John Deere
482 Cotton Stripper

JOHN DEERE

TECHNICAL MANUAL

John Deere
482 Cotton Stripper

TM1097 (01SEP75) English

TM1097 (01SEP75)

LITHO IN U.S.A.
ENGLISH

482 COTTON STRIPPER

Technical Manual
TM-1097 (Sep-75)

CONTENTS

FOR YOUR CONVENIENCE

Vertical lines appear in the margins of many of the pages. These lines identify new material and revised information that affects specifications, procedures, and other important instructions.

(All information, illustrations, and specifications contained in this technical manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice.)

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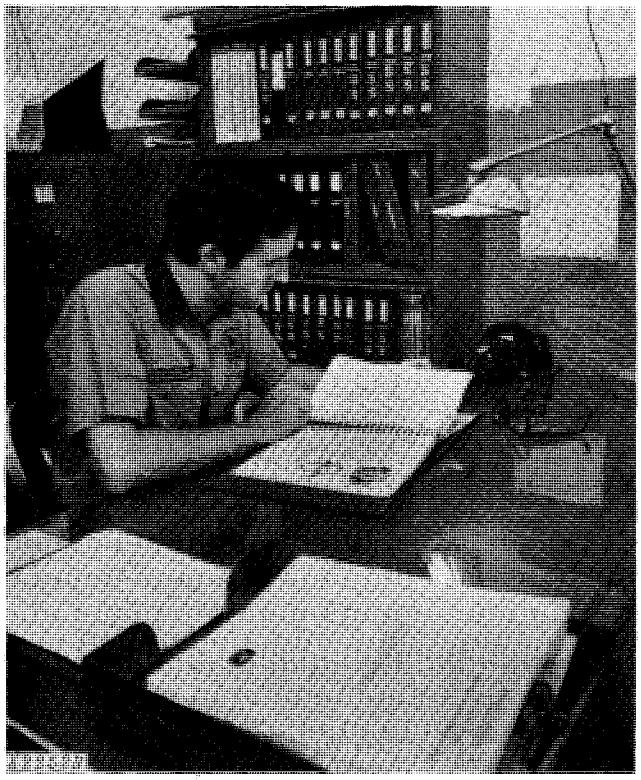
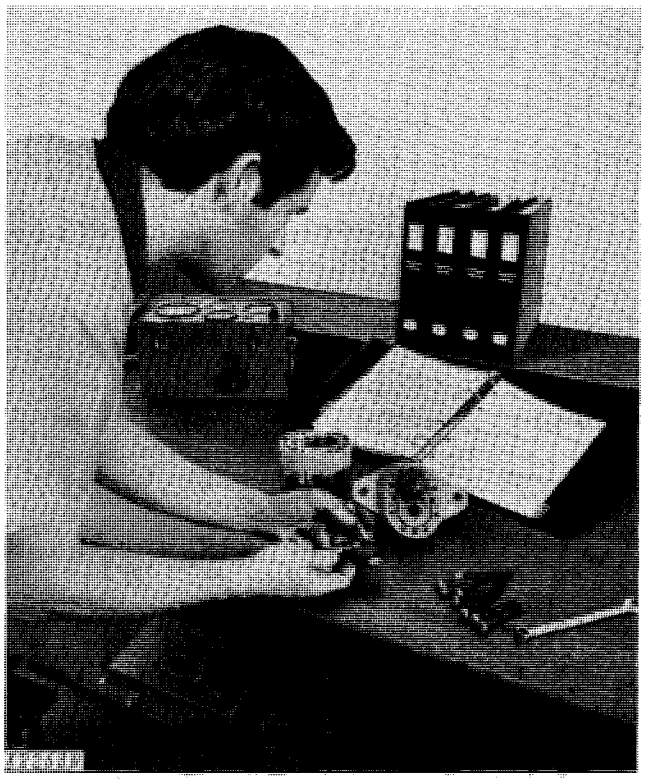
INTRODUCTION



Use FOS Manuals for Reference



Use Technical Manuals for Actual Service

This technical manual is part of a twin concept of service:

- **FOS Manuals—for reference**
- **Technical Manuals—for actual service**

The two kinds of manuals work as a team to give you both the general background and technical details of shop service.

Fundamentals of Service (FOS) Manuals cover *basic* theory of operation, *fundamentals* of trouble shooting, *general* maintenance, and *basic* types of failures and their causes. FOS Manuals are for training new people and for reference by experienced technicians.

Technical Manuals are concise service guides for a *specific* machine. Technical Manuals are on-the-job guides containing only the vital information needed by an experienced technician.

Whenever the service technician may need to refer to a FOS Manual for more information, a FOS symbol like the one at the left is used in the TM to identify the reference.

Some features of this technical manual:

- *Table of contents at front of manual*
- *Exploded views showing parts of relationship*
- *Photos showing service techniques*
- *Specifications grouped for easy reference*

This technical manual was planned and written for you—an experienced technician. Keep it in a permanent binder in the shop where it is handy. Refer to it whenever in doubt about correct service procedures or specifications.

Using the technical manual as a guide will reduce error and costly delay. It will also assure you the best in finished service work.

⚠ This safety alert symbol identifies important safety messages in this manual. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.

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SAFETY AND YOU

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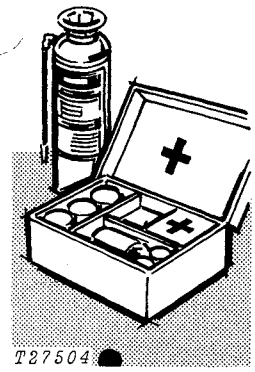
INTRODUCTION

This safety alert symbol identifies important safety messages in this manual and on the machine. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.



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Be prepared if an accident or fire should occur. Learn where the first aid kit and the fire extinguishers are located—know how to use them.

BLOCKING THE COTTON STRIPPER

CAUTION: Whenever any components of the basket lift or engine are to be disconnected or removed for service or replacement, it is very important that the basket be securely blocked so it will not fall and cause serious personal injury or damage to the stripper.

Always service the cotton stripper on level ground and block the wheels to prevent it from moving while it is being serviced.

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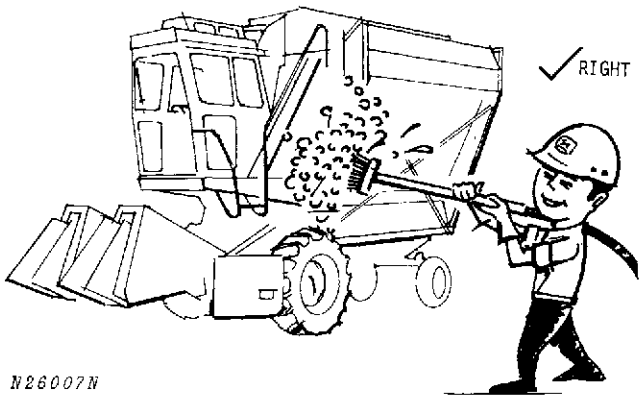
CLEANING THE COTTON STRIPPER



Always stop the engine before cleaning the cotton stripper.

Keep the operator's platform clean. Do not use it as a storage area.

Keep the radiator and engine closure screens free of foreign matter. Avoid a possible fire hazard.

Keep all equipment free of dirt and oil. In freezing weather, beware of snow and ice on ladder steps and operator's platform.

SERVICE AREA

Keep the service area clean and dry. Wet or oily floors are slippery. Wet spots can be dangerous when working with electrical equipment.

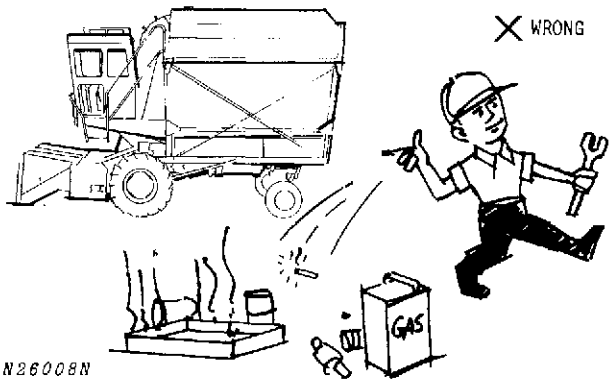
Make sure the service area is adequately vented.

Periodically check the shop exhaust system for leakage. Engine exhaust gas is dangerous.

Be sure all electrical outlets and tools are properly grounded.

Use adequate light for the job at hand.

AVOID FIRE HAZARDS



Don't smoke while refueling or handling highly flammable material.

Engine should be shut off when refueling.

Use care in refueling if the engine is hot.

Don't use open pans of gasoline or diesel fuel for cleaning parts. Good commercial, nonflammable solvents are preferred.

Provide adequate ventilation when charging batteries.

Don't check battery charge by placing metal objects across the posts.

Don't allow sparks or open flame near batteries.

Don't smoke near battery.

Never check fuel, battery electrolyte or coolant levels with an open flame.

Never use an open flame to look for leaks anywhere on the equipment.

Never use an open flame as a light anywhere on or around the equipment.

When preparing engine for storage, remember that inhibitor is volatile and therefore dangerous. Seal and tape openings after adding the inhibitor. Keep container tightly closed when not in use.

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FLUIDS UNDER PRESSURE

Escaping fluid under pressure can have sufficient force to penetrate the skin, causing serious personal injury. Before disconnecting lines, be sure to relieve the pressure. Before applying pressure to the system, be sure all connections are tight and that lines, pipes and hoses are not damaged. Fluid escaping from a very small hole can be almost invisible. Use a piece of cardboard or wood, rather than hands, to search for suspected leaks.

If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.

Don't forget the hydraulic system or diesel fuel injection system may be pressurized! To relieve pressure, follow the technical manual.

When checking hydraulic pressure, be sure to use the correct test gauge for the pressure in the particular system.

PERSONAL SAFETY

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Always avoid loose clothing or any accessory—lopping cuffs, dangling neckties and scarves—that can catch in moving parts and put you out of work.

Always wear your safety glasses while on the job.

Keep transmission and brake control units properly adjusted at all times. Before making adjustments, stop engine.

Before removing any housing covers, stop engine. Take all objects from your pockets which could fall into the opened housings. Don't let adjusting wrenches fall into opened housings.

Don't attempt to check belt tension while the engine is running.

Don't adjust the fuel system while the machine is in motion.

Before repairing the electrical system, or performing a major overhaul, make sure the batteries are disconnected.

Avoid working on equipment with the engine running. If it is necessary to make checks with the engine running, ALWAYS USE TWO MEN—one, the operator, at the controls, the other checking where the operator can see him. Also, put the transmission in neutral, set the brake, and apply safety locks. KEEP HANDS AWAY FROM MOVING PARTS.

Use extreme caution in removing radiator caps, drain plugs, grease fittings, or hydraulic pressure caps.

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Section 10
GENERAL

CONTENTS OF THIS SECTION

Group 5
SPECIFICATIONS

DESCRIPTION

Fig. 1-482 Cotton Stripper

The 482 Cotton Stripper is a self-propelled machine, consisting of the following basic components:

1. Operator's Platform, Controls, and Instruments.
2. Stripping Units.
3. Air System and Basket.
4. Engine and Propelling Mechanism.

The operator is right on top of the stripping operation when at the controls of the cotton stripper. All controls are within easy reach of the operator.

The stripping units are adjustable from 40-inch down to 30-inch rows. Large strip rolls with alternating rubber flaps remove a maximum of cotton with a minimum of leaves and bark from the cotton plant.

The large-volume, high capacity air system, with its patented green boll separation, allows practically unlimited ground speed in high yielding cotton. A green boll box (optional equipment) located directly below the air system duct, allows dumping of bolls at row ends from the operator's platform.

The basket holds up to 3300 pounds of seed cotton and dumps at a height of 12 feet with high lift (optional equipment).

The cotton stripper is propelled by a gasoline NA219 engine or a gasoline, LP-Gas, or diesel NB329 engine.

All references in this manual to front, rear, left-hand, and right-hand are in relation to the position of the operator seated on the operator's platform.

SERIAL NUMBERS

The cotton stripper serial number is on a plate located on the left-hand platform support.

The engine serial number is on a plate located on the left-hand side of the engine block.

The hydrostatic pump and motor serial numbers are on plates located on the pump and motor.

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SPECIFICATIONS

STRIPPING UNITS—BRUSH
- Number of Units 2
- Number of Rolls per Unit 2
- Type of Rolls.....Alternate Brush and Rubber Flap
- Diameter of Brushes ..... 6 inches (152 mm)
- Length of Rolls ..... 40 inches (1016 mm)
- Roll Spacing ..... Front Width Adjustable
- Stalklifters ..... Floating Type with Stop Bolt Height Adjustment
- Cross Conveyor ..... 10-inch (254 mm) Auger Housing
- Height Control ..... Automatic, with Manual Override Lift and Height Control Levers

ROW WIDTHS ..... 30 to 40-inch (762 to 1016 mm) Rows Adjustable

NOTE: 30 to 34-inch (762 to 864 mm) width in skip-row cotton only.

GROUND SPEEDS (At rated engine speed of 2500 rpm)	Standard Transmission	Hydrostatic Drive
Stripping Speeds		
1st Gear	2.28 mph (3.67 km/h)	0 to 2.65 mph (4.26 km/h)
2nd Gear	4.56 mph (7.34 km/h)	0 to 5.30 mph (8.53 km/h)
3rd Gear	6.20 mph (9.98 km/h)	0 to 7.20 mph (11.58 km/h)
Transport Speed		
4th Gear	12.4 mph (19.95 km/h)	0 to 14.40 mph (23.17 km/h)
Reverse	5.15 mph (8.29 km/h)	0 to 7.20 mph (11.58 km/h)

CAPACITIES
- Cotton Basket ..... 640 cu. ft. (18.123 m^3) (3300 lbs. (1496.8 kg) seed cotton)
- Fuel Tank
  - Gasoline and Diesel
  - 219 cu. in. (3588.8 cm^3) Engines ..... 33 U.S. gals (125 l)
  - 329 cu. in. (5391.3 cm^3) ..... 56 U.S. gals. (212 l)
  - LP-Gas (80 percent Full) ..... 46 U.S. gals. (174 l)
- Cooling System ..... 28 U.S. qts. (26.5 l) (329 cu. in. [5391.3 cm^3] engine) 24 U.S. qts. (22.7 l) (219 cu. in. [3588.8 cm^3] engine)
- Engine crankcase ..... 10 U.S. qts. (8.5 l) (329 cu. in. [5391.3 cm^3] engine) 7 U.S. qts. (6.6 l) (219 cu. in. [3588.8 cm^3] engine)
- Hydraulic System
  - Regular Lift Basket ..... 19 U.S. qts. (18.0 l)
  - High-Lift Basket ..... 23 U.S. qts. (21.8 l)
- Transmission
  - Standard Transmission ..... 24 U.S. qts. (22.7 l)
  - Hydrostatic Transmission ..... 18 U.S. qts. (17.0 l)
- Final Drives ..... 2 U.S. qts. (1.9 l) (each)
- Hydrostatic Drive ..... 27 U.S. qts. (25.6 l)

COOLING SYSTEM ..... Water Pressure Type

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SHIPPING WEIGHT

14.9-26 6 PR Tires, Standard Transmission, Regular Lift Basket, 4219GN-01 Engine, less cab and green boll box..... 9,600 lbs. (4354.5 kg)*

14.9-26 6 PR Low Profile Tires, Hydrostatic Transmission, High-Lift Basket, 6329DN-03 Engine, Air Conditioned Cab, Dual Adjustable Guide Wheels, Green Boll Box..... 12,292 lbs. (5575.6 kg)

**With cab add 500 lbs. (226.8 kg)*

TIRES

Front Drive Wheels
- Standard Equipment..... 14.9-26 6 PR Cleat Type
- Optional Equipment..... 14.9-26 8 PR Low Profile

Rear Guide Wheel
- Standard Equipment..... Single 12.50L-16 8 PR
- Optional Equipment..... Two 9.50L-15 8 PR (Adjustable Tread Axle)

Green Boll Box (Optional Equipment)..... Paddle Leveling, Manual Dump

Basket Dumping Height
- Regular Lift..... 10 feet 2 inches (3.099 m)
- High Lift..... 12 feet (3.658 m)

ENGINES (Gasoline and LP-Gas)	4-cylinder	6-cylinder
Manufacturer	John Deere	John Deere
Model		
Gasoline	4219GN-01	6329GN-01
LP-Gas	None	6329LN-01
No. of Cylinders	4	6
Bore	4.02 in. (102 mm)	4.02 in. (102 mm)
Stroke	4.33 in. (110 mm)	4.33 in. (110 mm)
Displacement	219 cu. in. (3588.8 cm^3)	329 cu. in. (5391.3 cm^3)
Horsepower		
Gasoline	70 hp (52.2 kW)	105 hp (78.3 kW)
LP-Gas	None	105 hp (78.3 kW)
Firing Order	1-3-4-2	1-5-3-6-2-4
Tappet Clearance		
Intake	0.04 in. (0.36 mm)	0.014 in. (0.36 mm)
Exhaust	0.022 in. (0.56 mm)	0.022 in. (0.56 mm)
Compression Ratio		
Gasoline	8.1 to 1	8.1 to 1
LP-Gas	None	8.1 to 1
Electrical System	12-Volt Alternator, Negative Ground	12-Volt Alternator, Negative Ground
Valve Location	Valve-In-Head	Valve-In-Head
Fuel System		
Carburetor	Single Updraft	Single Updraft
Type of Fuel	Regular Gas	Regular Gas or LP-Gas
Oil Filter	Spin-On Full Flow	Spin-On Full Flow
Air Cleaner	Dry-Type Filter with Pre-Cleaner	Dry-Type Filter with Pre-Cleaner
Governor	Centifugal Flyweight	Centifugal Flyweight
Ignition System		
Coil Voltage	12-volt	12-volt
Spark Plug Type		
Prestolite (Hvy-Duty)	14G3	14G3
Champion (Hvy-Duty)	N-6	N-6
Champion (Med-Duty)	N-11Y	N-11Y

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SPECIFICATIONS—Continued

ENGINES (Gasoline and LP-Gas)—Continued

	4-Cylinder	6-Cylinder
Spark Plug Gap		
Gasoline	0.025 in. (0.64 mm)	0.025 in. (0.64 mm)
LP-Gas	None	0.015 - 0.018 in. (0.38 - 0.46 mm)
Distributor Point Gap		
Delco	0.016 in. (0.41 mm)	0.016 in. (0.41 mm)
Prestolite	0.020 in. (0.51 mm)	0.020 in. (0.51 mm)
Engine Speeds		
Fast Idle (No Load	2675 - 2725 rpm	2650 - 2700 rpm (standard transmission) 2675 - 2725 (hydro-static transmission)
Rated (Under Field Load)	2500 rpm	2500 rpm
Slow Idle		
Gasoline	600 - 700 rpm	575 - 625 rpm
LP-Gas	None	600 - 800 rpm

ENGINE (Diesel)

Manufacturer	John Deere
Model	6329DN-03
No. of Cylinders	6
Bore	4.02 in. (102 mm)
Stroke	4.33 in. (110 mm)
Displacement	329 cu. in. (5391.3 cm^3)
Horsepower	105 hp (78.3 kw)
Compression Ratio	16.3 to 1
Tappet Clearance	
Intake	0.014 in. (0.36 mm)
Exhaust	0.018 in. (0.46 mm)
Valve Location	Valve-in-head
Firing Order	1-5-3-6-2-4
Governor	Integral with fuel injection pump
Fuel System	
Make of Fuel Injection Pump	Roosa Master
Make of Injection Nozzles	Roosa Master
Type of Fuel	No. 1-D or No. 2-D Diesel Fuel
Fuel Filters	Two Parallel Elements
Electrical System	12-volt, alternator negative ground
Air Cleaner	Dry-type Filter with Pre-Cleaner
Engine Speeds	
Fast Idle (No Load)	2650-2670 rpm
Rated (Under Field Load)	2500 rpm
Slow idle	790-810 rpm
Oil Filter	Spin-on, full flow

OPERATOR'S CAB

Optional Equipment	Pressurized Cab (with or without heater), Air Conditioned Cab.
Optional Attachments	Heater, Windshield Wiper

(Specifications and design are subject to change without notice.)

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Group 10
PREDELIVERY, DELIVERY, AND AFTER SALE SERVICE

PREDELIVERY SERVICE

Because of the shipping factors involved, plus extra finishing touches that are necessary to promote customer satisfaction, proper predelivery service is of prime importance to the dealer and customer.

Use the following list when preparing the cotton stripper for delivery to the customer.

PRESTARTING CHECKS

Check the stripper for any observed shortage, loss or damage. If any is noted, make the proper notations on the freight bill and immediately notify the carrier.

Remove protective material from stripping units.

Remove blocking and wiring holding stripper to flat car during shipment.

Remove tie-down straps and bolts from drive wheels and install regular bolts from sack taped to basket left-hand front frame. Tighten bolts to 150 ft-lbs. Discard blocks, wire, tie-down straps and bolts.

Check engine oil level with the crankcase dipstick. The stripper is shipped with John Deere Torq-Gard Supreme SAE 10W-20 oil in the engine crankcase. If necessary, add Torq-Gard Supreme SAE 10W-20 or equivalent engine oil until oil level is at the "full" mark on the dipstick.

Remove the filler cap on the hydraulic system fluid reservoir and check oil level on the dipstick. If oil level is low, check for possible leaks or loose connections in the hydraulic system. If necessary, add John Deere Torq-Gard Supreme SAE 10W-20 or an equivalent engine oil, until oil level is at the "full" mark on the dipstick.

Check lubricant level in transmission, and if necessary add lubricant until it reaches level plug (or sight glass).

IMPORTANT: Use ONLY API Service GL-5 (MIL-L2105B) SAE 90-140 gear lubricant in this transmission. Do not overfill transmission. Remove level plug (or sight glass) and allow sufficient time for oil to "level out" within the housings. Replace plug AFTER any excess oil has drained off.

Check the hydrostatic reservoir oil level in the sight glass. If oil level is low, add John Deere All-Weather Hydrostatic Fluid or Texaco Texamatic Type F-1876 Transmission Fluid until the oil reaches the sight glass. Replace filler cap.

IMPORTANT: Keep system tightly closed at all times, except when adding fluid. DO NOT OVERFILL.

Check radiator coolant level. The stripper is shipped from the factory with a non-evaporating antifreeze in the radiator—protecting the cooling system to minus 34°F.

IMPORTANT: Do not use antifreeze which contains stop leak additives.

Check the transmission and final drive housings for oil leaks.

Remove sealing material from the following locations:

Exhaust pipe.
Air cleaner precleaner screen.
Crankcase breather tube.
Hydraulic oil reservoir filler cap.

NOTE: Plastic bags may be reused when stripper is stored.

PRESTARTING CHECKS—CONTINUED

Check tire pressures and adjust as necessary according to the following chart.

TIRE INFLATION CHART

Wheel	Type Of Tire	Tire Size	Inflation Pressure
Main Wheels	Bar	14.9-26, 6-ply rating	20 psi*
Guide Wheel	Low Profile (Single)	12.5-16, 8-ply rating	32 psi
	Low Profile	9.5L-15 8-ply rating	40 psi

**Each drive wheel tire is filled to 90% capacity with approximately 60 gallons of chromated calcium chloride solution, in a concentration of 5 pounds of chromated calcium chloride in enough water to form 5 quarts of solution.*

⚠ CAUTION: Observe precautions provided by chemical manufacturer when working with solutions containing chemicals.

Remove protective material from steering column.

NOTE: The following instructions; "Using Starting Battery", "Attaching Battery Cables, "Installing Electrolyte", and "Removing Resistor from Alternator" are required only when the Cotton Stripper is shipped with a dry-type battery, such as for export.

Using Starting Battery

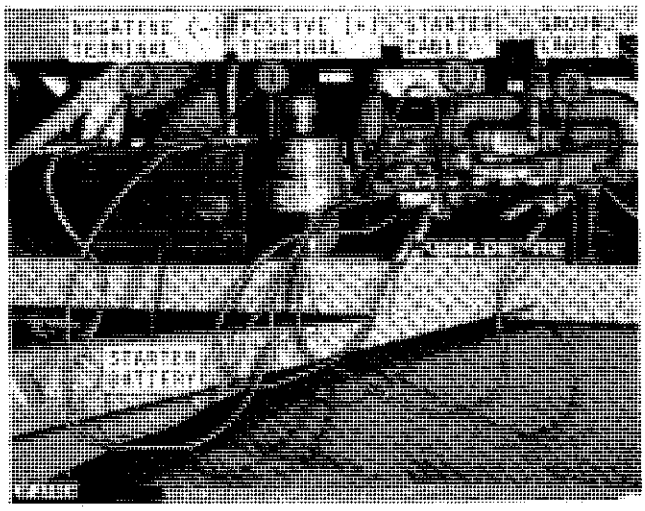

Fig. 1-Using Starter Battery

If the stripper will be moved to a storage area, the battery should not be energized at this time. Attach a starting battery as follows.

1. Connect a jumper cable to the positive (+) terminal of the starter battery. Connect the other end of this cable to the stripper starter cable.

2. Connect the other jumper cable to the negative (−) terminal of the starter battery. Connect the other end of this cable to the stripper ground cable.

When the engine starts, remove the starter battery and cables. The engine will run on current from the alternator—if the throttle is advanced at least half way and no accessories are used.

IMPORTANT: Leave the resistor attached to the alternator in place at this time.

Attaching Battery Cables

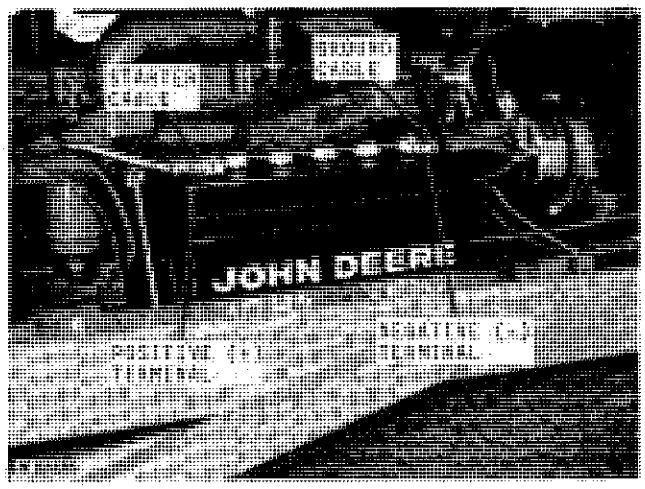

Fig. 2-Attaching Battery Cables

Connect the cable from the starter to the positive (+) terminal on the battery. Connect the ground cable to the negative (−) terminal on the battery. Always connect the ground cable last.

Installing Electrolyte

NOTE: If stripper will be stored, do not add electrolyte at this time. Refer to "Using Starting Battery."

If the cotton stripper will be delivered to the customer shortly, remove battery filler caps and fill each cell with electrolyte to the bottom of the filler neck. Make sure the vent holes in each cap are open, then reinstall the caps.

Use a battery charger to charge the battery at once, at a 30 to 40 ampere rate, for approximately 10 minutes.

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Removing Resistor From Alternator

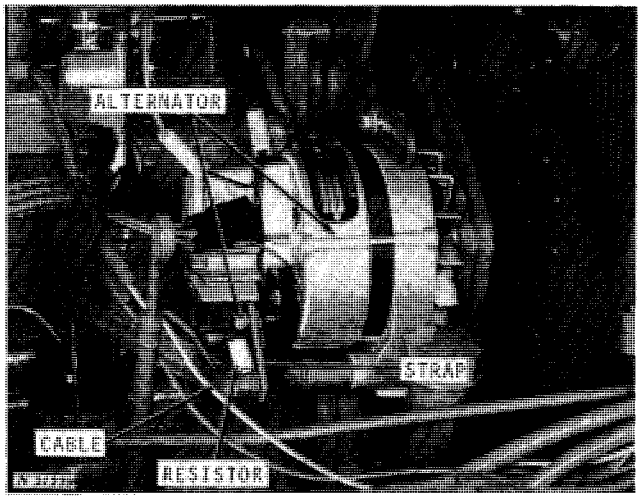

Fig. 3-Removing Resistor

After electrolyte has been added to the battery and it has been charged, remove the resistor and strap from the alternator. The resistor and strap may be discarded.

Install cable on alternator and tighten connections.

Removing Stripper From Flat Car

Raise the stripping units and remove all blocking from the flat car.

Make sure the brakes are working before attempting to move the stripper.

Back the stripper down the loading dock or ramp onto level ground.

⚠ CAUTION: Be sure to back down rather than go down forward. Avoid accidents, and damage to the stripper.

ASSEMBLY

Basket Hold-Down Strap

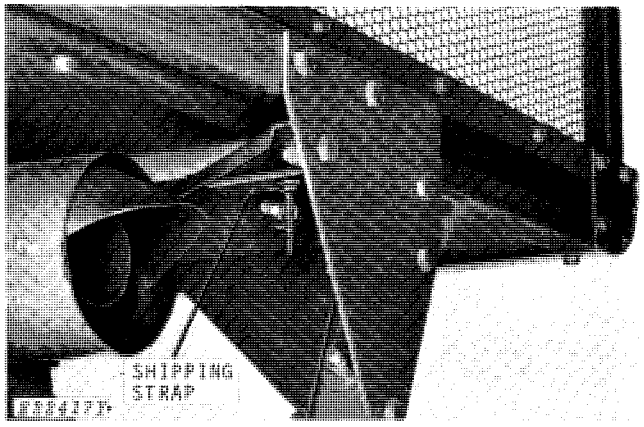

Fig. 4-Shipping Strap

IMPORTANT: Before attempting to raise the basket, remove the red shipping straps holding the right-hand front and right-hand rear ends of the basket to the support frame. After removing and discarding the straps, cut off each three-inch bolt so it is flush with the remaining nut.

Basket linkage

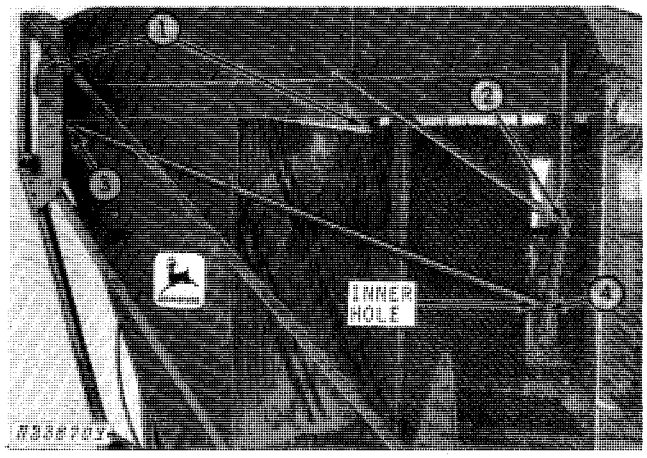

Fig. 5-Installing Lid Linkage

1. Remove the two RED BOLTS which hold the basket lid to the basket frame. These bolts are used for shipping purposes only.

IMPORTANT: Extensive damage will result if the basket is raised with the red bolts in place.

2. Attach right-hand end of long basket link to lid lift arm, using OUTER hole at end of link which has two holes (front and rear of basket).

3. Attach left-hand end of link to INSIDE of clip on basket rockshaft bearing support (front and rear of basket).

4. If increased lid opening is desired, move the long lid linkage to the INNER hole. Make sure front and rear linkages are pinned in the corresponding holes to prevent twisting of lid.

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ASSEMBLY—Continued

Basket Control Linkage

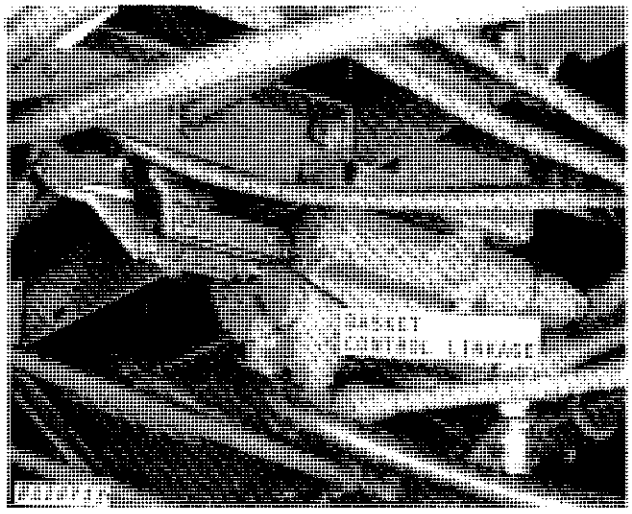

Fig. 6-Installing Basket Control Linkage

IMPORTANT: Be certain that basket hold-down straps have been removed before connecting basket control linkage—to prevent extensive damage to basket and linkage, which could occur if valve is actuated with straps in place.

Connect basket control linkage at the valve under the platform as shown.

Lights and Wiring

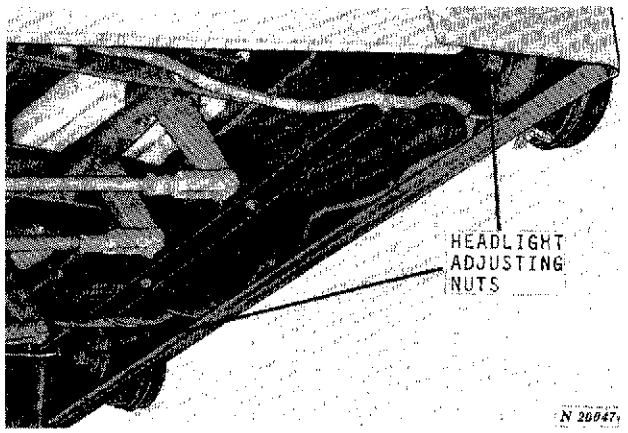

Fig. 7-Headlight Adjustment

If the headlights need adjusting, loosen adjusting nut and position headlight for operation. Tighten adjusting nut.

Check the light wiring connections to make sure they are tight.

Flashing Warning Lamps

If local regulations prohibit use of flashing warning lamps, a special non-flashing controller can be installed so warning lamps emit a steady light.

The special non-flashing controller replaces the regular flashing unit located in the turn signal control box on steering column. To install non-flashing unit:

Remove the turn-signal control box by removing the fastening screw located at the bottom of the box. After screw is removed, push up on the box.

1—Black
2—Red
3—Yellow
4—Orange
5—6 Black

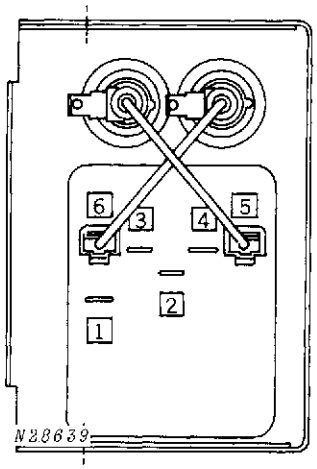

Fig. 8-Panel Schematic

Disconnect the six wires at the flashing unit plug-ins.

NOTE: Do not disconnect the white wires.

To remove the flashing unit from the box, remove the small screw located at the center of the turn signal knob. Remove the knob.

Next, remove the flashing unit by loosening the flat nut located behind the knob.

Install the new non-flashing unit in place of flashing unit. Fasten non-flashing unit to inside of box using the flat nut.

Re-install the knob.

Reattach wires to terminal plugs by matching color codes as follows:

Re-install turn signal box on steering column.

Unit Chains and Top Grates

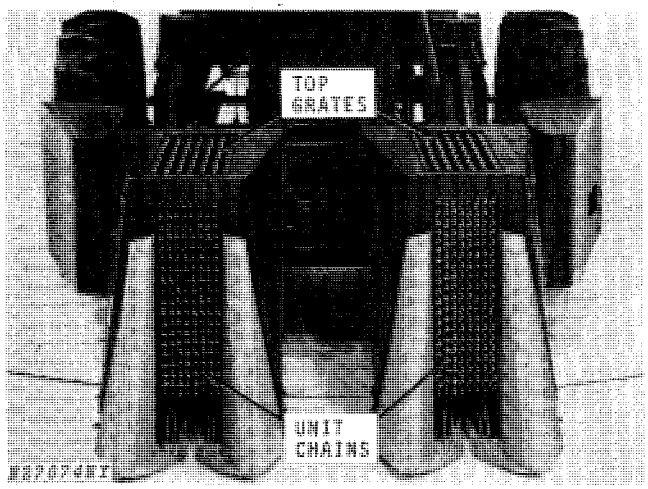

Fig. 9-Top Grates

Remove and discard wire holding top grates in stripping units for shipment.

Remove and discard wire holding chains in unit throat during shipment.

Height Sensing Linkage

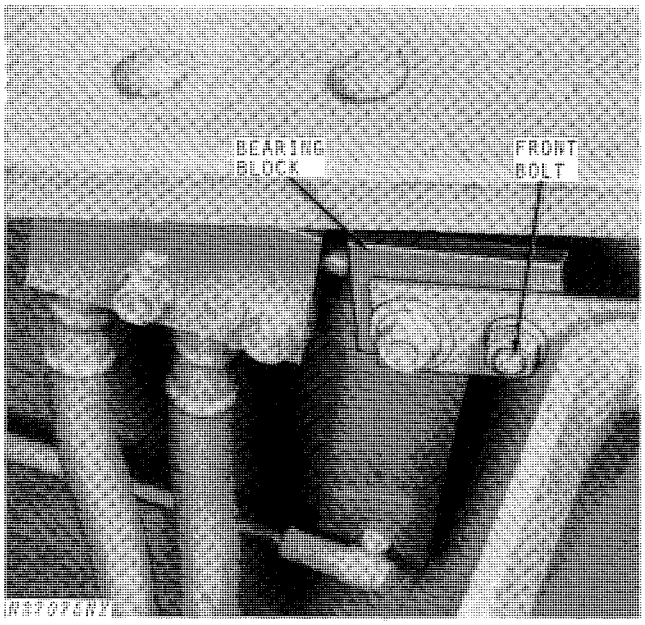

Fig. 10-Valve Bearing Block

Remove wire from height sensing shoes at lower front end of stripping units.

Remove front bolt from blocks. Rotate blocks into position, square with valve pin, and secure in place with front bolt.

CHECKS AND ADJUSTMENTS

Brakes

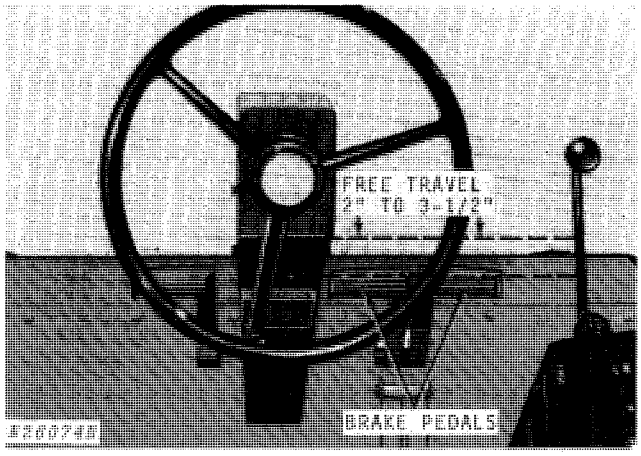

Fig. 11-Brake Pedals Free Travel

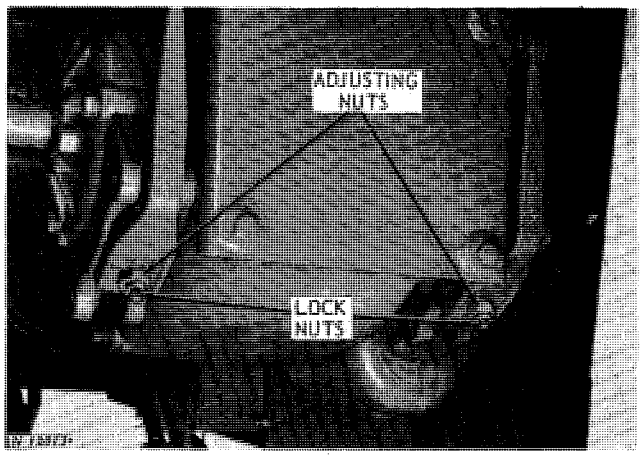

Fig. 12-Adjusting Brakes

The free travel on the brake pedals should be adjusted to provide 2 to 3-1/2-inches free travel. Check to make sure the cotton stripper will roll free and that brakes do not heat.

If adjustments are necessary, first remove all slack from the brake linkage by adjusting the yoke at the bottom of brake pedals or the lock nut on bottom end of the brake rod between operator's platform and axle housing; then loosen the lock nut on the brake actuating arm (one for each drive wheel) until 2 to 3-1/2 inches free travel is obtained at the foot pedal. Set lock nut up against adjusting nut. If the brake pedals are not in alignment when the brakes are applied, equalize them by increasing the free travel on the one having the least free travel.

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CHECKS AND ADJUSTMENTS—Continued

Clutch

The clutch is controlled through a pedal located on the floor of the operator's platform to the left of the steering panel.

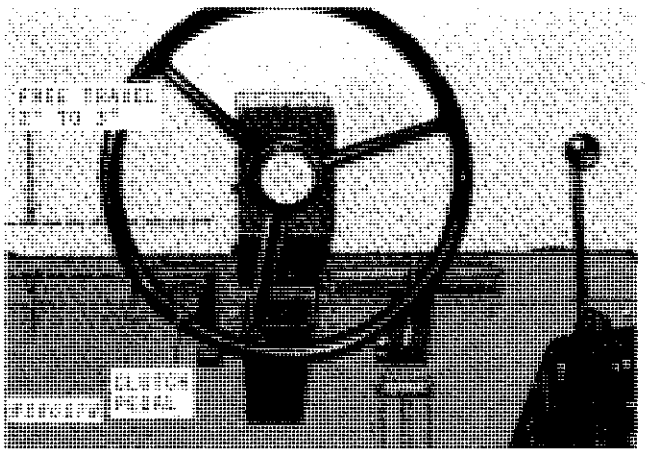

Fig. 13-Clutch Pedal Free Travel

The clutch requires adjustment to maintain 2 to 3-inches free travel (measured at the pedal) to prevent slipping.

IMPORTANT: Make sure clutch is disengaged when pedal is depressed.

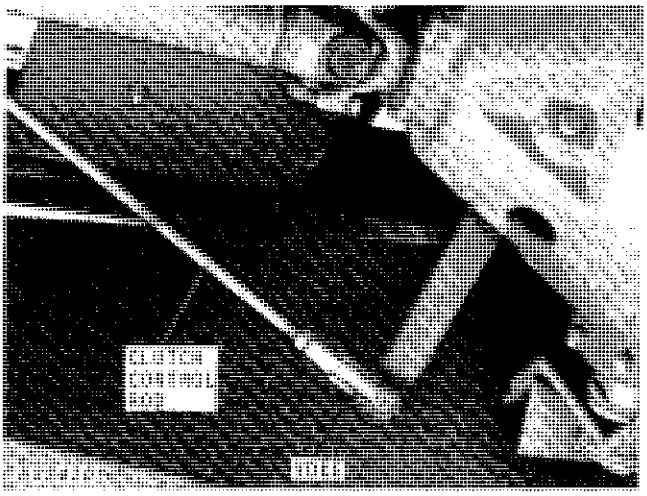

Fig. 14-Adjusting Clutch

To adjust, remove the cotter pin and clevis pin from clutch control rod yoke at the clutch throw-out arm on flywheel housing. Loosen lock nut on yoke and thread the yoke up or down, as necessary, to adjust clutch pedal to the proper free travel. Retighten lock nut on yoke and replace pin and cotter pin.

Starter Safety Switch (Standard Transmission)

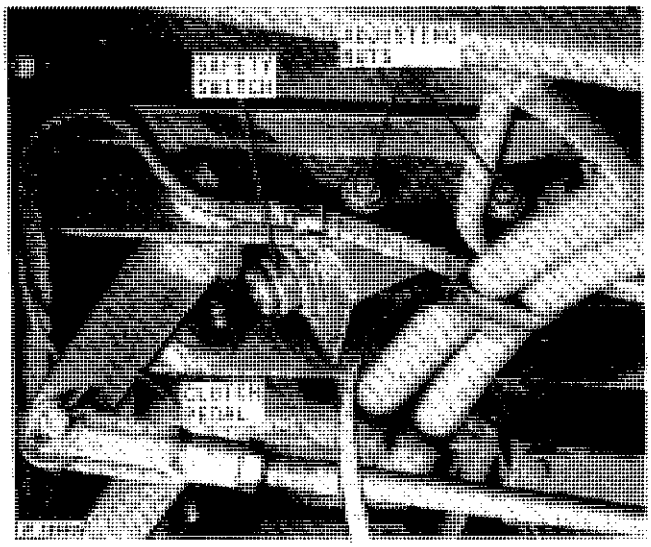

Fig. 15-Safety Switch (Std.)

Check to make sure the starter safety switch operates when the clutch pedal is engaged. If not, loosen adjusting nuts and position switch so it will operate when clutch is engaged. Tighten adjusting nuts.

Starter Safety Switch (Hydrostatic Transmission)

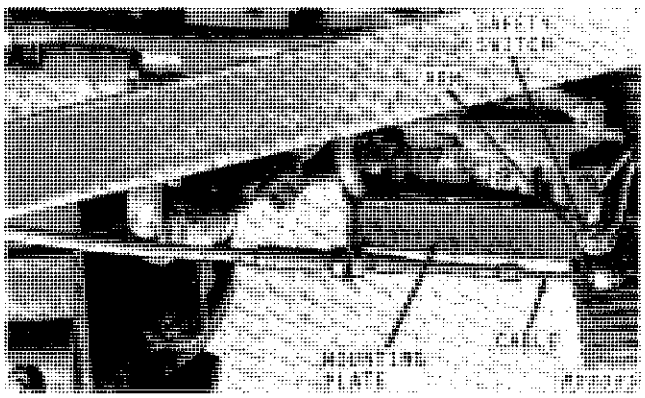

Fig. 16-Safety Switch (Hydrostatic)

Adjust the safety starter switch by first placing the speed control range lever in neutral; then disconnect cable from arm, allowing arm to return to neutral. Align ball of safety switch with groove in mounting plate. Tighten bolts and connect cable. If still not operational, add or remove shim washers on safety switch so the engine will start only when speed range lever is in neutral.

Checking Air Cleaner

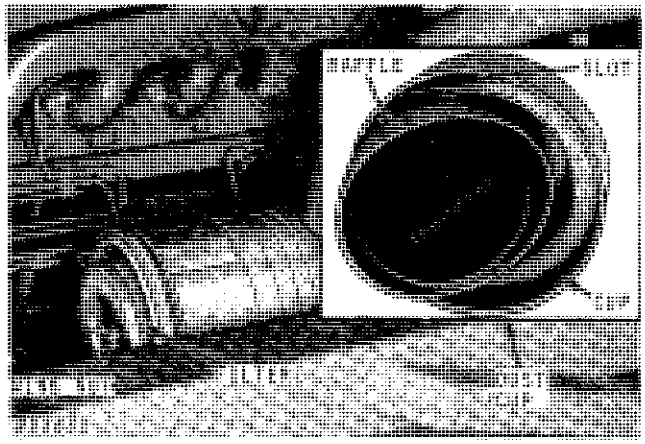

Fig. 17-Air Cleaner Dust Cup

Remove the dust cup from the air cleaner and clean if necessary. Check wing nut and make sure it is tight.

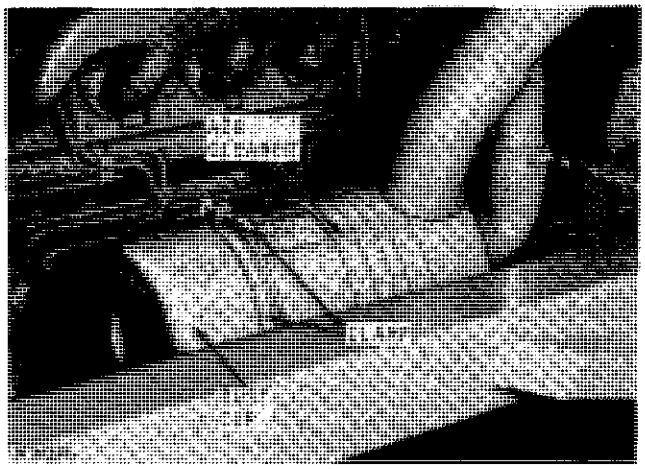

Fig. 18-Installing Dust Cup

Re-install the dust cup. Make sure arrows on the end of the dust cup point up.

Checking Air Cleaner Precleaner

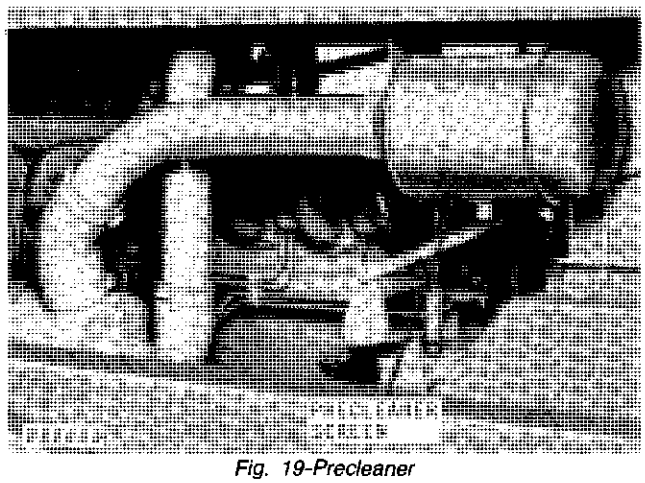

Fig. 19-Precleaner

Check and clean the pre-cleaner screen of lint and dirt, if necessary.

Checking Crankcase and Hydraulic Breather Caps

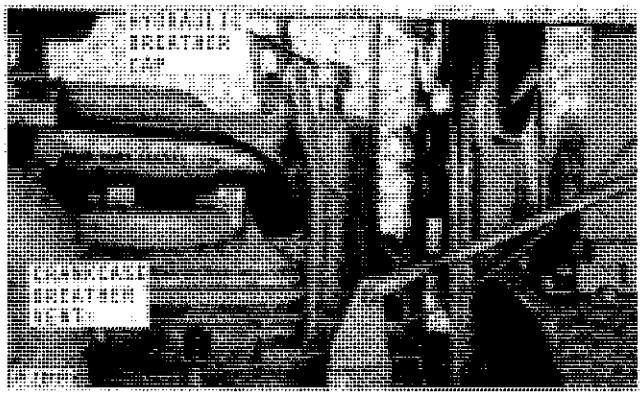

Fig. 20-Breather Cap and Vent

Check and clean, if necessary, the hydraulic breather cap and crankcase breather vent.

Checking and Adjusting Main Drive Belt

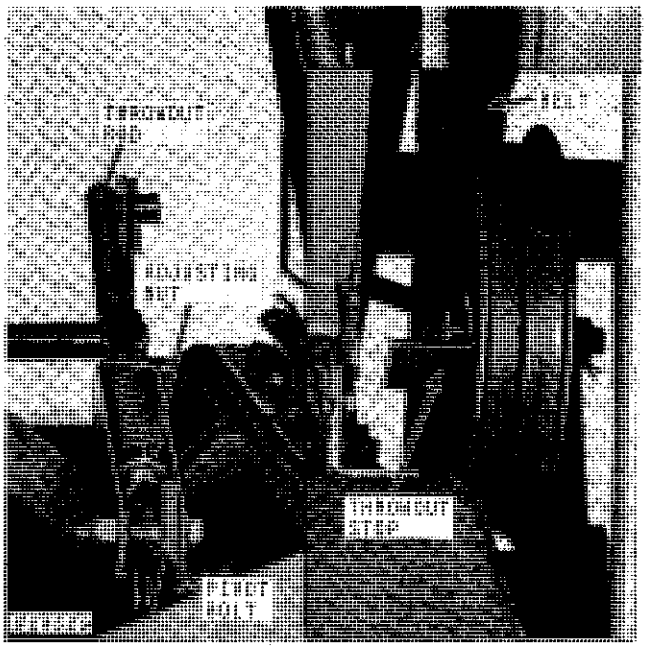

Fig. 21-Adjusting Main Drive Belt

Belt should be kept tight enough to prevent slipping with fan operating at rated speed (3500 rpm).

To adjust tension on fan drive belt, remove pivot bolt. Turn adjusting nut clockwise to increase tension, counterclockwise to decrease tension. Replace pivot bolt.

NOTE: Belts require frequent checking for the first few hours (until the initial stretch is removed from the belt). Check after Engine Run-in.

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CHECKS AND ADJUSTMENTS—Continued

Checking and Adjusting Alternator, Air Conditioner, and Hydraulic Pump Drive Belts

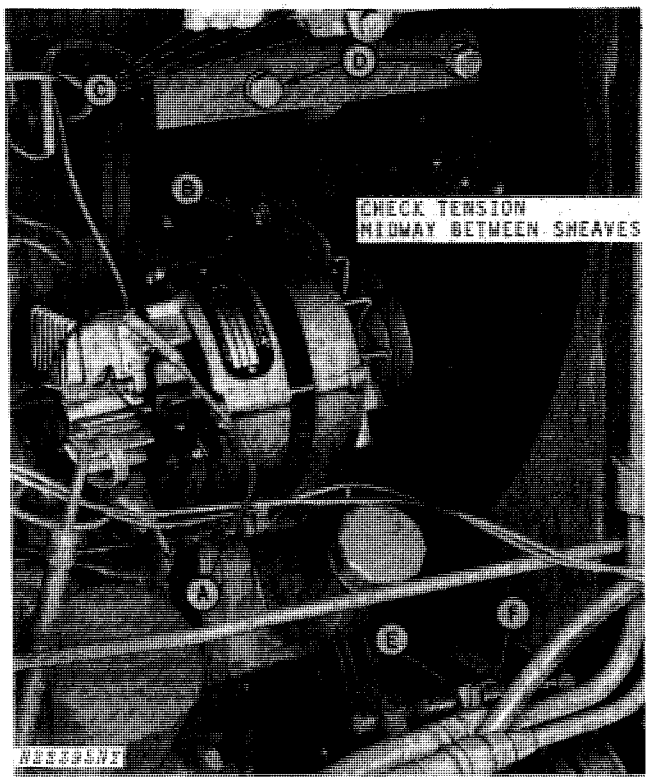

Fig. 22-Alternator, Compressor and Pump Drive Belts

To adjust alternator drive belt tension, loosen nut "A" on pivot bolt; then loosen adjusting screw "B". Force alternator away from engine until the belt has the desired tension as indicated above.

Tighten adjusting screw and nut on pivot bolt.

To adjust tension on air conditioner compressor (optional attachment) drive belt, loosen four attaching screws "C". Turn tightener bolts at "D" clockwise in equal increments until proper tension is obtained as indicated above. Tighten attaching screws.

To adjust tension of hydraulic pump drive belt, loosen lower nut on adjusting rod at "E". Turn adjusting nut "F" clockwise to increase tension of belt to the point where it does not slip when the pump is operating in the relief mode.

Checking and Adjusting Cross Auger Slip Clutch and Drive Belt

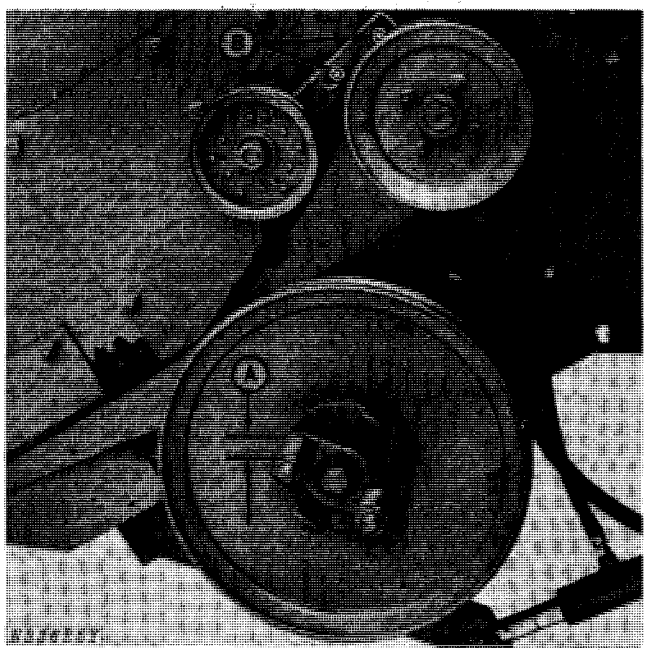

Fig. 23-Cross Auger Slip Clutch and Drive Belt

Adjust length of slip clutch springs at "A," in increments of 1/16 inch or less. Normal setting should be about 1-5/8 inches. To tighten springs, turn lock nuts clockwise. Adjust both springs evenly.

Adjust tension on cross auger drive belt at "B." To increase tension, loosen pivot bolt and adjusting bolt; then rotate idler bracket counterclockwise to obtain desired belt tension. Tighten nuts.

Check belt tension frequently for the first few hours of operation. Tighten often until initial stretch is removed—to prevent premature failure.

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Checking and Adjusting Unit Drive Belt

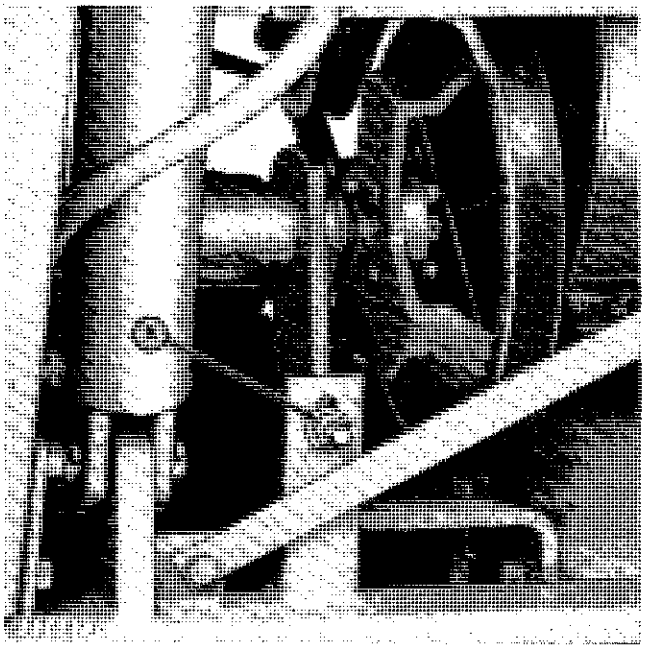

Fig. 24-Adjusting Tension Unit Drive Belt

Adjust tension on unit drive belt at "A." To increase tension on belt, first loosen lock nut on pivot bolt behind frame bracket; then turn outer nut clockwise to obtain desired belt tension. Keep belt tight enough to prevent slipping on sheaves.

NOTE: New belts require frequent checking for the first few hours, until the initial stretch is removed from the belt.

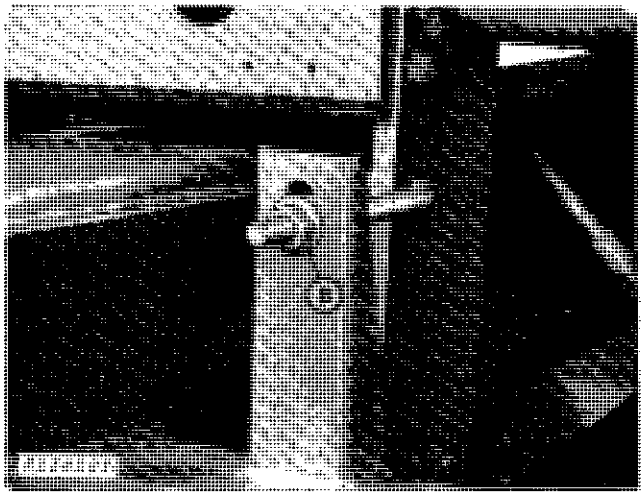

Fig. 25-Aligning Drive and Driven Sheaves

Each time the unit drive belt tension is adjusted at "A," follow similar procedure at front bracket "B" to maintain alignment between unit drive and driven sheaves. Tighten lock nuts on pivot bolts to 85 ft-lbs.

Checking and Adjusting Green Boll Box Drive Belt and Hydraulic Cylinder

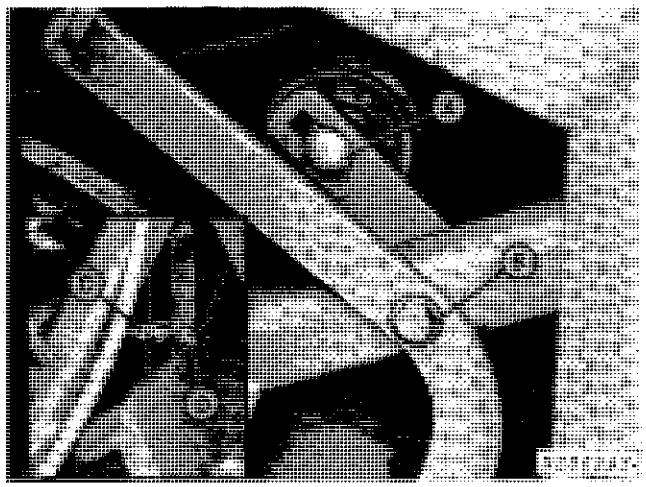

Fig. 26-Adjusting Belt Tension

Loosen nut on bolt "A" and slide idler sheave out toward belt to obtain desired tension. Pivot bolt "B" may be loosened if it becomes necessary to adjust angle of idler strap to prevent belt sections from rubbing.

Adjust boll box cylinder push rod so floor is firmly closed when cylinder is fully retracted. Loosen jam nut "C," remove pin "D," adjust yoke, reinstall pin and tighten jam nut.

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CHECKS AND ADJUSTMENTS—Continued

Check Operation of Automatic Height Control

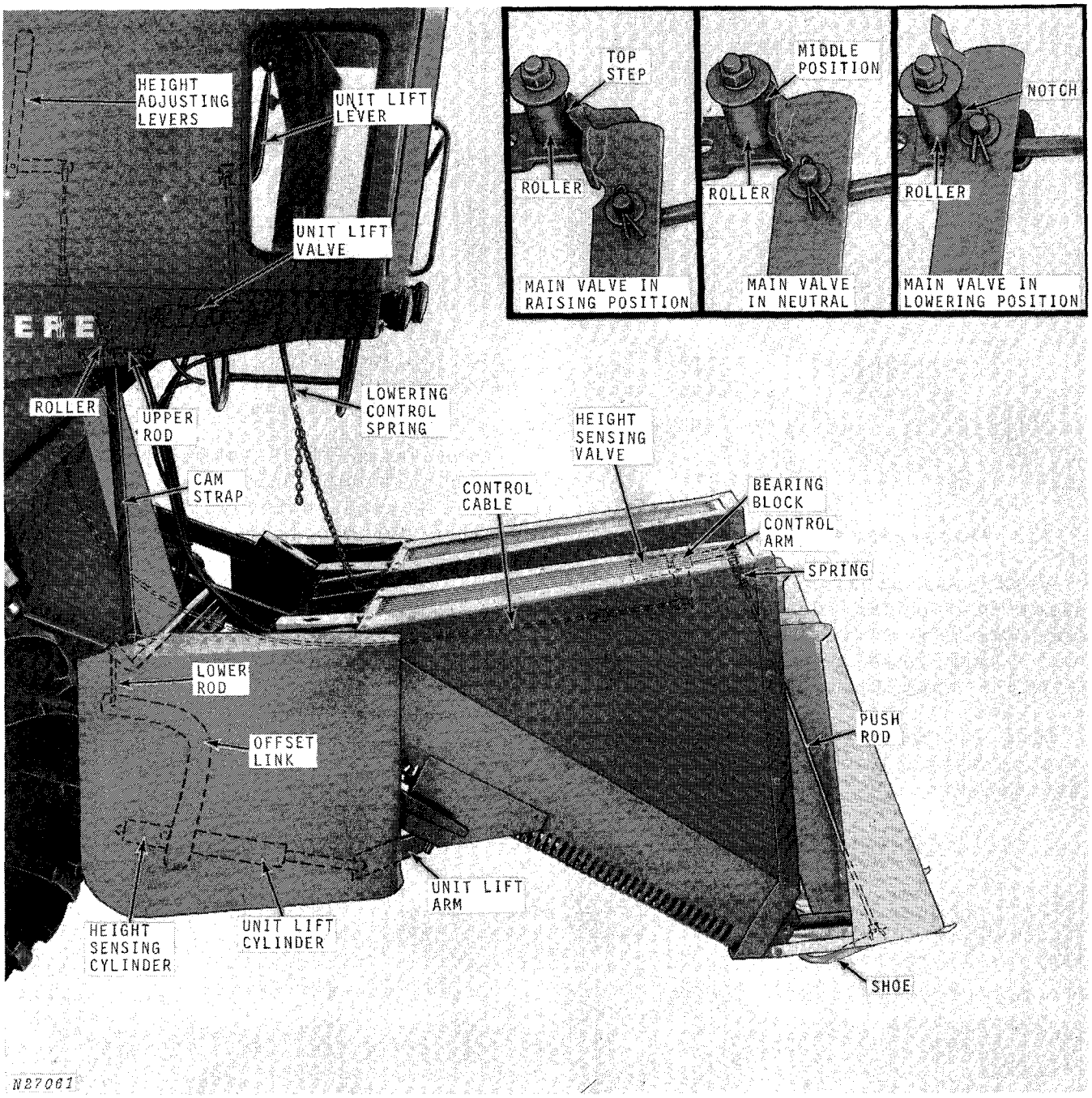

Fig. 27-Automatic Height Control

Run engine at fast idle (2500 rpm) with transmission and row units disengaged; then raise and lower units with lift lever several times. Check operation of system as follows:

1. Raise units and quickly release unit lift lever. If units do not remain up, lengthen lowering control spring chain one link, and recheck operation.

2. Lower units to the floor. Units should rise when height adjusting levers are pulled back and lower when levers are pushed forward.

3. Raise each height sensing shoe alternately. When either shoe on each unit is held up, that unit should rise 2 to 3 inches, then both units should rise, until the shoe is released. If the shoe is released BEFORE units rise about halfway, units should return to the operating position. If shoe is released AFTER units rise over halfway, units should remain up until lowered with the unit lift lever.

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Adjusting Automatic Height Control System

Before readjusting or servicing the entire height sensing system, check tire inflation pressures and hydraulic reservoir oil level.

Chassis Adjustments

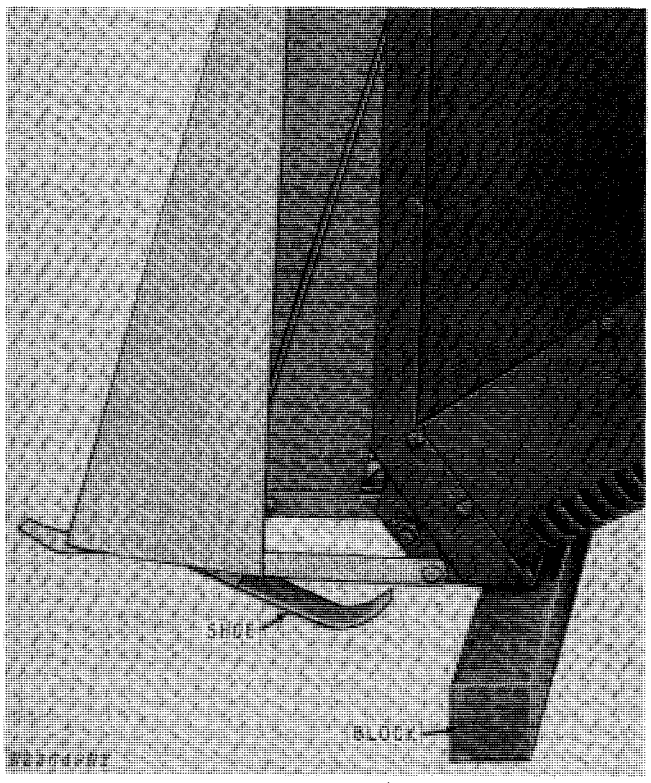

Fig. 28-Lowering Units

1. Lower units onto a 4x4 block—with height sensing shoes free; then stop engine.

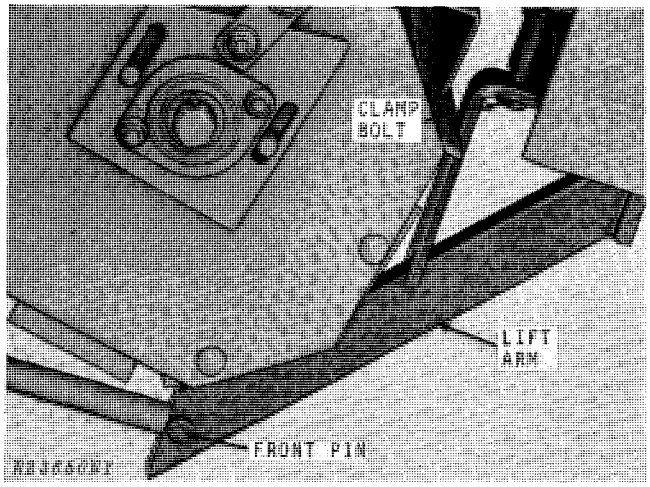

Fig. 29-Unit Lift Cylinders

2. Check alignment of unit lift cylinders and unit lift brackets. If cylinder rods will not move freely on front pins, adjust lift arms to eliminate binding.

Raise units as high as possible with unit lift lever; then stop engine.

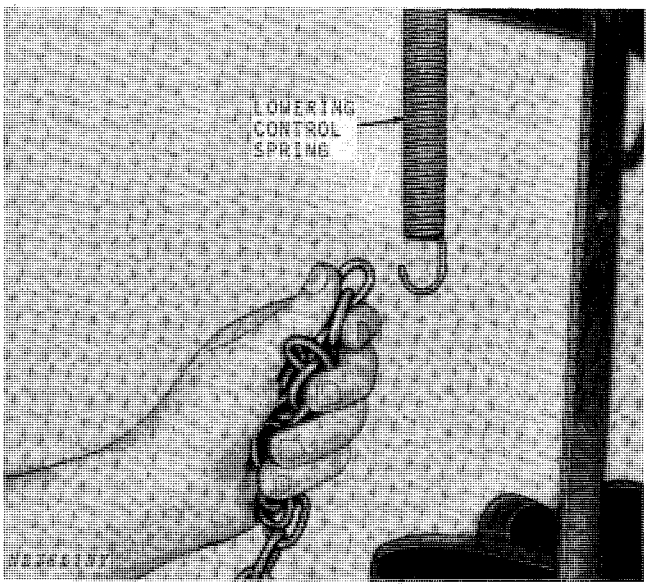

Fig. 30-Lowering Control Spring

3. Disconnect lowering control spring.

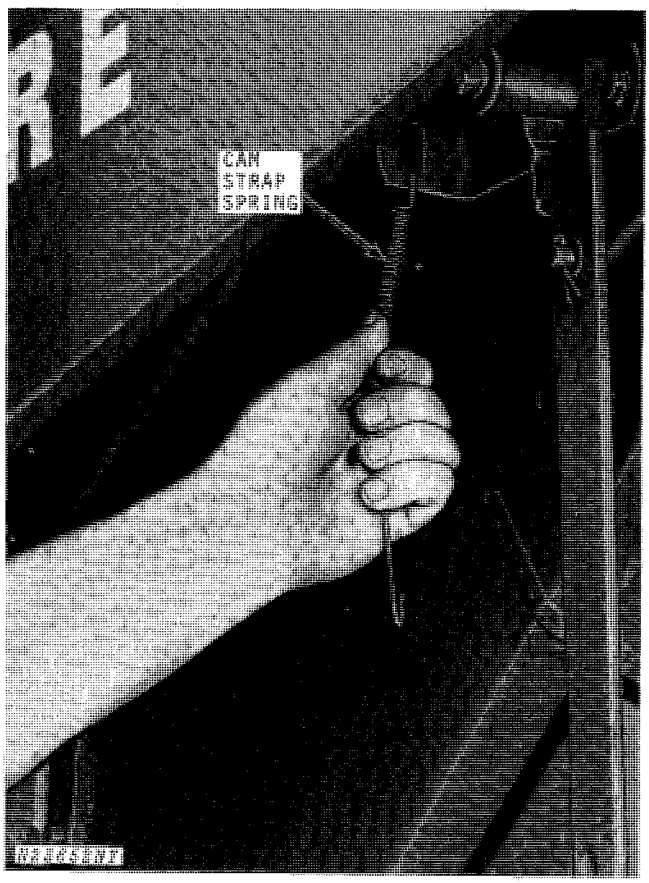

Fig. 31-Cam Strap Spring

4. Disconnect cam strap spring at top end.

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CHECKS AND ADJUSTMENTS—Continued

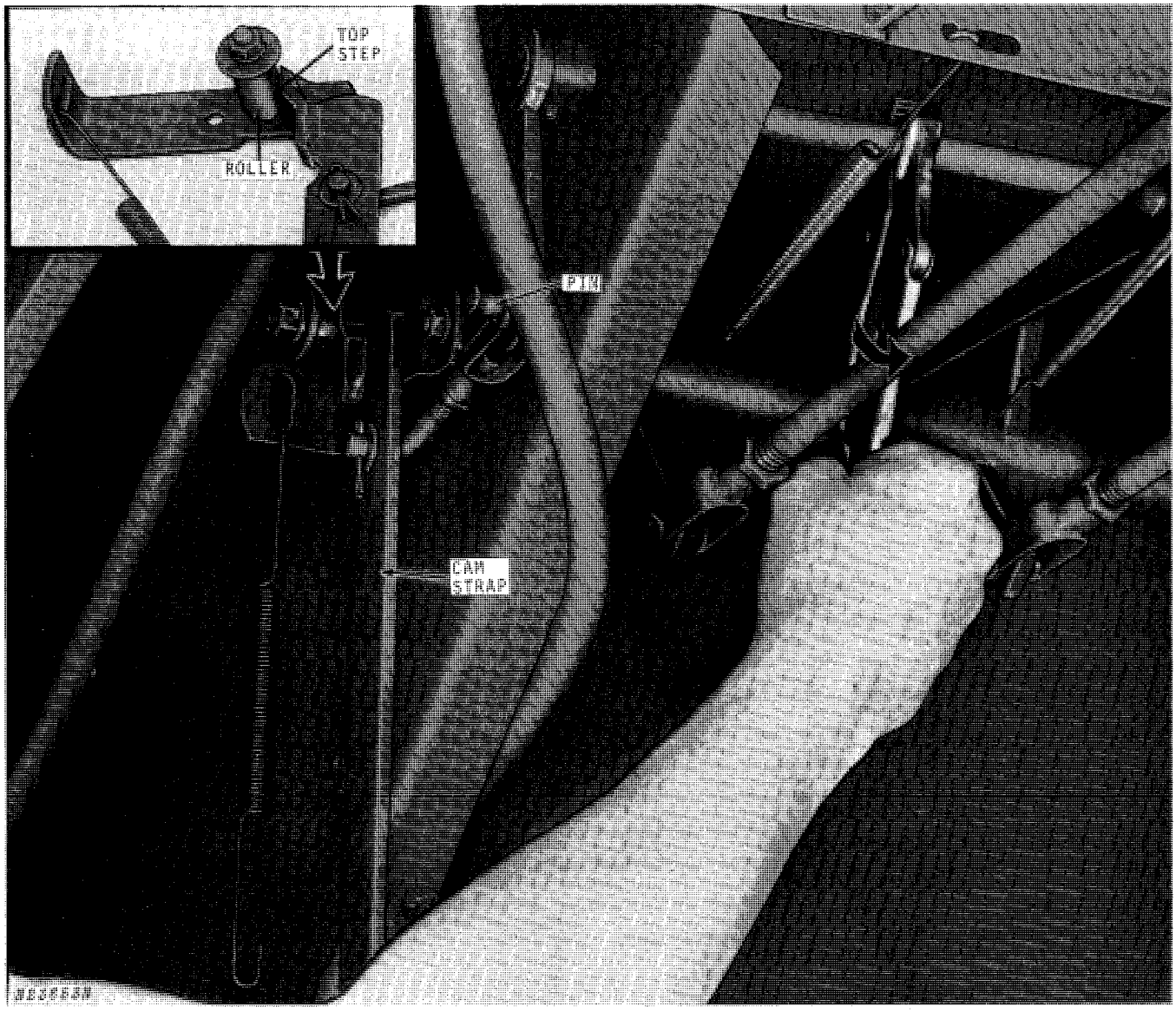

Fig. 32-Positioning Cam Strap

5. Position cam strap on top step, Fig. 32. Adjust horizontal control rod with spool open—open spool with locking-type pliers on cross shaft. Adjust rod length so pin can be installed without slack.

6. Attach cam strap spring. (See Fig. 33.)

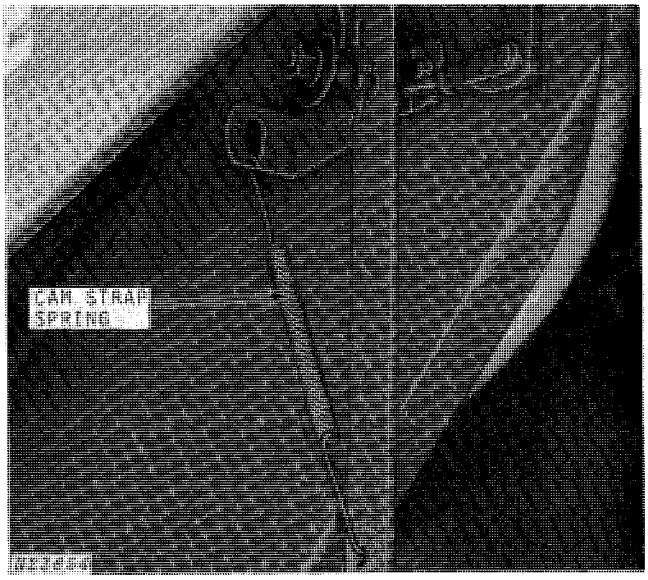

Fig. 33-Attaching Cam Strap Spring

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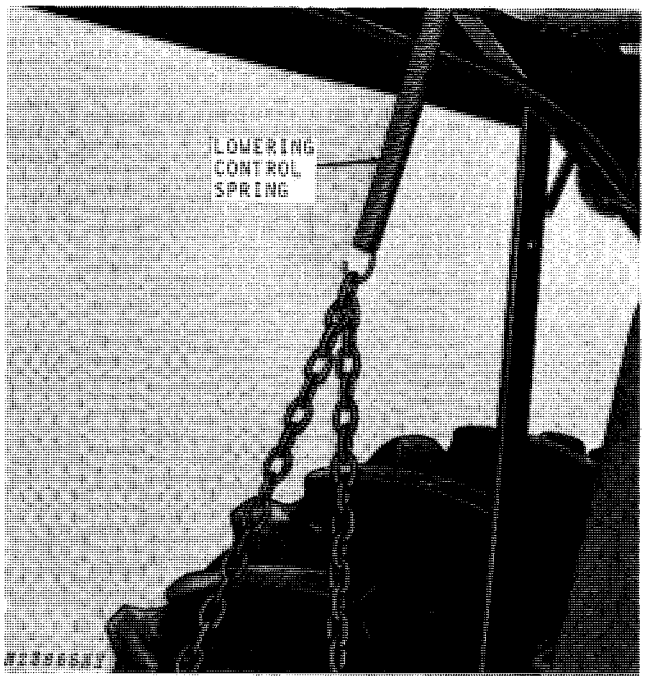

Fig. 34-Attaching Lowering Control Spring

7. Attach lowering control spring to chain with minimum slack in chain.

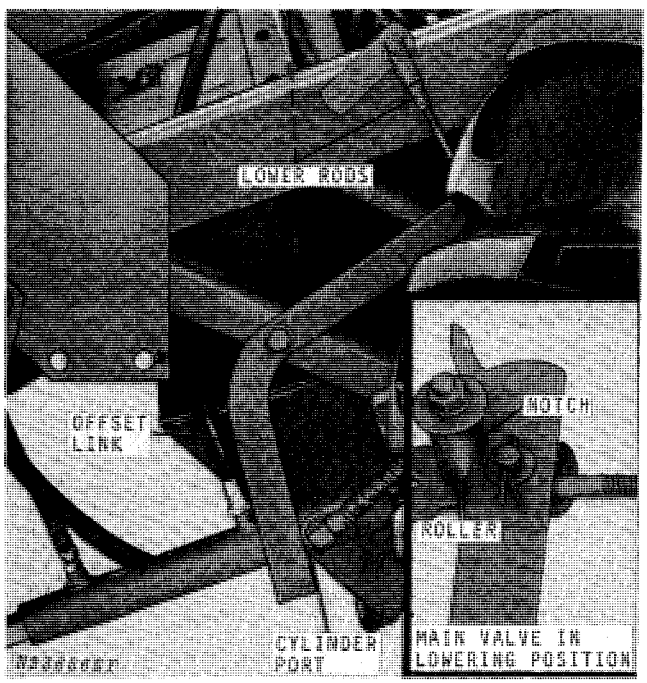

Fig. 35-Adjusting Lower Rods

8. Adjust the length of the lower rods (both sides of stripper) so the offset links are tight against the cylinder ports when the cam strap notch is centered on the roller.

Unit Adjustments

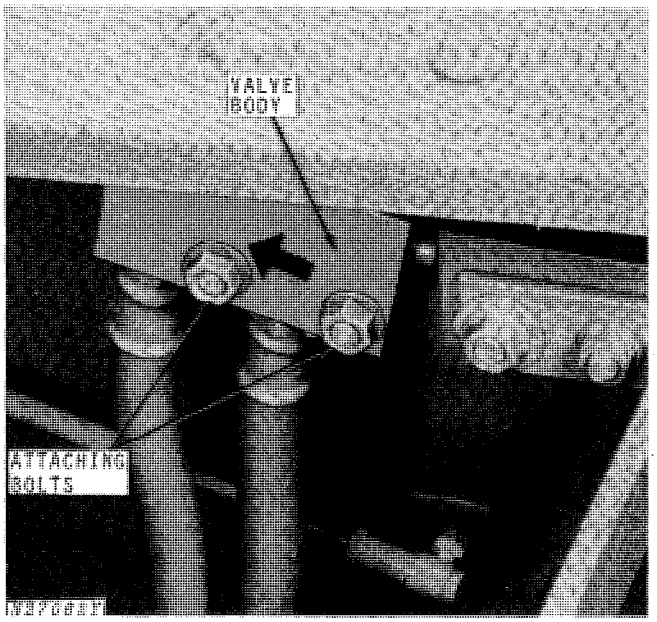

Fig. 36-Loosening Valve Bodies

1. Loosen height sensing valve attaching bolts and slide valve body toward rear of unit.

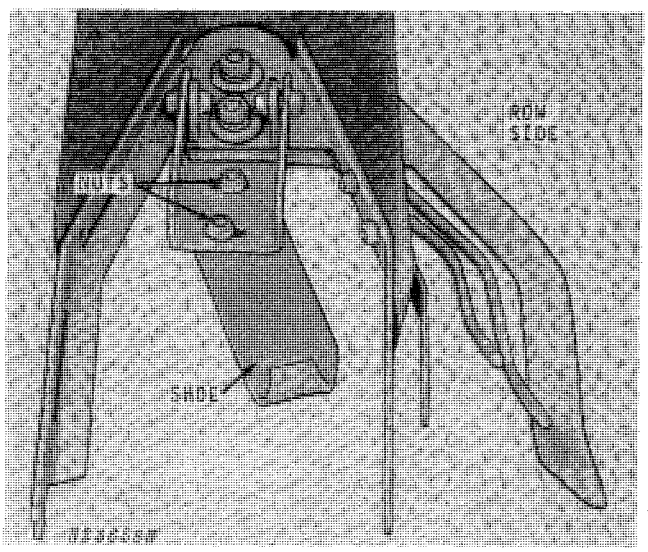

Fig. 37-Positioning Height Sensing Shoes

2. Loosen nuts and position height sensing shoe as close to row side of gatherer as possible without causing interference. Tighten nuts.

CHECKS AND ADJUSTMENTS—Continued

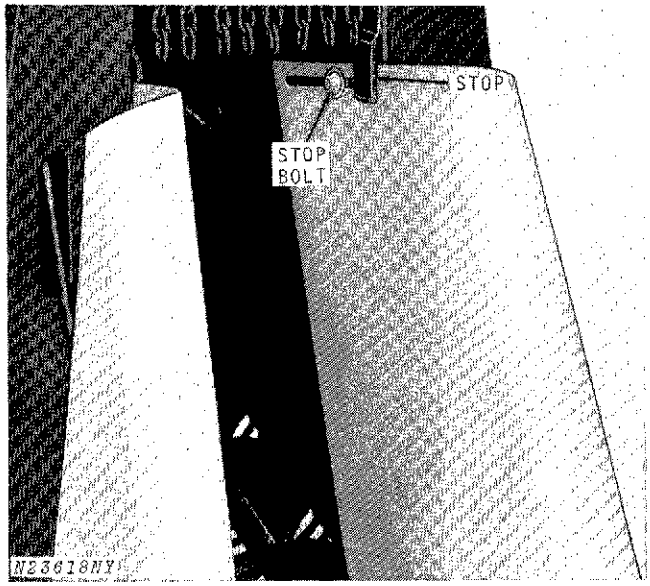

Fig. 38-Stop Bolts

3. Check gatherer stop bolts—all should be set uniformly, about 1-inch back from the stop.

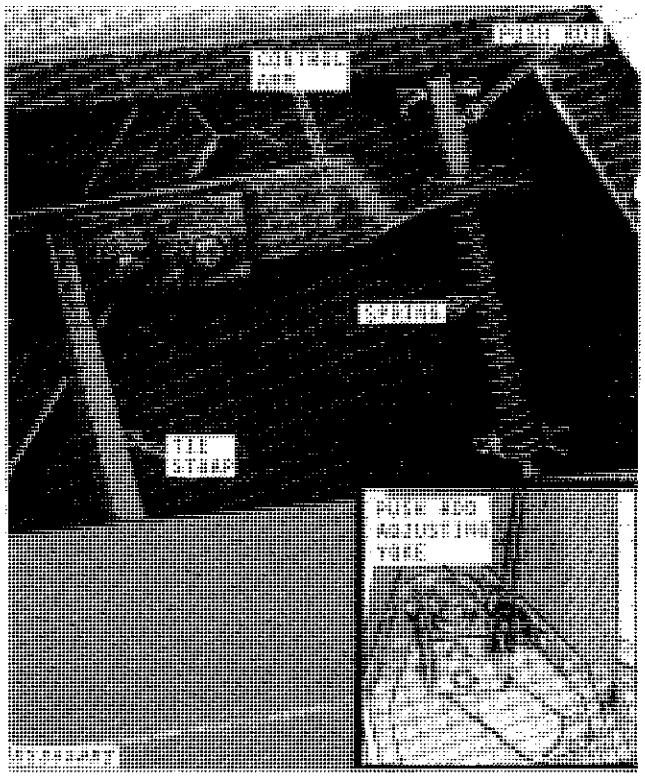

Fig. 39-Control Arms and Push Rods

4. Check control arms to be sure they move up and down freely. If necessary, loosen bolts in tie strap and adjust to obtain free movement of arms. Tighten bolts.

5. Adjust push rod lengths to equalize spring compression on rods in each unit.

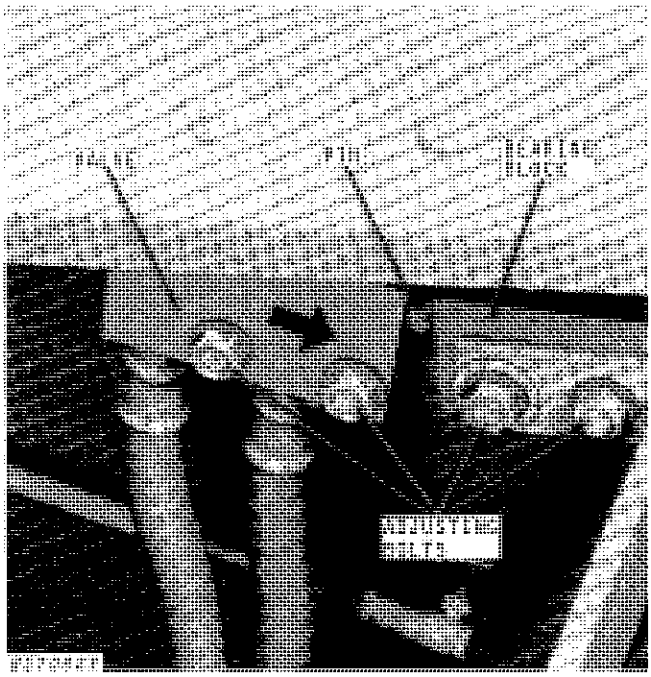

Fig. 40-Adjusting Valves and Bearing Blocks

6. Set height adjusting levers (Fig. 27) to approximately midrange.

Start engine and operate at half throttle with transmission and row units disengaged. (Units should remain lowered to the floor).

7. Slide each height sensing valve (Fig. 40) forward until unit rises about 1-inch above the floor. Tighten bolts.

8. If bearing block does not contact valve pin squarely—in this position, loosen bearing bolt and adjust block; then repeat step 7.

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