6100, 6200, 6300 and 6400 Early Tractors, Electrics Diagnistic

OPERATION AND TESTS SERVICE MANUAL

6100, 6200, 6300, 6400 (Early Models)

TM4487ELEC 30 NOV 00 (ENGLISH)

For complete service information also see:

tm4516 - 6800 and 6900 Tractors Service Repair Manual	**TM4516**
tm4493 - 6100 to 6600 Tractors and SE Tractors Service Repair Manual	**TM4493**
tm4487 - 6100, 6200, 6300, 6400, 6506, 6600, 6800, 6900, SE610, SE62000, SE6300 and SE6400 Tractors Operations and Test	**TM4487**
Front Wheel Drive Axles	**CTM4509**
CTM441 - Machine Connection Information	**CTM441**
3029, 4039, 4045, 6059, 6068 Engines (Saran) (S.N. -499999CD)	**CTM3274**

John Deere Agriculture
Pinted by Belgreen

TM4487ELEC

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

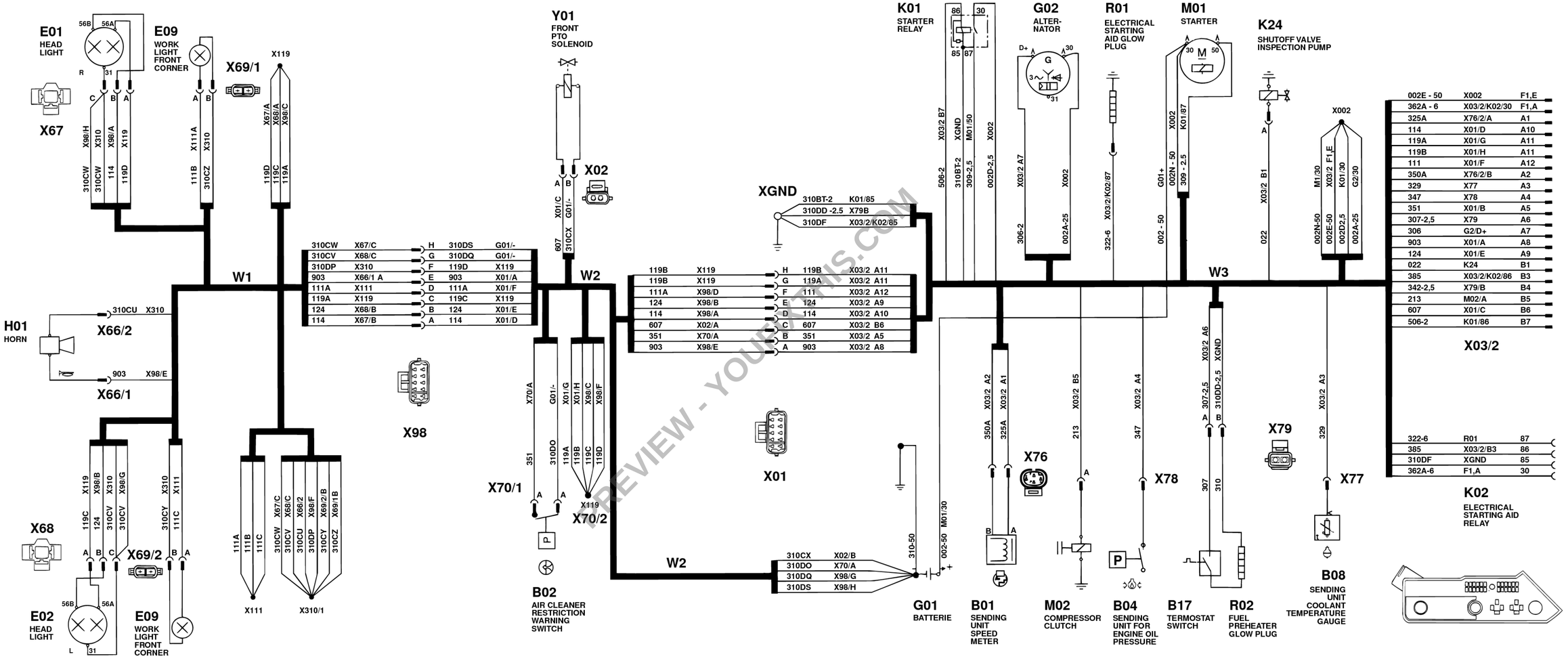
Table of contents

FOREWORD
JOHN DEERE WERKE MANNHEIM SERVICE DEPARTMENT
Section 240 - ELECTRICAL SYSTEM
Group 10 - System Diagrams (ECE)
Group 15 - Sub-System Diagnostics (ECE)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

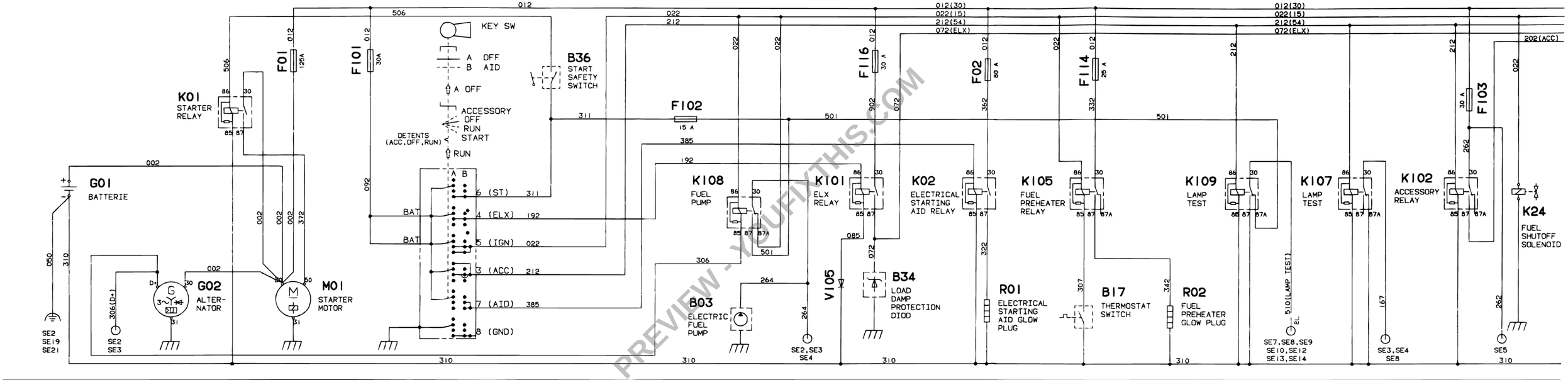
Engine Wiring Harness Diagram



PREVIEW - YOUFIXTHIS.COM

Engine Wiring Harness Diagram

Download full manual at youfixthis.com



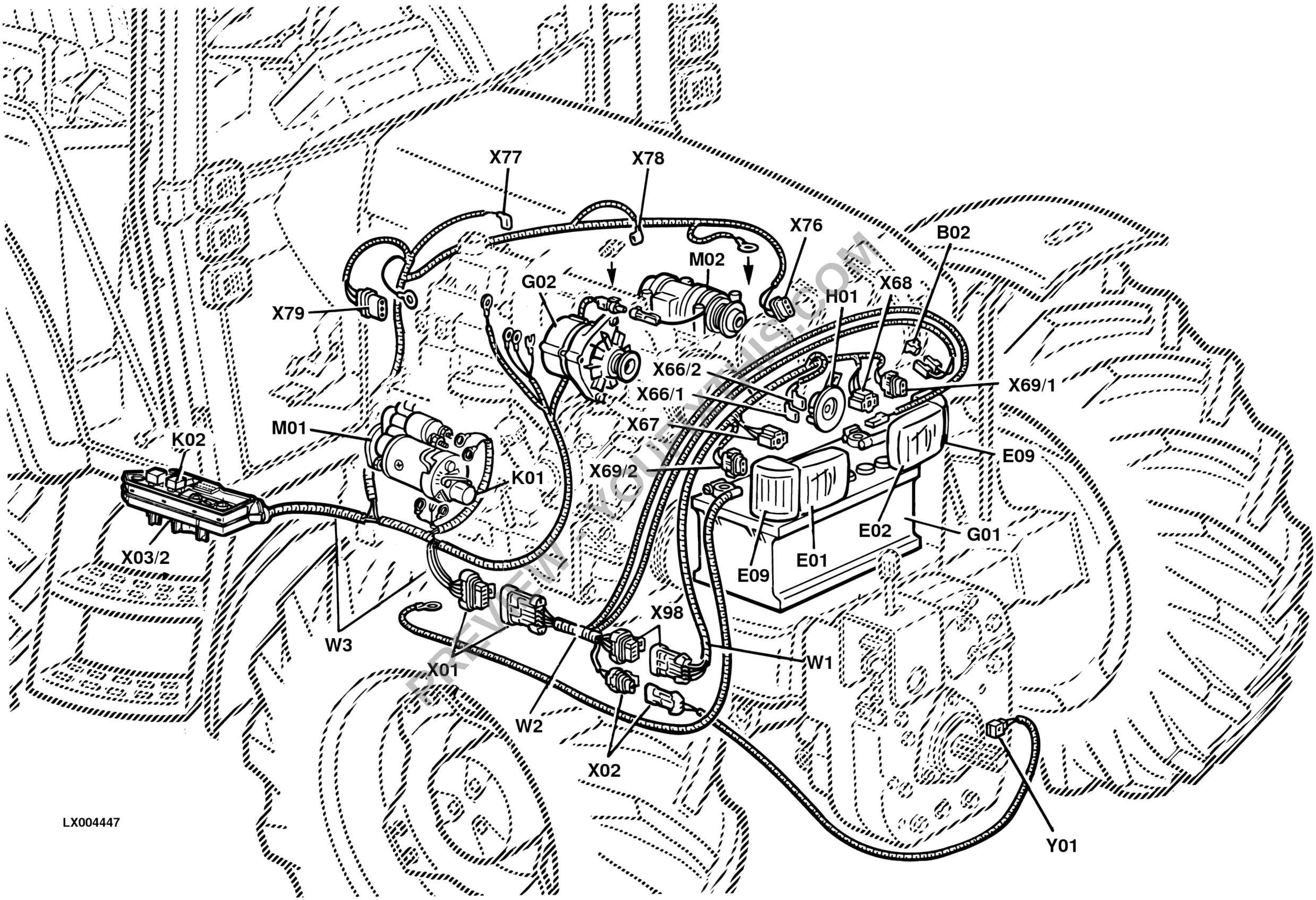
LX001557

Functional Schematic (SE1)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Component Location, Engine Wiring Harnesses



Component Location, Engine Wiring Harnesses

Download full manual at youfixthis.com

Instrument Unit Plug Arrangement

Plug X25 (Right)

DEFINITIONS:

1	Ground for indicator lights
2	Instrument lighting (+)
3	Ground for electronics
4	Coolant temperature gauge (sending unit)
5	[Not connected]
6	[Not connected]
7	[Not connected]
8	[Not connected]
9	[Not connected]
10	[Not connected]
11	Engine speed meter sending unit (+)
12	Caution and STOP lights (+)
13	Indicator light bulb test (-)
14	[Not connected]
15	[Not connected]
16	Engine speed meter sending unit (-)
17	Trailer turn signal indicator light (+)
18	Trailer turn signal indicator light (+)
19	Turn signal indicator light (+)
20	Turn signal indicator light, right (+)
21	Work light indicator light (+)
22	Transmission oil filter indicator light (-)
23	Caution light (-)
24	Air cleaner restriction indicator light (-)
25	Alternator indicator light (D+)
26	[Not connected]

Plug X26 (Left)

DEFINITIONS:

1	[Not connected]
2	[Not connected]
3	[Not connected]
4	Differential lock indicator light (+)
5	[Not connected]
6	Turn signal indicator ligth, left (+)
7	[Not connected]
8	Indicator light bulb test (+)
9	Hazard warning indicator light (+)
10	Indicator lights and hour meter (+)
11	Handbrake indicator light (-)
12	[Not connected]
13	[Not connected]
14	Alternator indicator light (+)
15	[Not connected]
16	[Not connected]
17	Fuel gauge sending unit
18	[Not connected]
19	[Not connected]
20	[Not connected]
21	[Not connected]
22	Full beam indicator light (+)
23	Engine oil pressure indicator light (-)
24	Engagement pressure warning light (-)
25	[Not connected]
26	Oil temperature warning light (-)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SE1-Starting Motor and Charging Circuit

Starting Motor Circuit

Current flows from battery (G01) to terminal BAT (30) of main switch (S01) via fuse (F01). When the main switch (S01) moves to the “start” position, current flows through terminal ST to the neutral start circuit (B36), and from there on to the starting motor relay (K01). This relay is activated and conveys battery current to the solenoid switch at terminal 50 of starting motor (M01).

Charging Circuit

With the ignition on, current flows from terminal IGN (15) of main switch (S01) to alternator indicator light (H07) via fuse F113. Indicator light (H07) is grounded to terminal D+ of alternator (G02) and lights up.

When the engine is running, current flows from terminal D+ of alternator (G02) to indicator light (H07) and from terminal 30 directly to the positive pole of battery (G01). The indicator light is supplied with current from both sides and does not light up.

Overvoltage Protection

With the ignition on, current flows from terminal ELX of main switch (S01) to overvoltage protection relay K108. This relay activates terminals 87 and 30 and supplies current for the electronics. Overvoltage protection (B34) protects the electronics against voltage peaks.

Electrical Starting Aids

Insert key into ignition switch and turn to the right as far as it will go. Current flows from main switch terminal AID to terminal 86 of relay (K02). This relay activates terminals 87 and 30. Glow plug (R01) receives current from the positive pole of the battery.

Fuel Preheater

Current flows from terminal IGN (15) of main switch (S01) to terminal 86 of relay (K105). If the temperature of the fuel drops below 10°C, the thermostat switch (B17) built into the fuel filter sends ground current to relay (K105). This relay activates terminals 87 and 30 and conveys current from the positive pole of the battery through fuse (F114) to the glow plug (R02) of the fuel preheater.

Testing Indicator Lights

With main switch (S01) in the “start” position and a range selected at range shift lever:

Current flows from terminal IGN (15) of main switch (S01) to relay (K198) terminals 86 and 87a. This relay activates terminals 87 and 30 and supplies current from main switch (S01) terminal ST via fuse (F102) to the fuel pump (B03) and the following indicator lights:

DEFINITIONS:

H06	Handbrake indicator light (SE4)
H11	Transmission oil filter warning light (SE3)
H12	Engine oil pressure warning light (SE3)
H16	Air cleaner restriction warning light (SE3)
H21	Oil temperature warning light (SE3)
H28	Engagement oil warning light (SE3)

The following indicator lights are supplied with current directly from main switch (S01) terminal ST:

DEFINITIONS:

H09	Front wheel drive indicator light (SE9)
H13	High beam indicator light (SE13)
H15	Worklight indicator light (SE14b)
H17	Differential lock indicator light (SE10)
H19	Front PTO indicator light (SE9)
H22	Rear PTO indicator light, 540E rpm (SE8)
H23	Rear PTO indicator light, 540 rpm (SE8)
H24	Rear PTO indicator light, 1000 rpm (SE8)
H26	Rear PTO indicator light (SE8)
H27	Turn signal indicator light (SE12)
H34	Front left turn signal light (SE12)
H35	Rear left turn signal light (SE12)
H36	Front right turn signal light (SE12)

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

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 operation and tests. Repair sections tell how to repair the components. Operation and tests 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.

Technical Manuals are concise guides for specific machines. They are on-the-job guides containing only the vital information needed for diagnosis, analysis, testing, and repair.

Fundamental service information is available from other sources covering basic theory of operation, fundamentals of troubleshooting, general maintenance, and basic type of failures and their causes.

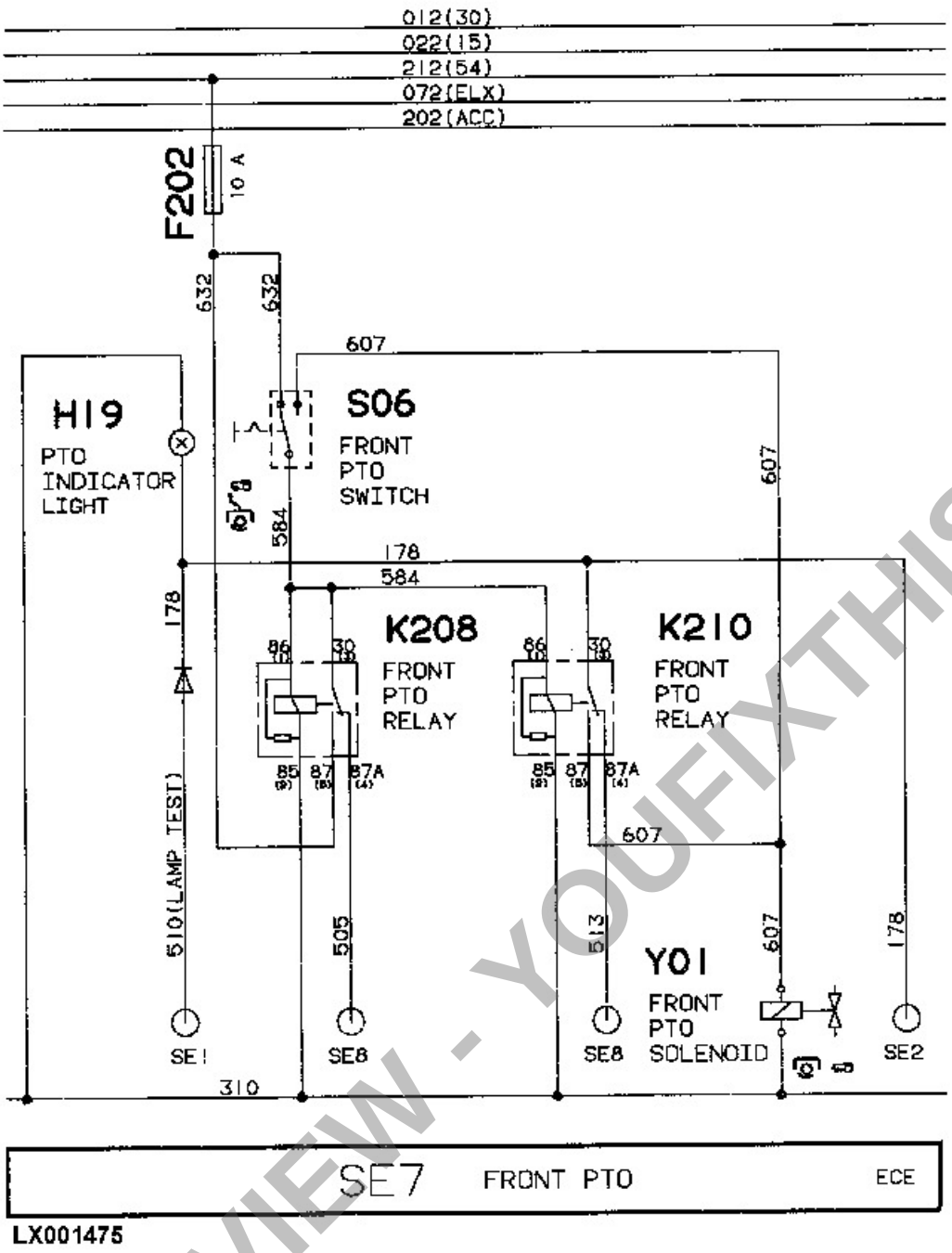
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SE7-Functional Schematic



SE7-Functional Schematic

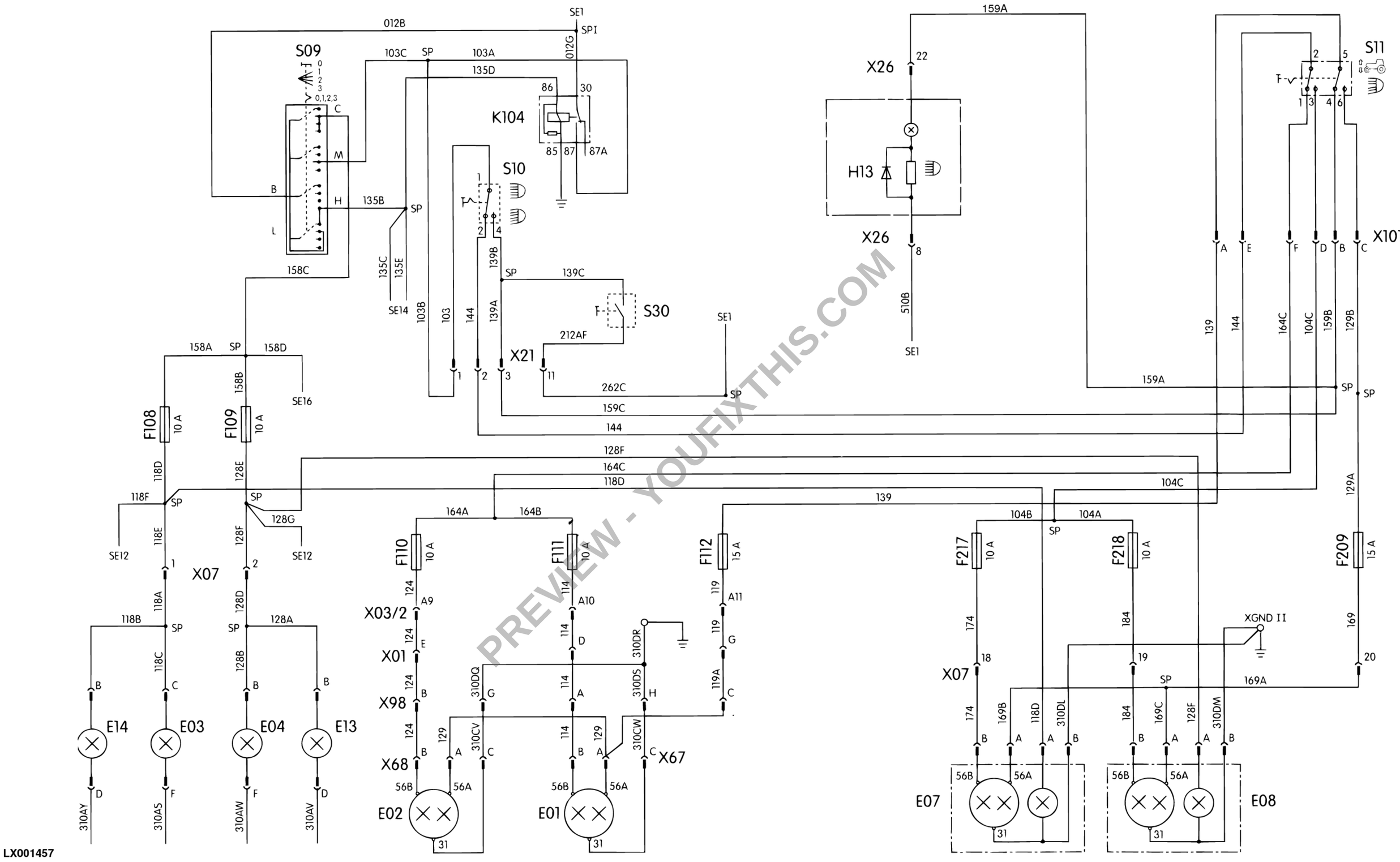
LEGEND:

F202	Fuse
H10	Caution light
H19	Front PTO indicator light
K208	Front PTO relay
K210	Front PTO relay
S06	Front PTO switch
X01	10-pin plug (connecting point - headlights)
X02	2-pin plug (connecting point - solenoid valve)
X03/2	26-pin plug (connecting point - engine)
X27	26-pin plug (connecting point - display unit)
Y01	Solenoid valve for front PTO

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

SE13B-Diagnostic Schematic



LX001457

SE13B-Diagnostic Schematic

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 11 of 149 pages

The full manual includes:

- All 149 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

John Deere 6100, 6200, 6300, 6400 Service Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual