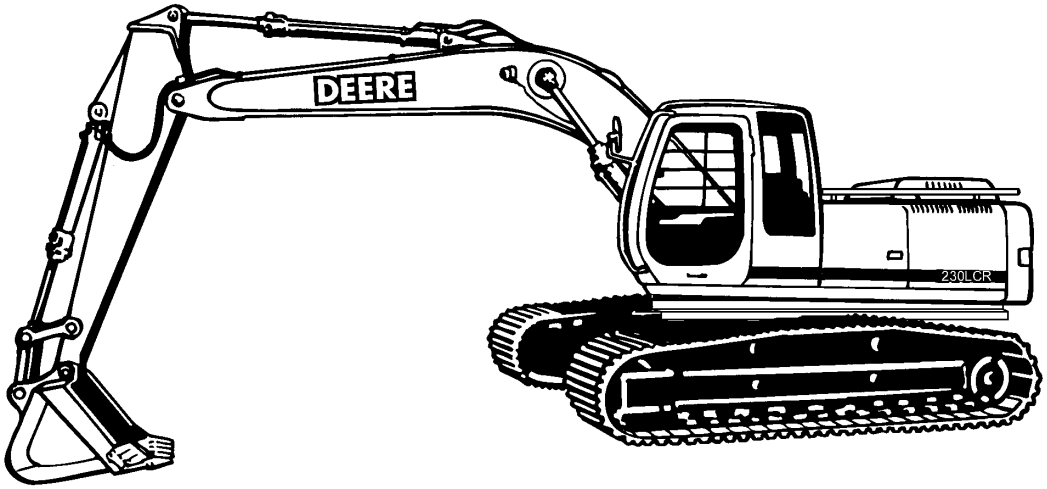
TECHNICAL MANUAL

OPERATOR'S MANUAL

HYDRAULIC EXCAVATOR
JOHN DEERE
MODEL 230LCR
NSN 3805-01-463-0804

AND

MODEL 230LCRD WITH ROCK DRILL
NSN 3805-01-463-0806



HEADQUARTERS, DEPARTMENT OF THE ARMY

15 FEBRUARY 2000

TM 5-3805-280-10

Technical Manual
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HEADQUARTERS,
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Washington, DC, *15 February 2000*

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HYDRAULIC EXCAVATOR
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REPORTING ERRORS AND RECOMMENDING IMPROVEMENTS

You can help improve this publication. If you find any mistakes or if you know of a way to improve the procedures, please let us know. Submit your DA Form 2028-2 (Recommended Changes to Equipment Technical Publications), through the Internet, on the Army Electronic Product Support (AEPS) website. The Internet address is http://aeps.ria.army.mil. If you need a password, scroll down and click on "ACCESS REQUEST FORM". The DA Form 2028 is located in the ONLINE FORMS PROCESSING section of the AEPS. Fill out the form and click on SUBMIT. Using this form on the AEPS will enable us to respond quicker to your comments and better manage the DA Form 2028 program. You may also mail, fax or email your letter, DA Form 2028, or DA Form 2028-2 direct to: Commander, U.S. Army Tank-automotive and Armaments Command, ATTN: AMSTA-LC-CI, Rock Island, IL 61299-7630. The email address is AMSTA-LC-CI@ria.army.mil. The fax number is DSN 793-0726 or Commercial (309) 782-0726.

NOTE

As this operator manual is a commercial product supplemented to include Army specific procedures, the manual may advise the operator to perform tasks that would normally not be assigned to the operator level in a DATM. Always follow the limits established in the PMCS. Also, references are made throughout the manual to see your authorized dealer or John Deere dealer for repair or information. In those instances, notify your supervisor or next higher maintenance level.

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WARRANTY

1. **General.** This section explains the contractor's warranty for the Hydraulic Excavator (HYEX), including all of its components and subassemblies. It also contains information, instructions, methods and forms required to obtain services and/or supplies and for processing claims for items covered under warranty for the HYEX. If additional warranty information is required for the HYEX, contact your local Warranty Control Office/Officer (WARCO) or TACOM-WRN Logistics Assistance Representative (LAR). If your WARCO or TACOM LAR is not available, contact TACOM-WRN. The numbers at TACOM to call are DSN 786-7215/(810) 574-7215, DSN 786-7420/(810) 574-7420, or DSN 786-8297/(810) 574-8297. The caller should be prepared to provide: (1) name, (2) telephone number and/or electronic address, (3) complete unit designation, (4) identification of the vehicle to include serial number(s) and (5) a brief description of the problem.

2. **Coverage Specific.** The information and data contained in this Technical Manual applies to the U.S. Army's Hydraulic Excavator (HYEX), model number 230LCR, NSN 3805-01-463-0804 and model number 230LCRD, NSN 3805-01-463-0806. The HYEX is manufactured by Deere & Company, Moline, IL under contract number DAAE07-98-D-S009.

3. **Claim Procedures.** DA Form 2407, along with information and instructions provided by the contractor at time of delivery of the HYEX, shall be used to process warranty claims.

4. **Claim Denial/Disputes.** All denials or disputes will be handled by TACOM. The contact point for warranty claim denials or disputes is:

   Commander
   U.S. Army Tank-Automotive and Armaments Command
   ATTN: AMSTA-LC-CJBB
   Warren, MI 48397-5000

   Telephone: DSN 786-5314
   Commercial: (810) 574-5314

5. **Local WARCO.** Upon completion of warranty actions by the contractor, the WARCO shall complete and provide a copy of DA Form 2407 to TACOM for information and warranty tracking purposes only. **NOTE**: The DA Form 2407 shall be stamped or otherwise clearly marked **"FOR INFORMATION ONLY"**. Send the completed DA Form 2407 to:

   Commander
   U.S. Army Tank-Automotive and Armaments Command
   ATTN: AMSTA-LC-CJCB
   Warren, MI 48397-5000

   Telephone: DSN 786-7215
   Commercial: (810) 574-7215

   Forms may also be faxed to TACOM. Fax the forms to: DSN 786-5605, Commercial - (810) 574-5605. Include ATTN: AMSTA-LC-CJCB on all related materials being faxed to TACOM.

INTRODUCTION

READ THIS MANUAL carefully to learn how to operate and service your machine correctly. Failure to do so could result in personal injury or equipment damage. This manual and safety signs on your machine may also be available in other languages. (See your John Deere dealer to order.)

THIS MANUAL SHOULD BE CONSIDERED a permanent part of your machine and should remain with the machine when you sell it.

MEASUREMENTS in this manual are given in both metric and customary U.S. unit equivalents. Use only correct replacement parts and fasteners. Metric and inch fasteners may require a specific metric or inch wrench.

RIGHT-HAND AND LEFT-HAND sides are determined by facing in the direction of forward travel.

GROUP NUMBERS (e.g., GRP NO. XXXX) following maintenance task titles in the Table of Contents refer to the John Deere Functional Group Coding system.

WARRANTY is provided as part of John Deere's support program for customers who operate and maintain their equipment as described in this manual. The warranty is explained on the warranty certificate, which you should have received from your dealer.

This warranty provides you the assurance that John Deere will back its products where defects appear within the warranty period. In some circumstances, John Deere also provides field improvements, often without charge to the customer, even if the product is out of warranty. Should the equipment be abused, or modified to change its performance beyond the original factory specifications, the warranty will become void and field improvements may be denied. Setting fuel delivery above specifications or otherwise overpowering machines will result in such action.

CALIFORNIA PROPOSITION 65 WARNING

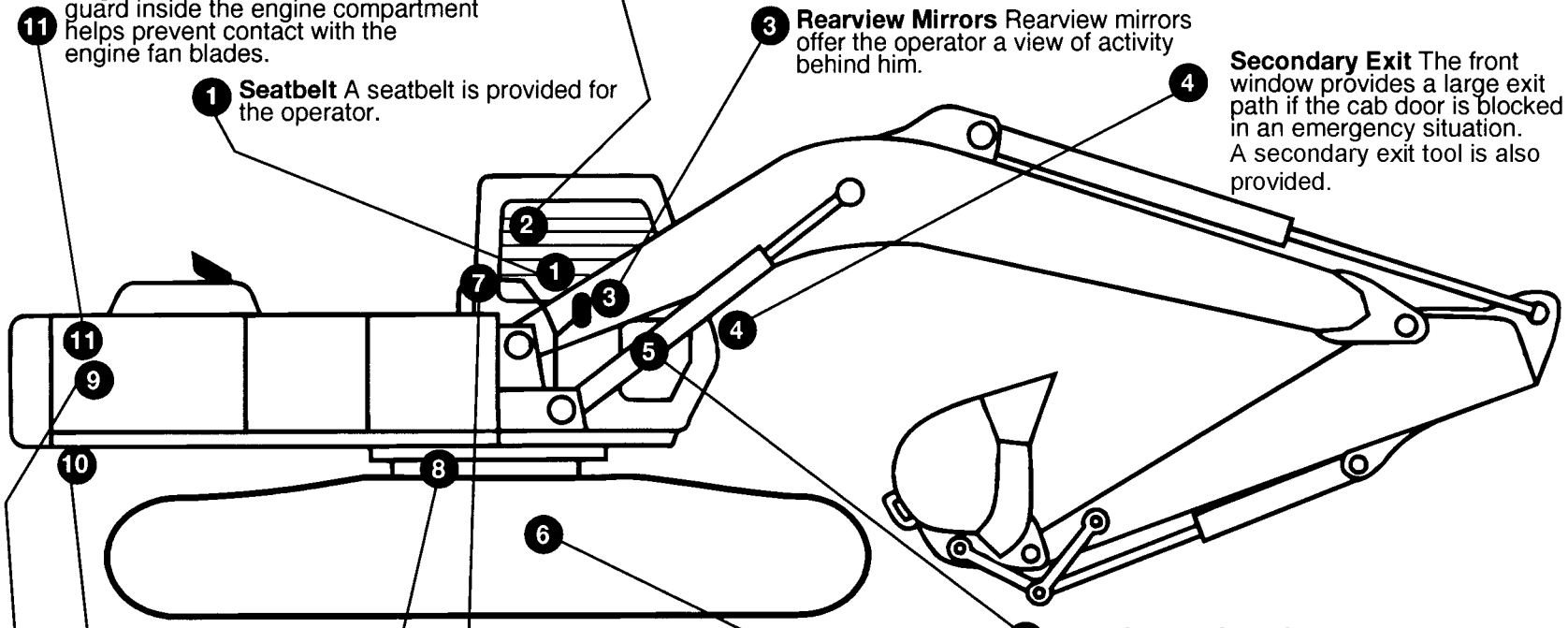
Diesel engine exhaust and some of its constituents are known to the State of California to cause cancer, birth defects and other reproductive harm.

CHAPTER 1

SAFETY AND SAFETY SIGNS

John Deere Excavator Safety Features

Please remember the **operator** is the key to preventing accidents.



1 Seatbelt A seatbelt is provided for the operator.

2 Window Guarding Window bars prevent contact with a moving boom.

3 Rearview Mirrors Rearview mirrors offer the operator a view of activity behind him.

4 Secondary Exit The front window provides a large exit path if the cab door is blocked in an emergency situation. A secondary exit tool is also provided.

5 Pilot Control Shut-Off A lever near the cab exit reminds the operator to deactivate hydraulic functions before leaving the machine.

6 Steps Wide slip resistant steps make entry and exit easier - also provides a place to clean shoes.

7 Handholds Large conveniently placed handholds make it easy to enter or exit the operator's station or service area.

8 Swing Brake Swing brake engages automatically when engine is stopped - helps secure upperstructure when transporting the machine.

9 Bypass Start Protection Shielding over the starter helps prevent dangerous bypass starting.

10 Travel Alarm Alerts bystanders of machine movement when propeling.

11 Engine Fan Guard A secondary fan guard inside the engine compartment helps prevent contact with the engine fan blades.

TX,05,DH5854 –19–15AUG97–1/1

T111123 –19–14AUG97

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.

T81389 –UN–07DEC88

DX,ALERT –19–03MAR93–1/1

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.

TS187 –19–30SEP88

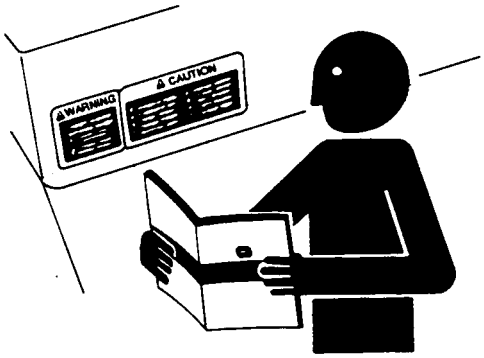
DX,SIGNAL –19–03MAR93–1/1

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.

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.



TS201 –UN–23AUG88

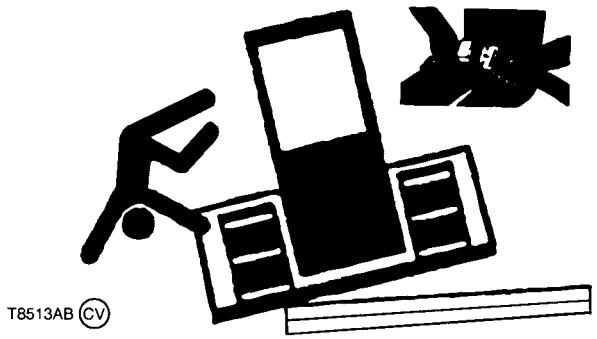
TX,05,DY336 –19–15MAY96–1/1

AVOID INJURY FROM:
LOADING MACHINE ON A TRAILER,
FASTENING MACHINE TO TRAILER,
UNLOADING MACHINE FROM TRAILER

ALWAYS USE CAUTION WHEN LOADING AND UNLOADING MACHINES ON A TRAILER

ALWAYS KNOW AND FOLLOW THE RECOMMENDED PROCEDURES FOR THE MACHINE, BECAUSE ALL MACHINES ARE NOT LOADED, FASTENED, AND UNLOADED THE SAME WAY

ALWAYS KEEP BYSTANDERS CLEAR OF THE AREA



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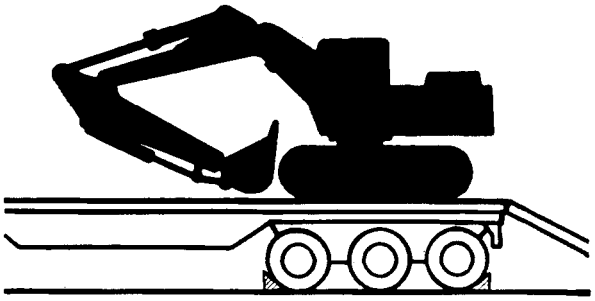


T7405BJ –UN–29NOV90

To avoid injury:

Keep the trailer bed clean.

Park the trailer on a firm, hard, level surface that will not give way when the weight of the machine is on the trailer.

Put chock blocks against truck wheels.

Use a ramp or loading dock. Ramps must be strong enough to adequately handle the load and have a low angle and correct height.

If machine is equipped with a seatbelt, fasten it before starting the engine.

Drive machine on or off the ramp slowly.

fasten chains or cables to machine tracks or track chain links. Do not place chains or cable over or against hydraulic lines or hoses.

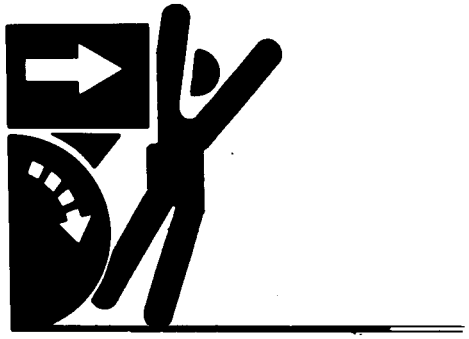
TX,05,FF1808 –19–28JUN90–1/1

AVOID INJURY FROM BACKOVER ACCIDENTS

BEFORE MOVING MACHINE, BE SURE ALL PERSONS ARE CLEAR OF AREA

ALWAYS BE ALERT FOR BYSTANDERS MOVING INTO THE WORK AREA. USE HORN OR OTHER SIGNAL TO WARN BYSTANDERS BEFORE MOVING MACHINE

WHEN USING A SIGNAL PERSON, KEEP PERSON IN VIEW AT ALL TIMES, BE SURE SIGNAL PERSON IS CLEAR BEFORE BACKING UP



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To avoid backover accidents:

Always look around before you back up. Be sure that everyone is in the clear.

Keep travel alarm in working condition.

Use a signal person when backing up if view is obstructed. Always keep signal person in view.

Learn the meaning of all flags, signs, and markings used on the job and who has the responsibility for signaling.

Keep windows, mirrors, and lights clean and in good condition.

Dust, heavy rain, fog, etc., can reduce visibility. As visibility decreases, reduce speed and use proper lighting.

Read and understand the operating instructions in this operator's manual.

TX,05,DY337 –19–15MAY96–1/1