

# **John Deere 544C Loader**



## **TECHNICAL MANUAL**

**John Deere Dubuque Works  
TM-1228 (Feb-84)**



LITHO IN U.S.A.



# 544C LOADER TECHNICAL MANUAL TM-1228 (FEB-84)

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		6-0651-42	(Dec-80)	9-0960-33	(Dec-80)

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9-0960-38	(Aug-82)	10-1015-09	(Aug-82)	11-1115-12	(Dec-80)
9-0960-39	(Dec-80)	10-1015-10	(Aug-82)		
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9-0960-41	(Dec-80)	10-1015-12	(Aug-82)	16-1600-02	(Dec-80)
9-0960-42	(Dec-80)	10-1060-01	(Aug-82)	16-1671-01	(Dec-80)
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9-0960-64	(Dec-80)	11-1100-02	(Dec-80)	16-1674-01	(Aug-82)
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9-0960-67	(Dec-80)	11-1111-03	(Aug-82)	16-1674-04	(Aug-82)
9-0960-68	(Dec-80)	11-1111-04	(Dec-80)	16-1674-05	(Aug-82)
9-0960-69	(Dec-80)	11-1111-05	(Dec-80)	16-1674-06	(Dec-80)
9-0960-70	(Dec-80)	11-1111-06	(Dec-80)	16-1675-01	(Dec-80)
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10-1000-02	(Dec-80)	11-1111-09	(Dec-80)	16-1676-02	(Dec-80)
10-1011-01	(Aug-82)	11-1111-10	(Dec-80)	16-1676-03	(Dec-80)
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10-1015-01	(Dec-80)	11-1115-04	(Aug-82)	17-1700-02	(Dec-80)
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17-1740-04	(Dec-80)	18-1821-03	(Dec-80)	18-1830-35	(Aug-82)
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17-1740-12	(Dec-80)	18-1821-11	(Aug-82)	19-1900-02	(Dec-80)
17-1740-13	(Aug-82)	18-1821-12	(Dec-80)	19-1910-01	(Dec-80)
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17-1740-16	(Dec-80)	18-1821-15	(Dec-80)	19-1921-02	(Dec-80)
17-1740-17	(Dec-80)	18-1821-16	(Dec-80)	19-1921-03	(Dec-80)
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17-1746-02	(Dec-80)	18-1830-03	(Aug-82)	19-1921-06	(Dec-80)
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		18-1830-08	(Aug-82)	19-1927-01	(Dec-80)
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18-1800-02	(Dec-80)	18-1830-10	(Aug-82)		
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18-1800-06	(Dec-80)	18-1830-14	(Aug-82)	20-2002-02	(Dec-80)
18-1800-07	(Dec-80)	18-1830-15	(Aug-82)	20-2004-01	(Aug-82)
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				21-2160-14	(Aug-82)

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21-2160-15	(Aug-82)	21-2160-63	(Aug-82)	31-3160-12	(Dec-80)
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21-2160-26	(Aug-82)	31-3102-03	(Dec-80)	31-3160-23	(Dec-80)
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21-2160-37	(Aug-82)	31-3115-02	(Dec-80)	31-3160-34	(Aug-82)
21-2160-38	(Aug-82)	31-3115-03	(Dec-80)	31-3160-35	(Aug-82)
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21-2160-40	(Aug-82)	31-3115-05	(Aug-82)	31-3160-37	(Aug-82)
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33-3300-02	(Aug-82)	33-3360-16	(Dec-80)	33-3360-65	(Dec-80)
33-3300-03	(Dec-80)	33-3360-17	(Dec-80)	33-3360-66	(Dec-80)
33-3300-04	(Dec-80)	33-3360-18	(Dec-80)	33-3360-67	(Dec-80)
33-3300-05	(Dec-80)	33-3360-19	(Dec-80)	33-3360-68	(Dec-80)
33-3300-06	(Dec-80)	33-3360-20	(Dec-80)	33-3360-69	(Dec-80)
33-3300-07	(Dec-80)	33-3360-21	(Dec-80)	33-3360-70	(Dec-80)
33-3300-08	(Dec-80)	33-3360-22	(Dec-80)	33-3360-71	(Dec-80)
33-3302-01	(Dec-80)	33-3360-23	(Dec-80)	33-3360-72	(Dec-80)
33-3302-02	(Aug-82)	33-3360-24	(Aug-82)	33-3360-73	(Dec-80)
33-3302-03	(Dec-80)	33-3360-25	(Aug-82)	33-3360-74	(Dec-80)
33-3302-04	(Dec-80)	33-3360-26	(Aug-82)	33-3360-75	(Dec-80)
33-3315-01	(Dec-80)	33-3360-27	(Dec-80)	33-3360-76	(Dec-80)
33-3315-02	(Dec-80)	33-3360-28	(Aug-82)	33-3360-77	(Dec-80)
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33-3315-06	(Dec-80)	33-3360-32	(Dec-80)	33-3360-81	(Dec-80)
33-3340-01	(Dec-80)	33-3360-33	(Dec-80)	33-3360-82	(Dec-80)
33-3340-02	(Dec-80)	33-3360-34	(Dec-80)	33-3360-83	(Dec-80)

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# **COMPLETE PAGE LISTING—Continued**

33-3360-84	(Dec-80)	90-9015-05	(Dec-80)	90-9020-13	(Aug-82)
33-3360-85	(Dec-80)	90-9015-06	(Dec-80)	90-9020-14	(Aug-82)
33-3360-86	(Dec-80)	90-9015-07	(Dec-80)	90-9020-15	(Aug-82)
33-3360-87	(Dec-80)	90-9015-08	(Dec-80)	90-9020-16	(Aug-82)
33-3360-88	(Dec-80)	90-9015-09	(Dec-80)	90-9025-01	(Aug-82)
33-3360-89	(Dec-80)	90-9015-10	(Aug-82)	90-9025-02	(Dec-80)
33-3360-90	(Dec-80)	90-9015-11	(Aug-82)	90-9025-03	(Aug-82)
33-3360-91	(Dec-80)	90-9015-12	(Aug-82)	90-9025-04	(Dec-80)
33-3360-92	(Dec-80)	90-9015-13	(Dec-80)	90-9025-05	(Dec-80)
33-3360-93	(Dec-80)	90-9015-14	(Dec-80)	90-9025-06	(Aug-82)
33-3360-94	(Dec-80)	90-9015-15	(Dec-80)	90-9025-07	(Dec-80)
		90-9015-16	(Dec-80)	90-9025-08	(Dec-80)
90-9005-01	(Aug-82)	90-9015-17	(Aug-82)	90-9025-09	(Aug-82)
90-9005-02	(Aug-82)	90-9015-18	(Aug-82)	90-9025-10	(Dec-80)
90-9005-03	(Aug-82)	90-9015-19	(Dec-80)	90-9025-11	(Dec-80)
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90-9010-01	(Aug-82)	90-9015-21	(Dec-80)	90-9025-13	(Aug-82)
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90-9010-08	(Dec-80)	90-9015-28	(Dec-80)	90-9025-20	(Dec-80)
90-9010-09	(Dec-80)	90-9015-29	(Dec-80)	90-9025-21	(Dec-80)
90-9010-10	(Dec-80)	90-9015-30	(Dec-80)	90-9025-22	(Dec-80)
90-9010-11	(Dec-80)	90-9015-31	(Aug-82)	90-9025-23	(Aug-82)
90-9010-12	(Dec-80)	90-9015-32	(Dec-80)	90-9025-24	(Dec-80)
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90-9010-14	(Dec-80)	90-9015-34	(Aug-82)	90-9025-26	(Dec-80)
90-9010-15	(Aug-82)	90-9015-35	(Dec-80)	90-9025-27	(Dec-80)
90-9010-16	(Aug-82)	90-9015-36	(Dec-80)	90-9025-28	(Dec-80)
90-9010-17	(Dec-80)	90-9015-37	(Dec-80)	90-9025-29	(Dec-80)
90-9010-18	(Dec-80)	90-9015-38	(Dec-80)	90-9025-30	(Dec-80)
90-9010-19	(Dec-80)	90-9015-39	(Aug-82)	90-9025-31	(Dec-80)
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90-9010-22	(Aug-82)	90-9020-02	(Aug-82)	90-9025-34	(Dec-80)
90-9010-23	(Aug-82)	90-9020-03	(Aug-82)	90-9025-35	(Dec-80)
90-9010-24	(Aug-82)	90-9020-04	(Aug-82)	90-9025-36	(Aug-82)
90-9010-25	(Aug-82)	90-9020-05	(Aug-82)	90-9025-36A	(Aug-82)
90-9010-26	(Dec-80)	90-9020-06	(Aug-82)	90-9025-36B	(Aug-82)
90-9010-27	(Aug-82)	90-9020-07	(Aug-82)	90-9025-37	(Dec-80)
90-9010-28	(Aug-82)	90-9020-08	(Aug-82)	90-9025-38	(Dec-80)
90-9015-01	(Aug-82)	90-9020-09	(Aug-82)	90-9025-39	(Aug-82)
90-9015-02	(Aug-82)	90-9020-10	(Aug-82)	90-9025-40	(Dec-80)
90-9015-03	(Dec-80)	90-9020-11	(Aug-82)	90-9025-41	(Dec-80)
90-9015-04	(Dec-80)	90-9020-12	(Aug-82)	90-9025-42	(Aug-82)

## COMPLETE PAGE LISTING—Continued

90-9025-43	(Aug-82)	90-9031-03	(Dec-80)	99-9900-24	(Aug-82)
90-9025-44	(Dec-80)	90-9031-04	(Dec-80)	99-9900-25	(Aug-82)
90-9025-45	(Aug-82)	90-9031-05	(Dec-80)	99-9900-26	(Aug-82)
90-9025-46	(Aug-82)	90-9031-06	(Dec-80)	99-9900-27	(Aug-82)
90-9025-47	(Dec-80)	90-9031-07	(Dec-80)	99-9900-28	(Aug-82)
90-9025-48	(Dec-80)	90-9031-08	(Dec-80)	99-9900-29	(Aug-82)
90-9025-49	(Dec-80)	90-9031-09	(Dec-80)	99-9900-30	(Aug-82)
90-9025-50	(Dec-80)	90-9031-10	(Dec-80)	99-9900-31	(Aug-82)
90-9025-51	(Dec-80)	90-9031-11	(Dec-80)	99-9900-32	(Aug-82)
90-9025-52	(Dec-80)	90-9031-12	(Dec-80)		
90-9025-53	(Dec-80)	90-9031-13	(Dec-80)	INDEX-01	(Aug-82)
90-9025-54	(Dec-80)	90-9031-14	(Dec-80)	INDEX-02	(Aug-82)
90-9025-55	(Aug-82)	90-9031-15	(Dec-80)	INDEX-03	(Aug-82)
90-9025-56	(Dec-80)	90-9031-16	(Dec-80)	INDEX-04	(Aug-82)
90-9025-57	(Dec-80)	90-9031-17	(Dec-80)	INDEX-05	(Aug-82)
90-9025-58	(Dec-80)	90-9031-18	(Dec-80)	INDEX-06	(Aug-82)
90-9025-59	(Dec-80)	90-9031-19	(Dec-80)		
90-9025-60	(Aug-82)	90-9031-20	(Dec-80)		
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90-9025-63	(Aug-82)	90-9031-23	(Dec-80)		
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90-9025-65	(Aug-82)	90-9031-25	(Aug-82)		
90-9025-66	(Aug-82)	90-9031-26	(Aug-82)		
90-9025-67	(Aug-82)				
90-9025-68	(Aug-82)	99-9900-01	(Aug-82)		
90-9025-69	(Aug-82)	99-9900-02	(Aug-82)		
90-9025-70	(Aug-82)	99-9900-03	(Aug-82)		
90-9025-71	(Aug-82)	99-9900-04	(Aug-82)		
90-9025-72	(Aug-82)	99-9900-05	(Aug-82)		
90-9025-73	(Aug-82)	99-9900-06	(Aug-82)		
90-9025-74	(Aug-82)	99-9900-07	(Aug-82)		
90-9025-75	(Aug-82)	99-9900-08	(Aug-82)		
90-9025-76	(Aug-82)	99-9900-09	(Aug-82)		
90-9025-77	(Aug-82)	99-9900-10	(Aug-82)		
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90-9025-80	(Aug-82)	99-9900-13	(Aug-82)		
90-9025-81	(Aug-82)	99-9900-14	(Aug-82)		
90-9025-82	(Aug-82)	99-9900-15	(Aug-82)		
90-9025-83	(Aug-82)	99-9900-16	(Aug-82)		
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90-9025-85	(Dec-80)	99-9900-18	(Aug-82)		
90-9025-86	(Dec-80)	99-9900-19	(Aug-82)		
90-9025-87	(Aug-82)	99-9900-20	(Aug-82)		
90-9025-88	(Aug-82)	99-9900-21	(Aug-82)		
90-9031-01	(Aug-82)	99-9900-22	(Aug-82)		
90-9031-02	(Dec-80)	99-9900-23	(Aug-82)		

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# Group I CAP SCREW TORQUE VALUES

## CUSTOMARY TORQUE SPECIFICATIONS

NOTE: Wrench torque tolerance is  $\pm 10\%$ .

Cap Screw in.	Plain Head*	N-m	Three Dashes*	N-m	Six Dashes*	N-m
	(lb-ft.)		(lb-ft.)		(lb-ft.)	
1/4	-----	-----	(10)	14	(14)	19
5/16	-----	-----	(20)	27	(30)	41
3/8	-----	-----	(35)	47	(50)	68
7/16	(35)	47	(55)	75	(80)	108
1/2	(55)	75	(85)	115	(120)	163
9/16	(75)	102	(130)	176	(175)	237
5/8	(105)	142	(170)	230	(240)	325
3/4	(185)	251	(300)	407	(425)	576
7/8	(160)	217	(445)	603	(685)	929
1	(250)	339	(670)	908	(1030)	1396
1-1/8	(330)	447	(910)	1234	(1460)	1979
1-1/4	(480)	651	(1250)	1695	(2060)	2793

All torques are dry torque unless noted.

\*Dashes identify the grade of hardware.

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## METRIC TORQUE SPECIFICATIONS

NOTE: Wrench torque tolerance is  $\pm 10\%$ .

Cap Screw Diameter	Property Class 8.8*	N-m	Property Class 10.9*	N-m
	(lb-ft)		(lb-ft)	
M5	(4.4)	6.0	(6.3)	8.5
M6	(7.4)	10.0	(10.7)	14.5
M8	(18.1)	24.5	(25.8)	35.0
M10	(36.1)	49.0	(51.6)	70.0
M12	(62.7)	85.0	(89.2)	121.0
M16	(154.9)	210.0	(221.2)	300.0
M20	(265.5)	360.0	(368.7)	500.0
M24	(457.2)	620.0	(634.2)	860.0
M30	(885.0)	1200.0	(1224.2)	1660.0
M36	(1541.3)	2090.0		

All torques are dry torque unless noted.

\*Numbers identify the grade of hardware.

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# INTRODUCTION AND SAFETY INFORMATION

## 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 a specific machine. Technical manuals are on-the-job guides containing only the vital information needed by an experienced service technician.

Some features of this technical manual:

John Deere ILLUSTRATION format emphasizing more detailed pictures and a minimum use of words.

Detailed repair procedures outlined in individual section.

System diagnostic testing detailed in separate section.

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.

General specifications, lubrication requirements, and a summation of safety rules.

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 whenever in doubt about 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.



02A32253N, X2252N T09.1216 000281

## SAFETY AND YOU



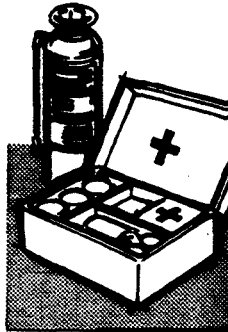
**CAUTION:** This safety symbol followed by the word "caution" identifies important safety messages in this manual and on the loader or compactor. When you see this symbol, be alert to the possibility of personal injury and carefully read the message that follows.



T27999N

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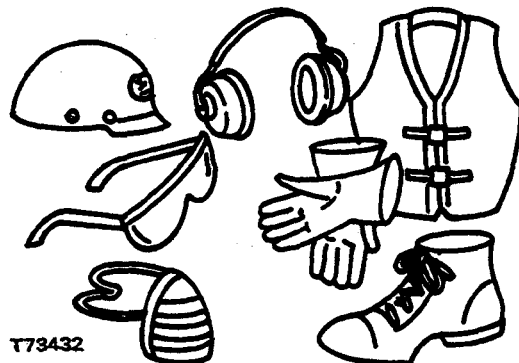
Be prepared if an accident or fire should occur. Know where the first aid kit and the fire extinguishers are located - know how to use them.



T27504N

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Wear safety equipment.



T73432

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## Introduction and Safety Information

Wear fairly tight clothing.



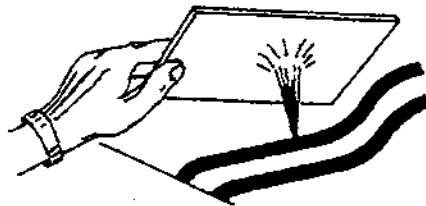
745672

32A745672 R 109/105 16913



**CAUTION:** Escaping fluid under pressure can have sufficient force to penetrate the skin, causing serious injury. Before disconnecting lines, be sure to relieve pressure. Before applying pressure, be sure connections are tight and lines, pipes and hoses are not damaged. Use a piece of cardboard or wood, rather than hands, to search for leaks.

If injured by escaping fluid, see a doctor at once. Serious infection or reaction can develop if proper medical treatment is not administered immediately.



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## KEEP SHOP AND STORAGE AREA CLEAN

Maintenance area should be adequately vented.

Keep maintenance area clean and dry.

Store flammable materials in a cool and well-vented area out of reach of unauthorized personnel.



32A777506 N 703/107 16918