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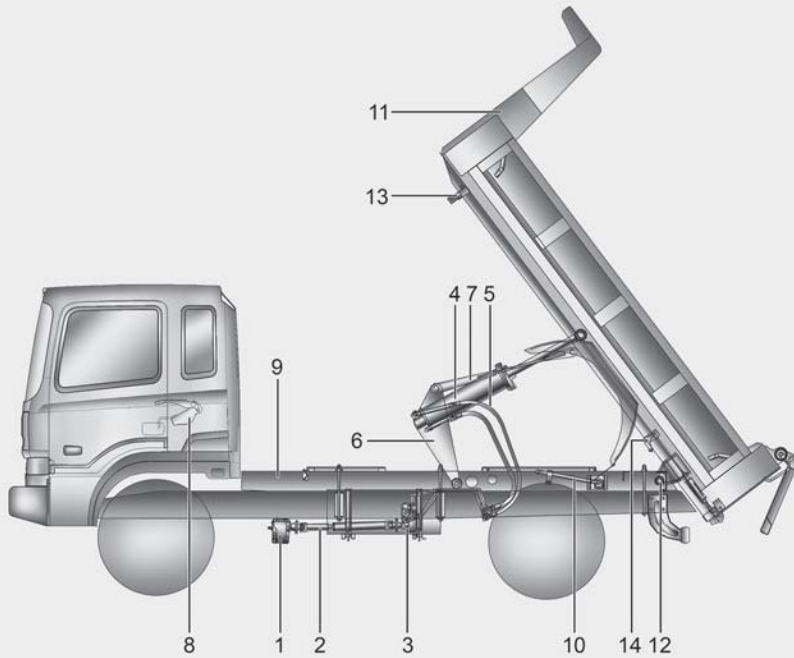
How to handle dumps

How to handle
dumps

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Appearance

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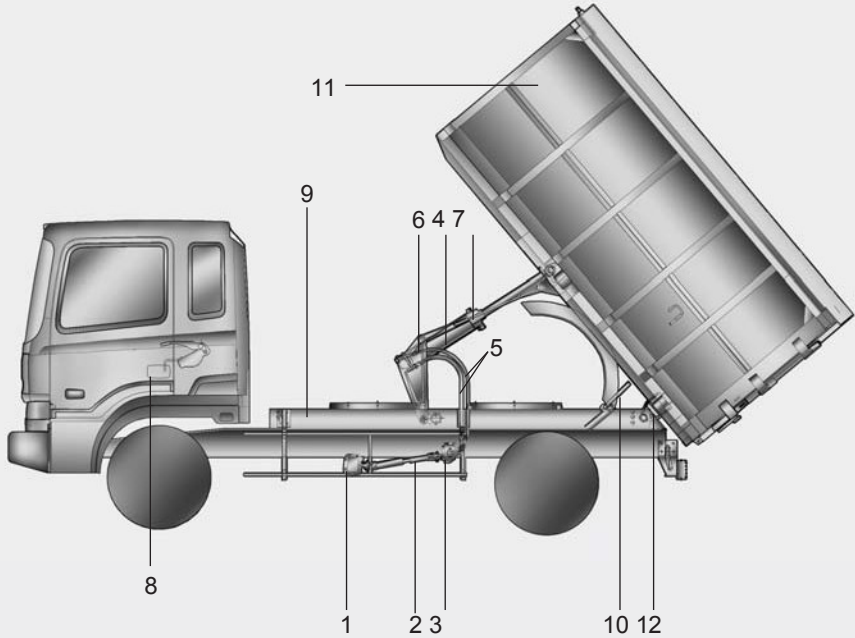
This illustration may differ from the actual vehicle.

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- (PTO)
- 2. Drive shafts
- 3. Hydraulic pumps
- 4. Hoist cylinder
- 5. Hydraulic hoses
- 6. Lift Plate
- 7. Tension load
- 9. Subframes
- 10. Safety bar
- 11. Loading bins
- 12. Dump hinge
- 13. Body Lock
- 14. Tailgate auto-lock

■ Dumpster



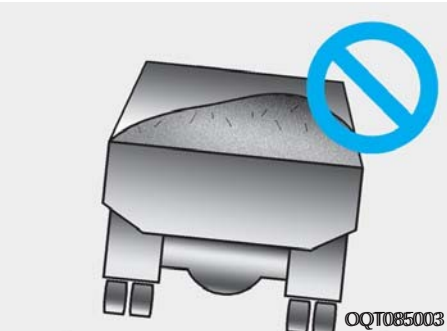
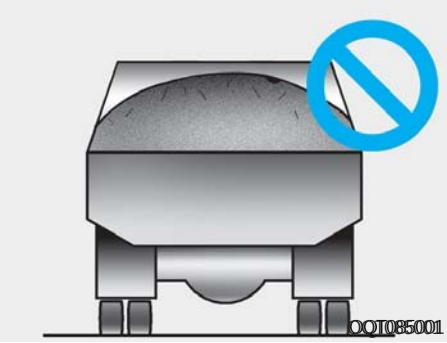
This illustration may differ from the actual vehicle.

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- | | |
|-------------------------|------------------|
| 1. Power take-off (PTO) | 7. Tension load |
| 2. Drive shafts | 8. Dump lever |
| 3. Hydraulic pumps | 9. Subframes |
| 4. Hoist cylinder | 10. Safety bar |
| 5. Hydraulic hoses | 11. Loading bins |
| 6. Lift Plate | 12. Dump hinge |

Handle with care

- Do not overload or lopsidedly load.

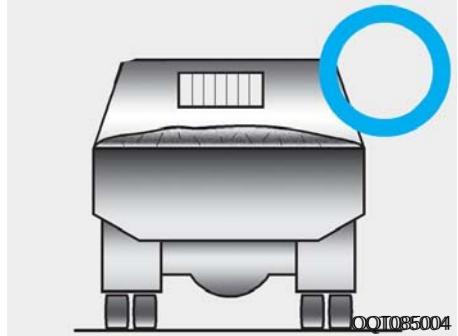


Serious personal injury can result from vehicle damage or rollover while driving.

- Do not use for any purpose other than that for which this vehicle is intended.

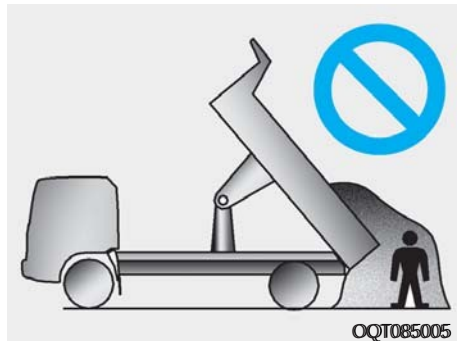
Dump uses: transporting construction aggregates
Defects such as premature wear and tear of the stack can occur.

- Use the dump lever only for dump operations.



Raising the dump due to incorrect operation of the dump lever can cause serious personal injury and property damage.

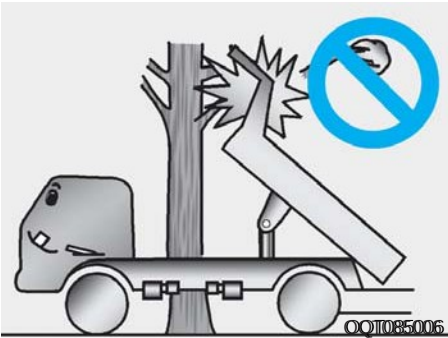
- Ensure that the area around the load bin is clear of people or obstacles before operating the dump.



- Serious personal injury can result from being crushed by the load or load bin.
- The load bin could be caught on a high voltage line and cause an electric shock.
- The load bin might hit an obstacle and break.

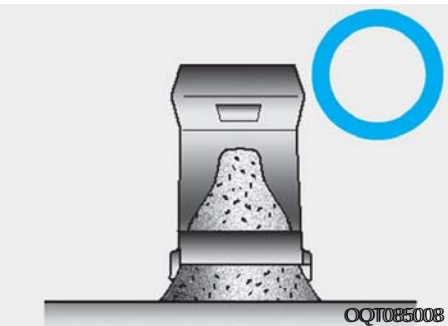
How to handle dumps

- Do not drive with the load compartment raised.



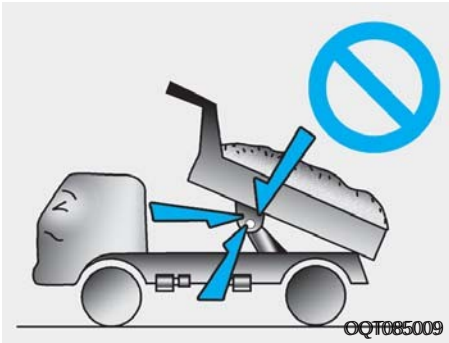
- The load bin could be caught on a high voltage line and cause an electric shock.
- The stacker may collide with surrounding obstacles, causing damage or overturning.

- Do not unload the load on an incline.



Serious personal injury and property damage, such as vehicle damage or overturning due to twisting of various parts of the vehicle and hydraulic equipment, may occur.

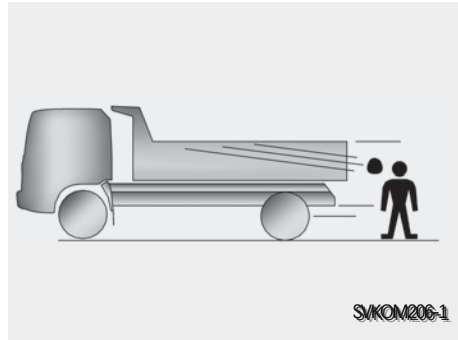
- Do not open the stacker or make sudden stops while the load is loaded.



Breakage of the hoist cylinder and hydraulics can transmit shock to the operator, causing serious personal injury.

- Be careful not to drop or scatter the load while travelling.

Flying debris can damage the vehicle behind you and injure bystanders.



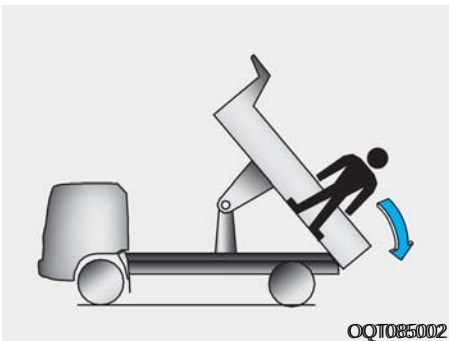
How to manoeuvre dumps

- Do not stay under the load bin without taking precautions to avoid danger.



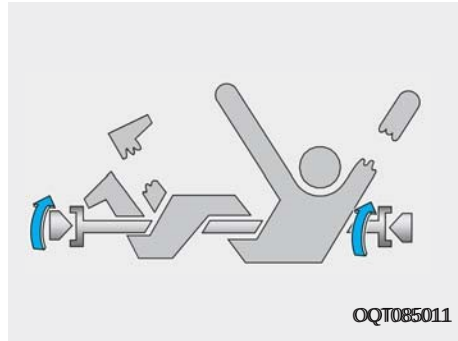
Serious personal injury can result from improperly stowed items.

- Do not stay in the load bay when the vehicle is running or the dump is rising.



Falling out of the stack can cause serious personal injury.

- Do not go under the chassis with the engine running.



The propeller shaft and drive shaft are rotating and can cause serious personal injury.

When reaching under the vehicle, apply the parking brake, chock the tyres, switch off the engine and remove the key.

- Do not make any adjustments or tamper with the hydraulics.

Damage or malfunction of the hydraulic system due to exceeding the specified capacity can result in serious personal injury.

- Watch out for spring when going up and down steps (stairs).

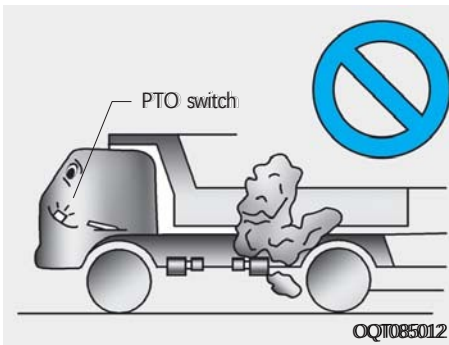


Falling can cause serious personal injury.

- Drive with the spare (reserve) tyre securely fastened.

A spare tyre can fall off while driving and impede the safe operation of the vehicle behind, causing serious personal injury to the driver and other property damage.

- Do not drive with the PTO switch in the "ON" position.



The hydraulic pump or hydraulics can be damaged by overloading due to continuous hydraulic pump rotation.

- Do not make any alterations to any part of the vehicle, such as welding or drilling holes.

Significant vehicle defects can occur, including electronic control unit failures and cracks, and hoist cylinder damage.

If welding work must be done, please have it done by our direct service centre or Blue Hands.

How to use your device

Warnings

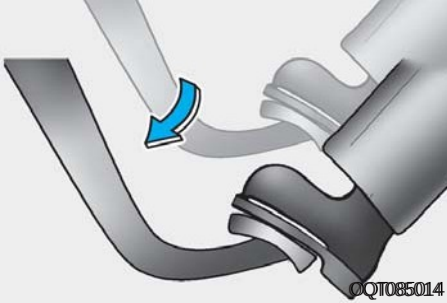
- Read this manual carefully and use it exactly

- as instructed to operate the dump.
- Serious personal injury and vehicle damage can result from incorrect dump lever operation.

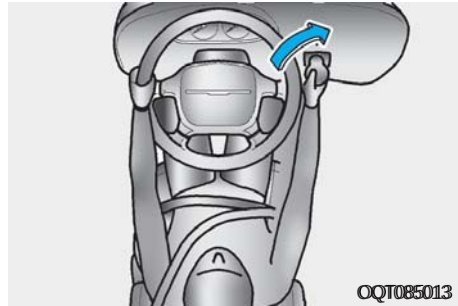
How to manoeuvre dumper

■ Raising the stack

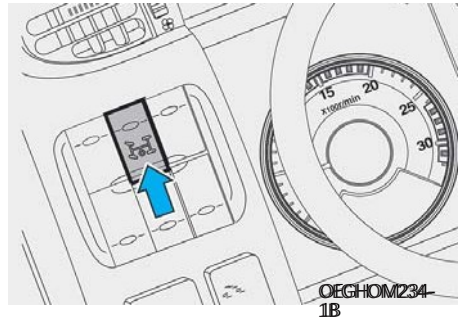
1. Start the engine.

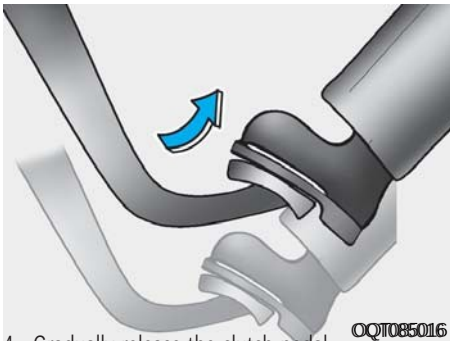


2. Fully depress the clutch pedal.

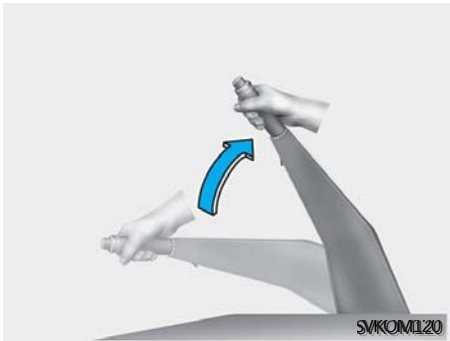


3. Engage the PTO by pressing the PTO switch.





4. Gradually release the clutch pedal.



5. Move the dump lever (switch) to the "up" position
6. When the load bin starts to rise, gradually depress the accelerator pedal to control the dumping speed.

Note

Ensure that the engine speed does not exceed 1,000 rpm when dumping.

- Overloading can damage the hydraulic pump.

7. Rising stops automatically when the stack reaches its maximum height.

■ Stowage compartment bottom ⑨

1. Move the dump lever to the "down" position.
2. This is independent of the engine rotation and is lowered by the load bin's own weight.

■ When stopping the dump in the middle of a dump operation

1. When the dump lever is in the "Stop" position, the loader will stop halfway down.
2. In the same way, with the PTO switch engaged, move the lever to the "Stop" position, the loader will stop rising.
3. If you need to leave the loader lifted for an extended period of time, place the dump lever in the "STOP" position with the PTO switch in the "OFF" position.

■ Position of the dump lever when driving

Before driving, make sure the PTO switch is "OFF" and drive with the dump lever (switch) in the lower position.

Note

Always depress the clutch pedal when switching the PTO switch "OFF" (manual transmission).

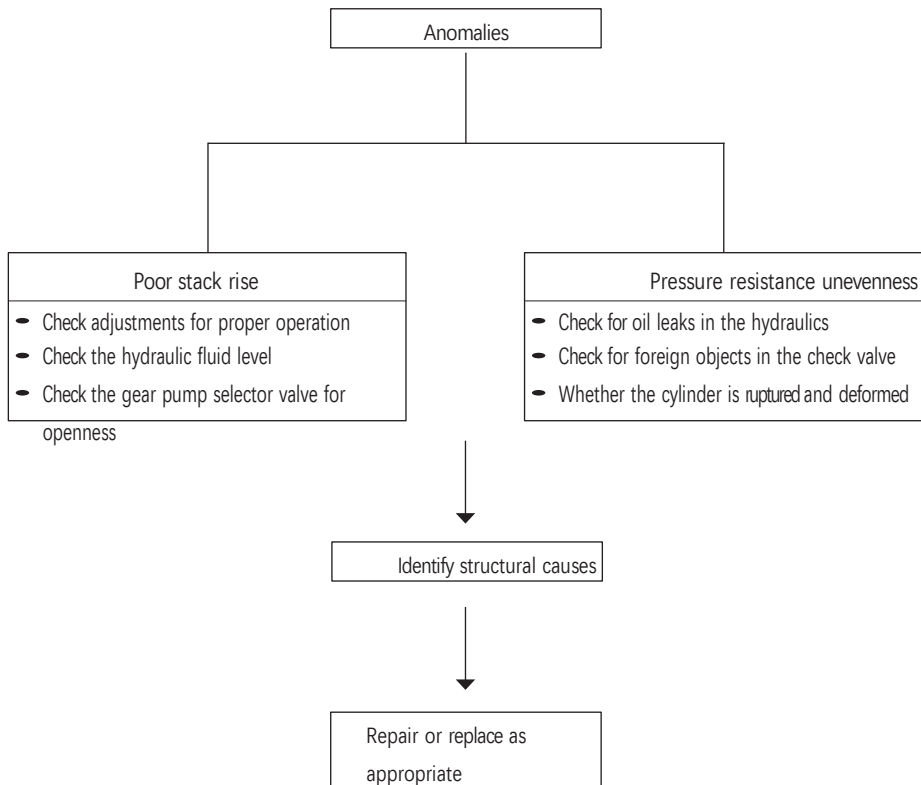
- The PTO gears can be damaged and may not engage properly.

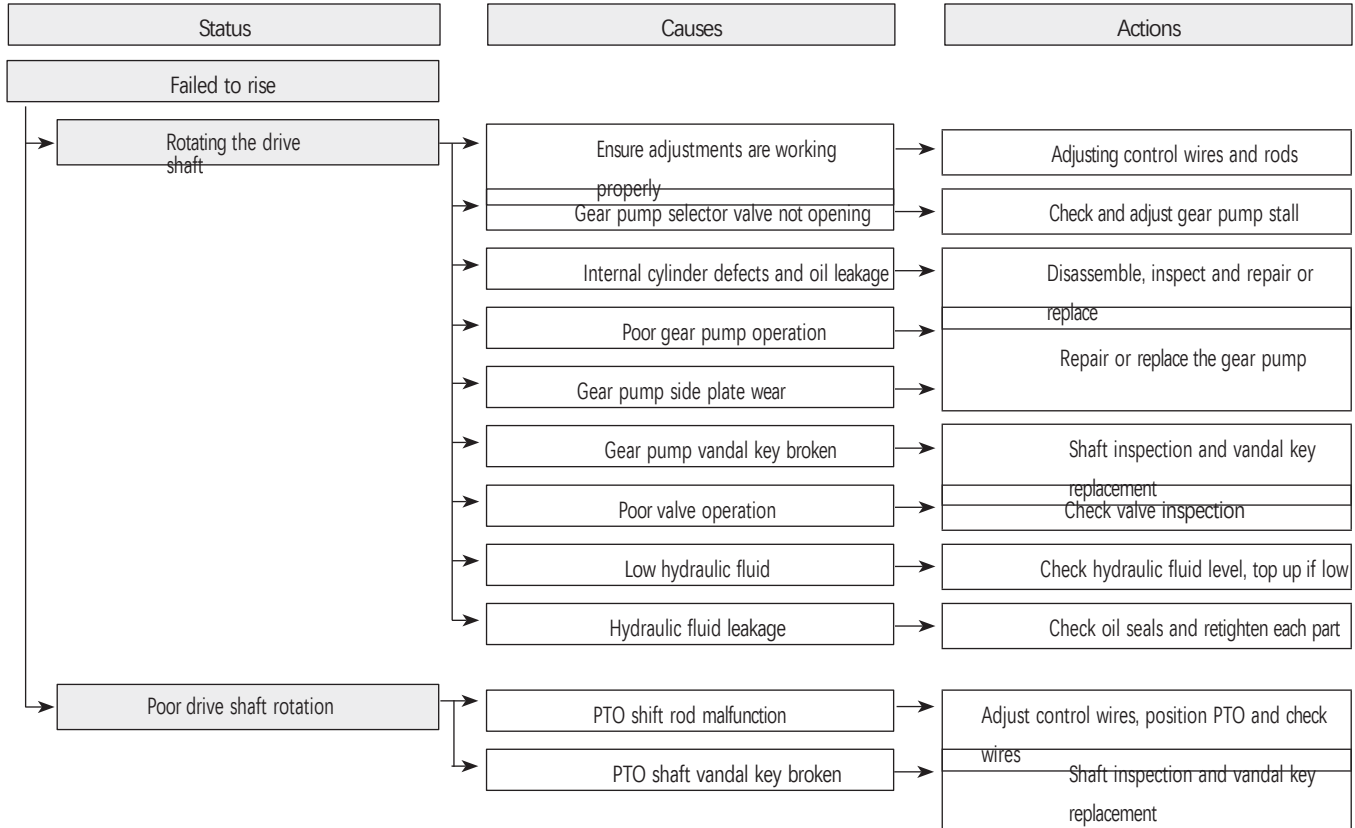
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Fault Diagnosis

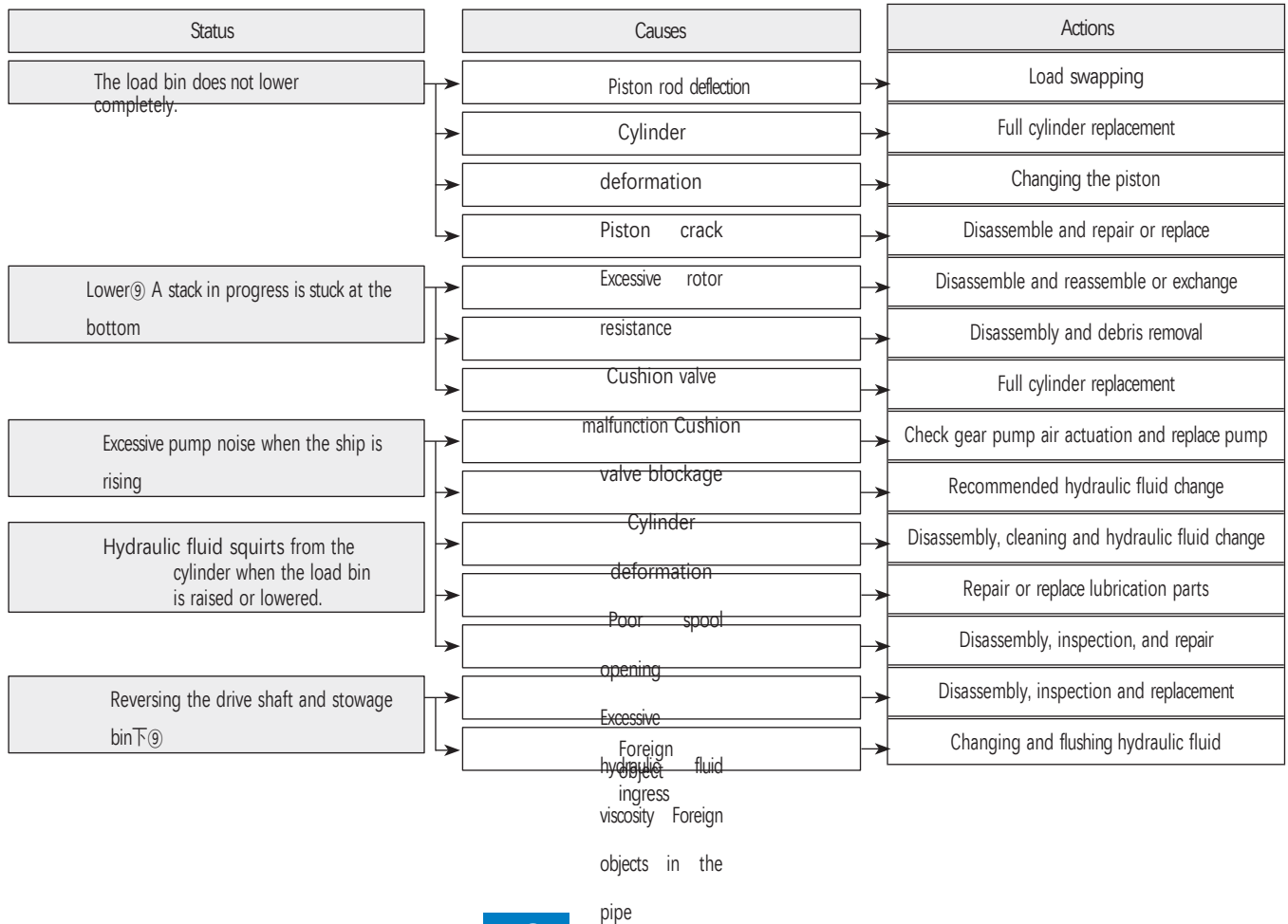
■ How to diagnose a fault

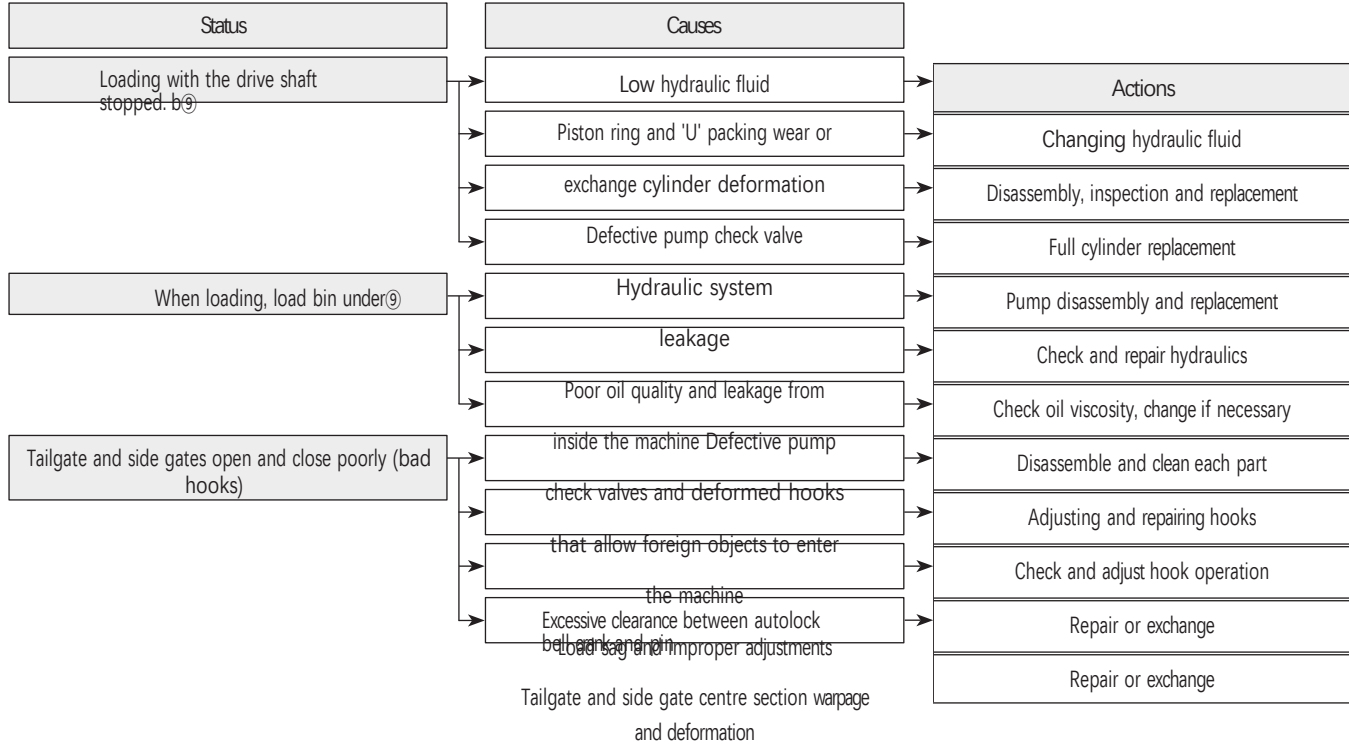
For your understanding, the following is a description of the causes and remedies for common fault diagnoses. Do not replace parts, ~~disassemble~~ or reassemble the unit until the cause of the fault has been definitively diagnosed by an authorised service centre or BlueHands





Status	Cause	Actions
Empty bin rises but poor or no rise when loaded	Internal cylinder defects and oil leakage	Disassembling and repairing cylinders
	Cylinder deformation and excessive clearance	Full cylinder replacement
	Gear pump damage	Gear pump replacement (pump part replacement)
Cargo bin jumping on ascent	Low hydraulic fluid	Topping up hydraulic fluid
	Air intake	Check/re-tighten oil leaks, deflate the system
	Poor lubrication or wear on rotating parts	Lubricate and repair or replace worn parts
	Foreign objects in the oil	Clean pipe oil passages, change hydraulic fluid
Excessive pump noise on load bin rise	Low hydraulic oil and air ingress	Topping up hydraulic fluid, deflating operations
	Excessive hydraulic fluid viscosity	Recommended hydraulic fluid change
Hydraulic fluid squirts from the cylinder when the load bin is raised or lowered.	Excessive hydraulic fluid	Oil drain (keep the right amount)
	Air intake	Deflate operations
Raised stowage bin not available	Excessive hydraulic fluid	Oil drain (keep the right amount)
	Insufficient selector valve opening	Check gear pump air actuation and replace pump
	Piston crack	Changing the piston
	Leaky Dumprepper Operated Airline Connection	Reassembly and repair



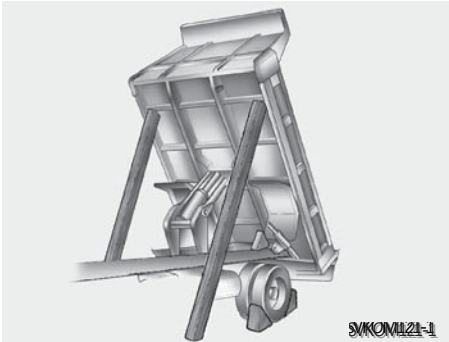


Routine maintenance

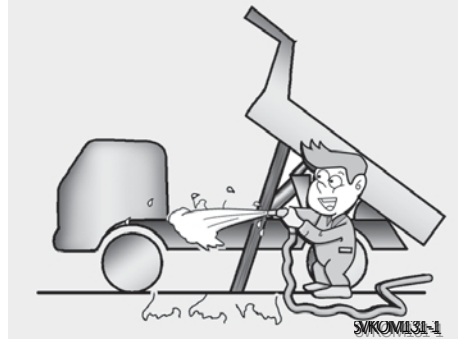
■ What to prepare



CAUTION When inspecting or servicing the stack while it is elevated, always do so after taking precautions against hazards. Serious personal injury may result from lowering the stacker.



1. Before inspection and maintenance, be sure to support the load compartment with sturdy wooden supports and safety braces, and secure the tyres with chocks.



2. Clean the area you need to work on. Cover the cap with a cover to prevent the cabin from getting dirty.
3. Have your tools, jigs, and measuring tools ready for the job.

■ Periodic maintenance schedule

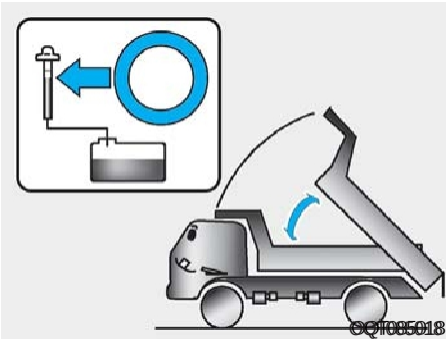
Devices	Defects	Causes	Maintenance		Frequency
			Every day	Every 3 months	
Drivers	PTO units	Oil secretion	B		
		Unusual noises	B		Overhaul
		Retightening the fasteners		B	
		Oil leakage		B	Retightening and packing changes
	Drive shafts	Retightening the fasteners		B	
		Bearing looseness and the function of snap rings		B	Replacing bearings and spitters
Loose Spline Parts			B	Swapping splines	
Hydraulics	Hydraulic pumps	Oil secretion	B		Retightening and packing/seal replacement
		Unusual noises	B		Deflate and replace pump if abnormal
		Retightening the fasteners		B	
	Hydraulic hoses and pipes	Oil secretion	B		Retightening and packing changes
		Scratches on the exterior of the rubber hose	B		
		Rubber hose deterioration and cracking		B	Replacing the rubber hose
		Retightening the pipe flange bolts		B	
		Retightening joints		B	
		Oil tank oil level		B	Topping up hydraulic fluid
	Hoist cylinder	Uniform or oil leakage	B		Exchange or repair
		Oil secretion	B		Retightening and packing changes
		Jump when the loader rises, etc.	B		Replenishing oil
		Cylinder pressure drop		B	Piston packing and ring replacement

		Cylinder rod outer circumference scratches and rod deformation		B	Exchange
		Overall appearance scratches and deformations		B	Exchange
		Looseness and wear at each connection		B	Retighten or repair

Devices	Defects	Causes	氣 liver		B 高
			每 day	Every 3 months	
Body	Bodies and subframes	Abnormal condition of hinge pins and lock bolts	B		Service or replacement
		Cracks in welds or hinges	B		Maintenance or welding
		Warping and bending of the body mainframe		B	Repair
		Wear or bending of each hinge		B	Exchange metal pins
		Retighten the 'U' bolts and mounting bolts		B	
	Liners	Cracks or wear and tear	B		Exchange
	Cargo compartment rear door lock	Cracks or wear and tear	B		Exchange
		Adjusting the angular load and locking force	B		Adjustments
		Wear or bending of each hinge	B		Maintenance
		Angular hinge malfunction	B		Maintenance
Accessory Liryu	Safeguards	Abnormal behaviour and deformations	B		Service or replacement

1. Check the daily inspection before starting the engine.
2. Remove contamination around the bottom of the hook and on the guide roller slopes daily.

Check hydraulic fluid and replace

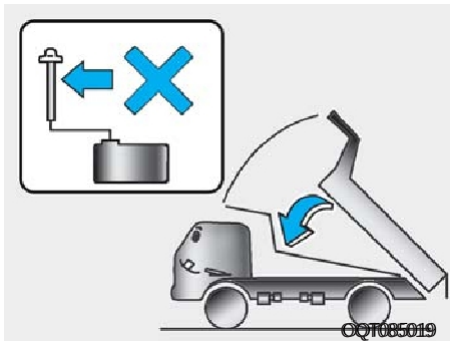


⚠ Notes

The hydraulic fluid must always be at the proper level on the level gauge.

■ Check

Leak check



1. If leakage occurs at the connection or assembly of parts, retighten them.
2. If too much oil leaks, replace sealing parts such as the oil ring.

Inspection of the oil pump

1. Check the rotation of the drive shaft
2. Check for unusual internal noises when rotating
3. Check the pump casing bolts for looseness
4. Check that the dump lever operates normally in the up and down positions.

Topping up hydraulic fluid

1. Stop the oil pump from running, check the level gauge to check the low rate and make sure there is adequate fluid.
2. If the flow is too low, add the prescribed amount of hydraulic fluid.

Hydraulic fluid specifications

- Specification: I.S.O VG #32 anti-wear hydraulic fluid
- Recommended oils :
Hyspin AWS 32 (CASTROL), Nuto H32 (ESSO), Hydrasil 32 (GULF), DTE24 (MOBIL), Tellus 32 (SHELL)

⚠ Note

- When filling the oil, be careful not to allow air to enter.
- Be sure to deflate after filling with oil. Be sure to check the dumping operation several times after the deflating operation to ensure that it is smooth.
- In general, air in the pipework can cause the following to occur
 - The dump body is not raised on the way.
 - Dump body vibrates during ascent.
 - The dump body rises and then drops with a rattling sound.

- This is usually caused by air being sucked in due to less than the prescribed amount of hydraulic oil, or air being sucked in due to loose pipe connections, etc. during prolonged use, even if the prescribed amount is sufficient. To prevent this from happening, add the prescribed amount of hydraulic oil and regularly check for loose pipe connections and repair them.

Inspecting hydraulic fluid for water ingress

If the hydraulic fluid has a milk-coloured discolouration, visit your local service centre or Blue Hands for a check and replace the hydraulic fluid.

Exchange cycles

Change the hydraulic fluid regularly to prolong the life of the dumping unit and ensure that it functions properly.

Initial	3 months or after 500 dumpings
After the first time	Every 1 year or every 2,000 dumps

Change the oil based on the elapsed time or the number of dumpings, whichever is reached first.

 Note

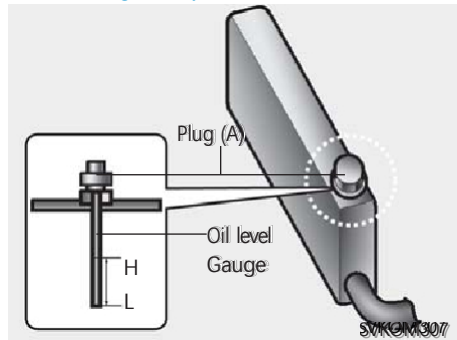
If dumping is used excessively for short-distance work, take breaks to ensure that the hydraulic fluid temperature does not exceed 70 degrees Celsius. This will prevent the dump from rising and will shorten the life of the hydraulic system.

Low hydraulic fluid

The following are symptoms of low hydraulic fluid. Top up the hydraulic fluid to the specified amount.

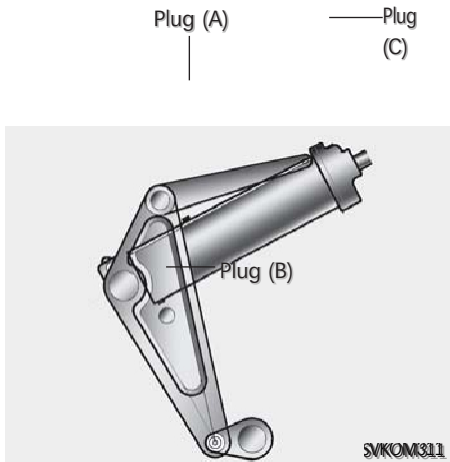
- Excessive noise from hydraulic pump
- Stack not rising smoothly
- Jumping on rising loads
- The loading bay shutters after rising or descends with a stepwise rattling sound

■ Checking the hydraulic fluid



1. Raise the dump body as high as possible and support it with the safety bar and safety post.
2. Bring the pump to a standstill.
3. Unscrew the oil filler hole (A) and check that the oil level is at the prescribed height (within the range of the level gauge scale).
4. If the hydraulic fluid is low, add the prescribed amount. Be careful not to exceed the prescribed amount. (If the hydraulic fluid is overfilled, the dump body will not lower, and the hydraulic system will be adversely affected).

Draining
hydraulic
fluid



1. Raise the dump body to the poppet valve open position as shown and support the dump body at both ends with supports.
2. Revving the engine, hydraulically raise the dump body one more time to reach the full lift position, then accelerate the engine. Keeping the piston in contact with the cylinder head, quickly support both sides of the body with stanchions.
3. Stop the engine and unscrew the feed plug (A). Place a waste oil container on the lower part of the gear pump and unscrew the drain plug (B) to drain the hydraulic oil in the cylinder.

Refuelling

Lock the plug (B) as soon as the oil is completely drained. Place the dump lever in the 'up' position and add new hydraulic fluid to the filler hole (A) of the hydraulic oil tank. Start the engine and top up the reduced hydraulic fluid.

Note

In this case, the pump is running at a high speed relative to the amount of fuel being dispensed. This can cause large amounts of air to be sucked into the pipework. so please adjust to the appropriate pump speed. (operate the clutch to control the rotation) or rapid Increase the flow rate to ensure there is always hydraulic fluid in the tank. Continue to replenish so that the

In this case, if the pump speed is too high for the amount of oil to be dispensed, a large amount of air may be sucked into the pipework, so adjust the pump speed to the appropriate speed. (Operate the clutch to adjust the speed.) Alternatively, keep topping up by dispensing more oil to ensure that there is always hydraulic oil in the tank.

Notes

1. Stop the pump when hydraulic fluid is present throughout the hydraulic pipework and the oil level gauge is within the specified range.
2. Deflate. Top up when the deflating process is complete and the oil in the tank is below the specified amount.
 - Hydraulic working flow: approx. 10 l

Deflate

To deflate, do the following

1. Move the dump lever to the "up" position.
2. Place the dump body in the fully raised position.
3. Loosen the plug (C) on the rod cover.

After refuelling, allow the engine to idle at low revs for 3-5 minutes to allow any air remaining during deflating to escape on its own.

When you are finished ~~deflating~~ tighten the plug (C). Finally, perform two to three dump operations to ensure that the dump is operating normally. If it does not work properly at this time, perform deflation again.



Note

- In general, air in the pipework can cause the following to occur
 - The dump body is not raised on the way.
 - Dump body vibrates during ascent.
 - The dump body rises and then drops with a rattle.

- This is usually caused by air being sucked in due to less than the prescribed amount of hydraulic oil, or by air being sucked in due to loose pipe connections, etc. during prolonged use, even if the prescribed amount of hydraulic oil is sufficient. To prevent this from happening, add the prescribed amount of hydraulic oil and regularly check for loose pipe connections and repair them.

Lubrication

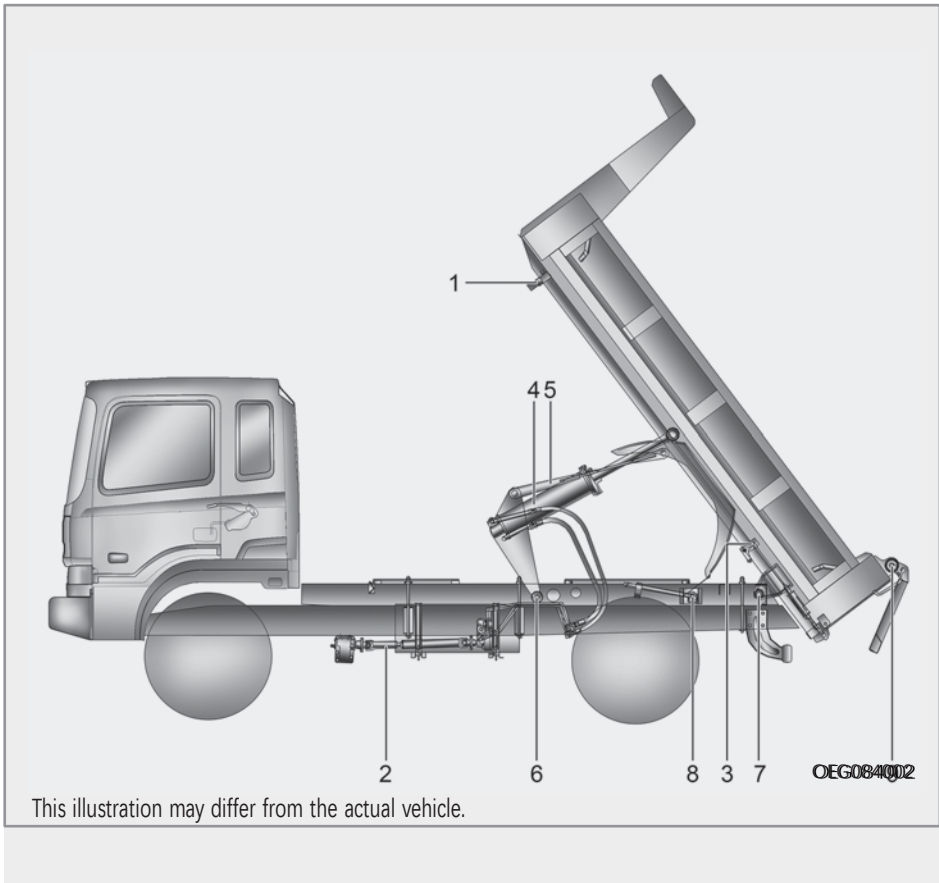
■ Greek specifications

Oil name	规格	Remarks
Intermediate Normal Greek	NLGI NO.1	NormalChassisGr eece

- Ensure that the rotating and sliding parts of the dumping unit are well lubricated to prevent wear, ensure reliable locking, efficient operation and prevent breakdowns.
- If the vehicle is new, lubricate it weekly and fill it with grease in the areas shown in the following illustration. (Vehicles in service: greased daily)
- Before refuelling, make sure the parking brake is securely engaged and the wheels are chocked at the front and rear to prevent the vehicle from moving.

Grease application location

1. Guidebody contacts
2. Tailgate automatic lock roller contacts
3. Any area equipped with a grease nipple (see Grease Fill Station illustration)



Grease fill location

1. Body lock (2 left and right)
2. Driveshaft (2 locations)
3. Tailgate auto-lock (6 locations, left and right)
4. Hoist cylinders (1 up, 2 down, left and right)
5. Tension rods (4 left and right)
6. Lift plates (2 left and right)
7. Dump hinges (2 left and right)
8. Safety bars (2 left and right)
9. Tailgate hinges (2 left and right)

Adjust the tailgate auto lock

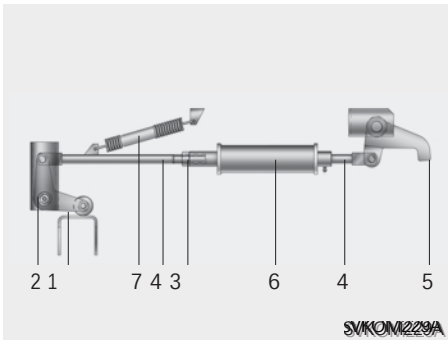
Note

Tailgate automatic lock checks and adjustments should be performed when the load compartment is empty.

Warnings

Check the clearance of the tailgate automatic lock before driving and follow the adjustment instructions if there is any clearance. Failure of the automatic locking system is a serious cause of damage to the rear vehicle/safety issues and vehicle rollover.

■ How to adjust



1. Release the return spring.
2. Loosen the spring cylinder end locknut.
3. Rotate the spring cylinder to eliminate the gap between the hook and the tailgate bracket.
4. Once the gap has been eliminated, tighten the locknut and reinstall the return spring.

- | | | |
|-------------------------------|-----------|-----------------|
| 1. roller guides (guide bars) | 4. load | 2. arm assembly |
| 3. locknut | 7. spring | 5. hooks |
| 6. spring cylinder | | |