350C, 350D Crawler Bulldozer 350C, 355D Crawler Loader

JOHN DEERE

TECHNICAL MANUAL

350C, 350D Crawler Bulldozer 350C, 355D Crawler Loader

TM1115 (01NOV86) English

John Deere Dubuque Works
TM1115 (01NOV86)

LITHO IN U.S.A.
ENGLISH

350C AND 350D CRAWLER BULLDOZERS
350C AND 355D CRAWLER LOADERS
TECHNICAL MANUAL
TM-1115 (NOV-86)

SECTION AND GROUP CONTENTS

All information, illustrations and specifications contained in this technical manual are based on the latest information available at the time of publication. The right is reserved to make changes at any time without notice. Whenever applicable, specifications and design information are in accordance with SAE and ICED standards.

T64;1115 K13 131086

Litho in U.S.A.

SECTION AND GROUP CONTENTS—CONTINUED

T64;1115 K14 100986

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 053;INTR02 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.

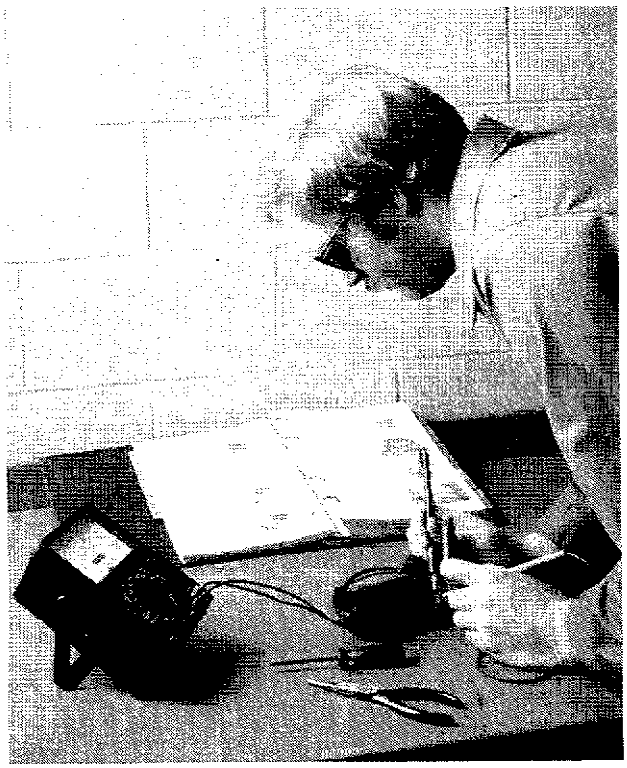
Diagnostic information presented with the most logical and easiest to isolate problems first to help you identify the majority of routine failures quickly.

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

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.

AB6;T81389 053;ALERT 071085

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.

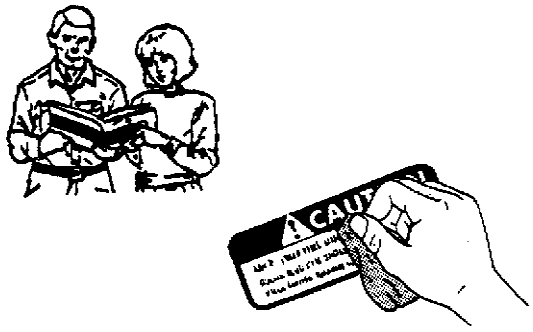
General precautions are listed on CAUTION safety signs. CAUTION also calls attention to safety messages in this manual.

AB6;TS187 053;SIGNAL 071085

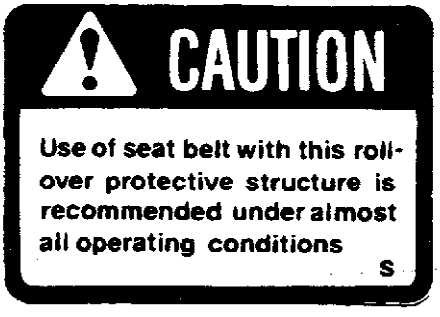
FOLLOW SAFETY INSTRUCTIONS

Carefully read all safety messages in this manual and on your machine safety signs. Follow recommended precautions and safe operating practices.

Keep safety signs in good condition. Replace missing or damaged safety signs.



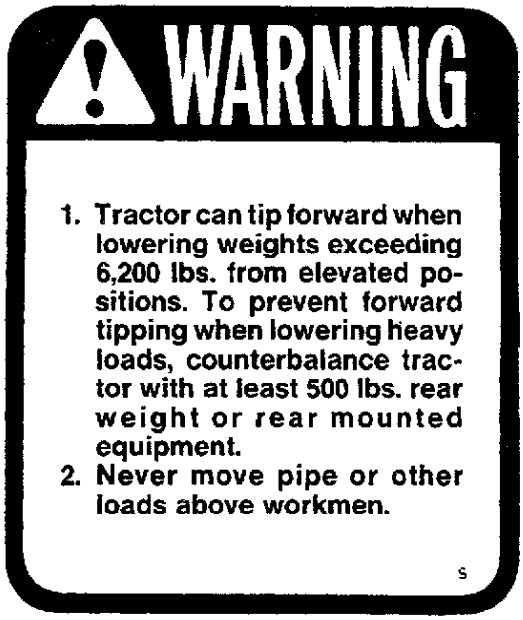
AB6;TS188 053;SIGNS 071085



On right front ROPS post near the top, facing the operator.

018;T6001BE T82;05 M1 120186

14T;000II 02 080986



355D—On support casting at right of instrument panel.

018;T6192AJ T82;05 M2 191285

350D—On slope of battery box cover, between latch and lock slot.

355D—On support casting at right of instrument panel.

018;T6192AK T82;05 M3 191285

14T;0001I 03 080986

⚠ WARNING

AVOID POSSIBLE INJURY OR DEATH FROM A MACHINE RUNAWAY.

1. Do not start engine by shorting across starter terminals. Machine will start in gear and move if normal starting circuitry is bypassed.
2. Start engine only from operator's seat with transmission in neutral or park. NEVER start engine while standing on ground.

S

350D—On right side of cowl support next to left edge of engine side shield.

355D—In right side of engine compartment on front of loader frame plate.

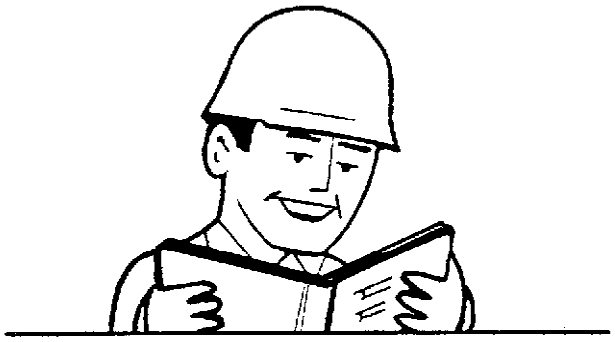
018;T6084AZ T82;05 M4 140186

LEARN MACHINE SAFETY

Carefully read this manual. Learn how to operate the machine and how to use the controls properly.

Do not let anyone operate this machine without proper instruction.

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



AB6;M35220 053;READ1 080785

USE HANDHOLDS AND STEPS

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

018;T6192AH T82;BHSA CM 010686

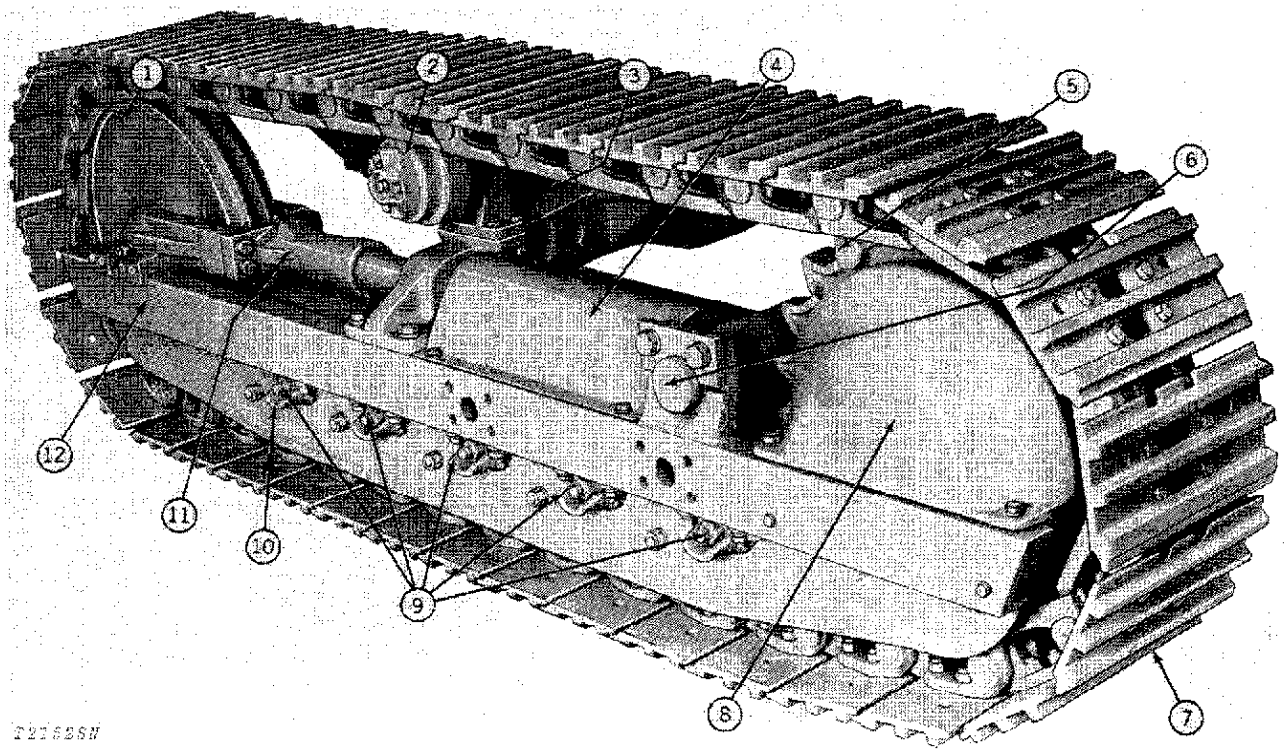
Section 1
TRACKS

CONTENTS OF THIS SECTION

Litho in U.S.A.

Group 0130
TRACK SYSTEMS

GENERAL INFORMATION



1—Track Idler
2—Track Carrier Roller
3—Front Crossbar
4—Track Idler Spring
5—Track Drive Sprocket
6—Rear Crossbar
7—Track
8—Sprocket Shield
9—Track Rollers
10—Rock Guard
11—Track Adjuster
12—Track Frame

Fig. 1-Track System

The track system for the JD350-C Crawler consists of two tracks mounted on track frame assemblies, piloted by and connected to two fixed crossbars (Fig. 1). The track frame assemblies are fastened to the crossbars to give a fixed gauge setting of 48 inches (1.2 m). The track frame has five track roller assemblies.

A special wide tread track is available for snow operation on crawlers without loaders. Track gauge is fixed at 68 inches (1.7 m).

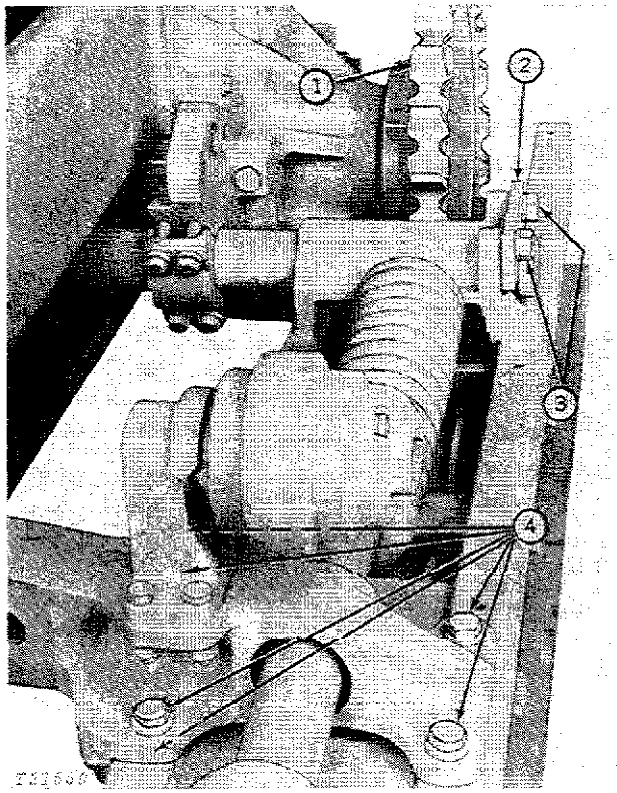
Each track frame assembly consists of a fixed single unit of welded steel frame which supports the roller assemblies and the front idler wheel with its adjusting mechanism. The assembly is clamped to the fixed crossbars which support the weight of the tractor.

Litho in U.S.A.

TRACK FRAMES AND UNDERCARRIAGES

TRACK FRAME ASSEMBLY

Removal



1—Drive Sprocket
2—Retainer
3—Rear Attaching Points Cap Screws
4—Front Attaching Points Cap Screws

Fig. 2-Removing Track Frame

Remove track as directed on page 0130-15.

Slip entire idler assembly off front end of track carrier frame.

Remove sprocket shield or sprocket weight.

Remove sprocket (1, Fig. 2) from flanged axle shaft (or axle extension on units with wide tread option).

Remove cap screws attaching inner rock guard to final drive housing.

IMPORTANT: Do not permanently remove rock guards or cut out portions of rock guards on the track roller frames to aid in clearing dirt out of the roller area. The rock guards add much strength to the track roller frame construction and should not be "cut out" or left off the machine.

Remove cap screws (4) attaching front crossbar to track frame (Fig. 2).

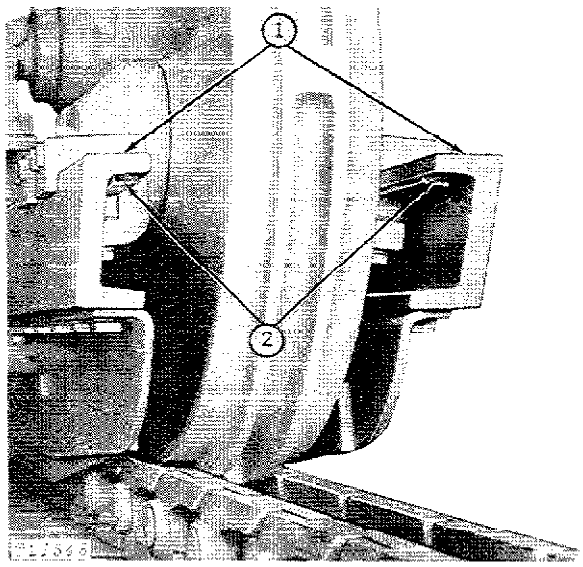
Remove cap screws (3) and retainer attaching track frame to rear crossbar (Fig. 2).

Raise crawler with jack or hoist under both crossbars until roller flanges clear track. Pull track carrier assembly from rear crossbar.

Due to the welded construction of the track frame no further disassembly of the frame should be attempted unless wear strips are worn and require replacing.

Repair

Inspect for bent channel frames, excessive wear on track frame channel wear strips, and cracks or broken welds. If wear strips (Fig. 3) are excessively worn, they must be removed and replaced.



1—Track Frames
2—Track Frame Channel Wear Strips

Fig. 3-Track Frame Channel Wear Strips

Replacing Track Frame Channel Wear Strips

IMPORTANT: Disconnect battery ground strap or turn master battery disconnect switch to the "off" position if so equipped before doing any welding on the crawler. Failure to do so may damage the electrical system.

Release track cylinder pressure to loosen track. Remove master track pin and split track.

Remove and replace worn track wear strips as follows:

Grind off the old wear strip inside the track frame channel (Fig. 3) so that none of the strips or welds remain.

Clamp new wear strips evenly but not tightly to track frame channel. A secure clamping which still allows a slight wear strip shift will prevent cracking of weld fillet during cooling.

Using a low hydrogen electrode (0.125 inch [3.18 mm] dia. rec.) and a fairly low melting current (100-115 amp), melt as little as possible of the wear strip by starting and maintaining the arc primarily on the track frame channel. The wear strip is a high carbon steel, so best results are obtained by washing the weld metal toward the wear strip. This will produce a slightly convex weld fillet.

None of the other integral parts of the frame are furnished as repair parts. It will be necessary to replace the entire carrier if damage is such that it cannot be repaired by straightening or welding the damaged parts.

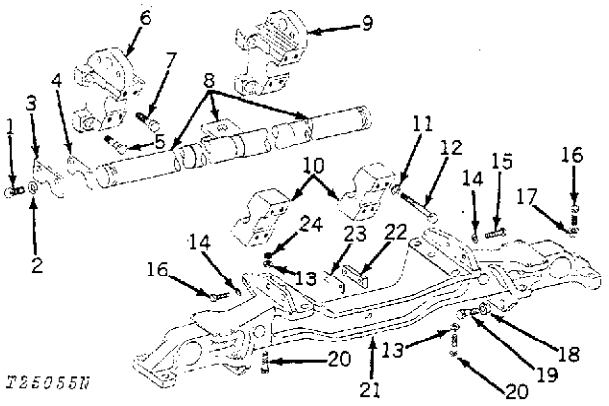
Join track and install master pin and snap ring.

NOTE: To adjust track tension and to check track alignment, refer to Section 90, Group 9030.

Connect negative battery ground strap.

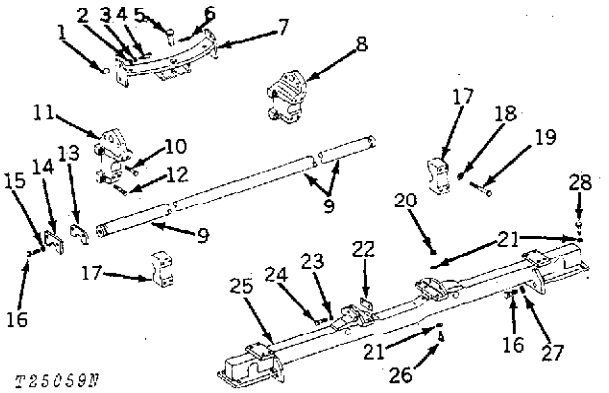
Disassembly and Assembly

Refer to Fig. 4 or 5 for position of parts during disassembly and assembly.



1—Cap Screw (4 used)
2—Lock Washer (4 used)
3—Rear Bar Retainer (2 used)
4—Shim (approx. 6 used)
5—Special Cap Screw (4 used)
6—Rear Bar Right Bracket
7—Cap Screw (4 used)
8—Rear Crossbar
9—Rear Bar Left Bracket
10—Rear Bar Cap (2 used)
11—Special Washer (8 used)
12—Cap Screw (8 used)
13—Special Washer (8 used)
14—Special Washer (4 used)
15—Cap Screw (2 used)
16—Cap Screw (10 used)
17—Flanged Spacer (8 used)
18—Flanged Spacer (4 used)
19—Cap Screw (4 used)
20—Cap Screw (6 used)
21—Front Crossbar
22—Tapping Bar
23—Shim (approx. 2 used) (early units)
24—Nut (2 used)

Fig. 4-Crossbar Assembly



1—Hollow Dowel (4 used)
2—Special Washer (4 used)
3—Lock Washer (4 used)
4—Cap Screw (4 used)
5—Pin
6—Pin
7—Bracket
8—Rear Bar Left Bracket
9—Rear Crossbar
10—Cap Screw (4 used)
11—Rear Bar Right Bracket
12—Cap Screw (4 used)
13—Shim (approx. 6 used)
14—Retainer (2 used)
15—Lock Washer (4 used)
16—Cap Screw (8 used)
17—Rear Bar Cap (2 used)
18—Special Washer (8 used)
19—Cap Screw (8 used)
20—Lock Nut (2 used)
21—Special Washer (16 used)
22—Shim (approx. 2 used)
23—Special Washer (4 used)
24—Cap Screw (4 used)
25—Front Crossbar
26—Cap Screw (6 used)
27—Special Washer (4 used)
28—Cap Screw (8 used)

Fig. 5-Wide Tread Crossbar Assembly

Installation

Before installing track frame, be sure that front and rear crossbar are secure. Make sure that rear crossbar extends an equal distance from rear bar brackets on both sides. Tighten front crossbar-to-side frame horizontal cap screws and vertical cap screws. Evenly tighten the rear crossbar cap-to-bracket cap screws (12, Fig. 4) to 250 lb-ft (339 Nm).

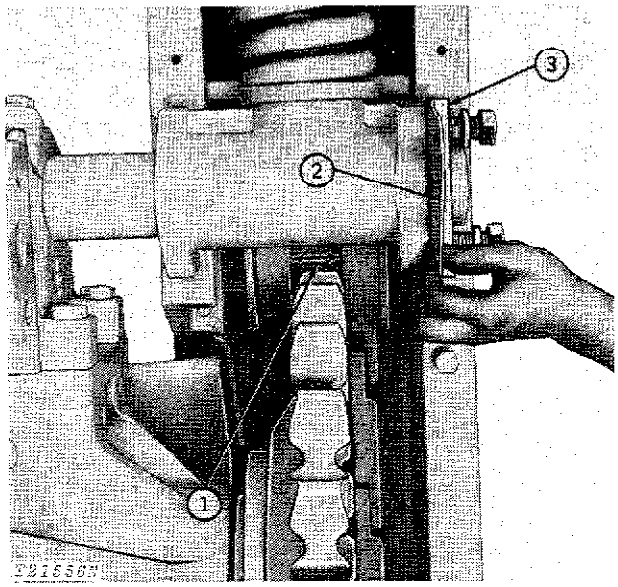
With the tractor supported under both crossbars, start the track frame on the rear crossbar and slide in place. Position the rear crossbar retainer (3) and shims (4) and loosely install the cap screws. Note that spacers are used at front attaching points.

Install the drive sprocket on hub dowels and tighten cap screws.

Shift track frame in or out until drive sprocket is centered between flanges of rear track roller (Fig. 6). Then install just enough shims (2) to fill space between retainer (3) and retainer seating surface.

Tighten the retainer cap screws (1, Fig. 4) to 170 lb-ft (230 Nm) and the front crossbar horizontal cap screws and the vertical cap screws.

Recheck centering of sprocket between rear track flanges.



1—Centered Sprocket **3—Retainer**
2—Adjusting Shims

Fig. 6-Centering Track Frame

DRIVE SPROCKETS

GENERAL INFORMATION

Each track is driven from the rear by a hardened cast steel sprocket receiving power through the final drive and clutch-brake mechanism.

The sprocket is bolted to the axle shaft.

The sprocket is of the hunting tooth design.

MEASURING SPROCKET WEAR

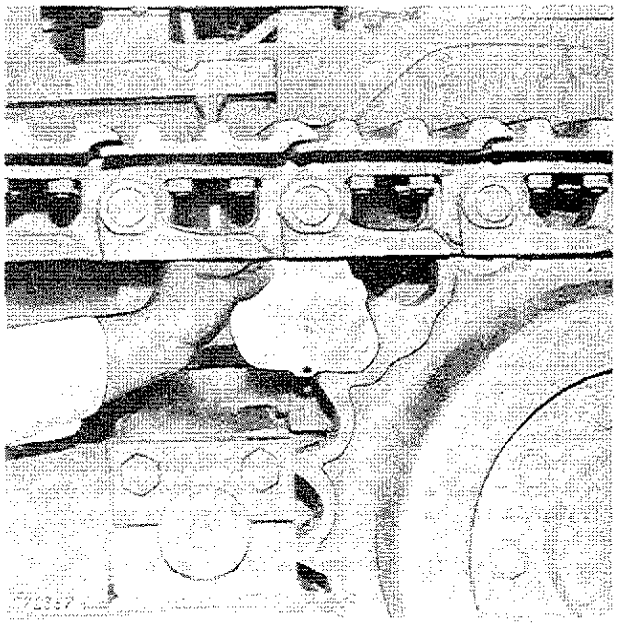


Fig. 7-Measuring Sprocket Wear

Use JDG-43 Sprocket Wear Gauge (part of D-05227ST Undercarriage Inspection Service Tool Kit) to measure sprocket wear.

Place the gauge on the sprocket as shown in Fig. 7, with the gauge against one sprocket tooth.

Measure the gap between the other side of the gauge and the sprocket tooth. Allowable wear is indicated on the gauge.

NOTE: For additional information on measuring sprockets refer to UNDERCARRIAGE APPRAISAL MANUAL SP-326.

NOTE: It is recommended to use the above procedure for more accurate measurements when replacing the track components. A track wear gauge (JD266) is available, enabling the service technician to quickly check the condition of a track assembly.

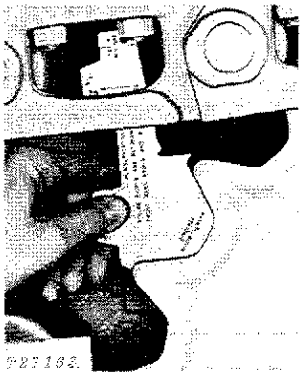


Fig. 8-Measuring Sprocket Wear

Use JD266 Track Wear Gauge to measure sprocket wear.

Place the gauge on the sprocket as shown in Fig. 8, with the gauge against one sprocket tooth.

Measure the gap between the other side of the gauge and the sprocket tooth. Allowable wear is indicated on the gauge.

REMOVAL

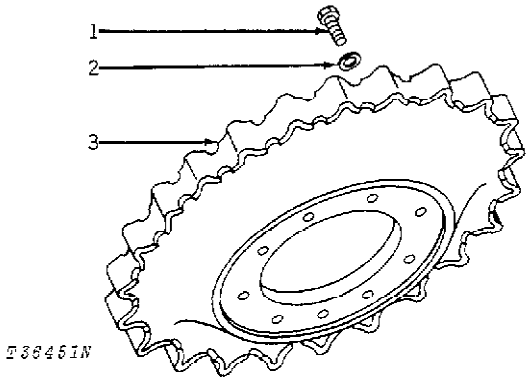
Raise one side of tractor by placing floor jack securely under front cross member. Start engine and shift transmission into first gear. Pull back on steering lever that controls track not raised off floor (this disengages steering clutch and applies brake to that side). Engage engine clutch, permitting raised track to rotate until master pin has moved around drive sprocket and is approximately 6 inches (152 mm) from floor.

CAUTION: Be sure that track to be rotated is clear of floor and that opposite track is locked in position so that tractor does not move.

NOTE: When crawler is equipped with a loader and bottom counterweight, the counterweight must be removed.

Release track tension, remove track master pin, page 1-0130-15 and move track assembly clear of drive sprocket.

Remove sprocket shield or sprocket weight from machine. See Group 1749 for removal of sprocket weight.



1—Cap Screw (9 used)
2—Special Washer (9 used)
3—Sprocket

Fig. 9-Regular Sprocket

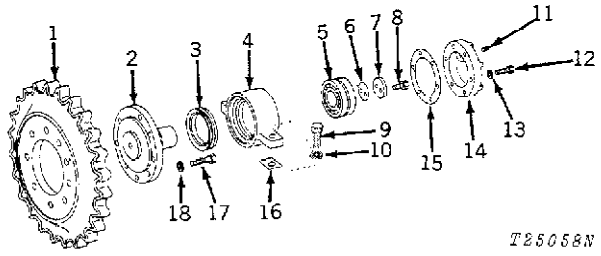
Remove cap screws (1, Fig. 9) and washers (2) and pull sprocket (3) from the axle shaft.

REPAIR

The drive sprocket is not repairable. It must be replaced when excessively worn or damaged.

NOTE: If the unit is driven in one direction the majority of the time, most of the wear will occur on one side of the teeth. To extend the service life, the sprockets can be switched from one side of the machine to the other. This will cause the chain to wear on the opposite face of the tooth.

Wide Tread Installation

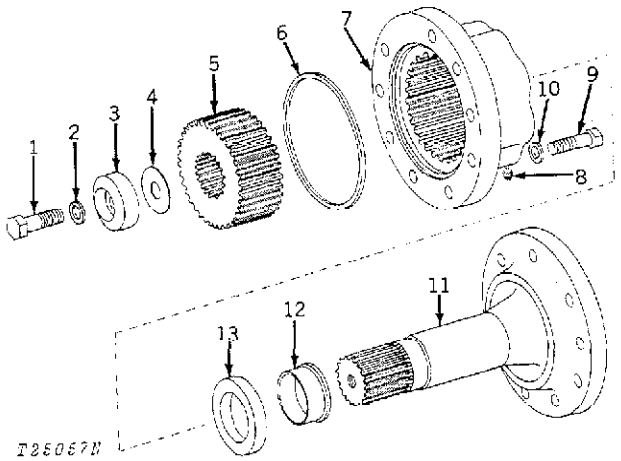


1—Sprocket
2—Shaft
3—Oil Seal
4—Housing
5—Bearing
6—Shim
7—Retainer
8—Cap Screw (2 used)
9—Cap Screw (2 used)
10—Washer (2 used)
11—Pipe Plug
12—Cap Screw (6 used)
13—Lock Washer (6 used)
14—Cover
15—Gasket
16—Shim (as required)
17—Cap Screw (9 used)
18—Washer (9 used)

Fig. 10-Outer Sprocket Shaft and Cover

Disassembly

Remove cover (14, Fig. 10) from housing (4). Remove retaining cap screws (8) and retainer (7). Press shaft (2) out of housing. Remove bearing (5) and oil seal (3) from housing. Check the condition of bearing and oil seal.



1—Cap Screw
2—Lock Washer
3—Gear Retainer
4—Shim
5—Coupling Gear
6—Packing
7—Housing
8—Pipe Plug
9—Cap Screw (9 used)
10—Washer (9 used)
11—Sprocket Shaft
12—Spacer
13—Seal

Fig. 11-Inner Sprocket Shaft and Gear

Remove gear (5, Fig. 11) from housing (7) and sprocket shaft (11) by removing cap screw (1) and gear retainer (3). Press sprocket shaft out of housing while holding seal (13) and spacer (12) in housing. Press seal (13) out and check for wear.

Assembly

Press seal (13, Fig. 11) into spacer (12) and then press seal into housing (7). With the large end of sprocket shaft (11) down, place housing on sprocket shaft and then place gear (5) on sprocket shaft and into housing as far as it will go. Now lay a flat piece of iron on the gear and press it and the housing onto the sprocket shaft until gear is flush with end of sprocket shaft. Fasten retainer and shim to end of shaft with cap screw (1).

NOTE: Do not let the housing assembly sit on the large end of sprocket shaft. This will tend to damage the seal (13, Fig. 11).

Pack the gear cavity area in housing (7) with multi-purpose lubricant. Put packing (6) in place on the flange axle of the final drive and attach inner sprocket housing assembly to the flange axle on the final drive.

NOTE: Remove pipe plug (8) from housing before attaching the flange axle so any excess grease or air can escape.

Press bearing (5, Fig. 10) into housing (4). With large end of shaft (2) down, place oil seal (3) on the shaft and press housing on the shaft. Attach shims (6) and retainer (7) on end of shaft with cap screws (8). Replace cover (14). Fill housing with 1-1/2 to 2 cups (355 to 474 mL) of the recommended oil. (See Section I, Group V).

After wide-track outboard bearings have been installed, refer to Group 9030 for alignment of track.

Add shims (16, Fig. 10) between track and housing (4) as required.

INSTALLATION

The flanged axle shaft, sprocket weight (if used), and the drive sprocket mounting surfaces must be clean, free of grease, oil, paint and rust prior to installation.

See Group 1749 and install sprocket and sprocket weight (if used) on flanged axle shaft. Tighten cap screws as follows:

D-grade - 170 lb-ft (230 N·m)
F-grade - 240 lb-ft (325 N·m)

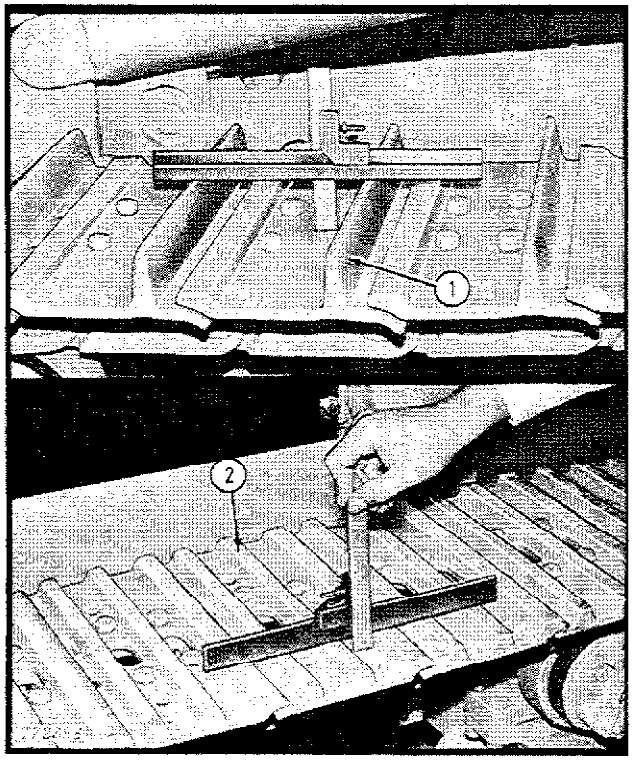
Connect track and remove floor jack from cross member.

TRACK SHOES

GENERAL INFORMATION

The five track roller assembly has 36 track shoes and 36 links. Track shoes are available in a variety of widths and types to accommodate various ground and working conditions.

MEASURING GROUSER BAR HEIGHT



1—Standard Grouser 2—Triple Semi Grouser

Fig. 12-Grouser Bar Measurement

Use a depth gauge consisting of D-05231ST 300 mm Metric Ruler, D-05265ST 150 mm Metric Ruler and D-05266ST Right Angle Attachment (part of D-05227ST Undercarriage Inspection Service Tool Kit) to measure grouser bar height.

Place a depth gauge over grouser bar as shown in Fig. 12. Repeat the measurement for several grousers and record the average depth.

Standard grouser height on a new shoe is 1.58 in. (40.2 mm). Minimum recommended standard grouser height is 0.75 in. (19.0 mm).

Standard Grouser Height

Dimension (allowable wear-0.83 in. [21.2 mm])	Percent Worn
1.58 in. (40.2 mm)	0
1.50 in. (38.1 mm)	10
1.42 in. (36.0 mm)	20
1.33 in. (33.8 mm)	30
1.25 in. (31.7 mm)	40
1.17 in. (29.6 mm)	50
1.08 in. (27.5 mm)	60
1.00 in. (25.4 mm)	70
0.91 in. (23.2 mm)	80
0.83 in. (21.1 mm)	90
0.75 in. (19.0 mm)	100
0.67 in. (16.9 mm)	110
0.58 in. (14.8 mm)	120
0.50 in. (12.6 mm)	130

Triple semi-grouser height on a new shoe is 0.61 in. (15.5 mm). Minimum recommended triple semi-grouser height is 0.35 in. (9.0 mm).

Triple Semi-Grouser Height

Dimension (allowable wear-0.26 in. [6.5 mm])	Percent Worn
0.61 in. (15.5 mm)	0
0.58 in. (14.9 mm)	10
0.56 in. (14.2 mm)	20
0.53 in. (13.6 mm)	30
0.51 in. (12.9 mm)	40
0.48 in. (12.3 mm)	50
0.45 in. (11.6 mm)	60
0.43 in. (11.0 mm)	70
0.40 in. (10.3 mm)	80
0.38 in. (9.6 mm)	90
0.35 in. (9.0 mm)	100
0.33 in. (8.4 mm)	110
0.30 in. (7.7 mm)	120
0.28 in. (7.0 mm)	130

NOTE: For additional information on measuring grouser bar height, refer to UNDERCARRIAGE APPRAISAL MANUAL SP-326.

NOTE: It is recommended to use the previous procedure for more accurate measurements when replacing the track components. A track wear gauge (JD266) is available, enabling the service technician to quickly check the condition of a track assembly.

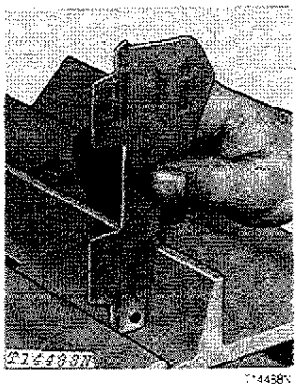


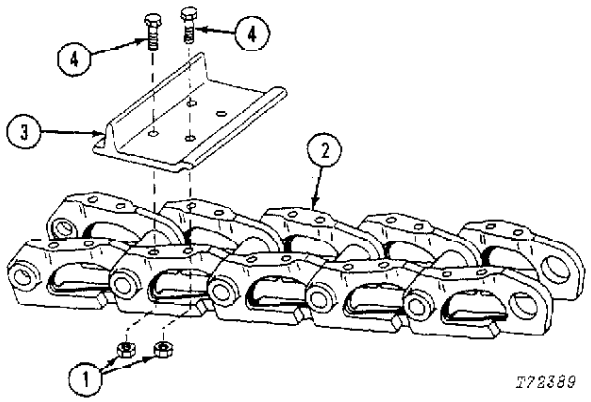
Fig. 13-Grouser Bar Wear

Use JD266 Track Wear Gauge to measure grouser bar wear.

Place gauge upright and against grouser bar as shown in Fig. 13.

Amount of wear is indicated on the gauge.

REMOVAL



1—Special Nut (144 used)
2—Track Assembly
3—Track Shoe (36 used)
4—Cap Screw (144 used)

Fig. 14-Track Shoe

Remove cap screws (4, Fig. 14) and nuts (1) fastening track shoe (3) to track (2).

Remove track shoe.

REPAIR

Inspect shoes for excessive grouser wear, cracks or broken shoes.

Replace or rebuild shoes as necessary.

INSTALLATION

Track shoe mounting surfaces of links and shoes must be clean and free of paint.

Lubricate cap screw threads and the bearing surface of the head.

Install track shoes and cap screws.

Install nuts with the rounded corners toward the track shoes.

Tighten track shoe cap screws to 120 lb-ft (163 N·m).

Tighten rubber track shoe nuts to 89 lb-ft (121 N·m).

TRACK CHAIN ASSEMBLY

GENERAL INFORMATION

The track links are joined together by press-fit, replaceable-type hardened pins and bushings. Since the pins and bushings normally wear on one side only, they can be rotated when half-worn and reinstalled for further service.

The ends of the track are joined by a master pin.

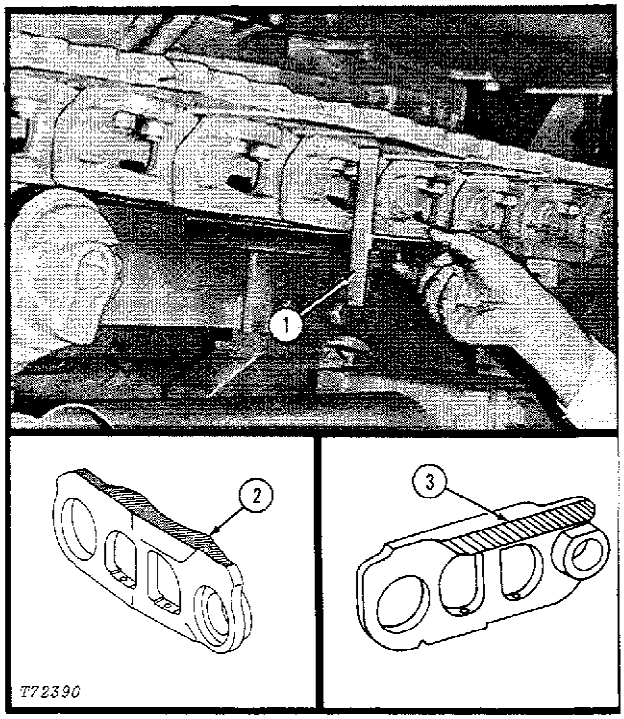
The master pin can be identified by the drill point in the end of the pin.

MEASURING CHAIN WEAR

Measure the track chain components in as many positions as possible on both sides of the undercarriage.

This procedure will give a more accurate condition of the track.

Link Height



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1—Link Height Measurement
2—Link Rail Surface Wear
3—Rail Side Wear

Fig. 15-Link Height Measurement

Use a depth gauge consisting of D-05231ST 300 mm Metric Ruler, D-05265ST 150 mm Metric Ruler and D-05266ST Right Angle Attachment (part of D-05227ST Undercarriage Inspection Service Tool Kit) to measure link height.

Position a depth gauge over a track link as shown in Fig. 15. Record the measurement. Repeat the measurement for several links.

Link height of a new chain is 3.19 in. (81.0 mm). Minimum recommended link height is 3.02 in. (76.7 mm) for rebuilding link.

Link Height

Dimension (allowable wear - 0.17 in. [4.3 mm])	Percent Worn
3.19 in. (81.0 mm)	0
3.17 in. (80.6 mm)	10
3.16 in. (80.3 mm)	20
3.15 in. (79.9 mm)	30
3.13 in. (79.5 mm)	40
3.12 in. (79.2 mm)	50
3.10 in. (78.8 mm)	60
3.09 in. (78.4 mm)	70
3.07 in. (78.0 mm)	80
3.05 in. (77.4 mm)	90
3.02 in. (76.7 mm)	100
2.99 in. (76.0 mm)	110
2.96 in. (75.3 mm)	120
2.94 in. (74.6 mm)	130

NOTE: For additional information on measuring link height, refer to UNDERCARRIAGE APPRAISAL MANUAL SP-326.

NOTE: It is recommended to use the above procedure for more accurate measurements when replacing the track components. A track wear gauge (JD266) is available, enabling the service technician to quickly check the condition of a track assembly.

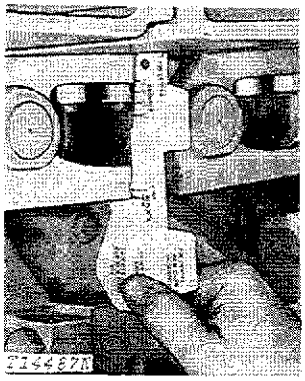
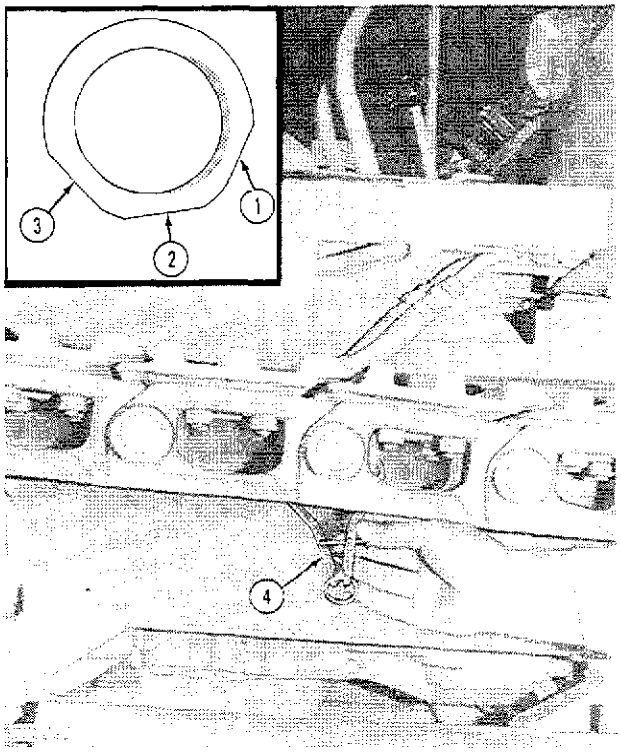


Fig. 16-Link Wear

Use JD266 Track Wear Gauge to measure link wear.

Position gauge on track link as shown in Fig. 16. With top of gauge (end with hole) against track shoe, check position of two arrows on gauge in relation to bottom of link. Link is worn if arrow marked "Replace" is at bottom edge of link.

Bushing Outer Diameter



1—Reverse Drive Wear
2—Radial Wear
3—Forward Drive Side Wear
4—Bushing Outer Diameter Measurement

Fig. 17-Bushing Outer Diameter Measurement

Use a D-17524C1 4 in. Spring Caliper (part of D-05227ST Undercarriage Inspection Service Tool Kit) to measure bushing outer diameter.

Position a caliper around the bushing as shown in Fig. 17. A bushing wears in three positions, so measure wear by positioning the caliper accordingly. Record the smallest measurement. Repeat the measurement for several bushings.

Outside diameter of a new bushing is 1.75 in. (44.5 mm). Minimum recommended bushing outside diameter is 1.63 in. (41.4 mm) for rotating bushing.

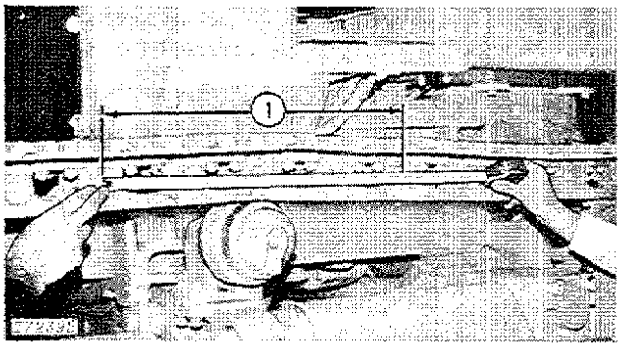
Bushing Outer Diameter

Dimension (allowable wear-0.12 in. [3.1 mm])	Percent Worn
1.75 in. (44.5 mm)	0
1.74 in. (44.2 mm)	10
1.73 in. (43.9 mm)	20
1.72 in. (43.6 mm)	30
1.70 in. (43.3 mm)	40
1.69 in. (43.0 mm)	50
1.68 in. (42.7 mm)	60
1.67 in. (42.4 mm)	70
1.66 in. (42.1 mm)	80
1.65 in. (41.8 mm)	90
1.63 in. (41.4 mm)	100
1.59 in. (40.5 mm)	110
1.56 in. (39.6 mm)	120

NOTE: For additional information on measuring bushing outer diameter, refer to UNDERCARRIAGE APPRAISAL MANUAL SP-326.

Track Pitch

To measure track pitch the track tension must be tight. Place a pin or block in the sprocket and reverse the unit until the track tension is tight.



1—Length Measurement

Fig. 18-Track Pitch Measurement

Use D-05230ST 3 Meter Steel Tape (part of D-05227ST Undercarriage Inspection Service Tool Kit) to measure track pitch.

Position a tape measure between a four link section (5 pins) of the track links as shown in Fig. 18. Record the measurement. Repeat the measurement for several sections, avoiding four sections either side of the master pin.

Distance across a four link section (5 pins) on a new chain is 23.03 in. (584.9 mm). Maximum recommended distance across four links (5 pins) is 23.51 in. (597.1 mm) for rotating pins and bushings.

Track Pitch

Dimension (allowable wear-0.48 in. [12.2 mm]).	Percent Worn
23.03 in. (584.9 mm)	0
23.08 in. (586.1 mm)	10
23.13 in. (587.3 mm)	20
23.17 in. (588.6 mm)	30
23.22 in. (589.8 mm)	40
23.27 in. (591.0 mm)	50
23.32 in. (592.2 mm)	60
23.37 in. (593.4 mm)	70
23.41 in. (594.7 mm)	80
23.46 in. (595.9 mm)	90
23.51 in. (597.1 mm)	100
23.60 in. (599.5 mm)	110
23.69 in. (601.8 mm)	120
23.79 in. (604.2 mm)	130
23.88 in. (606.5 mm)	140
23.97 in. (608.9 mm)	150

NOTE: For additional information on measuring track pitch, refer to UNDERCARRIAGE APPRAISAL MANUAL SP-326.

NOTE: It is recommended to use the above procedure for more accurate measurements when replacing the track components. A track wear gauge (JD266) is available, enabling the service technician to quickly check the condition of a track assembly.