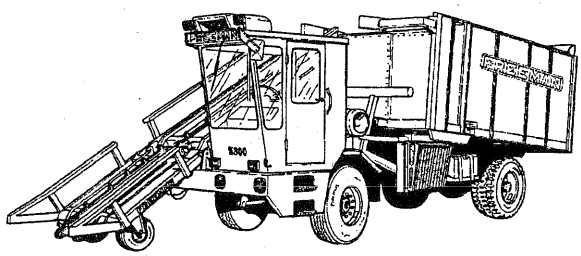
FREEMAN



MODEL 5300
BIG BALE ROADSIDER

OPERATOR'S MANUAL

PB05300OPS

OPERATION MANUAL

FOR

MODEL 5300
BIG BALE ROADSIDER

1. It is the policy of J.A. Freeman & Son, Inc. to constantly improve it's products whenever it is practical to do so.
2. J.A. Freeman & Son, Inc. reserves the right to redesign or change it's equipment or component parts thereof without incurring any obligation to install or furnish such changes on equipment previously delivered.
3. Unauthorized changes or additions to equipment manufactured by J.A. Freeman & Son Inc. relieves the company of further responsibility for warranted operation and breakage replacement

CAUTION PRUDENCE

ACHTUNG PRUDENZA

1. Keep all shields in place.
2. Always stop engine before leaving operator's position and in any case, make sure precautions are taken.
3. Wait for all movement to stop before servicing this Machine.
4. Keep hands, feet and clothing away from power driven parts.
5. Never adjust, lubricate, clean or unclog unless engine is stopped.
6. Read operator's manual before operating machine. Illustrated parts listing is available from your dealer.
7. After servicing, make sure that tools and parts are stored and reinstall shields.
8. Make certain everyone is clear of machine before starting engine or operation.
9. Contact with moving parts or with any material which can be drawn into moving parts can result in serious injury.
10. Use flashing warning lights when operating on highways except when prohibited by law.

1. Bevor mit der Maschine gearbeitet wird, sind die Bedienungsaciaitung und die angebrachten Hinweimhilder zu lesen. Aile Sicherheits-vorschriften sind einzuhalten.

2. Vor Inbetriebnahme ist darauf zu achten, dass aile Schutzeinrichtungen angebracht sind, und dass sich keine Person im Getahrenbereich der Maschine authält.

3. Instandsetzungs, Einstellungs, Wartungs und Reinigungsarbeiten nur bei abgeschaltetem Antrieb und stillstehender Maschine vornehmen.

4. Werkzeuge oder andere lose Teile nicht in order auf der Maschine belassen.

5. Bei Fahrten auf öffentlichen Strassen sind die in Ihrem Lande geltende Vorschriften und Regelungen einzuhalten.

1. Maintenir tous les protecteurs en place.
2. Toujours arrêter le moteur avant de quitter le poste de conduite et, d'une facon générale, s'assurer que toutes les précautions sont prises.
3. Attendre l'arrdt de toutes les piéces en mouvement avant d'intervenir sur la machine.
4. Ne pas approcher mains, pieds, vétements des parties en mouvement.
5. Ne jamais régler, graisser, nettoyer ou débourrer la machine sans que le moteur soit arrêté.
6. Prendre connaissance du manuel d'utilisation avant de travailler avec la machine. Le catalogue piéces de rechanges est disponible chez votre concessionnaire.
7. Aprés intervention, veiller á ce que les outils et piéces soient rangés et remettre les carters en place.
8. S'assurer que personne n'est prés de la machine avant de démarrer le moteur ou de travailler.
9. Risque de dégats importants si quelqu'un ou quelque chose est happé par des piéces en mouvement.
10. Utiliser les feux de détresse pour la conduite sur routes, sauf si la loi l'interdit.

1. Tenere tutte le prolezioni at loro posto.
2. Spegnere sempre il motore prima di lasciare il posto di guida e, in linea di massima, assicurarsi che siano prese tutte le precauzioni.
3. Attendere l'arresto completo di tutti gli organi prima di intervenire sulla macchina.
4. Non avvicinare mani, piedi, vestiti agli organi in movimento.
5. Solo a motore spento si puó registrare, ingrassáre, pulire o eliminare gli ingolfamenti.
6. Consultare attentamente il manuale d'istruzione prima di iniziare il lavoro con la macchina. Il catalogo parti di ricambio é disponibile presso il vostro concessionnario.
7. Dopo qualsiasi intervento sistemare attrezzi e pezzi e rimettere a posto le protezioni.
8. Assicurarsi che non ci sia nessuno nelle vicinanze della macchina prima di metteria il moto o iniziare il lavoro.
9. Rischi e gravi infortuni subiscono coloro che sono agganciati da parti in movimento.
10. Utilizare i fari lampeggianti durante i trasferimenti su strada.

TO OUR CUSTOMERS

Your purchase of a Freeman 5300 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 bring up profits. Freeman equipment has satisfied and will continue to satisfy their owners all over the world for years to come.

Your Freeman Model 5300 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 5300 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 5300 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.

INTRODUCTION

HOW TO USE THE MANUAL

This manual contains illustrations and instructions on operations and maintenance of this machine.

Reference numbers shown on an illustration refers to the features and functions of the machine that are explained in the text. This will help you locate detail information illustrated in the Part Listing Book. Machine controls are explained and the operation steps are listed in the order the machine should be operated.

This operations manual is not intended to be a complete guide for machine service and repairs. Contact your dealer for any of your service or technical requirements.

UPDATING AND REORDERING MANUALS

The parts lists, illustrations and specifications in this manual are based on the latest information available at the time of publication. Your machine may have product improvement and options not yet contained in this manual.

J.A. Freeman & Son, Inc. reserves the right to make changes at any time without notice or obligation to you.

Your dealer will receive notice of these changes and can assist you with accurate parts identification when ordering.

A copy of this manual is supplied with each machine. Additional copies are available through you dealer. When ordering additional manuals, use the reorder number listed below and the quantity needed.

ORDER NO. PB 5300OPS

SAFETY

J.A. Freeman & Son is greatly concerned with safety. The Freeman Roadsider is furnished with safety features. Even with these safety features, personal injury can still occur if the operator is careless, negligent or thoughtless when maintaining, lubricating, operating, unclogging, or servicing the machine.

Your Freeman Equipment has safety shields to help prevent personal injury. Do not operate the machine unless all shields are in place. There are also **"CAUTION," "DANGER," and "BE CAREFUL"** decals on the machine. Read and pay attention to the decals.

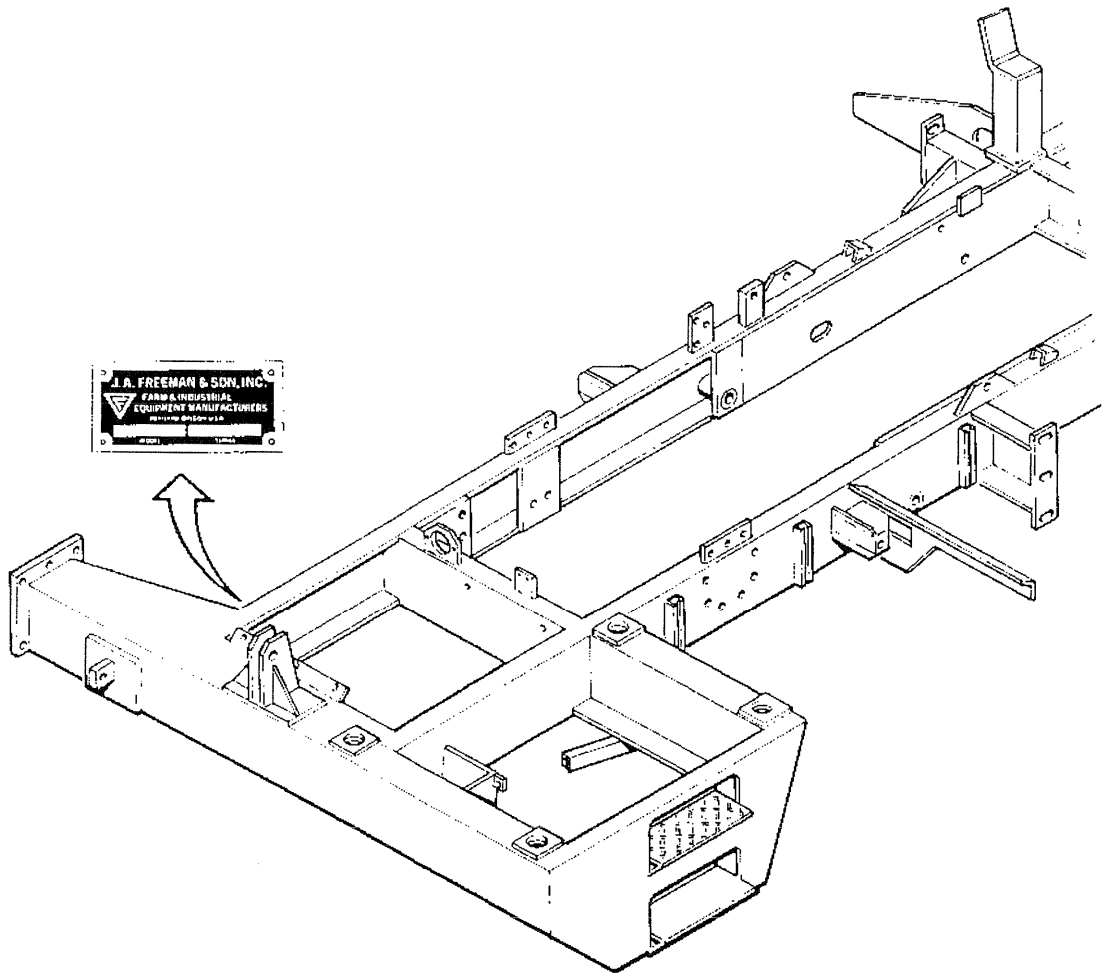
Following is a list of precautions that should be taken to help prevent personal injury:

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 ROAD WAYS.
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 OPERATOR'S 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 NEAR ANY EQUIPMENT UNTIL ALL MOVING PARTS HAVE STOPPED.
9. DO NOT GO UNDER ANY RAISED COMPONENTS UNTIL THEY ARE SAFELY BLOCKED.
10. DO NOT ALLOW ANYONE UNDER OR NEAR THE LOAD WHILE IT IS BEING RAISED.
11. AT ALL TIMES CARRY AN "A"B"C" FIRE EXTINGUISHER ON THE MACHINE.
12. REMEMBER 'SAFETY' IS ONLY A WORD UNTIL IT IS PUT INTO PRACTICE.

WARNING: SOME ILLUSTRATIONS IN THIS MANUAL SHOW THE ROADSIDER WITHOUT 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.

SERIAL NUMBER LOCATION

The serial number is an important piece of information about the machine and it may be necessary to know it before obtaining the correct replacement part. The serial number is located on the right front tongue brace as shown.



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NOTE: ILLUSTRATIONS ARE FOR "ORDERING" INFORMATION ONLY, AND ARE NOT INTENDED FOR USE AS AN ASSEMBLY GUIDE.

Contents

SPECIFICATIONS

Weight	18450 lbs.
Width	9' 5"
Working Height	With Bale 13' 0" Without Bale 10' 1" With Bed in Up Position 16' 1"
Engine:	Power-Turbocharged Cyl. 5.9L Cummins Diesel Engine Torque Rating 414 ft/lbs Horsepower 174 Hp
Transmission	4-Speed Allison Automatic
Brakes	4 Wheel Air Brakes
Fuel capacity	70 Gallons
Radiator:	Side mount heavy duty radiator w/reversing hydraulic cooling fan
Front Axle:	Eaton front steering axle-12000 lb. load rating
Rear Axle:	Eaton electric shift 2-speed rear axle-19000 lb. load rating
Tire Size:	Front tire size: 40 x 19-19.5, 14 ply Rear tire size: 40 x 19-19.5, 14 ply Pickup tire size: 18.5 x 8.5, 8 ply
Cab:	Adjustable air ride operator's seat Heavy duty air conditioner with remote outside air filter Cab heater Work lights, driving lights, stop lights and turn signals Tinted glass windows, windshield wiper, side mirrors Power steering Tachometer, engine hour meter, fuel gauge, air pressure gauges Engine temperature gauge and high temperature warning light Oil pressure gauge and low oil warning light
Stack Size:	Height Up to 13' Width 8' Depth 6' to 9'
Capacity:	Bales per load (Freeman) 8 per load Bales per load (Hesston/Case-IH) 6 per load Bale length required 6-9 ft *Tons per load 6 Average number of loads per hr 10

*Average capacity per 10 hr day 800-bales
*Average capacity per 10 hr day 600-tons

INSTRUCTIONS FOR ORDERING

1. If a part fails, use the Parts Listing Book that was shipped with your machine. Order by part number and description of part.

   (a) Parts should NOT be ordered from illustration only.

   (b) Parts should NOT be ordered from numbers on castings.

2. Order by Roadsider serial number and model.

3. Much delay and confusion can be avoided if part numbers are arranged in sequence on all orders.

4. State how to ship: whether by truck, stage, parcel post, air parcel post, UPS, or air freight.

5. Claims for shortage or error in handling of an order for parts must be made upon receipt of goods.

6. Address all orders for parts as follows:

Allied Systems COMPANY
21433 SW Oregon Street, Sherwood, Oregon 97140-9799 USA
Phone: (503) 625-2560 • Fax: (503) 625-5132

Place serial number of machine here for your convenience:

Model 5300 Roadsider Serial No. _____

Left and right of machine are understood to mean from a position facing in the direction of travel.

Permission must be secured before any parts are returned for credit. When parts are returned, the freight must be prepaid or arrangements made so that they can be brought in by our trucks.

APPEARANCE CARE OF FREEMAN EQUIPMENT

To preserve the finish on Freeman equiipment do not use abrasive heavy duty powders or solutions commonly used to clean solvent based paint finishes. Do not rub the finish with pads made of plastic or metal. These can scratch and dull the paint finish.

To clean the exterior and interior painted surfaces on Freeman Equipment use Tri Sodium Phosphate (T.S.P.). Any other cleaning agents should be spot tested.

MAINTENANCE AND LUBRICATION

LUBRICANTS

Engine Oil:	Chevron 15W-40 API service CF
Hydraulic Oil:	Chevron AW-46 or equivalent
Transmission:	DEXRON, DEXRON II, ALLISON C3 ATF
Grease fittings:	Multipurpose Grease
Rear Axle Housing:	API Service GL-5 below 10° F - SAE80 up to 100° F - SAE90 above 100° F - SAE140
Rear Axle Electric Shift unit:	SAE 10 engine oil

☑ CHECK DAILY

Check engine oil level
Check transmission oil
check coolant level
Inspect accessory drive belts
Check hydraulic tank oil level
Drain fuel system water trap
Check and tighten bolts
Check front wheel bearing oil level

☑ CHECK EVERY 50 HOURS

Grease steering knuckles
Grease steering tie rod ends
Grease drive line universal joint
Grease load bed pivot points
Grease bale tilt pivot tube
Grease pushback cylinder clevis pin
Grease leaf spring anchor pins
Check rear differential oil level

☑ CHECK EVERY 100 HOURS

Grease air brake slack adjusters and cam bushings
Grease rollers on roller rack (front only)
Grease guide rollers for pushoff feet
Check air brake reservoir for condensation

☑ CHECK EVERY 250 HOURS

Change engine oil
Replace engine oil filter
Replace air filter
Clean air conditioner evaporator coil

☑ CHECK EVERY 500 HOURS

Service front wheel bearings
Grease elevator chain drive shaft bearings
Replace engine fuel filter

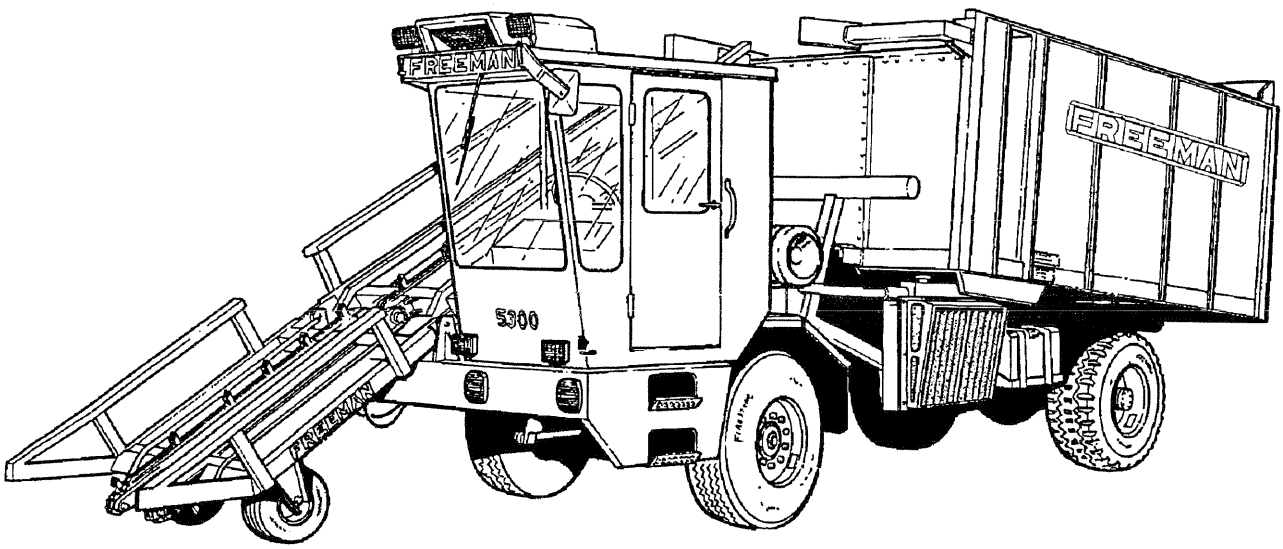
☑ CHECK ANNUALLY

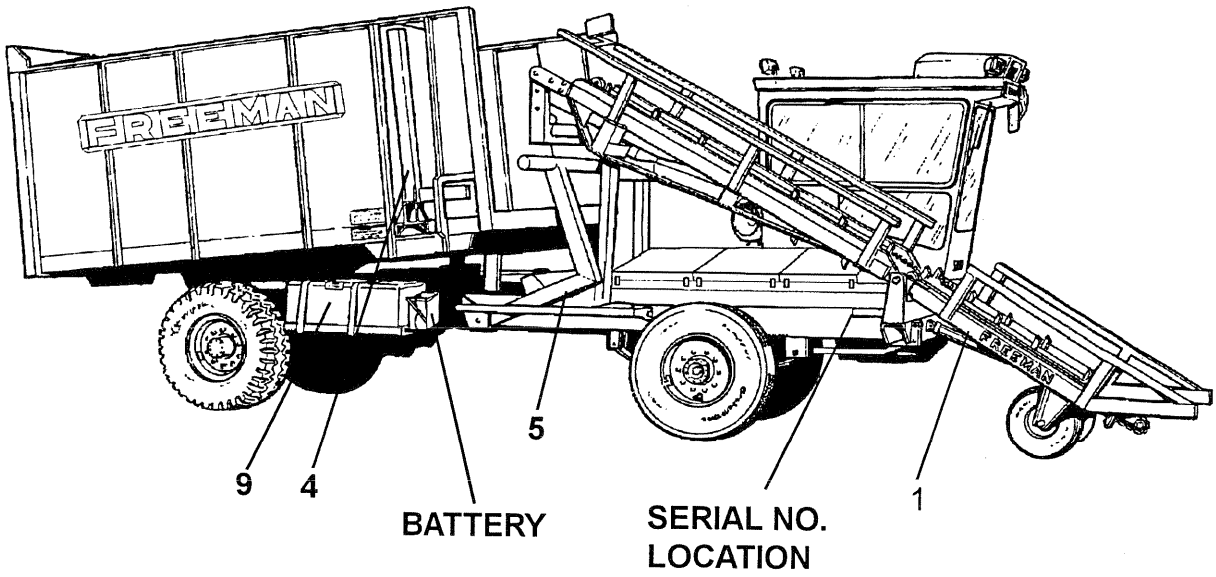
Replace Transmission Oil
Replace Transmission oil filter
Replace hydraulic system oil
Replace hydraulic system filter
Check oil level in rear axle electric shift unit
Grease control lever linkage swivel ends

GENERAL OVERVIEW OF THE FREEMAN 5300 BIG BALE ROADSIDER

The 5300 Big Bale Roadsider is an automatic big bale stacker. An electric control circuit activates hydraulic components which place mechanical components in motion. Large rectangular bales are moved from the field to a position on the machine which allows them to be hauled efficiently to a stack site where they are unloaded in a neat and uniform stack.

The stacking process begins as the operator of the machine positions a bale onto the pickup assembly. The pickup chain conveys the bale from the ground to the upper elevator. When the bale reaches the upper elevator the control circuit is signaled to begin the automatic process of positioning bales on the load bed. One by one bales are picked up until a total of eight 38" x 46" bales, or six 50" x 46" bales have been loaded on the machine. The operator then drives to the desired stack site. At the stack site the operator raises the load bed and operates the load push off system to move the load off the machine to a stacked position on the ground. When the machine is free of it's load the push off system is retracted and the load bed lowered. The operator is ready to return to the field for another load.





INDIVIDUAL ASSEMBLY DESCRIPTION

1. PICKUP

The pickup lifts and conveys the bale from the ground to the elevator. The pickup can be raised and lowered by operating the pickup lift lever in the cab. The pickup chain is controlled by a switch located in the handle of the pickup lift lever.

2. ELEVATOR

The elevator conveys the bale to a position over the bale tilt arms. The elevator chain is controlled automatically by the control circuit. Limit switches located on the elevator signal the control circuit as to the position of the bale.

3. BALE TILT ARMS

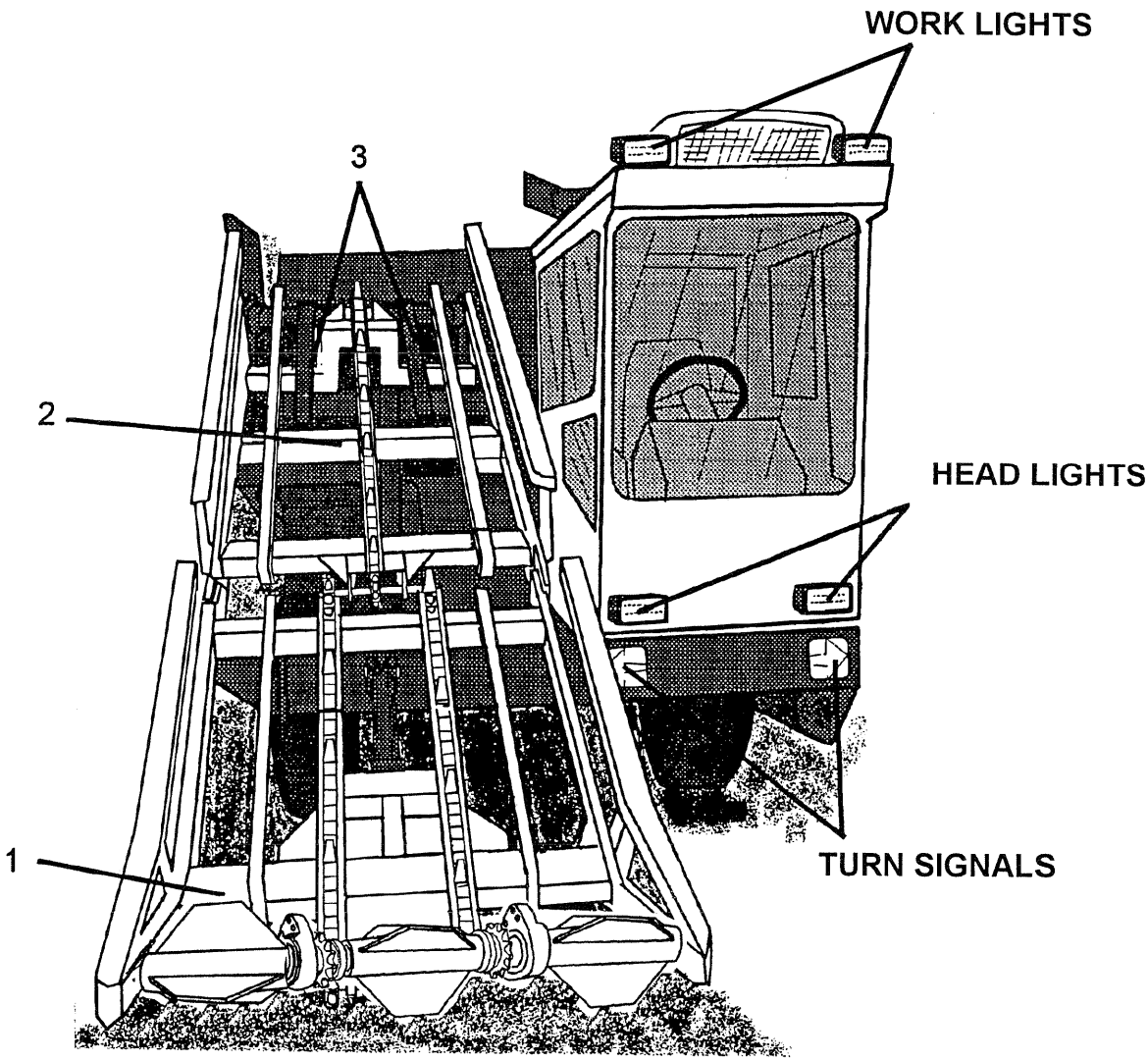
The bale tilt bars tip the bale up from it's position on the elevator and stands the bale on end into the load bed. When the bale is delivered to the load bed the control circuit is signaled.

4. SIDE PUSHER

The side pusher moves the bale from it's position standing on end on the right hand side of the load bed to the left hand side of the load bed. The bale is held in position on the left had side until another bale is in position on the elevator. The side pusher will then return to the home position to allow the second bale to be placed on the load bed. These two bales on the load bed form the first tier.

5. PUSHBACK

The pushback moves the previously formed tier towards the rear of the machine to allow room for the next tier to be formed



6. ROLLER RACK

The roller rack is a moveable support for the bales as they are loaded in the load bed. The roller rack prevents bales from falling to the rear of the machine as they are positioned on the load bed. When the load bed is raised to the unloading position, the roller rack supports the bottom of the stack until it is pushed off onto the ground.

7. LOAD BED

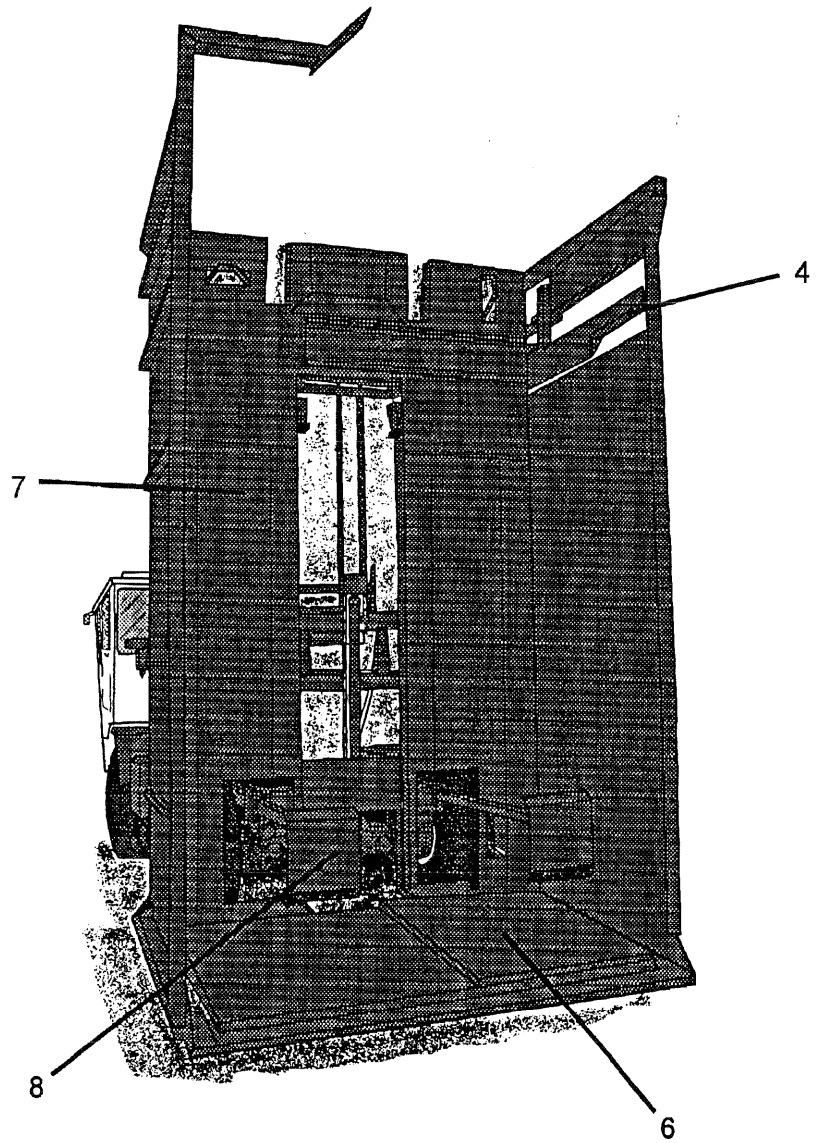
The load bed contains the bales as they are gathered to form a stack. Components located on the load bed are the side pusher and the roller rack.

8. PUSHOFF FEET

When the load bed is raised to the unloading position the pushoff feet are extended to push the stack of bales away from the machine.

9. FUEL TANK

Located on the left hand side of the machine. Capacity is 70 gallons.



10. HYDRAULIC TANK:
The hydraulic tank is located on the left hand side of the Roadsider.

11. AIR CLEANER
The air cleaner is a dry element type with a precleaner.

12. LOAD BED TILT CYLINDERS
Convert hydraulic energy to mechanical energy to raise the load bed.

13. RADIATOR
The radiator provides cooling for the engine, hydraulic system and transmission. A hydraulicly operated fan circulates air through the radiator. The fan rotates clockwise to draw air through the radiator and is reversed at regular intervals to remove collected dust and chaff from the radiator screen.

SAFETY ITEMS

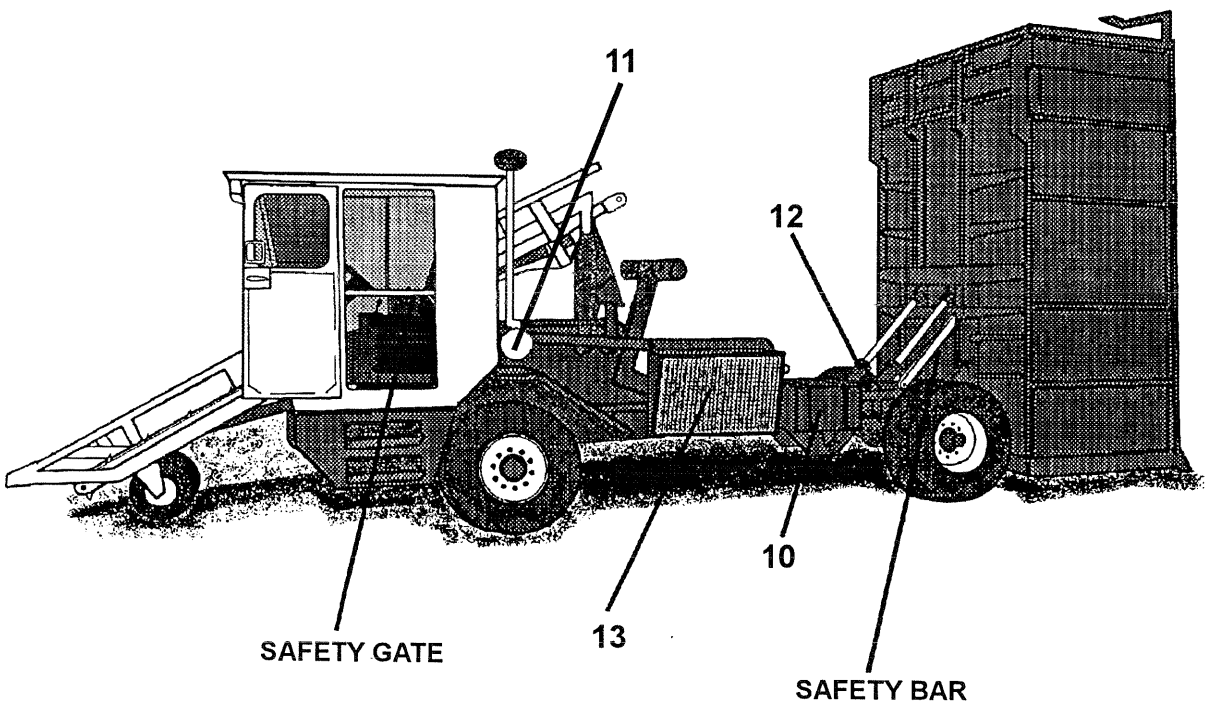
SAFETY GATE

The safety gat bar prevents the operation of hydraulic components unless the bar is raised. The safety gate is located just inside of the cab door. To operate the Roadsider hydraulic functions sit in the operators seat. Raise the safety gate and place it in the retaining hook at the front of the doorway. Do not attempt to operate the Roadsider from any position other than the operators seat.

SAFETY BAR

The safety bar is located on the left rear of the Roadsider mainframe. The safety bar is provided for use when performing maintenance or repairs when the load bed is in the raised position. When ever any service is performed requiring the load bed to be raised, raise it completely and swing the safety bar into position to block the load bed from lowering.

Do not allow anyone to work on, near or around the raised load bed unless it is correctly blocked by the safety bar.



OPERATOR CONTROLS

1. **IGNITION SWITCH:** Located on the right hand side of the steering column. The ignition switch can be turned to four positions: off, accessory, on and start. To operate the ignition switch insert the key and rotate the switch clockwise.

OFF POSITION: When in the off position, power is not available to most of the accessories. The engine will not operate. Power is available to the headlights and the dome lamp.

ON POSITION: With the ignition switch in the on position, power is provided to all accessories and the sale stacking control circuit. A warning system is active while the switch is in the "on" position. This system activates a warning buzzer and indicator lights to alert the operator of low oil pressure, low air pressure or high coolant temperature. The warning lights will go off once the engine is started and proper operating pressures are reached.

START POSITION: Rotate the switch fully clockwise and the engine starting motor will be activated. Release the ignition switch as soon as the engine starts. The switch will automatically return to the on position when released. A neutral safety switch prevents the starting motor from being activated while the transmission is in gear.

ACCESSORY POSITION: Rotate the switch counterclockwise from the off position to operate accessories only.

2. **IGNITION SWITCH LOCK RELEASE:** The ignition switch lock release (located just below the ignition switch) must be depressed in order to move the ignition switch from the on position to the off position. With the ignition switch in the off and accessory positions the steering wheel is locked and cannot be turned.

3. **EMERGENCY FLASHER:** The emergency flashers are operated by a switch on the right hand side of the steering column below the ignition switch. Push the switch in to activate the flashers. Pull out on the switch to shut the flashers off.

4. **ENGINE SPEED CONTROL:** A foot operated pedal is provided to control engine speed. A hand operated control is located on the right hand side of the instrument panel support pod. Engine RPM is controlled by pulling the lever towards the rear of the machine to increase engine RPM . Push the lever towards to front of the machine to decrease engine RPM.

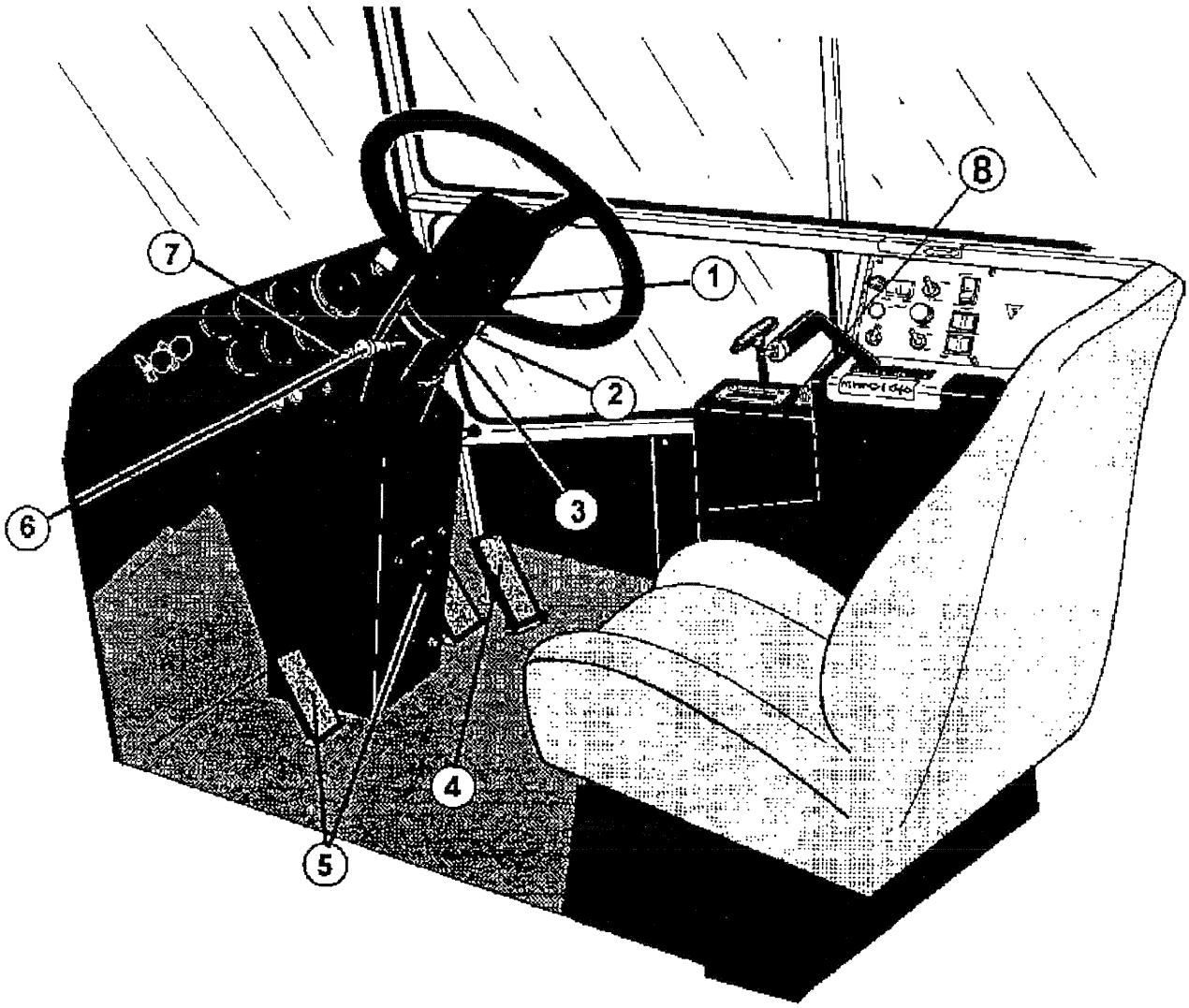
5. **BRAKES:** A foot operated brake pedal is provided on the floor of the cab on each side of the instrument panel support pedestal. These pedals operate together to apply the service brakes. The parking brake control is located on the right hand side of the instrument panel. To set the parking brake bring the Roadsider to a complete stop. Pull out on the yellow parking brake control knob to set the parking brake. Push in on the control knob to release the brake. Refer to page 15 for more information on the air operated brake system.

6. **TURN SIGNAL, HEADLIGHTS, WIPER:** The turn signals, headlights and wiper control switches are located on a single lever on the left hand side of the steering column.

TURN SIGNALS: The turn signals are activated by moving the lever up to activate the right-hand signals or down to activate the left-hand signals. Green indicator lamps on the instrument panel will light when the signals are activated.

HEADLIGHTS: Headlights are turned on by pulling the lever towards the steering wheel. Pulling the lever a second time turns the headlights off. An amber light on the instrument panel will illuminate when the headlights are turned on.

WIPER: The wiper motor can be turned on by rotating the end of the turn signal lever counterclockwise. A low speed and high speed positions are provided.



7. STEERING WHEEL TILT / TELESCOPE: The steering wheel can be tilted forward or backward to ease exit and entry from the operators seat. To adjust the steering column pull the lever on the left-hand side of the steering column (below the turn signal lever) towards the steering wheel. Release the lever when the column reaches the desired position.

The steering column can be extended or retracted to suit the operator. To adjust the column length locate the release lever at the center of the steering wheel hub. Move the lever in a clockwise direction to release the column. Position the column as desired and move the lever counterclockwise to lock the column in position.

8. TWO SPEED AXLE: The two speed axle is operated by a toggle switch located just behind the transmission selector lever. Select the desired axle ratio before engaging the transmission.

DASH PANEL ASSEMBLY

The dash assembly houses gauges and indicator lights so that the operator can monitor the condition of the machines primary components.

VOLTMETER: Item 8. Monitors electrical system voltage. Normal system voltage is 12.5 to 14.5 volts. The voltmeter will show lower voltage when the vehicle is being started and higher voltage when the batteries are charging. Whenever the voltmeter shows an undercharged or overcharged condition for an extended period, check the batteries and charging system.

OIL PRESSURE GAUGE: Item 7. Indicates engine lubrication oil system pressure. Oil pressure should read a minimum of 30 psi at rated speed and not less than 10 psi at idle. Consult the engine operators manual for further information.

OIL PRESSURE WARNING LIGHT: Item 13. Illuminates when engine oil pressure is low. An audible tone will sound when the warning light illuminates to further warn the operator.

⚠ **CAUTION:** A sudden decrease or absence of oil pressure man indicate mechanical failure. Bring the machine to a safe stop and investigate the cause to prevent further damage. Do not operate the engine until the cause has be determined and corrected.

WATER TEMPERATURE GAUGE: Item 9. Indicates engine coolant temperature. During normal operation, the water temperature gauge should read 175°F to 203°F. If the temperature remains below 160°F or exceeds a maximum temperature of 210°F, inspect the cooling system to determine the cause. Refer to the engine operators manual for trouble shooting and repair procedures.

WATER TEMPERATURE WARNING LIGHT: Item 14. Illuminates when engine coolant temperature is high.

FUEL GAUGE: Item 5. Indicates the amount of fuel in the fuel tank.

TRANSMISSION OIL TEMPERATURE GAUGE: Item 6. Indicates temperature of the automatic transmission oil. The transmission oil temperature gauge reading should not exceed 250°F during normal operation.

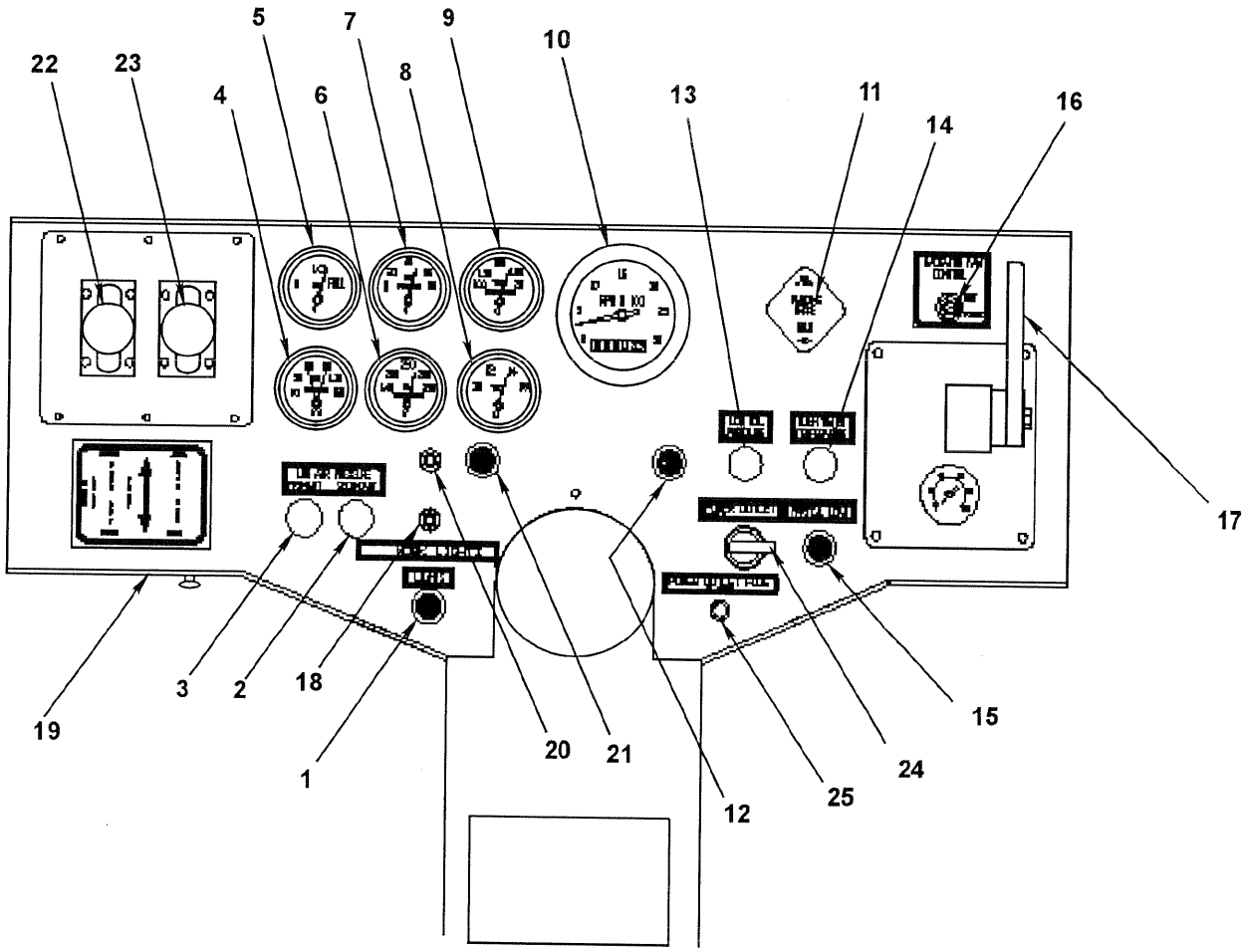
⚠ CAUTION: A sudden increase in oil temperature that is not caused by a load increase may indicate mechanical failure. Bring the vehicle to a safe stop, and investigate the cause to prevent further damage. Do not operate the vehicle until the cause has been determined and corrected.

AIR PRESSURE GAUGE: Item 4. The single air pressure gauge registers the constant pressure in the primary and secondary air systems. The single gauge contains two separate pointers that appear as one unless there is a difference in pressure between the primary and secondary systems. Normal pressure with the engine running, is 95 to 125 psi in both systems. A low air pressure warning light and buzzer, items 2. & 3. connected to both the primary and secondary systems, activate when air pressure in either system drops below a minimum of 65 psi. When the engine is started, the warning light and buzzer remain on until air pressure in both system exceed minimum pressure.

TACHOMETER: Item 10. A tachometer indicates engine speed in revolutions per minute (rpm), and serves as a guide for keeping the engine in the appropriate rpm range during operations. Low idle is set at 750 rpm and maximum rated speed is set at 2450 rpm.

HOUR METER: Item 10. The tachometer includes an engine hour meter. An engine hour meter records continuous operating hours of the engine. Please follow our maintenance schedule based on these hours.

PARTIAL LOAD INDICATOR: Item 15. An amber light on the dash illuminates when six 38" x 46" or four 50" x 46" bales have been loaded on the load bed. This indicates to the operator that two more bales can be loaded onto the machine to complete the load. The pushback will not extend while this light is illuminated.



1. HEADLIGHT ON INDICATOR LAMP
2. SECONDARY AIR PRESSURE WARNING LAMP
3. PRIMARY AIR PRESSURE WARNING LAMP
4. AIR PRESSURE GAUGE
5. FUEL GAUGE
6. TRANSMISSION OIL TEMPERATURE GAUGE
7. ENGINE OIL PRESSURE GAUGE
8. VOLTMETER
9. ENGINE WATER TEMPERATURE GAUGE
10. TACHOMETER
11. PARKING BRAKE CONTROL KNOB
12. RIGHT TURN INDICATOR LAMP
13. LOW OIL PRESSURE WARNING LAMP
14. HIGH WATER TEMPERATURE WARNING LAMP
15. PARTIAL LOAD INDICATOR
16 RADIATOR FAN CONTROL SWITCH
17. HAND THROTTLE CONTROL LEVER
18. WORK LIGHT SWITCH
19 FUSE PANEL ACCESS
20. WORK LIGHT SWITCH
21. LEFT TURN INDICATOR LAMP
22. PUSHOFF FEET CONTROL LEVER
23. LOAD BED TILT LEVER
24. AUXILIARY POWER OUTLET
25. POWER OUTLET FUSE

AUXILIARY POWER OUTLET: Item 24. 12 VOLT, 15 AMP max. auxiliary power for external equipment, i.e. cell phone.

RADIATOR FAN CONTROL SWITCH: Item 16. Selects the operating mode of the radiator fan. In the Field mode the fan reverses periodically to purge dust and chaff from the radiator screen. Select the Highway position when traveling on roadways. This allow the fan to operate continuously in one direction.

TURN INDICATOR LAMPS: Items 12. & 21. Indicator lamp will flash when the turn signals are in use.

WORK LIGHTS: Items 18. & 20. Two push-pull type switches operate the work lights.

FUSE PANEL ACCESS: Item 19 Fuses for cab accessories are located behind this panel on front left of dash.

DASH PANEL ASSEMBLY CONTINUED

HAND THROTTLE CONTROL: Item 17. A hand operated control is located on the right hand side of the dash panel. Engine RPM is controlled by pulling down on the lever to increase engine RPM. Push the lever up to decrease engine RPM.

Parking Brake: Item 11. The parking brake control is located on the right hand side of the instrument panel. To set the parking brake bring the Roadsider to a complete stop. Pull out on the yellow parking brake control knob to set the parking brake. Push in on the control knob to release the brake.

LOAD BED TILT: Item 23. The load bed tilt lever is located on the left hand side of the dash panel. With the system selector in the unload position, the load bed can be raised by moving the lever down towards the rear of the machine. To lower the load bed move the lever up toward the front of the machine.

PUSHOFF FEET: Item 22. The pushoff feet control lever is located on the left hand side of the dash panel. After the load bed has been raised, the pushoff feet can be extended to push a stack off the machine and on to the ground. Move the control lever down towards the rear of the machine to extend the pushoff feet. Move the control lever up towards the front of the machine to retract the pushoff feet. The pushoff feet must be retracted before the load bed can be lowered.

⚠ **CAUTION:** The safety gate bar is located to the left of the operators seat at the cab door. In order for any hydraulic functions to operate the safety gate must be in the raised position. Do not operate the bale wagon unless the operator is in the operators seat.

OPERATOR CONTROL PANEL

The operator control panel contains the switches necessary to operate the stacking functions of the big bale roadsider. The control panel is located to the right of the operators seat.

1. **POWER SWITCH:** The power switch is located in the lower left corner of the control panel. This switch turns on power to the stacking control circuit. A red indicator light above the switch illuminates when the power switch is on.

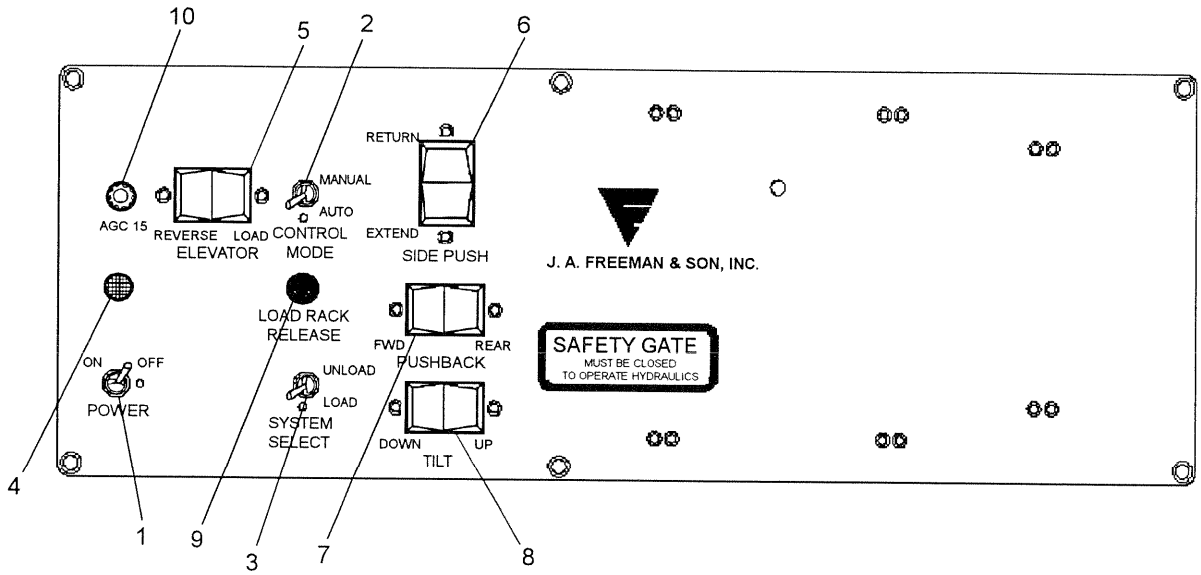
2. **CONTROL MODE:** A switch located at the top center of the operator control panel allows the operator to select either automatic or manual operation of the control circuit. During normal stacking operations the control circuit will operated in the automatic mode. The switch can be moved to the manual mode should it become necessary to manually activate any of the stacking functions. No automatic functions will occur in the manual mode. The manual control switches are functional when the control circuit is in the manual mode and the load selector valve in the load position.

3. **SYSTEM SELECTOR:** The system selector directs hydraulic flow to operate the bale loading functions or stack unloading functions. With the system selector in the load position the pickup can be raised or lowered and stacking functions can operate in either the manual or automatic mode. In the unload position the load bed can be raised or lowered, the pushoff feet extended or retracted and the load rack lowered.

4. **POWER INDICATOR LAMP:** A red light illuminates when the hydraulic stacking control circuit is on.

5. **ELEVATOR SWITCH:** A rocker switch is located in the upper left corner of the operator control panel to allow the operator to control the operation of the elevator chain with the control circuit in the manual mode. The elevator chain can be operated intermittently in forward or reverse directions.

6. **SIDE PUSH**: A rocker switch is located in the upper right of the operator control panel to allow the operator to manually control the side pusher. Always return the side pusher to the home position before operating any other components.



7. PUSH BACK: A rocker switch located at the right hand center position of the control panel allows the operator to manual control the push back to push bales to the rear of the machine.

8. TILT: A rocker switch located at the lower right corner of the control panel allows the operator to manually control the bale tilt. Make sure the side pusher is in the home position before operating the tilt mechanism.

9. LOAD RACK RELEASE; The load rack release is a push-button switch located in the center of the control panel. This switch allows the load rack to lower to the back of the load bed when a partial load needs to be unloaded. For proper operation procedures refer to the instructions for unloading a stack.

10. CONTROL CIRUIT FUSE: A 15 amp fuse is located at the uper left corner of the control panel. This fuse protects the control circuit. **Do Not** substitute with a higher rated fuse.

MANUAL CONTROL LEVERS

1. PICKUP CHAIN CONTROL SWITCH/PICKUP CONTROL LEVER: The pickup control lever can be pulled back to raise the pickup and pushed forward to lower the pickup. The system selector must be in the load position to operate the pickup lift. A toggle switch located in the handle of the pickup lift lever controls the pickup chain operation when stacking with the control circuit in the automatic mode. The pickup chain can be operated intermittently by pressing the switch forward. When the switch is released the switch will return to the center (off) position. To operate the pickup chain continually move the switch rearward. A detent will allow the switch to remain in that position and the pickup chain will run continuously.

2. AUTOMATIC TRANSMISSION SELECTOR: Selects the forward or reverse direction of the machine. Press in on the button on the left hand side of the selector and move the selector to the desired position.

AIR BRAKES

A dual air brake system consists of two independent air brake systems, which use a single set of brake controls. Each system has its own reservoir, plumbing, and brake chambers. The rear service brakes are normally operated by the primary air system. If a loss of primary air pressure occurs, the rear brakes will be operated automatically by the modulating valve using secondary air pressure. Loss of secondary air pressure causes the front axle brakes to be inoperative.

Before driving your Roadsider, allow time for the air compressor to build up a minimum of 95 psi pressure in both the primary and secondary systems. Monitor the air pressure system by observing the dual system air pressure gauge and the low-air pressure warning light and buzzer. The warning light and buzzer shut off when air pressure in both systems reaches 64 to 76 psi.

The warning light and buzzer come on if air pressure drops below 64 to 76 psi in either system. If this happens, bring the machine to a safe halt and check the air system pressure gauges to determine which system has low air pressure. Although the machine's speed can be reduced using the foot brake control pedal either the front or rear service brakes will not be operating, causing a longer stopping distance. After bringing the machine to a safe stop, have the air system repaired before continuing.

If both the primary and secondary systems become inoperative, the spring parking brakes will automatically apply when air pressure drops below 20 to 30 psi. Do not wait for the brakes to apply automatically; when the warning light and buzzer first come on, immediately bring the vehicle to a safe stop. Before continuing operation of the machine, correct the cause of the air loss.

Note; Before a machine with insufficient system air pressure can be moved, the spring parking brakes must be released by applying an external air source, or by manually caging (releasing) the parking brake springs.

 WARNING: Do not drive the machine with parking brakes caged; there would be no means of stopping the machine, and this could result in serious personal injury for machine damage. Before caging the spring parking brakes, chock the tires or provide some means to secure the machine from rolling.

After correcting the brake system problem, uncage the spring parking brakes before resuming normal vehicle operation.

AIR BRAKE COMPONENTS

COMPRESSOR: The air compressor is the energy source for the air brake system. A governor mounted on the compressor stops the compressor from pumping when air pressure in the storage reservoir reaches approximately 120 psi. The compressor resumes pumping when air pressure reaches about 90 psi.

AIR DRYER: Compressed air from the air compressor enters the air dryer. The air dryer removes moisture by a process of condensation. The air is filtered and further dried when it passes through a filter and a desiccant cartridge. The moisture collected by the air dryer is purged each time the compressor is signaled to stop pumping. The collected moisture in the air dryer is prevented from freezing by a thermostatically controlled heating element, which activates only on demand. The air dryer eliminates the need to frequently purge collected moisture from the air reservoirs. Air reservoirs need only be checked occasionally for excess moisture (over a teaspoon). Excess moisture in the air reservoirs indicated that the air dryer might require service.

AIR RESERVOIRS: Three reservoirs store compressed air for braking. The supply tank receives air from the air dryer. The supply tank is equipped with a safety relief valve to prevent overpressurization of the air reservoirs. Check valves prevent the reservoirs from discharging should a leak occur in the opposite system. Manual drain valves are attached to the bottom of each tank to allow for the draining of collected moisture. Because the Roadsider is equipped with an air dryer, frequent draining of the reservoirs is not necessary. Occasional inspection is recommended. Moisture drained from the reservoir in excess of approximately one-teaspoon may indicate that the dryer may require service.

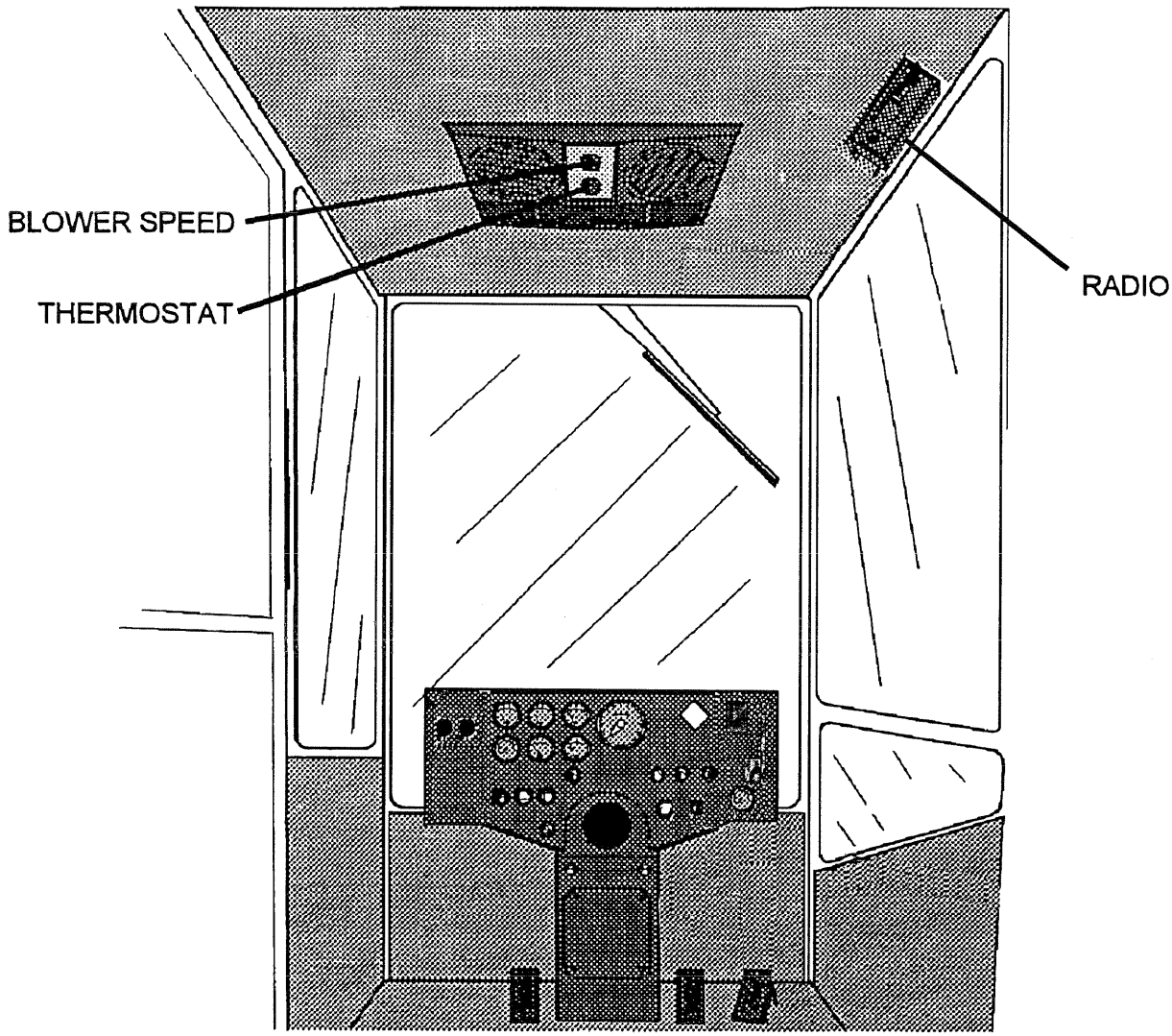
SERVICE BRAKES: The service brakes consist of four clamp type brake chambers. The brake chamber pushrods rotate an S-cam to apply the brakes. Spring brake parking brakes are provided on the rear axle only. The spring brakes are applied automatically when air pressure is below 20 – 30 psi. The spring brakes can be applied manually by pulling out on the control knob located on the dash panel. The service brakes are equipped with automatic slack adjusters. Inspect the brakes regularly to assure that the automatic adjusters are functioning correctly. Pushrod travel should be 1'to 1-1/2" when the brakes are applied if the adjustment is correct.

ACCESSORY PORT: An accessory port is provided off the primary air reservoir. This can be utilized to air tires and clean chaff and dust from the Roadsider. Consult your local Freeman representative for mane information.

AIR CONDITIONING

A roof mounted air conditioning unit with heater provides heat and cool dehumidified air to the cab of the Freeman Roadsider. Controls for the air conditioner and heater are all located above the instrument panel on the ceiling of the cab. Three knobs allow the operator to control the comfort level inside the cab. A blower switch provides three speed settings for the blower. One knob allows the operator to regulate the cool temperature of the circulated air by rotating the control knob counterclockwise increases the amount of cooling. The third knob allows the operator to regulate the heat in the cab if needed by rotating the control knob clockwise to increase the heat. Heat is provided by engine coolant circulated through the heater. If necessary, coolant flow to the heater can be shut of by closing a valve on the top right –hand side of the engine. The air outlets may be rotated to direct airflow as desires.

RADIO: The optional radio is mounted in the upper right corner of the cab. For operation instructions, see the manual provided by the radio manufacturer.



PREPARATION – REOPERATION CHECK LIST.

J.A. Freeman & Son recommend a daily prestarting inspection. The following 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 page 10).
2. Check for correct tire pressure, (75 psi front, 65 psi rear), and wheel lug torque (450-550 ft.-lbs.).
3. Perform complete visual inspection, looking for oil leaks and loose bolts, chains, cables, etc.
4. Check engine compartment 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 air 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 Bag Bale Roadsider is greatly dependent upon a well-trained, safety minded and conscientious operator.

OPERATIING THE 5300 BIG BALE ROADSIDER

1. Inspect the machine as described in the preparation checklist.
2. Enter the cab and adjust the operators seat, steeling column and mirrors as required.
3. Place the safety bar in the horizontal position across the doorway.
4. Ensure that the parking brake is engaged.
5. Place transmission in the NEUTRAL position.
6. Start engine.
7. Move the system selector switch to the load position and raise the pickup. Place the transmission int the DRIVE position. Drive the machine to the location of bales to be picked up.

LOADING

1. Set the control mode switch on the operator control panel (on the right hand side of the operator seat) to the AUTO position.
2. Lower the pickup and operate the elevator chain by moving the control switch on the pickup lift handle to the run position.
3. Approach a bale at a slow speed and, while holding the Pickup lever forward; ease the pickup against the bale. As the pickup elevator begins to lift the bale continue to drive forward to assist loading the bale onto the pickup.

4. When the bale is fully on the elevator drive the machine towards the next bale to be picked up. Raise the pickup if necessary. The machine will automatically tip the first bale onto the load bed. The side shift will position it to the left-hand side of the load bed and hold it there.

5. Pick up the next bale using the method described in step 2. This bale when positioned fully on the pickup elevator will signal the control circuit to return the side pusher to the home position. The bale on the elevator will then be tilted on to the load bed. With two bales on the load bed the pushback mechanism is activated and the bales are pushed to the rear of the load bed allowing room for two more bales to be positioned on the load bed.

6. Continue to pick up bales until the partial load light on the dashboard illuminates. This light indicates that four 50" x 46" bales or six 38" x 46" bales are on the load bed. Two more bales can be loaded to complete the load.

7. When the last bale has been loaded raise the pickup and switch the control mode switch to manual. Depress the pushback control switch to manually extend the pushback. When the pushback is extended as far as it will travel release the switch. This action will complete the pushback against the bales also provides support to stabilize the bales in the load bed as then are transported to the stacking area.

NOTE: Avoid picking up bales while descending steep hills.
Avoid hard braking. Bales may tip forward.
Always support the front of the stack on the load bed with the pushback when transporting bales.

UNLOADING

1. Select a level, solid, well drained location to begin a stack. Position the machine in line with the stack or area where the stack is be made.

2. Retract the pushback to the home position.

3. Move the system selector to the unload position.

4. Raise the load bed to a near vertical position by pulling back on the tilt lever.

5. Back up to the stack until the load touches the stack.

6. Raise the bed to the fully raised position (past vertical).

7. Place the transmission gear selector in neutral. Pull back on the pushoff feet control lever to move the load from the load bed to the ground by extending the pushoff feet. Use the service brakes or throttle as necessary to assist in properly positioning the stack.

8. After the pushoff feet are fully extended and the stack pushed off, return the pushoff feet to the home position by pulling forward on the pushoff feet control lever.

9. Lower the load bed by pulling forward on the tilt lever. Return to the field and resume stacking.

LIMIT SWITCH FUNCTIONS

LS-1: TILT DELAY
LS-1 is the first limit switch operated when a bale is loaded on the pickup. LS-1 prevents the bale tilt arms from operating until the bale is positioned high enough on the elevator. When LS-1 is released, the bale tilt arms are activated if LS-2 is operated.

LS-2: TILT
LS-2 is the second switch operated by the bale. When LS-2 is operated the bale tilt arms can be activated to tip the bale onto the load bed as soon as LS-1 is released.

LS-3: TILT RETURN
LS –3 is operated by a cam on the bale tilt arms when they reach the end of their stroke. When operated, LS-3 causes the bale tilt arms to return to their home position.

LS-4: TILT RETURN STOP
LS-4 is operated by the retracting bale tilt arms to stop them in the home position.

LS-5: SIDE PUSH EXTEND
LS-5 is operated when a bale is tilted on to the load bed. It signals the control circuit to activate the side push for the first bale tilted on to the load bed. The side push positions the bale to the left-hand side of the load bed. This operates LS-8. When a second bale is tilted on to the load bed LS-5 in conjunction with LS-8 allows the pushback to operate.

LS-6: SIDE PUSH EXTEND STOP
LS-6 is operated by the side push when it has pushed a bale fully to the left of the load bed. When operated the side push is stopped in the extended position to hold the first bale in place. While the side push is extended the bale tilt and the push back will not operate. The side push will be signaled to return when the next bale on to the pickup operates LS-1.

LS-7: SIDE PUSH RETURN STOP
LS-7 is operated by the side push as it is retracted. When operated it stops the side push in the home position. When the side push is in the home position, the bale tilt and the push back can operate.

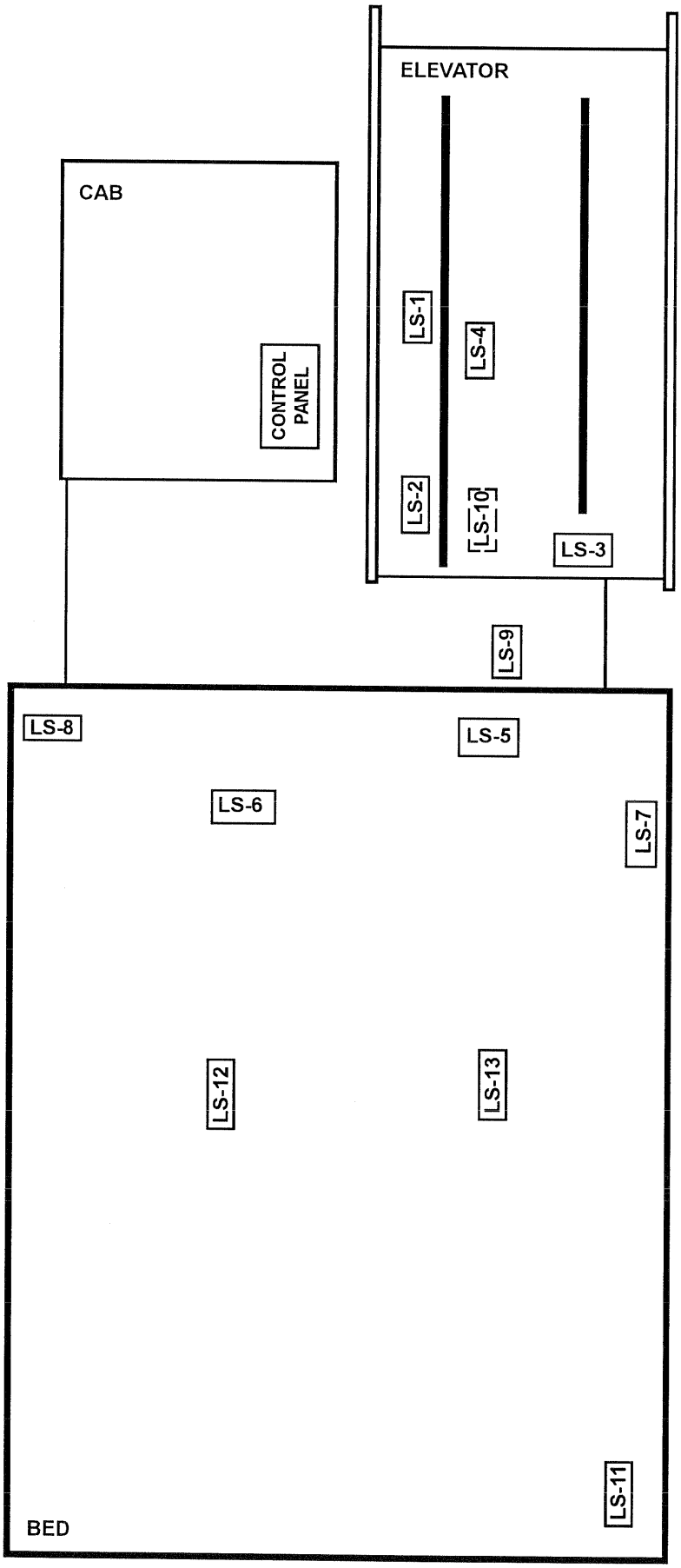
LS-8: PUSHBACK EXTEND
LS-8 is operated when a bale is side pushed to the left side of the load bed. When operated, LS-8 signals the control circuit. When a second bale is tilted onto the load bed LS-5 is operated. When both LS-5 and LS-8 are operated the pushback is activated to push the two bales towards the back of the load bed allowing room for the next set of bales to be loaded.

LS-9: PUSHBACK RETURN
LS-9 is operated by the pushback when it reaches the fully extended position. It signals the control circuit to return the pushback to its home position. LS-9 must be adjusted to accommodate 38" x 46" bales or 50" x 46" bales. Refer to page 21 for adjustment information.

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 bale tilt arms and the side push 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. When operated LS-11 prevents the pushback from being activated. A lamp on the dashboard is illuminated when LS-11 is operated. This indicates to the operator that only two more bales can be loaded onto the load bed.

LS-12, LS-13: PUSH OFF SAFETY, LH and RH
LS-12 and LS-13 are operated by the left and right hand pushoff mechanism when in the fully retracted position. When LS-12 and LS-13 are released and the push off feet are extended the load bed cannot be raised or lowered.


ELEVATOR
CAB
CONTROL PANEL
LS-1
LS-4
LS-2
LS-10
LS-3
LS-9
LS-8
LS-5
LS-6
LS-7
LS-12
LS-13
LS-11
BED

SETTING LOAD BED FOR BALE SIZE

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

1. Install 4 bolts to both Roller Rack stops. See Fig. A

2. Install Roller Rack stops and stop spacers. See Fig. B

3. Reposition cam assembly CAM0020478, Fig. A, using alternate mounting holes. The short portion on the cam assembly should now contact LS-9 when the Push back extends.

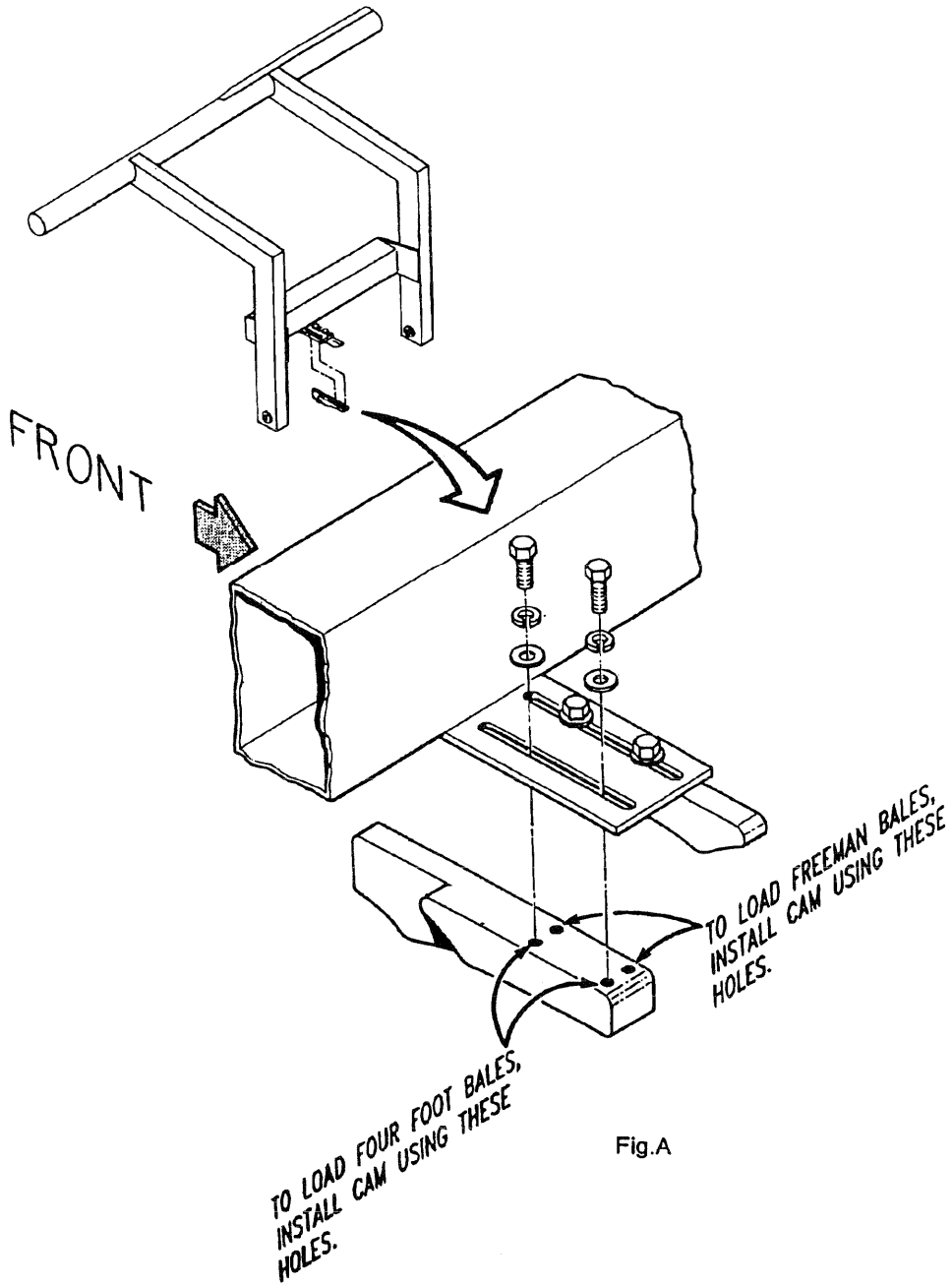


Fig.A

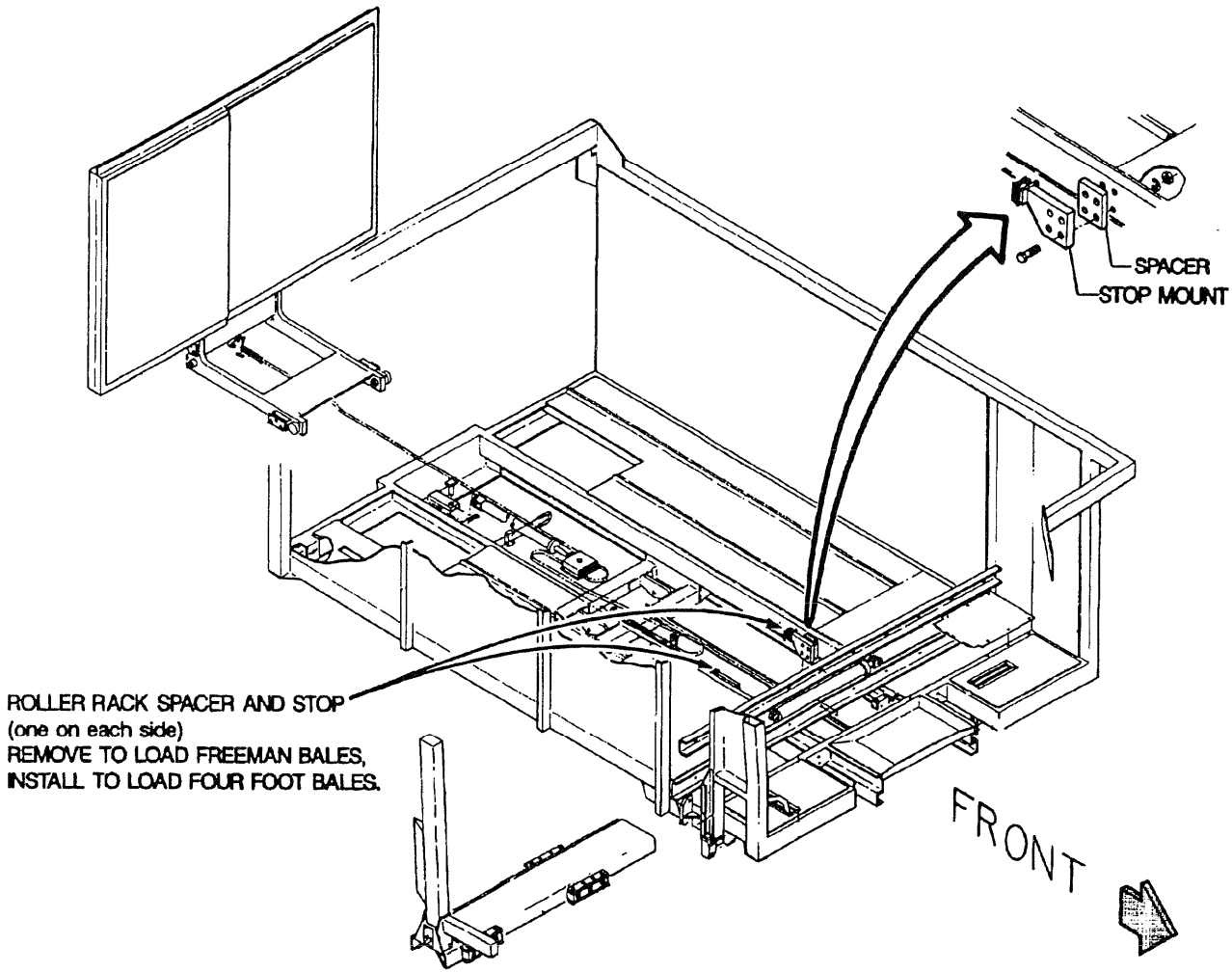

SPACER
STOP MOUNT
ROLLER RACK SPACER AND STOP
(one on each side)
REMOVE TO LOAD FREEMAN BALES,
INSTALL TO LOAD FOUR FOOT BALES.
FRONT

Fig. B