

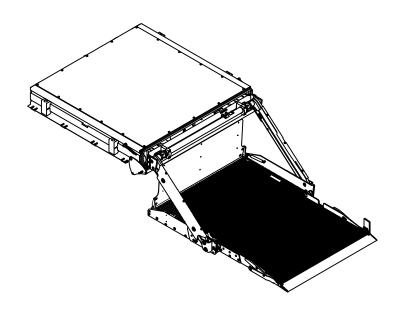
OWNER'S / OPERATOR'S MANUAL

Woodbine, Iowa



- Safety Information
- Warranty Information
- Operator's Instructions
- Maintenance Instructions
- Parts List

Cassette Series 700 LB Capacity





Before installing or using this Liftgate, please observe the Vehicle Loading Limitations. These loading limitations are outlined in the Vehicle Owner's Manual and the Safety Compliance Certification Label located on the drivers door pillar.





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TO THE OWNER\OPERATOR

Read this manual completely before using your gate. Operate and maintain your gate safely as outlined in this manual. Be sure you read and understand all operating, safety, maintenance and service information. Should you need repair or service information, contact Tommy Gate or an authorized distributor for assistance.



This is the safety alert symbol. It is used to alert you to potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death.



DANGER indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.



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



CAUTION indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.

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

Accident prevention and safety are dependent upon the awareness, concern, prudence and proper training of the personnel who operate, transport, maintain and store this equipment. It is your responsibility to use good judgment in the operation of this equipment.

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

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DECAL LOCATIONS AND DESCRIPTIONS

Locate and read all decals prior to operating gate REPLACE IF MISSING OR NOT READABLE



Decal No. 1
Located on bottom of the threshold bridge and inside the pump box.



Decal No. 3
Located on each side of liftgate door and on each side of the platform.

MARNING

Read operator's manual before operating equipment.

Do not modify lift or its safety features.

Use only Tommy Gate service parts installed by an authorized distributor.

If additional assistance is needed, call Tommy Gate at 712-847-8000.

Do not exceed the rated lift capacity-

Decal No. 2 Located on the pump box cover.

Rated Lift Capacity 700 lb or 320 kg

Decal No. 4
Located on bottom of the threshold bridge and on the pump box cover.



DECAL LOCATIONS AND DESCRIPTIONS

<u> AWARNING</u>



Do not ride the platform

This lift is not designed as a wheelchair or personnel lift.



Stand clear of all moving parts when opening, raising or lowering platform.

Never allow children or any untrained person to operate the lift.

Do not show children or others how to operate the lift.

Never leave the platform down to be used as a step.

When the lift is not in use or unattended, the platform should be closed with control secured.

Decal No. 5 Located on the bottom of the threshold bridge.

AWARNING

Center Load

Center load on platform side to side and front to back.

Lift gate is not to be used as a scale.

Lift gate may lift more than its rated capacity.

Be aware of how much is being lifted and never exceed the rated capacity of the lift gate.

Be aware of how much is being hauled and never exceed the rated capacity of the vehicle.

Do not add any extension to original platform.

Decal No. 6 Located on the bottom of the threshold bridge.





Decal No. 7 Located on the bottom of the retention ramp.



Decal No. 8 Located on the back of the control.



Decal No. 9 Located on the bottom of the threshold bridge.

DECAL REPLACEMENT

NOTE: When ordering Decals, please have Decal Numbers available.

To replace decal, clear area of grease and dirt with nonflammable solvent and soap and water. Allow to dry. To apply decal, peel off 1/2 of back. Hold decal squarely and apply to cleaned surface. Peel off remaining back and smooth in place. Gently rub decal with a damp rag or sponge to smooth out bubbles. (The decal has a pressure sensitive adhesive on the back.)

If the liftgate <u>is</u> going to be painted, you need to mask the decals before painting. Remove the mask <u>after</u> painting so the decals can be read clearly.

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CASSETTE TERMS AND METHOD OF OPERATION

Your Tommy Gate is connected to your vehicle battery. The vehicle battery powers two different electric motors. One of these motors is connected to a gear and is used to extend and retract the platform. The other motor is coupled to a hydraulic pump. This motor and pump combination is called a power unit. Flow from the pump will extend a pair of cylinders which rotate the upper arms to lift the platform. A check valve blocks return flow from the cylinders to the pump and a pressure relief valve prevents the gate from being overloaded. The platform is lowered by gravity when electric "release" valves are activated and opened at the power unit.

!Warning: Liftgate is not to be used as a scale. Liftgate may lift more than its rated capacity. Be aware of how much is being lifted and never exceed the rated capacity of the liftgate. Be aware of how much is being hauled and never exceed the rated capacity of the vehicle.

This Tommy Gate does not have a "Low Voltage" warning feature. When the battery is low, the liftgate will not work properly. This may include chattering, buzzing, or no function at all. It is the operator's job to notice this and correct the low voltage condition.

Caution:

Continuing to operate the liftgate in the "Low Voltage" condition may result in failure of electrical components.

The low voltage condition may be caused by a weak battery, loose or corroded connections, improper ground, or bad electrical cables. This condition may be corrected by just starting the vehicle or replacing the battery.

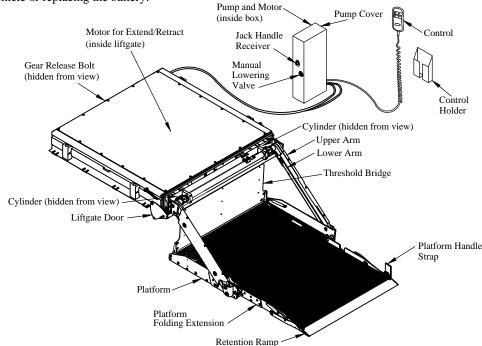


Figure 1: Parts identification.

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OPERATOR'S INSTRUCTIONS

!Caution:

Never leave the truck with the platform on the ground, partially raised, or open. Never show children or unauthorized personnel how to operate the gate.

To prevent children or unauthorized personnel from operating the lift, be sure the gate is in the stored position. Make sure the vehicle doors are closed and locked before leaving the truck unattended.

!Warning: The Tommy Gate is an industrial product for material handling only and is not to be used as a personnel or wheelchair lift. Do not ride on the platform and always stand clear of the platform when opening, closing, raising, or lowering.

- **Step 1.** Open the rear doors of the vehicle.
- Step 2. Be sure to stand clear of the platform and all moving parts when using the lift.
- **Step 3.** Remove the control from its storage location.
- **Step 4.** The control has four (4) buttons with corresponding functions. The buttons are labeled with arrows indicating the functions of "raise", "lower", "extend" and "retract". Push and hold the button for desired function. The liftgate motion will stop when the button is released.
- **Step 5.** To begin using the liftgate, it must first be activated. To activate the liftgate, push and release the button of the desired function. At this point the liftgate can be operated. After a period of not being used, the liftgate will need activated again.
- **Step 6.** To deploy the platform, stand clear to the side. Push the "extend" button on the control, the liftgate door will open and the platform will extend. The liftgate will not raise or lower until the platform is fully extended.

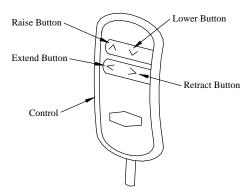


Figure 2: Control.

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OPERATOR'S INSTRUCTIONS

- **Step 7.** Lift the handle strap on the platform to unfold the platform folding extension.
- Step 8. Unfold the threshold bridge.
- **Step 9.** To raise (or lower) the liftgate, stand clear to the side. When you push the "raise" button (or "lower" button) on the control, the platform will raise (or lower). When the platform reaches the ground, the retention ramp will unfold. When the platform leaves the ground, the retention ramp will deploy.
- **Step 10.** To load the platform, center the load on the platform side to side and front to back.
- Step 11. To store the liftgate, lower the threshold bridge onto the platform and fold the platform extension using the handle strap. When you push the "retract" button on the control, the platform will go to the correct height and then retract. The platform may go past the correct height before returning to the correct height. The platform is fully stored when the platform is inside the liftgate and the liftgate door is closed.
- **Step 12.** Place the control in its storage location when not in use.

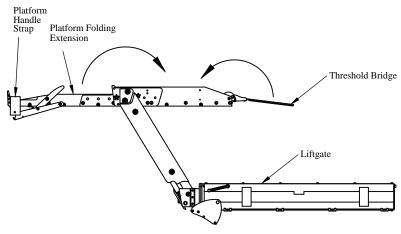


Figure 3: Platform.

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EMERGENCY RAISE/LOWER INSTRUCTIONS

- **Note:** The following procedure can be used temporarily to raise or lower the liftgate when the control is not working.
- **Step 1.** Be sure that you, bystanders, and obstructions are clear of all moving parts when using the liftgate.
- **Step 2.** Locate the jack handle. It should be on the pump cover or near the pump box.
- **Step 3.** Verify that the manual lowering valve is closed by rotating it clockwise (Figure 1).
- **Step 4.** To raise the platform, check that the liftgate is clear of bystanders and obstructions. Insert the jack handle into the jack handle receiver. Pump the handle until the liftgate platform is at the desired height.
- **Step 5.** To lower the platform, check that the liftgate is clear of bystanders and obstructions. Slowly rotate the manual lowering valve counterclockwise until the platform begins to lower. To stop the platform's descent, rotate the manual lowering valve clockwise. The farther you rotate the manual lowering valve, the faster the platform will descend (do not rotate more than one full turn).

EMERGENCY RETRACT INSTRUCTIONS

- **Note:** The following procedure can be used to retract the liftgate when the control is not working.
- **Step 1.** Be sure that you, bystanders, and obstructions are clear of all moving parts when using the liftgate.
- **Step 2.** Position the liftgate platform at the height needed to retract. This can be done using the emergency raise/lower instructions, or the control if it is partially working.
- **Step 3.** Lower the threshold bridge onto the platform and fold the platform extension using the handle strap (Figure 3).
- **Step 4.** Rotate the gear release bolt a quarter (1/4) turn counterclockwise (Figure 1). This will disengage the motor, allowing the platform to slide in and out of the liftgate freely.
- Step 5. Push the platform into the liftgate frame until the liftgate door is closed.
- **Step 6.** Secure the platform by rotating the gear release bolt clockwise a quarter (1/4) turn. This will re-engage the motor and hold the platform in the retracted position.

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ELECTRICAL WIRING DIAGRAM

Pendant Control





NOTE !!! IF GATES ARE NOT WIRED IN ACCORDANCE WITH THIS DIAGRA YOUR WARRANTY WILL BE VOID.

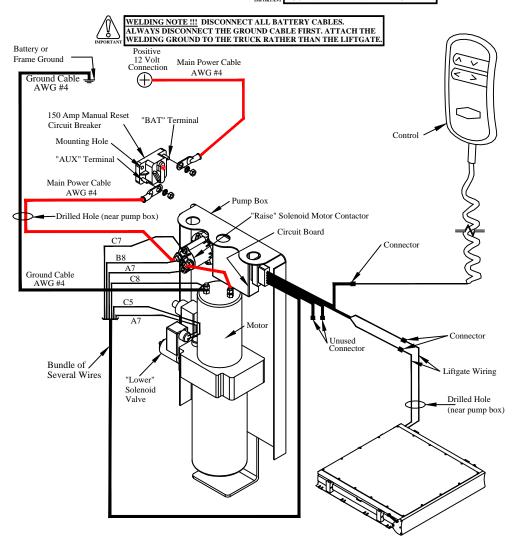


Figure 4: Wiring diagram (pump box).

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ELECTRICAL WIRING DIAGRAM

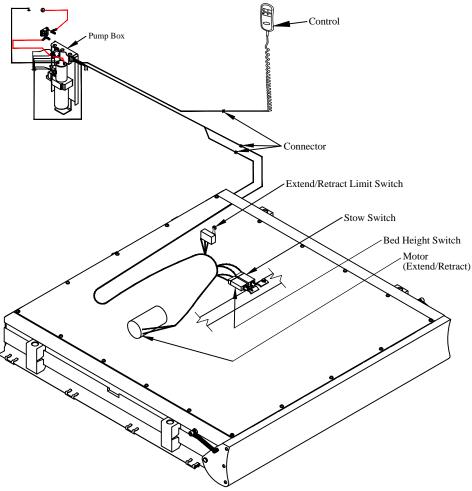
Pendant Control

PLEASE READ AND FOLLOW ALL DIRECTIONS BEFORE PROCEEDING



NOTE !!! IF GATES ARE NOT WIRED
IN ACCORDANCE WITH THIS DIAGRA YOUR WARRANTY WILL BE VOID.

WELDING NOTE !!! DISCONNECT ALL BATTERY CABLES. ALWAYS DISCONNECT THE GROUND CABLE FIRST, ATTACH THE WELDING GROUND TO THE TRUCK RATHER THAN THE LIFTGATE

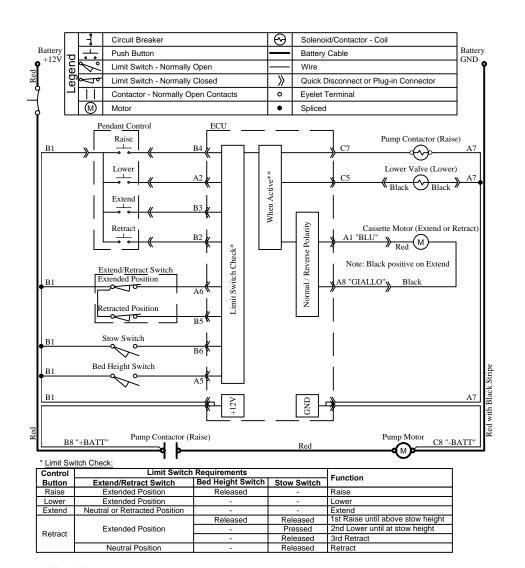


Not all components shown for clarity.

Figure 5: Wiring diagram (liftgate).



CASSETTE LADDER LOGIC/WIRING DIAGRAM



** When Active:

ECU becomes inactive when power is disconnected and reconnected or after a few minutes when liftgate is stowed. Press any valid button (typically just the "Extend" button) to activate. Press the button again to operate the liftgate.



TOMMY GATE MAINTENANCE AND SERVICE INFORMATION

All installations, reinstallations, and repairs of Tommy Gates should be performed by a qualified, authorized distributor that is familiar with its operation and safety features. All replacement parts must be of original quality, and all safety and operational decals must be attached. No modifications are allowed to a Tommy Gate product unless authorized by the Engineering Department at Tommy Gate.

As is with any mechanical product, a preventative maintenance program needs to be followed in order to keep the gate in its best operating condition. Please review this information and if you should have any questions, please call 712-847-8000. Please have your model number and serial number available.

The Tommy Gate needs to be serviced every 120 days or 1500-2000 cycles, whichever comes first.

- (A) Check the oil level in the reservoir. With the liftgate platform at the bottom of its travel, the fluid should be two-thirds full. BE SURE THE CYLINDERS ARE COMPLETELY COLLAPSED. Add ISO grade 32 hydraulic oil, Dexron or equivalent, if needed.
- (B) Check for leaks from the cylinder, hoses, and all fittings (replace or repair if found to be leaking).
- (C) Check for cracks in all welds (repair if needed).
- (D) Replace any worn or missing parts before the liftgate is put back into service.
- (E) Check for wear at all pivot points. Check for loose bolts or connectors.
- Check the function of the threshold bridge. Adjust if needed. (F)
- (G) Check all electrical connections (clean or repair if needed).
- (H) Check electric cables for worn or damaged insulation.
- Replace or clean safety decals so they are legible. (I)
- Check for proper operation of control. (J)
- (K) Check if the platform stops at bed height. Adjust bed height stop if needed.
- (L) Check if platform touches the ground evenly. Adjust platform tilt if needed.
- (M) Check if the platform retracts completely and the liftgate door closes. Adjust platform stow height first, then adjust retract distance, if needed.
- (N) Check for loose bolts or screws. Tighten if needed.

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Adjusting the Platform to Stop at Bed Height

- 1. Deploy and Unfold the platform.
- 2. Position the platform at bed height.

Make sure the platform and threshold bridge clear the bumper.

- **3. Make Note** of the distance between the bed height switch and the stop (Figure 6).
- 4. Lower the liftgate partially for access to the stop and bolt.
- **5.** Loosen the bolt holding the stop for the bed height switch.
- **6. Move** the stop the distance noted in step 3.
- **7. Tighten** the bolt holding the stop.
- **8.** Lower and then Raise the platform until it stops.
- 9. Repeat the previous steps, making small adjustments to the bed height switch stop until the platform stops at the desired height.

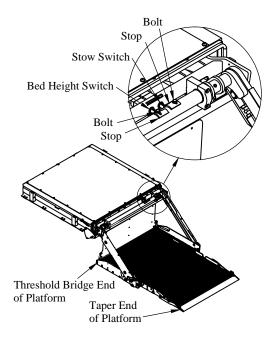


Figure 6: Limit switch locations.

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Adjusting the Platform Tilt

- **1. Park** the vehicle on level ground.
- **2. Lower** the liftgate to the ground (Figure 6).

The platform taper end should touch the ground.

The platform taper end and the threshold bridge end should touch the ground at about the same time.

Note: If the platform tilt is properly adjusted, skip to the next section.

Otherwise proceed to the next step.

- 3. Loosen the jam nuts on the lower arm while holding the adjustment bolt with an additional wrench. Pay close attention to the thread rotation direction, some are left-hand thread (Figure 7).
- 4. Rotate the adjustment bolts on the lower arms so that the platform rests flat on the ground.
- **5. Raise** and then **Lower** the platform to the ground.
- 6. Verify that:

The platform taper end should touch the ground.

The platform taper end and the threshold bridge end should touch the ground at about the same time.

- **7. Repeat** the previous steps, if needed to make the platform touch the ground as desired.
- **8. Tighten** the jam nuts while holding the adjustment bolt with an additional wrench.

Pay close attention to the thread rotation direction, some are left-hand thread.

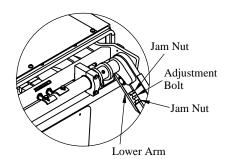


Figure 7: Lower arm adjustment.

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Adjusting the Threshold Bridge

- 1. **Deploy** the platform and threshold bridge.
- Raise the platform to bed height. Make sure the threshold bridge does not catch on the rear bumper.
- 3. Verify that:

The threshold bridge rests on the floor of the van.

The threshold bridge does not catch or rub hard on the rear bumper as the liftgate is raised.

Note: If the threshold bridge is properly adjusted, skip to the next section.

Otherwise proceed to the next step.

- **4.** Lower the platform down 1" from the bed height.
- **5. Loosen** the three bolts fixing the length of the threshold bridge arm (Figure 8).
- **6. Allow** the threshold bridge to rest on the van floor.
- 7. **Tighten** the three bolts fixing the length of the threshold bridge arm.
- **8. Repeat** the previous steps, making small adjustments to the threshold bridge arm length until the threshold bridge performs as desired.

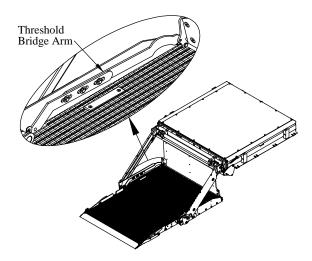


Figure 8: Threshold bridge adjustment.

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Adjusting the Platform Stow Height

Note: The platform and threshold bridge should remain stored for this section.

- **1. Extend** and then **Retract** the platform.
- 2. Make Note of the height position of the platform in the liftgate opening.

The top of the platform should not drag on the top of the liftgate opening (Figure 9).

The bottom roller should just rest on the bottom of the opening (Figure 9).

The platform should be able to fully retract and the liftgate door close.

Note: If the platform extends and retracts and does not drag or catch on the top or bottom of the opening, skip the rest of this section.

Otherwise proceed to the next step.

- **4. Lower** the liftgate partially for access to the stop and bolt for the stow switch (Figure 6).
- **5. Loosen** the bolt holding the stop for the stow switch.
- **6. Move** the stop a short distance in the direction needed. 1/32" may be all that is needed. Out to raise the stow height.

In to lower the stow height.

- **7. Tighten** the bolt holding the stop.
- **8. Retract** the platform.
- **9. Repeat** the previous steps, making small adjustments to the stow switch stop until the platform stows at the desired height.

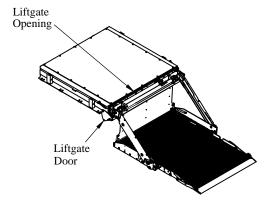


Figure 9: Platform stow height adjustment.

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Adjusting the Platform Retract Limit

Note: This adjustment is not commonly needed. Make all other adjustments before deciding if this adjustment is needed.

Note: The platform and threshold bridge should remain stored for this section.

1. Extend and then Retract the platform.

2. Make Note of the position that the platform stopped retracting.

The liftgate should not allow you to continue retracting after it is fully retracted.

The platform should be able to fully retract and the liftgate door close.

Note: If the platform extends and retracts with no problem, skip the rest of this section. Otherwise proceed to the next step.

- **3. Remove** the bottom cover of the liftgate (Figure 10). It is held on by push-on metal clips.
- **4. Extend** the liftgate.
- **5.** Loosen the jam nut on the stop bolt for retract limit switch.
- Rotate the stop bolt for retract limit switch a short distance in the direction needed.
 Out to retract less.
 In to retract more.
- **7. Retract** the platform.
- **8. Repeat** the previous steps, making small adjustments to the stop bolt for retract limit switch until the platform stores properly.

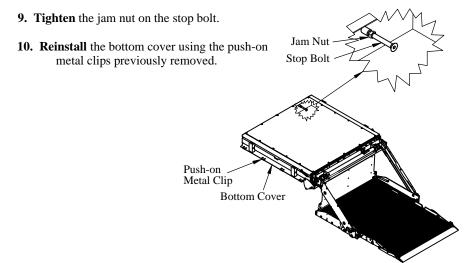


Figure 10: Platform retract limit adjustment.

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TROUBLESHOOTING - CASSETTE SERIES

| PROBLEM | POSSIBLE CAUSE | REMEDIES | | |
|--------------------------------|---|--|--|--|
| 1.) Lift will not raise or | Poor electrical connection. | Check power and ground cables and all connections. | | |
| raises slowly | Battery charge is low. | Recharge or replace battery. | | |
| | Control cord is damaged. | Inspect cord for damage. Repair or replace if needed. | | |
| | Release valve stuck, partially open | Raise and lower the platform completely several times with a load | | |
| | or dirty. | | | |
| | Release valve needs replacement. | Contact Tommy Gate or distributor. | | |
| | Manual release valve loose or leaking. | Tighten or replace. | | |
| | "Raise" solenoid not working. | Contact Tommy Gate or distributor. | | |
| | Oil level low. | *Check oil and add ISO grade 32 hydraulic oil or equivalant. | | |
| | Vent plug not installed or dirty. | Check that vent plug on pump is not clogged or plugged. | | |
| | Overloaded liftgate. | Remove some material or weight. | | |
| .) Lift settles down slowly | Hoses or fittings leaking. | Tighten or replace. | | |
| with load or no load. | Manual release valve loose or leaking | Tighten or replace. | | |
| | Check valve stuck or dirty. | Raise and lower lift several times to flush out valve. | | |
| | Check valve damaged. | Contact Tommy Gate or distributor. | | |
| | Cylinder seals worn or damaged. | Contact Tommy Gate or distributor. | | |
| | "Lower" solenoid sticking partially open. | Contact Tommy Gate or distributor. | | |
| 3.) Pump or motor noisy. | Worn pump, motor or coupling. | Contact Tommy Gate or distributor. | | |
| | Oil level low. | *Check oil and add ISO grade 32 hydraulic oil or equivalant. | | |
| Lift lowers very slowly, | Hinge arm pins seized to the | Clean and/or replace arm pins and bushings. | | |
| especially in cold | bushings. | | | |
| weather. | Lack of lubrication at cylinder pins | Lubricate all zerks. | | |
| | and/or upper arm as sembly. | | | |
| | Cylinder pins seized due to lack of | Clean and/or replace cylinder pins. | | |
| | lubricant. | | | |
| 5.) Lift will not lower. | Poor electrical connections. | Check and clean or repair all electrical connections. | | |
| | Control cord is damaged. | Inspect cord for damage. Repair or replace if needed. | | |
| | Damaged or non-working "lower" | Contact Tommy Gate or distributor. | | |
| | solenoid. | | | |
| | Hinge arm or cylinder pins seized. | Lubricate, clean and/or replace pins. | | |
| .) Platform will not extend. | Poor electrical connection. | Check power and ground cables and all connections. | | |
| | Battery charge is low. | Recharge or replace battery. | | |
| | Control cord is damaged. | Inspect cord for damage. Repair or replace if needed. | | |
| | Liftgate is jammed or stuck inside frame. | Attempt the retract function first, then try again to extend. | | |
| | | Open the liftgate door and look for dirt, debris, or foreign objects | | |
| | | Clean or remove foreign objects as needed. | | |
| 7.) Platform will not retract. | Poor electrical connection. | Check power and ground cables and all connections. | | |
| | Battery charge is low. | Recharge or replace battery. | | |
| | Control cord is damaged. | Inspect cord for damage. Repair or replace if needed. | | |
| | Limit switches are out of adjustment. | Check limit switches and make adjustments if needed. | | |

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STANDARD WARRANTY

Cassette Series

The Tommy Gate Company provides a limited warranty against faulty materials or workmanship.

2-Year Warranty

Tommy Gate pump and motor unit parts are guaranteed for two (2) full years from date of user purchase against faulty materials or workmanship.

2-Year Warranty

Tommy Gates are guaranteed for (2) years from the date of user purchase against faulty materials or workmanship.

All affected parts must be returned to the factory prepaid - with full credit issued for those found to be defective. Warranty replacement parts will be shipped from the factory prepaid.

Labor charges to install warranty replacement parts shall be paid in accordance with Tommy Gate's estimated repair time guide and a flat hourly rate established by Tommy Gate.

DEVIATION FROM THE WARRANTY TIMES LISTED MUST BE AUTHORIZED BY TOMMY GATE COMPANY IN ADVANCE.

The warranty does not include damage resulting from improper installation procedures. Parts must be installed according to Tommy Gate Company's specifications.

Tommy Gate Company will not pay labor for removing other equipment to gain access to Tommy Gate Equipment. Tommy Gate Company will not pay labor for time on the road to and from a service call.

Tommy Gate Company reserves the right to disallow or reduce claims for parts which have been damaged due to misuse, abuse, accidents, improper shipping; or parts which have been incorrectly or unnecessarily replaced.

The warranty is void if the product has been subject to other than normal use. THERE ARE NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE WARRANTY OF MERCHANTABILITY OR A WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE EXTENDING BEYOND THAT SET FORTH ABOVE.

NOTE: SEE FOLLOWING PAGE FOR THE WARRANTY CLAIMS HANDLING PROCEDURE.

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WARRANTY CLAIMS HANDLING PROCEDURE

The following procedures are required when an authorized distributor submits a warranty claim for a defective Tommy Gate part:

- Before any expense is incurred, but after the problem has been diagnosed, the authorized distributor should contact Tommy Gate Company's Warranty Department to discuss the problem and its correction.
- If it is determined that the condition is potentially covered by Tommy Gate Company's warranty, the
 authorized distributor will receive instructions on how to proceed. A decision will be made to either repair
 or replace the product or part in question.
- If the product or parts are to be repaired, the authorized distributor will receive a WARRANTY REOUEST NUMBER.
- 4. If the product or parts are to be replaced, the authorized distributor will be instructed to either hold the parts for inspection by a representative, in which case the authorized distributor will receive a WARRANTY REQUEST NUMBER, or the authorized distributor will be asked to return the product for inspection to Tommy Gate Company, in which case the authorized distributor will receive a RETURN GOODS AUTHORIZATION NUMBER. Under no circumstances are parts to be returned without a RETURN GOODS AUTHORIZATION NUMBER.
- 5. After the repair or replacement work is completed, the authorized distributor will submit the claim to Tommy Gate Company with the following information.
 - Tommy Gate Company WARRANTY REQUEST and/or RETURN GOODS AUTHORIZATION NUMBER.
 - b. Tommy Gate model number.
 - c. Tommy Gate serial number.
 - d. Tommy Gate part number involved and a description of the apparent problem or defect.
 - e. Authorized distributor performing warranty work.
 - f. Person responsible for warranty work (contact).
 - g. Distributor from whom liftgate was purchased.
 - h. Liftgate owner's name, address, and phone number.
 - i. Action taken, cost involved, complete with work orders and parts expense invoices.
- 6. If defective parts are to be returned to Tommy Gate Company they:
 - a. Must be packaged for each individual warranty return. No multiple warranty claims in the same box.
 - b. Must be returned "freight prepaid" to Tommy Gate Company's location.
 - Must be clearly marked with the RETURN GOODS AUTHORIZATION NUMBER on the outside
 of the package.

Warranty claims must be submitted by the Authorized Distributor on behalf of their customer as part of their customer assistance.

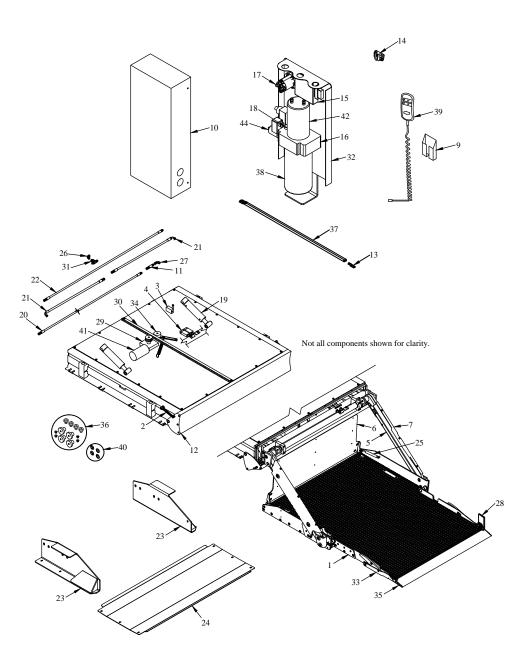
Warranty claim acceptance or rejection is based solely upon defective part inspection and a review of the claim date (outlined in step 5 above) as they apply to the requirements of Tommy Gate Warranty. Claim reimbursement after acceptance is governed by those allowances previously agreed upon between Tommy Gate Company and the Authorized Distributor (as outlined in Steps 1-4 above).

Any warranty claims submitted without a <u>WARRANTY REQUEST</u> <u>NUMBER</u> or <u>RETURN GOODS AUTHORIZATION NUMBER</u> and the necessary information will be denied.

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CASSETTE REPAIR PARTS DRAWING





CASSETTE REPAIR PARTS LIST

| ITEM# | DESCRIPTION | ITEM# | DESCRIPTION |
|-------|-----------------------------------|-------|-------------------------------------|
| 1 | Platform | 23 | Guard Brackets |
| 2 | Spring - Liftgate Door | 24 | Guard Plate |
| 3 | Limit Switch (Extend/Retract) | 25 | Gas Spring - Threshold Bridge |
| 4 | Limit Switch (Bed Height/Stow) | 26 | Elbow - 90° Cylinder Junction |
| 5 | Lower Arm | 27 | Elbow - 90° Outside Liftgate |
| 6 | Threshold Bridge | 28 | Handle Strap |
| 7 | Upper Arm | 29 | Gear Box |
| 9 | Control Holder | 30 | Gear - Rack |
| 10 | Pump Box Cover | 31 | T-Fitting |
| 11 | Hose Quick Connect - Female | 32 | Pump Box |
| 12 | Liftgate Door | 33 | Retention Ramp Linkage |
| 13 | Copper Lug | 34 | Tension Roller, Linkage, and Spring |
| 14 | Manual Reset Circuit Breaker | 35 | Retention Ramp |
| 15 | Circuit Board | 36 | Rollers - Extend/Retract |
| 16 | Pump & Motor | 37 | 4 Ga. 2 Wire Electric Cable |
| 17 | "Raise" Solenoid | 38 | Tank |
| 18 | Vent Plug | 39 | Control |
| 19 | Cylinder | 40 | Slide Pads - Upper Arms |
| 20 | Hydraulic Hose - Outside Liftgate | 41 | Motor Only (Extend/Retract) |
| 21 | Hydraulic Hose - Cylinder | 42 | Motor Only (Lift) |
| 22 | Hydraulic Hose - Inside Liftgate | 44 | "Lower" Solenoid |

Note: The item number is not the part number. Please have the model number and serial number available before calling for repair parts.

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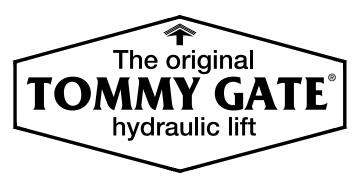
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SERVICE RECORD

| LIFTGATE INFORMATION | | | | | | |
|---------------------------------|--------------------------------|-----|--|--|--|--|
| Date of Purchase: Installed By: | Serial Number: | _ [| | | | |
| <u> </u> | ANGEL PRINCE. | | | | | |
| Reminders: Service | liftgate according to page 13. | | | | | |
| | | | | | | |
| Date of Service | Services Performed | | | | | |
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America's First Name in Liftgates™

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