

**550A  
Crawler Bulldozer  
555A  
Crawler Loader**

# 550A CRAWLER BULLDOZER AND 555A CRAWLER LOADER TECHNICAL MANUAL TM-1292 (NOV-86)

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## INTRODUCTION

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 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.



63A/T85956, T28:1 II01 150383

## FEATURES OF THIS TECHNICAL MANUAL

- John Deere ILLUSTRATION format emphasizing detailed pictures and fewer words in easy-to-use modules.
- Removal and installation groups preceding some repair groups.
- A section of system diagnostic testing.
- Table of contents of all sections at the front of the manual and a listing of all groups and headings at the front of each section.
- Special tools and specifications listed at the front of each group they are used in.
- Special tools illustrated in numerical order at end of manual.
- Alphabetical listing of all major components, specifications, and special tools.
- Safety rules, general specifications, and lubrication specifications.

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.

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



63A/T85959 T28:1 II15 150383

## SAFETY AND YOU



**CAUTION:** This safety symbol is used for important safety messages. When you see this symbol, follow the safety message to avoid personal injury.



83A/T81389 T28: I102 150383

## AVOID FIRE HAZARDS

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

Do not smoke while refueling or handling highly flammable material.

Shut off the engine when refueling.

Use care in refueling if the engine is hot.

Do not use open pans of gasoline or diesel fuel for cleaning parts. Use good commercial, nonflammable solvents.

Provide adequate ventilation when charging batteries.

Do not check battery charge by placing metal objects across the posts.

Do not allow sparks or open flame near batteries.

Do not smoke near battery.

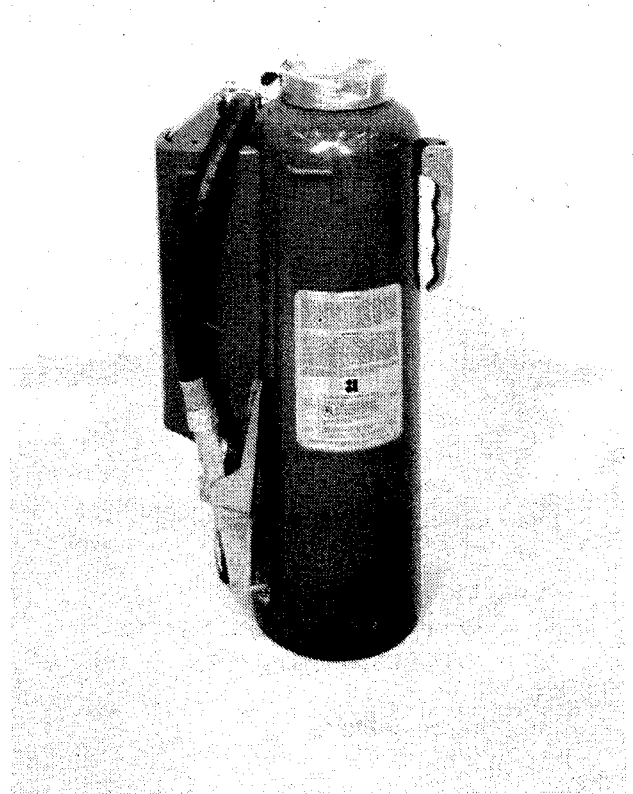
Never check fuel, battery electrolyte, or coolant levels with an open flame.

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

Never use an open flame as 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.

Inspect electrical wiring for worn or frayed insulation. Install new wiring if wires are damaged.



88A/T86875 T82:SKSA L 150383

## PREVENT FIRES BEFORE STARTING ENGINE

If machine is equipped with a fire extinguisher, check for correct charge.

Open both side shields and grille and remove trash.

Remove trash from other bottom guards, drive lines, batteries, hydraulic lines, fuel tank and operator's station.

Check for leaking fuel lines, hydraulic lines, hoses, or fittings with a piece of cardboard or wood. Do not use your hands. Tighten loose fittings. If lines are bent or hoses kinked, install new parts.

T82:CRSA A 080483

## PREVENT FIRES AFTER STOPPING ENGINE

Temperature in engine compartment may go up immediately after you stop the engine. **BE ON GUARD FOR FIRES.**

Before you clean trash from the engine compartment, wait until the engine has cooled. Open side shields to cool the engine faster. While the engine cools, clean trash from other areas.

T82:SKSA B 061282

## HANDLE STARTING FLUID SAFELY

If your machine is equipped with a starting fluid starting aid, remember starting fluid is highly flammable. **DO NOT** incinerate or puncture a starting fluid container. **DO NOT** store a starting fluid container in a high-temperature area.



88A:T90207 T82:CRSA G 210283

## UNDERSTAND MACHINE OPERATION

Only qualified people should operate the machine.

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



88A:T90203 T82:CRSA B 210283

## WEAR PROTECTIVE CLOTHING

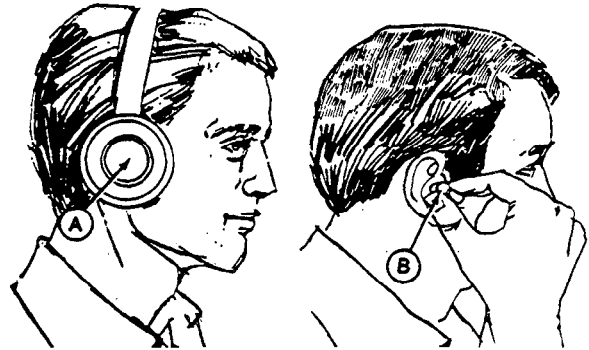
Wear fairly tight clothing . . . and safety equipment.



88A:T85056 T82:EXSA B 100183

## PROTECT AGAINST NOISE

Prolonged exposure to loud noise can cause impairment or loss of hearing. Wear a suitable hearing protective device such as earmuffs (A) or earplugs (B) to protect against objectionable or uncomfortable loud noise.

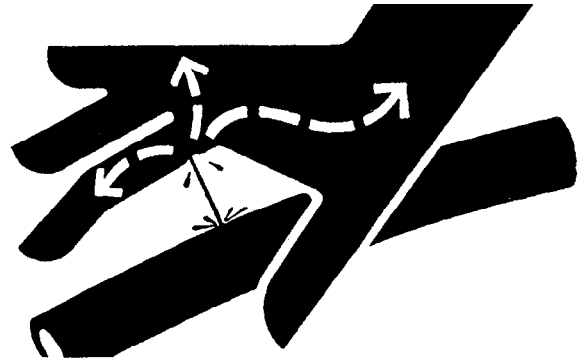


88A:X7662 T82:BHSA E 100183

## AVOID HIGH-PRESSURE FLUIDS

Escaping fluid under pressure can penetrate the skin causing serious injury. Relieve pressure before disconnecting 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 or paper to search for leaks. Do not use your hand.

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.



88A:X9811 T82:BHSA F 100183

## START ENGINE FROM OPERATOR'S SEAT ONLY

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 in neutral, neutral-lock lever in LOCK position and brake lock lever engaged.

T82:CRSA AD 260483

### USE HAND HOLDS AND STEPS

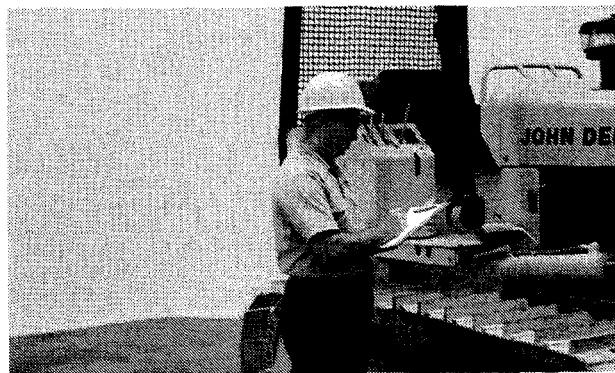
When you get on and off the machine, use handholds and steps.



88A;T90204 T82;CRSA C 210283

### INSPECT MACHINE

Inspect your machine carefully each day before you start it. See "Pre-Start Inspection".

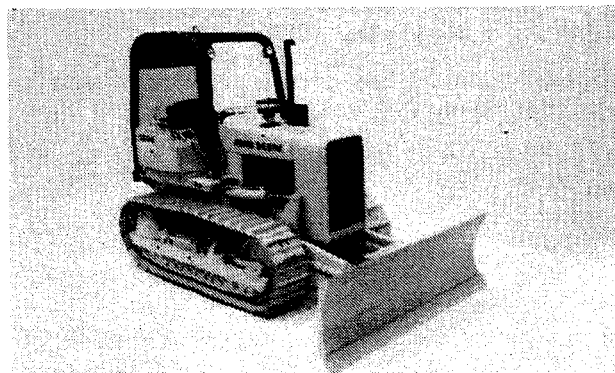


88A;T90205 T82;CRSA D 210283

### PARK SAFELY

Be sure equipment is on the ground or locked in position.  
Before leaving operator's seat be sure machine will not move.

Remove keys from switches and locks.



88A;T90987 T82;CRSA N 210283

Before you move any equipment, be sure all persons are away from the machine.

When the machine is operating, ONLY the operator should be on it.

Keep operating area level.

T82;CRSA F 210283



## TRACK SPECIFICATIONS

Distance across four links (new chain) .....	640.1 mm (25.2 in.)	Single grouser bar height (new shoe) .....	48.0 mm (1.89 in.)
100% wear limit .....	652.8 mm (25.7 in.)	100% wear limit .....	20.0 mm (0.79 in.)
Link height (new chain) .....	90 mm (3.54 in.)	Semi-grouser bar height (new shoe) .....	21.1 mm (0.83 in.)
100% wear limit .....	82.8 mm (3.26 in.)	100% wear limit .....	12.0 mm (0.47 in.)
Bushing O.D. (new bushing) .....	51 mm (2.01 in.)	Upper track carrier roller OD (new) .....	152.4 mm (6.0 in.)
100% wear limit (normal loading) .....	46 mm (1.81 in.)	100 % wear limit .....	139.7 mm (5.50 in.)
100% wear limit (high shock loading) ..	48 mm (1.89 in.)	Track roller OD (new) .....	182.6 mm (7.19 in.)
Bushing stickout .....	7.44 mm (0.298 in.)	100% wear limit .....	168.2 mm (6.62 in.)
		Front idler flange height (new) .....	19.3 mm (0.76 in.)
		100% wear limit .....	24.4 mm (0.96 in.)

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## REMOVE TRACK CHAIN

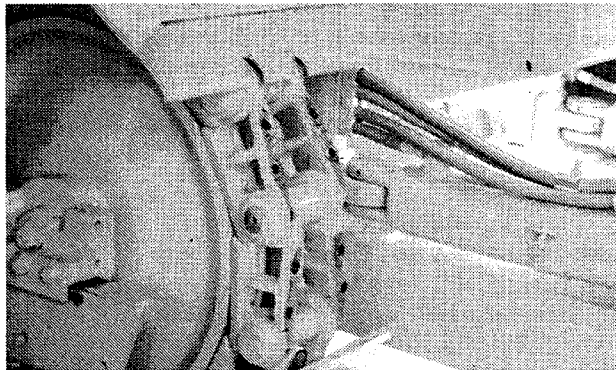
1. Rotate track to position the master pin on the front idler as shown.

*NOTE: Master pin is identified by drill point in end of pin.*



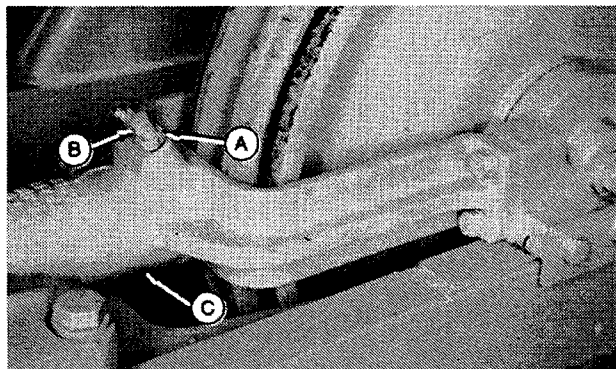
**CAUTION: Make sure track clears floor before rotating.**

2. Remove two track shoes; one on each side of master pin.



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3. Release track tension by loosening nut (A) and turn set screw (B) out of the track adjusting cylinder (C) approximately three turns.

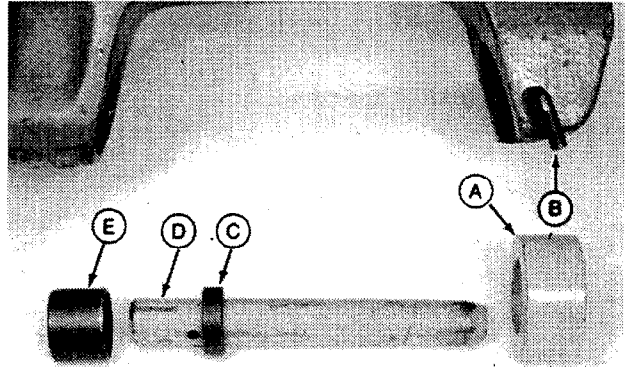


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**IMPORTANT:** Do not remove the track master pin with a hammer. This will enlarge the link pin bore requiring installation of a new track link.

4. Remove master pin from track link using D-01030AA Master Pin Pusher. Install aligning adapter (A) into master pin pusher C-frame securing with holding screw (B). Put aligning bushings (C) over forcing pin (D) and install adapter (E) in C-frame.

A—Aligning Adapter    C—Aligning Bushing    E—Pin Adapter  
B—Holding Screw    D—Forcing Pin



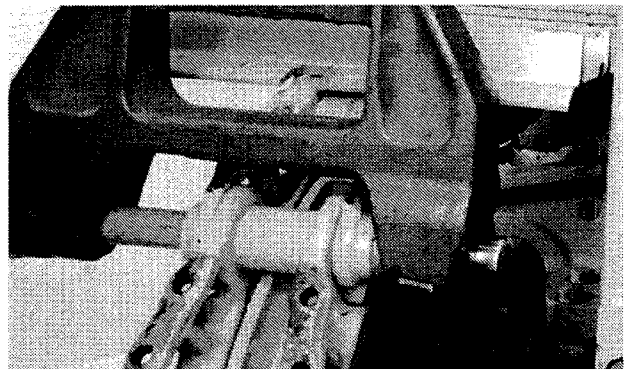
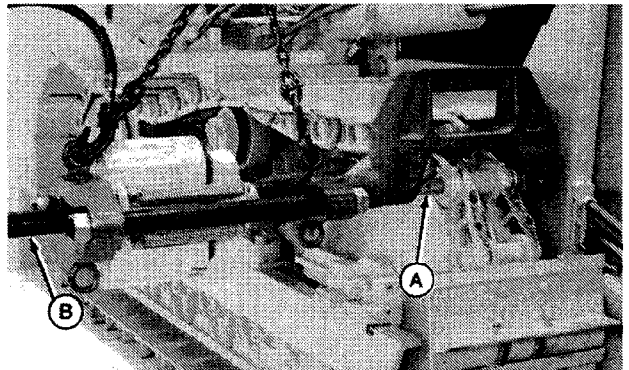
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5. Position master pin pusher and forcing pin in alignment with master pin using load positioning sling and hoist.

6. Turn ram adjusting screw (B) clockwise with crank until forcing pin (A) contacts master pin.

7. Connect hand pump to pin pusher. Activate pump to remove master pin.

8. Remove forcing pin to separate track.

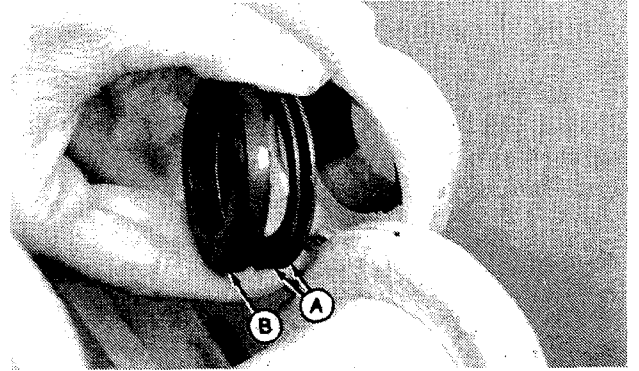


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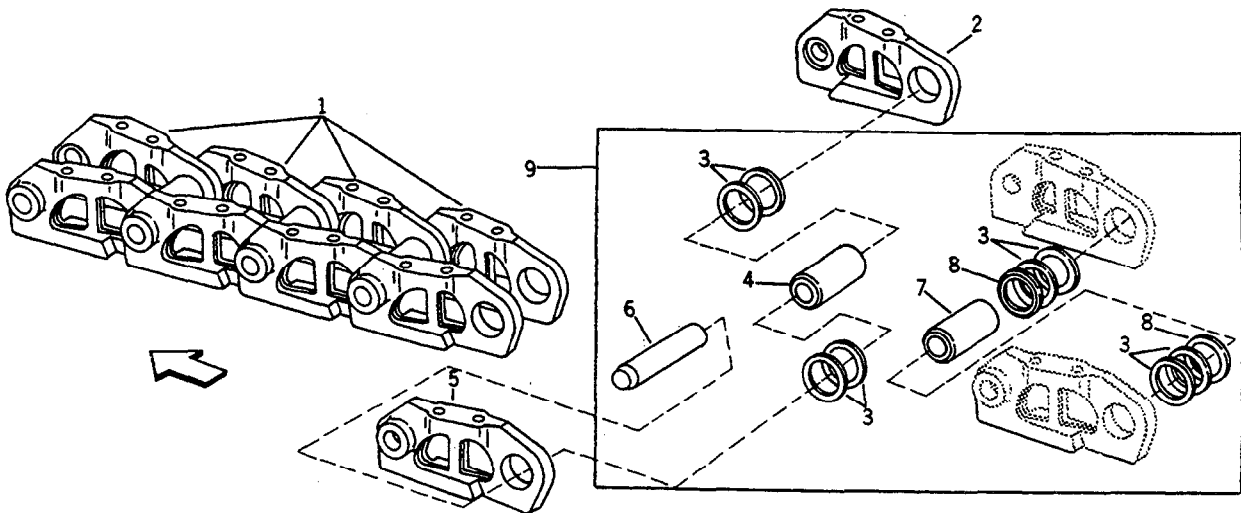
9. Pull track chain apart. Remove spacers (B) and seals (A) from between left and right track links.

10. Lift side of machine or operate crawler and rotate track in the reverse direction. Slowly, unwrap track off drive sprocket.

11. Place a jack under both crossbars and raise crawler to provide clearance. Block crawler up securely.



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T59376F

1—Track Chain  
2—Right Track Link  
3—Belleville Seals

4—Bushing  
5—Left Track Link

6—Pin, Standard  
Pin, Master  
(Drill Point On End)

7—Master Bushing  
8—Spacer (Master Bushing)  
9—Pin and Bushing Repair Kit

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## DISASSEMBLE TRACK CHAIN



**CAUTION:** Always wear safety glasses when operating press. Parts may break or chip, causing eye injuries.

1. Remove track shoes from chain.
2. Install 40989 Saddle from 26815 Track Disassembly and Assembly Tooling Kit in track press frame and secure with cap screws.

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