

5300N, 5400N and 5500N Tractors

For complete service information also see:

Engines CTM3274

John Deere Werke Mannheim

TM4598 (10JAN00)

European Version

Printed in Germany

ENGLISCH

Foreword

FOREWORD

This manual is written for an experienced technician. Essential tools required in performing certain service work are identified in this manual and are recommended for use.

Live with safety: Read the safety messages in the introduction of this manual and the cautions presented throughout the text of the manual.



This is the safety-alert symbol. When you see this symbol on the machine or in this manual, be alert to the potential for personal injury.

Technical manuals are divided in two parts: repair and operation and tests. Repair sections tell how to repair the components. Operation and tests sections help you identify the majority of routine failures quickly.

Information is organized in groups for the various components requiring service instruction. At the beginning of each group are summary listings of all applicable essential tools, service equipment and tools, other materials needed to do the job, service parts kits, specifications, wear tolerances, and torque values.

Technical Manuals are concise guides for specific machines. They are on-the-job guides containing only the vital information needed for diagnosis, analysis, testing, and repair.

Fundamental service information is available from other sources covering basic theory of operation, fundamentals of troubleshooting, general maintenance, and basic type of failures and their causes.

Contents

SECTION 05—SAFETY

Group 05—Safety

SECTION 10—GENERAL SPECIFICATIONS

Group 05—Machine Specifications
Group 10—Fuel, Lubricants and Coolant
Group 15—Serial Number Locations

SECTION 20—ENGINE — REPAIR

Group 00—Removal and Installation of Engine Components

SECTION 30—FUEL AND AIR INTAKE SYSTEMS — REPAIR

Group 05—Fuel System
Group 10—Speed Control Linkage
Group 15—Air Intake System

SECTION 40—ELECTRICAL SYSTEM — REPAIR

Group 05—Battery, Starting Motor and Alternator
Group 10—Switches and Sending Units
Group 15—Wiring Harnesses

SECTION 50—POWER TRAIN — REPAIR

Group 00—Removal and Installation of Power Train Components
Group 05—Clutch
Group 10—Hi-Lo System (24/24-Speed Transmission)
Group 15—Power Take-Off
Group 20—Differential
Group 25—Final Drives
Group 30—Mechanical Front Wheel Drive
Group 35—MFWD Clutch - 12/12-Speed Transmission
Group 40—MFWD Clutch - 24/24-Speed Transmission
Group 45—Transmission

SECTION 60—STEERING AND BRAKE SYSTEMS — REPAIR

Group 05—Steering System
Group 10—Brake System

SECTION 70—HYDRAULIC SYSTEM — REPAIR

Group 05—Hydraulic Pump and Filter
Group 10—Rockshaft
Group 15—Selective Control Valves

SECTION 80—MISCELLANEOUS — REPAIR

Group 05—Front Axle (without MFWD)
Group 10—Front Wheel Bearings
Group 15—Three-Point Hitch

SECTION 90—OPERATOR'S STATION — REPAIR

Group 05—Operator's Seat and Support
Group 10—Roll-Gard
Group 15—Fenders
Group 20—Cab Components
Group 25—Air Conditioning System

SECTION 240—ELECTRICAL SYSTEM — OPERATION AND TESTS

Group 05—Component Location
Group 10—Theory of Operation
Group 15—Diagnosis, Tests and Adjustments
Group 20—Wiring Diagrams

SECTION 250—POWER TRAIN — OPERATION AND TESTS

Group 05—Component Location
Group 10—Theory of Operation
Group 15—Diagnosis, Tests and Adjustments

SECTION 260—STEERING AND BRAKE SYSTEMS — OPERATION AND TESTS

Group 05—Component Location
Group 10—Theory of Operation
Group 15—Diagnosis, Tests and Adjustments

SECTION 270—HYDRAULIC SYSTEM — OPERATION AND TESTS

Group 05—Component Location
Group 10—Theory of Operation
Group 15—Diagnosis
Group 20—Tests

Continued on next page

Group 25—Adjustments
Group 30—Hydraulic System Schematic

SECTION 290—OPERATOR'S STATION

Group 05—Air Conditioning System Components
Group 05—Air Conditioning System - Theory of
Operation

**SECTION 299—SPECIAL TOOLS —
SELF-MANUFACTURED**

Group 05—Manufacturing the Tools

Index

Section 05 SAFETY

Contents

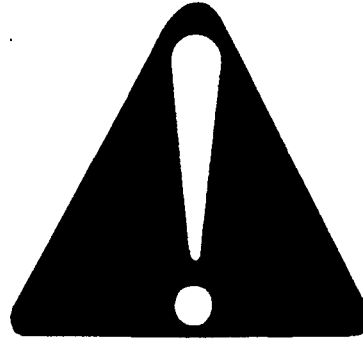
Page

| | |
|-----------------------|---------|
| Group 05—Safety | 05-05-1 |
|-----------------------|---------|

RECOGNIZE SAFETY INFORMATION

This is the safety-alert symbol. When you see this symbol on your machine or in this manual, be alert to the potential for personal injury.

Follow recommended precautions and safe operating practices.



DX,ALERT -19-29SEP98

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UNDERSTAND SIGNAL WORDS

A signal word—DANGER, WARNING, or CAUTION—is used with the safety-alert symbol. DANGER identifies the most serious hazards.

DANGER or WARNING safety signs are located near specific hazards. General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.



DX,SIGNAL -19-03MAR93

TS187 -19-30SEP88

“IMPORTANT” - INFORMATION

Information marked as IMPORTANT points out problems that may lead to machine damage. By following the directions given, these problems can be avoided.

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“NOTE” - INFORMATION

When marked with NOTE the information given is more detailed or contains restrictions to directions given previously. On the other hand useful information may be given belonging to certain instructions without being directly connected to them.

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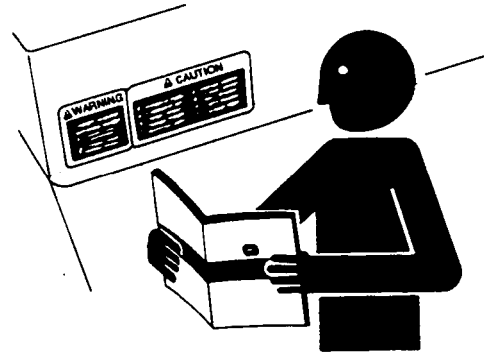
FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Keep safety signs in good condition. Replace missing or damaged safety signs. Be sure new equipment components and repair parts include the current safety signs. Replacement safety signs are available from your John Deere dealer.

Learn how to operate the machine and how to use controls properly. Do not let anyone operate without instruction.

Keep your machine in proper working condition. Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If you do not understand any part of this manual and need assistance, contact your John Deere dealer.



TS201 -JUN-23AUG88

DX,READ -19-03MAR93

HANDLE FLUIDS SAFELY—AVOID FIRES

When you work around fuel, do not smoke or work near heaters or other fire hazards.

Store flammable fluids away from fire hazards. Do not incinerate or puncture pressurized containers.

Make sure machine is clean of trash, grease, and debris.

Do not store oily rags; they can ignite and burn spontaneously.



TS227 -JUN-23AUG88

DX,FLAME -19-29SEP98

PREVENT BATTERY EXPLOSIONS

Keep sparks, lighted matches, and open flame away from the top of battery. Battery gas can explode.

Never check battery charge by placing a metal object across the posts. Use a volt-meter or hydrometer.

Do not charge a frozen battery; it may explode. Warm battery to 16°C (60°F).



DX,SPARKS -19-03MAR93

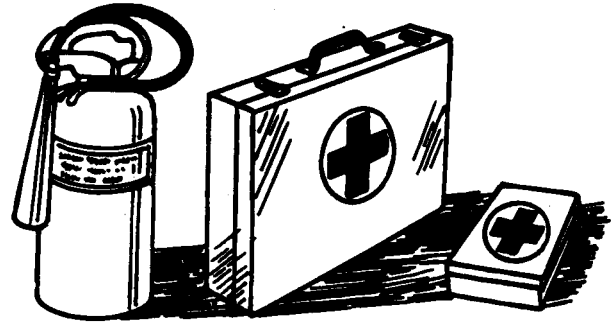
TS204 -JUN-23AUG88

PREPARE FOR EMERGENCIES

Be prepared if a fire starts.

Keep a first aid kit and fire extinguisher handy.

Keep emergency numbers for doctors, ambulance service, hospital, and fire department near your telephone.



DX,FIRE2 -19-03MAR93

TS291 -JUN-23AUG88

INJECTION PUMP, NOZZLE AND GOVERNOR REPAIR

For complete injection pump, nozzle and governor repair information refer to CTM Engines (Component Technical Manual) in conjunction with this manual.



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TS225

AT.5STM,HJH0012-19-01JUL97

SPECIFICATIONS

| Item | Measurement | Specification |
|--------------------------------|-------------|-------------------|
| Fuel Tank Retaining Bolt | Torque | 20 N·m (15 lb-ft) |
| Turbocharger Oil Drain Line | Torque | 80 N·m (59 lb-ft) |
| Oil Inlet Line | Torque | 27 N·m (20 lb-ft) |
| Mounting Nuts | Torque | 47 N·m (35 lb-ft) |

AT.5NTM,ESPD015-19-01JUN99

REMOVE, INSPECT AND INSTALL FUEL TANK

1. Remove seat, support and lateral panel (see procedure in Section 90).
2. Disconnect fuel hose (C). Close all openings using caps and plugs.
3. Loosen clamps (A) and (D).
4. Disconnect wiring connectors (B).

NOTE: On tractors with cab remove the linings installed under fuel tank and between tank and seat.



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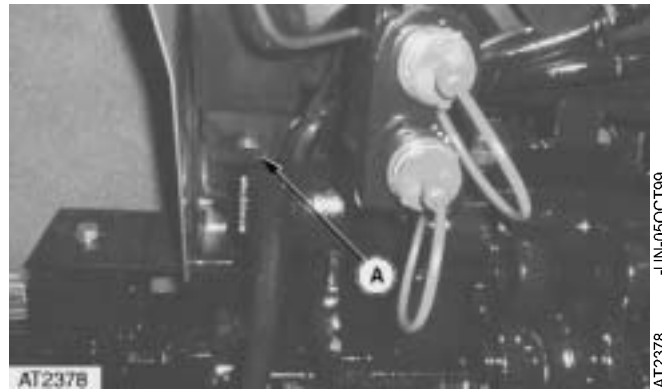
- A—Clamp (2 used)
- B—Wiring Leads
- C—Fuel Hose
- D—Clamp (2 used)

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Fuel System/Fuel tank

NOTE: Fuel tank capacity is approximately 60 L (15.9 U.S. gal).

5. Remove plug (A).
6. Drain fuel tank.



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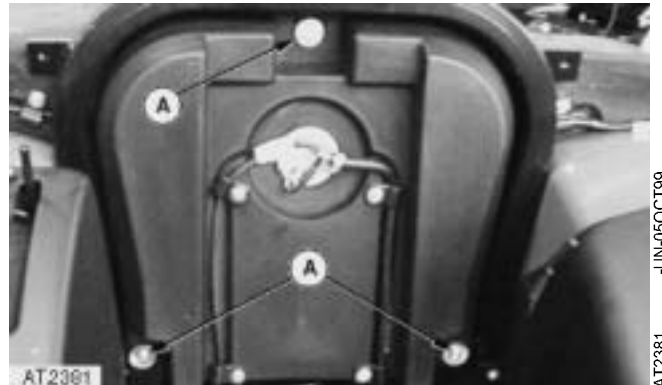
7. Disconnect fuel hose (A). Close all openings using caps and plugs.



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8. Remove screws (A) on the front side.
9. Remove tail lights.
10. Remove screws (B) on the rear side.
11. Remove fuel tank.
12. Inspect fuel tank for damage. Replace if necessary.
13. Wash tank out with a small amount of fuel to remove any debris.
14. Inspect rubber isolators, located on top of each fender for excessive wear or damage. Replace if necessary.
15. Install fuel tank, screws, nuts and washers. Tighten nuts to 20 N·m (15 lb-ft).



AT2381
-JUN-05OCT99



AT2382
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AT.5NTM.ESPD019-19-01JUN99

16. Connect fuel hose (A).



-JUN-05OCT99
AT2380

AT.5NTM.ESPD020-19-01JUN99

17. Install rear plug (A) to fuel tank.



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18. Install tail lights.

19. Connect wiring connectors (B).

20. Tighten clamps (A) and (D).

21. Connect fuel hose (C).

22. Install seat and support (see procedure in Section 90).

23. Fill fuel tank with proper fuel (see "Fuel, Lubricants and Coolant" in Section 10).

24. Bleed the fuel system (see CTM Engines).



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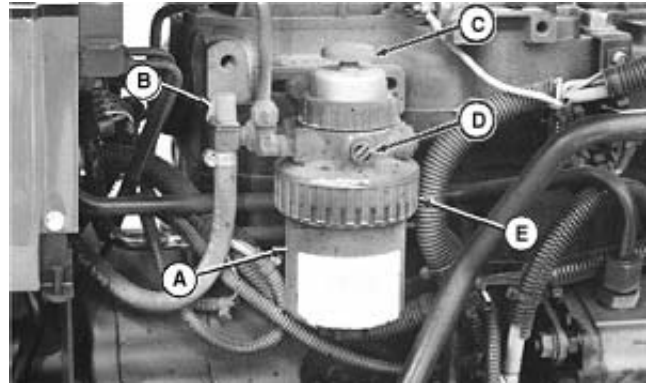
A—Clamp (4 used)
B—Wiring Leads
C—Fuel Hose
D—Clamp (2 used)

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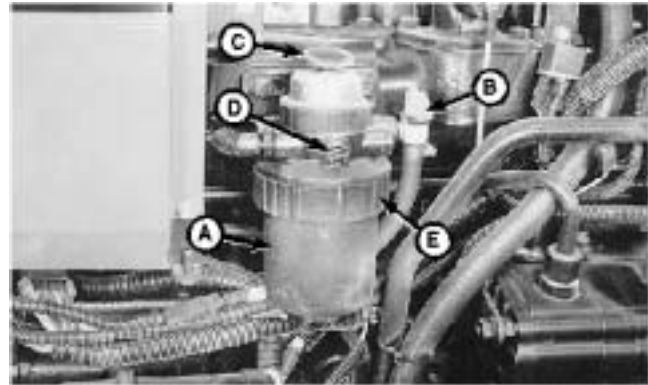
REPLACE FUEL FILTER

1. Close fuel shut-off valve (B).
2. Remove retaining ring (E) and filter (A).
3. Install new filter with retaining ring, hand tight.
4. Open fuel shut-off valve (B).
5. Open bleed screw (D).
6. Operate priming pump (C) until fuel flows.
7. Close bleed screw (D).
8. Bleed the fuel system (see CTM Engines).

A—Fuel filter element
 B—Fuel shut-off valve
 C—Priming pump
 D—Bleed screw
 E—Retaining ring



5400N

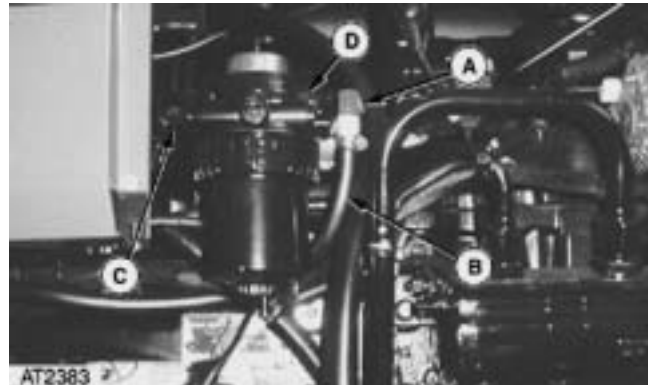


5500N

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REMOVE AND INSTALL FUEL FILTER / PRIMER PUMP ASSEMBLY

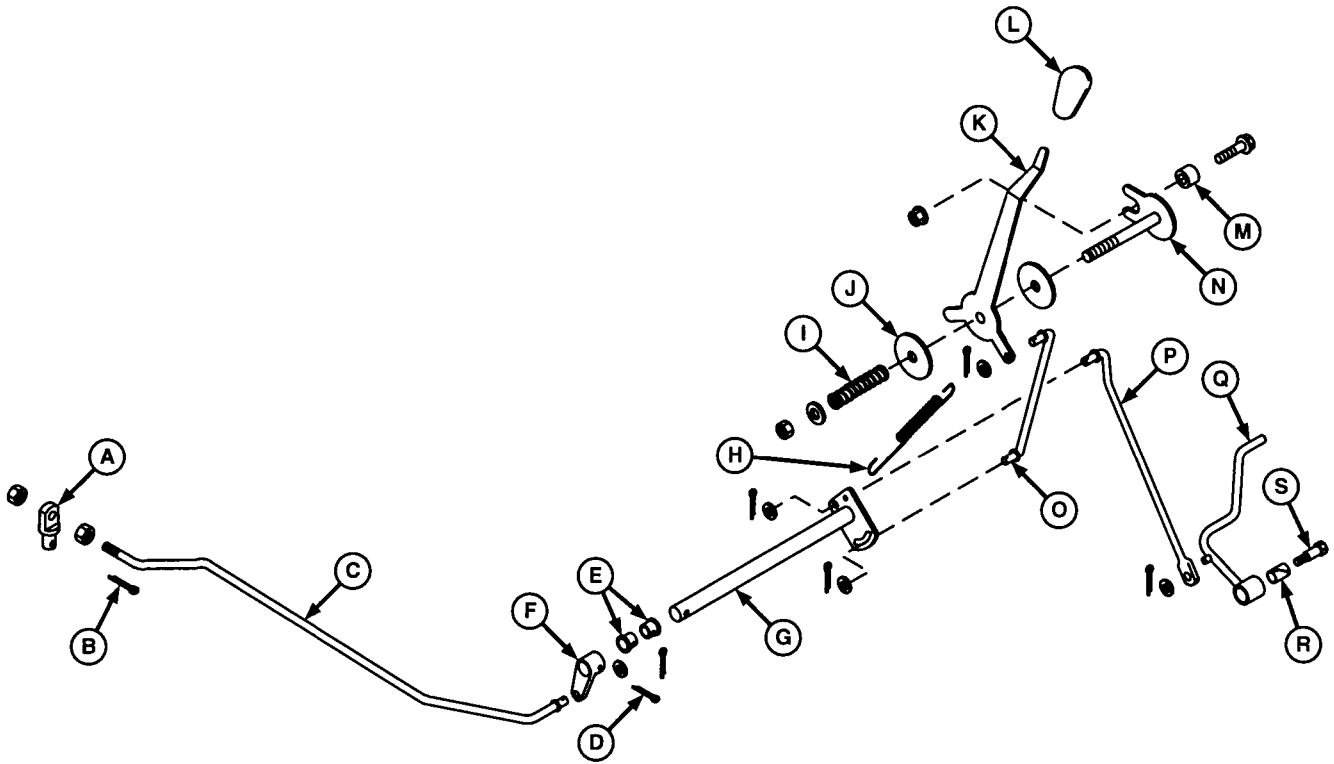
1. Remove right engine side shield.
2. Close fuel shut-off valve (A).
3. Disconnect fuel line (B) and (C). Close all openings using caps and plugs.
4. Remove cap screws (D). Remove fuel filter/primer pump assembly.
5. Re-install fuel filter/primer pump assembly.
6. Connect fuel line (B) and (C).
7. Open fuel shut-off valve (A).
8. Bleed fuel system (see CTM Engines).
9. Install right engine side shield.



A—Fuel Filter Shut-Off Valve
 B—Fuel Line
 C—Fuel Line
 D—Cap Screw (2 used)

AT.5NTM.ESPD024-19-01JUN99

INSPECT AND REPAIR SPEED CONTROL LINKAGE



AT1192

A—Swivel
B—Cotter Pin (6 used)
C—Linkage Rod
D—Spring Pin
E—Nylon Split Bushings

F—Lever
G—Rod
H—Extension Spring
I—Adjustment Spring
J—Washer (2 used)

K—Throttle Lever
L—Knob
M—Bushing
N—Plate
O—Linkage Rod

P—Linkage Rod
Q—Foot Pedal (Tractors Without Cab)
R—Nylon Split Bushing
S—Shoulder Bolt

1. On tractors with cab, remove lower front cab windows and support (see procedure in Section 90)
2. Remove dash side panels.
3. On tractors without cab, remove right-hand side step plate.
4. Inspect parts for wear or damage. Replace as necessary.

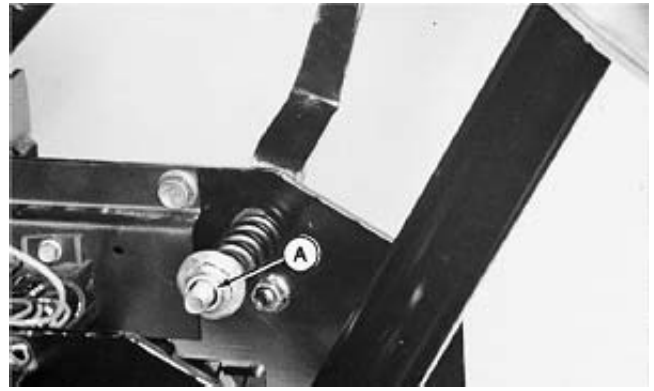
5. Adjust throttle lever as described in this Group.
6. On tractors without cab, install step plate.
7. Install dash side panels.
8. Adjust fast and slow idle (see CTM Engines).

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THROTTLE LEVER ADJUSTMENT

1. Remove key switch panel.
2. Adjust spring tension by loosening or tightening lock nut (A) until throttle lever movement is smooth throughout range of travel with only slight drag.

IMPORTANT: After completing the adjustment make sure that throttle linkage does not interfere with any electrical cables



LV407 -UN-18FEB92

AT,5STM,HJH0265-19-15MAR98

TURBOCHARGER REPAIR

For complete turbocharger repair information refer to CTM Engines (Component Technical Manual) in conjunction with this manual.



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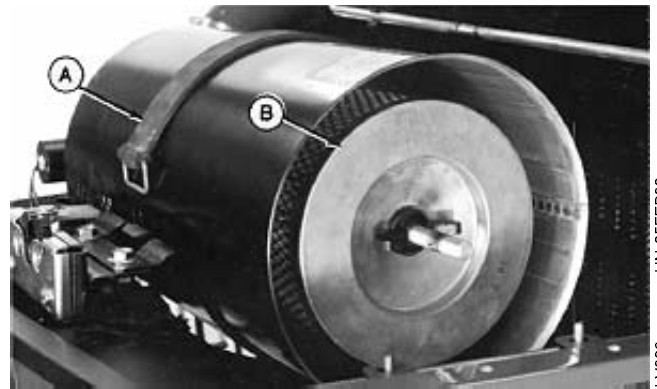
REMOVE, INSPECT AND INSTALL AIR CLEANER ELEMENTS

NOTE: Tractor without cab shown.

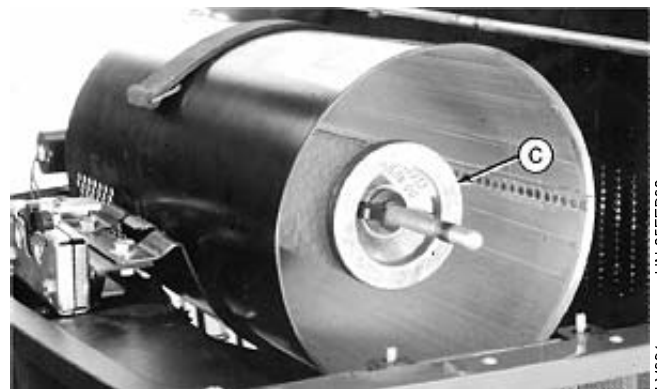
1. Open hood.
2. Disconnect strap (A).
3. Remove wing nut, washer and cover.
4. Remove wing nut, washer and primary element (B).

IMPORTANT: Remove secondary safety element **ONLY** if it is to be replaced. Do not attempt to clean secondary element. Install new element immediately to prevent dust from entering air intake system. Dust can damage internal engine components and turbocharger, if equipped.

5. Replace secondary safety element (C), if dirty or damaged.



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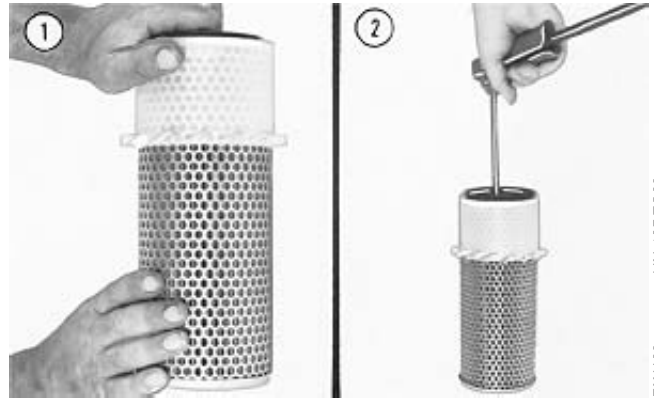
CLEANING PRIMARY ELEMENT

1. Pat sides of element gently to loosen dirt. **DO NOT** tap element against a hard surface.

2. Use compressed air (below 690 kPa; 6.9 bar; 100 psi) to clean element. Hold nozzle next to inner surface, and move up and down pleats.

IMPORTANT: DO NOT direct air against outside of element, as it might force dirt through to inside.

3. Inspect element before reinstalling.



RW468 -UN-13DEC88

AT,5SOM,209 -19-15JAN97

WASHING PRIMARY ELEMENT

IMPORTANT: Never wash element in gasoline or any solvent. Never use compressed air on a wet element. Do not oil element.

1. If element is coated with oil or soot, wash in a solution of warm water and John Deere Filter Element Cleaner or its equivalent. Let element soak at least 15 minutes, then agitate gently to flush out dirt.

2. Rinse element thoroughly from inside with clean water. Keep water pressure low (below 280 kPa; 2.8 bar; 40 psi) to avoid damaging element.

3. Allow element to dry completely before using. This usually takes from one to three days. **DO NOT** oven dry or use drying agents. Protect element from freezing until dry.

4. Inspect element before installing.

NOTE: Primary element can be washed up to six times.

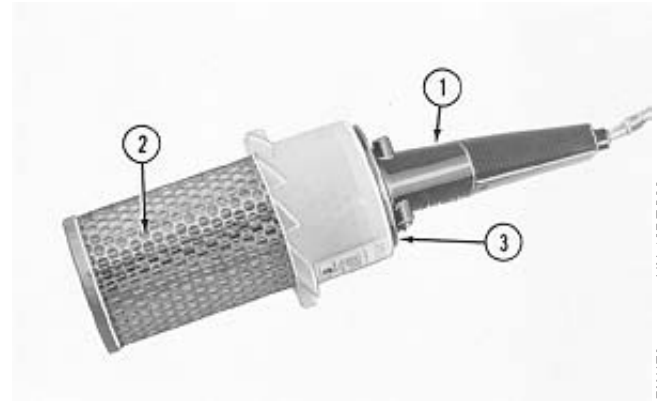


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AT,5SOM,210 -19-15JAN97

INSPECTING ELEMENT

1. Hold a bright light inside element and check carefully for holes. Discard any element which shows the slightest hole.
2. Be sure outer screen is not dented. Vibration would quickly wear a hole in filter.
3. Be sure rubber sealing surfaces are in good condition on both ends. If damaged, replace element.



MX,SEIP,LA1 -19-24JUL95

RW470 -JUN-13DEC88

Section 40

ELECTRICAL SYSTEM — REPAIR

Contents

| | Page | Page |
|--|---------|--|
| Group 05—Battery, Starting Motor and Alternator | | |
| Starting motor repair | 40-05-1 | |
| Battery | | |
| Starting motor | | |
| Alternator/regulator | | |
| Alternator repair | 40-05-3 | |
| Group 10—Switches and Sending Units | | |
| Air filter restriction switch | | |
| Replacement | 40-10-1 | |
| Coolant temperature sender | | |
| Replacement | 40-10-1 | |
| Engine speed sensor | | |
| Replacement | 40-10-1 | |
| Fuel shut-off solenoid | | |
| Replacement | 40-10-2 | |
| Engine oil pressure switch | | |
| Replacement | 40-10-2 | |
| Manifold heater | | |
| Key switch | | |
| Replacement | 40-10-3 | |
| Light switch | | |
| Replacement | 40-10-4 | |
| Hazard warning light switch | | |
| Replacement | 40-10-5 | |
| Turn signal controller | | |
| Replacement | 40-10-5 | |
| Instrument panel | | |
| Replacement | 40-10-6 | |
| Rear PTO switch | | |
| Replacement | 40-10-8 | |
| ral start switch | | |
| Replacement | 40-10-8 | |
| Parking brake switch | | |
| Replacement | 40-10-8 | |
| Brake pedal switches | | |
| Replacement | 40-10-9 | |
| Fuel level sender | | |
| Replacement | 40-10-9 | |
| Group 15—Wiring Harnesses | | |
| Engine wiring harness | | |
| Replacement | 40-15-1 | |
| | | Instrument panel/transmission wiring harness Replacement 40-15-2 |

STARTING MOTOR REPAIR

For complete starting motor repair information refer to relevant Component Technical Manual (CTM) in conjunction with this manual.



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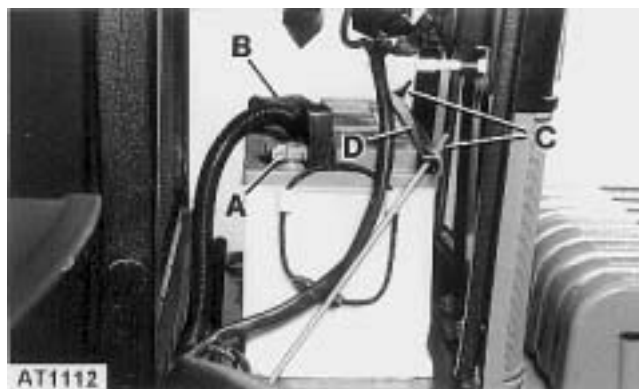
REMOVE AND INSTALL BATTERY

CAUTION: Keep all sparks and flames away from batteries, as gas given off by electrolyte is explosive. To avoid sparks, connect ground cable last and disconnect it first.

To avoid shocks and burns, disconnect battery ground cable before servicing any part of electrical system.



1. Remove side grille panels.
2. Disconnect negative cable (B) first, then the positive one (A).
3. Loosen nuts (C) and rotate hold-down bracket (D) away from battery.
4. Remove battery. Clean and service as necessary.
5. Install battery.
6. Install hold-down bracket and tighten nuts.
7. Connect positive cable (B), then negative one (A).
8. Apply petroleum jelly on battery terminals.
9. Install grille panels.



AT1112

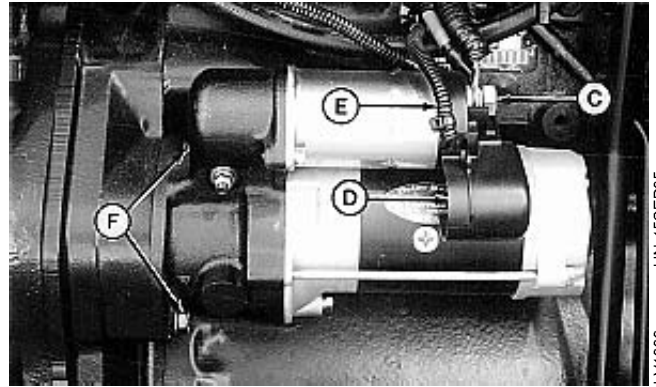
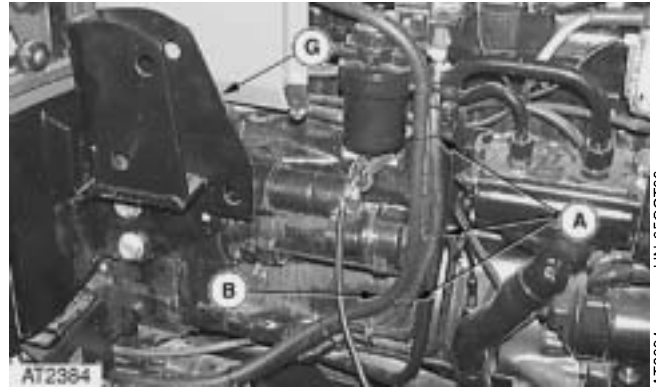
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-JUN-23AUG88

AT1112
-JUN-28NOV96

REMOVE AND INSTALL STARTING MOTOR

1. Disconnect battery negative (-) cable.
2. Remove right-hand engine side shield.
3. If tractor is equipped with air conditioning system, cut tie straps (A) as necessary and move air conditioning lines (B) away from starting motor.
4. If tractor is equipped with ROPS, remove bracket (G).
5. Disconnect three cables at stud (C).
6. Remove cover (D).
7. Disconnect wiring lead at stud (E).
8. Remove cap screws and lock washers (F).
9. Remove starting motor.
10. Make repairs as necessary (see Component Technical Manual).
11. Install starting motor using cap screws and lock washers (F).
12. Connect wiring lead to stud (E) and cables at stud (C).
13. Install cover (D).
14. Connect battery negative (-) cable.
15. Install right-hand engine side shield.



- A—Tie Straps
- B—Air Conditioning Lines
- C—Starter Solenoid “B” Stud
- D—Cover
- E—Starter Solenoid “S” Stud
- F—Cap Screw and Lock Washer
- G—ROPS bracket

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ALTERNATOR/REGULATOR REPAIR

For complete alternator/regulator repair information refer to relevant Component Technical Manual (CTM) in conjunction with this manual.

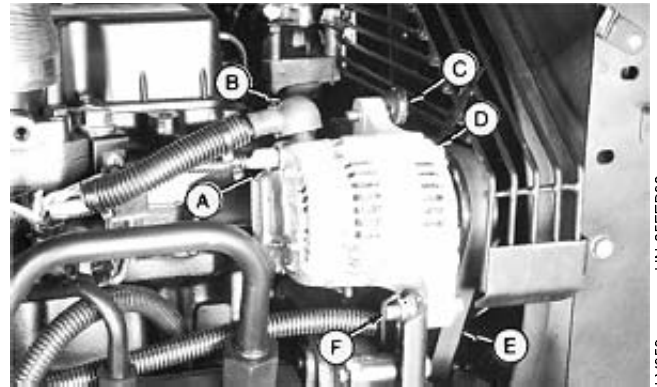


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REPLACE ALTERNATOR/REGULATOR

1. Remove right-hand engine shield.
2. Disconnect negative (-) cable at battery.
3. Disconnect wiring connector (A) and cable (B).
4. Loosen cap screws (C) and (F).
5. Move alternator/regulator (D) towards engine. Lift belt (E) off pulley.
6. Remove adjustment and pivot cap screws.
7. Replace alternator/regulator.
8. Install cap screws.
9. Adjust belt tension (see procedure in Operator's Manual).
10. Connect wiring connector and cable.
11. Connect negative (-) cable at battery.
12. Install right-hand engine shield.



- A—Wiring Connector
- B—Cable
- C—Adjusting Screw
- D—Alternator/Regulator
- E—Belt
- F—Pivot Cap Screw

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LV368
-JUN-25FEB92



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