

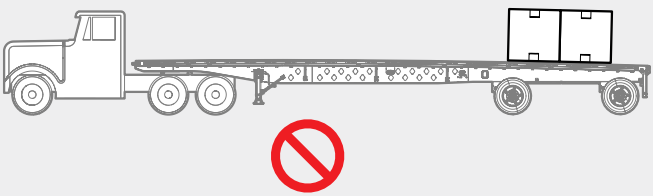
To prevent unexpected movement of the cargo, secure the cargo against lateral load movement using securing straps.

Loading heavy concentrated loads

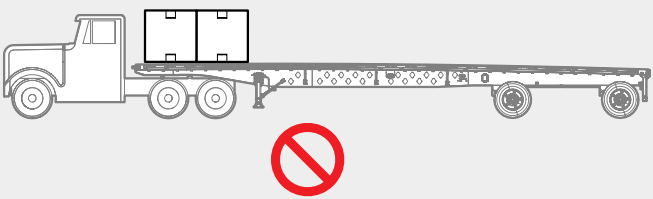
WARNING

Before each trip, ensure that the payload has been evenly distributed and securely fixed in the trailer's storage compartment. Uneven distribution of payload weight creates potentially hazardous operating conditions, which may result in fatal loss of vehicle control.

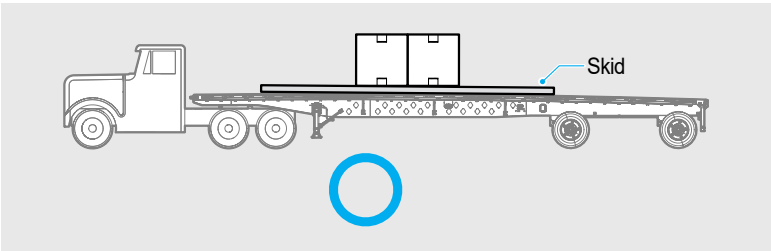
When loading heavy, concentrated loads, distribute the load over the full length of the floor or place the concentrated load in the center of the trailer. Also, to distribute weight front to rear, use a skid with the appropriate length and firm materials.



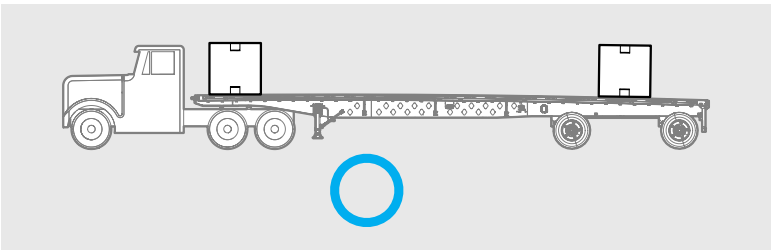
Incorrect position of heavy loads (rear)



Incorrect position of heavy loads (front)



Correct position of heavy loads (center)



Correct position of heavy loads (front and rear)

CAUTION

Do not load the trailer with the payload concentrated at front. Doing so may reduce the tire mileage and bend the tractor's axle system. Also, if you apply brakes suddenly, the trailer's brakes may lock, resulting in flat spots on your tires and dangerous skidding.

Sliding the trailer tandems

To change the weight distribution between the tractor's drive axles and the trailer tandems, slide the trailer tandems toward the front or back of the tractor. If you move the trailer tandems forward, you can put more weight on the trailer tandems and take weight off the tractor's drive axles. Or if you move the trailer tandems toward the rear of the trailer, you can take weight off the trailer tandems and put more weight onto the tractor's axles. The sliding suspension can be repositioned in 4” or 6” increments within the length of the upper running gear rail.

CAUTION

Before beginning the procedure, read the following instructions and select an adequate area to avoid potential safety hazards.

- You can only slide the suspension slider when the trailer is on level ground and the tractor and trailer are in a straight line. Otherwise, the tractor may damage the trailer while backing up.
- Before beginning the procedure, check if the area provides enough clear space for the tractor to be moved.
- Do not perform this procedure on loose gravel. Doing so may allow the trailer wheels to slide.

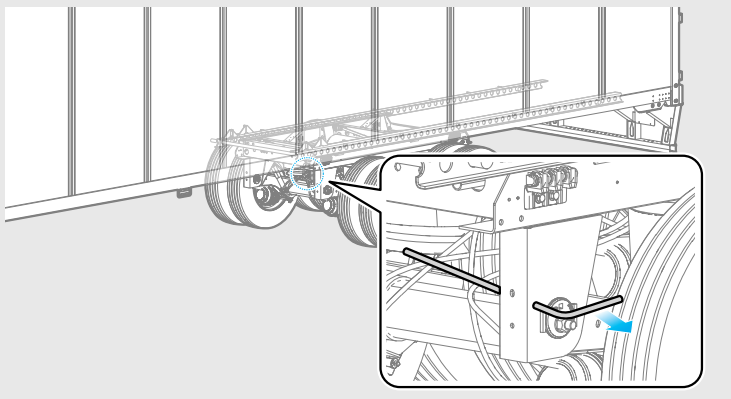
NOTICE

Several state governments in the United States have regulations that require the trailers to control the weight on each axle with the kingpin to rear axle (KPRA) restrictions and adjusting the tandem center. Make sure you have set the tandem wheel base to meet the appropriate KPRA to satisfy the specific state regulations and federal bridge law requirements.

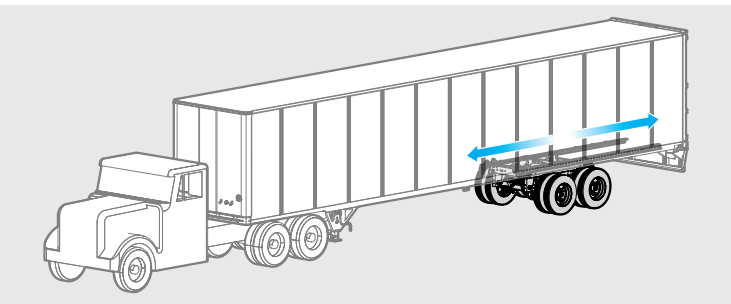
NOTE

The operation of the slider lock pins and their instructions may differ depending on the suspension slider manufacturers. Follow the manufacturer’s instructions before adjusting the suspension sliders.

1. Straighten the tractor and trailer, and apply both the tractor and trailer parking brakes.
2. Exit the tractor and check the slider for any damage.
3. Pull the slider handle until it locks into the position and the slider pins are drawn in the slider rail hole.



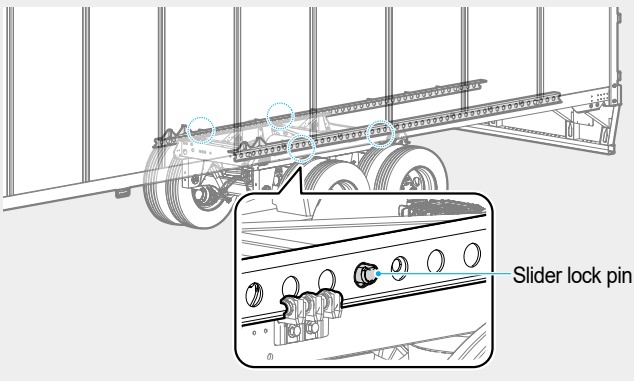
4. Enter the tractor and release the tractor brake while keeping the trailer brake applied.
5. Move the rig forward or backwards depending on the required slider position and stop moving the tractor when the slider has come into contact with the manual stop bar.



CAUTION

When moving the rig forward or backwards, do not move the tractor with excessive force or slam the trailer.

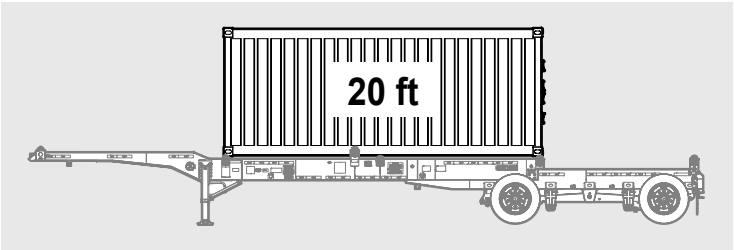
6. Apply the tractor brake, exit the tractor.
7. Check if the slider is properly positioned on the selected location and lock the slider lock pins to engage the lock mechanism.
8. Check if the slider lock pins are properly engaged through the holes of both slider rails.



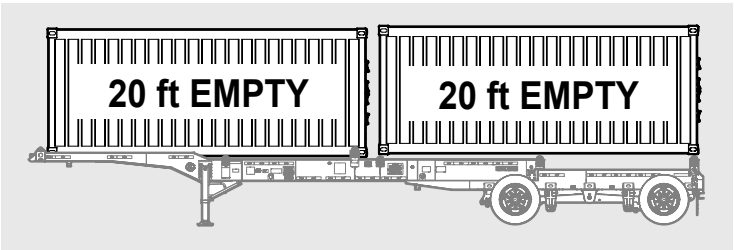
Container configuration for chassis

The chassis offers full flexibility for the transport of 20' and 40' containers. Refer to the following figures for each configuration.

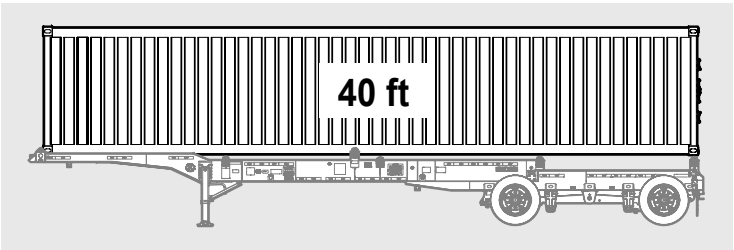
- **One 20' Container**



- **2 X 20' Containers**



- **One 40' Container**



Performing pre-trip inspection

For safe operation of the tractor and trailer, conduct a full pre-trip inspection before every departure. Before starting the inspection, make sure the tractor and trailer are parked safely away from traffic on a level and firm ground. If necessary, block the trailer wheels using chock blocks for safety during the inspection.

WARNING

Inspect, connect, or repair the tractor or the trailer carefully. The tractor may move unexpectedly and cause serious injuries.

CAUTION

- Complete a full pre-trip inspection of the tractor, and then properly couple it with the trailer. Inspect the trailer after the coupling.
- During the inspection, the parking brakes must be applied to prevent the vehicle from moving unexpectedly.
- Visually inspect electrical wiring, brake components (including brake hoses), and welds for any damage or distortion. If you find any defects, report to the registered owner before starting your trip.
- Always follow the vehicle manufacturer's manual when operating the sliding suspension or any other part of the trailer.
- Do not operate the vehicle in a condition or manner likely to cause an accident or breakdown.
- If any component is damaged or cannot function properly, do not operate the trailer.
- Conduct another inspection if you cannot guarantee the safety.

NOTICE

- Operate the trailer in accordance with federal, state, provincial, and local statues, including temporary rules and regulations in construction or other warning zones.
- All operators must be properly licensed and perform all the U.S. Department of Transportation (DOT) required inspection, repair, and maintenance.
- Check for current registration, DOT Inspection, all necessary license plates and an accurate bill of lading.
- Follow the North American Standard Out-of-Service Criteria which can be obtained through the Commercial Vehicle Safety Alliance (CVSA) at www.cvsastore@CVSA.org.
- Maintain the document with identifying information, including company number, make, serial number, or VIN, year, and tire size during operation. Also, inspection, repair, maintenance records, and scheduled inspection type, and due date must be stated.
- If you find any defect that could cause injury or death, immediately inform the National Highway Traffic Safety Administration (NHTSA) and notify Hyundai Translead. If NHTSA receives similar complaints, it may open an investigation, and if it finds that a safety defect exists in a group of vehicles, it may order a recall and remedy campaign. However, the NHTSA cannot become involved in individual problems between you, your dealer, or Hyundai Translead. To contact the NHTSA, you may call the Vehicle Safety Hot-line toll-free at 1-888-327-4236 (TTY: 1-800-424-9153), or visit www.nhtsa.gov, or write to Administrator, NHTSA,1200 New Jersey Ave. S.E., Washington, DC 20590. You can also obtain other information about motor vehicle safety from www.nhtsa.gov.

Inspecting the tractor

Before beginning to inspect the tractor, apply the tractor parking brake and shift to “P” (Park) while the tractor’s engine is turned on. After completing the inspection, ensure parking brakes are applied and turn off the tractor’s engine.

Inside the tractor

Inspect the following inside the tractor.

- Check the air pressure and brake response by applying the foot brake for one minute.
- Turn on all lights, including the emergency flashers and the low and high beam lights. Make sure they all work properly.
- Honk the horn and check the steering wheel for excessive free play.
- Check if the oil pressure is at its normal operating range and the gauge is working properly.
- Check if mirrors on both sides of the tractor are clean and aligned.
- Check if the washer-wipers works properly, and inspect the windshield for damage.
- Check if the heater-defroster blower is working properly.
- Check if a charged fire extinguisher and emergency equipment are mounted on the tractor.

Exterior of the tractor

Exit the tractor and inspect the following on the exterior of the tractor.

- Check for oil, water, or fuel leaks.
- Check if the fuel tank cap on the tractor is secured tightly.
- Check the front tires, wheels, and wheel nuts for damage.
- Check the headlamps, clearance lights, identification lights, flashers, and turn signals for damage.
- Check the rear tractor wheels and tires for loose or missing lug nuts and damaged rims, and check the tread depth and oil level in the wheel end hub cap. Ensure the tires are properly inflated.

Inspecting the trailer

After inspecting the tractor, inspect the following sections of the trailer.

Coupling parts of the trailer

Inspect the following on the coupling parts.

- Check if the fifth wheel jaws are engaged and locked securely around the kingpin.
- Check if the electrical cord from the tractor is fully inserted in the 7-way connector and retained by the spring-loaded connector closure. Also, ensure the cord is unobstructed, free of chafing, and not restricted.
- Check if the air delivery hoses from the tractor are unobstructed, free of chafing, and correctly and securely attached to the gladhands. Listen for air leaks.

Side of the trailer

Inspect the following on the sidewalls and landing gear.

- Check the landing gear for damage.
- Check if the landing gear legs are fully raised and the crank handle is securely stowed in the crank handle holder.
- Check the exterior sides of the trailer for tears or cuts on the surface skin.

> **CAUTION**
>
> The side closure of the Composite® model must not have any tears or cuts.

- Check the side doors of the trailer for damage (if equipped).
- Check for proper placard and shipping papers (if equipped).
- Check and clean side marker lights and the conspicuity tape.

Under the trailer

Inspect the following on the running gear assembly.

- Ensure that there are no permanent deformations, excessive rust, or missing or damaged rivets at the bottom of the trailer, including the cross members.
- Check the sliding suspension, ensure its position is correct for the load and the areas you will travel. All the locking pins must be completely engaged in the upper slide rail. There are 2-pin and 4-pin locking mechanisms on sliders. Ensure that all of the hold down brackets are firmly attached.

- Check each air spring (air bag) for damage, ensure it is properly inflated and listen for air leaks.
- Check if the brakes, including the ABS system, are properly adjusted and can be operated properly.
- Check the trailer wheels and tires, and listen for air system leaks.
- Check if the mud flaps are securely attached to the brackets and if the brackets are properly secured to the trailer.

Inside the trailer

Inspect the following on the floor assembly.

- Check the interior walls of the trailer for damage, particularly within two feet of the floor.
- Check the floor of the trailer for missing pieces, cracks, delamination, wavy appearance, and water stains. These may indicate a hazard to the safe operation.

Top of the trailer

Check for roof damage. This indicates a mishandling of the loads when the trailer was loaded or unloaded.

Rear of the trailer

Inspect the following on the exterior lights and door.

- Check if all lights are clean and working properly.
- Check if the doors are fully sealed and locked. If the doors are not secured with locks or seals, make sure no one is in the trailer.
- Check the door hinges for missing or damaged bolts/rivets.
- Check the rear impact guard for weld cracks, bent or broken bracing, and a straight lower horizontal member. Make sure the certification label or plate is in place.
- Check if the conspicuity tape is properly placed. Clean it if there is any dust or contaminants.

Inspecting the coupling status

After completing the inspection of the tractor and the trailer, check for the proper coupling status and ensure the overall safety.

- While the trailer brakes are applied, release the tractor parking brakes and engage the clutch in first gear to test the tractor-trailer coupling.
- Ensure that there are no objects hanging from under the truck or the trailer.

Maintaining the trailer

Inspecting the trailer

This section provides instructions for carrying out the required inspection of each part of the trailer. Follow the instructions in this section to inspect the trailer to ensure safe operation and optimal performance. For more information on the location of each component, refer to the “Overview of the trailers” on page 25.

CAUTION

Periodically check every part of the trailer for proper operation. If you find any damaged or worn parts during inspection, repair or replace them immediately.

NOTE

To perform the trailer preventive maintenance program, contact the Truck Trailer Manufacturers Assn. (TTMA) at 703-549-3010 or visit its website at www.trucktrailer.org to obtain the “Trailer Maintenance Manual” document.

Floor assembly (for flatbeds)

Inspect the floor before every departure. Also, inspect it before loading or unloading the trailer.

CAUTION

Do not expose any part of the body structure to corrosive materials or solvents. Doing so may void the trailer warranty.

NOTICE

Safety equipment in the rear frame area, such as door hold backs, grab handles, steps, ramps, and slip-resistant materials, must be inspected frequently in connection with a Trailer Preventive Maintenance (TPM) program. Repair or replace them if necessary.

Part	Checkpoint	Tasks
Floor	Wooden boards	Check for damage or delamination.
	Aluminum boards	Check for damage, cracks, or deformation.
	Floor boards	Check for loose or missing fasteners.
	Scuff bands	
	Sub-floor	Check for damage, cracks, deformation, or bends.

Upper coupler and kingpin

To ensure safe operation of the tractor and trailer, inspect the upper coupler and kingpin before and after every coupling. Regularly inspect the upper coupler and kingpin to ensure that they are properly lubricated and there is no excessive damage or wear.

WARNING

Frequently inspect the coupling components of the tractor and trailer. Property loss, serious injury, or death may result if damaged coupling components fail during trailer operation.

CAUTION

- Damaged kingpin, upper coupler structure, and connecting fasteners reduce the structural integrity and degrade the trailer's performance.
- Do not operate the trailer without inspecting the upper coupler and kingpin for damage. Immediately report any damage to your supervisor and repair it.
- Although the kingpin is made of hardened forged steel, it can be easily damaged, wear or broken with abuse.
- Before coupling, ensure that the fifth wheel is properly lubricated and the fifth wheel jaws are open to receive the kingpin. After coupling, ensure the following:
  - There is no space between the upper coupler and fifth wheel.
  - The fifth wheel jaws have closed around the kingpin shank.
  - The locking lever is in the locked position.

NOTICE

A visual inspection of the coupling is mandatory and required by law.

Part	Checkpoint	Tasks
Upper coupler	Surface	• Check if it is properly lubricated. • Check for cracks and deformation of pick-up plate.
	Fasteners	• Check if they are in place and tightened properly. • Check for loose, missing, or damaged parts, and replace them.
Kingpin	Surface	Check if it is properly lubricated.
	Bottom locking flange	Check for its proper condition.

❖ **NOTE**

If the fasteners of the upper coupler, side bottom rail, or rear frame wing plate are replaced with new ones, check if the replacement fasteners are the same diameter, design, and strength rating as the original equipment.

Dolly's fifth wheel

Part	Checkpoint	Tasks
Fifth Wheel	Leaf spring U-bolts	• Check if they are properly lubricated. • Tighten them if they are loose.
	Release lever	Test and adjust the fifth wheel locking mechanism. If the fifth wheel needs to be adjusted, follow the fifth wheel manufacturer's guidelines.

Dolly's Draw bar

Part	Checkpoint	Tasks
Draw bar	Frames	Inspect drawbar eye assembly and tighten shank nuts if they are loose.

Brake system

To ensure safe operation, inspect the brake system before every departure.

CAUTION

Do not operate the vehicle if the brake system is defective or not properly adjusted. Have your vehicle repaired by a qualified technician.

NOTICE

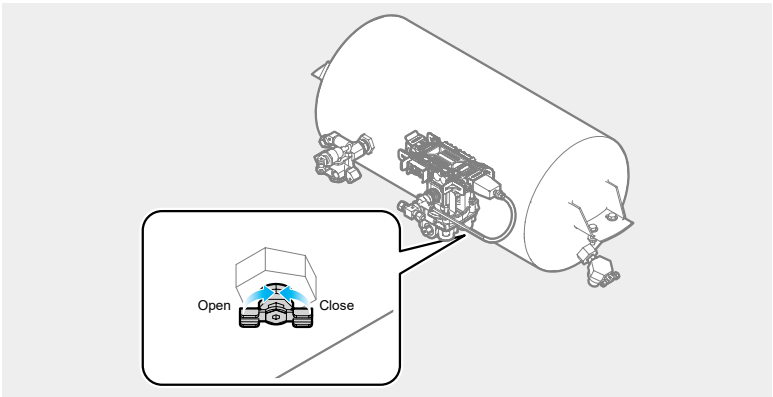
Inspect and adjust the brake system in accordance with the DOT requirements and a preventive maintenance program.

Air system

Part	Checkpoint	Tasks
Air system	Air hoses	Check for broken, missing, corroded, or damaged parts, and repair or replace them.
	Gladhands (on tractor and trailer)	• Check for broken, missing, corroded, or damaged parts, and repair or replace them. • Check for leaks, damage or wear on the rubber seal. • Check if the filter screens on the rubber seals are clean and not blocked by contaminants.
	Screens (on tractor and trailer)	Before connecting, make sure they are clean and not contaminated.
	Air dryer system	Check if it is equipped in the tractor.
	Air tank drain cocks	Daily open all of them to drain moisture from the system.
	Air gauges (on tractor)	Check for unusual air consumption to keep the air system tight.
	Service brake chamber plastic end cap	Check if it is in place to prevent dirt and contaminants.
	Service brake chamber clamping	Check if it is secure and not damaged.

Draining the air tank

Daily drain moisture and contaminants from the air tank to keep the air system clean and in optimal condition. To drain the air tank, rotate the drain cock at the bottom of the air tank until it is fully opened, and then wait until the moisture has completely flown out from the air tank.



Anti-lock brake system (ABS)

Part	Checkpoint	Tasks
ABS system	ABS indicator light	Check if the ABS indicator light located at the trailer's rear-left corner turns on and off when electrical power is initially applied to the ABS. **CAUTION** If the ABS indicator light does not turn on or remains turned on while power is continuously applied, have it inspected and repaired or replaced by a qualified service facility.

Lighting system

Inspect the lighting system before every departure. Ensure that the lighting system operates properly and all lights and reflectors are clean enough to provide optimal visibility for safe operation.

⚠ CAUTION

- Do not operate the trailer if any light is damaged or cannot function properly.
- Turn off the lights while the trailer is positioned at a loading dock.
- Turn off all the interior lights before closing the trailer door.
- Use only original components for the lighting system.

❖ NOTE

The Hyundai Translead's PC-rated front marker lights (visible over 180 degrees) prevent damage from the sides and comply with Federal Motor Vehicle Safety Standard 108 (FMVSS 108).

Maintaining the trailer

Part	Checkpoint	Tasks
Lighting system	Lights	Check each light to make sure it is clean and operating properly while parking lights are activated. ❖ **NOTE** When replacing a pig tail marker light, leave 12 inches of extra length (slack) to allow the marker light could be changed from the outside of the trailer.
	4-way flashers	Check each flasher to make sure it is clean and operating properly while emergency flashers are activated.
	Reflectors	• Check if the reflectors are clean and properly placed. • Check if the side reflectors are covering at least half of the trailer length. If you have replaced the refactors with new ones, make sure the new reflectors comply with the same DOT regulations (C, C2, C3 or C4) and that they are same as the reflectors originally installed on the trailer.

Part	Checkpoint	Tasks
	Wiring and electrical system	• Check for all wiring junctions and ground connections to ensure solid connections. • Check all wiring junctions and ground connections for poor connections and corrosion. If necessary, clean and grease them with dielectric grease. • Check the wiring harness for damage or unsupported wiring. **⚠ CAUTION** • Do not cut the wire or use a test probe (spike) to pierce insulation to prevent punctures to the wire jacket. If moisture is collected on the wire strands, the connections may be corroded. • For the dome lights, do not use any bulb with more than 21 candlepower. Stronger light may emit too much heat and ignite a fire in the cargo area. Load cargo away from the dome lights and turn off the dome lights before operating the trailer. • Check if the trailer is connected to a tractor that supplies 12 volt DC current from the tractor's pigtail to the trailer's 7-way connector.

Suspension system

To ensure safe and proper trailer braking system during operating the trailer, inspect the suspension system before and after every operation.

NOTE

For more information on the specifications for inspections, torque bolts, and the individual air suspension assembly, visit the manufacturer's website or visit the Hyundai Translead website at www.hyundaitranslead.com.

Air spring suspension (optional)

Part	Checkpoint	Tasks
Air spring suspension	Air spring (air bag)	Check all air springs for damage and proper inflation. If necessary, Inflate each air spring equally to the proper level. Check all air springs for air leaks.
	Shock absorbers	Check for damage or internal leaks.
	Height control valve	Check for secure attachment and proper operation.

NOTICE

In accordance with the U.S. Department of Transportation (DOT) regulations, inspect the air spring suspension systems before and after operation.

Leaf spring suspension (optional)

❖ NOTE

For more information on the specifications for inspections, torque bolts, and the individual air suspension assembly, visit the manufacturer's website or visit the Hyundai Translead website at www.hyundaitranslead.com.

Part	Checkpoint	Tasks
Leaf spring suspension	Whole assembly	• Check if there are any missing or broken parts in the leaf spring suspension. **⚠ WARNING** Broken spring leaves, missing or loose U-bolts, or other defective conditions likely to cause axle shifts are hazardous and can cause accidents or breakdowns. • Check if the leaf springs are securely clamped to the spring seats and axle to prevent any movement between U-bolts. **⚠ CAUTION** Even a slightly loose connection can cause misalignment of the axles, resulting in excessive tire wear and poor trailer tracking.

Landing gear

To ensure that the trailer is safely supported when it is uncoupled from the tractor, inspect the landing gear on a regular basis. For more information on lubricating the landing gear, refer to “Lubricating the landing gear” on page 127.

WARNING

Perform regular inspection and maintenance of the landing gear components to avoid potentially hazardous situations which may cause serious injury or death.

CAUTION

Do not force the support legs beyond their normal raised or lowered positions. Doing so may damage the landing gear.

Part	Checkpoint	Task
Landing gear	Attachment point	Check for broken, missing, corroded, or damaged parts on all braces at each attachment point, including the hinge bolt.
	Moveable parts	Check all moveable parts, including the bushings, bearings, and high and low gears for proper lubrication.
	Support legs	• Before uncoupling the tractor from the trailer, check if they are fully extended and completely in contact with the ground to support the trailer weight. • Before moving the trailer, check if they are fully retracted and that the crank handle is properly positioned in its keeper.

Wheels and tires

To ensure safe operation, inspect your wheels and tires before every departure. For more information on lubricating the wheel, refer to "Lubricating the wheel-end assembly" on page 119.

WARNING

- Cracked or damaged wheels, loose lug nuts, and missing studs are hazardous and can lead to wheel loss, resulting in serious injury or death.
- Tires and wheels are very heavy. Be careful when carrying or handling them.
- Servicing tires and wheels/rims is very dangerous and must only be performed by trained personnel using proper tools and procedures. To obtain more information on servicing wheels and tires, visit the websites of the US Department of Labor and NHTSA.
- Do not operate the trailer if the rims or rings are excessively damaged or corroded. Also, deflate the tires before removing the rims or wheels from the running gear.

CAUTION

- Do not operate the vehicle with tires that have low or no pressure.
- Tires must only be inflated while in a restraining device/safety cage.
- Do not inflate tires above the maximum inflation pressure molded on the tire by the tire manufacturer. Tires must be matched with compatible rims for safe operation.
- Tires next to each other need to be within a 4/32" thread depth of each other to avoid irregular wear.

Maintaining the trailer

- Do not overload the tires. The total load per tire must not exceed the tire manufacturer's specified load carrying capacity at the stated inflation pressures for both tires and rims.
- When replacing the tires or rims, replace them with the same size, type, and load rating as the original ones.
- Tires used for more than six or seven years from their date of manufacture may need to be replaced due to dry rot or cracking.
- To prevent wheel separation, periodically inspect the wheels during the 50 to 100 miles after the initial in-service date and at intervals that do not exceed 25,000 miles. Dismount and mount the wheel again. First, tighten the nuts with your fingers, then tighten them to 50 lb-ft, following the recommended cross over pattern, and then tighten to 496 lb-ft, following the cross over pattern. For more information on the tightening procedure, refer to "Guidelines for proper wheel assembly" on page 125.

NOTICE

- Inspection, lubrication and maintenance of the wheel end system must comply with the Technology and Maintenance Council's (TMC) Recommended Practice No.631A.
- Tire and wheel/rim servicing can be extremely dangerous and must be done only by qualified technician using proper tools and procedures. Information about tire and wheel servicing can be obtained from the U.S. Department of Labor and NHTSA.
- For information on servicing wheels and rims, refer to OSHA 29 CFR 1910.177 and to the appropriate wheel and rim manufacturer's manuals. Also refer to Servicing Single-Piece and Multi-Piece Rim Wheels, the U.S. Department of Labor pamphlet, OSHA 3086, and the accompanying two chart set, available from OSHA regional offices.
- For information on detailed tire inspection, refer to the DOT tire regulations of Section 393.75.

Part	Checkpoint	Task
Wheels	Hubs and ends	Check for damage.
	Rims	• Check for damage. • Check for oil leaks.
	Lug nuts	Check if they are loose or missing. ❖ **NOTE** For more information on the tightening procedure, refer to "Guidelines for proper wheel assembly" on page 125.
	End hub cap	• Check the oil level. ❖ **NOTE** For more information on the proper oil level, refer to "Adding oil" on page 121. • Check for oil leaks.
	Hub gaskets	Check the lubrication levels (if liquid lubrication is used) and check for leaks.
	Seals	

Maintaining the trailer

Part	Checkpoint	Task
Tires	Pressure	Check if the pressure of all tires is within the normal range. The proper cold tire inflation pressure is stated on the VIN plate. For more information on the VIN plate, refer to the “Vehicle Identification Number (VIN)” on page 24. ❖ **NOTE** Measure the tire pressure before every departure during cold weather conditions.
	Sidewall and tread	• Check for abrasions, cuts, dry rot, or other damage. • Check if nails or other objects are embedded. • Check if stones and other objects are lodged between dual tires. • Check if the tread depth is sufficient. ⚠ **CAUTION** If the fabric is exposed on the sidewall or on the tread, replace them immediately.
	Valve stem	Check for damage.
	Valve caps	Check if they are damaged or missing.
	Axle end	Check if the dual tires on the end of the axles have the same diameter.

Lubricating trailer parts

Proper lubrication is essential for maintaining the mechanical performance required for safe operation of Hyundai Translead trailers and ensuring prolonged life of each trailer part.

WARNING

To avoid potential injury, death, or property loss, follow the instructions below while inspecting and maintaining the trailer.

- Find a safe place and stop the tractor and the trailer on level ground.
- Apply the parking brake and wheel chocks to ensure that the tractor and trailer do not move during the inspection or maintenance.
- Turn off the tractor unless it is required to keep the engine running to inspect part functions.

Lubricating the dolly's fifth wheel

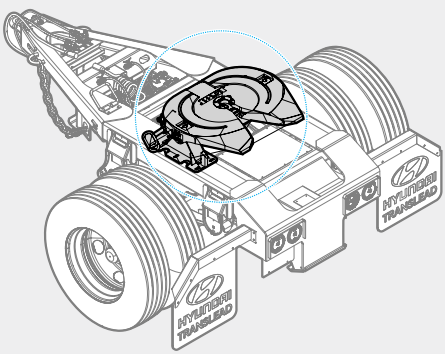
For safe, trouble-free trailer operation, regularly inspect the fifth wheel of dolly and lubricate it according to the fifth wheel manufacturer’s guidelines.

CAUTION

Closely inspect and lubricate the fifth wheel if you hear metallic screeching or a growling noise while coupling the dolly with a trailer.

NOTE

The internal design and operation mechanism of the fifth wheel may differ depending on the manufacturer, and the required lubrication and lubrication intervals may also vary.



Lubricating the wheel-end assembly

Proper lubrication is required for the wheel-end assembly to maintain its design capacity.

WARNING

Strictly follow the guidelines listed below to avoid potentially hazardous wheel-end system failure, which may result in serious injury or death.

- Inspect the wheel hub lubricant level before each operation.
- Do not mix different types of lubricants in any wheel-end assembly.
- In any wheel-end assembly, only use the lubricant (oil or semi-fluid grease) specified by the manufacturer.
- In the absence of relevant information, contact the wheel-end system manufacturer or a qualified local lubricant supplier and ask for recommendations.

NOTICE

The Technology and Maintenance Council (TMC) Recommended Practice No. 631A provides recommendations for inspecting, lubricating, and maintaining wheel-end systems. This document recommends that semi-fluid grease levels be maintained at, but not above, the 3 and 9 o'clock positions (a 50% fill of the cavity).

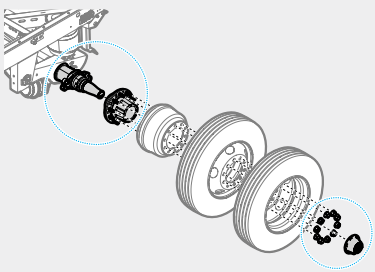
Maintaining the trailer

Oil or semi-fluid grease are used to lubricate wheel bearings within the wheel hub assembly.

WARNING

To avoid potential injury, death, or property loss due to premature wheel-end system failure:

- Only use the same lubricant previously used to fill the hub well. Do not mix different types or grades of lubricants.
- Do not mix oil and grease to lubricate the wheel-end assembly.
- Check for oil leaks and immediately replace the related parts, such as hubcap seals, if necessary. Oil leaks may cause premature failure of wheel-end assembly and can be indicated by oil stains and contamination around the hubcaps, rims, and tires.



NOTE

- The internal design of the wheel-end assembly may differ depending on the manufacturer, and the approved lubricants and inspection intervals may also vary. For detailed information about the lubricants approved for your trailer's wheel-end assembly, including the lubricant type, grade, and viscosity, refer to the maintenance guidelines provided by the wheel-end assembly manufacturer.
- The lubricant information can also be found on the wheel end or on the bottom rail of the trailer body above the running gear.

Visually inspect the oil or grease level through the inspection window, or open the hubcap to determine if additional lubrication is required.

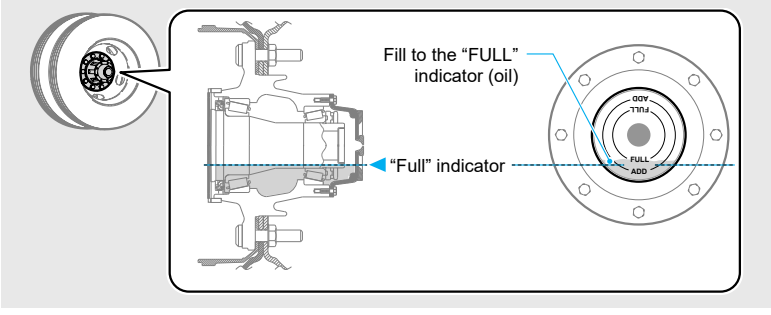
CAUTION

- Ensure that the trailer is parked on level ground before inspecting the lubricant level.
- Only use oil or grease with the grade and viscosity specified by the manufacturer.
- Do not overfill. Overfilling may cause leaks.
- Ensure that the air ventilation hole on the hubcap is not blocked with grease.

Add oil or semi-fluid grease in the hub well until the lubricant reaches the specified level. Only use oil or semi-fluid grease with the grade and viscosity specified on the wheel end or on the bottom rail of the trailer body above the running gear.

Adding oil

Inspect the oil level through the inspection window and add oil to the "FULL" indicator if required.

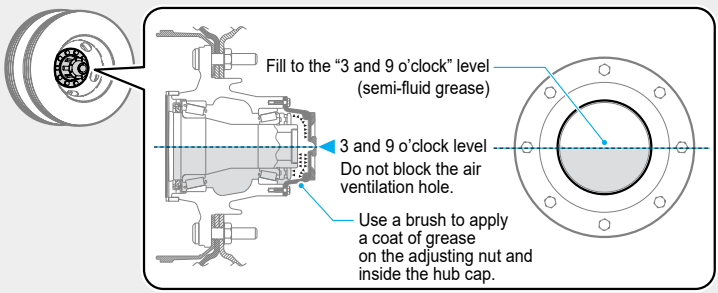


Adding semi-fluid grease

Add semi-fluid grease until it reaches the 3 and 9 o'clock level.

CAUTION

- While filling the wheel hub well with semi-fluid grease, be careful not to block the air ventilation hole.
- Use a brush to lightly coat the adjusting nut and inside of the wheel cap with the semi-fluid grease.

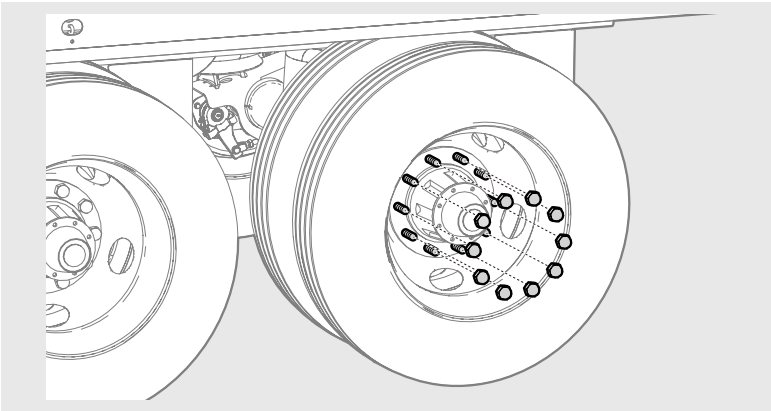


WARNING

Lubricant leaks from the wheel hubs may cause premature failure of wheel-end assembly, which may result in serious injury or death. Before each trip, carefully check the front and rear of all wheel hubs for any lubricant leaks. If a lubricant leak is discovered, immediately have the trailer inspected and repaired by a qualified technician.

Lubricating the wheel nuts and studs

Frequently inspect the wheel nut (lug nut) tightness and properly lubricate and tighten the wheel nuts as required.



WARNING

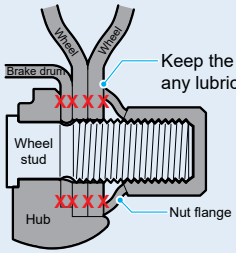
Do not under-lubricate or over-lubricate the wheel studs and nuts.

- If the nuts and studs are not properly lubricated, the specified tightening torque may be reached before the nuts are properly tightened due to excessive friction, potentially causing the studs and nuts to loosen and fail.
- If nuts and studs are excessively lubricated, the required tightening torque may not be maintained during trailer operation, potentially causing the studs and nuts to loosen and fail.

Maintaining the trailer

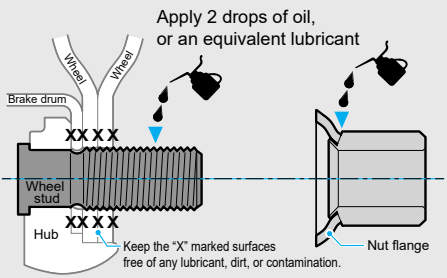
WARNING

Be extremely careful and keep the nut flange and drum surfaces free of any lubricant, dirt, or contamination. These surfaces are indicated by “X” marks in the following figure.



Improper lubrication may allow wheels and drums to move during trailer operation, potentially causing the studs and nuts to loosen and fail.

After removing the wheel nuts from the hub, apply two drops of common lubricating oil on each wheel stud and in the crevice between the wheel nuts and wheel nut flanges.



Guidelines for proper wheel assembly

After lubricating the wheel stud and wheel nuts (lug nuts), properly install the wheel to the wheel hub and tighten the wheel nuts to the specified tightening torque.

⚠ WARNING

To avoid potential injury, death, and property loss that may be caused by wheel separation due to loose wheel nuts:

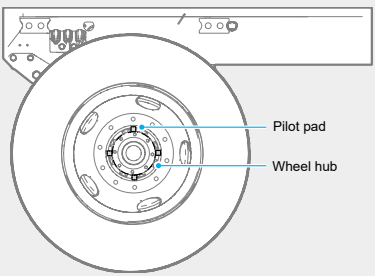
- Frequently inspect the wheel nut tightness, especially up to 100 miles after the initial operation of the trailer, and at least once every 25,000 miles henceforth.
- When the inspection interval is reached, remove all wheels and reassemble them again according to the guidelines for proper wheel assembly.

1. Rotate the hub so one of the pilot pads is located at the top.
2. Evenly coat the pilot pads with a non-water based lubricant, making sure the drum is properly positioned on the raised step of the top pilot pad.

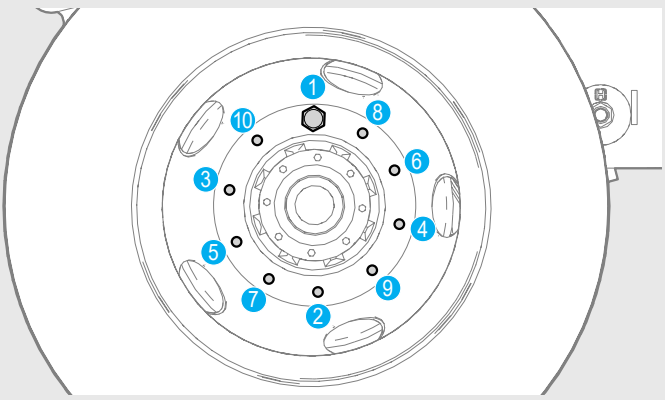
❖ NOTE

Ensure that the brakes have been properly adjusted before installing the wheels. Well-adjusted brakes facilitate keeping the drum in the desired position.

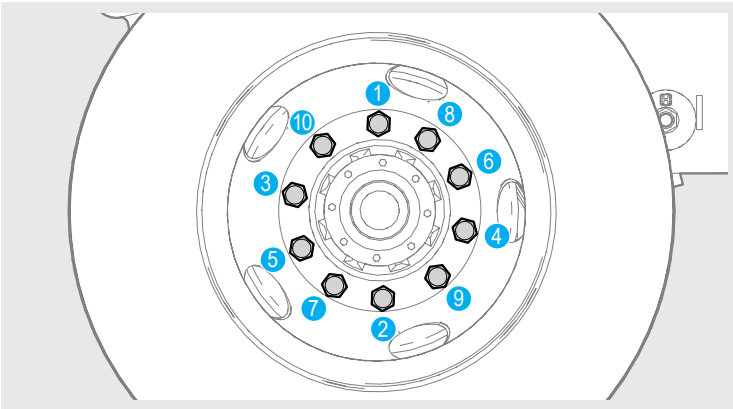
3. Ensure that the wheel is properly positioned on the pilot pads and that the mating surfaces are fully in contact with each other.



4. Pre-tighten the wheel nuts by turning them clockwise with your fingers and tighten them to 50 lb-ft according to the tightening order indicated in the following figure.



5. Re-tighten the wheel nuts to the final torque of 496 lb-ft, to the tightening order indicated in the following figure.



Lubricating the landing gear

The landing gear system is designed to safely support the weight (GVWR) of a fully loaded trailer, and proper lubrication is required to ensure effortless operation while coupling or uncoupling the trailer.

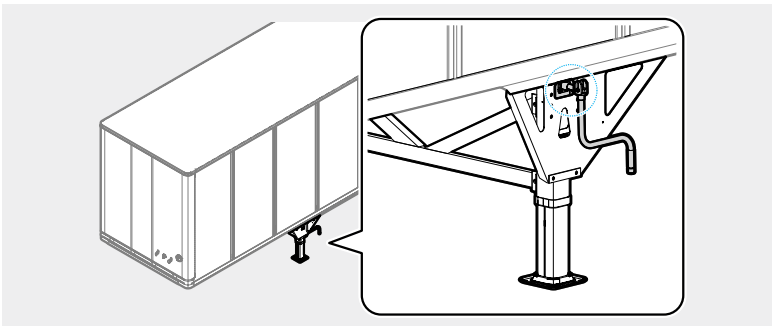
❖ NOTE

The internal design and operation mechanism of the landing gear may differ depending on the manufacturer and the required lubrication and lubrication intervals may also vary.

For detailed information and internal schematics, refer to the maintenance guidelines provided by the landing gear system manufacturer.

Maintaining the trailer

- As a general rule, it is recommended to lubricate your landing gear six months after initial operation, and then on a yearly basis.
- Frequently inspect the handle operation for fluid movement. Lubricate the handle joint with low-viscosity oil whenever it feels stiff.
- If lubrication does not alleviate the stiffness, if the handle feels loose, or if you feel excessive resistance or hear unusual noises while operating the landing gear, internal parts may have become worn out or damaged. Have the worn or damaged parts replaced as soon as possible.



Lubricating body parts

There are a few trailer body parts that require routine lubrication for optimal operation.

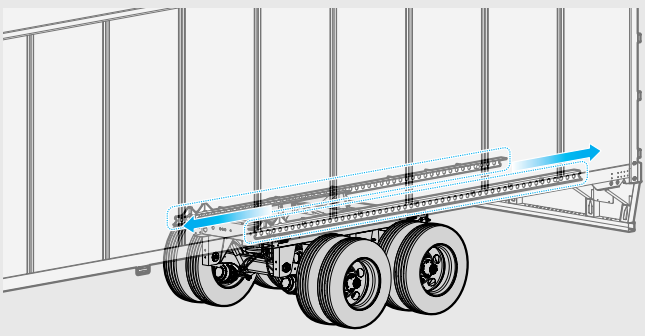
Lubricating the sliding suspension rail

The sliding suspension rail is used to adjust the position of the running gear assembly (bogie part) underneath the trailer body.

❖ NOTE

Refer to the sliding suspension rail manufacturer's maintenance guidelines for the approved lubricants and the lubrication intervals, or contact a qualified local lubricant supplier and ask for recommendations.

Refer to the following figure to lubricate the sliding suspension rail and other related parts for smooth adjustment operation.



MEMO

Appendix

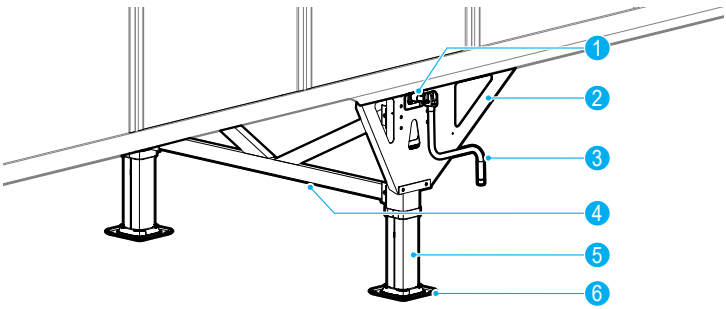
Parts list for repair and replacement

The assembly diagrams provided in this section are intended to help you identify repair and replacement items for trailers manufactured by Hyundai Translead.

NOTE

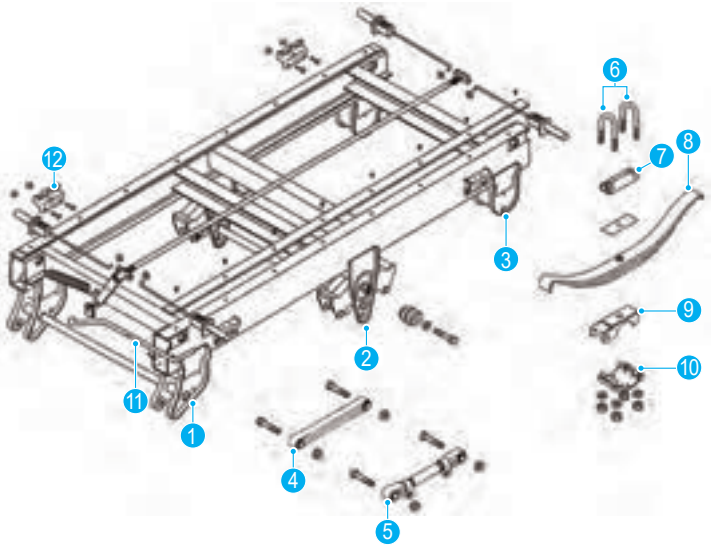
For ordering parts to ensure proper selection and identification of the replacement items, contact your sales representative or an authorized dealer. Also, you can contact Hyundai Translead at 800-251-0871 or visit the website at www.hyundaitranslead.com.

Landing gear assembly



1. Crank shaft
2. Landing gear bracket
3. Crank handle
4. K-brace
5. Support leg
6. Cushion foot

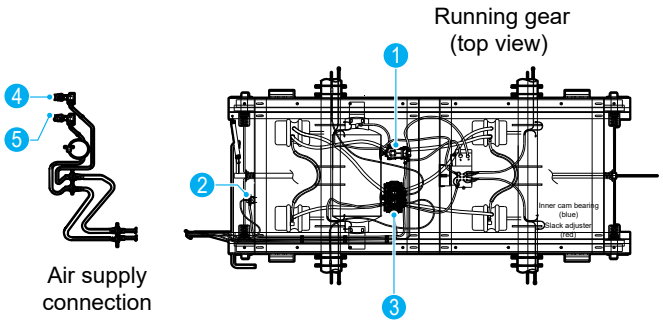
Slider assembly



1. Front spring hanger
2. Center rocker hanger
3. Rear spring hanger
4. Radius rod (non-adjustable)
5. Radius rod (adjustable)
6. U-bolts
7. Top plate
8. Medium duty 3-leaf spring
9. 5" Round spring seat
10. 5" Round bottom plate
11. Pin pull handle
12. Hold down clip

Brake system assembly

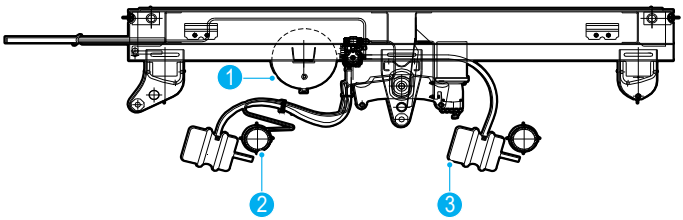
Running gear (top view)



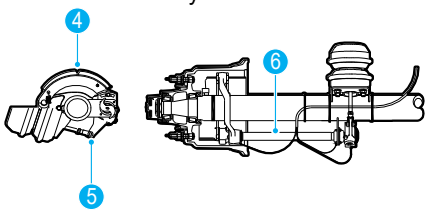
1. Spring brake valve
2. Quick release valve
3. ECU relay valve
4. Gladhand (emergency, red)
5. Gladhand (service, blue)

Running gear (side view)

Running gear
(side view)

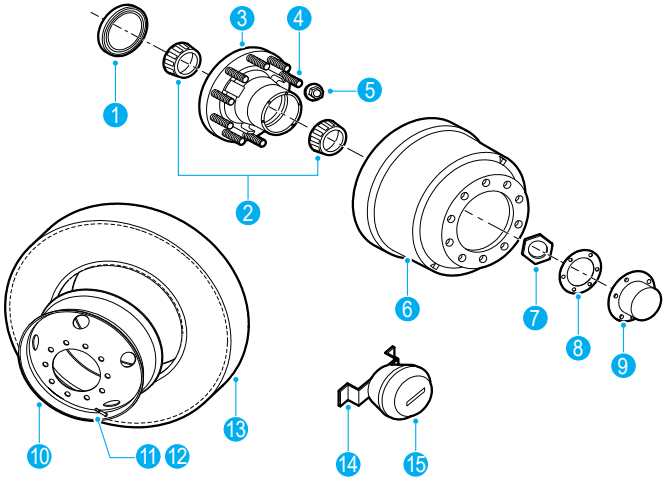


S-cam
assembly



1. Air tank
2. Axle
3. Spring brake chamber
4. Brake shoe kit
5. Automatic slack adjuster
6. S-Cam

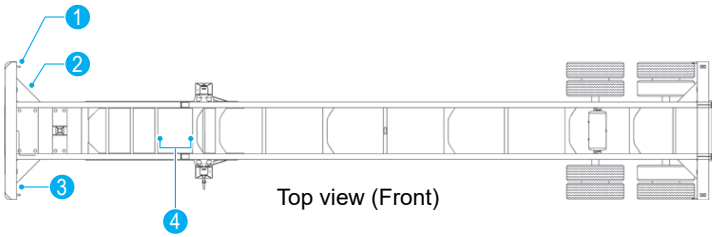
Wheel and hub assembly



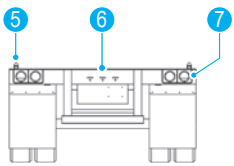
1. Wheel seal
2. Wheel bearing
3. Wheel hub
4. Wheel stud
5. Wheel nut (cone lock nut)
6. Brake drum
7. Spindle nut
8. Hub cap gasket
9. Hub cap
10. Steel rim
11. Air stem valve
12. Flow thru valve cap
13. Tire
14. Hub odometer bracket
15. Hub odometer

Trailer body structure assembly

Front and rear bolster assembly for chassis



Top view (Front)

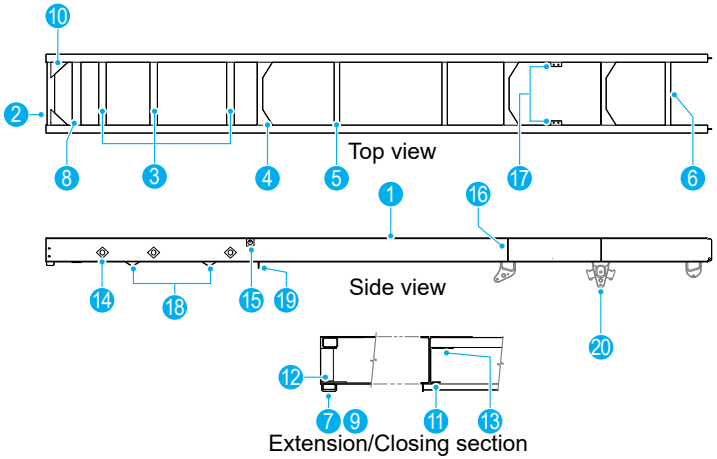


Front view (Rear)

1. Locking pin
2. Bolster gusset
3. Front bolster
4. Crossmember
5. Twist lock
6. Rear bolster
7. Light protector bracket

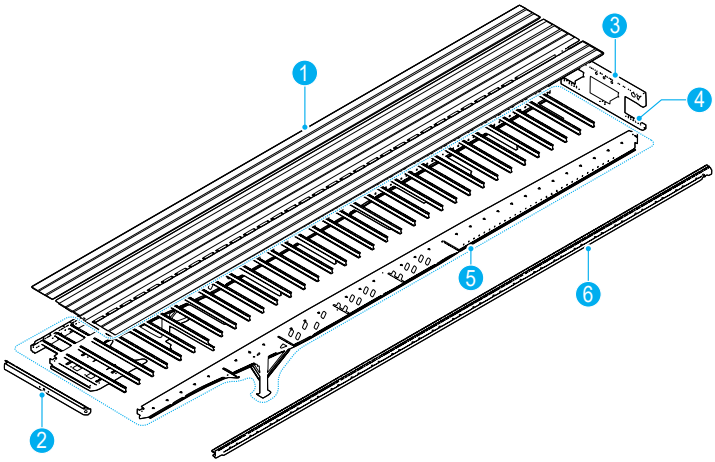
Appendix

Main frame for chassis



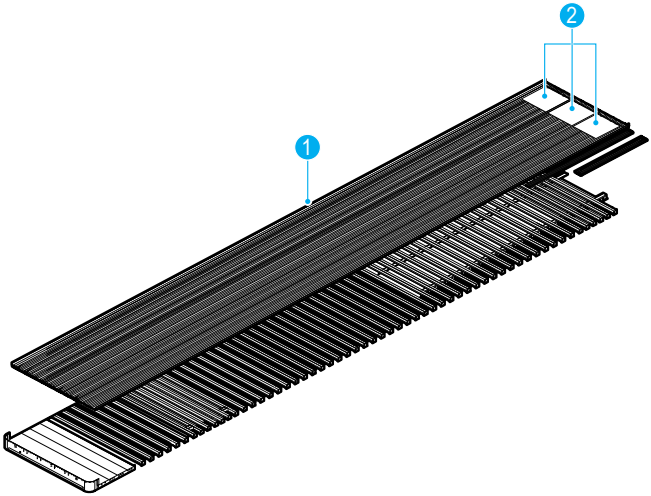
1. Main frame rail
2. Crossmember-1 (tube)
3. Crossmember-2 (tube)
4. Crossmember-3
5. Crossmember-4
6. Crossmember-5 (rear)
7. Crossmember-6 (stop tube)
8. Crossmember-VII (flat bar)
9. Crossmember end plate
10. Crossmember gusset
11. Spacer plate
12. Guide plate
13. Slide pad
14. Doubler plate
15. Lamp mounting bracket
16. Beam stiffener
17. Air tank mounting bracket
18. Terminal bracket
19. Extension linkage activator
20. Suspension hanger assembly

Main frame for flatbeds



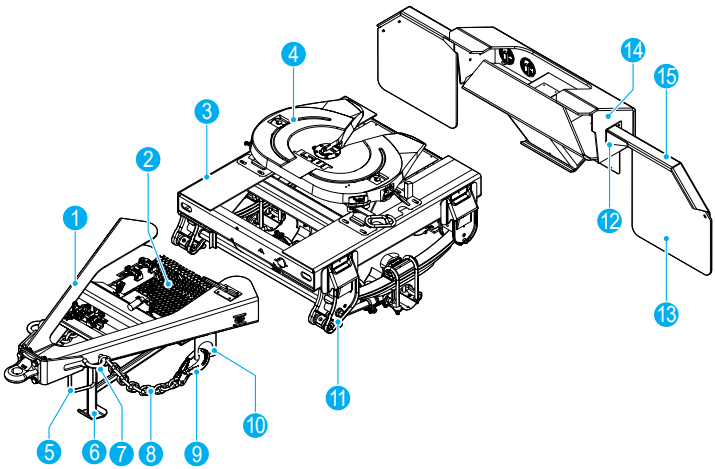
1. Floor assembly
2. Front sill assembly
3. Bumper assembly
4. Rear sill assembly
5. Main beam assembly
6. Side sill assembly

Floor assembly for flatbeds



1. Floor board
2. Threshold plate

Frame assembly for dollies

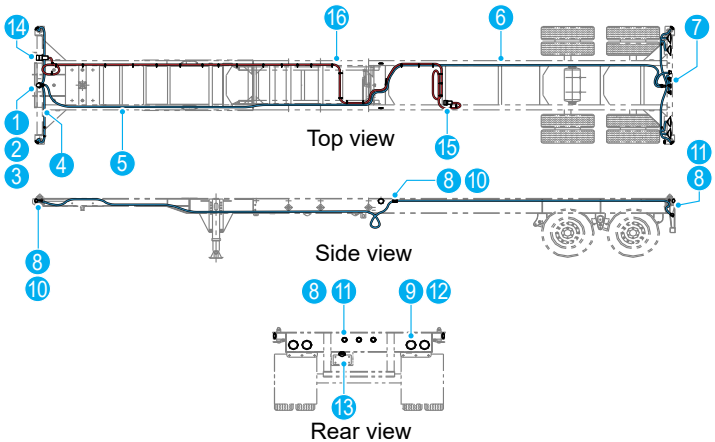


1. Drawbar frame assembly
2. Mesh
3. Main frame assembly
4. Fifth wheel
5. Drawbar handle
6. Front support
7. Hook rest
8. Chain (GR80)
9. Chevis hook
10. Chain bracket
11. Single straddle mount (Hutchens)
12. Bolster assembly
13. Mud flap
14. Mud flap bracket spacer
15. Mud flap hanger

Electrical and lighting system diagrams

Refer to the following diagrams for electrical wiring information for lighting systems and the location of the lights of the trailer.

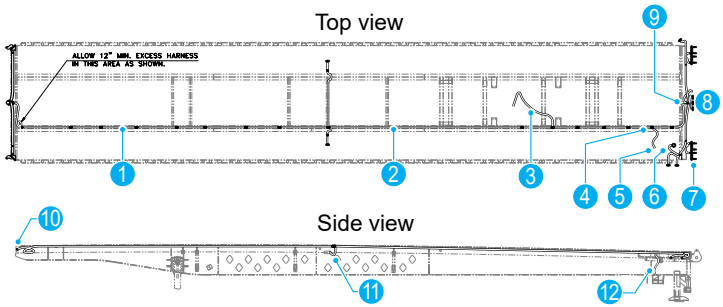
Electrical system for chassis



1. 7-Way connector
2. 7-Way housing
3. 7-Way housing gasket
4. Front marker harness
5. Main harness
6. Rear harness
7. Rear lighting harness
8. Lamp grommet (2")
9. Lamp grommet (4.5")
10. Marker light
11. Rear marker lights
12. Tail lights
13. License lamp kit
14. Front plug
15. Rear plug
16. Power cable

Electrical system for flatbeds

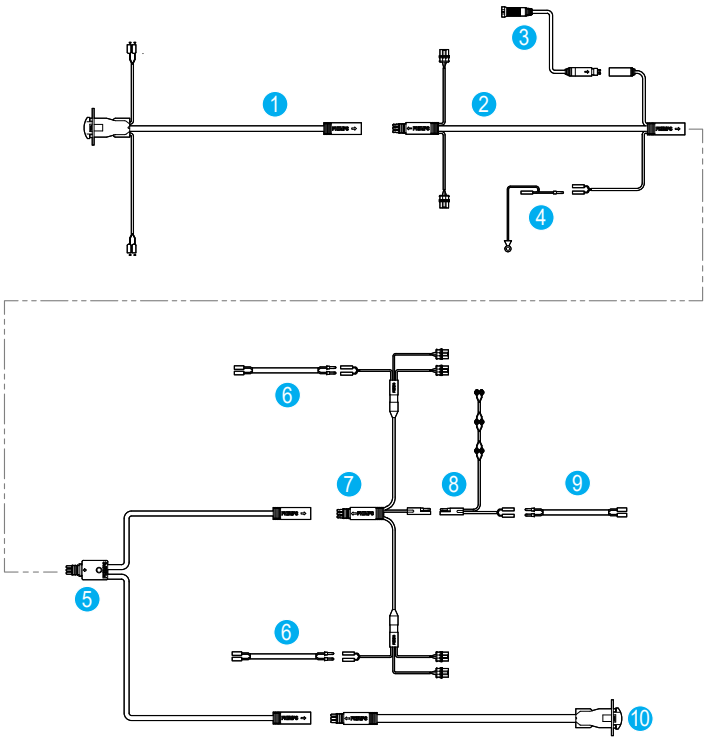
Lighting system wiring



1. Front harness
2. Middle harness
3. ABS Cable harness
4. 7-Way pintle hook harness
5. Main harness (48")
6. Jumper
7. Tail lights
8. Rear clearance lights
9. Rear harness
10. Front clearance lights
11. Mid-turn signal light
12. Main harness (48")

Appendix

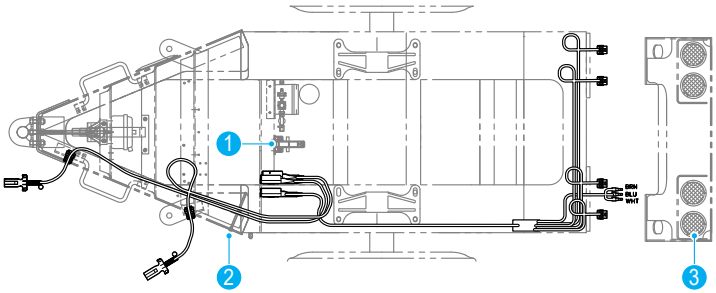
Lighting units and harness



1. Front harness
2. Middle harness
3. ABS Cable harness
4. Jumper
5. 7-Way pintle hook harness
6. Jumper extension (30”)
7. Rear harness
8. ID/License harness
9. Jumper extension (52”)
10. Main harness (48”)

Electrical system for dollies

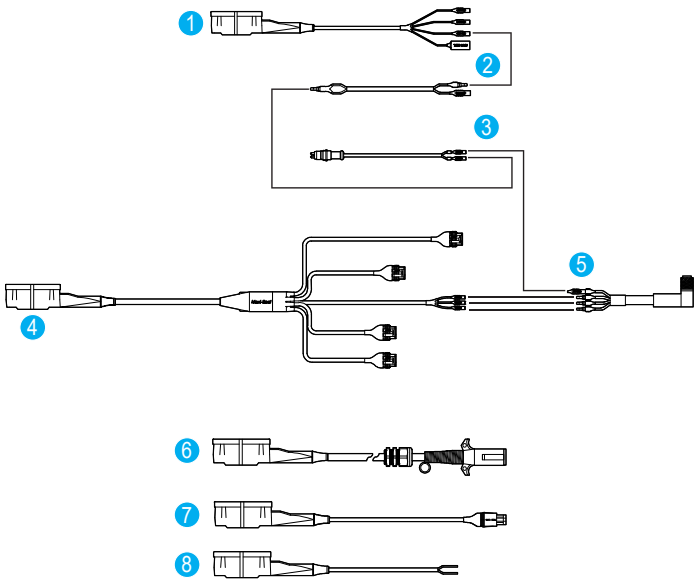
Lighting system wiring



1. Module kit
2. Clean marker PC light
3. Tail lights

Appendix

Lighting units and harness



1. PSI ABS light
2. BMS Extension
3. BMS Harness
4. Rear harness
5. Tail lights
6. Module kit
7. Harness
8. PSI Power harness

FMCSA annual inspection checklist

HYUNDAI TRANSLEAD

FMCSA ANNUAL INSPECTION FORM
HYUNDAI TRANSLEAD

Plant: La Encantada No. 7474 Parque Industrial "El Florido"
Tijuana B.C. México.
Corporate Office: 8880 Rio San Diego Drive, Ste # 600
San Diego, CA 92108

Inspection Facility: Hyundai Plant 1	Unit Number:		Hubodometer (if applicable):
City and State: Tijuana, Baja California, MX.	Customer:		S.A.P. Number:
Inspector Name:	VIN Number:		License Plate Number:
Inspection Date: ☐Pass ☐Fail	Repair Date:	Make: Hyundai	Year / Model:

OK	NEEDS REPAIR	ITEMS INSPECTED	OK	NEEDS REPAIR	ITEMS INSPECTED
		BRAKE SYSTEM			**SAFE LOADING**
		Service Brakes			Part(s) of vehicle or condition of loading such as spare tire or any part of the load or dunnage can fall onto the roadway
		Parking Brake System			
		Brake Drums or Rotors			
		Brake Hose			Protection against shifting cargo
		Brake Tubing			**STEERING MECHANISM**
		Audible Air Leaks			For units with Steerable Rear Axle.
		COUPLING DEVICES			**SUSPENSION**
		Fifth Wheels / Upper Coupler			Any U Bolt(s), spring hanger(s) or other axle positioning part(s) cracked, broken, loose or missing resulting in shifting of an axle from it's normal position
		Pintle Hooks			
		Drawbar / Towbar Eye			
		Drawbar / Towbar Tongue			
		Safety Devices			Spring assembly
		Saddle-Mounts			Torque, radius or tracking component
		EXHAUST SYSTEM / REFRIGERATED UNITS			**FRAME**
		No part of the exhaust system of any motor vehicle shall be located as would be likely to result in burning, charring or damaging the electrical wiring, the fuel supply, or any combustible part of the motor vehicle			Frame members
					Tire and Wheel Clearance
					Adjustable Axle Assemblies (Sliding Sub-Frames).
					TIRES
					WHEELS AND RIMS
		FUEL SYSTEM / REFRIGERATED UNITS			Lock or Side Ring
		Visible leak			Wheels and Rims
		Fuel tank filler cap missing			Fasteners
		Fuel tank securely attached			Welds
		LIGHTING DEVICES			**UNIT NUMBERS DISPLAYED**
		All lighting devices and reflectors required by Section 393 shall be operable.			**SPLASH GUARDS**
					Driver Side
					Passenger Side

I have inspected the vehicle described above and certify that all entries are true and correct. I certify that this inspection meets the requirements of 49 CFR Part 396.17 and is in accordance with Appendix G to Subchapter B, Minimum Periodic Inspection Standards, and the vehicle has passed / failed as indicated above.

INSPECTOR'S NAME (Please Print). _____

INSPECTOR'S SIGNATURE:

_____ QCD-F-600 EN REV-03

QCD-F-600 EN 2022

Find a dealer near you

To have the trailer maintained or repaired by a qualified technician, or to order replacement parts, visit the Hyundai Translead website at www.hyundaitranslead.com/find-a-dealer/ and find an authorized Hyundai Translead dealer around you.

Product warranty

HYUNDAI
TRANSLEAD

5 Year
LIMITED WARRANTY

Hyundai Translead ("Manufacturer") hereby warrants to the original purchaser ("Purchaser") of each new Hyundai Translead trailer van,container, chassis, and converter dolly ("Product") that the Product will be free from defects in materials and workmanship for a period of fiveyears, if properly maintained and used in normal service. "Normal service" means usage in the manner and for the purposes for which suchProducts are customarily utilized, and includes the loading, unloading and carriage of uniformly distributed legal loads of noncorrosive cargo,properly secured, in a manner that does not subject the Product to strains or impacts greater than those normally imposed during lawful use onwell-maintained public roads, with a gross vehicle weight that does not exceed the gross vehicle weight rating (GVWR) specified on thevehicle identification plate affixed to the vehicle by the Manufacturer prior to delivery.

Manufacturer's sole obligation under this limited warranty is to repair or replace, at its option, any part or component of the Product that wasfurnished and installed by Manufacturer and that proves defective in material and/or workmanship during the first sixty (60) months followingthe date of delivery to the Purchaser, such repair or replacement will be performed by Manufacturer or, with Manufacturer's prior expressauthorization, at a repair facility designated or approved by Manufacturer. Manufacturer assumes no responsibility to reimburse Purchaser or pay for repairs made without Manufacturer's prior express authorization or at repair facilities not designated or approved by Manufacturer. As a pre-condition to Manufacturer's obligation under this limited warranty, Purchaser must notify Manufacturer of any product defect promptly upon discovery, and return Product to Manufacturer or, at Manufacturer's direction, to a repair facility designated by Manufacturer, within ten (10) days after Manufacturer requests its return for inspection and/or repair or replacement.

WAIVERS AND DISCLAIMERS

THE LIMITED WARRANTY PROVIDED HEREIN IS EXPRESSLY IN LIEU OF, AND PURCHASER HEREBY WAIVES, ANY AND ALL OTHER WARRANTIES, WHETHER WRITTEN OR ORAL, EXPRESS OR IMPLIED. MANUFACTURER EXPRESSLY DISCLAIMS AND PURCHASER HEREBY WAIVES ANY IMPLIED WARRANTY OF MERCHANTABILITY AND ANY WARRANTY THAT EXTENDS TO USES OF THE PRODUCT BEYOND NORMAL SERVICE AS DEFINED HEREIN.

The limited warranty herein does not apply to, and Manufacturer makes no warranties, whether written or oral, expressed or implied, with respect to:

1) Parts, accessories, or other goods made or distributed by other manufacturers which are installed on the Product in accordance with Purchaser's specifications or requirements. Manufacturer will assign to Purchaser any warranties extended to Manufacturer by the makers or suppliers of such items.
2) Used goods delivered hereunder, regardless of their manufacturer, all of which are delivered "AS IS".
3) Components of any Product which, after delivery to the Purchaser, were repaired or altered by anyone other than Manufacturer or one of its authorized service representatives, unless, in Manufacturer's reasonable opinion, such repairs or alterations are in no way responsible for the condition complained of.
4) Parts, accessories or components supplied by Manufacturer which, due to ordinary wear and tear, need replacement during the warranty period, including, for example, but without limitation, light bulbs, brake linings and brake drums.
5) Normal deterioration of sheet metal, aluminum, paint, trim and appearance items resulting from use and exposure to the elements.
6) Tires and other components as to which a separate supplier's warranty applies.
7) Upon going into service, wheel end alignment claims are considered on a case by case basis. Factory alignments are covered upon delivery of all equipment.
8) Photos may be required to perform an evaluation for claims related to proprietary components.
9) As a customer courtesy, third party vendor parts are processed as a pass through with the component manufacturer for the first year of service only.

LIMITATIONS OF MANUFACTURER'S LIABILITY

PURCHASER'S SOLE REMEDY FOR ANY DEFECT IN THE PRODUCT, OR ANY COMPONENT OR PART THEREOF, IS LIMITED TO THE REPAIR OR REPLACEMENT OF THE DEFECTIVE ITEM AT THE MANUFACTURER'S SOLE OPTION. MANUFACTURER SHALL HAVE NO LIABILITY FOR ANY CARGO LOSS, LOSS OF USE, LOST PROFITS, LOSS OF GOOD WILL, STORAGE, TOWING OR OTHER TRANSPORTATION COSTS, OR ANY OTHER INCIDENTAL OR CONSEQUENTIAL DAMAGES, WHETHER SUSTAINED BY PURCHASER OR BY PURCHASER'S CUSTOMERS, ARISING OUT OF ANY ALLEGED DEFECT, OR BREACH OR FAILURE OF WARRANTY.

HYUNDAI TRANSLEAD

Serial Number(s):

Customer Name:

Date of Purchase:

Rev.001, October 2023