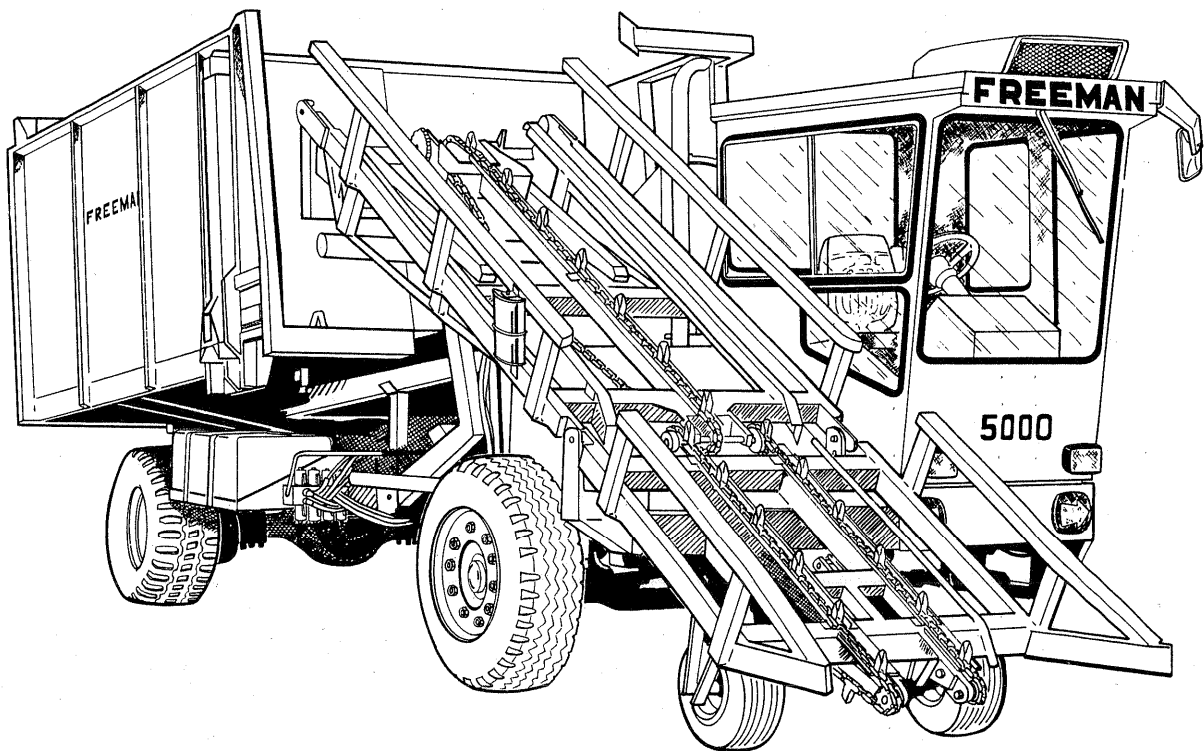


# FREEMAN

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## MODEL 5000 ROADSIDER



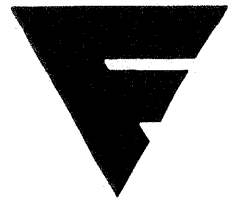
## OPERATOR'S MANUAL

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*manufactured and distributed by*



**J. A. FREEMAN & SON, INC.**



PORTLAND, OREGON

PB00500000

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## **TO OUR CUSTOMER**

Your purchase of a Freeman 5000 Big Bale Roadsider was a wise decision. When it comes to hay handling, Freeman equipment is a solid investment. Dollar per dollar, ton per ton, Freeman equipment brings down costs and brings up profits. Freeman equipment has satisfied and will continue to satisfy their owners all over the world for years to come.

Your Freeman Model 5000 Roadsider has been developed from the drawing boards of experienced engineers who take their ideas to the field for testing and revision before you receive them. Superior engineering coupled with professional craftsmanship makes your Freeman 5000 Big Bale Roadsider a leader in the industry.

At J.A. Freeman & Son, Inc. safety is not just a word, it is a rule. Safety to the operator is of great concern to Freeman engineers. Special care has been taken while designing your Freeman 5000 Big Bale Roadsider to make it as safe and efficient as possible.

We strongly recommend that you carefully read this entire manual before operating your Roadsider. Time spent in becoming fully acquainted with its performance features, adjustments, and maintenance schedules will be repaid in a long and satisfactory life of the product.

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## **LIMITED WARRANTY**

J.A. Freeman & Son, Inc. guarantees all new equipment manufactured by them to be free from defects in material and workmanship for one season or part thereof from date of delivery to the retail purchaser. One copy of the "EQUIPMENT DELIVERY AND WARRANTY REGISTRATION" must be correctly completed and returned to J.A. Freeman & Son, Inc. in order to validate the warranty. The obligation under this warranty is limited to replacement or repair at our Portland, Oregon factory or at a point designated by us of such parts that appear to us upon inspection to have been defective in material or workmanship.

J.A. Freeman & Son, Inc. obligation under this warranty is limited to repairing or replacing at its option, any part that in the J.A. Freeman & Son, Inc. judgement is defective when returned to the factory.

The provisions of this warranty shall not apply to any equipment which has been subject to misuse, negligence, alteration or accident, or which shall have been repaired with parts other than those obtainable through J.A. Freeman & Son, Inc.

Except as set forth, J.A. Freeman & Son, Inc. shall not be liable for injuries or damages of any kind or nature, direct, consequential, or contingent, to person or property. This warranty does not extend to loss of crops, loss because of delay or loss incurred for labor, supplies, substitute machinery, rental or for any other reason.

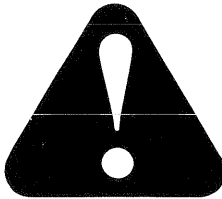
J.A. Freeman & Son, Inc. reserves the right to make improvements in design or changes in specifications without notice at any time and without incurring any obligation to owners of units previously sold.

THE FREEMAN REGISTRATION REPORT MUST BE CORRECTLY COMPLETED AND RETURNED TO J.A. FREEMAN & SON, INC. IN ORDER TO VALIDATE THE LIMITED WARRANTY.

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## **SAFETY**

1. SHUT OFF ENGINE BEFORE ADJUSTING, LUBRICATING, CLEANING OR SERVICING THE ROADSIDER.
2. KEEP HANDS, FEET, AND CLOTHING AWAY FROM POWER DRIVEN PARTS.
3. USE APPROPRIATE SIGNS OR WARNING LIGHTS WHEN OPERATING ON PUBLIC ROADWAYS.
4. MAKE CERTAIN EVERYONE IS CLEAR OF AND OFF THE ROADSIDER BEFORE OPERATING ANY PART OF THE MACHINE.
5. ALWAYS USE LIGHTS FOR NIGHT WORK.
6. DO NOT LEAVE THE DRIVING SEAT WHILE THE EQUIPMENT IS IN OPERATION OR WHILE ANY OF THE MOVING PARTS REMAIN IN MOTION.
7. KEEP ALL SHIELDS IN PLACE AND IN SERVICEABLE CONDITION.
8. DO NOT GO BENEATH ANY EQUIPMENT UNTIL ALL MOVING PARTS ARE STOPPED.
9. DO NOT ALLOW ANYONE UNDER OR NEAR LOAD WHILE IT IS BEING RAISED.
10. REMEMBER SAFETY IS ONLY A WORD UNTIL IT IS PUT INTO PRACTICE.



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## **GENERAL INFORMATION**

### **INTRODUCTION**

The purpose of this manual is to assist the operator in maintaining and operating the Freeman 5000 Big Bale Roadsider. Read the manual carefully, it provides information and instructions designed to help you achieve years of dependable performance.

NOTE: Reference to left and right side used throughout the manual refers to the position when seated in the operator's seat facing forward.

### **REPLACEMENT PARTS:**

Only genuine Freeman replacement parts should be used to service the Model 5000 Roadsider. These parts are available from your local Freeman dealer. To ensure prompt, efficient service when ordering parts or requesting repair, always give the dealer the following information:

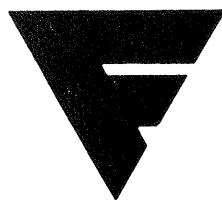
1. Correct part description or part number.
2. Model number of the Roadsider.
3. Serial number of the Roadsider.

### **SERIAL NUMBER LOCATION:**

The serial number is an important piece of information about the Roadsider and it may be necessary to know it before obtaining the correct replacement part. The serial number is located on the front right side corner of the main frame.

 **WARNING:** SOME OF THE ILLUSTRATIONS IN THE MANUAL SHOW THE ROADSIDER WITHOUT SAFETY SHIELDS TO ALLOW FOR A BETTER VIEW OF THE AREA BEING ADDRESSED. THE ROADSIDER SHOULD NEVER BE OPERATED WITH ANY OF THE SAFETY SHIELDS REMOVED.

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## 1. SPECIFICATIONS

<b>Weight:</b> .....	16,500 pounds (7,500 kg)
<b>Length:</b> .....	elevator up—282 inches (716.28 cm) elevator down—342 inches (868.68 cm)
<b>Width:</b> .....	106 inches (269.24 cm)
<b>Height:</b> .....	Loading—120 inches (305 cm) Unloading—Approx. 200 inches (508 cm)
<b>Wheel Base:</b> .....	141 inches (358.14 cm)
<b>Standard Front Tires:</b> .....	10.00-20 (12 ply) at 75 psi
<b>Optional Front Tires:</b> .....	15 x 19.5 (12 ply) at 75 psi
<b>Rear Tires:</b> .....	40 x 19-19.5 (14 ply) at 65 psi
<b>Brakes:</b> .....	Four wheel power assisted
<b>Steering:</b> .....	Power assisted
<b>Engine:</b> .....	Cummins turbine diesel 359 cu in (5.9 L)
<b>Fuel Capacity:</b> .....	45 gal. (170.33 L)
<b>Transmission:</b> .....	4-speed automatic
<b>Rear Axle:</b> .....	2-speed
<b>Hauling Capacity:</b> .....	8 bales Freeman size (38" x 46" x 96") (96.5 cm x 116.8 cm x 243.8 cm) 6 bales "4 foot" size (50" x 46" x 94") (127.0 cm x 116.8 cm x 243.8 cm)
<b>Limit Switches:</b> .....	Electromechanical
<b>Stack Unloading System:</b> .....	Loaded bed push-off
<b>Operational Speed:</b> .....	Field—up to 15 mph (up to 24 km/h) Road—up to 45 mph ( up to 72 kp/h)

## **2. GENERAL OVERVIEW OF THE FREEMAN 5000 BIG BALE ROADSIDER**

The following information is designed to familiarize the operator with the operational procedure of the Freeman 5000 Big Bale Roadsider. This section provides an overview of the features associated with the loading and unloading of the Roadsider.

The 5000 is an automatic big bale stacker, mechanically operated by an electrically activated hydraulic power medium. The Model 5000 Roadsider is designed to pick up big bales in the field and deliver and stack them at the stack site. A group of subfunctions work in logical order to complete the loading and unloading process.

### **Subfunction 1.**

Big bales are gathered and conveyed one at a time up the elevator onto the load bed. As they are positioned on the load

bed they are tipped up against the roller rack and side pushed to form a 2-bale tier. When the tier is full the bales and the roller rack are pushed back to receive the next tier.

### **Subfunction 2.**

A complete load of eight Freeman bales or six 4' bales are arranged in the load bed of the 5000.

### **Subfunction 3.**

Roadsider is driven to the stack site to deposit the load.

### **Subfunction 4.**

Once at the stack site, the load bed is raised to the vertical position, and the stack is pushed off onto the ground.

## **2A. INDIVIDUAL COMPONENT DESCRIPTION**

See figures 1, 2, and 4 for component location

### **PICKUP**

The pickup lifts and conveys the bale from the ground and delivers it to the elevator.

### **ELEVATOR**

The elevator conveys the bale to a position over the bale tilt arms.

### **BALE TILT ARMS**

The bale tilt arms stand the bale on end into the load bed and against the roller rack.

### **SIDE PUSHER**

The side pusher moves the bale to the left side of the load bed and holds it there pending the arrival of the second bale.

### **PUSH-BACK**

The push-back moves the completed two-bale tier and the roller rack toward the rear of the load bed to make room for the next two-bale tier.

### **ROLLER RACK**

The roller rack provides a movable support against which the bales are loaded and supports the stack in the load bed when it is raised for unloading.

### **LOAD BED**

The load bed is where the bales are stacked and carried on the Roadsider. It tilts up for unloading at the stack site.

### **PUSH-OFF FEET**

During the unloading process the pushoff feet are used to push the stack out of the load bed onto the ground.

## **2B. CAB CONTROLS**

See Fig. 5 for location of cab controls.

### **STEERING COLUMN:**

#### **IGNITION SWITCH**

Located on the right side of the steering column. Insert the key and turn away from the operator to start engine.

#### **IGNITION SWITCH LOCK RELEASE**

To remove ignition key pull back and hold lever just under ignition switch then rotate key counter clockwise one click and pull out.

#### **TURN SIGNAL CONTROL**

The turn signal control is the top most arm on the left side of the steering column. Raise the lever for right turn signal; lower the lever for left turn signal. Green indicator

light on the lower left of the instrument panel will light when the head lights are on.

#### **HEADLIGHTS**

The headlights are controlled by the same arm as the turn signals. Pull the arm toward you to turn the lights on. Pulling the arm again will turn them off. An amber indicator light on the lower left of the instrument panel will indicate operation.

#### **WINDSHIELD WIPER**

The windshield wiper switch is located on the end of the turn signal arm. Rotate the end of the arm counter clockwise to activate the wiper. The washer button is not functional.

## STEERING COLUMN (continued)

### EMERGENCY FLASHER

The emergency flasher is operated by a round switch on the right side of the steering column. Operate by pushing the center button in toward the steering column. Turn off by pulling out on the outside of the collar.

### STEERING WHEEL TILT

The steering wheel may be tilted forward or backward to suit the operator. To adjust position, pull up and hold lower arm on left side of the steering column. Move steering wheel to desired position and release adjusting arm to lock in position.

### STEERING COLUMN EXTEND/RETRACT

The steering column may be extended or retracted to suit the operator. To adjust length, move lever on lower left of center hub to the right. Adjust steering column to the desired length and move lever back to the left to lock in position.

## INSTRUMENT PANEL:

### WATER TEMPERATURE GAUGE

Located on the top center of the instrument panel.

### TRANSMISSION OIL TEMPERATURE GAUGE

Located on the top left of the instrument panel.

### ENGINE OIL PRESSURE GAUGE

Located on the top right of the instrument panel.

### VOLTMETER

Located on the bottom left of the instrument panel.

### HAND BRAKE WARNING FLASHER

A red light located on the bottom right side of the instrument panel along with an audible buzzer indicates when the hand brake is applied.

**WARNING:** Ensure that hand brake is disengaged before traveling.

## OPERATOR'S PANEL

See Fig. 5A

### CONTROL PANEL POWER

Power is supplied to the control panel through the master switch on the lower left of the control panel on the right side of the cab. This switch should be turned "OFF" when the engine is not running to avoid discharging the battery. A red indicator lamp shows when the power is "ON."

### CONTROL MODE

Manual or Automatic mode are selected with the Control Mode Switch located top center of the control panel. During normal operation this switch will be set to the "AUTOMATIC" position. To manually operate the Side Push, Pushback, or Bale Tilt this must be set to "MANUAL."

### ELEVATOR MODE

During normal operation the Elevator Switch (lower left) should be in the "RUN" position. This makes the elevator

run continuously. When manually operating the elevator the switch must be in the "STOP/MANUAL" position.

### LOAD RACK RELEASE OVERRIDE

The Load Rack may be released to the unload position to allow unloading of a partial load. This must be done through the following procedure:

1. Set System Select lever to "UNLOAD" position
2. Raise Load Bed to unload position with Bed Tilt lever
3. Switch Control Mode switch to "AUTO"
4. Switch Elevator switch to "STOP/MANUAL"
5. Push Load Rack Release switch (panel center) to lower load Rack

### SIDE PUSH RETURN/EXTEND

The bale Side Push can be manually operated using the Side Push switch (top right). This will push the bale in the front tier to the left. The System Select lever must be in the "LOAD" position and the Control Mode switch must be in the "MANUAL" position.

### PUSHBACK FWD./REAR

The bale Pushback can be manually operated using the Pushback Switch (right center). This will push the bales and Roller Rack rearward to make room for the next tier. The System Select lever must be in the "LOAD" position and the Control Mode switch must be in the "MANUAL" position.

### TILT UP/DOWN

The Bale Tilt may be manually operated using the Tilt switch (bottom left). This will tilt a bale delivered by the elevator up into position in the Load Bed. The System Select lever must be in the "LOAD" position and the Control Mode switch must be in the "MANUAL" position.

### 2-SPEED HIGH/LOW

The 2-speed rear axle is controlled by the 2-Speed switch (lower right). Normally the "LOW" position will be used in the field and the "HIGH" position will be used on the highway. To change speeds:

1. Back off on the throttle momentarily
2. Select speed
3. Advance the throttle to match engine RPM with road speed

## OTHER CONTROLS:

See Fig. 5

### BED TILT

The Load Bed is raised to the unload position or lowered to the load position by the outside most lever on the floor on the left side of the operator's seat. Pushing the lever rearward raises the bed and pulling it forward lowers the bed. The System Select lever must be in the "UNLOAD" position and the load Pusher Feet must be retracted.

### PUSHER FEET

The Pusher Feet which push the load out of the Load Bed are operated by the inside lever on the floor on the left side of the operator's seat. Pushing the lever rearward extends the Pusher Feet and pulling it forward retracts them.

## OTHER CONTROLS (continued)

### PICKUP

The bale pickup is raised and lowered by the inside lever to the right side of the operator's seat. Pushing the lever forward lowers the pickup and pulling the lever back raises it. The pickup should be raised when turning corners and during transport.

### SYSTEM SELECT

The selection of "LOAD" or "UNLOAD" mode is accomplished by moving the System Select lever to the desired position. This lever is the outer most lever to the right side of the operator's seat. The position indication decal is located above the Operator's Panel. This should be in load position when picking up bales and in the unload position when unloading at the stack site or as required for manual operation.

### THROTTLE

There is both a foot Throttle and a hand Throttle provided for operator convenience. The foot Throttle is located on the floor on the right side of the cab. The hand Throttle is located under the instrument panel on the right side. To

increase engine RPMs pull the hand Throttle towards the rear.

### AUTOMATIC TRANSMISSION SPEED

The Automatic Transmission Speed is selected with the shifting lever located on the right side of the cab, forward of the Operator's Control Panel. Four speeds are available which, when used with the 2-Speed rear axle give 8 possible gear ratios to best suit field conditions.

### SAFETY GATE

The Safety Gate bar located on the left side of the cab must be raised and put into its slot across the door way in order for any of the hydraulics to work.

### SAFETY BAR

The safety bar, located on the left rear side of the mainframe, must be used to prevent accidental lowering of the load bed. Before entering this area, the load bed must be fully raised and the SAFETY BAR rotated up into the support position.

## 2C. LIMIT SWITCH FUNCTIONS

See Fig. 6 for location of limit switches.

### LS-1: TILT DELAY

LS-1 performs three functions. LS-1 is the first switch contacted as the bale travels up the elevator.

1. When operated it prevents the bale Tilt Arms from operating.
2. When the bale releases LS-1 the elevator stops and the Bale Tilt Arms lift the bale so it can slide into the Load Bed.
3. LS-1 stops the bale on the elevator to allow the Side Push to return to the "home" position.

LS-1 is adjusted to control the placement of the bale in the Load Bed.

### LS-2: TILT

LS-2 is the second switch operated by the bale. It is operated by the bale as it travels up the elevator. When LS-2 is operated and LS-1 is released the Tilt Arm will cycle if the Side Push and the Pushback are in their "home" positions.

### LS-3: TILT RETURN

LS-3 is operated by the bale Tilt Arms when they reach maximum stroke, causing them to return to the "home" position. It should be adjusted so that the Tilt Arm cylinder stops  $\frac{1}{2}$ " from the fully extended position.

### LS-4: TILT RETURN STOP

LS-4 is operated by the retracting Tilt Arms to stop them in the "home" position.

### LS-5: SIDE PUSH EXTEND

LS-5 is operated by the bale as it is tilted into the Load Bed by the Tilt Arms. LS-5 signals the Side Push to extend if only one bale is in the tier. If two bales are in the tier so that both LS-5 and LS-8 are operated, LS-5 will signal the Pushback to extend.

### LS-6: SIDE PUSH EXTEND STOP

LS-6 is operated by the Side Push as it pushes the first bale fully to the left of the Load Bed. It stops the Side Push in the extended position to hold the first bale in place. LS-6 is adjusted so that the first bale is pushed far enough to make room for the second bale in the tier.

### LS-7: SIDE PUSH RETURN STOP

LS-7 is operated by the Side Push as it is retracted. It stops the Side Push in the "home" position. The Pushback will not extend until the Side Push is in the "home" position. The Bale Tilt will not operate until the Side Push is in the "home" position.

### LS-8: PUSHBACK EXTEND

LS-8 is operated by the first bale in the tier as it is side pushed to the left. LS-8 signals that one bale is in the tier. When the second bale operates LS-5 a signal is sent for the Pushback to extend. The Pushback will not extend if the Load Bed is full.

### LS-9: PUSHBACK RETURN

LS-9 is operated by the Pushback when it reaches maximum stroke. It signals the Pushback to return to the "home" position. The cam that operates LS-9 must be set for either 3' Freeman bales or 4' bales. See Fig. 7 for proper adjustment.

### LS-10: PUSHBACK RETURN STOP

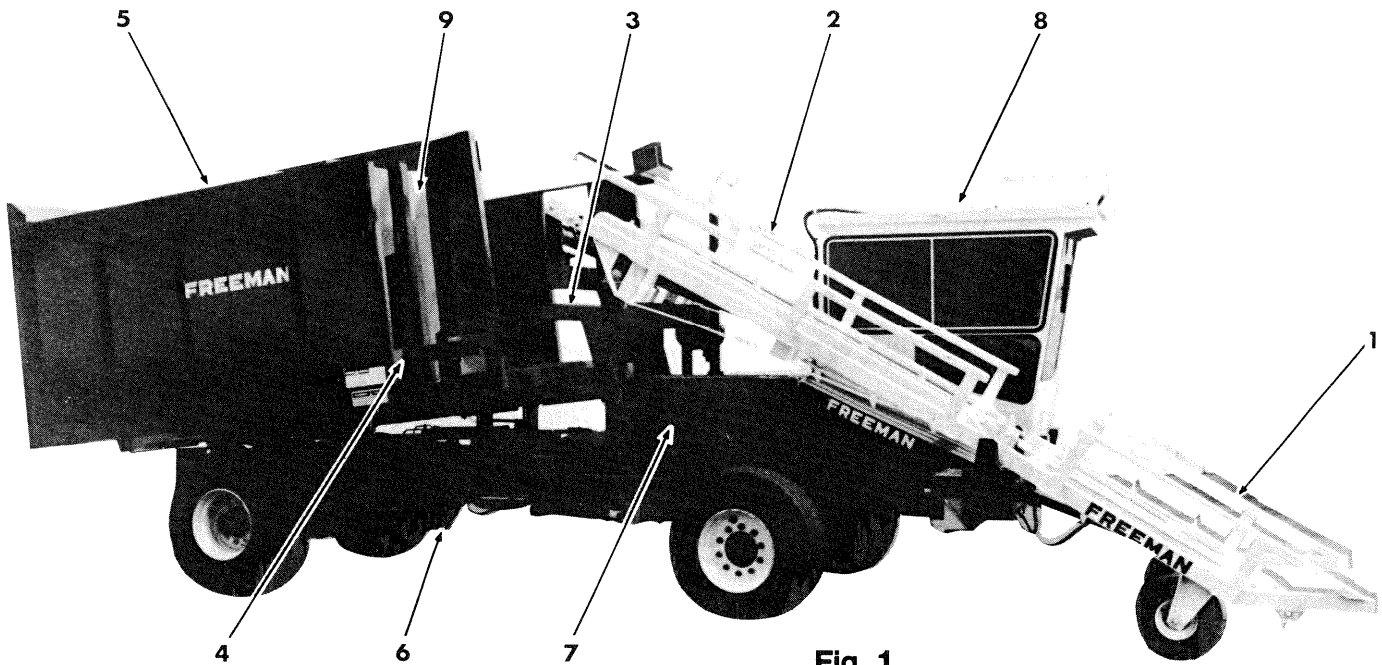
LS-10 is operated by the Pushback as it is retracted. It stops the Pushback in the "home" position. The Side Push will not extend until the Pushback is in the "home" position. The Bale Tilt will not operate until the Pushback is in the "home" position.

### LS-11: FULL LOAD, PUSHBACK SAFETY

LS-11 is operated by the first tier of bales when they are pushed to the rear of the Load Bed. LS-11 stops the Pushback from operating when the last tier of bales is loaded and the Load Bed is full.



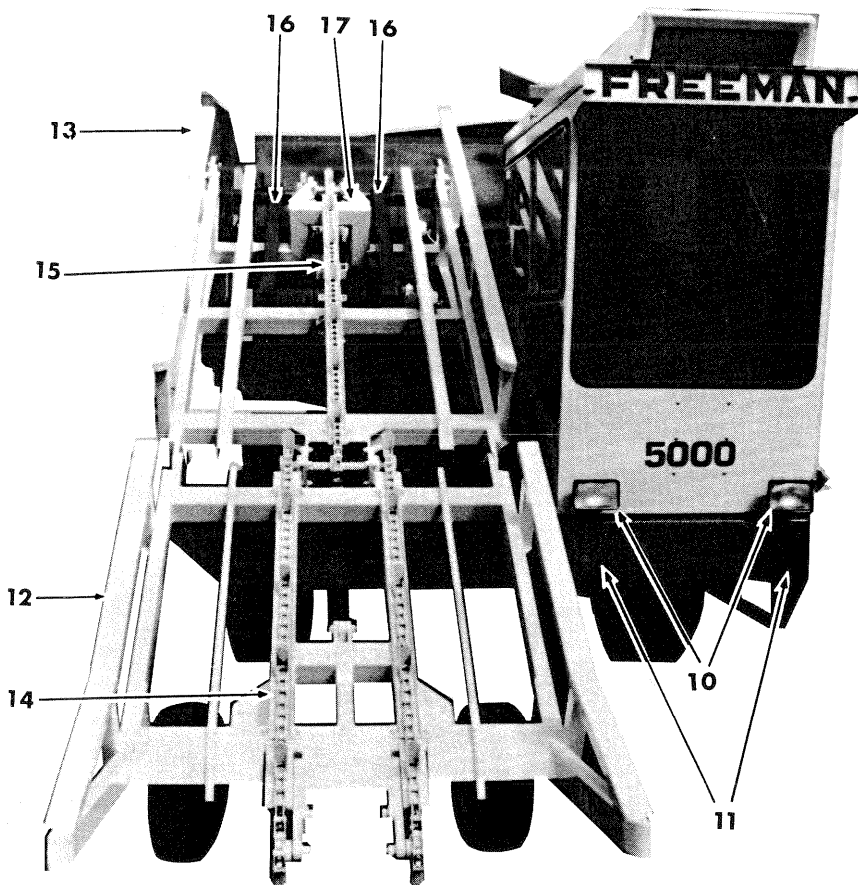
### 3. WALK AROUND PHOTOS



**Fig. 1**

#### Right Side View

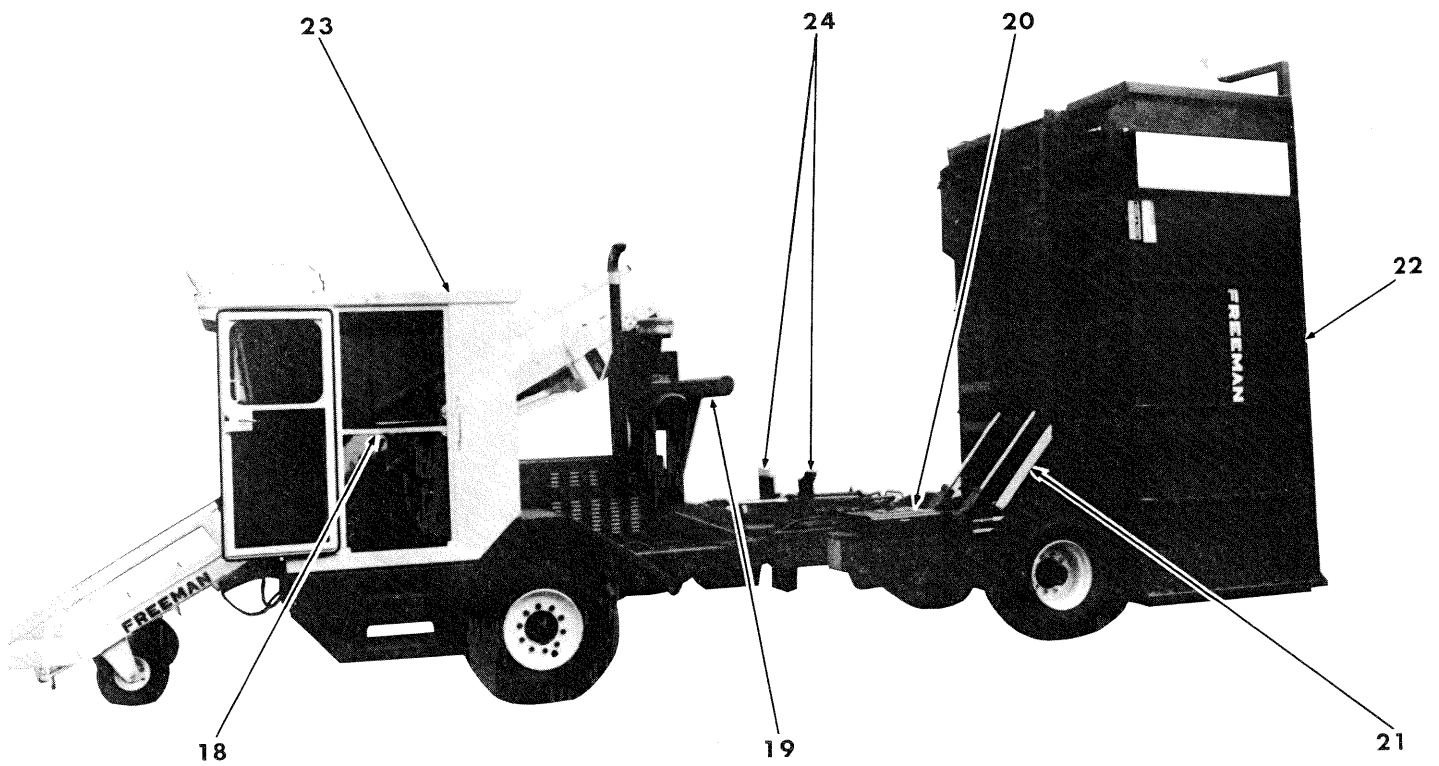
1. Pickup
2. Elevator
3. Push-back
4. Side-pusher
5. Load Bed
6. Fuel Tank
7. Engine Compartment
8. Cab
9. Roller Rack



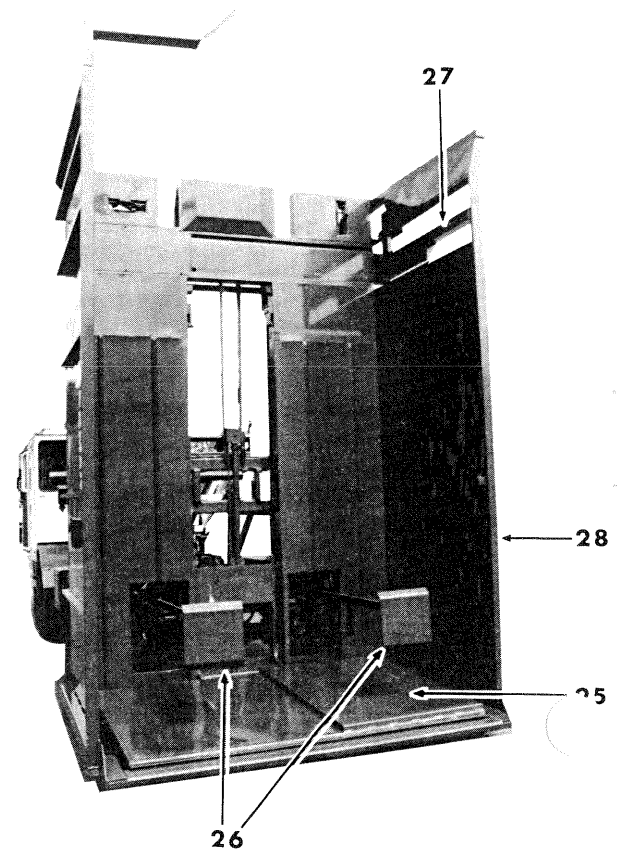
**Fig. 2**

#### Front View

10. Headlights
11. Turn Signal
12. Pickup
13. Elevator
14. Pickup Chain
15. Elevator Chain
16. Bale Tilt Arms
17. Elevator Chain Motor

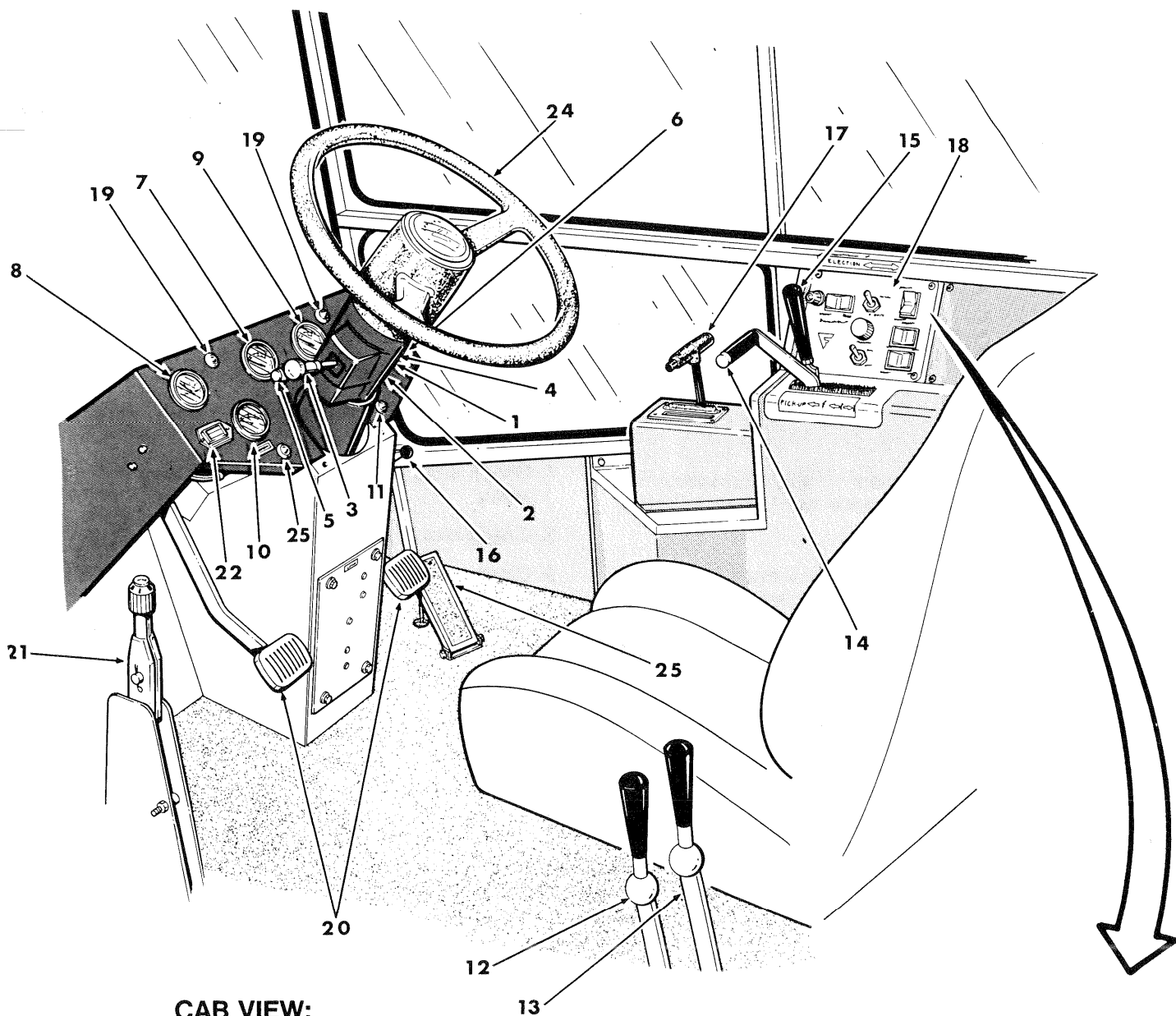


**Fig. 3 Left Side View**  
 18. Safety Gate Bar  
 19. Pushback  
 20. Hydraulic Oil Tank  
 21. Safety Bar  
 22. Load Bed  
 23. Cab  
 24. Load Bed Supports



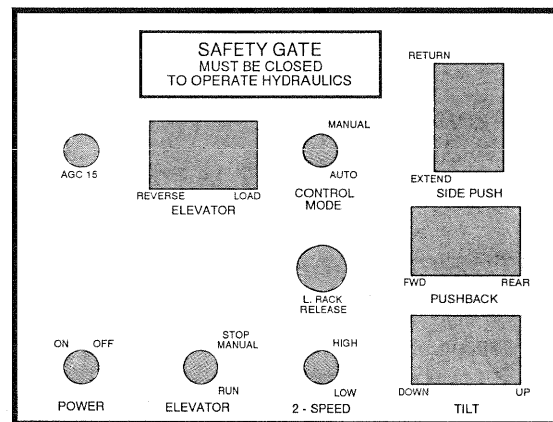
**Fig. 4**

**Rear View**  
 25. Roller Rack  
 26. Push-off Feet  
 27. Side Pusher  
 28. Load Bed



### CAB VIEW:

1. Ignition Switch
2. Ignition Switch Lock Release
3. Turn Signal Control/Headlight/Windshield Wiper
4. Emergency Flasher
5. Steering Wheel Tilt
6. Steering Wheel Extend/Retract
7. Water Temperature Gauge
8. Transmission Oil Temperature Gauge
9. Engine Oil Pressure Gauge
10. Voltmeter
11. Hand Brake Warning Flasher
12. Bed Tilt
13. Push-Off Feet
14. Pick-Up
15. System Selector
16. Hand Throttle
17. Automatic Transmission Gear Selector
18. Operator's Panel
19. Turn Signals
20. Brake Pedals
21. Hand Brake Lever
22. Hourmeter
23. Headlight Indicator
24. Steering Wheel
25. Foot Throttle



### OPERATOR'S PANEL

Fig. 5A

## 4. PREPARATION

### SETTING LOAD BED FOR BALE SIZE

The Big Bale Roadsider is set at the factory for 4 foot bales. To change this setting for Freeman bales follow the following steps:

1. Remove 4 bolts from both Roller Rack stops. See. Fig. 8.
2. Remove Roller Rack stops and stop spacers. See. Fig. 9.
3. Reposition cam assembly CAM0020478, see Fig. 7, using alternate mounting holes. The long portion of the cam assembly should now contact LS-9 when the Pushback extends.

## 5. PRE-OPERATION CHECK LIST

We recommend a daily prestarting inspection. The following check list will help prepare the machine for field operation and ensure the unhindered function of the Freeman Big Bale Roadsider.

### CHECK LIST:

1. Perform periodic maintenance and lubrication as recommended. (See Maintenance and Lubrication, page 10).
2. Check for correct tire pressure, (75 psi front, 65 psi rear), and wheel lug tightness (450-500 ft-lbs front and rear).
3. Perform complete visual inspection, looking for oil leaks and loose bolts, chains, cables, etc.
4. Check engine unit and remove all possible hazards such as chaff and debris.
5. Check fuel filter and drain and/or clean as required.
6. Check and clean engine air precleaner and cleaner as required.
7. Check engine crankcase oil and hydraulic oil for proper levels.
8. Check radiator coolant level.
9. Clean cab windows as required to ensure good visibility.
10. Safe and efficient operation of the Freeman Big Bale Roadsider is greatly dependent upon a well trained, safety minded and conscientious operator.

## 6. OPERATION

### A. START-UP

1. Place the safety bar in the horizontal position across the doorway.
2. Shift transmission to "NEUTRAL."
3. Depress and hold foot brake.
4. Start engine.
5. Adjust seat, steering, and mirrors as required.
6. Set POWER switch on the operator's control panel to "ON."
7. Raise the Pickup to travel to the first bale.

### B. LOADING

1. Set the CONTROL MODE switch to the "AUTO" position.
2. Move the SYSTEM SELECT lever forward to "LOAD" position.
3. Position ELEVATOR control switch to "RUN" to start elevator chain.
4. Approach the bale at a slow speed and, while holding the Pickup lever forward, ease the elevator against the bale. Once the elevator has begun to lift the bale, drive forward to push elevator under the bale.
5. After the bale has cleared the ground, raise the Pickup off the ground and drive to the next bale.
6. After the machine is fully loaded, switch the CONTROL MODE switch to manual and stroke the Pushback rearward to fully extend the Roller Rack. Hold load in place until reaching stack site.

7. Avoid picking up bales while going down hills.
8. Avoid hard breaking after the second bale has been loaded in the tier to prevent the bale from falling forward.

### C. UNLOADING

1. Align the Roadsider with the stack.
2. Retract the Pushback with the manual switch.
3. Move the SYSTEM SELECT lever to the "UNLOAD" position.
4. Raise the Load Bed to a near vertical position by pulling back on the TILT lever.
5. Back up square to the stack until the load touches the stack.
6. Raise the bed the rest of the way (past vertical) so that the load contacts the ground.
7. Discharge the load from the Load Bed by pushing back on the Pusher Feet lever to extend the Pusher Feet. Let the Pusher Feet move the machine out from under the bale using the brakes or throttle as required to assist.
8. After bales are unloaded return Pusher Feet to the "home" position by pulling forward on the Pusher Feet lever.
9. Lower Load Bed by pulling forward on the Tilt lever.

## 7. HYDRAULIC SERVICE ADJUSTMENTS

**NOTE:** This procedure is to be performed by a authorized Freeman Service Representative.

### A. Roller Rack relief valve.

1. Ensure main system relief valve is adjusted to 2500 psi.
2. Hold bed Tilt lever in "down" position to force oil flow to relieve through Roller Rack relief valve.
3. Adjust load rack relief valve to 1200 psi as measured on the gauge installed for reading main system pressure.

### B. Roller Rack counterbalance valve.

1. Adjust main system relief valve to 1600 psi.
2. Ensure Roller Rack is at front of bed. Raise Load Bed to vertical position and securely block to prevent bed from accidentally lowering.
3. Have an assistant hold Pushback manual control switch in "EXTEND" position.
4. Adjust counterbalance valve until Roller Rack just begins to fall. Turn adjusting screw out (C.C.W.) to increase pressure, turn in (C.W.) to decrease.
5. Adjust main system relief back to 2500 psi.



**WARNING:** Keep all persons out from under Roller Rack.

## 8. MAINTENANCE AND LUBRICATION

Check and tighten bolts .....	Daily
Check hydraulic tank oil level.....	Daily
Check engine oil level.....	Daily
Check transmission oil .....	Daily
Grease RH steering knuckles .....	50 hours
Grease LH steering knuckles.....	50 hours
Grease drive line universal joint.....	50 hours
Check rear differential oil level .....	50 hours
Grease seat assembly pivot tube.....	100 hours
Replace engine oil filter .....	250 hours
Replace air filter .....	250 hours
Grease front wheel bearings .....	6 months
Replace engine fuel filter .....	6 months
Replace transmission oil filter .....	12 months
Replace transmission oil.....	12 months
Replace hydraulic system filter.....	Annually
Check oil level rear axle electric shift unit.....	Annually

### LUBRICANTS

**Grease zerks:** Multi-purpose grease

**Transmission:** DEXRON, DEXRON II, ALLISON C3 ATF

**Rear axle housing:** API Service GL-4 or GL-5  
below 10 degrees F - SAE 80  
up to 100 degrees F - SAE 90  
above 100 degrees F - SAE 140

**Rear axle electric shift unit:** SAE 10 engine oil

**Hydraulic system:** Chevron AW-46 hydraulic oil or equivalent

**Engine oil:** Chevron 15W-40 API service CC, CE, CD

# Limit Switch Location on the 5000 Big Bale Roadsider

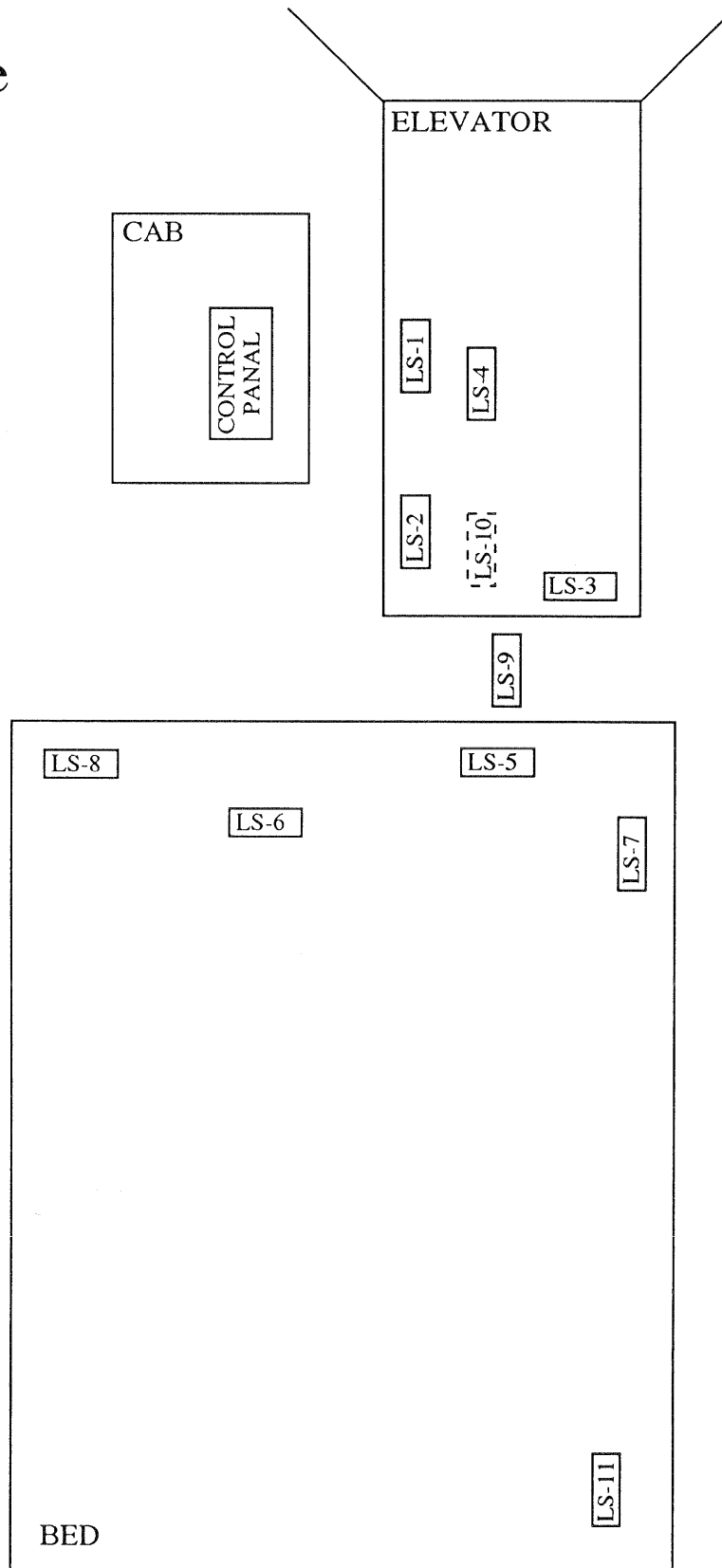
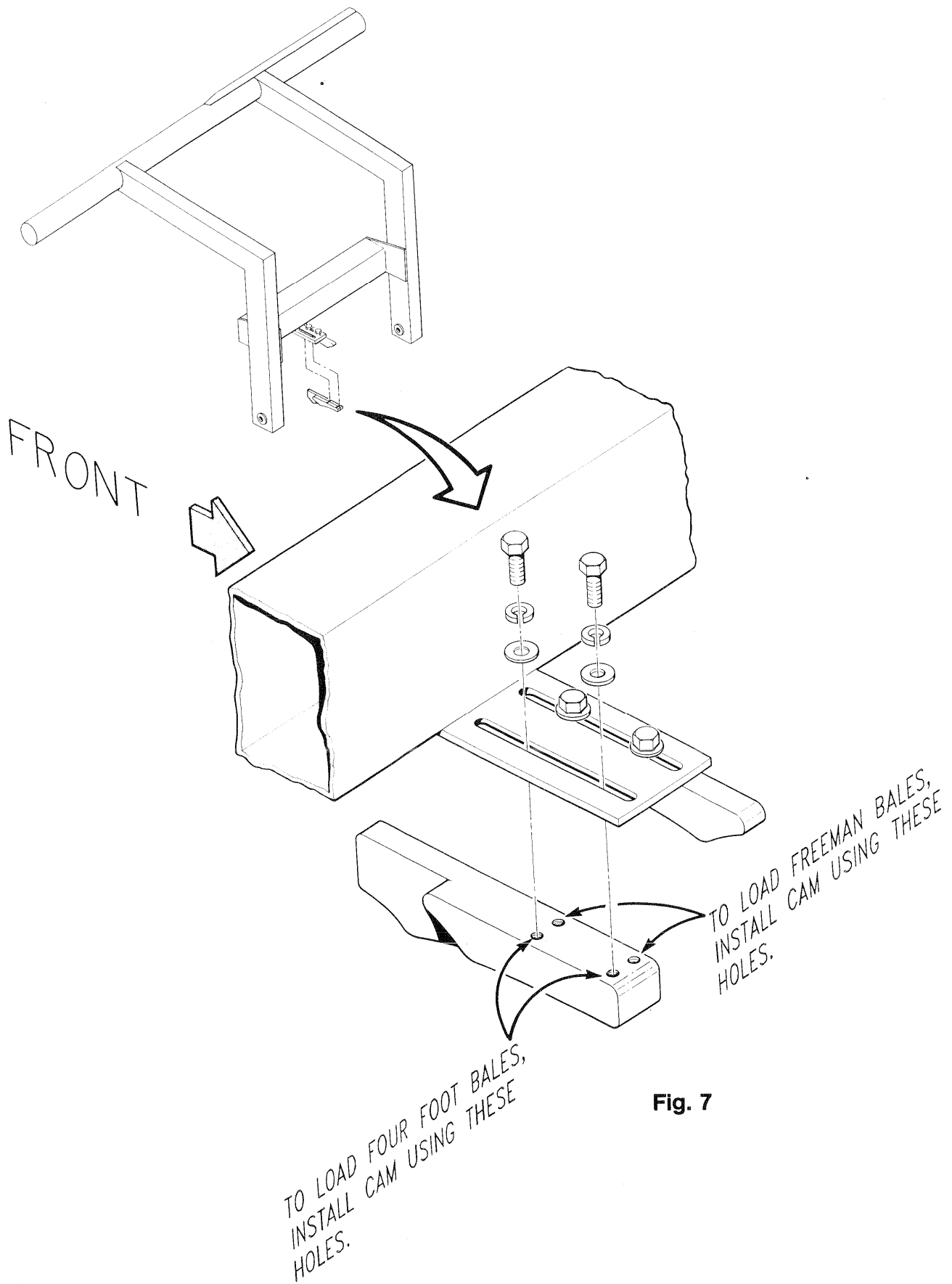


Fig. 6

TOP VIEW



**Fig. 7**



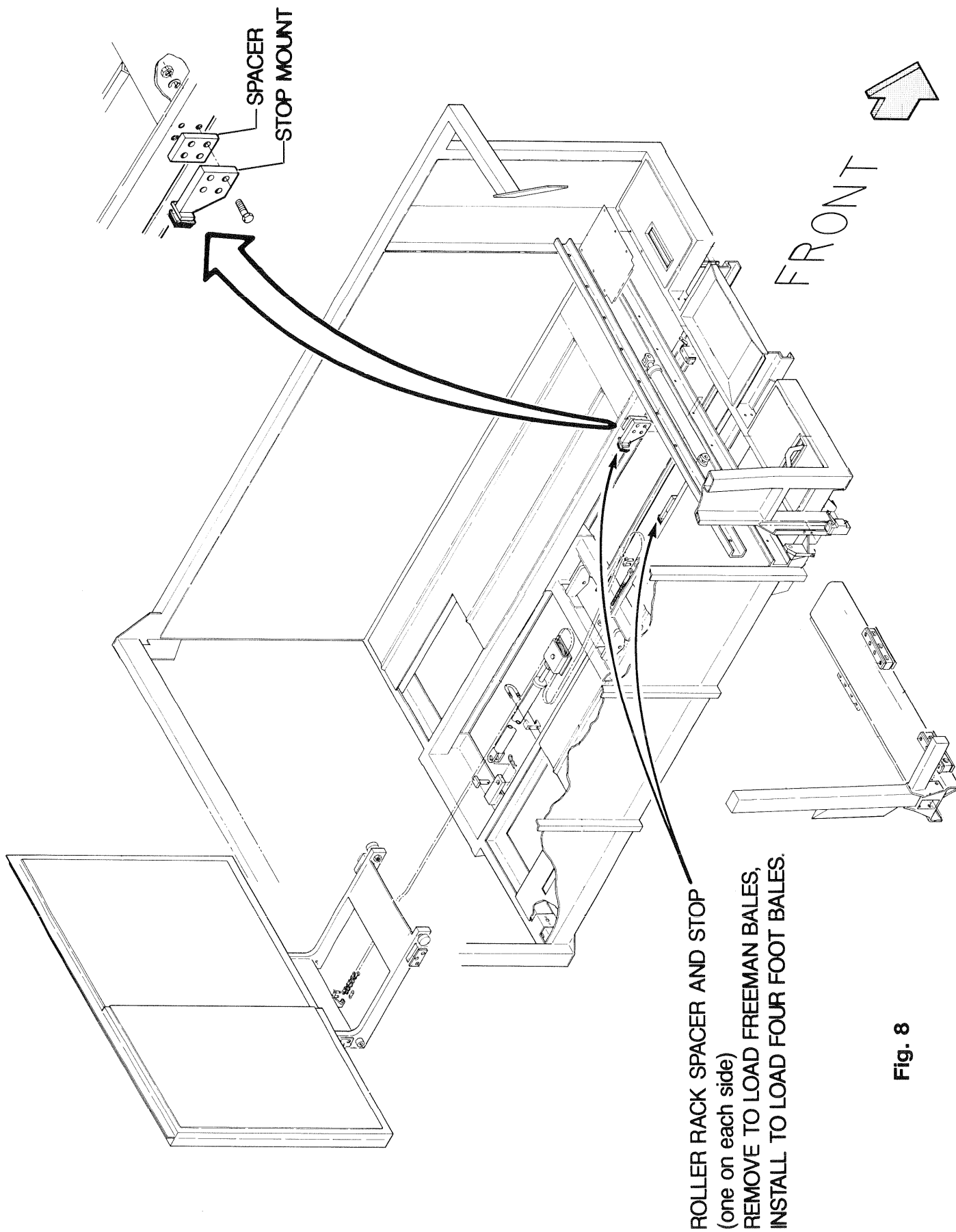


Fig. 8

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### LUBRICATION

see *Maintenance*  
see also *Oil*

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## NOTES

## NOTES

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