

**John Deere
340D and
440D Skidder
448D Grapple
Skidder Repair**



TECHNICAL MANUAL

TM-1437 (Jan-88)

LITHO IN U.S.A.

Introduction

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 diagnostics. Repair sections tell how to repair the components. Diagnostic 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.

Binders, binder labels, and tab sets can be ordered by John Deere dealers direct from the John Deere Distribution Service Center.

This manual is part of a total product 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 guides for specific machines. Technical manuals are on-the-job guides containing only the vital information needed for diagnosis, analysis, testing, and repair.

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

**Thanks very much for your reading,
Want to get more information,
Please click here, Then get the complete
manual**

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**Have any questions please write to me:
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JOHN DEERE DEALERS

IMPORTANT: Please remove this page and route through your service department.

This is a complete revision for TM-1274, 340D and 440D Skidder, 448D Grapple Skidder.

TM-1437 (Repair) and TM-1436 (Operation and Tests) replaces TM-1274.

The new pages are dated (Jan-88). Listed below is a brief explanation of "WHAT" was changed and "WHY" it was changed.

This manual was revised:

1. Repair story for seals in oscillating support.
2. New art to show correct arrangement of low and high range shifter, and reverse range shifter.
3. Engine repair story is removed. For complete repair information see the component technical manual.
4. Repair story for new park brake and installation of seals with brake on unit.
5. Main pump repair is removed. For complete repair information, see the component technical manual.
6. General updating.

T64;TM1437 DCS 220388

340D AND 440D SKIDDERS 448D GRAPPLE SKIDDER TECHNICAL MANUAL TM-1437 (JAN-88)

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Continued on next page

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INTRODUCTION

This manual is part of a total service support program.

FOS Manuals—reference

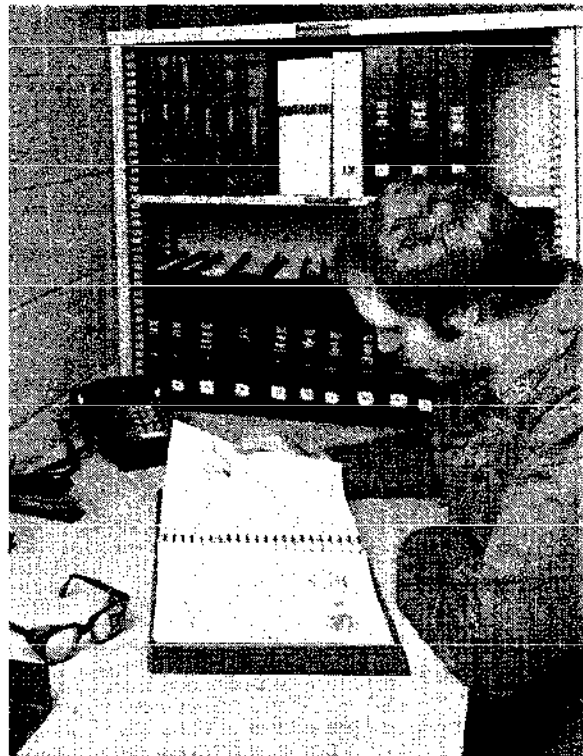
Technical Manuals—machine service

Component Manuals—component service

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AB6,RW5559 053;INTRO2 030785

FEATURES OF THIS TECHNICAL MANUAL

John Deere ILLUSTRATION 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.

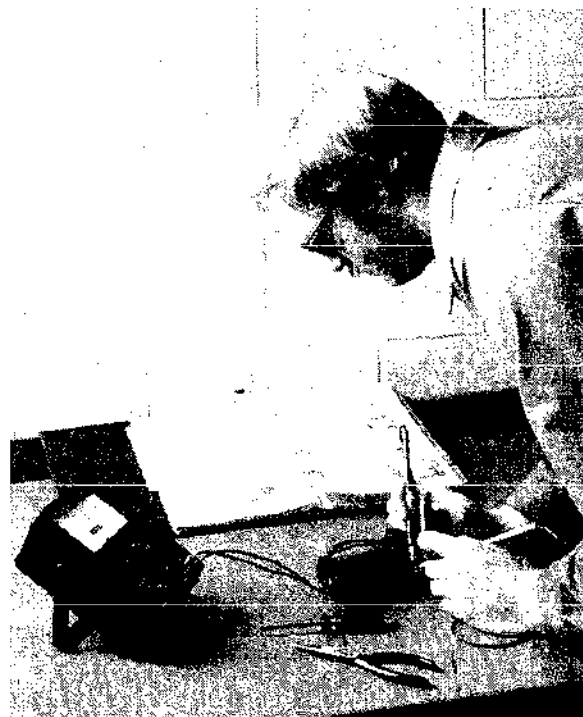
Diagnostic information presented with the most logical and easiest to isolate problems first to help you identify the majority of routine failures quickly.

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.



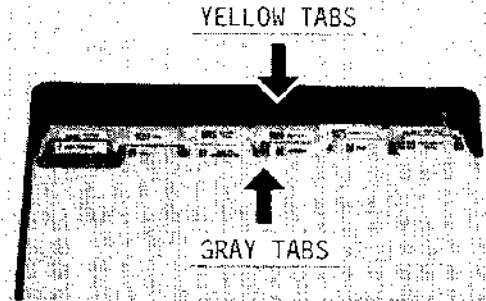
AB5,RW5560 053;INTRO3 071085

USING TABS

To fully utilize this technical manual, you must understand how it is organized.

Only two tab colors are used—gray and yellow. Each color represents a different type of information.

Spend a minute reading this now and save many minutes of searching later.



C18;T5935AB T82;FLPD I 260785

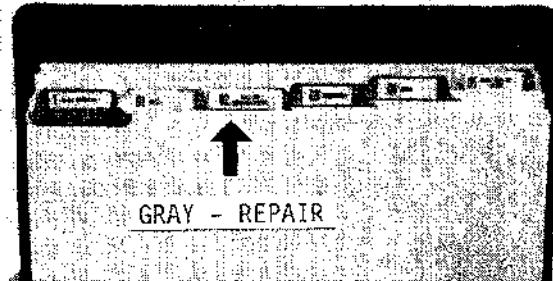
GRAY TAB SECTIONS

The gray tab sections are repair sections that tell how to repair the components of the various systems.

Repair of a component includes:

- Removal from machine (when necessary)
- Disassembly
- Inspection
- Replacement of parts
- Assembly
- Adjustment
- Installation on machine (when necessary)

The numbers used for the repair (gray tab) sections are part of an overall service publication numbering system. The numbers identify the same sections in the parts catalog, flat rate manual, service information bulletins, and service training courses.

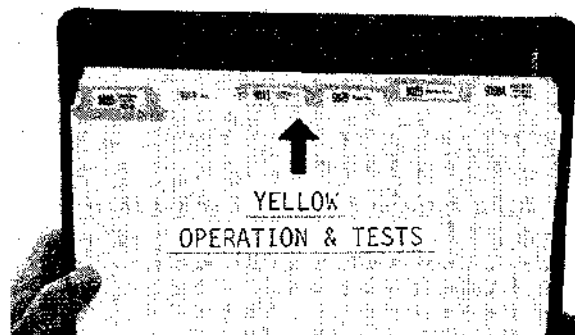


C18;T5935AC T82;FLPD J 260785

YELLOW TAB SECTIONS

Each yellow tab section contains information on:

Groups	
05	Theory of Operation
10	System Operational Checks
15	System Diagnostic Information
20	Adjustments
25	Tests



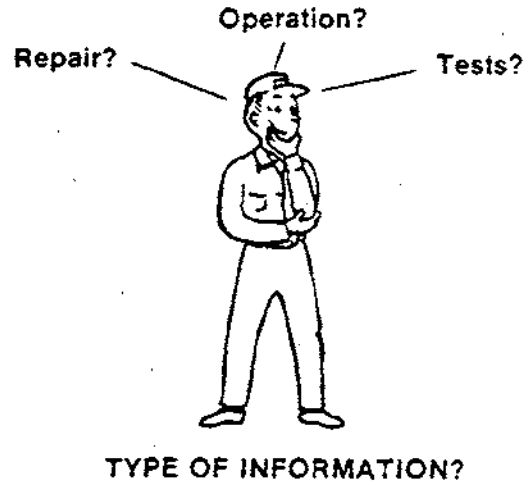
018;T5933AC T82;FLPD K 260785

THREE-STEP PROCEDURE

Use the following three-step procedure to locate the desired information.

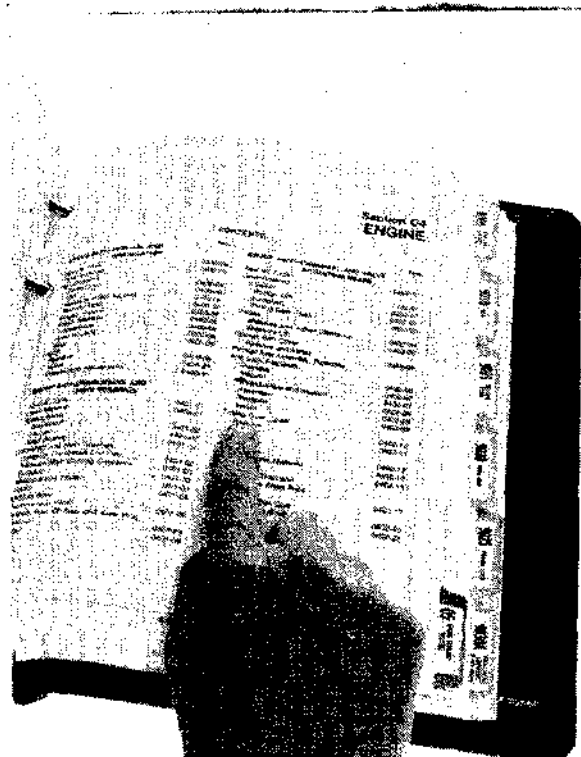
1. Determine the type of information you need. Is it repair, operation, or tests?
2. Go to the appropriate section tab:

Gray for Repair
Yellow for Operation or Tests



018;T5943AT T82;FLPD L 260785

3. Use the table of contents on the first page of the section to locate the information.

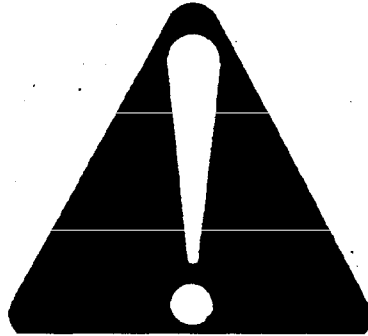


018;T5933AF T82;PD M 260785

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.



AB6;T61389 053;ALERT 160687

UNDERSTAND SIGNAL WORDS

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

Safety signs with signal word DANGER or WARNING are typically near specific hazards.

General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.



AB6;TS187 053;SIGNAL 071085

USE HANDHOLDS AND STEPS

When you get on and off machine, always maintain a three point contact with steps and handrails and face machine. Do not use any controls as handholds.

Never jump either on or off the machine. Never mount or dismount a moving machine.

Be careful of slippery conditions on platforms, steps, tracks and handrails when mounting or dismounting.



018;T6192AH 02T;05 M34 060787

Introduction and Safety

START ENGINE FROM OPERATOR'S SEAT

Avoid possible injury or death from machinery runaway.

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

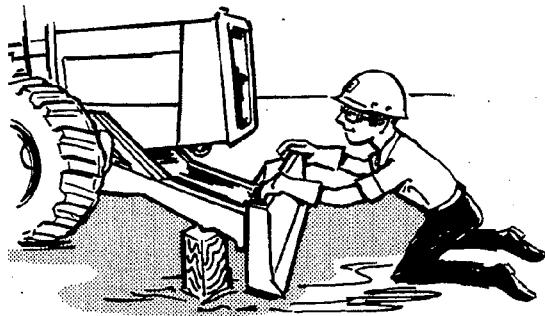
NEVER start engine while standing on ground. Start engine only from operator's seat, with transmission range lever in neutral, and park brake applied.

T82;BHSA G 190784

SUPPORT RAISED EQUIPMENT

Do not work under raised equipment unless it has a support under it.

If a support is not available, lower equipment to the ground.



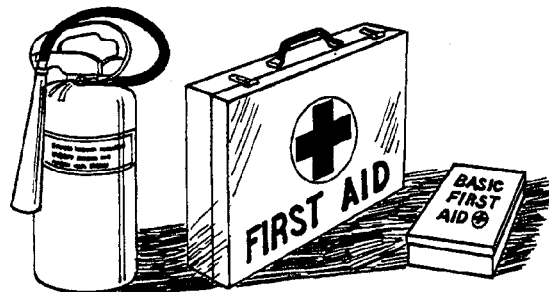
87A;T85417 T82;SKSA K 280884

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.



AB6;TS186 053;FIRE2 080785

HANDLE FUEL SAFELY—AVOID FIRES

Handle fuel with care: it is highly flammable. Do not refuel the machine while smoking or when near open flame or sparks.

Always stop engine before refueling machine. Fill fuel tank outdoors.

Prevent fires by keeping machine clean of accumulated trash, grease, and debris. Always clean up spilled fuel.



AB6;TS202 053;FIRE1 230487

HANDLE STARTING FLUID SAFELY

Starting fluid is highly flammable.

Keep all sparks and flame away when using it. Keep starting fluid away from batteries and cables.

To prevent accidental discharge when storing the pressurized can, keep the cap on the container, and store in a cool, protected location.

Do not incinerate or puncture a starting fluid container.



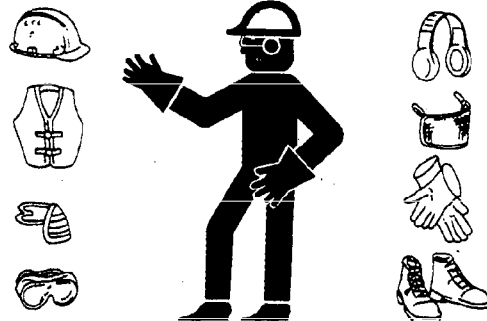
AB6;T6089A U 053;FIRE3 010288

WEAR PROTECTIVE CLOTHING

Wear close fitting clothing and safety equipment appropriate to the job.

Prolonged exposure to loud noise can cause impairment or loss of hearing.

Wear a suitable hearing protective device such as earmuffs or earplugs to protect against objectionable or uncomfortable loud noises.



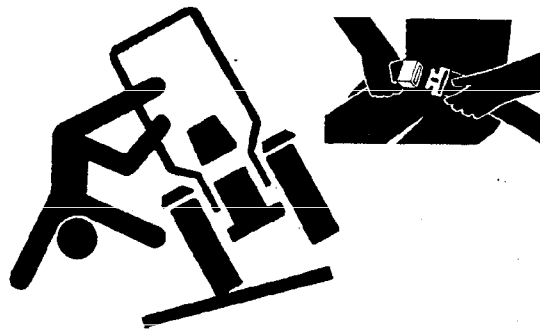
AB6;TS206 053;WEAR 230487

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.

Do not remove roll-over protective structure (ROPS).

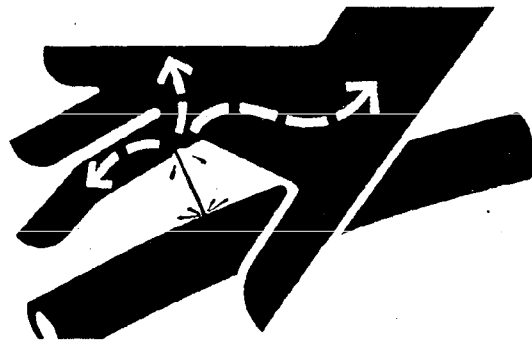


AB6;TS205 02T;05 J46 150188

AVOID HIGH-PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before unhooking hydraulic or other lines. Tighten all connections before applying pressure. Keep hands and body away from pinholes and nozzles which eject fluids under high pressure. Use a piece of cardboard to search for leaks.

If ANY fluid is injected into the skin, it must be surgically removed within a few hours by a doctor familiar with this type injury or gangrene may result.



AB6;X9811 053;F_UID 180987

UNDERSTAND CORRECT MACHINE OPERATION AND SERVICE

Only qualified people should operate and service the machine.

Learn the location and purpose of all controls, instruments, indicators, and labels.

Be sure you understand a service procedure before you work on the machine.

Unauthorized modifications to the machine may impair the function and/or safety and affect machine life.

If it is necessary to make checks with the engine running, **ALWAYS USE TWO PEOPLE** — with the operator at the controls, able to see the person doing the checking.

Be sure transmission shift lever is in neutral. Apply and lock park brake.

KEEP HANDS AWAY FROM MOVING PARTS.



8NA;T6073A0 T82:BHSA C 030485

USE A LIFTING DEVICE FOR HEAVY COMPONENTS

Lifting heavy components incorrectly can cause severe injury or machine damage.

Follow recommended procedure for removal and installation of components.

02T;05 K74 120188

REPLACE SAFETY SIGNS

**DANGER****EXPLOSIVE GASES**

Cigarettes, flames or sparks could cause battery to explode. Always shield eyes and face from battery. Do not charge or use booster cables or adjust post connections without proper instruction and training. Keep vent caps tight and level.

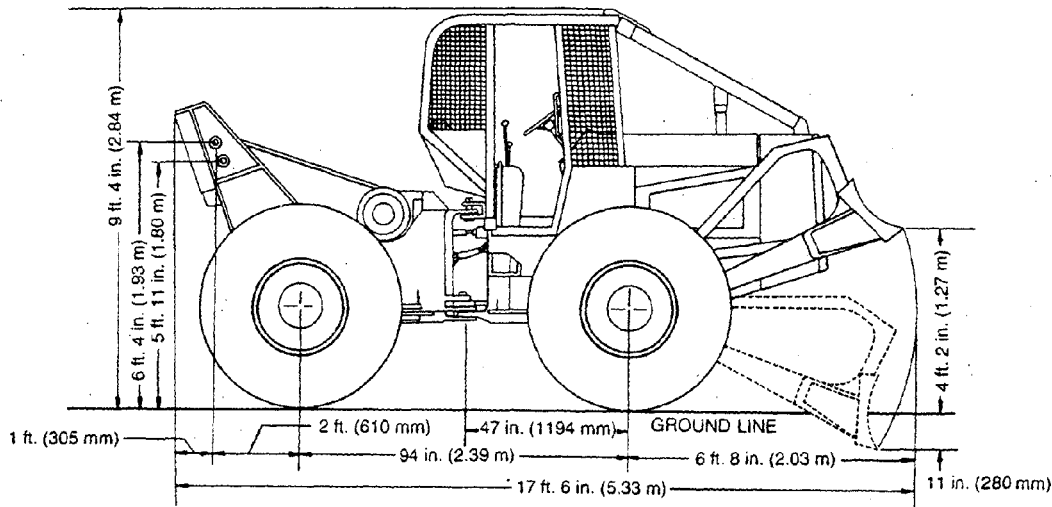
POISON**CAUSES SEVERE BURNS**

Contains sulfuric acid. Avoid contact with skin, eyes or clothing. In event of accident, flush with water and call a physician immediately. Keep out of reach of children.

Replace missing or damaged safety signs. See the machine Operator's Manual for correct safety sign placement.

018:T6656C0 02T:05 K75 120188

Group II General Specifications



340D SKIDDER

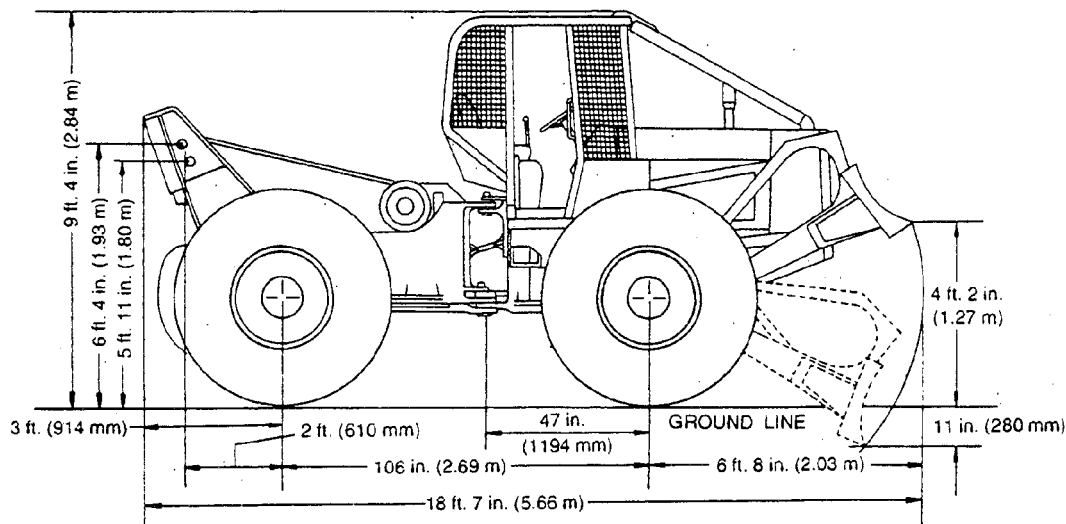
Overall Width	92.4 in. (2.35 m)
Ground Clearance (under differential case)	18 in. (457 mm)
Turning Radius	16 ft. 4 in. (4.97 m)
Turning Clearance Circle (with blade fully raised)	34 ft. 5 in. (10.49 m)
Blade:	
Width	83 in. (2.11 m)
Height (ends)	20 in. (508 mm)
Height (center)	27 in. (686 mm)
Wheel Treads:	
16.9-30 Tires	74.0 in. (1.88 m)
18.4-26 Tires	74.0 in. (1.88 m)
SAE Operating Weight w/blade	13,469 lb. (6 121 kg)

Capacities:	U.S.	Liters
Fuel Tank	24 gal. ...	91
Cooling system	8 gal. ...	30.5
Engine oil, including filter	15 qts. ...	15
Transmission-hydraulic:		
Transmission (PIN 500782 thru 506153) ...	6.4 gal. ...	24 L
Transmission (PIN 506216 and above) ...	4.5 gal. ...	17 L
System (PIN 500782 thru 506153)	10.8 gal. ...	41 L
System (PIN 506216 and above)	9 gal. ...	34 L
Front differential	9 gal. ...	34
Rear differential	4.5 gal. ...	17
Winch	7 qts. ...	6.8

Specifications and design subject to change without notice. Whenever applicable, specifications are in accordance with ICED and SAE Standards. Except where otherwise noted, these specifications are based on a unit equipped with Syncro-Range transmission, 18.4-26, 10 ply tires, and standard equipment.

87A7592DAL T82SKSP A 040388

General Specifications



440D SKIDDER

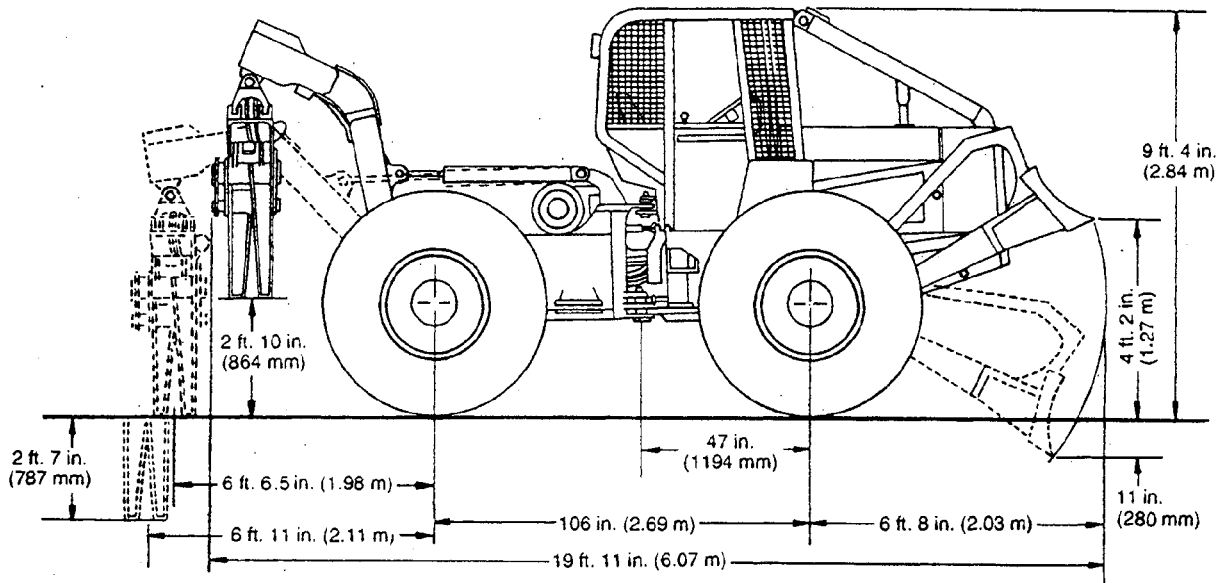
Overall Width	94 in. (2.39 m)
Ground Clearance (under differential case)	18 in. (457 mm)
Turning Radius	16 ft. 11 in. (5.16 m)
Turning Clearance Circle (with blade fully raised)	34 ft. 10 in. (10.60 m)
Blade:	
Width	83 in. (2.11 m)
Height (ends)	20 in. (508 mm)
Height (center)	27 in. (686 mm)
Wheel Treads:	
16.9-30 Tires	76.0 in. (1.93 m)
18.4-26 Tires	76.0 in. (1.93 m)
18.4-34 Tires	76.5 in. (1.94 m)
23.1-26 Tires	82.0 in. (2.08 m)
28.1-26 Tires	85.4 in. (2.17 m)
68/34-26 Tires	85.4 in. (2.17 m)
SAE Operating Weight	15,090 lb (6845 kg)
with blade	
without blade	14,250 lb (6464 kg)

Capacities:	U.S.	Liters
Fuel tank	41 gal.	155.8
Cooling system	8 gal.	30.3
Engine oil, including filter	15 qt.	14.2
Transmission-hydraulic:		
Transmission (PIN 500782 thru 506153)	6.4 gal.	24 L
Transmission (PIN 506216 and above)	4.5 gal.	17 L
System (PIN 500782 thru 506153)	10.8 gal.	41 L
System (PIN 506216 and above)	9 gal.	34 L
Front differential	9 gal.	34.1
Rear differential	4.5 gal.	17.0
Winch	7 qt.	6.8

Specifications and design subject to change without notice. Wherever applicable, specifications are in accordance with ICED and SAE Standards. Except where otherwise noted, these specifications are based on a unit equipped with Syncro-Range transmission, 18.4-26, 10-ply tires and standard equipment.

87A;T5910AM T82;SKSP S 030388

General Specifications



448D GRAPPLE SKIDDER

Overall Width	94 in. (2.39 m)
Ground Clearance (under differential case)	18 in. (457 mm)
Turning Radius	17 ft. 5 in. (5.31 m)
Turning Clearance Circle (with blade fully raised)	34 ft. 10 in. (10.60 m)
Maximum Grapple Opening	75 in. (1.91 m)
Blade:	
Width	83 in. (2.11 m)
Height (ends)	20 in. (508 mm)
Height (center)	27 in. (686 mm)
Wheel Treads:	
16.9-30 Tires	76.0 in. (1.93 m)
18.4-26 Tires	76.0 in. (1.93 m)
18.4-34 Tires	76.5 in. (1.94 m)
23.1-26 Tires	82.0 in. (2.08 m)
28.1-26 Tires	85.4 in. (2.17 m)
68/34-26 Tires	85.4 in. (2.17 m)
SAE Operating Weight	16,886 lb. (7659 kg)

Capacities:	U.S.	Liters
Fuel tank	41 gal.	155.8
Cooling system	8 gal.	30.3
Engine oil, including filter	15 qt.	14.2
Transmission-hydraulic:		
Transmission (PIN 500782 thru 506153)	6.4 gal.	24 L
Transmission (PIN 506216 and above)	4.5 gal.	17 L
System (PIN 500782 thru 506153)	17.8 gal.	67 L
System (PIN 506216 and above)	16 gal.	60 L
Front differential	9 gal.	34.1
Rear differential	9 gal.	34.1
Winch	7 qt.	6.8

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87A/T5910AN T82/SKSP C 030388