

# 8450-8650 Tractors



TECHNICAL MANUAL 8450-8650 Tractors

TM1355 (01MAY86) English

TM1355 (01MAY86)

LITHO IN U.S.A. ENGLISH



# 8450 - 8650 TRACTORS TECHNICAL MANUAL TM-1355 (DEC-85)

#### CONTENTS—REPAIR SECTIONS

#### PUBLICATION NUMBER CHANGE

This technical manual was formerly TM-1255. The number was changed to TM-1355 when engine information was removed. Some pages still carry the old publication number. For engine information, refer to engine component technical manual, CTM-1, 6466 Engines. This machine technical manual covers removal and installation of the engine components. The component manual covers basic repair of the engine.

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#### INTRODUCTION

This manual is part of a total service support program.

#### FOS Manuals-reference

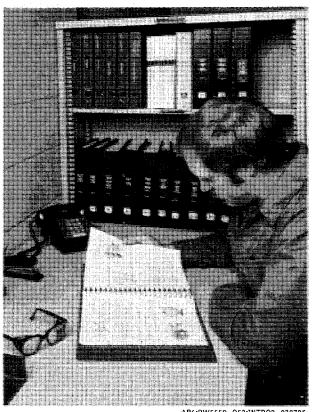
#### Technical Manuals—machine service

#### Component Manuals—component service

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

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

Component Technical Manuals are concise service guides for specific components. Component technical manuals are written as stand alone manuals covering multiple machine applications.



AB6;RW5559 O53;INTRO2 030785

## FEATURES OF THIS TECHNICAL MANUAL

John Deere ILLUSTRUCTION format emphasizing illustrations and concise instructions in easy-to-use modules.

Emphasis on diagnosis, analysis, and testing so you can understand the problem and correct it.

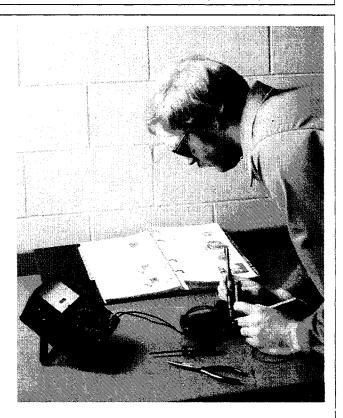
Diagnostic information presented with the most logical and easiest to isolate problems first to help you identify the majority of routine failures quickly.

Step-by-step instructions for teardown and assembly.

Summary listing at the beginning of each group of all applicable specifications, wear tolerances, torque values, essential tools, and materials needed to do the job.

An emphasis throughout on safety—so you do the job right without getting hurt.

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



AB6;RW5560 053;INTR03 071085

# SAFETY AND YOU

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 .



AB6;T81389 053;TMSAFE 071085

#### **IMPORTANT**

The **IMPORTANT** message identifies potential problems which may cause consequential damage to tractor. Following recommended procedure will instruct technician how to avoid problem.

U10;010INT D 101281

# **NOTES**

The word *NOTE* is followed by a statement that identifies a qualification or exception to a previous statement. A "NOTE" may also identify nice-to-know information pertinent to, but not directly related to previous statement.

U10;010INT E 101281

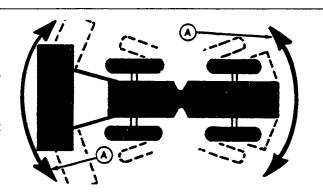
#### STAY CLEAR OF MOVING TRACTOR

Always place transmission in PARK before dismounting. Leaving transmission in gear with engine stopped will NOT prevent the tractor from moving.

Be sure everyone is clear of tractor and attached equipment before starting engine or moving steering wheel. Tractor and equipment move (A), even with transmission in PARK. Some steering movement often occurs as engine starts.

Never try to get on or off a moving tractor.

When tractor is left unattended, lower implements to the ground, stop the engine, and remove the key.



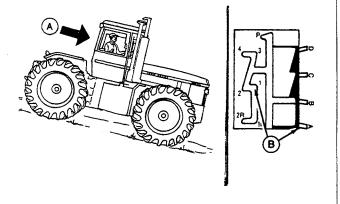
AJ7;RW8078 U01;STAY CLEAR1 281085

#### SHIFT TO LOW GEAR ON HILLS

Shift to a low gear (B) before descending a steep hill (A), to improve your control of the tractor with little or no braking. Never coast downhill.

When driving on icy or graveled surfaces, reduce speed and be sure tractor is properly ballasted to avoid skidding and loss of steering control.

Additional ballast may be needed for transporting heavy integral implements. When implement is raised, drive slowly over rough ground, regardless of how much ballast is used.



AJ7;RW4421 U01;DRIVE SAFE 281085

5

#### KEEP RIDERS OFF MACHINE

Only allow the operator on the machine. Keep riders off.

Riders on machine are subject to injury such as being struck by foreign objects and being thrown off of the machine. Riders also obstruct the operator's view resulting in the machine being operated in an unsafe manner.

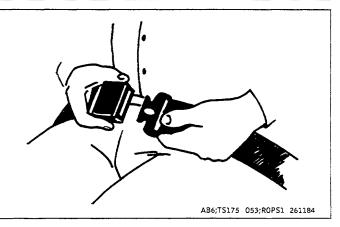


AB6:TS173 053:RIDER 261184

#### **USE SEAT BELT PROPERLY**

Use a seat belt when you operate with a roll-over protective structure (ROPS) to minimize chance of injury from an accident such as an overturn.

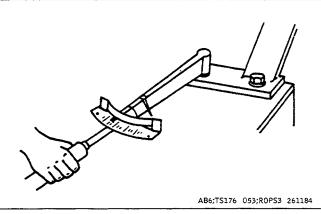
Do not use a seat belt if operating without a ROPS.



#### **KEEP ROPS INSTALLED PROPERLY**

Make certain all parts are reinstalled correctly if the roll-over protective structure (ROPS) is loosened or removed for any reason. Tighten mounting bolts to proper torque.

The protection offered by ROPS will be impaired if ROPS is subjected to structural damage, is involved in an overturn incident, or is in any way altered. A damaged ROPS should be replaced, not reused.



#### PREVENT MACHINE RUNAWAY

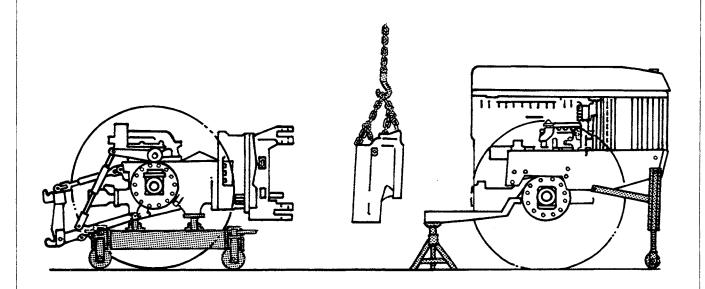
Avoid possible injury or death from machinery runaway.

Do not start engine by shorting across starter terminals. Machine will start in gear if normal circuitry is by passed.

NEVER start engine while standing on ground. Start engine only from operator's seat, with transmission in neutral or park.

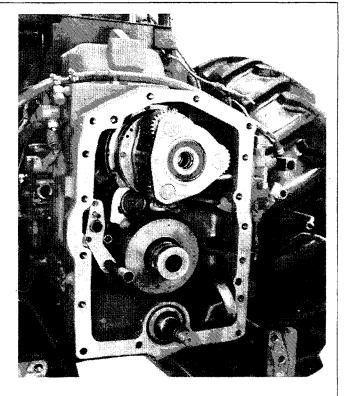


# **REMOVE CLUTCH HOUSING**



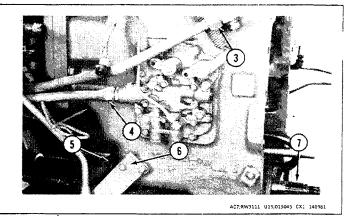
AC7;RW3109 L U15;015045 AX1 140981

- 1. Remove front hinge. (See Remove Front Hinge in this section.)
- 2. Clutch housing separated from front hinge.

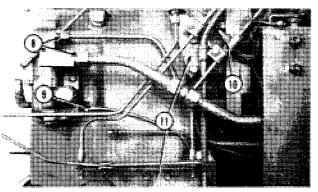


AC7;RW3110 U15;015045 BX1 120183

- 3. Disconnect oil cooler return line.
- 4. Disconnect oil cooler inlet line.
- 5. Disconnect front differential return line.
- 6. Disconnect bracket from clutch housing.
- 7. Remove front drive shaft.

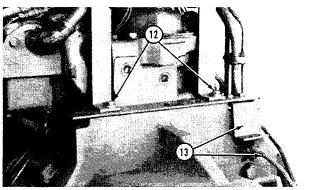


- 8. Disconnect charge pump control valve pilot line and outlet line.
- 9. Disconnect main pump seal bleed line.
- 10. Disconnect clutch temperature connector.
- 11. Disconnect brackets from clutch housing.



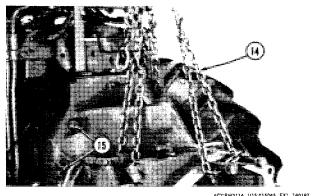
AC7;RW3112 U15;015045 DX1 140182

- 12. Remove cap screws securing steering valve bracket to clutch housing.
- 13. Remove throttle control linkage and bracket.



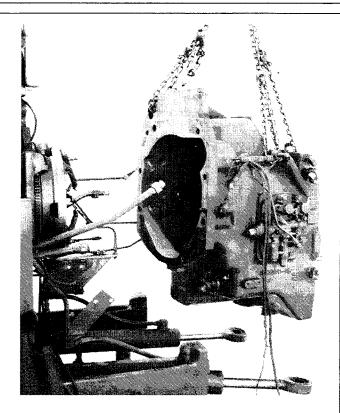
AC7;RW3113 U15;015045 EX1 140981

- 14. Attach chain and chain hoist to clutch housing.
- 15. Remove clutch housing-to-engine cap screws on right and left side.
- 16. (Not illustrated). Remove engine oil pan-to-clutch housing cap screws.



AC7;RW3114 U15;015045 FX1 140182

17. Carefully remove clutch housing from engine.



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