

SECTION 40

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THE STRUCTURE OF THE UNIT

For easier consultation, this unit has been divided into the following chapters:

1. Introduction

Contains a brief description of the terminology used, the procedures to follow for troubleshooting and repairs, and the instruments required for troubleshooting.

2. Indices

Contains the indices arranged by connector name, by component code and by component description.

3. Components

Contains the layouts of the connectors used in the electrical system, descriptions of the components installed on the tractor, the technical data necessary for functional testing and the pinouts of the electronic control units.

4. Systems

Contains the electrical diagrams of the tractor's systems.

5. Wiring harnesses

Contains the layouts, the wiring diagrams and the positioning of connectors on the tractor.

HOW TO CONSULT THE UNIT

A 2.1 COMPONENT DESCRIPTION INDEX

INDEXES	Description	Code	Terminal (para 3.2.xx)	Connector (para 4.xx)	System (para 4.xx)	Notes
	Start enable switch (green)	0441.6066	(1)	(START)	(2)	
	Starter motor	X00		(X47)	(2)	

B 4.2 ENGINE START

C 3.2 COMPONENT TECHNICAL DATA

INDEXES	Code	Description	Characteristics	Notes	Connector
(1)	0441.6066	Start enable switch	Normally closed switch (NC) Characteristics with contact closed 3,9	Green	(START)
(2)	X00	Starter motor	Normally opens switch (NO) Characteristics with contact closed 3,9		X00

D 2.3 CONNECTOR INDEX

INDEXES	Connector	Type	Wiring code	Connection wiring or component code	Component description
(10)	ST1	32	0442.2836.4	Infocenter (1)	Start enable switch (green)
(10)	ST2	32	0442.2836.4	Infocenter (2)	Start enable switch (green)

E ENGINE WIRING

F ENGINE WIRING (120-165 CV) (1/2)

G 3.1 CONNECTOR LAYOUTS

How to consult the table

The quickest way to determine the cause of a malfunction of a component (e.g. the starter motor) is to check all the components in the system in which the component is incorporated.

In this example, the problem is a malfunction of the starter motor, which fails to start the engine.

- 1- Look in paragraph "2.1. Component description index" for the starter motor and identify the system in which it is incorporated. The system is indicated in the column "System (para 4.xx)" and in this case is "2" (figure A).
- 2- Consult paragraph "4.2 Starting" (figure B), in which the electrical diagram indicates all the components in the system; these components are accompanied by numbers that correspond to the key on the same page.
- 3- Check all the components in the system, starting, for example, with the switch "2".
- 4- Look in paragraph "2.1. Component description index" (figure A) for "Starting enabling switch (Green)" and check in the column "Technical (para 3.2.xx)" if there is a technical description of the component (in this case it is given at n° 11 of the paragraph "3.2 Component technical data") (figure C).

Note down also the name of the connector to which the component is connected (in this case "START").

Only if the position of the component is not known

- 5- Look in paragraph "2.3 Connector index" (figure D) for the name of the connector to which the component is connected (in this case "START") and note down the wiring harness in which it is incorporated (in this case "0443.7847" or "0.012.3639.4") and the type of connector (in this case "10").
- 6- Look for the wiring harness in chapter "5. Layouts, electrical wiring diagrams, connector positions" using the index at the beginning of the chapter.
- 7- Look for the name of the connector in the photos attached to the electrical diagrams and determine its position on the tractor from the drawing (figure E). **NOTE:** In the electrical diagrams (figure F) are indicated the names of the connectors and the descriptions that are used in all the tables of chapter 2. Using the data contained in the paragraph "3.2 Component technical data" (figure C) in position n° 11, check the operation of the switch.
- 8- If the pinout of the connector is not known, look in paragraph "3.1 Connector layouts" (figure G) for the number found in the column "Type" of paragraph "2.3 Connector index".

1. INTRODUCTION

This section of the workshop manual is intended as a practical guide to troubleshooting the tractor's electrical and electronic systems.

The following pages provide the technician with all the necessary information regarding the tractor's systems and components.

Due to the possible time difference between the introduction of technical modifications (in line with our policy of continuous product improvement) and the corresponding amendment of our printed documentation, we are obliged to state that the data contained in this document are subject to modification and as such are not binding.

1.1 LIST OF WIRING HARNESES






DESCRIPTION	CODE	PAGE.
Cab power supply wiring	0443.7846/20	40-111
Air conditioning wiring	0.010.2562.2	40-151
Armrest wiring	0443.7354.4	40-181
Engine hood wiring	0.013.0663.4/10	40-87
Front console wiring	0.012.8894.4/30	40-133
Side console wiring	0.012.8732.4/30	40-139
Lights selector switch wiring	0443.8656	40-177
Display wiring	0443.7875	40-157
Cab lower headlights wiring	0441.1923.4	40-169
Cab roof front and rear worklights wiring	0443.4993	40-171
Cab lower front worklights wiring (machine without front lift)	0442.5602	40-170
Trailer brake wiring	0443.7355.4	40-104
Trailer brake wiring (Italy)	0443.7356.4	40-103
Engine wiring	0.013.0732.4/50	40-77
Number plate light wiring (Wide fenders)	0.012.2018.4/10	40-122
Number plate light wiring (Narrow fenders)	0441.4114	40-128
Cab full and dipped beam headlights (with front lift)	0441.6727	40-170
Engine wiring	0419.9869	40-71
Windscreen wiper motor wiring	0441.2045	40-169
Fender wiring - wide	0.012.2010.4/10	40-121
Fender wiring - narrow	0442.9835/10	40-127
Front axle suspension wiring (cab)	0443.7850/10	40-117
Front axle suspension wiring (ROPS)	0443.7849	40-107
Roof wiring	0443.7851/10	40-161
Transmission wiring	0443.7848/10	40-91
Fuses and relays control unit	0441.9533.4/10	40-183

1.2 DEFINITION OF COMPONENTS AND SYMBOLS

To prevent any misunderstanding or ambiguity, listed below are definitions for some of the key terms used in this unit.

TERM	DESCRIPTION
Connector	Element used to connect two components (e.g. wiring-switch. wiring-wiring)
Temperature sensor	Electrical component that converts the temperature of a medium (air, water, oil, etc.) into a voltage or resistance
Pressure sensor	Electrical component that converts the pressure of a medium (air, water, etc.) into a voltage or resistance
Position sensor	Electrical component that converts the angular or linear position of an object into a voltage
Pressure switch	Switch that changes state (opens or closes a contact) according to the operating pressure in the circuit in which it is installed
Thermostat	Switch that changes state (opens or closes a contact) according to the temperature of the medium in which it is immersed.
Switch	Mechanical component that opens or closes one or more electrical contacts.
Solenoid valve	Valve operated by applying electrical current to a coil (or solenoid)

Chapter “3.2 Description of components” shows the wiring diagrams for certain switches and buttons. The following symbols are used for ease of identification:

SYMBOL	DESCRIPTION
	Contact between CLOSED pins (stable position of switch)
	Contact between CLOSED pins (non-stable position of switch)
	Indicator LED
	Indicator lamp
	Diode

1.3 GENERAL RULES

The inspection, maintenance, troubleshooting and repair operations are essential to ensure that the tractor continues to operate correctly over time and to prevent malfunctions and breakdowns. The scope of this paragraph is to describe repair procedures and to help improve the quality of repairs.

1.3.1 MODIFICATION OF THE TRACTOR'S ELECTRICAL/ELECTRONIC CIRCUITS

The manufacturer prohibits any modification or alteration of the electrical wiring for the connection of any non-approved electrical appliances or components.

In particular, if it is discovered that the electrical system or a component has been modified without authorisation, the manufacturer will accept no liability for any damage to the vehicle and the vehicle warranty will be invalidated.

1.3.2 MAIN WIRING FAULTS

a. Poor contact between connectors

The main causes of poor contact between connectors are incorrect insertion of the male into the female connector, deformation of one or both connectors, and corrosion or oxidation of the pin contact surfaces.

b. Defective pin welding or crimping

The pins of the male and female connectors make good contact in the crimped or welded area, but the wires are subjected to excessive tension, leading to breakage of the insulation or the wire itself and a poor connection.

c. Disconnecting wiring

If components are disconnected by pulling on the wires, or if components are removed with the wires still connected, or if the wiring is subject to a heavy impact this could damage the connections at the pins, breaking strands of wire.

d. Penetration of water in connectors

The connectors are designed to prevent penetration of liquids (water, oil etc.); however, it is possible that when the tractor is cleaned using high-pressure water or steam, water could penetrate or condense in the connectors.

As the connectors are designed to prevent liquid penetration, any water that does get in will not be able to drain out, and thus may cause shortcircuits across the pins.

For this reason it is good practice to dry the connectors with a low pressure jet of compressed air after washing the tractor.

e. Oil or dirt on connectors

Oil or grease on the connectors or pins can create a poor contact (oil and grease are non-conductors).

Clean the connectors thoroughly using a dry cloth or a low pressure jet of compressed air and use specific products (deoxidising sprays, etc.) to degrease the contacts.

- ★ Take care not to bend the pins when cleaning them.
- ★ Use dehydrated not lubricated compressed air.

1.3.3 REMOVAL, REFITTING AND DRYING OF CONNECTORS AND WIRING**a. Disconnection of connectors**

When disconnecting wiring, pull on the connectors rather than on the wires themselves. For connectors that are held in position with screws or levers, fully loosen the screws, then pull on the connector.

For connectors that are clipped together, fully depress the clip then pull the connector apart.

After disconnecting connectors, cover them in a waterproof material to prevent dirt or moisture getting into the contacts.

b. Connecting the connectors

Check the condition of the connectors:

- Make sure the pin contact surfaces are free of water, dirt or oil.
- Check that the connectors are not deformed and that the pins are not corroded.
- Check that the connector casings are not damaged or split.
- ★ If a connector is contaminated with oil or grease, or if moisture has penetrated the casing, clean it as described in paragraph 1.3.2.
- ★ If a connector is damaged, deformed or broken, replace it with a new one.

When connecting connectors, make sure they are properly aligned before applying any force.

For connectors with clips, insert the two halves until they clip together.

c. Cleaning and drying wiring

When wiring is dirty or contaminated with oil or grease, clean it with a dry cloth, or, if necessary, with water or steam.

If the wiring has to be cleaned with water, avoid directing the water or steam jet on the connectors; if water penetrates the connector, proceed as described in paragraph 1.3.2.

- ★ Check that the connector is not short circuited by water by testing the continuity across the pins.
- ★ After checking the connector is in good condition, degrease the contacts using a deoxidising product.

d. Renewal of damaged electrical components.

- When replacing electrical components (fuses, relays, etc.), use only original parts supplied by the manufacturer.
- When replacing fuses, check that the new fuse conforms to DIN 72581 standards and in particular:
 - fuse F1 (100A) DIN 72581/2
 - bayonet fuse (F2, F3, etc.) DIN 72581/3C

The fitting of replacement fuses that do not comply with these standards will invalidate the warranty with immediate effect and release the manufacturer from any liability.
- When replacing relays, make sure that the new relay conforms to the standards marked on the original relay.

1.4 DIAGNOSTIC INSTRUMENTS

For the correct diagnosis of any faults in the tractor's electrical system, the following instruments are required:

- 1 - **Digital multimeter** with the following minimum characteristics:
 - AC VOLT 0-600
 - DC VOLT 0-600
 - OHM..... 0-32M
 - AC AMP 0-10
 - DC AMP 0-10
- 2 - **Computer** loaded with the "SERDIA"
- 3 - **All Round Tester**

1.5 WIRE COLOUR CODES

COLOUR CODES	
A	Light blue
B	White
C	Orange
G	Yellow
H	Grey
L	Dark blue

COLOUR CODES	
M	Brown
N	Black
R	Red
S	Pink
V	Green
Z	Purple

2. INDICES

2.1 COMPONENT DESCRIPTION INDEX

Description	Code	Technical (para. 3.2.xx)	Connector	System (para. 4.xx)
4WD switch	0441.1496.4	44	8	19
50S lights switch	0441.1496.4	43	4	8-9
Accelerator pedal position sensor	0443.2708	28	X30	4
Actuator	0211.2588	4	Y3	4
Air cleaner clogged sensor	0441.9014		L	11
Air conditioning compressor	0443.7338		K	14
Air conditioning control panel illumination connector			X24	14
Air conditioning on/off switch	0.010.2532.0		X26	14
Air conditioning thermostat	0.010.2537.1		X25	14
Alternator	0117.8607		B+ D+	2-3-8-9-14-21
Armrest	0443.8670.4		X21	4-20
ASM switch	0441.1498	48	6	19
Auxiliary air conditioning fan	0.013.2489.4		X77	14
Auxiliary air conditioning fan power supply fuse			FU120	14
Auxiliary air conditioning fan switch relay			RL33	14
Auxiliary power socket	0114.3529		X15	12
Axle Down control solenoid valve coil	0442.3803		S	17
Axle Up control solenoid valve coil	0442.3803		H	17
Battery			+30	
Brake fluid level sensor			X81	15
Brake pedal switch	0439.1395	9	X32	15-17-19
Cab headlights dipped beam switch	0441.1496.4	41	3	6
Camshaft speed sensor (Pickup)	0419.9792	6	B40	4
CB power connector			X44	13
Cigar lighter	0441.2338		X7	7
Clock	0441.2337		X49	7
Clutch pedal depressed proximity sensor	0442.4165	23	X33	18
Clutch pedal position sensor	0443.2708	29	X34	18
Compressed air pressure gauge	0442.5709	24	X39	16
Compressed air pressure gauge light			X38	5-6
Compressor and condenser fan pressure switch	0442.6492	25	X74 - X76	14
Configuration connector (Powershift)			LS	
Configuration connector (Powershift/Powershuttle)			LS/PS	18
Configuration connector (Powershuttle)			PS	18
Creeper engagement switch	0443.6527		X4	4-18
Diagnostics connector			X18	4-17-18-20
Differential lock solenoid valve	0441.7555	21	EVDF	19
Differential lock switch	0441.1498	49	7	19
Direction indicators flasher unit	0441.9531		X1-X2	5-6
Door open warning signal switch	0441.4097		X45	7

Description	Code	Technical (para. 3.2.xx)	Connector	System (para. 4.xx)
Driver seat air suspension compressor	0.010.2274.1		X5	7
Engine control unit	0211.2704		MX1 - MX2	2-3-4-12-18
Engine coolant temperature sensor	0419.9410		B43	4
Engine coolant temperature sensor (for Infocenter)	0419.9809	8	T	11
Engine ECU circuit board	0.010.3627.1		X8	2-4-18
Engine hood front worklights fuse			FU130	8-9
Engine hood front worklights relay			RL20	8-9
Engine oil low pressure switch	0443.1690	27	PRESS. SWITCH	18
Engine oil pressure switch	0118.1232	3	P	11
Engine speed keypad	0443.7505		X20	4
Engine speed sensor	0.010.2874.2	1	NLSE	18
Engine starter relay			RL40	2
Fan speed selector switch	0.010.2528.1		X27	14
Forward/reverse solenoid valves (Y6, Y7)	0441.6685	19	ADD.EV. V/R	18
Four wheel drive (4WD) clutch solenoid valve	0443.1661	26	DT	15-19
Front axle suspension control unit	2.8519.008.0		JX3 - YX4	12-17
Front axle suspension load sensing solenoid valve coil	0442.3803		X68	17
Front axle suspension position sensor	0439.1530	11	X69	17
Front left sidelight and direction indicator	0441.1920.4		X59	5-6
Front left worklight (on hood)	2.8039.160.0		X93	8-9
Front left worklight on cab (with front lift)	0441.4087.4		X63	6
Front left worklight on cab (without front lift)	0442.5599.4		X61	8-9
Front PTO pushbutton (in cab)	0441.1533	14	X9	21
Front PTO solenoid valve			FZW	21
Front right sidelight and direction indicator	0441.1921.4		X60	5-6
Front right worklight (on hood)	2.8039.160.0		X89	8-9
Front right worklight on cab (with front lift)	0441.4087.4		X64	6
Front right worklight on cab (without front lift)	0442.5599.4		X62	8-9
Front suspension pushbutton	0442.2763	52	5	17
Front upper cab (50S) worklights relay			RL21	6-8-9
Fuel level sensor	0.012.6230.0		FUEL	11
Fuel temperature sensor	0419.9809	7	B37	4
Gearbox output shaft speed sensor	0443.8449	33	NLSA	18
Gearshift lever	0442.2746.4/10		X12	18
Gearshift solenoid valves (Y1, Y2, Y5)	0441.6685	20	EVGROUP	18
Gearshift solenoid valves (Y3, Y4)	0443.6315	31	EVGROUP	18
Glowplug	0118.0898		X78	3
Glowplug warning light ON relay			RL41	3
Glowplugs control unit	0117.9712		X83 - X84 - X85	2-3
Handbrake switch	0439.1395	10	X6	15-16
Hazard warning lights on/off switch	0442.9401	53	X36	5-6
Heater fan speed 1 relay			RL32	14

Description	Code	Technical (para. 3.2.xx)	Connector	System (para. 4.xx)
Heater fan speed 3 relay			RL30	14
Heater fan speed 4 relay			RL31	14
Horn	0116.9304		X87	5-6
Hydraulic oil filter clogging pressure switch	0118.0413		FILTER	18
Instrument panel	0443.7488/10		ST1 - ST2	3-4-5-6-11-12-15-16-18-20-21
Interior roof light	0442.6316		X46	7
ISO4 socket (power supply to implements)	0442.2323.4		ISO4	12
ISO7 socket (implement connection)	0442.2324.4		ISO7	4-12-21
Left front loudspeaker	0.012.1725.0		X50	13
Left headlamp	2.8039.240.0		X86	5-6
Left headlamp (UK)	2.8039.250.0		X86	5-6
Left rear loudspeaker	0.012.1726.0		X41	13
Lift and hand throttle console	0441.9425.4/10	54	EHR - EMR	4-20
Lift control panel	0442.9597.4		X14	20
Lift Down solenoid valve			EVDW	20
Lift draft sensor	0441.5586.4	16	RIGHT DRAFT - LEFT DRAFT	20
Lift Up solenoid valve			EVUP	20
Lower front worklights (on cab) switch	0441.1496.4	42	3A	8
Lower rear left worklights			X65SX	8-9
Lower rear right worklights			X65DX	8-9
Lx heater fan	0.010.2537.0		X22	14
Lx heater fan resistor	0.010.2535.1		X23	14
Main heating fuse			FU131	14
Main power supply fuse			FU100	
Number plate light	0441.4115		X67	5-6
Proportional solenoid valve coil	0443.4425	30	EVPROP	18
PTO AUTO switch	0441.1496.4	46	PTO AUTO	21
Radar	0443.8654	35	RADAR	20
Radar (UK)	0443.8655	36	RADAR	20
Radar control switch	0441.4584		X13	20
Radio			X51 - X52	13
Rear left tail light and direction indicator (narrow fenders)	0442.9833.4/10		X66SX	5-6-15
Rear left tail light and direction indicator (wide fenders)	2.8029.880.0/10		X66SX	5-6-15
Rear lift control unit	2.8519.013.0		JX1 - JX2	12-15-17-19-20-21
Rear lift Down Lx pushbutton	0441.2688	15	DWSX	20
Rear lift Down Rx pushbutton	0441.2688	15	DWDX	20
Rear lift position sensor	0443.8667	37	POS SEN	20
Rear lift Up Lx pushbutton	0441.2688	15	UPSX	20
Rear lift Up Rx pushbutton	0441.2688	15	UPDX	20
Rear PTO Lx pushbutton (on fender)	0441.1533	12	PTOSX	21
Rear PTO pushbutton (in cab)	0441.1533	13	X10	21

Description	Code	Technical (para. 3.2.xx)	Connector	System (para. 4.xx)
Rear PTO Rx pushbutton (on fender)	0441.1533	12	PTODX	21
Rear PTO solenoid valve	0441.7555	22	EVPTO	21
Rear PTO speed sensor	0443.8352		PTO SEN	21
Rear right tail light and direction indicator (narrow fenders)	0442.9834.4/10		X66DX	5-6-15
Rear right tail light and direction indicator (wide fenders)	2.8029.880.0/10		X66DX	5-6-15
Rear screen washer pump	0441.4105		RP	10
Rear screen wiper motor	0441.3192		X42	10
Rear screen wiper switch	0441.9283	51	REAR WIPER	10
Rear worklights switch	0441.1496.4	40	WORK LIGHT	8-9
Right front loudspeaker	0.012.1725.0		X48	13
Right headlamp	2.8039.240.0		X88	5-6
Right headlamp (UK)	2.8039.250.0		X88	5-6
Right rear loudspeaker	0.012.1726.0		X43	13
Rotating beacon			X47	8-9
Rotating beacon on/off switch	0441.1496.4	45	FLASHING LIGHT	8-9
Rx heater fan	0.010.2535.0		X29	14
Rx heater fan resistor	0.010.2535.1		X28	14
Shuttle control lever	0.012.6472.4	39	X37	18
Side console courtesy light	0441.2616		X53	7
Sidelights switch	0441.1497	47	1	5-6
Speed sensor for odometer	0443.8436	32	NAB	18
Start enable switch	0441.6066	17	X80	2
Starter motor	0118.0928		+30C - +50	2-3
Starter switch	0441.1512.4	50	X17	2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21
Steering angle sensor	0441.5266	38	X82	19
Steering column switch unit	0443.8656		AS4	5-6-10
Steering system pressure switch	0.012.4371.0		X79	11
Trailer brake lights fuse			FU121	15
Trailer braking air pressure sensor	0.011.9428.0	2	X71	16
Trailer braking low pressure switch			X73	16
Trailer parking brake solenoid valve coil			X72	16
Trailer socket (lights and auxiliary power)	0442.4116		X70	12-15
Transmission display	0441.9280.4		X40	5-6-18
Transmission ECU	0443.8083/10		ECU PS	2-18
Transmission oil temperature sensor	0441.6649	18	TEMP	18
Transmission speed sensor	0443.8450	34	NHK	18
Turbo charge pressure sensor	0419.9552	5	B41	4
Upper front left worklight	0445.0666		X56	8-9
Upper front right worklight	0445.0666		X57	8-9
Upper rear left worklights	0445.0666		X55	8-9

Description	Code	Technical (para. 3.2.xx)	Connector	System (para. 4.xx)
Upper rear right worklights	0445.0666		X54	8-9
Windscreen washer pump	0441.4105		FP	10
Windscreen wiper motor	0441.3192		X58	10

2.2 COMPONENT CODE INDEX

Code	Description	Technical (para. 3.2.xx)	Connector	System (para. 4.xx)
0.010.2274.1	Driver's seat air suspension compressor		X5	7
0.010.2528.1	Fan speed selector switch		X27	14
0.010.2532.0	Air conditioning on/off switch		X26	14
0.010.2535.0	Rx heater fan		X29	14
0.010.2535.1	Lx heater fan resistor		X23	14
0.010.2535.1	Rx heater fan resistor		X28	14
0.010.2537.0	Lx heater fan		X22	14
0.010.2537.1	Air conditioning thermostat		X25	14
0.010.2874.2	Engine speed sensor	1	NLSE	18
0.010.3627.1	Engine ECU circuit board		X8	2-4-18
0.011.9428.0	Trailer braking air pressure sensor	2	X71	16
0.012.1725.0	Right front loudspeaker		X48	13
0.012.1725.0	Left front loudspeaker		X50	13
0.012.1726.0	Left rear loudspeaker		X41	13
0.012.1726.0	Right rear loudspeaker		X43	13
0.012.4371.0	Steering system pressure switch		X79	11
0.012.6230.0	Fuel level sensor		FUEL	11
0.012.6472.4	Shuttle control lever	39	X37	18
0.013.2489.4	Auxiliary air conditioning fan		X77	14
0114.3529	Auxiliary power socket		X15	12
0116.9304	Horn		X87	5-6
0117.8607	Alternator		B+ D+	2-3-8-9-14-21
0117.9712	Glowplugs control unit		X83 - X84 - X85	2-3
0118.0413	Hydraulic oil filter clogging pressure switch		FILTER	18
0118.0898	Glowplug		X78	3
0118.0928	Starter motor		+30C - +50	2-3
0118.1232	Engine oil pressure switch	3	P	11
0211.2588	Actuator	4	Y3	4
0211.2704	Engine control unit		MX1 - MX2	2-3-4-12-18
0419.9410	Engine coolant temperature sensor		B43	4
0419.9552	Turbo charge pressure sensor	5	B41	4
0419.9792	Camshaft speed sensor (Pickup)	6	B40	4

Code	Description	Technical (para. 3.2.xx)	Connector	System (para. 4.xx)
0419.9809	Fuel temperature sensor	7	B37	4
0419.9809	Engine coolant temperature sensor (for Infocenter)	8	T	11
0439.1395	Brake pedal switch	9	X32	15-17-19
0439.1395	Handbrake switch	10	X6	15-16
0439.1530	Front axle suspension position sensor	11	X69	17
0441.1496.4	Cab headlights dipped beam switch	41	3	6
0441.1496.4	Lower front worklights (on cab) switch	42	3A	8
0441.1496.4	50S lights switch	43	4	8-9
0441.1496.4	4WD switch	44	8	19
0441.1496.4	Rotating beacon on/off switch	45	FLASHING LIGHT	8-9
0441.1496.4	PTO AUTO switch	46	PTO AUTO	21
0441.1496.4	Rear worklights switch	40	WORK LIGHT	8-9
0441.1497	Sidelights switch	47	1	5-6
0441.1498	ASM switch	48	6	19
0441.1498	Differential lock switch	49	7	19
0441.1512.4	Starter switch	50	X17	2-3-4-5-6-7-8-9-10-11-12-13-14-15-16-17-18-19-20-21
0441.1533	Rear PTO Rx pushbutton (on fender)	12	PTODX	21
0441.1533	Rear PTO Lx pushbutton (on fender)	12	PTOSX	21
0441.1533	Rear PTO pushbutton (in cab)	13	X10	21
0441.1533	Front PTO pushbutton (in cab)	14	X9	21
0441.1920.4	Front left sidelight and direction indicator		X59	5-6
0441.1921.4	Front right sidelight and direction indicator		X60	5-6
0441.2337	Clock		X49	7
0441.2338	Cigar lighter		X7	7
0441.2616	Side console courtesy light		X53	7
0441.2688	Rear lift Down Rx pushbutton	15	DWDX	20
0441.2688	Rear lift Down Lx pushbutton	15	DWSX	20
0441.2688	Rear lift Up Rx pushbutton	15	UPDX	20
0441.2688	Rear lift Up Lx pushbutton	15	UPSX	20
0441.3192	Rear screen wiper motor		X42	10
0441.3192	Windscreen wiper motor		X58	10
0441.4087.4	Front left worklight on cab (with front lift)		X63	6

Code	Description	Technical (para. 3.2.xx)	Connector	System (para. 4.xx)
0441.4087.4	Front right worklight on cab (with front lift)		X64	6
0441.4097	Door open warning signal switch		X45	7
0441.4105	Windscreen washer pump		FP	10
0441.4105	Rear screen washer pump		RP	10
0441.4115	Number plate light		X67	5-6
0441.4584	Radar control switch		X13	20
0441.5266	Steering angle sensor	38	X82	19
0441.5586.4	Lift draft sensor	16	RIGHT DRAFT - LEFT DRAFT	20
0441.6066	Start enable switch	17	X80	2
0441.6649	Transmission oil temperature sensor	18	TEMP	18
0441.6685	Forward/reverse solenoid valves (Y6, Y7)	19	ADD.EV. V/R	18
0441.6685	Gearshift solenoid valves (Y1, Y2, Y5)	20	EVGROUP	18
0441.7555	Differential lock solenoid valve	21	EVDF	19
0441.7555	Rear PTO solenoid valve	22	EVPTO	21
0441.9014	Air cleaner clogged sensor		L	11
0441.9280.4	Transmission display		X40	5-6-18
0441.9283	Rear screen wiper switch	51	REAR WIPER	10
0441.9425.4/10	Lift and hand throttle console	54	EHR - EMR	4-20
0441.9531	Direction indicators flasher unit		X1-X2	5-6
0442.2323.4	ISO4 socket (power supply to implements)		ISO4	12
0442.2324.4	ISO7 socket (implement connection)		ISO7	4-12-21
0442.2746.4/10	Gearshift lever		X12	18
0442.2763	Front suspension pushbutton	52	5	17
0442.3803	Axle Up control solenoid valve coil		H	17
0442.3803	Axle Down control solenoid valve coil		S	17
0442.3803	Front axle suspension load sensing solenoid valve coil		X68	17
0442.4116	Trailer socket (lights and auxiliary power)		X70	12-15
0442.4165	Clutch pedal depressed proximity sensor	23	X33	18
0442.5599.4	Front left worklight on cab (without front lift)		X61	8-9
0442.5599.4	Front right worklight on cab (without front lift)		X62	8-9
0442.5709	Compressed air pressure gauge	24	X39	16
0442.6316	Interior roof light		X46	7
0442.6492	Compressor and condenser fan pressure switch	25	X74 - X76	14

Code	Description	Technical (para. 3.2.xx)	Connector	System (para. 4.xx)
0442.9401	Hazard warning lights on/off switch	53	X36	5-6
0442.9597.4	Lift control panel		X14	20
0442.9833.4/10	Rear left tail light and direction indicator (narrow fenders)		X66SX	5-6-15
0442.9834.4/10	Rear right tail light and direction indicator (narrow fenders)		X66DX	5-6-15
0443.1661	Four wheel drive (4WD) clutch solenoid valve	26	DT	15-19
0443.1690	Engine oil low pressure switch	27	PRESS. SWITCH	18
0443.2708	Accelerator pedal position sensor	28	X30	4
0443.2708	Clutch pedal position sensor	29	X34	18
0443.4425	Proportional solenoid valve coil	30	EVPROP	18
0443.6315	Gearshift solenoid valves (Y3, Y4)	31	EVGROUP	18
0443.6527	Creeper engagement switch		X4	4-18
0443.7338	Air conditioning compressor		K	14
0443.7488/10	Instrument panel		ST1 - ST2	3-4-5-6-11-12-15-16-18-20-21
0443.7505	Engine speed keypad		X20	4
0443.8083/10	Transmission ECU		ECU PS	2-18
0443.8352	Rear PTO speed sensor		PTO SEN	21
0443.8436	Speed sensor for odometer	32	NAB	18
0443.8449	Gearbox output shaft speed sensor	33	NLSA	18
0443.8450	Transmission speed sensor	34	NHK	18
0443.8654	Radar	35	RADAR	20
0443.8655	Radar (UK)	36	RADAR	20
0443.8656	Steering column switch unit		AS4	5-6-10
0443.8667	Rear lift position sensor	37	POS SEN	20
0443.8670.4	Armrest		X21	4-20
0445.0666	Upper rear right worklights		X54	8-9
0445.0666	Upper rear left worklights		X55	8-9
0445.0666	Upper front left worklight		X56	8-9
0445.0666	Upper front right worklight		X57	8-9
2.8029.880.0/10	Rear right tail light and direction indicator (wide fenders)		X66DX	5-6-15
2.8029.880.0/10	Rear left tail light and direction indicator (wide fenders)		X66SX	5-6-15
2.8039.160.0	Front right worklight (on hood)		X89	8-9

Code	Description	Technical (para. 3.2.xx)	Connector	System (para. 4.xx)
2.8039.160.0	Front left worklight (on hood)		X93	8-9
2.8039.240.0	Left headlamp		X86	5-6
2.8039.240.0	Right headlamp		X88	5-6
2.8039.250.0	Left headlamp (UK)		X86	5-6
2.8039.250.0	Right headlamp (UK)		X88	5-6
2.8519.008.0	Front axle suspension control unit		JX3 - YX4	12-17
2.8519.013.0	Rear lift control unit		JX1 - JX2	12-15-17-19- 20-21

2.3 CONNECTOR INDEX

Connector	Type	Wiring code	Connection wiring or component code	Component description
+30A		0443.7846		Battery
+30C		0.013.0732.4/10	0118.0928	Starter motor (+30)
+50		0.013.0732.4/10	0118.0928	Starter motor (+50)
1	28	0.012.8894.4	0441.1497	Sidelights switch
3	28	0.012.8894.4	0441.1496.4	Cab headlights dipped beam switch
3A	28	0.012.8894.4	0441.1496.4	Lower front worklights (on cab) switch
4	28	0.012.8894.4	0441.1496.4	50S lights switch
5	28	0.012.8894.4	0442.2763	Front suspension pushbutton
6	28	0.012.8894.4	0441.1498	ASM switch
7	28	0.012.8894.4	0441.1498	Differential lock switch
8	28	0.012.8894.4	0441.1496.4	4WD switch
ADD.EV. V/R		0443.7848	0441.6685	Forward/reverse solenoid valves (Y6, Y7)
APS	28	0.012.8732.4		Not utilised
AS1	20	0.012.8732.4	0.012.8894.4	
AS2	19	0.012.8732.4	0.012.8894.4	
AS3	18	0.012.8732.4	0.012.8894.4	
AS4	20	0.012.8732.4	0443.8656	Steering column switch unit
AS5	14	0.012.8732.4	0443.7875	
AS6	15	0.012.8732.4	0.012.8894.4	
B1		0419.9869		Not utilised
B6		0419.9869		Not utilised
B37		0419.9869	0419.9809	Fuel temperature sensor
B40		0419.9869	0419.9792	Camshaft speed sensor (Pickup)
B41		0419.9869	0419.9552	Turbo charge pressure sensor
B42		0419.9869		Not utilised
B43		0419.9869	0419.9410	Engine coolant temperature sensor
B+		0.013.0732.4/10	0117.8607	Alternator (B+)
CLEANFIX	28	0.012.8732.4		Not utilised
D+		0.013.0732.4/10	0117.8607	Alternator (D+)

Connector	Type	Wiring code	Connection wiring or component code	Component description
DS1	15	0.012.8732.4	0443.7851	
DT	12	0443.7848	0443.1661	Four wheel drive (4WD) clutch solenoid valve
DWDX	3	0.012.2010.4	0441.2688	Rear lift Down Rx pushbutton
		0442.9835		
DWSX	3	0.012.2010.4	0441.2688	Rear lift Down Lx pushbutton
		0442.9835		
ECU PS	44	0.012.8732.4	0443.8083/10	Transmission ECU
EHR	3	0.012.8732.4	0441.9425.4/10	Lift and hand throttle console (EHR)
			0443.7354.4	
EMR	3	0.012.8732.4	0441.9425.4/10	Lift and hand throttle console (EMR)
			0443.7354.4	
EVDF	12	0443.7848	0441.7555	Differential lock solenoid valve
EVDW	12	0443.7848		Lift Down solenoid valve
EVPROP	12	0443.7848	0443.4425	Proportional solenoid valve coil
EVPTO	12	0443.7848	0441.7555	Rear PTO solenoid valve
EVUP	12	0443.7848		Lift Up solenoid valve
EVGROUP	11	0443.7848	0441.6685	Gearshift solenoid valves (Y1, Y2, Y5)
			0443.6315	Gearshift solenoid valves (Y3, Y4)
F30		0419.9869		Not utilised
F/S LEVER	1	0.012.8732.4		Not utilised
FE1	16	0.012.8732.4	0443.7850	
FE2		0443.7849	0443.7850	
FILTER		0443.7848	0118.0413	Hydraulic oil filter clogging pressure switch
FLASHING LIGHT	28	0.012.8732.4	0441.1496.4	Rotating beacon on/off switch
FP		0443.7848	0441.4105	Windscreen washer pump
FU100		0443.7846		Main power supply fuse
FU120		0.013.0732.4/10		Engine hood front worklights fuse
FU121		0.012.8732.4		Trailer brake lights fuse
FU130		0.013.0732.4/10		Auxiliary air conditioning fan power supply fuse
FU131		0.012.8732.4		Main heating fuse

Connector	Type	Wiring code	Connection wiring or component code	Component description
FUEL	2	0443.7848	0.012.6230.0	Fuel level sensor
FZW	2	0.013.0732.4/10		Front PTO solenoid valve
G1		0.012.8732.4	0.010.2562.2	
G2	32	0.012.8732.4	0.010.2562.2	
G3	33	0.012.8732.4	0443.7354.4	
G4		0.012.8894.4	0443.8656	Steering column switch unit
G5	1	0443.7851	0443.4993	
G6	1	0443.7851	0443.4993	
G7	5	0443.7851	0441.1923.4	
G8	5	0443.7851	0443.4993	
G9	5	0443.7851	0441.1923.4	
G10	6	0443.7851	0441.2045	
G11	5	0443.7851	0443.4993	
G12	5	0441.1923.4	0441.6727	
			0442.5602	
G13	5	0441.1923.4	0441.6727	
			0442.5602	
G14		0443.7846	0.012.2010.4	
			0442.9835	
G15		0443.7846	0.012.2010.4	
			0442.9835	
G16		0.012.2010.4	0.012.2018.4	
		0442.9835	0441.4114	
G17	4	0443.7848	0443.7355.4	
			0443.7356.4	
G18		0.013.0732.4/10	0419.9869	
G19		0.013.0732.4/10	0.013.0663.4	
H	12	0443.7849	0442.3803	Axle Up control solenoid valve coil
ISO4	24	0.012.8732.4	0442.2323.4	ISO4 socket (power supply to implements)
ISO7	25	0.012.8732.4	0442.2324.4	ISO7 socket (implement connection)
J1	9	0.012.8732.4		

Connector	Type	Wiring code	Connection wiring or component code	Component description
J2	3	0.012.8732.4		
J3	3	0.012.8732.4		
JX1	31	0.012.8732.4	2.8519.013.0	Rear lift control unit
JX2	31	0.012.8732.4	2.8519.013.0	Rear lift control unit
JX3	31	0443.7850	2.8519.008.0	Front axle suspension control unit
JX4	31	0443.7850	2.8519.008.0	Front axle suspension control unit
K		0.013.0732.4/10	0443.7338	Air conditioning compressor
L		0.013.0732.4/10	0441.9014	Air cleaner clogged sensor
LEFT DRAFT	13	0443.7848	0441.5586.4	Lift draft sensor (left)
LS	2	0443.7848		Not utilised
LS/PS	2	0443.7848		Configuration connector (Powershift/Powershuttle)
MS1	41	0.012.8732.4	0.013.0732.4/10	
MS2	29	0.012.8894.4	0.013.0732.4/10	
MX1	43	0.012.8732.4	0211.2704	Engine control unit
MX2	43	0.012.8732.4	0211.2704	Engine control unit
NAB	3	0443.7848	0443.8436	Speed sensor for odometer
NEUTRAL LS		0443.7848		Not utilised
NHK	3	0443.7848	0443.8450	Transmission speed sensor
NLSA	3	0443.7848	0443.8449	Gearbox output shaft speed sensor
NLSE	3	0443.7848	0.010.2874.2	Engine speed sensor
P1		0.012.8732.4	0441.9533	
P2	14	0.012.8732.4	0441.9533	
P3	22	0.012.8732.4	0441.9533	
P4		0.012.8732.4	0441.9533	
P5	22	0.012.8732.4	0441.9533	
P6	16	0.012.8732.4	0441.9533	
P	12	0.013.0732.4/10	0118.1232	Engine oil pressure switch
POS SEN	3	0443.7848	0443.8667	Rear lift position sensor
PRESS. SWITCH	2	0443.7848	0443.1690	Engine oil low pressure switch
PS	2	0443.7848		Configuration connector (Powershuttle)
PTO SEN	3	0443.7848	0443.8352	Rear PTO speed sensor
PTO AUTO	28	0.012.8732.4	0441.1496.4	PTO AUTO switch

Connector	Type	Wiring code	Connection wiring or component code	Component description
PTODX	3	0.012.2010.4	0441.1533	Rear PTO Rx pushbutton (on fender)
		0442.9835		
PTOSX	3	0.012.2010.4	0441.1533	Rear PTO Lx pushbutton (on fender)
		0442.9835		Not utilised
RADAR	13	0443.7848	0443.8654	Radar
			0443.8655	Radar (UK)
REAR WIPER	28	0.012.8732.4	0441.9283	Rear screen wiper switch
RIGHT DRAFT	13	0443.7848	0441.5586.4	Lift draft sensor (Right)
RL20	27	0.013.0732.4/10		Engine hood front worklights relay
RL21		0443.7851		Front upper cab (50S) worklights relay
RL30		0.010.2562.2		Heater fan speed 3 relay
RL31		0.010.2562.2		Heater fan speed 4 relay
RL32		0.010.2562.2		Heater fan speed 1 relay
RL33	27	0.013.0732.4/10		Auxiliary air conditioning fan switch relay
RL40	27	0.013.0732.4/10		Engine starting relay
RL41		0.012.8732.4		Glowplug warning light ON relay
RP		0443.7848	0441.4105	Rear screen washer pump
S	12	0443.7849	0442.3803	Axle Down control solenoid valve coil
ST1	17	0.012.8894.4	0443.7488/10	Instrument panel
ST2	21	0.012.8894.4	0443.7488/10	Instrument panel
T	12	0.013.0732.4/10	0419.9809	Engine coolant temperature sensor (for Infocenter)
TEMP	12	0443.7848	0441.6649	Transmission oil temperature sensor
TKAB1	42	0.012.8732.4	0443.7848	
TKAB2	41	0.012.8732.4	0443.7848	
TKAB3		0.012.8732.4	0443.7846	
UPDX	3	0.012.2010.4	0441.2688	Rear lift Up Rx pushbutton
		0442.9835		
UPSX	3	0.012.2010.4	0441.2688	Rear lift Up Lx pushbutton
		0442.9835		Rear lift Up Lx pushbutton
WORK LIGHT	28	0.012.8732.4	0441.1496.4	Rear worklights switch
X1		0.012.8732.4	0441.9531	Direction indicators flasher unit (Red)
X2		0.012.8732.4	0441.9531	Direction indicators flasher unit (black)

Connector	Type	Wiring code	Connection wiring or component code	Component description
X4	12	0.012.8732.4	0443.6527	Creeper engagement switch
X5	1	0.012.8732.4	0.010.2274.1	Driver's seat air suspension compressor
X6		0.012.8732.4	0439.1395	Handbrake switch
X7	1	0.012.8732.4	0441.2338	Cigar lighter
X8		0.012.8732.4	0.010.3627.1	Engine ECU circuit board
X9	3	0.012.8732.4	0441.1533	Front PTO pushbutton (in cab)
X10	3	0.012.8732.4	0441.1533	Rear PTO pushbutton (in cab)
X11	34	0.012.8732.4		Not utilised
X12	1	0.012.8732.4	0442.2746.4/10	Gearshift lever
X13		0.012.8732.4	0441.4584	Radar control switch
X14	26	0.012.8732.4	0442.9597.4	Lift control panel
X15		0.012.8732.4	0114.3529	Auxiliary power socket
X16	1	0.012.8732.4		Not utilised
X17	7	0.012.8732.4	0441.1512.4	Starter switch
X18	8	0.012.8732.4		Diagnostics connector
X19	1	0.012.8732.4		Auxiliary power supply connector (in cab)
X20		0.012.8732.4	0443.7505	Engine speed keypad
			0443.7354.4	
X21		0443.7354.4	0443.8670.4	Armrest
X22		0.010.2562.2	0.010.2537.0	Lx heater fan
X23		0.010.2562.2	0.010.2535.1	Lx heater fan resistor
X24		0.010.2562.2		Air conditioning control panel illumination connector
X25		0.010.2562.2	0.010.2537.1	Air conditioning thermostat
X26		0.010.2562.2	0.010.2532.0	Air conditioning on/off switch
X27		0.010.2562.2	0.010.2528.1	Fan speed selector switch
X28		0.010.2562.2	0.010.2535.1	Rx heater fan resistor
X29		0.010.2562.2	0.010.2535.0	Rx heater fan
X30	30	0.012.8894.4	0443.2708	Accelerator pedal position sensor
X31	30	0.012.8894.4		Not utilised
X32	36	0.012.8894.4	0439.1395	Right brake pedal switch
X33	13	0.012.8894.4	0442.4165	Clutch pedal depressed proximity sensor

Connector	Type	Wiring code	Connection wiring or component code	Component description
X34	30	0.012.8894.4	0443.2708	Clutch pedal position sensor
X35	36	0.012.8894.4	0439.1395	Left brake pedal switch
X36		0443.8656	0442.9401	Hazard warning lights on/off switch
X37		0443.8656	0.012.6472.4	Shuttle control lever
X38		0443.7875		Compressed air pressure gauge light
X39		0443.7875	0442.5709	Compressed air pressure gauge
X40		0443.7875	0441.9280.4	Transmission display
X41		0443.7851	0.012.1726.0	Left rear loudspeaker
X42		0443.7851	0441.3192	Rear screen wiper motor
X43		0443.7851	0.012.1726.0	Right rear loudspeaker
X44		0443.7851		CB power connector
X45		0443.7851	0441.4097	Door open warning signal switch
X46		0443.7851	0442.6316	Interior roof light
X47		0443.7851		Rotating beacon
X48	1	0443.7851	0.012.1725.0	Right front loudspeaker
X49	10	0443.7851	0441.2337	Clock
X50	1	0443.7851	0.012.1725.0	Left front loudspeaker
X51	23	0443.7851		Radio (grey)
X52	23	0443.7851		Radio (brown)
X53		0443.7851	0441.2616	Side console courtesy light
X54	2	0443.4993	0445.0666	Upper rear right worklights
X55	2	0443.4993	0445.0666	Upper rear left worklights
X56	2	0443.4993	0445.0666	Upper front left worklight
X57	2	0443.4993	0445.0666	Upper front right worklight
X58	5	0441.2045	0441.3192	Windscreen wiper motor
X59		0441.1923.4	0441.1920.4	Front left sidelight and direction indicator
X60		0441.1923.4	0441.1921.4	Front right sidelight and direction indicator
X61		0442.5602	0442.5599.4	Front left worklight on cab
X62		0442.5602	0442.5599.4	Front right worklight on cab (without front lift)
X63		0441.6727	0441.4087.4	Front left worklight on cab
X64		0441.6727	0441.4087.4	Front right worklight on cab (with front lift)

Connector	Type	Wiring code	Connection wiring or component code	Component description
X65SX		0.012.2010.4		Lower rear left worklights
X65DX		0442.9835		Lower rear right worklights
X66SX		0.012.2010.4	2.8029.880.0/10	Rear left tail light and direction indicator (wide fenders)
		0442.9835	0442.9833.4/10	Rear left tail light and direction indicator (narrow fenders)
X66DX		0.012.2010.4	2.8029.880.0/10	Rear right tail light and direction indicator (wide fenders)
		0442.9835	0442.9834.4/10	Rear right tail light and direction indicator (narrow fenders)
X67		0.012.2018.4	0441.4115	Number plate light (wide fenders)
		0441.4114	0441.4115	Number plate light (narrow fenders)
X68		0443.7849	0442.3803	Front axle suspension load sensing solenoid valve coil
X69		0443.7849	0439.1530	Front axle suspension position sensor
X70	39	0443.7848	0442.4116	Trailer socket (lights and auxiliary power)
X71	40	0443.7355.4	0.011.9428.0	Trailer braking air pressure sensor
		0443.7356.4		
X72	35	0443.7356.4		Trailer parking brake solenoid valve coil
X73		0443.7356.4		Trailer braking low pressure switch
X74		0.013.0732.4/10	0442.6492	Compressor and condenser fan pressure switch
X75	3	0.013.0732.4/10		Not utilised
X76		0.013.0732.4/10	0442.6492	Compressor and condenser fan pressure switch
X77	1	0.013.0732.4/10	0.013.2489.4	Auxiliary air conditioning fan
X78		0.013.0732.4/10	0118.0898	Glowplug
X79		0.013.0732.4/10	0.012.4371.0	Steering system pressure switch
X80	2	0.013.0732.4/10	0441.6066	Start enable switch (Green)
X81		0.013.0732.4/10		Brake fluid level sensor
X82	4	0.013.0732.4/10	0441.5266	Steering angle sensor
X83	38	0.013.0732.4/10	0117.9712	Glowplugs control unit
X84	2	0.013.0732.4/10	0117.9712	Glowplugs control unit
X85		0.013.0732.4/10	0117.9712	Glowplugs control unit

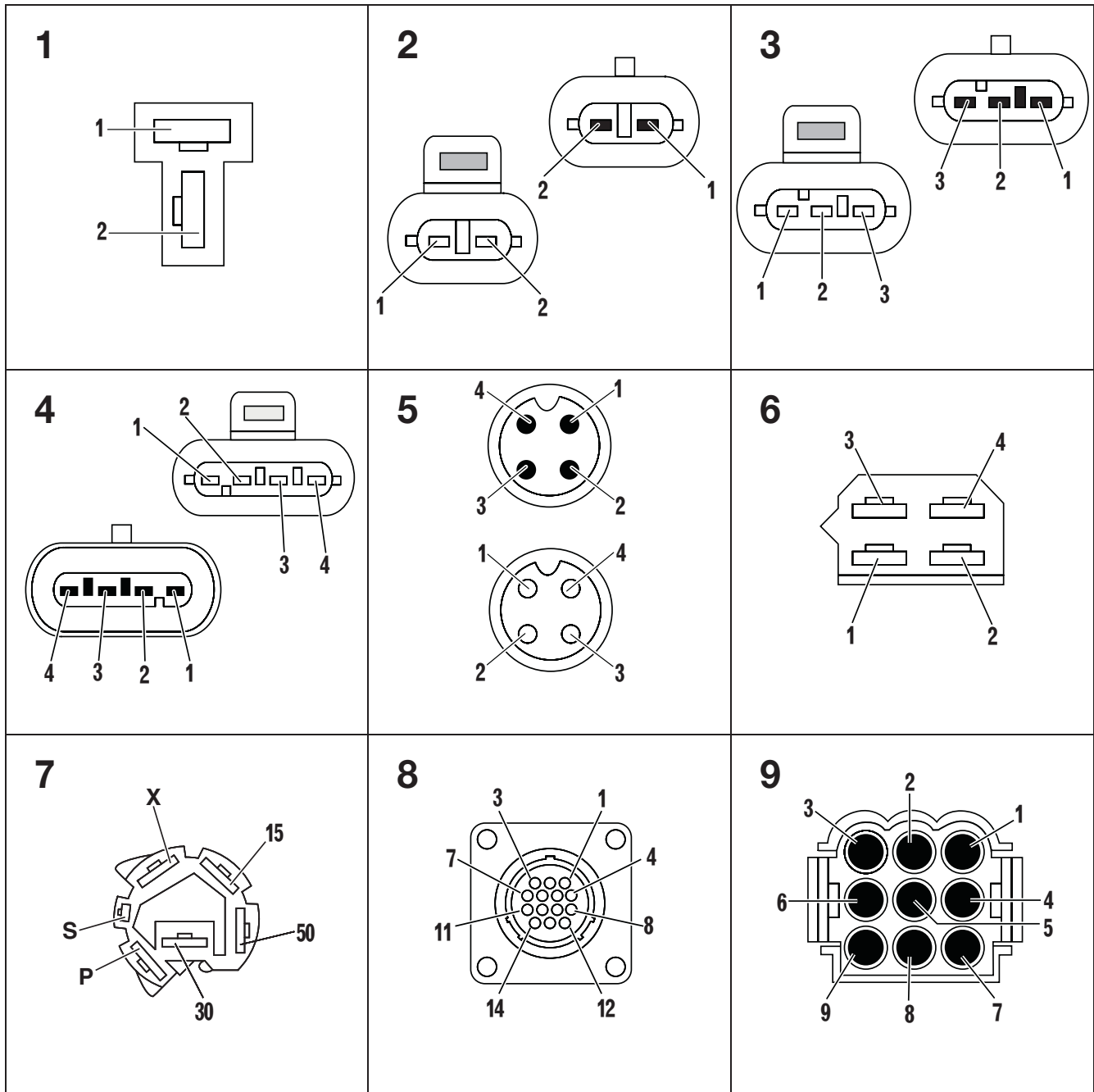
Connector	Type	Wiring code	Connection wiring or component code	Component description
X86	37	0.013.0663.4	2.8039.240.0	Left headlamp
			2.8039.250.0	Left headlamp (UK)
X87		0.013.0663.4	0116.9304	Horn
X88	37	0.013.0663.4	2.8039.250.0	Right headlamp (UK)
			2.8039.240.0	Right headlamp
X89	2	0.013.0663.4	2.8039.160.0	Front right worklight (on hood)
X90	2	0.013.0663.4		Not utilised
X91	2	0.013.0663.4		Not utilised
X92	2	0.013.0663.4		Not utilised
X93	2	0.013.0663.4	2.8039.160.0	Front left worklight (on hood)
Y1		0419.9869		Not utilised
Y3		0419.9869	0211.2588	Actuator

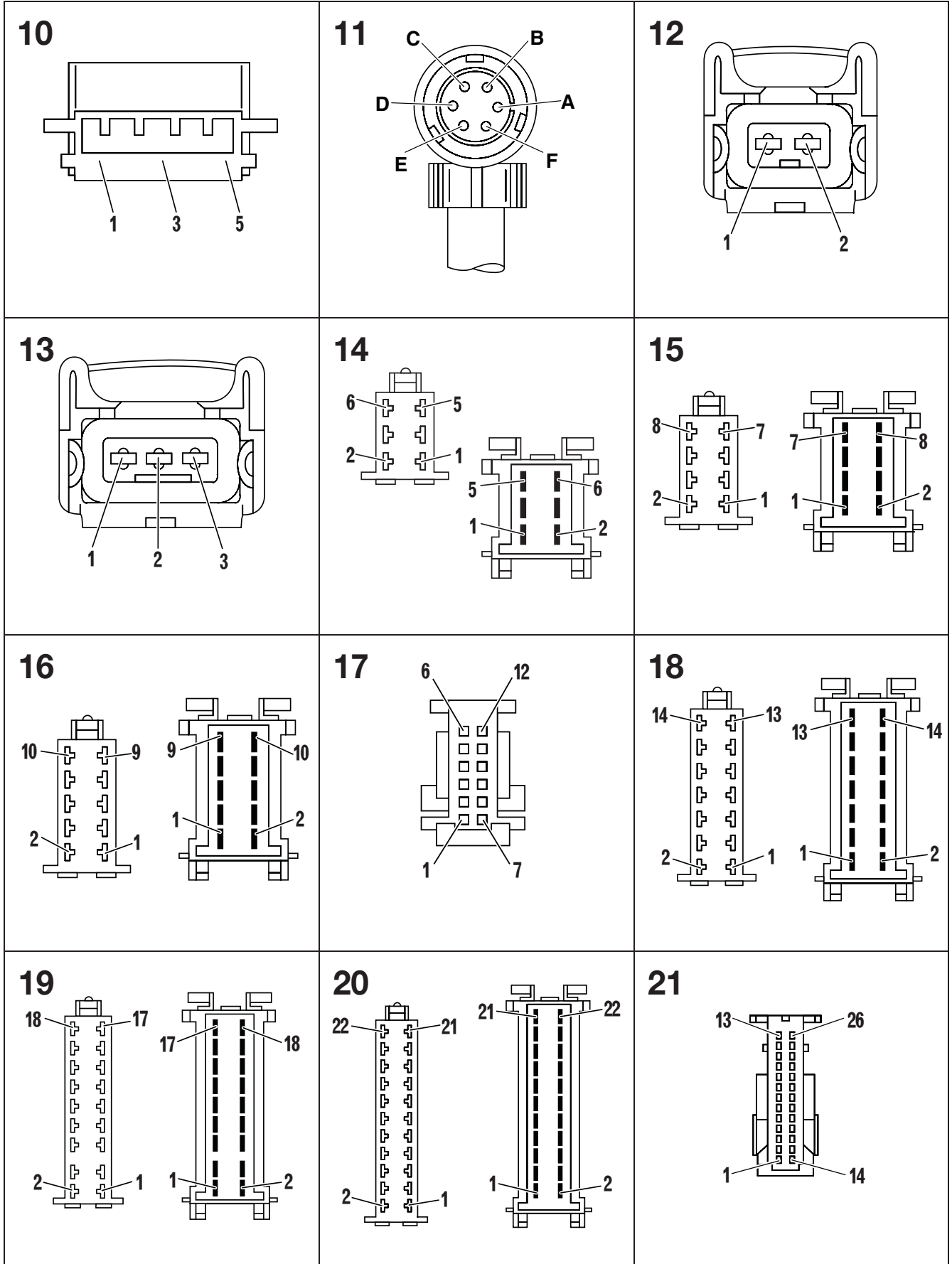
3. COMPONENTS

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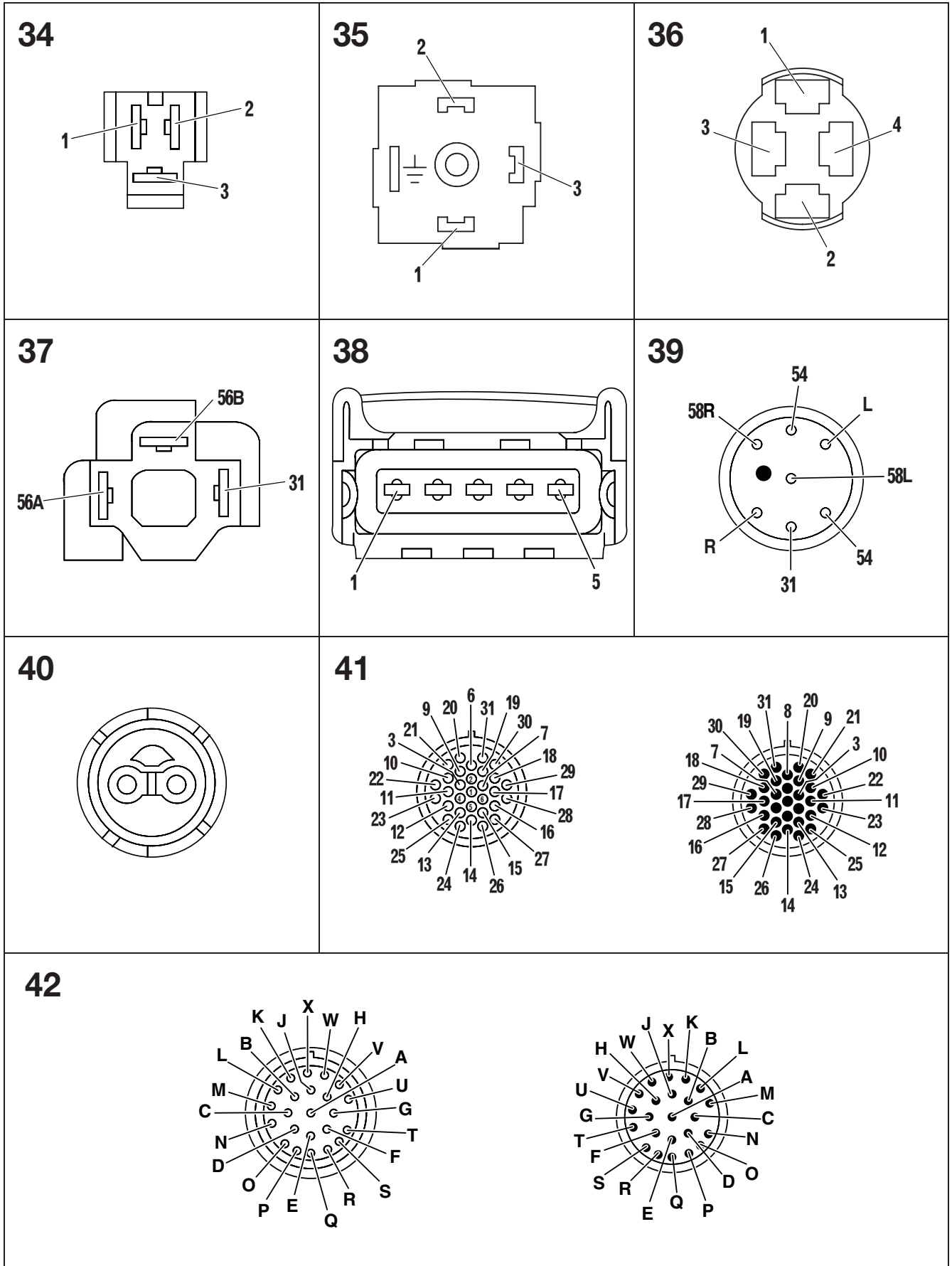
- 1 - Connectors table: the shapes and pinouts of the connectors
- 2 - Components table: technical and functional description of the components
- 3 - Pinouts of the electronic control units

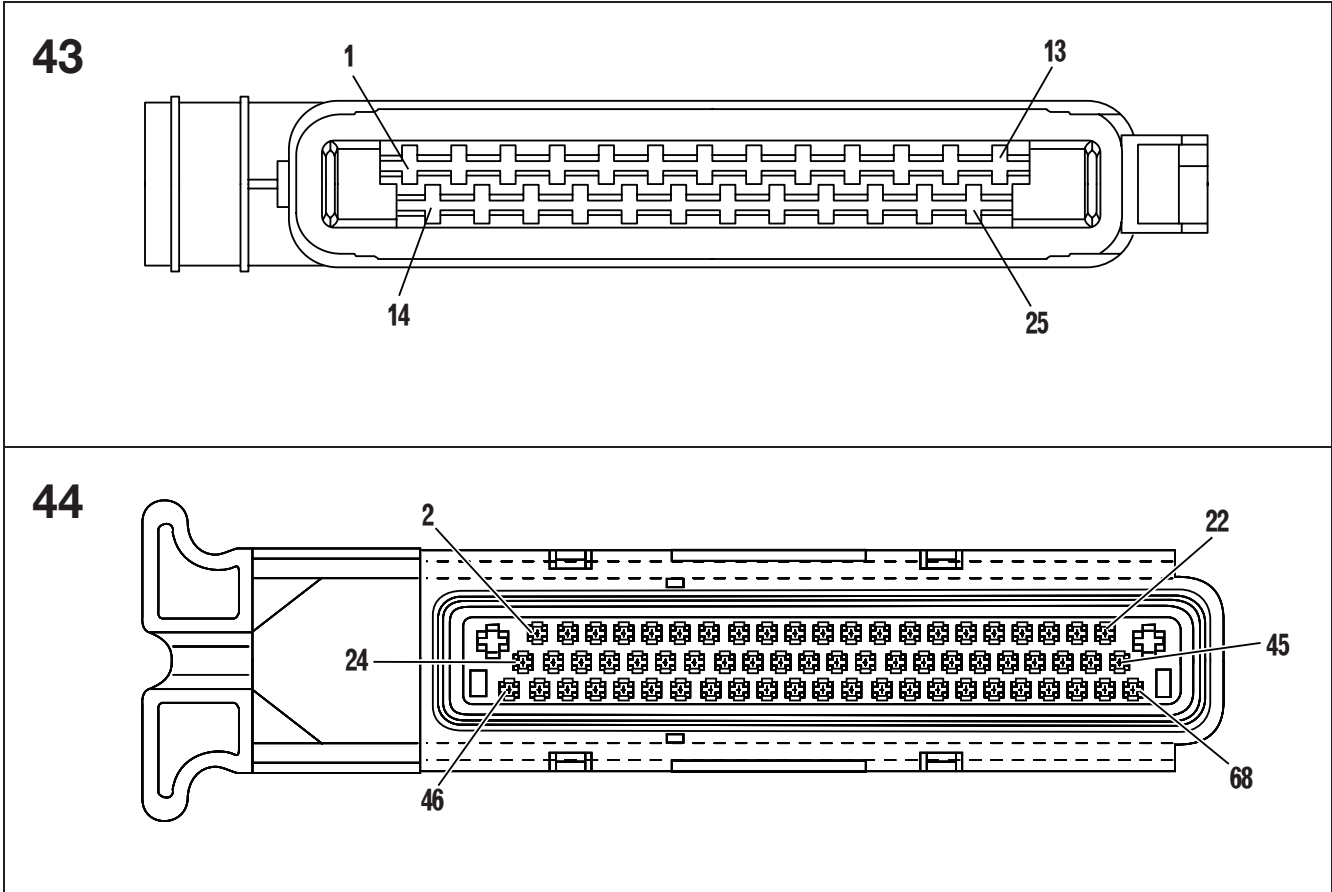
3.1 CONNECTOR LAYOUTS





<p>22</p>	<p>23</p>	<p>24</p>
<p>25</p>	<p>26</p>	<p>27</p>
<p>28</p>	<p>29</p>	<p>30</p>
<p>31</p>	<p>32</p>	<p>33</p>



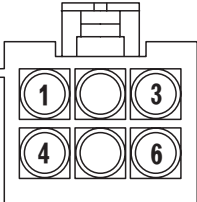
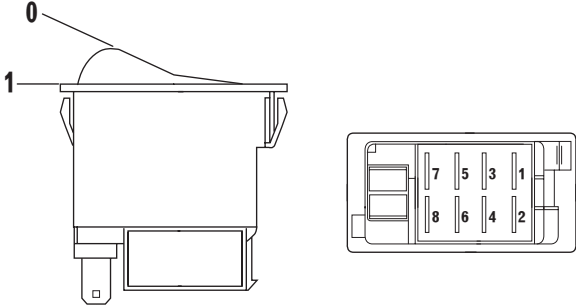


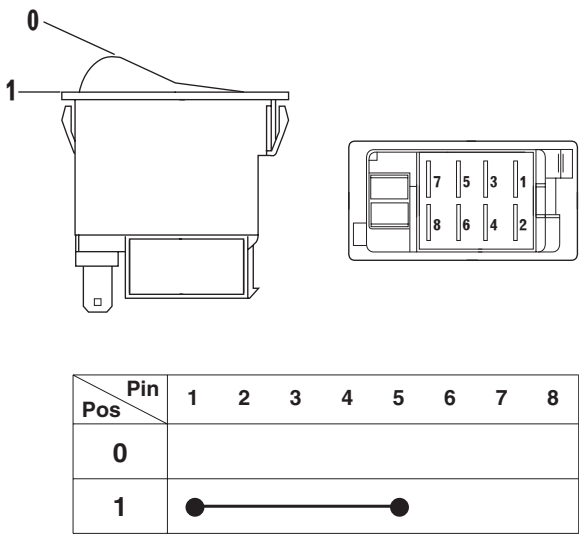
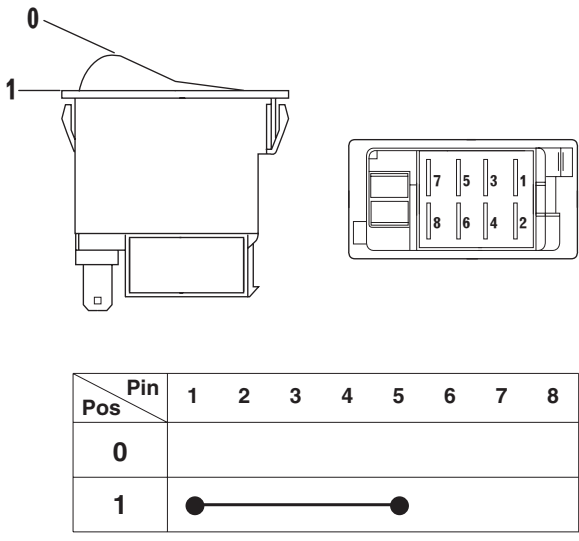
3.2 COMPONENT TECHNICAL DATA

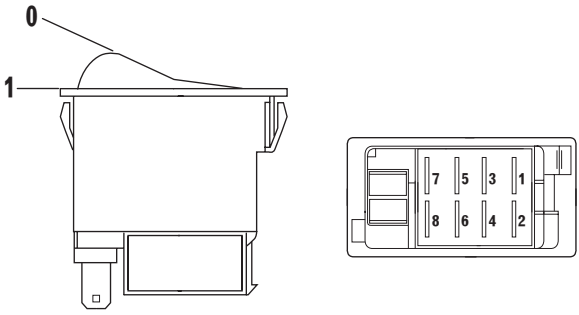
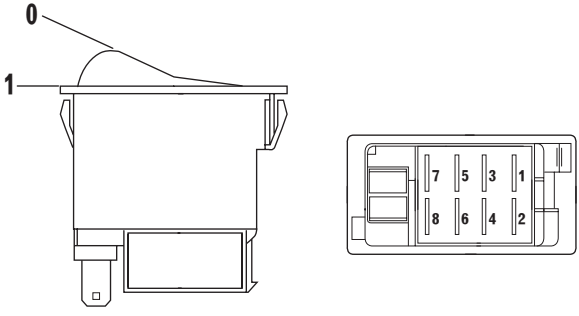
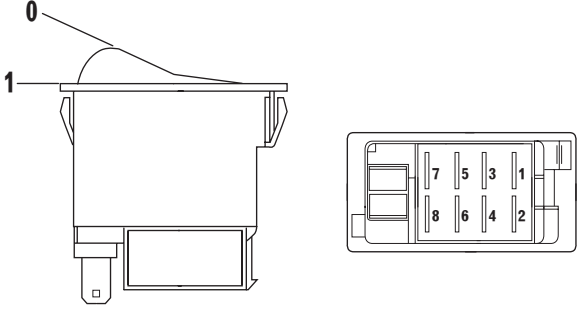
N°	Description	Code	Characteristics	Connector
1	Engine speed sensor	0.010.2874.2	Pin1 = earth Pin2 = square wave signal Pin3 = 12V power High level: 3.5-4.3 V Low level: 0.6-1.2 V	NLSE
2	Trailer braking air pressure sensor	0.011.9428.0	12 Vdc power Resistance at 0 bar 10-13 Ohm Resistance at 6 bar 119-129 Ohm	X71
3	Engine oil pressure switch	0118.1232	Normally closed contact (NC) Operating pressure: 0.5 ± 0.2 bar to 90 ± 5 °C	P
4	Actuator	0211.2588	Measured across pin 3 and pin 4: ~ 25 Ohm Measured across pin 3 and pin 5: ~ 25 Ohm Measured across pin 1 and pin 2: ~ 1.3 Ohm	Y3
5	Turbo charge pressure sensor	0419.9552	Pin1 = earth Pin2 = analog signal Pin3 = 5V power Signal with pressure of 0.5 bar: approx. 0.5 V Signal with pressure of 4 bar: approx. 4.5 V Resistance between pin 1 and pin 2: 58 kOhm Resistance between pin 1 and pin 3: 13 kOhm Resistance between pin 2 and pin 3: 58 kOhm	B41
6	Camshaft speed sensor (Pickup)	0419.9792	Resistance: 336 ± 34 Ohm Inductance: 128.8 ± 13 mH	B40
7	Fuel temperature sensor	0419.9809	Resistance at 21.5 °C: ~2.3 kOhm	B37
8	Engine coolant temperature sensor (for Infocenter)	0419.9809	Resistance at 21.5 °C: ~2.3 kOhm	T
9	Brake pedal switch	0439.1395	Across Pin 1 and Pin 2: Normally closed contact (NC) Resistance with contact closed 3.9 Ohm Across Pin 3 and Pin 4: Normally open contact (NO) Resistance with contact closed 3.9 Ohm	X32 X35
10	Handbrake switch	0439.1395	Across Pin 1 and Pin 2: Normally closed contact (NC) Resistance with contact closed 3.9 Ohm Across Pin 3 and Pin 4: Normally open contact (NO) Resistance with contact closed 3.9 Ohm	X6
11	Front axle suspension position sensor	0439.1530	Pin1 = earth Pin2 = analog signal Pin3 = 8VDC power Output 1.8 +0.1V (Cylinders fully retracted)	X69
12	Rear PTO pushbutton (on fender)	0441.1533	Resistance between pin 1 and pin 2 with switch depressed: ~160 Ohm Diode test between pin 1 (positive) and pin 3 (negative)	PTOSX PTODX
13	Rear PTO pushbutton (in cab)	0441.1533	Resistance between pin 1 and pin 2 with switch depressed: ~160 Ohm Diode test between pin 1 (positive) and pin 3 (negative)	X10

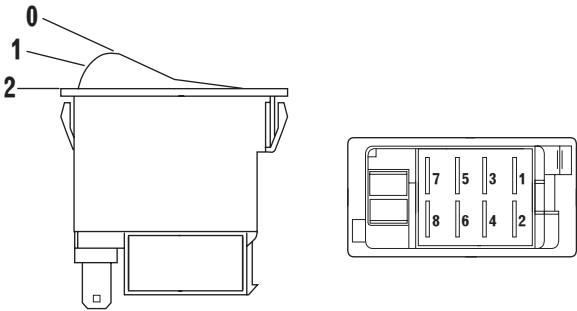
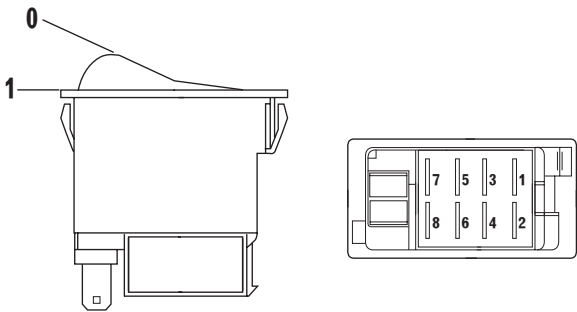
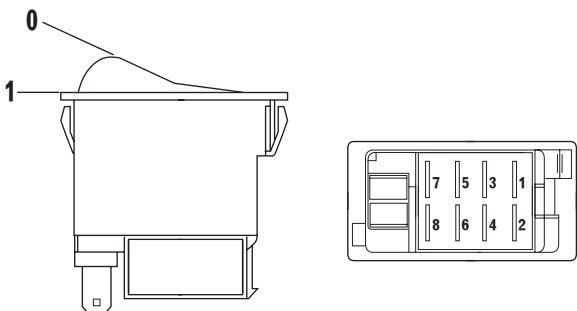
N°	Description	Code	Characteristics	Connector
14	Front PTO pushbutton (in cab)	0441.1533	Resistance between pin 1 and pin 2 with switch depressed: ~160 Ohm Diode test between pin 1 (positive) and pin 3 (negative)	X9
15	Rear lift pushbutton	0441.2688	Normally open contact (NO)	DWDX DWSX UPDX UPDX
16	Lift draft sensor	0441.5586.4	Pin1 = earth Pin2 = analog signal Pin3 = 8V power Signal with no implement hitched: 4V ± 0.2 V	LEFT DRAFT RIGHT DRAFT
17	Start enable switch	0441.6066	Normally closed switch (NC) resistance with contact closed 3.9 Ohm Colour: Green	X80
18	Transmission oil temperature sensor	0441.6649	Resistance between pin 1 and pin 2: at 25°C 1000 ±15 Ohm at 100°C 1696 ±35 Ohm at 150°C 2211 ±80 Ohm	TEMP
19	Forward/reverse solenoid valves	0441.6685	Pin1 = earth Pin2 = power Resistance between pin 1 and pin 2: 28 ± 2 Ohm	ADD EV V/R
20	Gearshift solenoid valves (Y1, Y2 and Y5)	0441.6685	Pin1 = earth Pin2 = power Resistance between pin 1 and pin 2: 28 ± 2 Ohm	EVGROUP
21	Differential lock solenoid valve	0441.7555	Pin1 = earth Pin2 = power Resistance between pin 1 and pin 2: 8 Ohm	EVDF
22	Rear PTO solenoid valve	0441.7555	Pin1 = earth Pin2 = power Resistance between pin 1 and pin 2: 8 Ohm	EVPTO
23	Clutch pedal depressed proximity sensor	0442.4165	Pin1 = earth Pin2 = analog signal: 0 Volt with sensor covered by metal 12 Volt with sensor exposed Pin3 = 12V power	X33
24	Compressed air pressure gauge	0442.5709	Pin G = input from sensor Pin + = 12V power Pin - = earth	X39
25	Compressor and condenser fan pressure switch	0442.6492	Compressor connector (female): normally open contact - with pressure increasing: contact closed at max 2.4 bar contact open at 28.5 ±1.5 bar - with pressure decreasing: contact closed at 19.5 ±1.5 bar contact open at 1.2 ±0.3 bar Fans connector (male): normally open contact - with pressure increasing: contact closed at 20±1 bar - with pressure decreasing: contact open at 16±1 bar	X74 X76
26	Four wheel drive (4WD) clutch solenoid valve	0443.1661	Pin1 = earth Pin2 = power Resistance between pin 1 and pin 2: 10 Ohm	DT
27	Engine oil low pressure switch	0443.1690	Normally open contact (NO) Operating pressure: 18 bar Colour: red	PRESS SWITCH

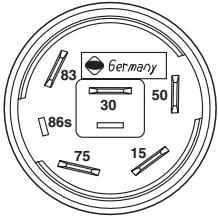
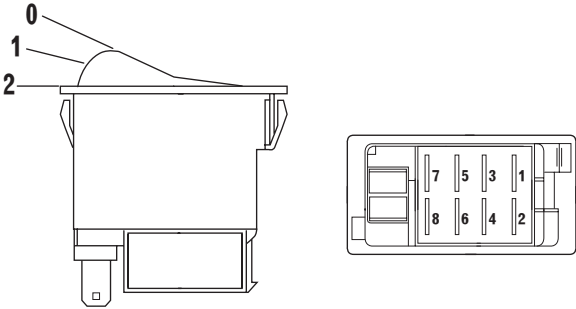
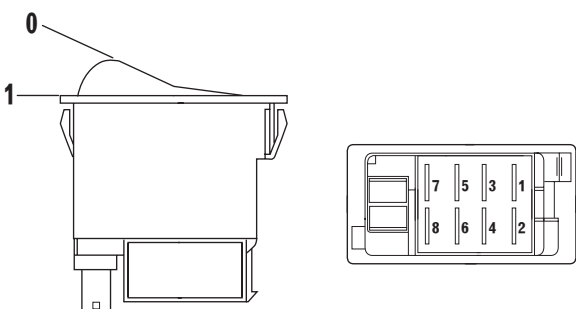
N°	Description	Code	Characteristics	Connector
28	Accelerator pedal position sensor	0443.2708	Pin1 = 5.0V DC power Pin2 = earth Pin4 = analog signal Output 0.5V DC (Pedal fully released) Output 4.5V DC (Pedal fully depressed)	X30
29	Clutch pedal position sensor	0443.2708	Pin1 = 5.0V DC power Pin2 = earth Pin4 = analog signal Output 0.5V DC (Pedal fully released) Output 4.5V DC (Pedal fully depressed)	X34
30	Proportional solenoid valve coil	0443.4425	Pin1 = earth Pin2 = power Resistance between pin 1 and pin 2: ~ 5 Ohm	EV PROP
31	Gearshift solenoid valves (Y3 and Y4)	0443.6315	Pin1 = earth Pin2 = power Resistance between pin 1 and pin 2: 27 Ohm Inductance between pin1 and pin 2: 160 mH	EVGROUP
32	Speed sensor for odometer	0443.8436	Pin1 = earth Pin2 = square wave signal Pin3 = 12V power High level: 3.5-4.3 V Low level: 0.6-1.2 V	NAB
33	Gearbox output shaft speed sensor	0443.8449	Pin1 = earth Pin2 = square wave signal Pin3 = 12V power High level: 3.5-4.3 V Low level: 0.6-1.2 V	NLSA
34	Transmission speed sensor	0443.8450	Pin1 = earth Pin2 = square wave signal Pin3 = 12V power High level: 3.5-4.3 V Low level: 0.6-1.2 V	NHK
35	Radar Italy	0443.8654	Pin 1 = earth Pin 2 = square wave signal (130 pulses per metre) Pin 3 = 12 V power supply With the radar powered up, a variation in voltage should register at pin 2 when a hand is passed over the sensing element Nominal radar frequency: 24125 GHz \pm 25 MHz	RADAR
36	Radar (UK)	0443.8655	Pin 1 = earth Pin 2 = square wave signal (130 pulses per metre) Pin 3 = 12 V power supply With the radar powered up, a variation in voltage should register at pin 2 when a hand is passed over the sensing element Nominal radar frequency: 24300 GHz \pm 25 MHz	RADAR
37	Rear lift position sensor	0443.8667	Pin1 = earth Pin2 = 5.0V DC power supply Pin3 = analog signal Output 0.6V DC (Lift links fully Up) Output 4.5V DC (Lift links fully Down)	POS SEN

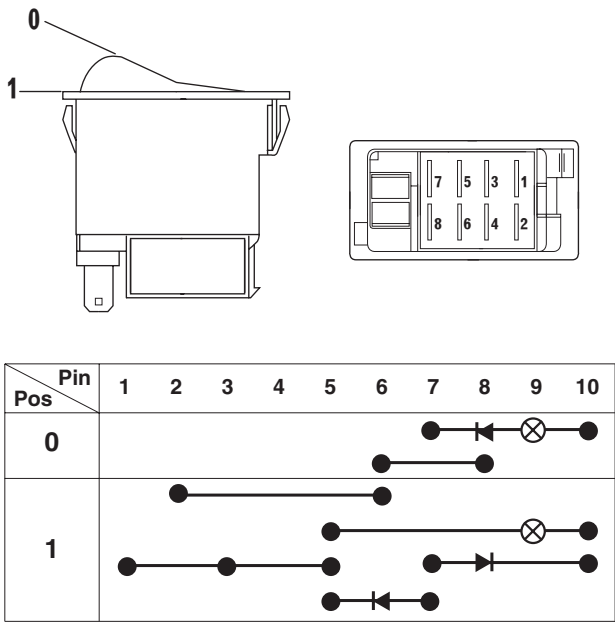
N°	Description	Code	Characteristics	Connector																																						
38	Steering angle sensor	0441.5266	<p>Pin1 = signal 1 Pin2 = 8V power Pin3 = earth Pin4 = signal 2</p> <table border="1" data-bbox="571 360 1187 584"> <thead> <tr> <th rowspan="2">PIN</th> <th colspan="4">Steering angle right</th> </tr> <tr> <th>0°-15°</th> <th>15°-25°</th> <th>25°-30°</th> <th>>30°</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0V</td> <td>8V</td> <td>8V</td> <td>8V</td> </tr> <tr> <td>4</td> <td>0V</td> <td>0V</td> <td>8V</td> <td>8V</td> </tr> </tbody> </table> <table border="1" data-bbox="571 616 1187 840"> <thead> <tr> <th rowspan="2">PIN</th> <th colspan="4">Steering angle left</th> </tr> <tr> <th>0°-15°</th> <th>15°-25°</th> <th>25°-30°</th> <th>>30°</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>0V</td> <td>8V</td> <td>8V</td> <td>8V</td> </tr> <tr> <td>4</td> <td>0V</td> <td>8V</td> <td>8V</td> <td>0V</td> </tr> </tbody> </table>	PIN	Steering angle right				0°-15°	15°-25°	25°-30°	>30°	1	0V	8V	8V	8V	4	0V	0V	8V	8V	PIN	Steering angle left				0°-15°	15°-25°	25°-30°	>30°	1	0V	8V	8V	8V	4	0V	8V	8V	0V	X82
PIN	Steering angle right																																									
	0°-15°	15°-25°	25°-30°	>30°																																						
1	0V	8V	8V	8V																																						
4	0V	0V	8V	8V																																						
PIN	Steering angle left																																									
	0°-15°	15°-25°	25°-30°	>30°																																						
1	0V	8V	8V	8V																																						
4	0V	8V	8V	0V																																						
39	Shuttle control lever	0.012.6472.4	 <table border="1" data-bbox="663 1151 1078 1364"> <thead> <tr> <th>Pos \ Pin</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> </tr> </thead> <tbody> <tr> <td>Forward</td> <td>●</td> <td>—</td> <td>●</td> <td></td> <td></td> <td></td> </tr> <tr> <td>Neutral</td> <td></td> <td></td> <td>●</td> <td>—</td> <td>●</td> <td></td> </tr> <tr> <td>Reverse</td> <td></td> <td></td> <td>●</td> <td>—</td> <td>●</td> <td></td> </tr> </tbody> </table> <p>NOTE: In every position the resistance must be 3.9 Ohm</p>	Pos \ Pin	1	2	3	4	5	6	Forward	●	—	●				Neutral			●	—	●		Reverse			●	—	●		X37										
Pos \ Pin	1	2	3	4	5	6																																				
Forward	●	—	●																																							
Neutral			●	—	●																																					
Reverse			●	—	●																																					
40	Rear worklights switch	0441.1496.4	 <table border="1" data-bbox="647 1850 1158 2011"> <thead> <tr> <th>Pos \ Pin</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>●</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>●</td> </tr> </tbody> </table>	Pos \ Pin	1	2	3	4	5	6	7	8	0									1	●	—	—	—	—	—	—	●	WORK LIGHT											
Pos \ Pin	1	2	3	4	5	6	7	8																																		
0																																										
1	●	—	—	—	—	—	—	●																																		

N°	Description	Code	Characteristics	Connector																											
41	Cab headlights dipped beam switch	0441.1496.4	 <p>The diagram shows a side view of the switch with position 0 at the top and position 1 at the bottom. A pinout table is provided below the diagram.</p> <table border="1" data-bbox="726 638 1236 795"> <thead> <tr> <th>Pin</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>●</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>●</td> </tr> </tbody> </table>	Pin	1	2	3	4	5	6	7	8	0									1	●	—	—	—	—	—	—	●	3
Pin	1	2	3	4	5	6	7	8																							
0																															
1	●	—	—	—	—	—	—	●																							
42	Lower front worklights (on cab) switch	0441.1496.4	 <p>The diagram shows a side view of the switch with position 0 at the top and position 1 at the bottom. A pinout table is provided below the diagram.</p> <table border="1" data-bbox="726 1220 1236 1377"> <thead> <tr> <th>Pin</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>●</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>●</td> </tr> </tbody> </table>	Pin	1	2	3	4	5	6	7	8	0									1	●	—	—	—	—	—	—	●	3A
Pin	1	2	3	4	5	6	7	8																							
0																															
1	●	—	—	—	—	—	—	●																							
43	50S lights switch	0441.1496.4	 <p>The diagram shows a side view of the switch with position 0 at the top and position 1 at the bottom. A pinout table is provided below the diagram.</p> <table border="1" data-bbox="726 1803 1236 1960"> <thead> <tr> <th>Pin</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td>●</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>—</td> <td>●</td> </tr> </tbody> </table>	Pin	1	2	3	4	5	6	7	8	0									1	●	—	—	—	—	—	—	●	4
Pin	1	2	3	4	5	6	7	8																							
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1	●	—	—	—	—	—	—	●																							

N°	Description	Code	Characteristics	Connector																											
44	4WD switch	0441.1496.4	 <p>The diagram shows a 4WD switch with two positions, 0 and 1. Position 0 is the upper position and position 1 is the lower position. To the right is a connector with 8 pins, numbered 1 to 8. Below the diagrams is a table:</p> <table border="1" data-bbox="651 636 1161 792"> <thead> <tr> <th>Pin</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td colspan="8">●—————●</td> </tr> </tbody> </table>	Pin	1	2	3	4	5	6	7	8	0									1	●—————●								8
Pin	1	2	3	4	5	6	7	8																							
0																															
1	●—————●																														
45	Rotating beacon on/off switch	0441.1496.4	 <p>The diagram shows a Rotating beacon on/off switch with two positions, 0 and 1. Position 0 is the upper position and position 1 is the lower position. To the right is a connector with 8 pins, numbered 1 to 8. Below the diagrams is a table:</p> <table border="1" data-bbox="651 1218 1161 1375"> <thead> <tr> <th>Pin</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td colspan="8">●—————●</td> </tr> </tbody> </table>	Pin	1	2	3	4	5	6	7	8	0									1	●—————●								FLASHING LIGHT
Pin	1	2	3	4	5	6	7	8																							
0																															
1	●—————●																														
46	PTO AUTO switch	0441.1496.4	 <p>The diagram shows a PTO AUTO switch with two positions, 0 and 1. Position 0 is the upper position and position 1 is the lower position. To the right is a connector with 8 pins, numbered 1 to 8. Below the diagrams is a table:</p> <table border="1" data-bbox="651 1800 1161 1957"> <thead> <tr> <th>Pin</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>1</td> <td colspan="8">●—————●</td> </tr> </tbody> </table>	Pin	1	2	3	4	5	6	7	8	0									1	●—————●								PTO AUTO
Pin	1	2	3	4	5	6	7	8																							
0																															
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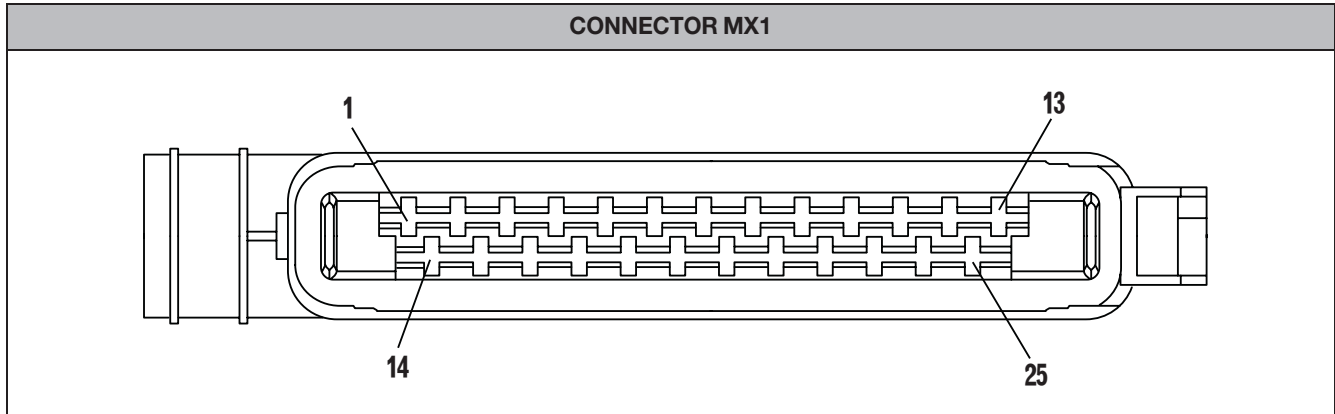
N°	Description	Code	Characteristics	Connector																																				
47	Sidelights switch	0441.1497	 <table border="1" data-bbox="724 633 1235 857"> <thead> <tr> <th>Pin</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <th>Pos 0</th> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <th>1</th> <td></td> <td>●</td> <td>—————</td> <td></td> <td></td> <td>●</td> <td>—————</td> <td>●</td> </tr> <tr> <th>2</th> <td>●</td> <td>—————</td> <td>●</td> <td></td> <td></td> <td>●</td> <td>—————</td> <td>●</td> </tr> </tbody> </table>	Pin	1	2	3	4	5	6	7	8	Pos 0									1		●	—————			●	—————	●	2	●	—————	●			●	—————	●	1
Pin	1	2	3	4	5	6	7	8																																
Pos 0																																								
1		●	—————			●	—————	●																																
2	●	—————	●			●	—————	●																																
48	ASM switch	0441.1498	 <table border="1" data-bbox="724 1272 1235 1451"> <thead> <tr> <th>Pin</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <th>Pos 0</th> <td></td> <td></td> <td></td> <td></td> <td>●</td> <td>—————</td> <td>●</td> <td>—————</td> <td>●</td> </tr> <tr> <th>1</th> <td>●</td> <td>—————</td> <td>●</td> <td></td> <td>●</td> <td>—————</td> <td>●</td> <td></td> </tr> </tbody> </table>	Pin	1	2	3	4	5	6	7	8	Pos 0					●	—————	●	—————	●	1	●	—————	●		●	—————	●		6								
Pin	1	2	3	4	5	6	7	8																																
Pos 0					●	—————	●	—————	●																															
1	●	—————	●		●	—————	●																																	
49	Differential lock switch	0441.1498	 <table border="1" data-bbox="724 1863 1235 2042"> <thead> <tr> <th>Pin</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <th>Pos 0</th> <td></td> <td></td> <td></td> <td></td> <td>●</td> <td>—————</td> <td>●</td> <td>—————</td> <td>●</td> </tr> <tr> <th>1</th> <td>●</td> <td>—————</td> <td>●</td> <td></td> <td>●</td> <td>—————</td> <td>●</td> <td></td> </tr> </tbody> </table>	Pin	1	2	3	4	5	6	7	8	Pos 0					●	—————	●	—————	●	1	●	—————	●		●	—————	●		7								
Pin	1	2	3	4	5	6	7	8																																
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N°	Description	Code	Characteristics	Connector																																				
50	Starter switch	0441.1512.4	 <table border="1" data-bbox="708 517 1062 730"> <thead> <tr> <th>Pin Pos</th> <th>30</th> <th>15</th> <th>50</th> <th>75</th> <th>83</th> </tr> </thead> <tbody> <tr> <td>0</td> <td colspan="5">●—————●</td> </tr> <tr> <td>1</td> <td>●</td> <td>●</td> <td colspan="3">—————●</td> </tr> <tr> <td>2</td> <td>○</td> <td>○</td> <td>○</td> <td colspan="2"></td> </tr> </tbody> </table>	Pin Pos	30	15	50	75	83	0	●—————●					1	●	●	—————●			2	○	○	○			X17												
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0	●—————●																																							
1	●	●	—————●																																					
2	○	○	○																																					
51	Rear screen wiper switch	0441.9283	 <table border="1" data-bbox="647 1151 1158 1364"> <thead> <tr> <th>Pin Pos</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td>●</td> <td colspan="2">—————●</td> <td></td> </tr> <tr> <td>1</td> <td></td> <td>○</td> <td colspan="3">—————○</td> <td></td> <td></td> <td></td> </tr> <tr> <td>2</td> <td></td> <td>○</td> <td>○</td> <td>○</td> <td colspan="4"></td> </tr> </tbody> </table>	Pin Pos	1	2	3	4	5	6	7	8	0					●	—————●			1		○	—————○						2		○	○	○					REAR WIPER
Pin Pos	1	2	3	4	5	6	7	8																																
0					●	—————●																																		
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52	Front suspension pushbutton	0442.2763	 <table border="1" data-bbox="647 1778 1158 1946"> <thead> <tr> <th>Pin Pos</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> </tr> </thead> <tbody> <tr> <td>0</td> <td colspan="8"></td> </tr> <tr> <td>1</td> <td>○</td> <td colspan="6">—————○</td> <td></td> <td></td> </tr> </tbody> </table>	Pin Pos	1	2	3	4	5	6	7	8	0									1	○	—————○								5								
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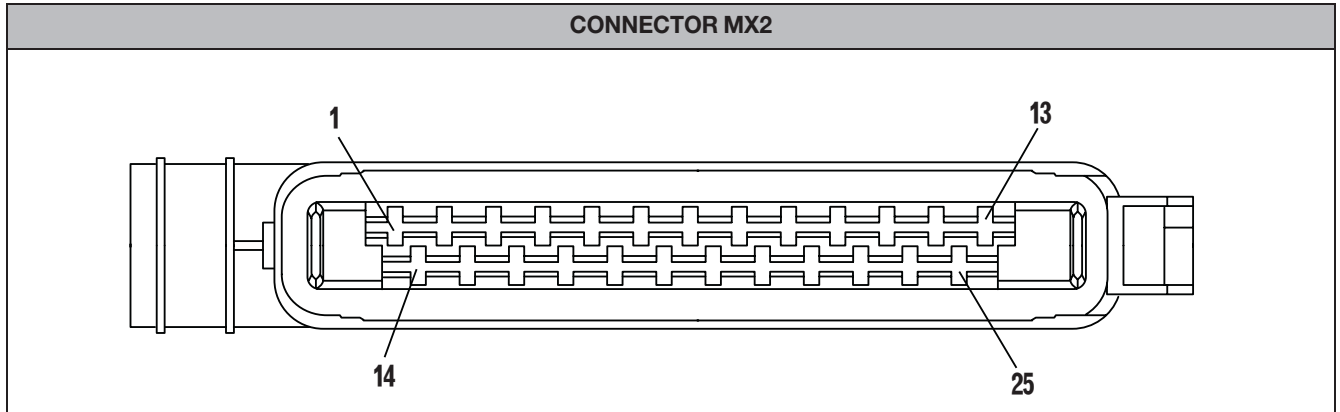
N°	Description	Code	Characteristics	Connector																																	
53	Hazard warning lights on/off switch	0442.9401	 <p>The diagram shows a switch with two positions, 0 and 1. Position 0 is the top position and position 1 is the bottom position. A 10-pin connector is shown to the right. Below the diagrams is a table of pin connections:</p> <table border="1" data-bbox="646 616 1264 878"> <thead> <tr> <th>Pin Pos</th> <th>1</th> <th>2</th> <th>3</th> <th>4</th> <th>5</th> <th>6</th> <th>7</th> <th>8</th> <th>9</th> <th>10</th> </tr> </thead> <tbody> <tr> <td>0</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td>●</td> <td>⊗</td> <td>●</td> <td>●</td> </tr> <tr> <td>1</td> <td>●</td> <td>●</td> <td></td> <td></td> <td>●</td> <td></td> <td></td> <td></td> <td>⊗</td> <td>●</td> </tr> </tbody> </table>	Pin Pos	1	2	3	4	5	6	7	8	9	10	0							●	⊗	●	●	1	●	●			●				⊗	●	X36
Pin Pos	1	2	3	4	5	6	7	8	9	10																											
0							●	⊗	●	●																											
1	●	●			●				⊗	●																											
54	Lift control console	0441.9425.4/10	<p>Hand throttle lever (EMR) Pin1 = earth Pin2 = analog signal Pin3 = 8V power Resistance between pin 1 and pin 3: ~ 4.5 kOhm With throttle lever on minimum: - Resistance between pin 2 and pin 3: ~ 3.9 kOhm - Resistance between pin 1 and pin 2: ~ 0.6 kOhm With throttle lever on maximum: - Resistance between pin 2 and pin 3: ~ 0.6 kOhm - Resistance between pin 1 and pin 2: ~ 3.9 kOhm</p> <p>Lift control lever (EHR) Pin1 = earth Pin2 = analog signal Pin3 = 8V power Resistance between pin 1 and pin 3: ~ 5.0 kOhm Lever in "UP" position: - Resistance between pin 2 and pin 3: ~ 1.45 kOhm Lever in "STOP" position: - Resistance between pin 2 and pin 3: ~ 2.6 kOhm Lever in "DOWN" position: - Resistance between pin 2 and pin 3: ~ 3.8 kOhm Lever in "FLOAT" position: - Resistance between pin 2 and pin 3: ~ 4.2 kOhm</p>	EMR - EHR																																	

3.3 PINOUTS AND DESCRIPTIONS OF ELECTRONIC CONTROL UNITS

3.3.1 ENGINE CONTROL UNIT

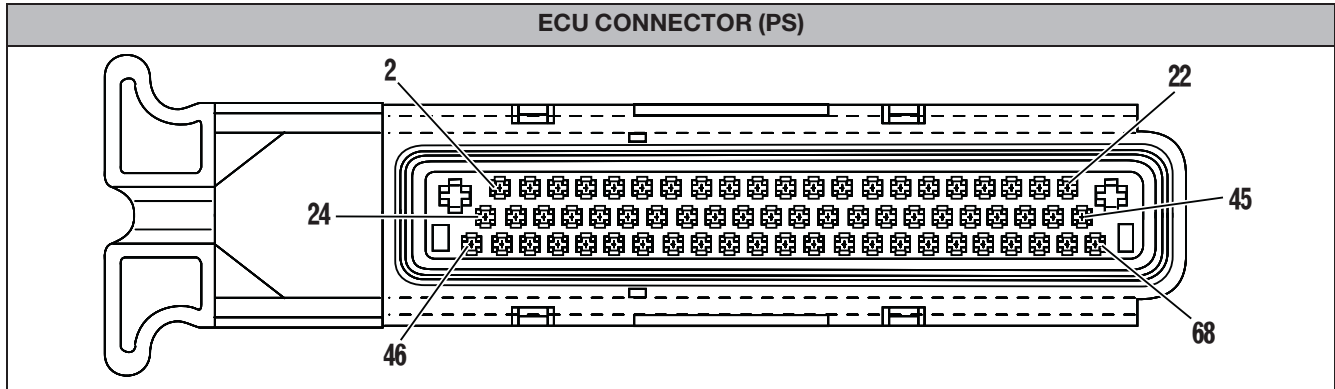


Pin	Volts	Code	Description
1			Not utilised
2			Not utilised
3			Not utilised
4			Not utilised
5			Input, fuel temperature signal
6			Not utilised
7			Not utilised
8	0V	GND	Reference voltage for signal on pin 9
9			Analog input, coolant temperature sensor
10	0V	GND	Earth
11			Digital input, speed 2 (crankshaft) (optional)
12	0V	GND	Reference voltage for signal on pin 13
13			Digital input, speed 1 (camshaft)
14		STG-	PWM output, actuator electromagnet signal
15		STG+	PWM output, actuator electromagnet signal
16			Shielding of control rack position sensor (for pins 17, 18 and 19)
17		RF-	Common connection for measurement and reference coils
18		RF REF	Analog input, reference coil signal
19		RF MESS	Analog input, measurement coil signal
20			Not utilised
21			Not utilised
22			Not utilised
23	0V	GND	Reference voltage for signal on pin 24
24			Analog input, turbo charge pressure sensor signal
25	+5V	+5V LDA	5V reference voltage for signal on pin 24



Pin	Volts	Code	Description
1	0V	+31	Battery negative
2	0V	+31	Battery negative
3			Digital output, glowplugs control
4			EMR alarm
5			Not utilised
6			Input, gearbox in neutral
7			Input, speed signal
8			Not utilised
9			Not utilised
10		L	ISO 9141 serial interface (Diagnostics connector)
11		K	ISO 9141 serial interface (Diagnostics connector)
12			Not utilised
13			Not utilised
14	+12V	+15	Battery positive (15+)
15			Engine memory LED
16			Engine speed output
17	0V	GND	Reference voltage for signal on pins 18, 19, 20
18			"MAX" key signal
19			"HOLD" key signal
20			Hand throttle signal
21			"MIN" key signal
22			Not utilised
23	0V	GND	Reference voltage for signal on pin 24
24			Analog input, signal from accelerator pedal sensor (SWG)
25	+5V	+5V REF	5V reference voltage for signal on pin 24

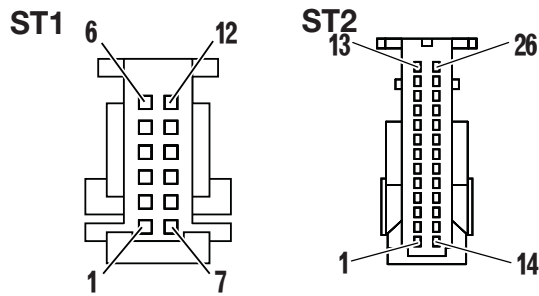
3.3.2 TRANSMISSION CONTROL UNIT



Pin	Volts	Code	Description
1	0V	VM1	Battery negative
2	0V	VM2	Battery negative
3	0V	VMG1	Reference voltage for signal on pins 16, 17, 40 and 62
4	0V	VMG2	Reference voltage for signal on pin 44
5		ADM4	Output for fault warning light
6			Not utilised
7			Not utilised
8		VPS2	Power (+) common, solenoid valves Y1, Y2, Y3, Y4, Y5
9			Not utilised
10			Not utilised
11		ADM6	Power, solenoid valve Y2
12			Not utilised
13	+12V	VPS1	Power (+), proportional solenoid valve and solenoid valves Y6, Y7
14		SD1	Display control signal
15		SDDK	Diagnostics connector
16		EF5	Digital input, main clutch rpm sensor (NHK)
17		EF7	Digital input, input rpm sensor (nMot. nLse)
18			Not utilised
19			Not utilised
20		ED3	Analog input, reverse drive control signal
21		ED10	Battery positive (15+)
22		ED7	Digital signal, range downshift pushbutton
23		VPE1	Battery positive (30+)
24		VMGA1	Power (-), clutch pedal angular position sensor and temperature sensor
25			Not utilised
26			Not utilised
27			Not utilised
28			Not utilised
29		ED11	Analog input, low transmission oil pressure signal
30			Not utilised

Pin	Volts	Code	Description
31		EDM1	Signal, mechanical gearbox neutral
32		AIP3	Power, solenoid valve Y6
33		ADM8	Power, solenoid valve Y4
34		ADM7	Power, solenoid valve Y3
35			Not utilised
36		SD4	Vehicle speed output
37		AU	Power (+) clutch pedal angular position sensor
38		EU1	Analog input, angular position of clutch pedal sensor signal
39		ER1	Analog input, temperature sensor signal
40		EF6	Digital input, output rpm sensor (nLsa)
41			Not utilised
42			Not utilised
43			Not utilised
44		ED8	Digital input, clutch pedal full travel sensor
45		VPI	Battery positive (15+)
46			Not utilised
47			Not utilised
48			Not utilised
49			Not utilised
50		AIP7	Power, solenoid valve Y5
51			Not utilised
52			Not utilised
53			Not utilised
54			Not utilised
55		AIP4	Power, solenoid valve Y7
56	0V	AIP1	Power (-), proportional solenoid valve
57	+12V	ADM5	Power, solenoid valve Y1
58			Not utilised
59			Not utilised
60			Not utilised
61			Not utilised
62		EF4	Digital input, rpm sensor (nAb)
63		ED1	Analog input, forward drive control signal
64			Not utilised
65		ED2	Analog input, neutral control signal
66			Not utilised
67		ED6	Digital signal - range upshift pushbutton
68	+12V	VPE2	Battery positive (30+)

3.3.3 INFOCENTER 2 AND 3



CONNECTOR ST1

Pin	Volts	Code	Description
1		TXD	Diagnostics interface transmission
2	+12V	KL15-ST	+15 key
3		KL31	Lamps earth
4	+12V	KL58	+58 lights
5		GROUT	Actual vehicle speed output (radar)
6		RPOUT	Rear PTO speed output
7		GETOEL	Transmission oil pressure
8		HANDBR	Handbrake on and brake fluid warning light
9	0V	KL30-ST	Vehicle earth
10		RXD	Diagnostic interface reception
11		VHOUT	Theoretical vehicle speed output (wheels)
12	0V	KL31E	Electronics earth

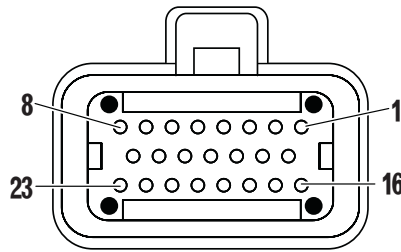
CONNECTOR ST2

Pin	Volts	Code	Description
1		DIFF	Differential lock indicator light
2		BLINK2	2nd trailer flasher indicator light
3		BLINK1	1st trailer flasher indicator light
4		BLINK	Tractor flasher indicator light
5		HML DOWN	
6		HML UP	
7		LADEK	Battery charge indicator light
8		LUFTF	Air cleaner clogged
9		MOTOEL	Engine oil pressure warning light
10		FRONTZ	Front PTO indicator light
11		HECKZ	Rear PTO indicator light
12		MOTOR	Engine rpm
13		TANK	Fuel gauge
14		ALLRAD	4WD indicator light
15		KUEHLT	Engine coolant temperature

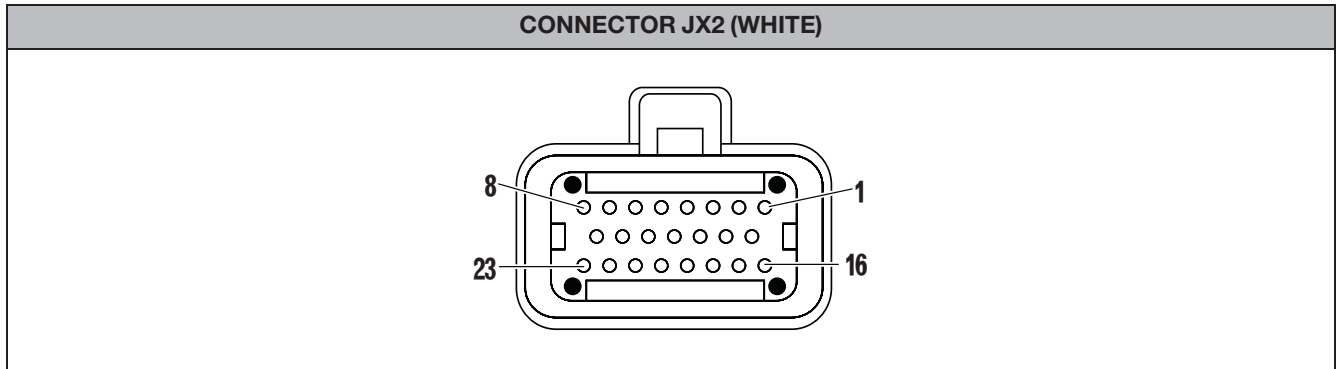
Pin	Volts	Code	Description
16		FERNL	Main beam indicator light
17		HYDRA	Hydraulic system oil filter clogged
18			Not utilised
19		VORGL	Glowplugs test
20		RPTO	Rear PTO rpm
21		GROUND	Input, actual ground speed (radar)
22		WHEEL	Input, theoretical vehicle speed
23		TRAILER	Input, trailer braking indicator light (Italy)
24			Not utilised
25		EMR	Input, engine indicator light
26			Not utilised

3.3.4 HPSA CONTROL UNIT

CONNECTOR JX1 (BLACK)

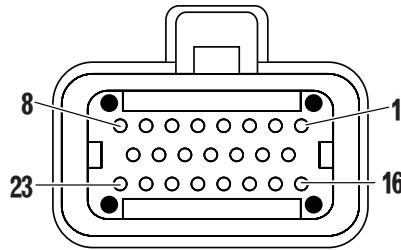


Pin	Volts	Code	Description
1			Up solenoid valve
2			Down solenoid valve
3	8V		Power input to draft sensors
4	12V		Power input to ECU (F34)
5	12V		Power input to ECU (F34)
6			Control lever: Transport 5.5 V
			Stop: 3.8 V
			Control: 2.1 V
			Float: 1.7 V
7	0.3–8.0V		Depth potentiometer
8	0.3–8.0V		Lowering speed potentiometer
9			Manual UP key
10	0–8.0V		Input, left draft sensor
11			PTO AUTO switch output
12			Not utilised
13			Output, status indicator LED
14	0.3–8.0V		Maximum height potentiometer
15	5.0 V		Power input to position sensor
16			Manual DOWN key
17	0–8.0V		Input, right draft sensor
18	0V		Earth for potentiometer panel
19	0.3–8.0V		Mix potentiometer
20	0V		Control unit earth
21	0V		Sensors earth
22	8V		Power input to panel and lever
23			Lift position sensor: High position: 0.6V (\pm 0.1V) low position: 4.5V (\pm 0.1V)



Pin	Volts	Code	Description
1			Not used
2			Differential output
3			Not used
4			Not used
5			Not used
6			Not used
7			Not used
8			4WD output
9	8V		External sensor power (ISO4 socket)
10	8V		Steering sensors power
11			ASM AUTO input
12			Wheelslip control input
13			Differential input
14			External sensor input (ISO4 socket)
15			ISO9141 K Line
16			Steering sensor 1 input
17	0V		External sensor earth (ISO4 socket)
18			Steering sensor 2 input
19			Wheel speed input (130 pulses/metre)
20			Brakes input
21			Not used
22			ISO9141 L Line
23	0V		Steering sensors earth

3.3.6 FRONT SUSPENSION CONTROL UNIT



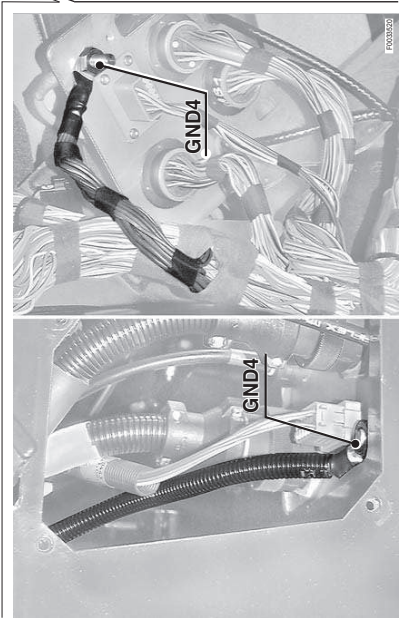
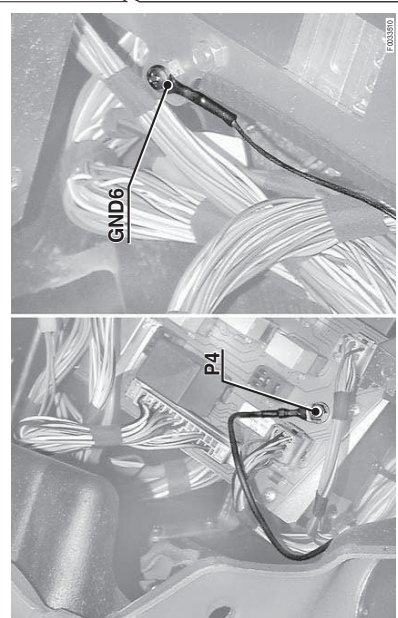
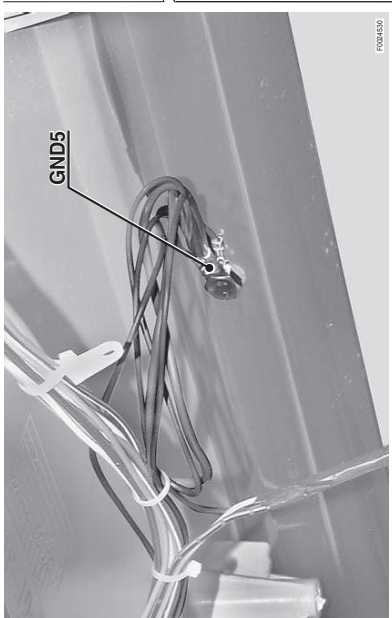
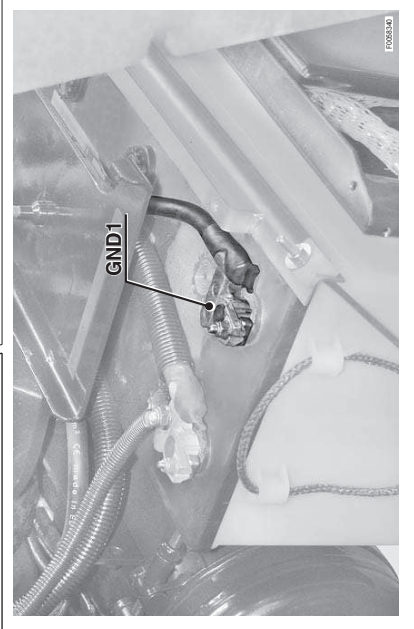
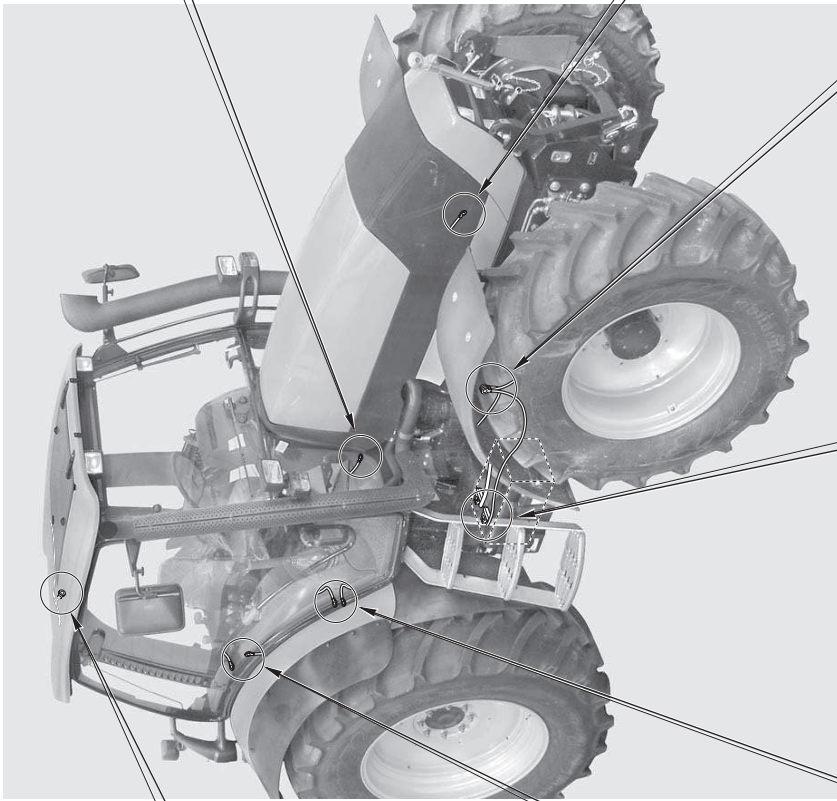
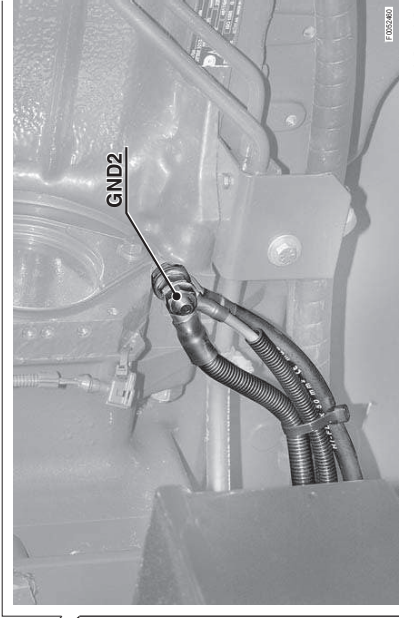
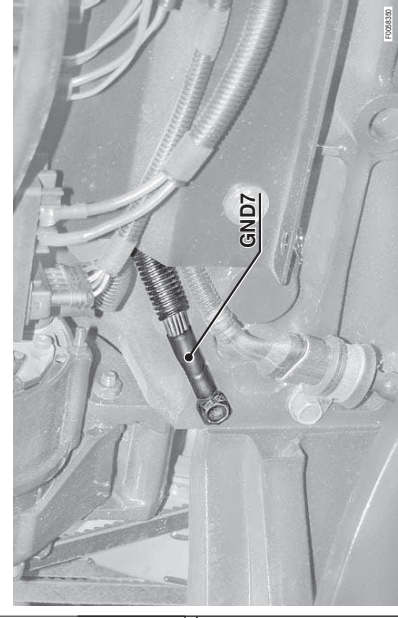
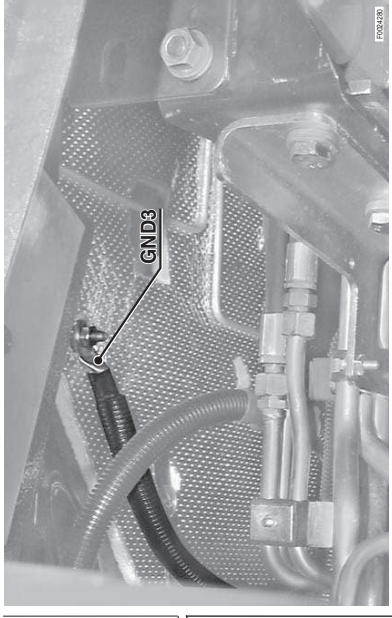
CONNECTOR JX3 (BLACK)

Pin	Volts	Code	Description
1			Output, Up solenoid valve
2			Output, Down solenoid valve
3			Not utilised
4	+12 V		+12 V
5	+12 V		+12 V
6-19			Not utilised
20	0V		Control unit earth
21-23			Not utilised

CONNECTOR JX4 (WHITE)

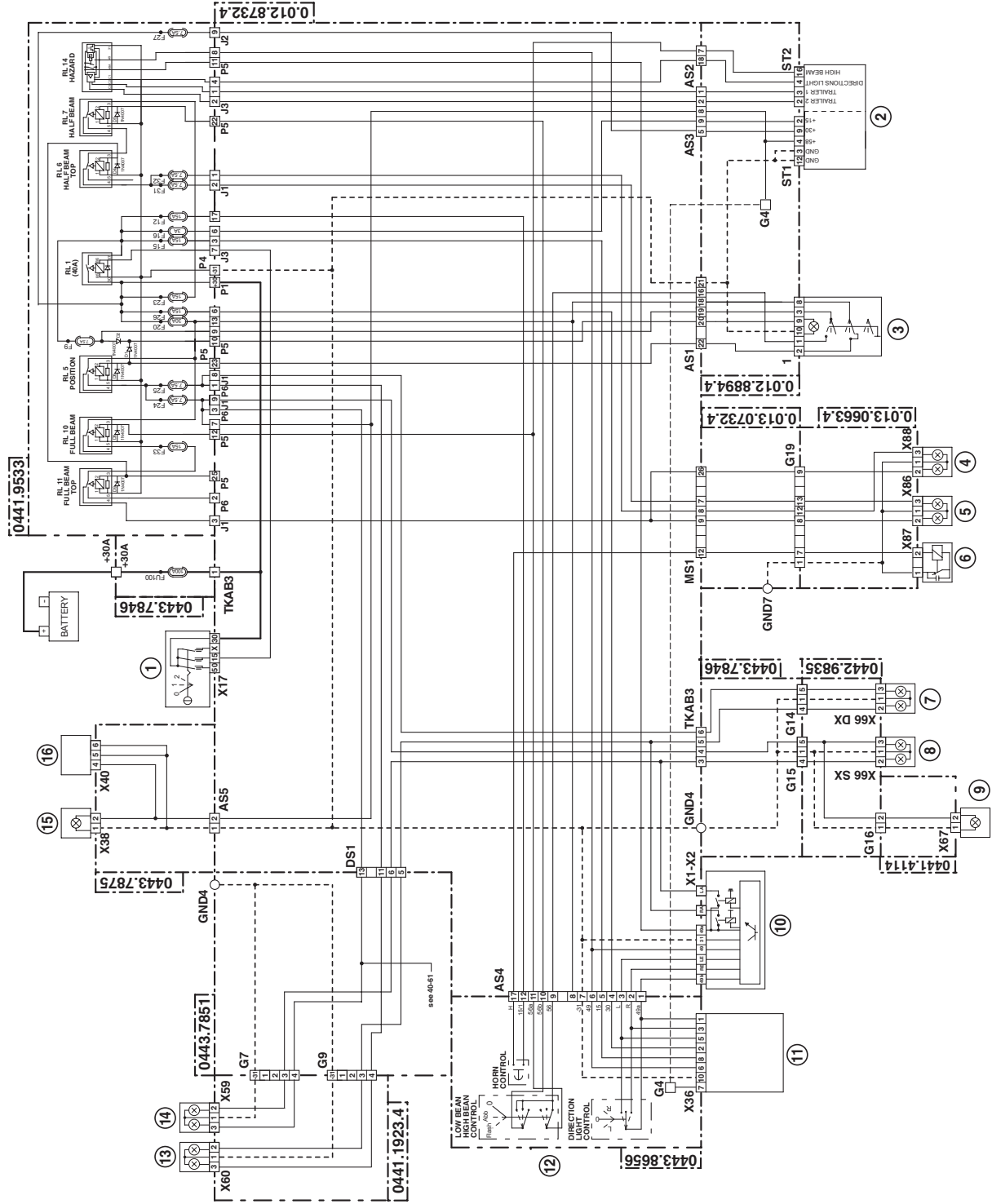
Pin	Volts	Code	Description
1			Not utilised
2			Output, load sensing solenoid valve
3-7			Not utilised
8			Control light output
9			Power input to external sensor
10			Not utilised
11			Input, 4WD status
12			Input, control button
13			Input, brakes switches
14			Input, position sensor
15			ISO 9141 K diagnostic line
16			Not utilised
17	0V		Earth for external sensor
18			Not utilised
19			Input, wheel speed
20			Not utilised
21			Not utilised
22			ISO 9141 L diagnostic line
23			Not utilised

4. SYSTEMS
4.1 GROUND POINTS



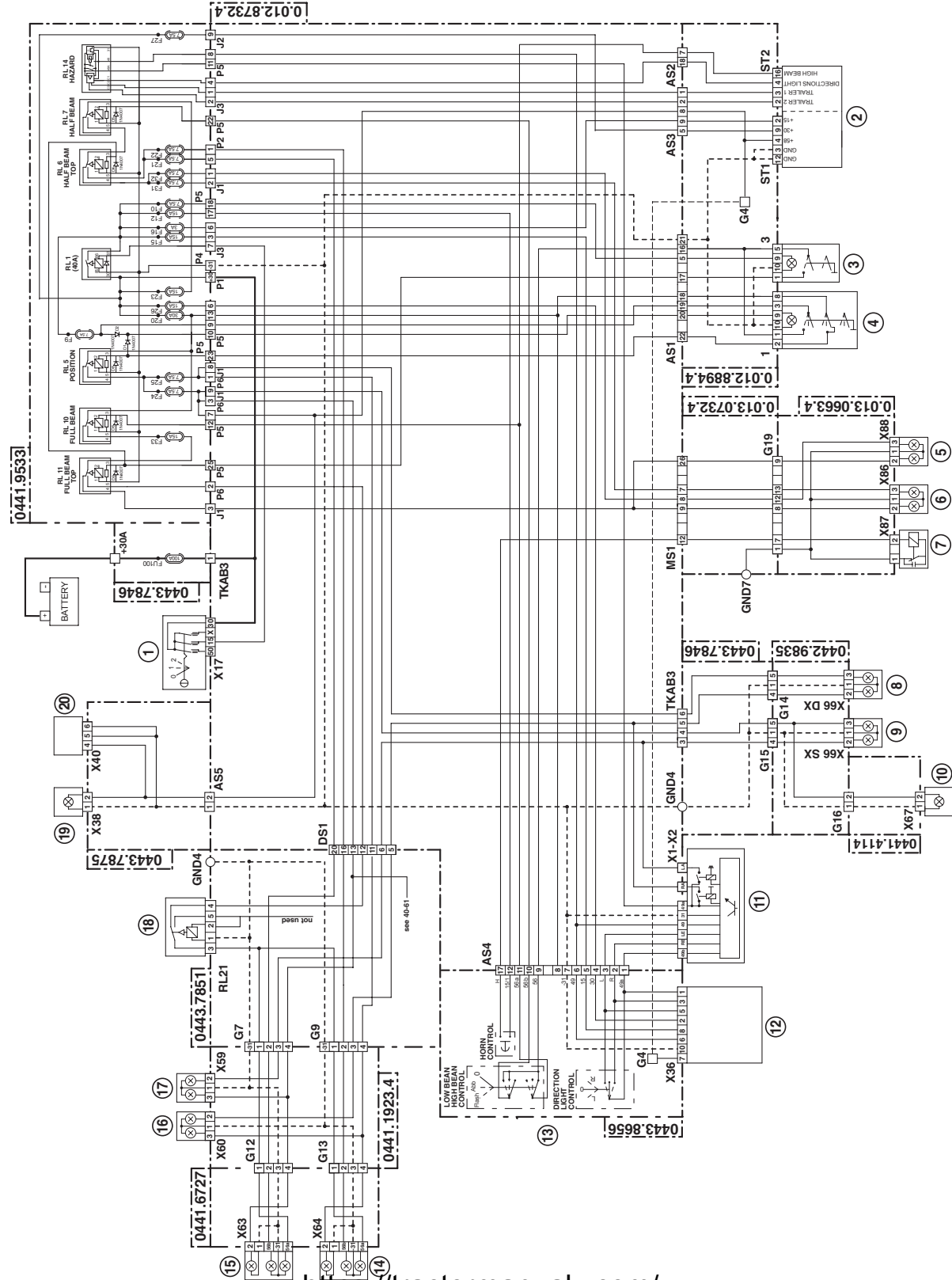
4.5 LIGHTS - LIGHT SELECTOR SWITCH (MACHINE WITHOUT FRONT LIFT)

- 1 Starter switch
- 2 Instrument panel
- 3 Sidelights switch
- 4 Right headlamp
- 5 Left headlamp
- 6 Horn
- 7 Rear right tail light and direction indicator
- 8 Rear left tail light and direction indicator
- 9 Number plate light
- 10 Direction indicators flasher unit
- 11 Hazard warning lights on/off switch
- 12 Steering column switch unit
- 13 Front right sidelight and direction indicator
- 14 Front left sidelight and direction indicator
- 15 Compressed air pressure gauge light
- 16 Transmission display

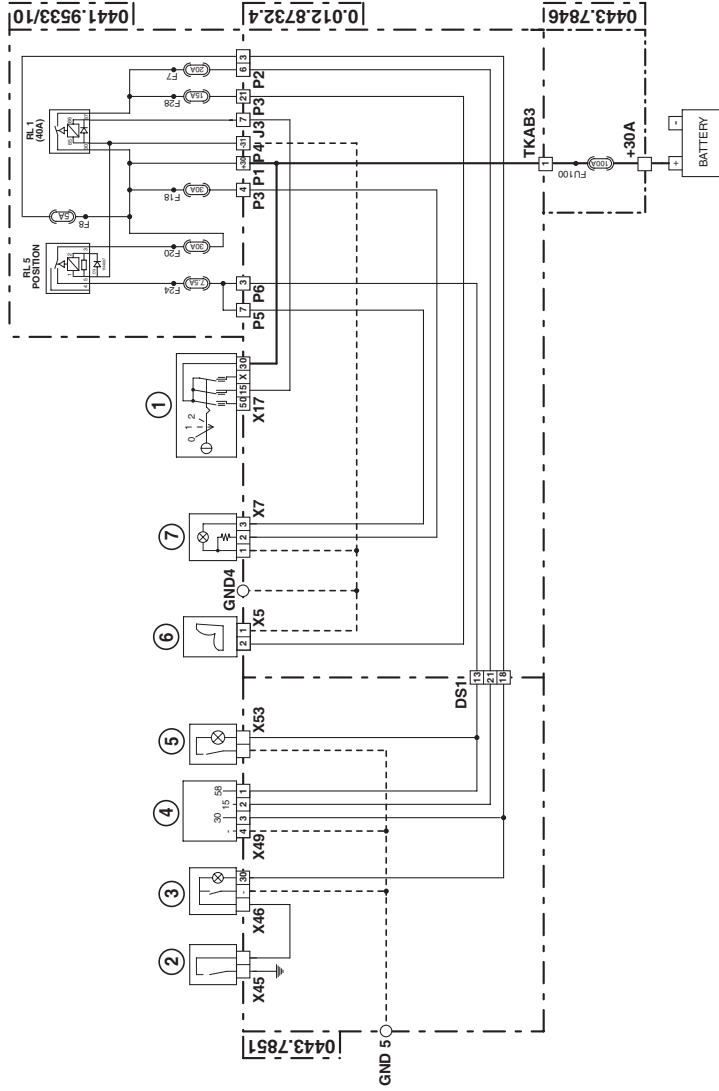


4.6 LIGHTS - LIGHT SELECTOR SWITCH (MACHINE WITH FRONT LIFT)

- 1 Starter switch
- 2 Instrument panel
- 3 Cab headlights dipped beam switch
- 4 Sidelights switch
- 5 Right headlamp
- 6 Left headlamp
- 7 Horn
- 8 Rear right tail light and direction indicator
- 9 Rear left tail light and direction indicator
- 10 Number plate light
- 11 Direction indicators flasher unit
- 12 Hazard warning lights on/off switch
- 13 Steering column switch unit
- 14 Front right worklight on cab
- 15 Front left worklight on cab
- 16 Front right sidelight and direction indicator
- 17 Front left sidelight and direction indicator
- 18 Front upper cab (50S) worklights relay
- 19 Compressed air pressure gauge light
- 20 Transmission display



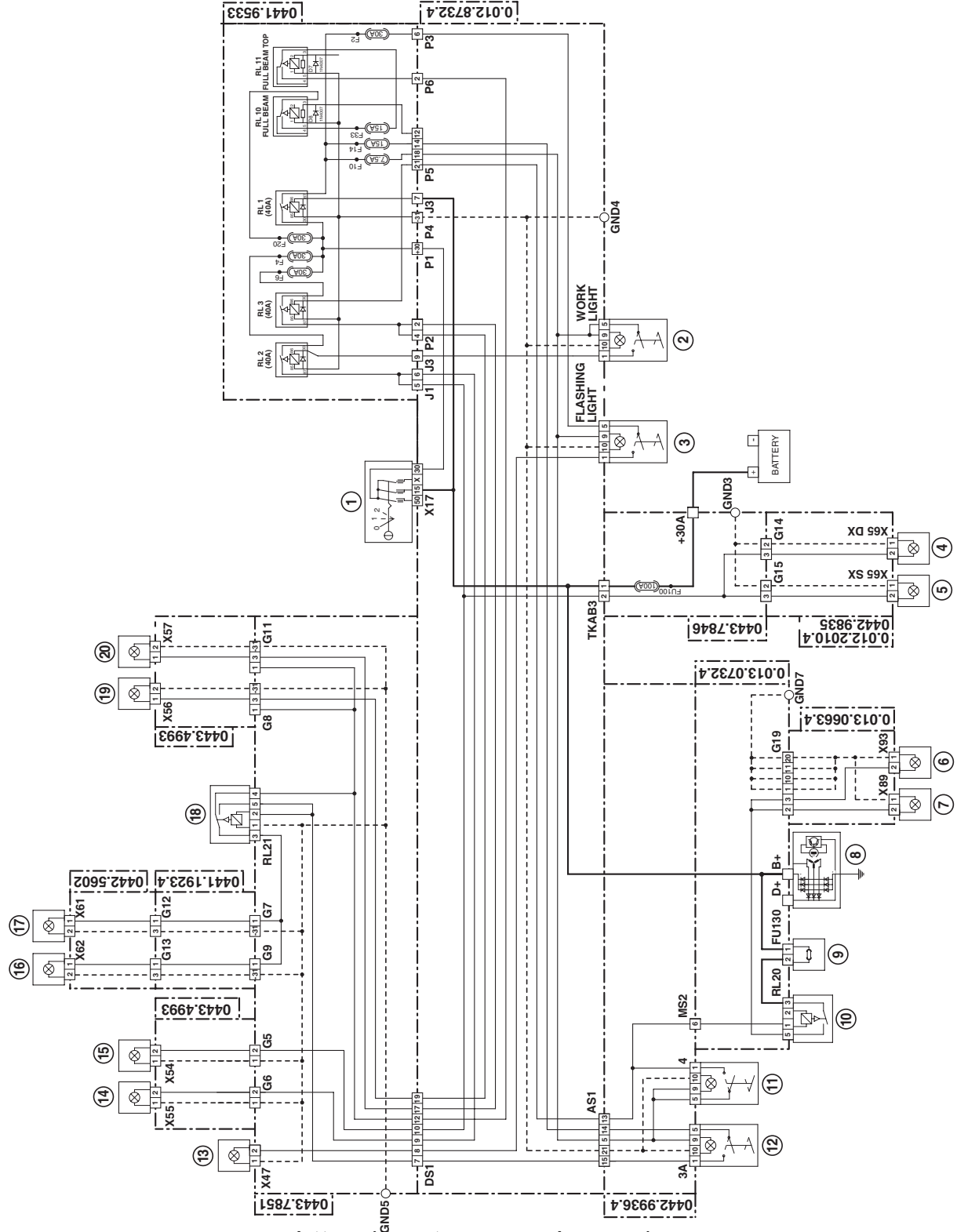
4.7 CAB ACCESSORY



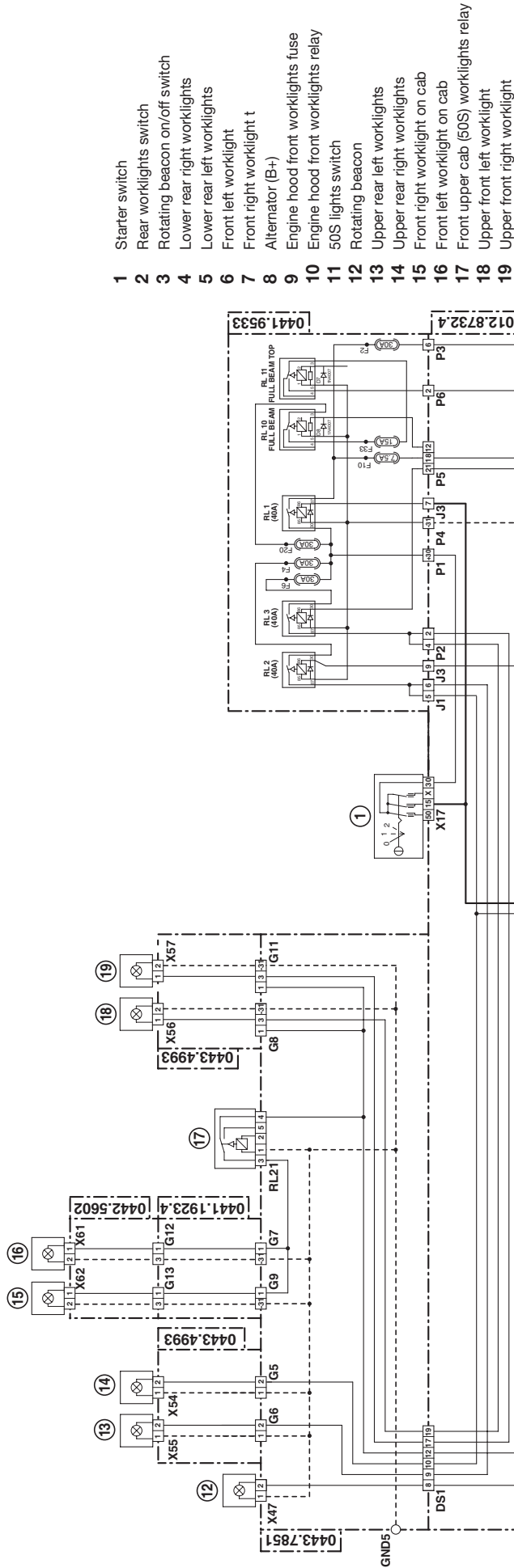
- 1 Starter switch
- 2 Door open warning signal switch
- 3 Interior roof light
- 4 Clock
- 5 Side console courtesy light
- 6 Driver seat air suspension compressor
- 7 Cigar lighter

4.8 WORKING LIGHTS (MACHINE WITHOUT FRONT LIFT)

- 1 Starter switch
- 2 Rear worklights switch
- 3 Rotating beacon on/off switch
- 4 Lower rear right worklights
- 5 Lower rear left worklights
- 6 Front left worklight
- 7 Front right worklight
- 8 Alternator (B+)
- 9 Engine hood front worklights fuse
- 10 Engine hood front worklights relay
- 11 50S lights switch
- 12 Lower front worklights (on cab) switch
- 13 Rotating beacon
- 14 Upper rear left worklights
- 15 Upper rear right worklights
- 16 Front right worklight on cab
- 17 Front left worklight on cab
- 18 Front upper cab (50S) worklights relay
- 19 Upper front left worklight
- 20 Upper front right worklight

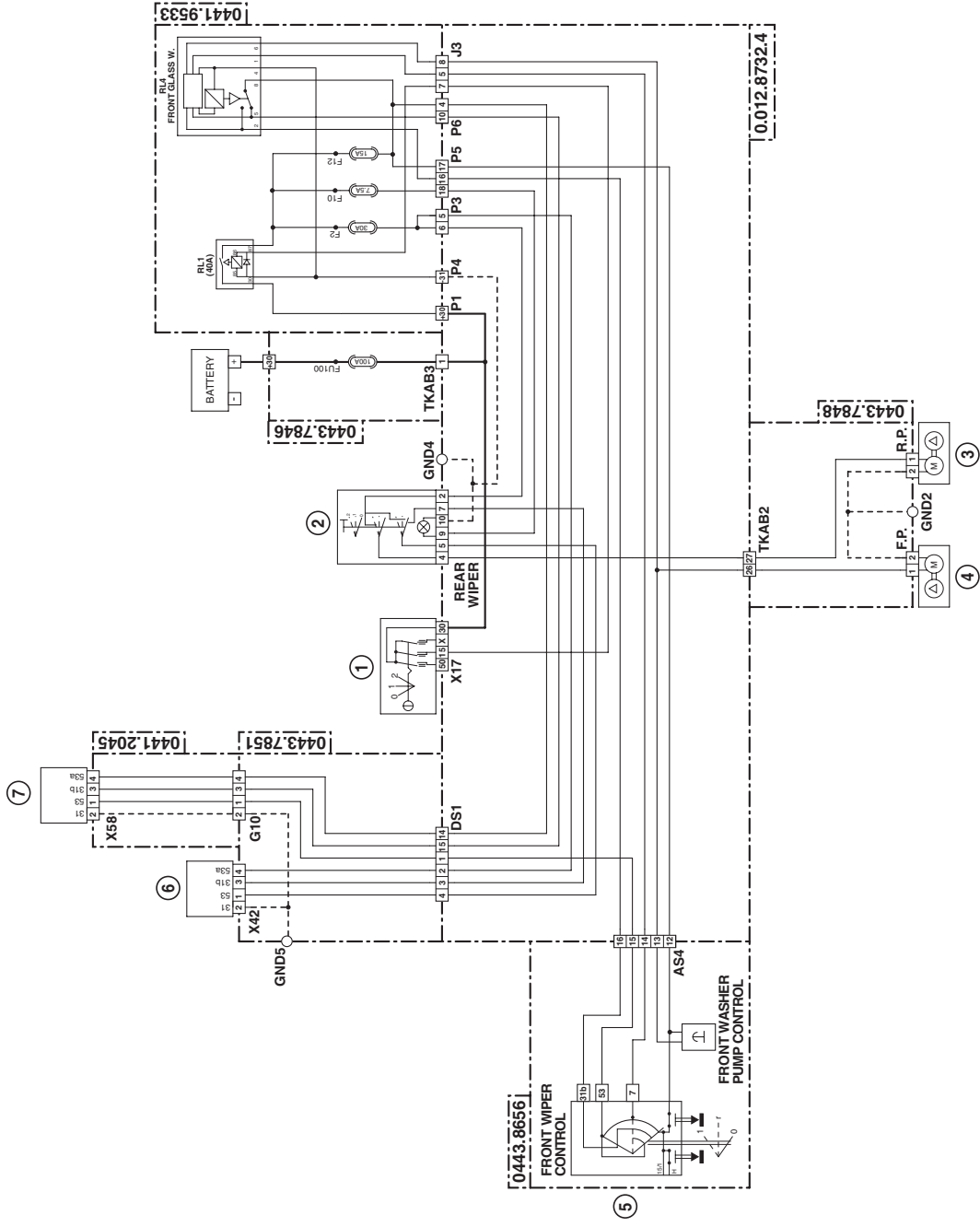


4.9 WORKING LIGHTS (MACHINE WITH FRONT LIFT)



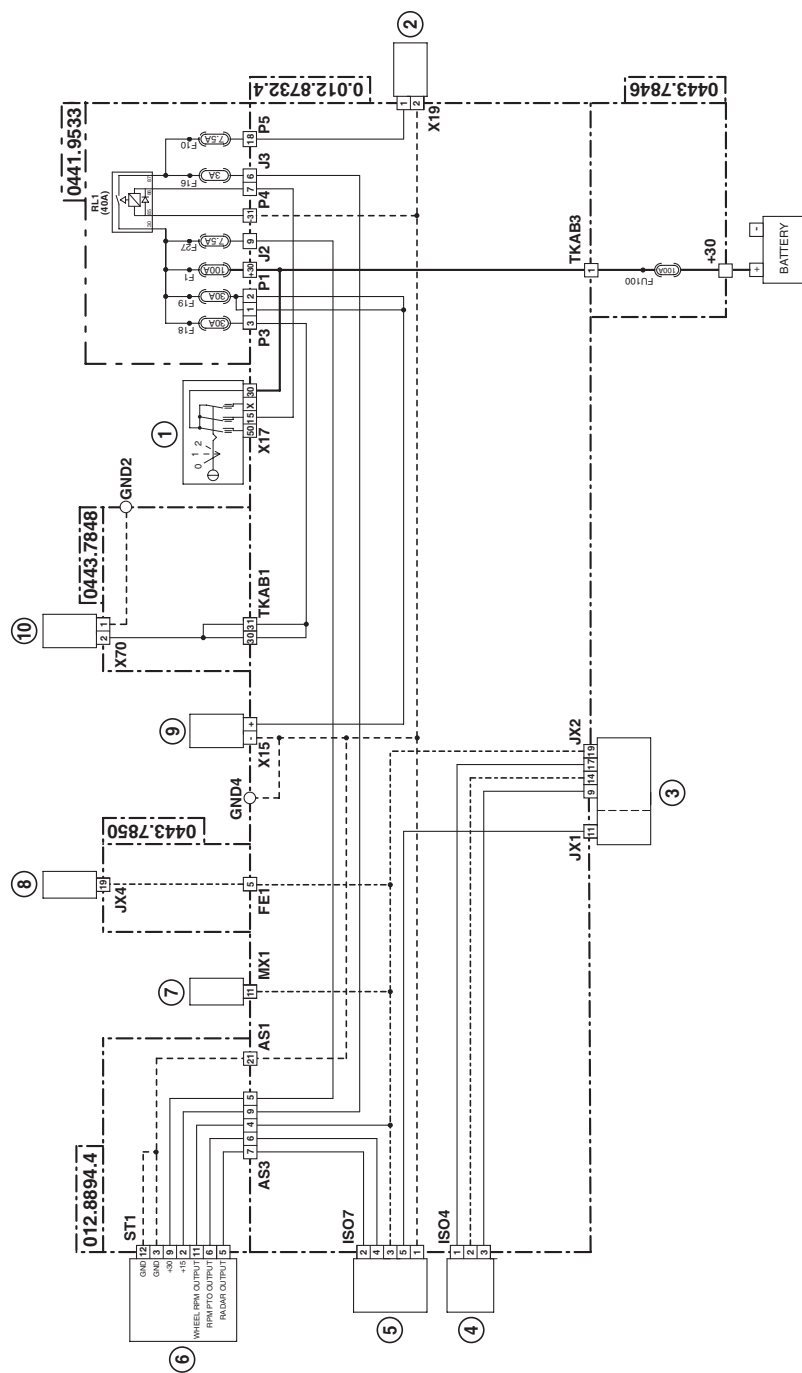
- 1 Starter switch
- 2 Rear worklights switch
- 3 Rotating beacon on/off switch
- 4 Lower rear right worklights
- 5 Lower rear left worklights
- 6 Front left worklight
- 7 Front right worklight
- 8 Alternator (B+)
- 9 Engine hood front worklights fuse
- 10 Engine hood front worklights relay
- 11 50S lights switch
- 12 Rotating beacon
- 13 Upper rear left worklights
- 14 Upper rear right worklights
- 15 Front right worklight on cab
- 16 Front left worklight on cab
- 17 Front upper cab (60S) worklights relay
- 18 Upper front left worklight
- 19 Upper front right worklight

4.10 WINDSCREEN WIPER



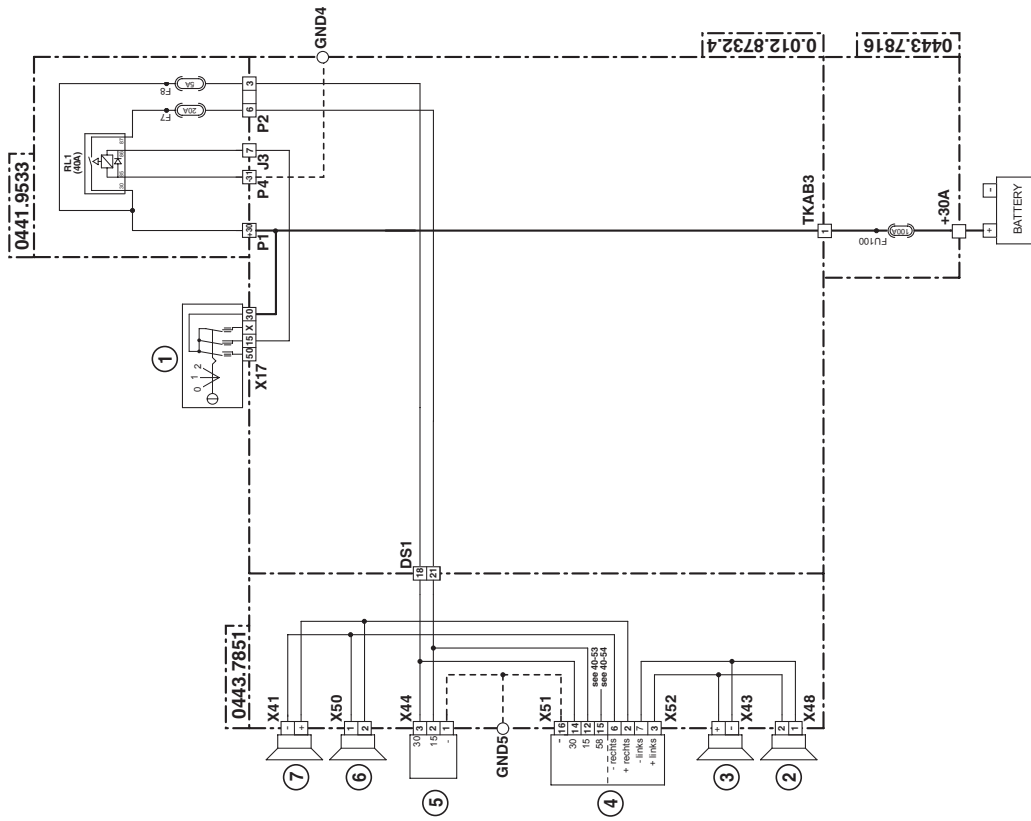
- 1 Starter switch
- 2 Rear screen wiper switch
- 3 Rear screen washer pump
- 4 Windscreen washer pump
- 5 Steering column switch unit
- 6 Rear screen wiper motor
- 7 Windscreen wiper motor

4.12 ELECTRICAL POWER SUPPLY



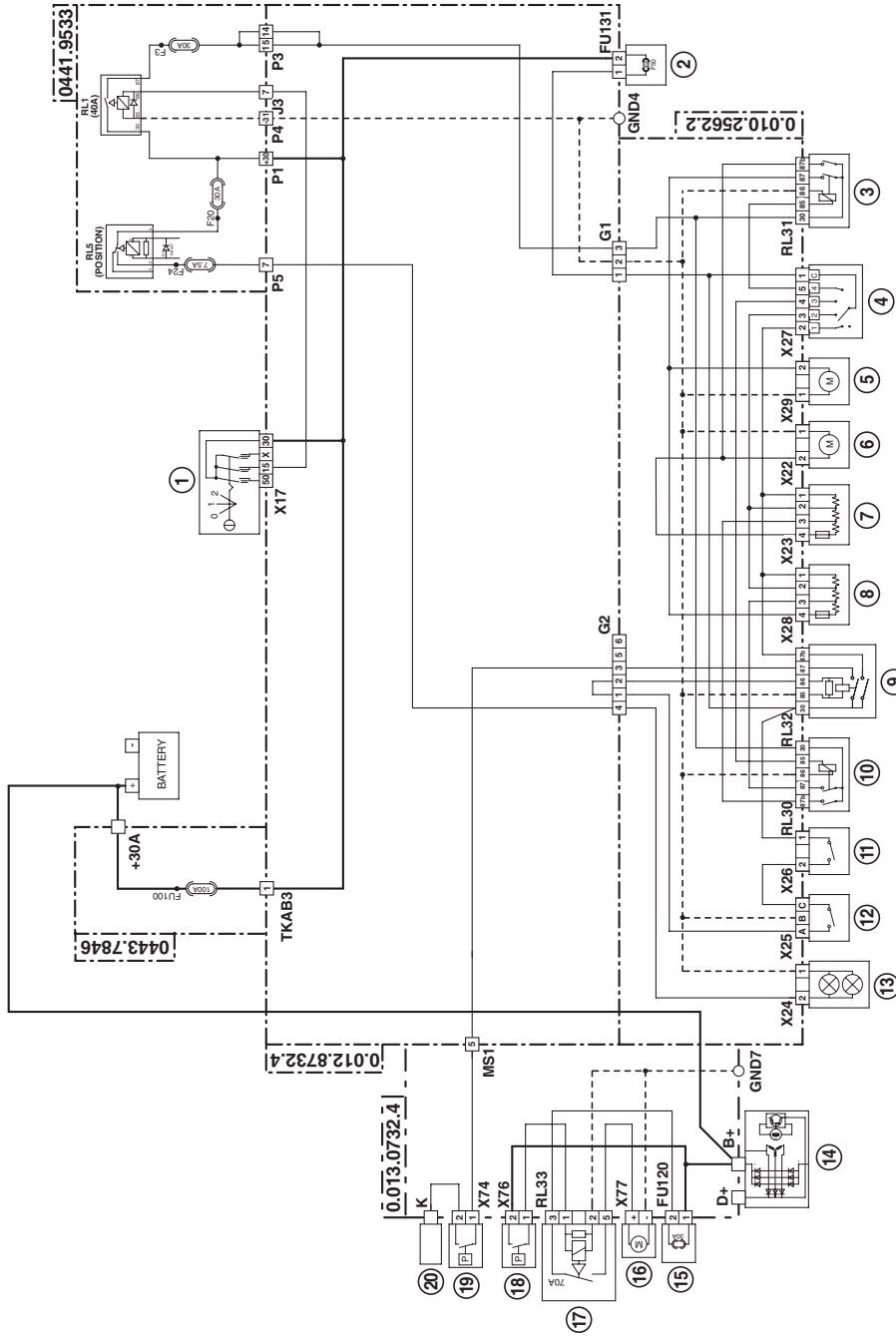
- 1 Starter switch
- 2 Auxiliary power supply connector (In cab)
- 3 Rear lift control unit
- 4 ISO4 socket (power supply to implements)
- 5 ISO7 socket (implement connection)
- 6 Instrument panel
- 7 Engine control unit
- 8 Front axle suspension control unit
- 9 Auxiliary power socket
- 10 Trailer socket (lights and auxiliary power)

4.13 AUTORADIO - CB



- 1 Starter switch
- 2 Right front loudspeaker
- 3 Right rear loudspeaker
- 4 Radio
- 5 CB power connector
- 6 Left front loudspeaker
- 7 Left rear loudspeaker

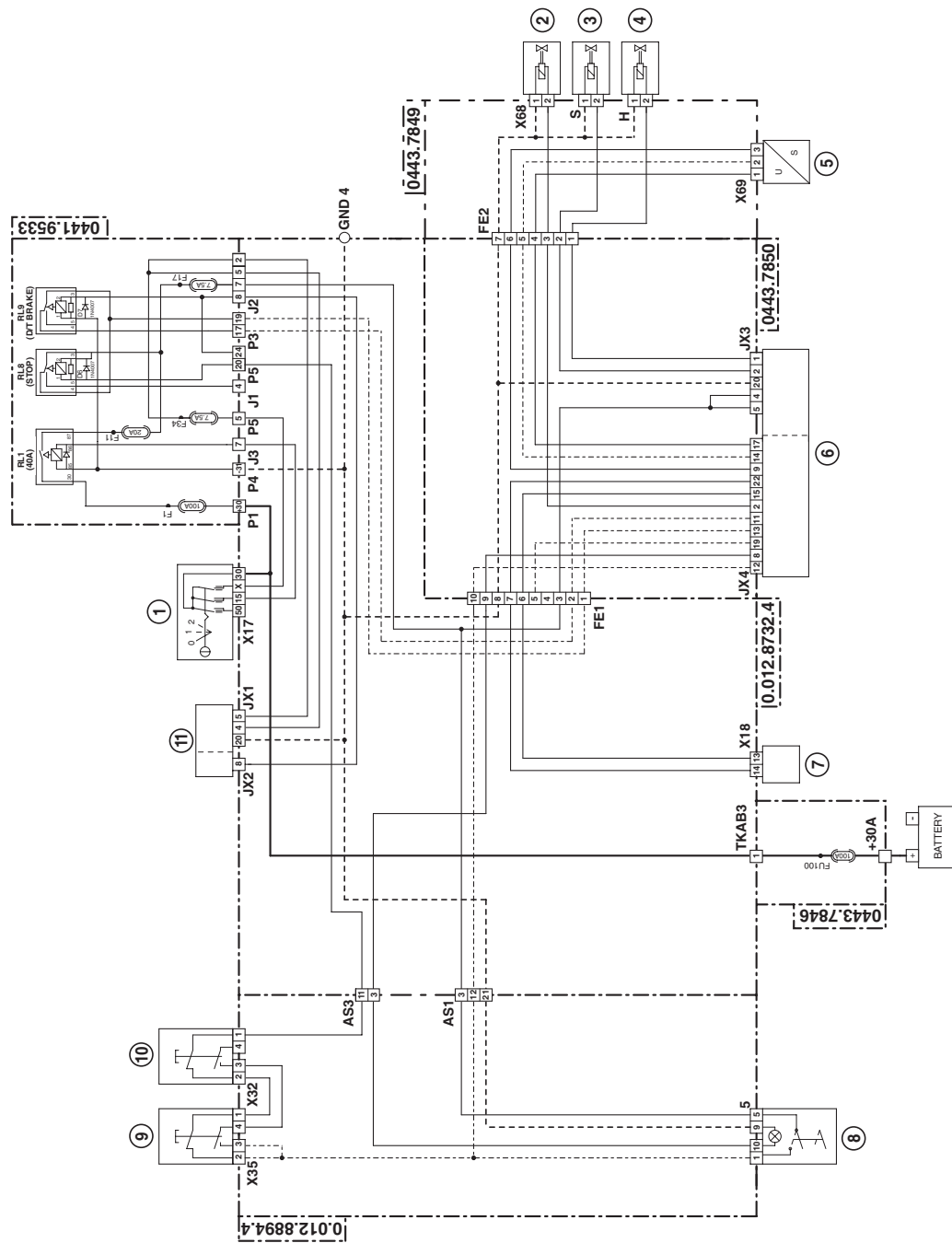
4.14 AIR CONDITIONING - HEATING FAN



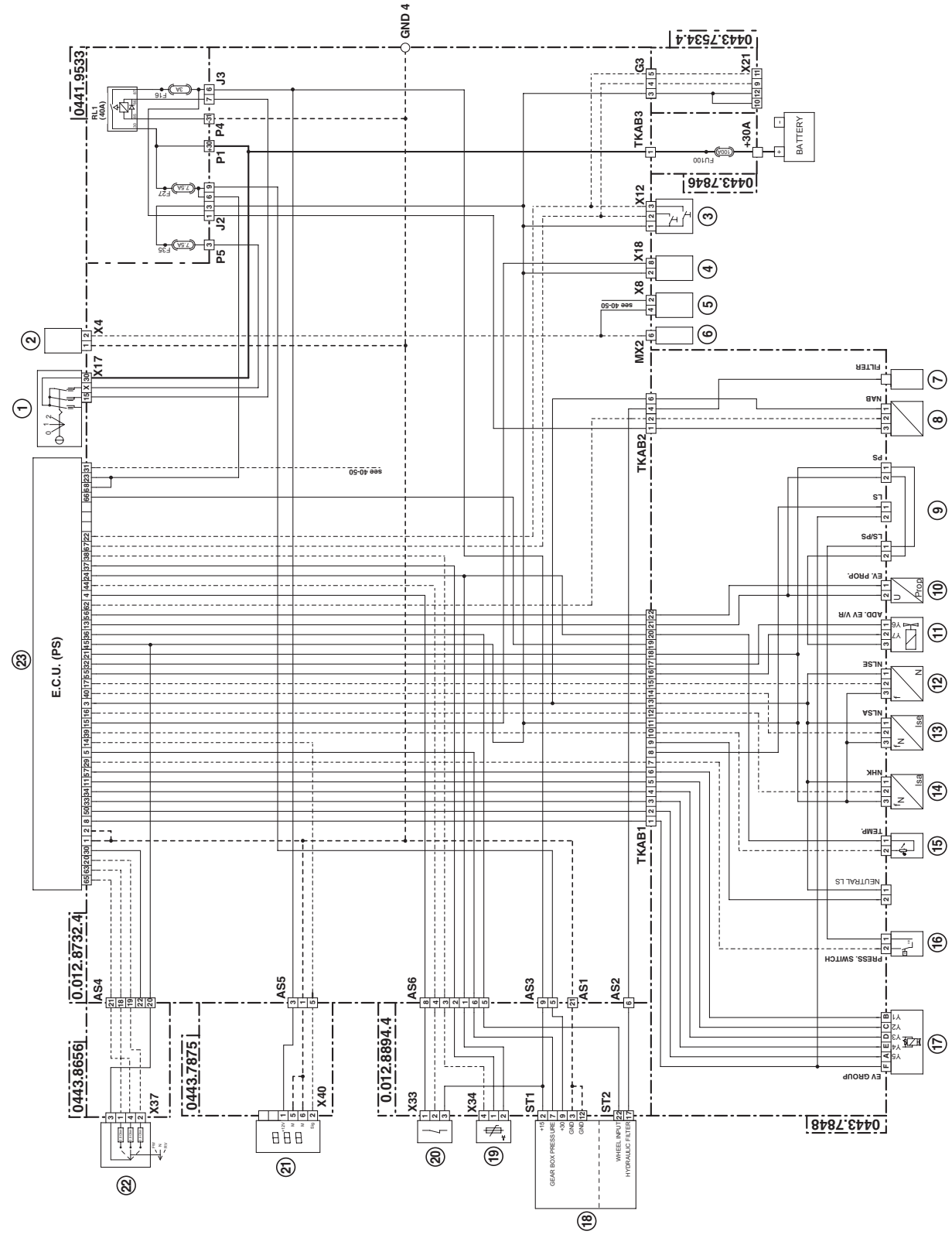
- 1 Starter switch
- 2 Main heating fuse
- 3 Heater fan speed 4 relay
- 4 Fan speed selector switch
- 5 Rx heater fan
- 6 Lx heater fan
- 7 Lx heater fan resistor
- 8 Rx heater fan resistor
- 9 Heater fan speed 1 relay
- 10 Heater fan speed 3 relay
- 11 Air conditioning on/off switch
- 12 Air conditioning thermostat
- 13 Air conditioning control panel illumination connector
- 14 Alternator (B+)
- 15 Auxiliary air conditioning fan power supply fuse
- 16 Auxiliary air conditioning fan
- 17 Auxiliary air conditioning fan switch relay
- 18 Compressor and condenser fan pressure switch
- 19 Compressor and condenser fan pressure switch
- 20 Air conditioning compressor

4.17 FRONT AXLE SUSPENSION

- 1 Starter switch
- 2 Front axle suspension load sensing solenoid valve coil
- 3 Axle Down control solenoid valve coil
- 4 Axle Up control solenoid valve coil
- 5 Front axle suspension position sensor
- 6 Front axle suspension control unit
- 7 Diagnostics connector
- 8 Front suspension pushbutton
- 9 Brake pedal switch (Left)
- 10 Brake pedal switch (Right)
- 11 Rear lift control unit

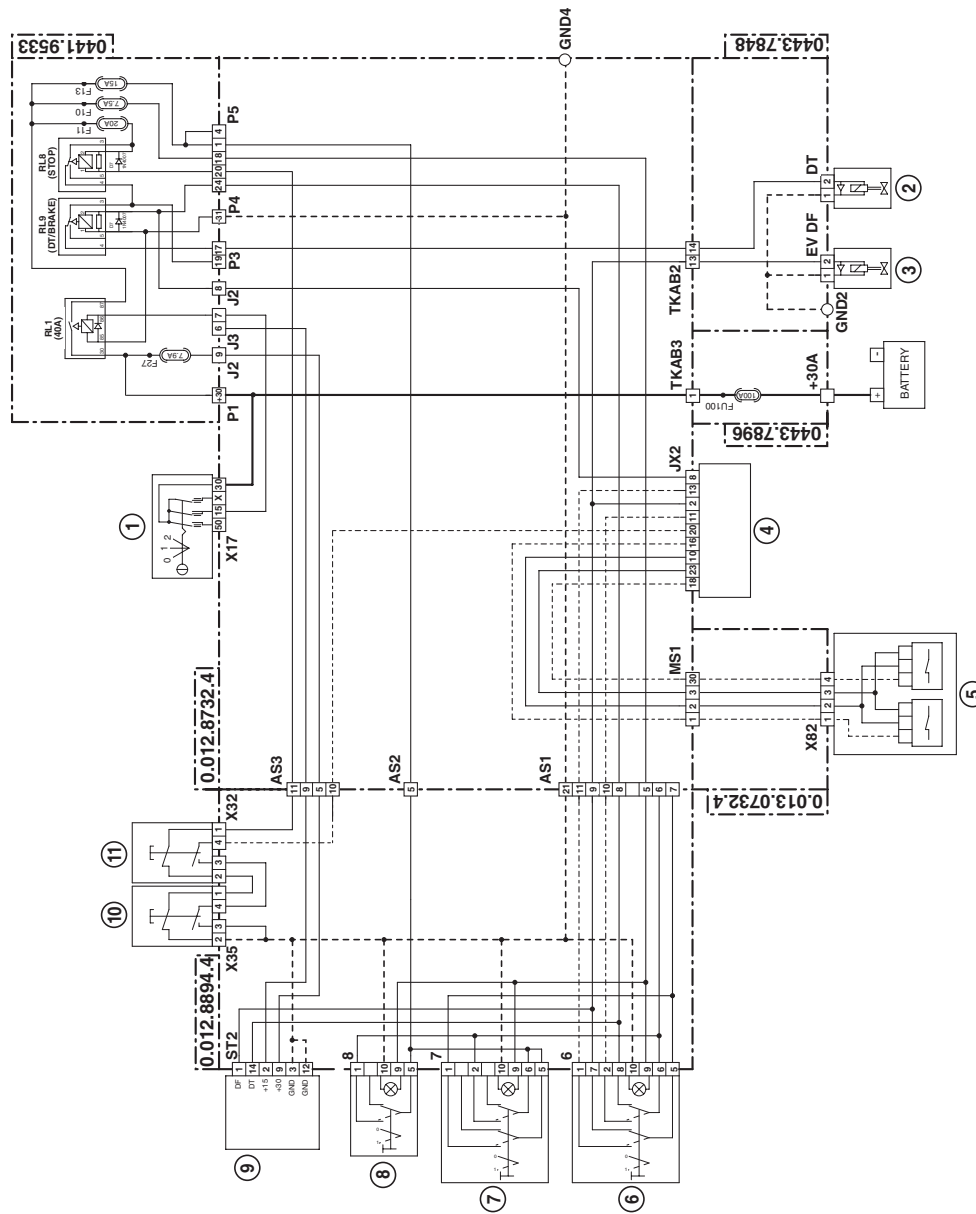


4.18 TRANSMISSION



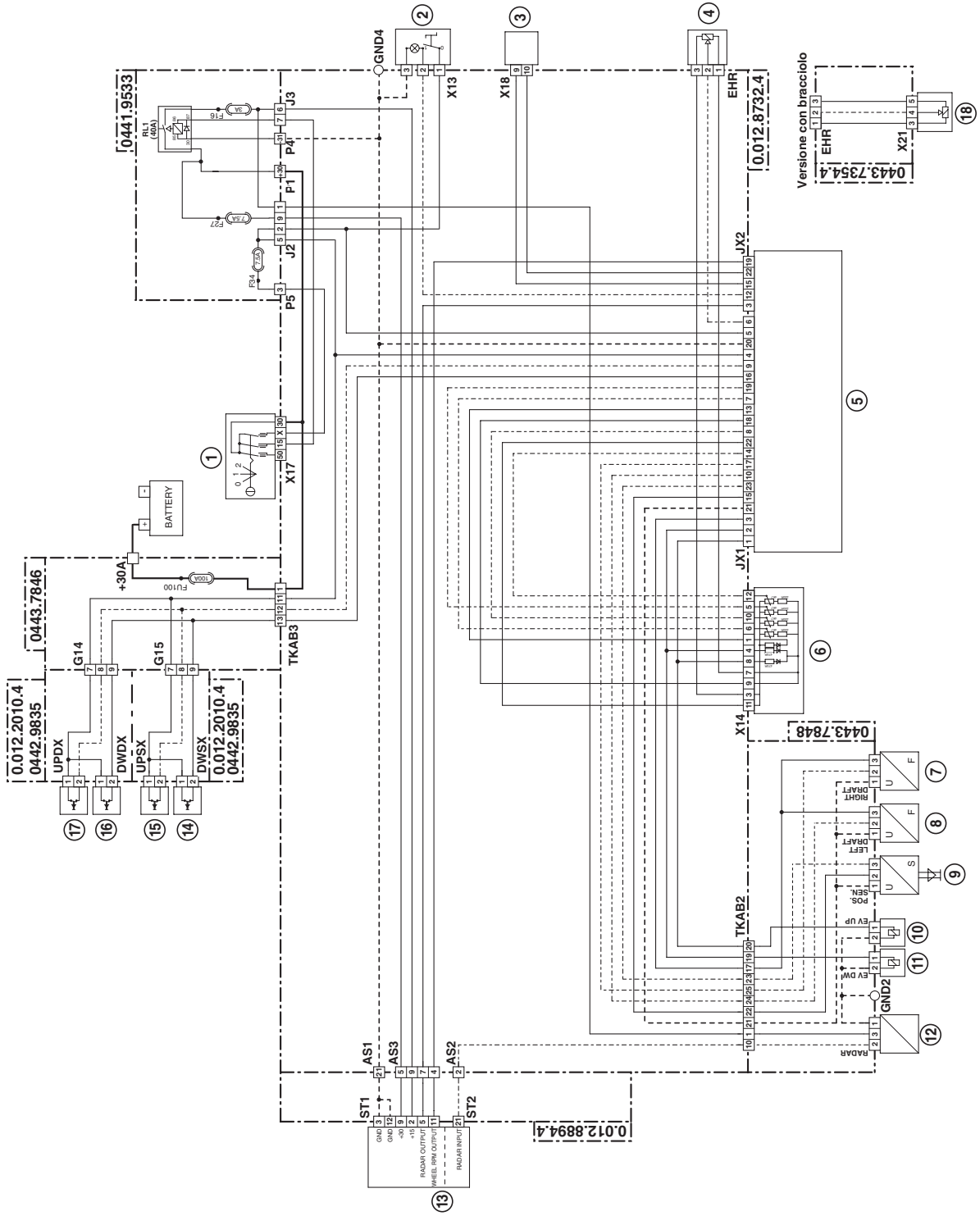
- 1 Starter switch
- 2 Creep engagement switch
- 3 Gearshift lever
- 4 Diagnostics connector
- 5 Engine ECU circuit board
- 6 Engine control unit
- 7 Hydraulic oil filter clogging pressure switch
- 8 Speed sensor for odometer
- 9 Configuration connector (Powershift/Powershuttle)
- 10 Proportional solenoid valve coil
- 11 Forward/reverse solenoid valves
- 12 Engine speed sensor
- 13 Gearbox output shaft speed sensor
- 14 Transmission speed sensor
- 15 Transmission oil temperature sensor
- 16 Engine oil low pressure switch
- 17 Gearshift solenoid valves
- 18 Instrument panel
- 19 Clutch pedal position sensor
- 20 Clutch pedal depressed proximity sensor
- 21 Transmission display
- 22 Shuttle control lever
- 23 Transmission ECU

4.19 ASM - 4WD - DIFFERENTIAL



- 1 Starter switch
- 2 Four wheel drive (4WD) clutch solenoid valve
- 3 Differential lock solenoid valve
- 4 Rear lift control unit
- 5 Steering angle sensor
- 6 ASM switch
- 7 Differential lock switch
- 8 4WD switch
- 9 Instrument panel
- 10 Brake pedal switch (Left)
- 11 Brake pedal switch (Right)

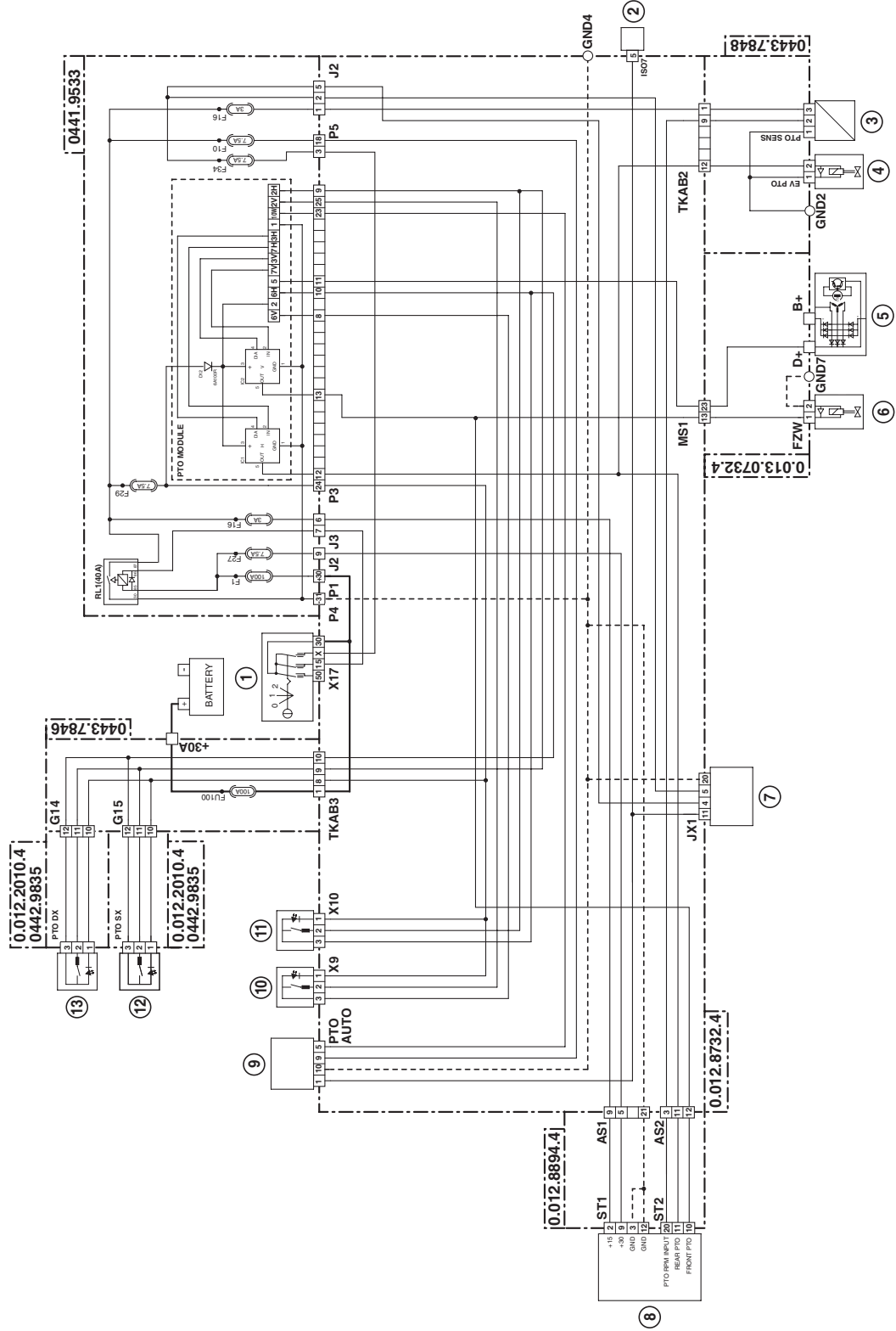
4.20 REAR LIFTER



- 1 Starter switch
- 2 Radar control switch
- 3 Diagnostics connector
- 4 Lift and hand throttle console
- 5 Rear lift control unit
- 6 Lift control panel
- 7 Lift draft sensor (Right)
- 8 Lift draft sensor (Left)
- 9 Rear lift position sensor
- 10 Lift Up solenoid valve
- 11 Lift Down solenoid valve
- 12 Radar
- 13 Instrument panel
- 14 Rear lift Down Lx pushbutton
- 15 Rear lift Up Lx pushbutton
- 16 Rear lift Down Rx pushbutton
- 17 Rear lift Up Rx pushbutton
- 18 Armrest

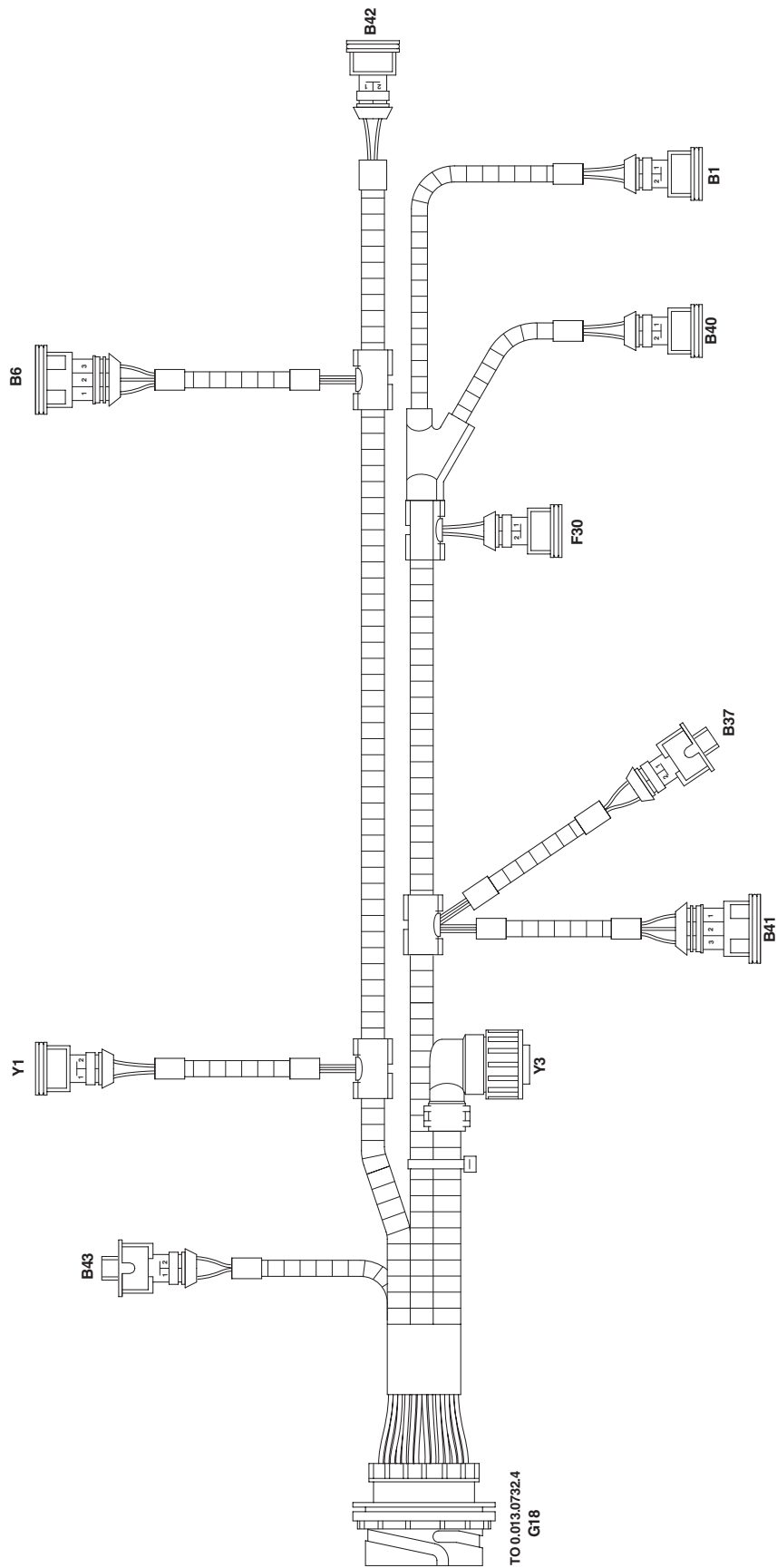
4.21 FRONT AND REAR PTO

- 1 Starter switch
- 2 ISO7 socket (implement connection)
- 3 Rear PTO speed sensor
- 4 Rear PTO solenoid valve
- 5 Alternator (D+)
- 6 Front PTO solenoid valve
- 7 Rear lift control unit
- 8 Instrument panel
- 9 PTO AUTO switch
- 10 Front PTO pushbutton (in cab)
- 11 Rear PTO pushbutton (in cab)
- 12 Rear PTO Lx pushbutton (on fender)
- 13 Rear PTO Rx pushbutton (on fender)



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5. WIRING ENGINE WIRING (1/2)



- B1 Not utilised
- B6 Not utilised
- B37 Fuel temperature sensor
- B40 Camshaft speed sensor (Pickup)
- B41 Turbo charge pressure sensor
- B42 Not utilised
- B43 Engine coolant temperature sensor
- F30 Not utilised
- G18 To engine wiring
- Y1 Not utilised
- Y3 Actuator

ENGINE WIRING (2/2)

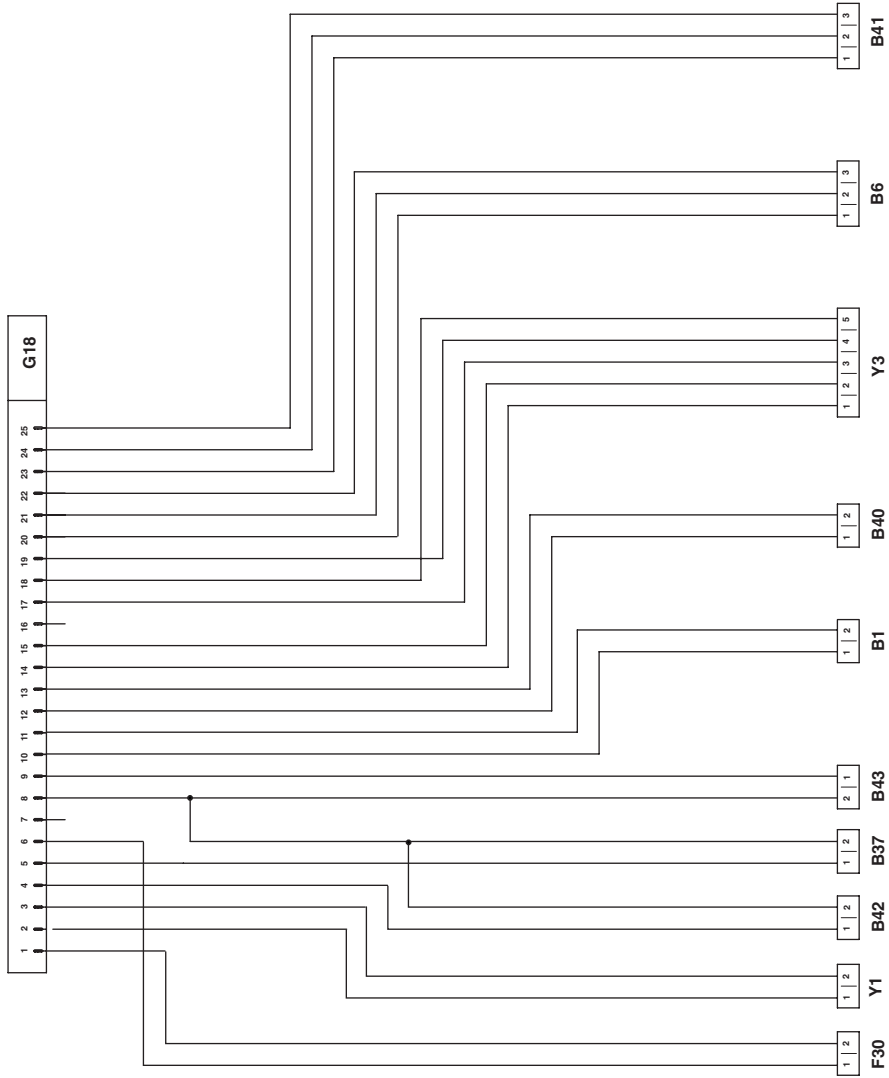
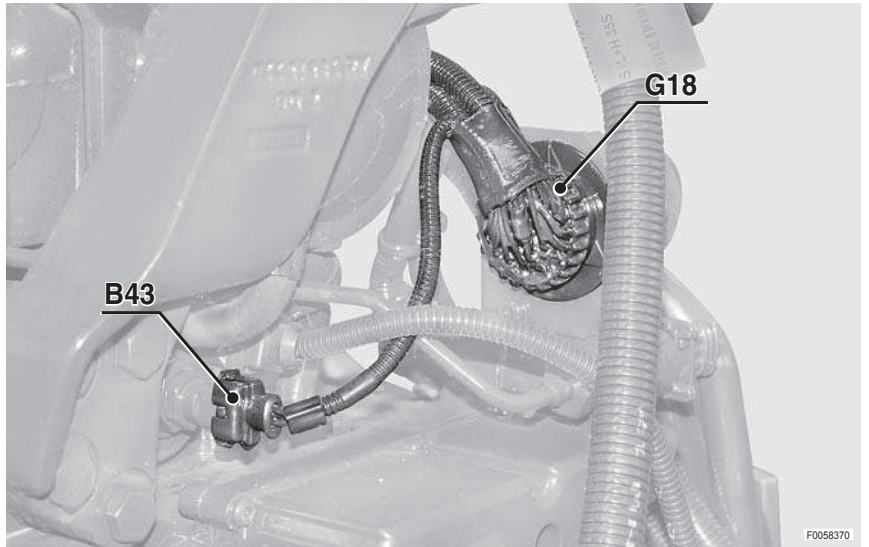


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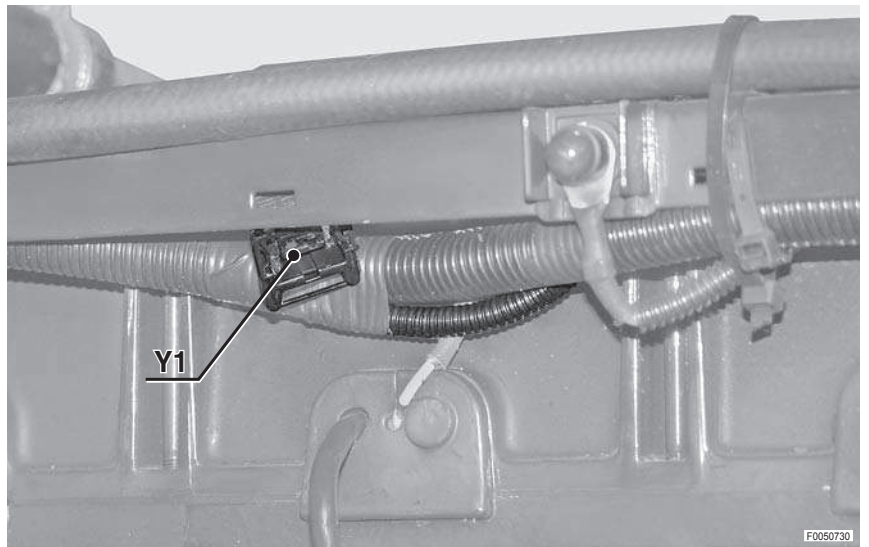
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V	Verde/Green	A	Azzurro/Blue
Z	Viola/Violet	B	Bianco/White
N	Nero/Black	L	Blu/Dark Blue
S	Rosa/Pink	G	Giallo/Yellow
R	Rosso/Red	H	Grigio/Gray

CONNECTORS LOCATION

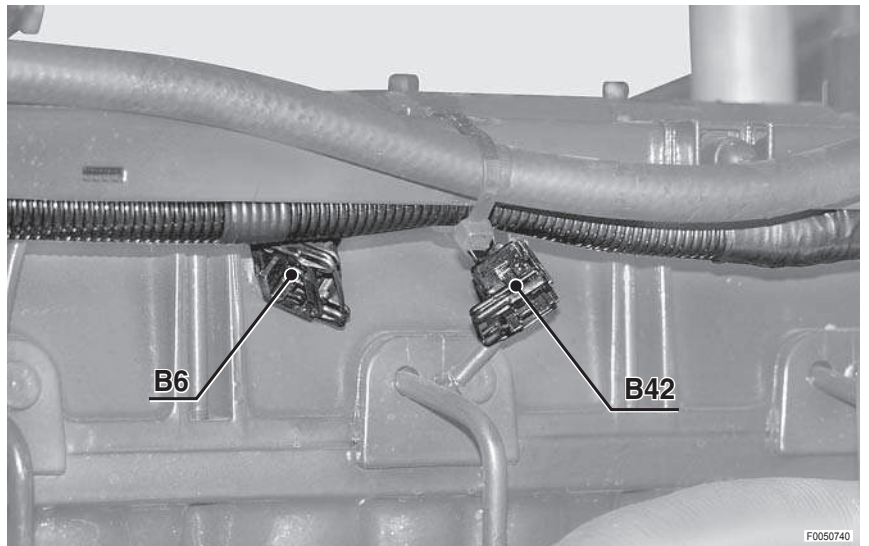
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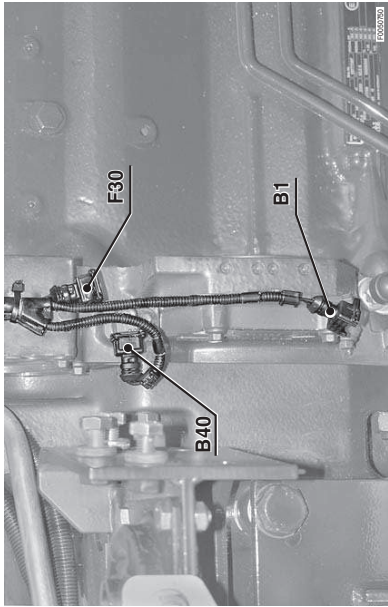
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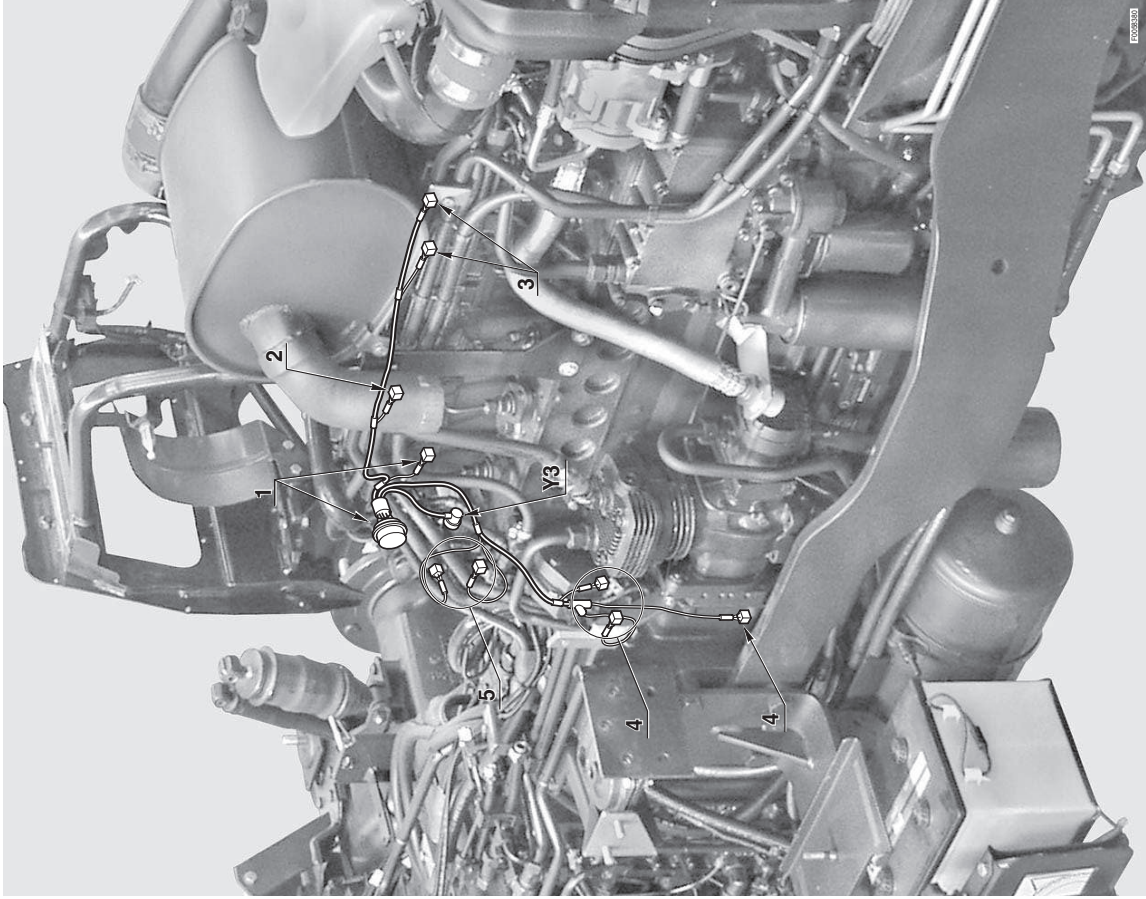
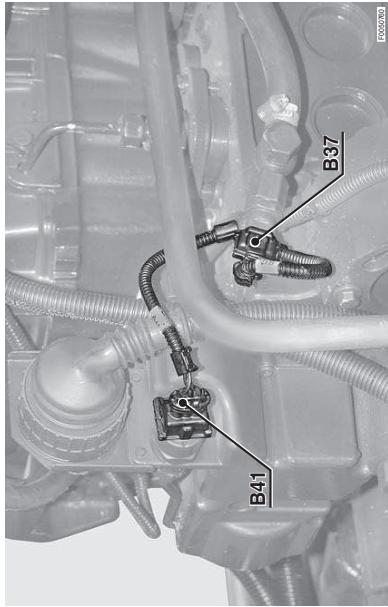
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ENGINE WIRING

4

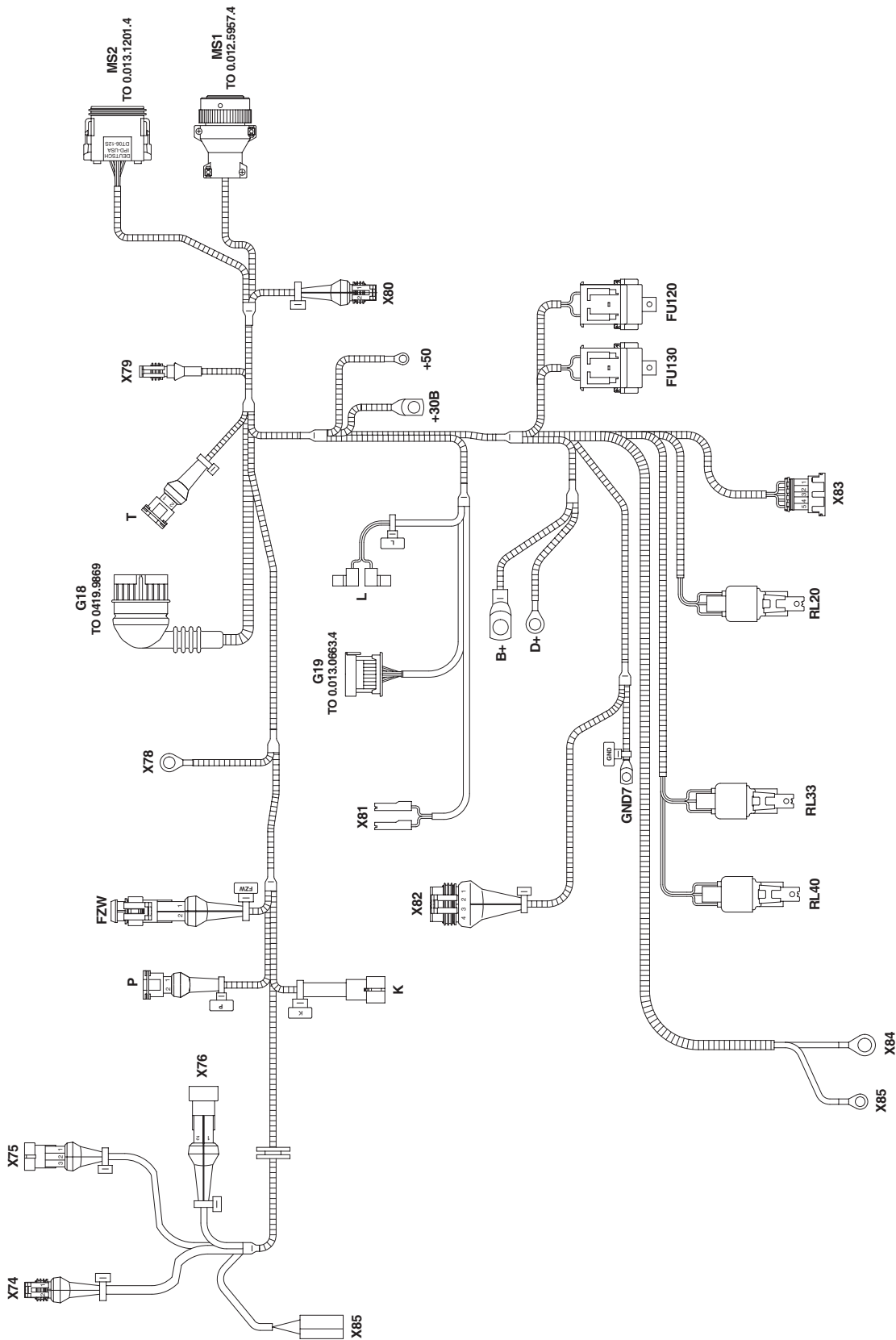


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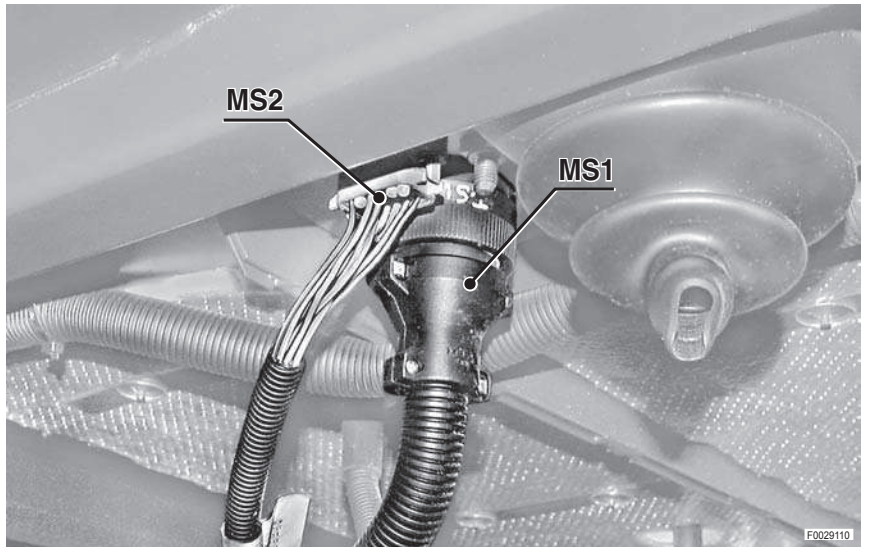
ENGINE WIRING (1/2)



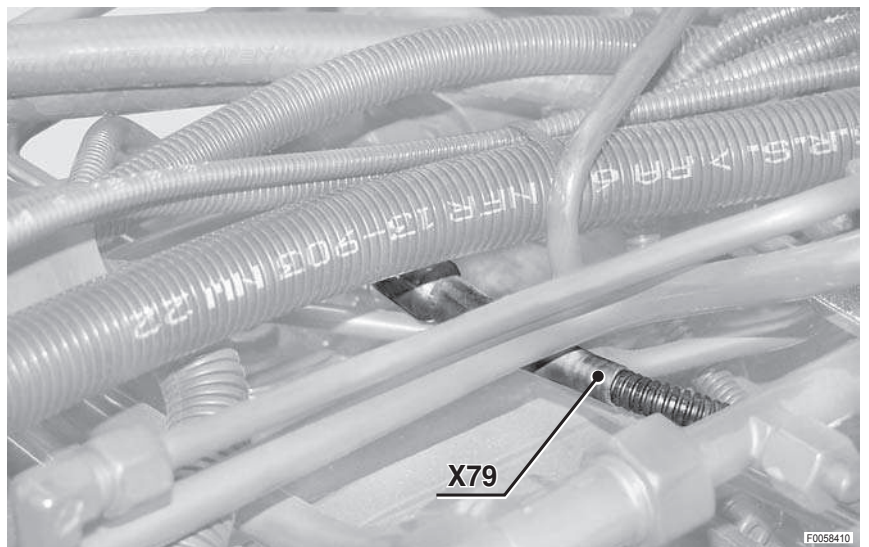
- +30C** Starter motor (+30)
- +50** Starter motor (+50)
- B+** Alternator (B+)
- D+** Alternator (D+)
- FU120** Engine hood front worklights fuse
- FU130** Auxiliary air conditioning fan power supply fuse
- FZW** Front PTO solenoid valve
- G18** To engine wiring
- G19** To engine hood wiring
- K** Air conditioning compressor
- L** Air cleaner clogged sensor
- MS1** To side console wiring
- P** To front console wiring
- RL20** Engine oil pressure switch
- RL33** Engine hood front worklights relay
- RL40** Auxiliary air conditioning fan switch relay
- T** Engine coolant temperature sensor (for Infocenter)
- X74** Compressor and condenser fan pressure switch
- X75** Not utilised
- X76** Compressor and condenser fan pressure switch
- X77** Auxiliary air conditioning fan
- X78** Glowplug
- X79** Steering system pressure switch
- X80** Start enable switch (Green)
- X81** Brake fluid level sensor
- X82** Steering angle sensor
- X83** Glowplugs control unit
- X84** Glowplugs control unit
- X85** Glowplugs control unit

CONNECTORS LOCATION

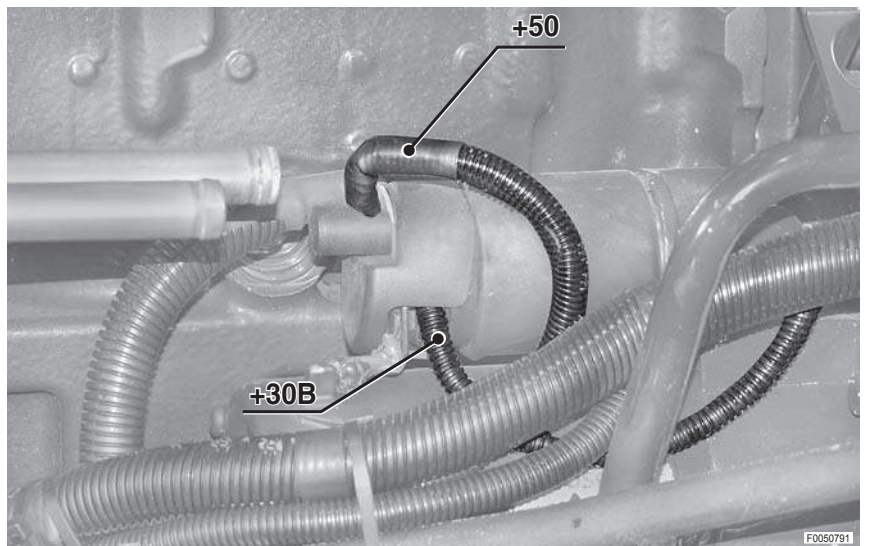
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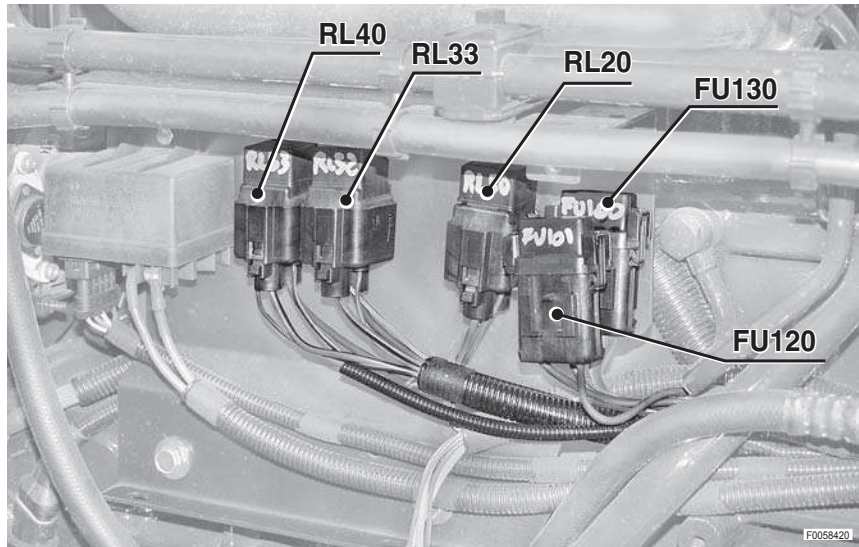
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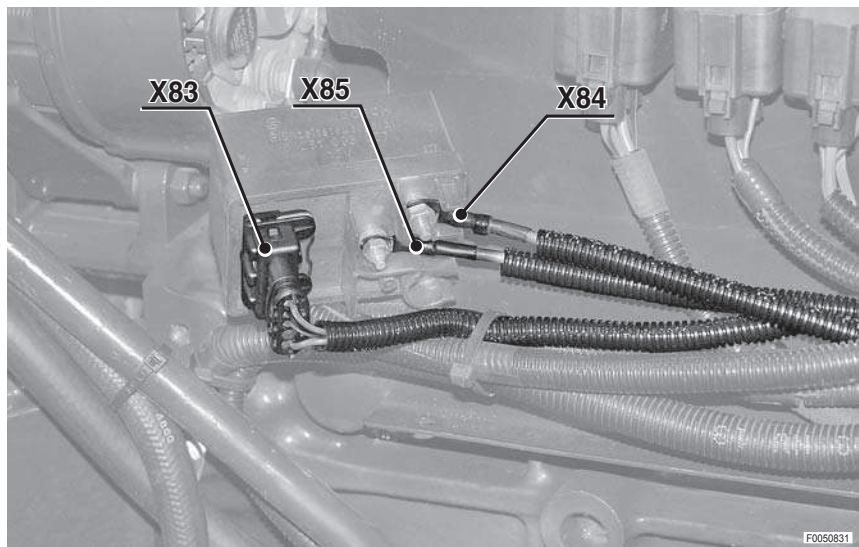
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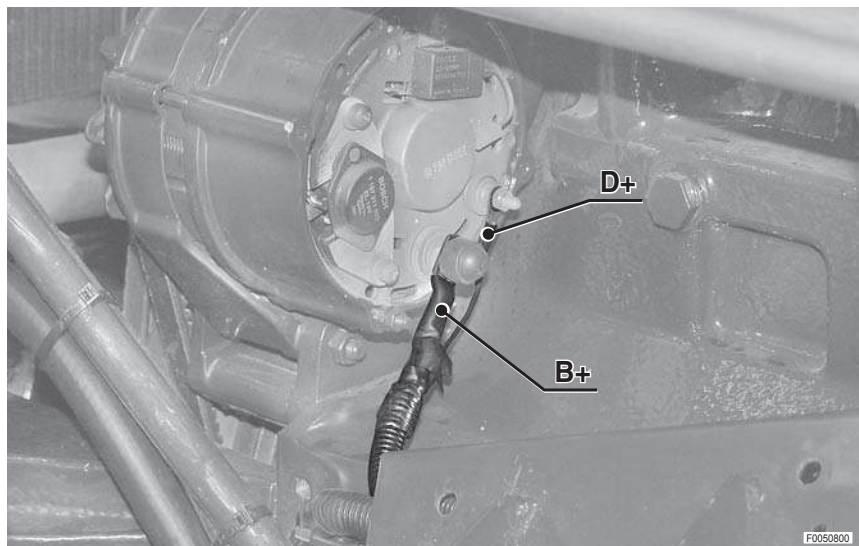
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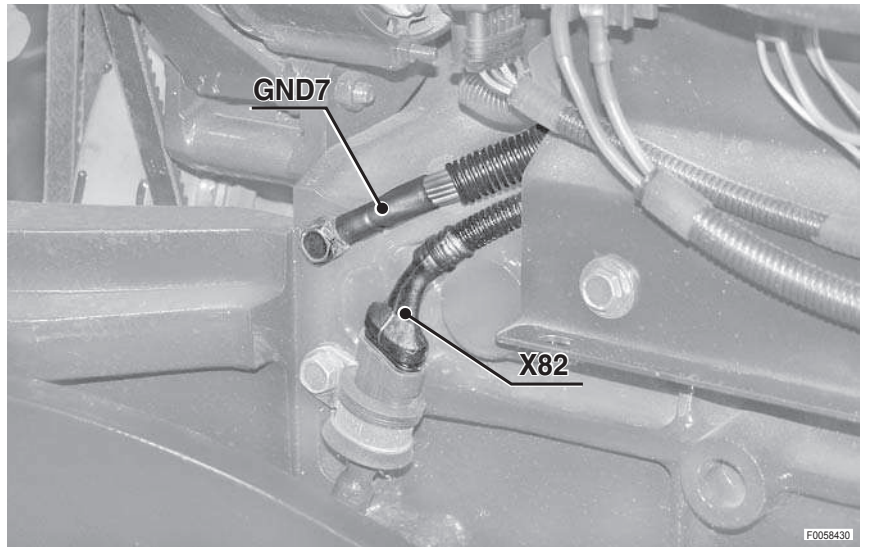
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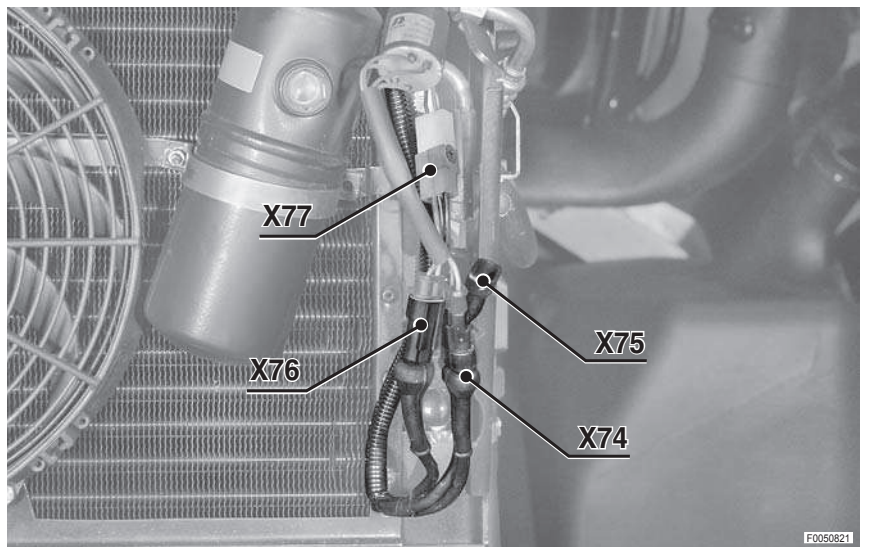
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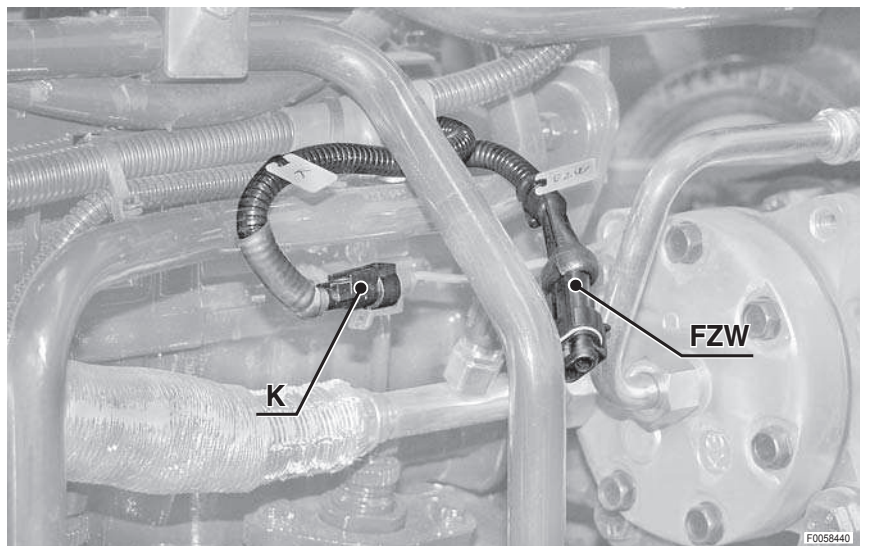
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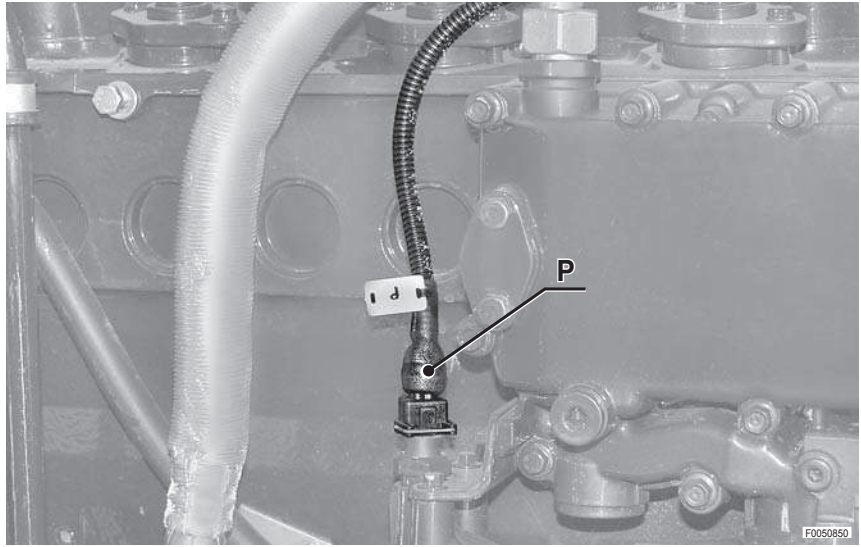
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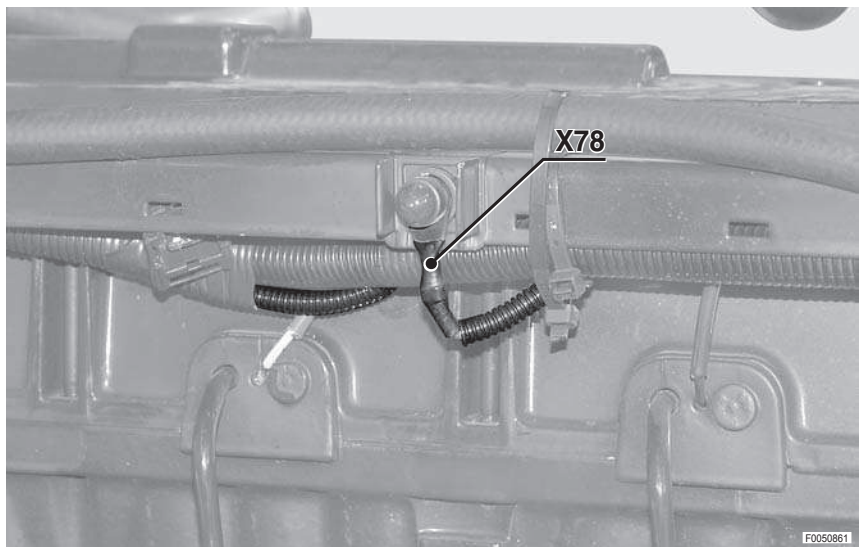
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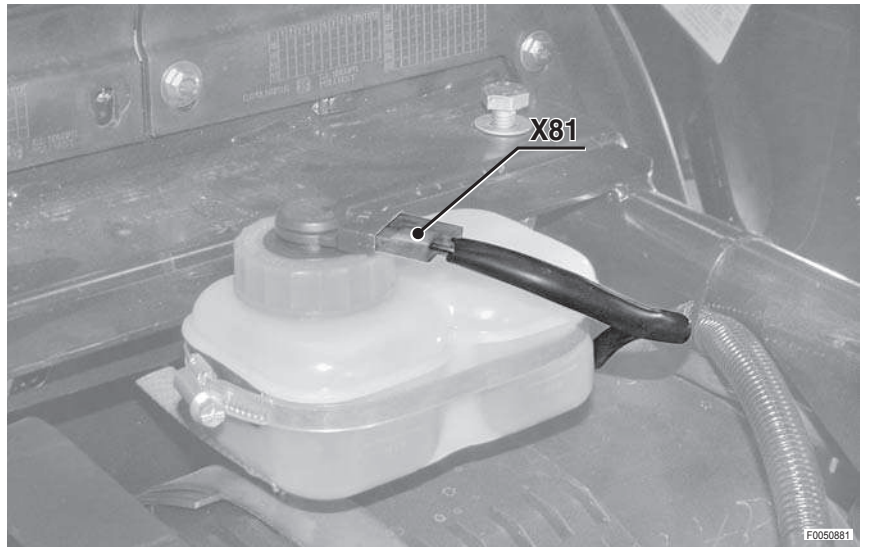
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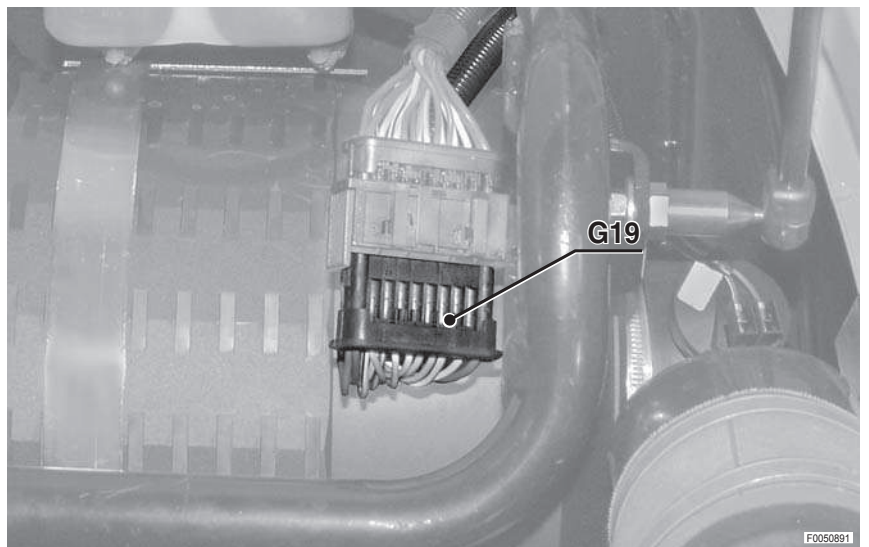
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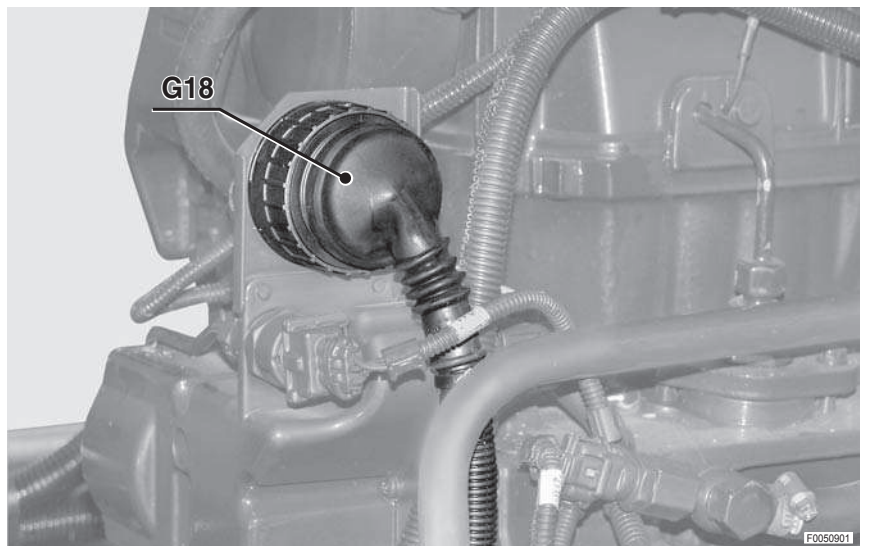
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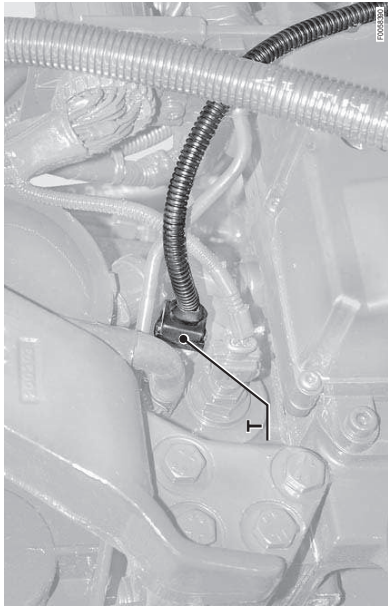
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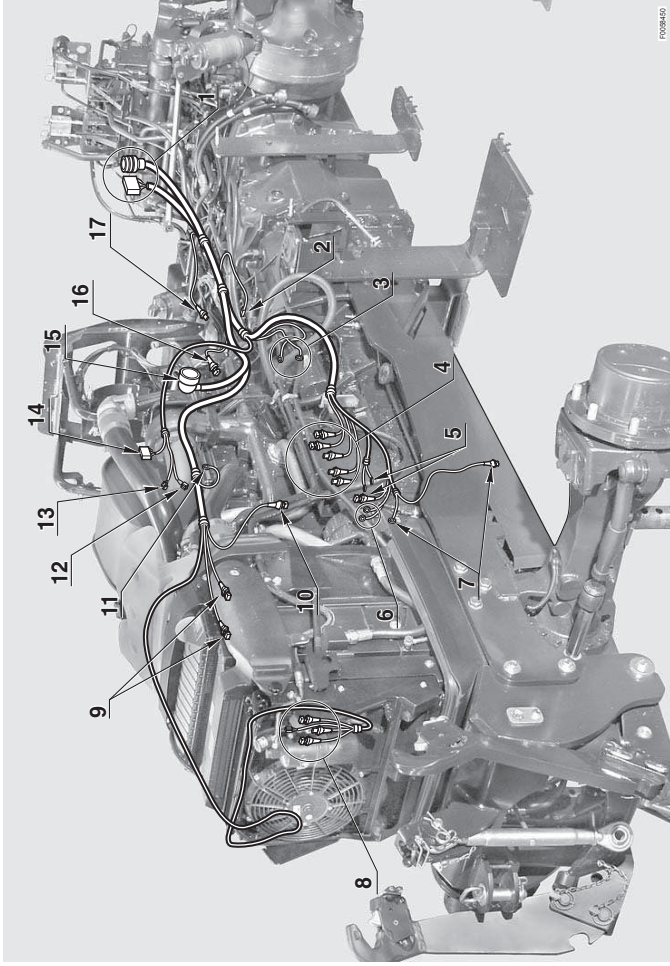
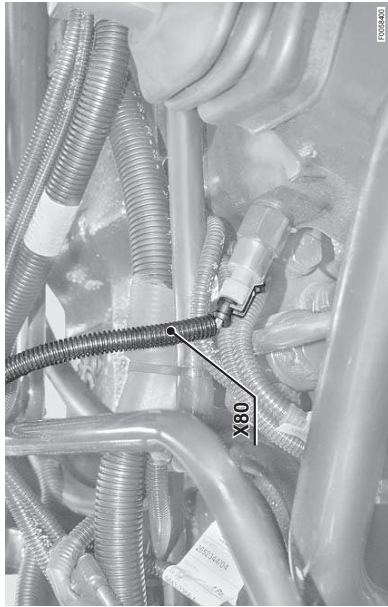
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ENGINE WIRING

16

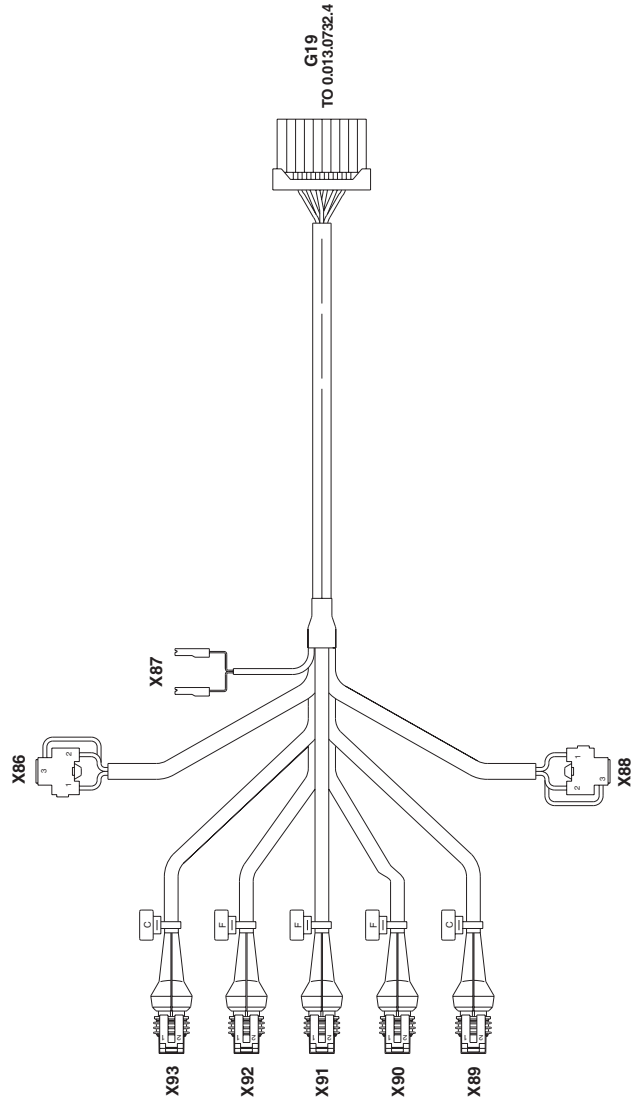


17



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ENGINE HOOD WIRING (1/2)



- G19 To engine wiring
- X86 Left headlamp
- X87 Horn
- X88 Right headlamp
- X89 Front right worklight (on hood)
- X90 Not utilised
- X91 Not utilised
- X92 Not utilised
- X93 Front left worklight (on hood)

ENGINE HOOD WIRING (2/2)

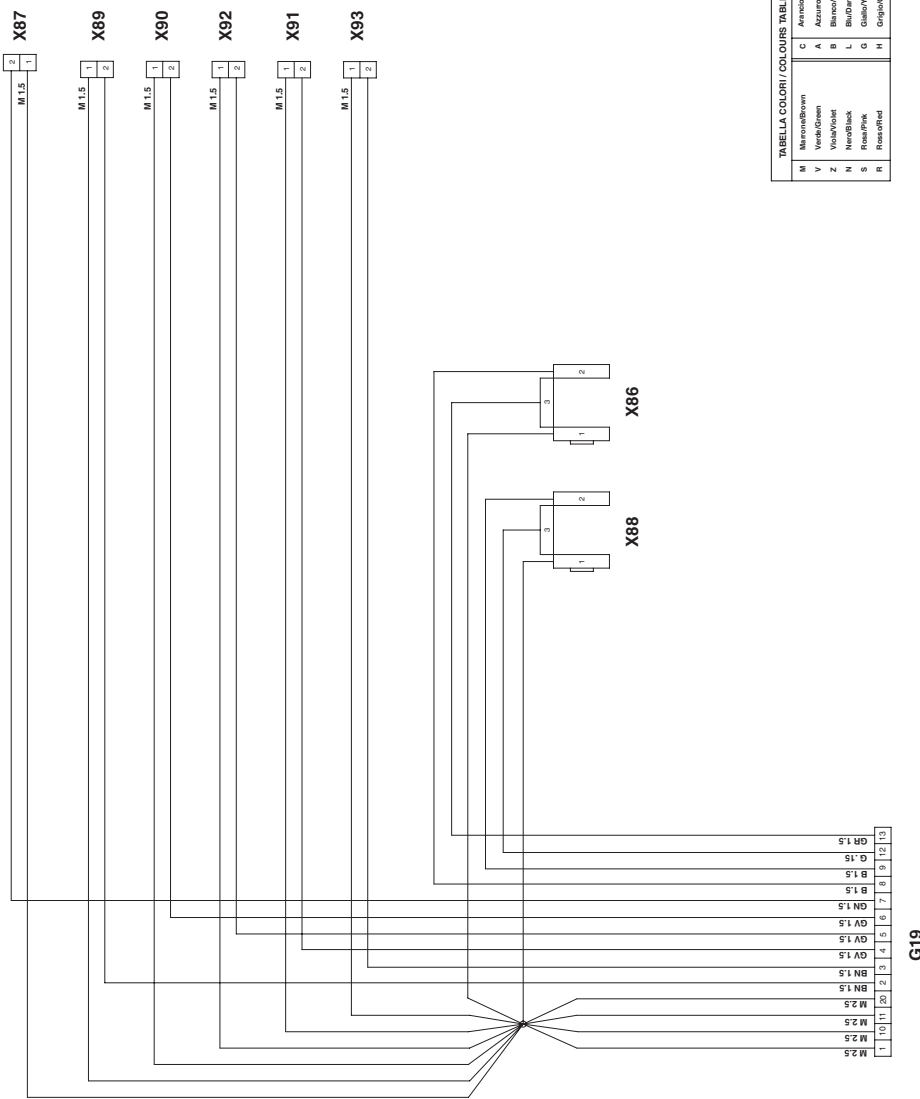
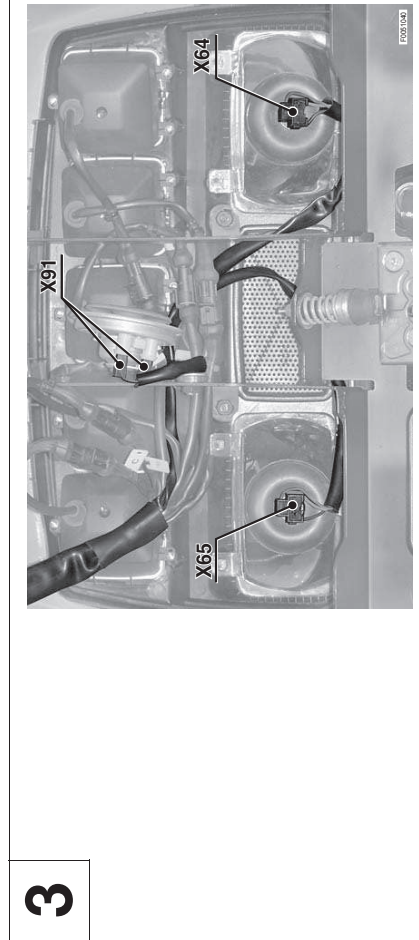
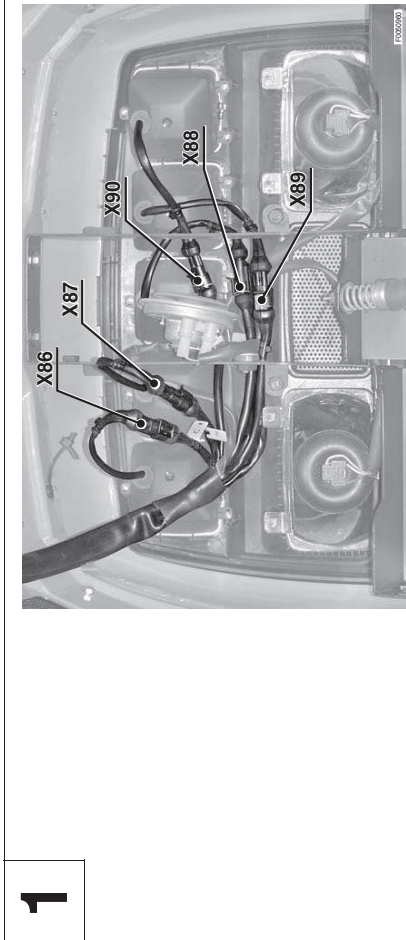


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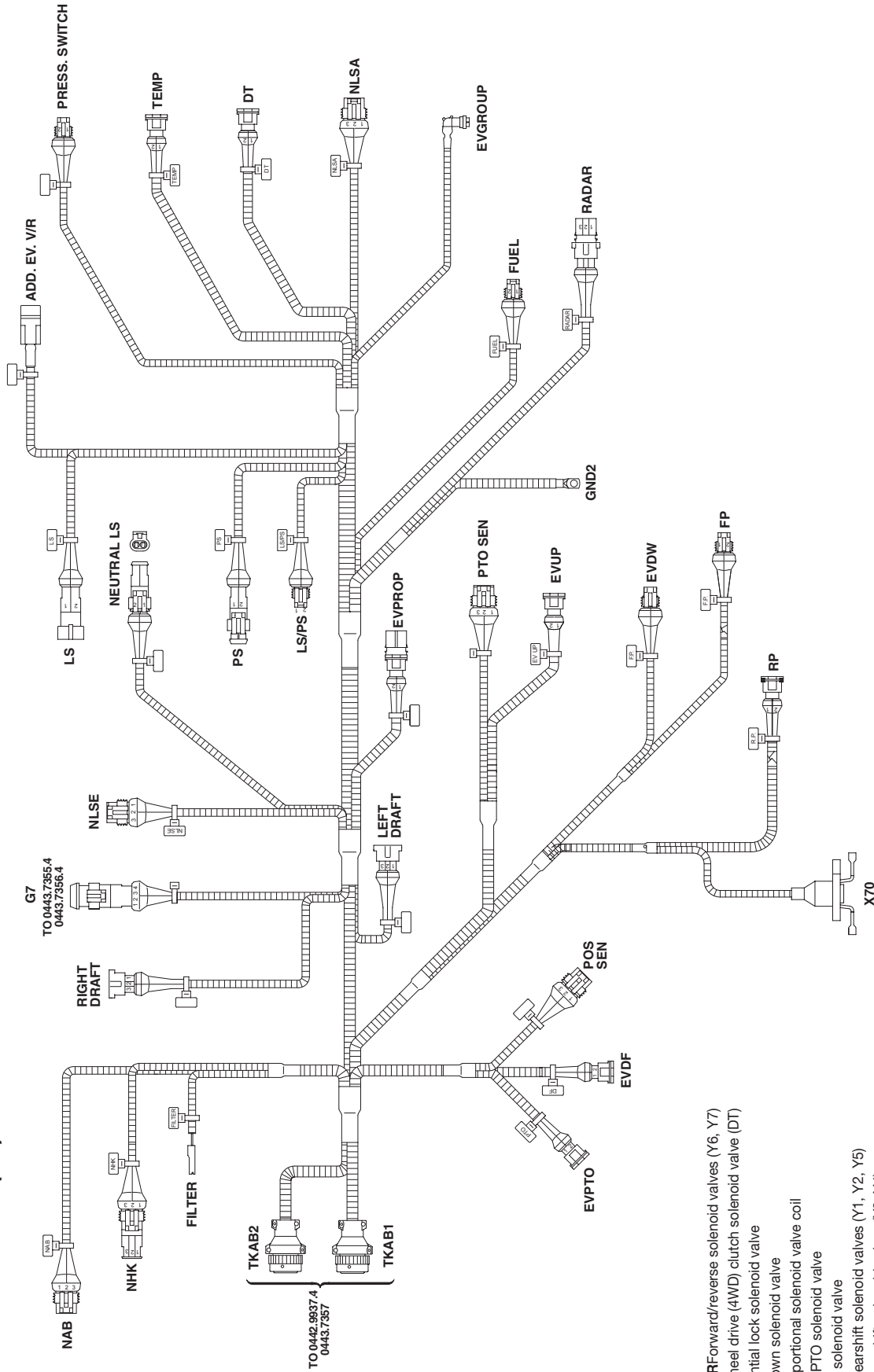
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V	Verde/Green	A	Azzurro/Blue
Z	Viola/Violet	B	Bianco/White
N	Nero/Black	L	Blu/Dark Blue
S	Rosa/Pink	G	Giallo/Yellow
R	Ross/Red	H	Grigio/Gray

ENGINE HOOD WIRING



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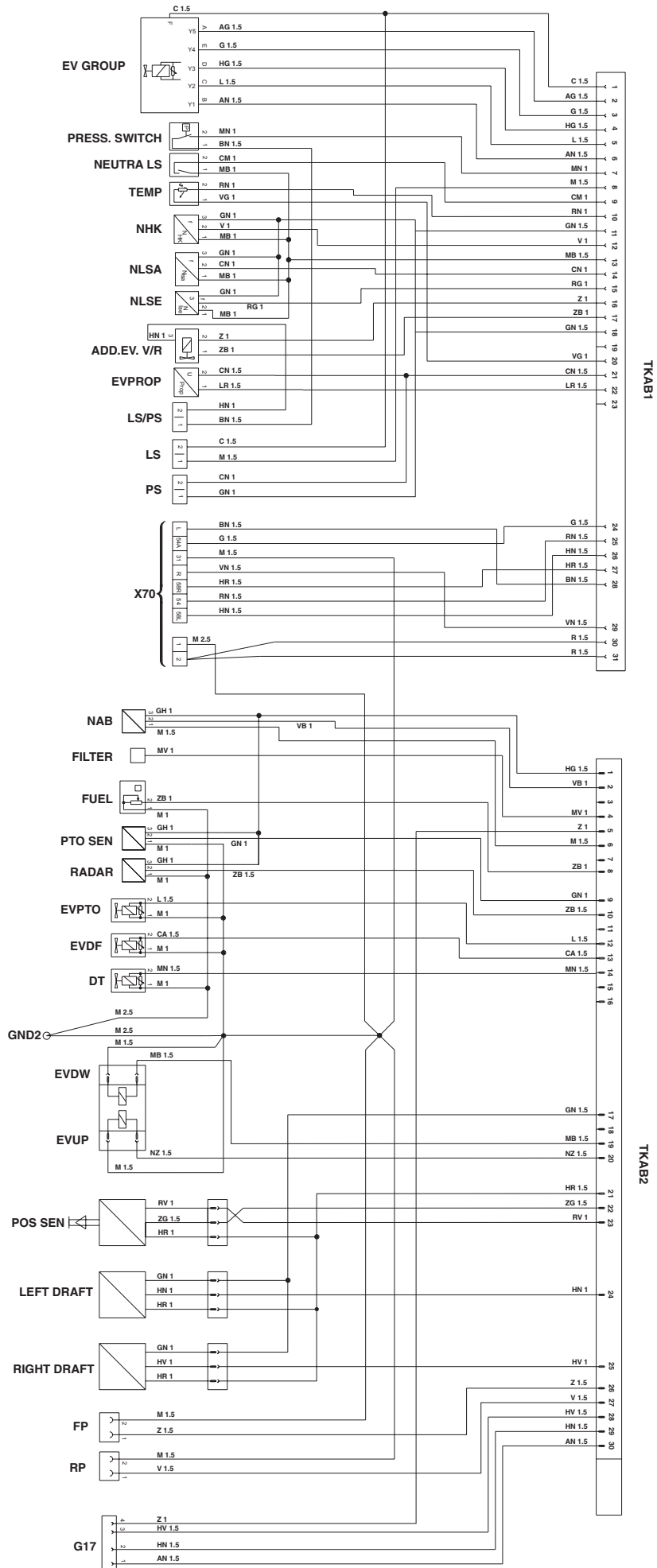
TRANSMISSION WIRING (1/2)



- ADD. EV. V/R** Forward/reverse solenoid valves (Y6, Y7)
- DT** Four wheel drive (4WD) clutch solenoid valve (DT)
- EVDF** Differential lock solenoid valve
- EVDW** Lift Down solenoid valve
- EVPROP** Proportional solenoid valve coil
- EVPTO** Rear PTO solenoid valve
- EVUPL** Lift Up solenoid valve
- EVGROUP** Gearshift solenoid valves (Y1, Y2, Y5)
- EVGROW** Gearshift solenoid valves (Y3, Y4)
- FILTER** Hydraulic oil filter clogging pressure switch
- FP** Windscreen washer pump
- FUEL** Fuel level sensor
- G17** To trailer brake wiring
- G17** To trailer brake wiring (Italy)
- LEFT DRAFT** Lift draft sensor (left)
- LS** Not utilised

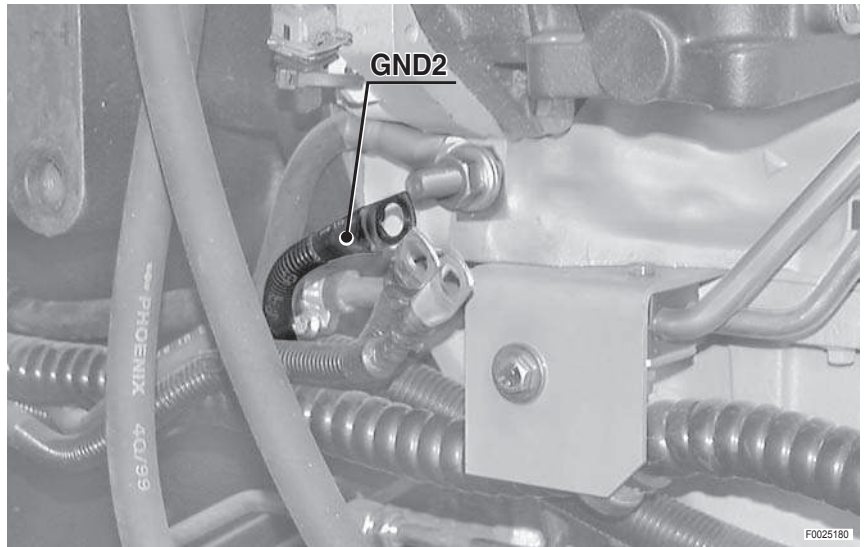
- LS/PS** Configuration connector (Powershift/Powershuttle)
- NAB** Speed sensor for odometer
- NEUTRAL LS** Not utilised
- NHK** Transmission speed sensor
- NLSA** Gearbox output shaft speed sensor
- NLSE** Engine speed sensor
- POS SEN** Rear lift position sensor
- PS** Engine oil low pressure switch
- PTO SEN** Rear PTO speed sensor
- RADAR** Radar
- RADAR** Radar (UK)
- RIGHT DRAFT** Lift draft sensor (Right)
- RP** Rear screen washer pump
- TEMP** Transmission oil temperature sensor
- TKAB1** To side console wiring
- TKAB2** To side console wiring
- X70** Trailer socket (lights and auxiliary power)

TRANSMISSION WIRING (2/2)

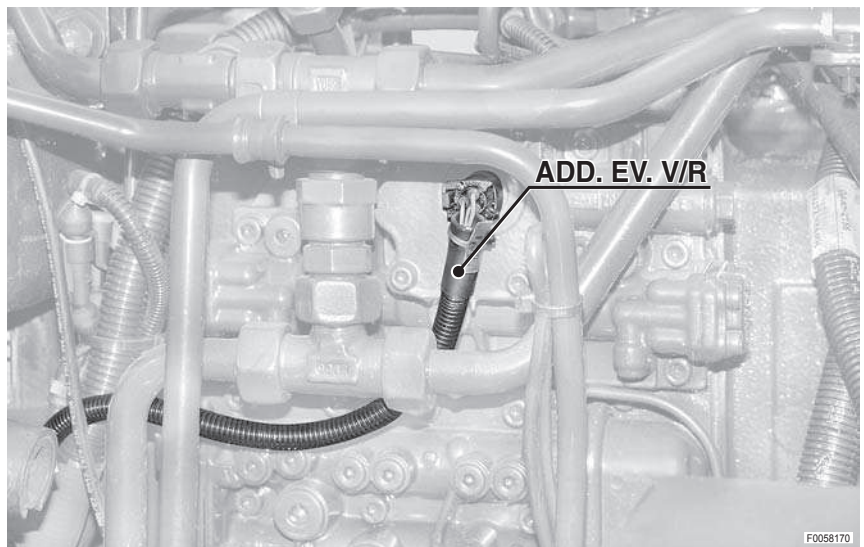


CONNECTORS LOCATION

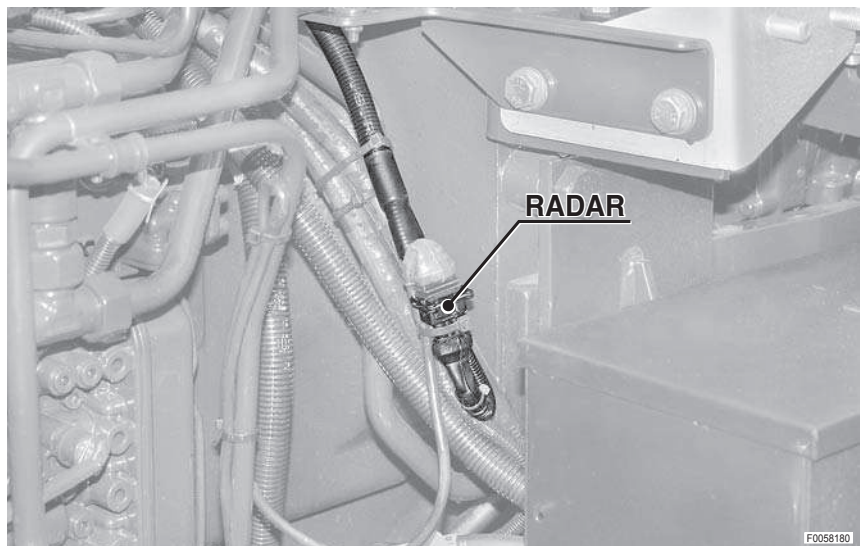
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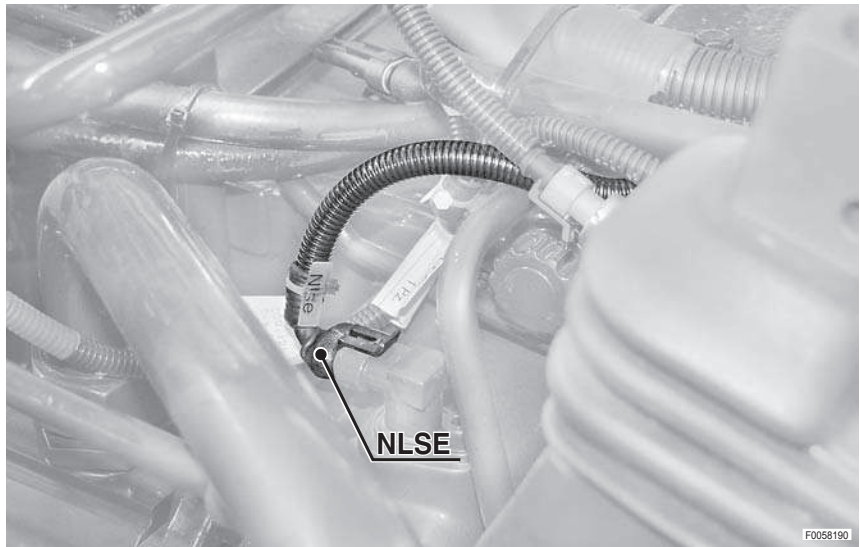
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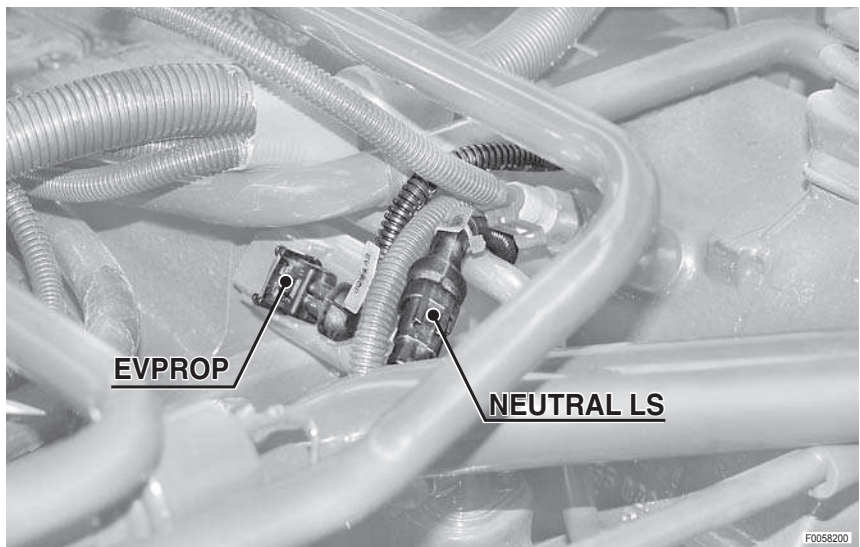
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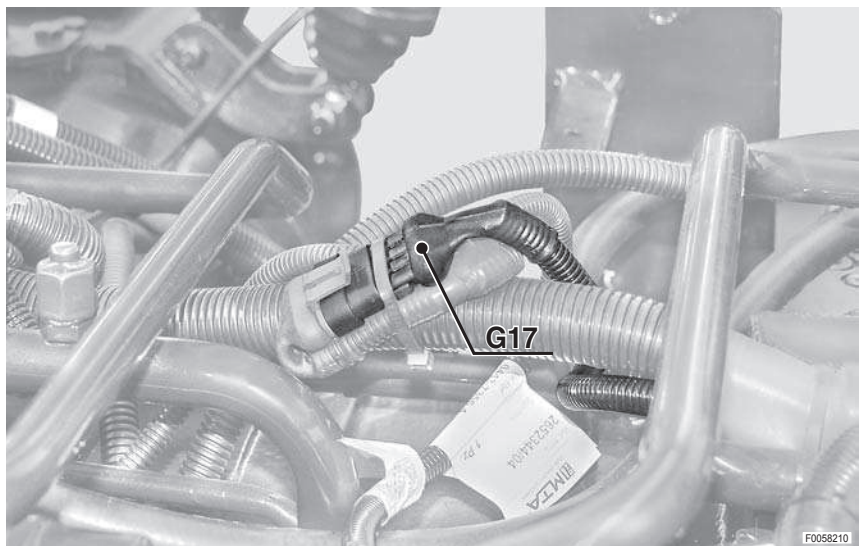
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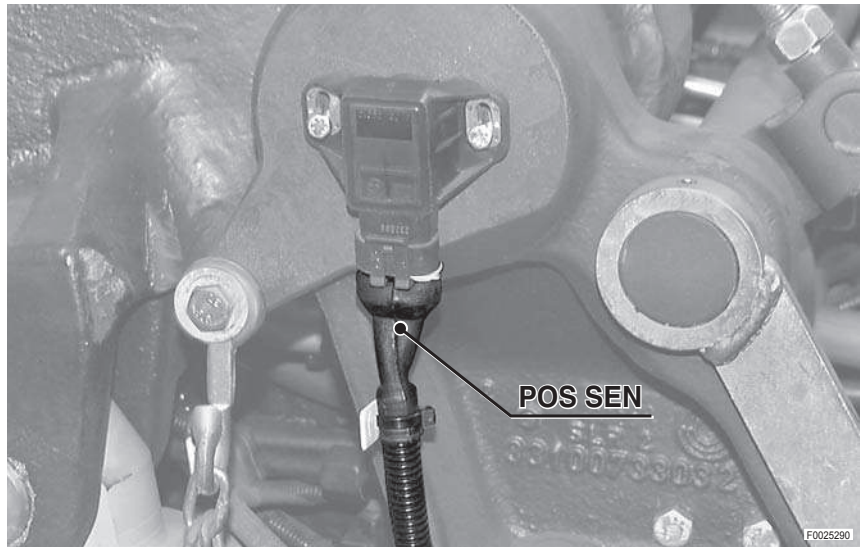
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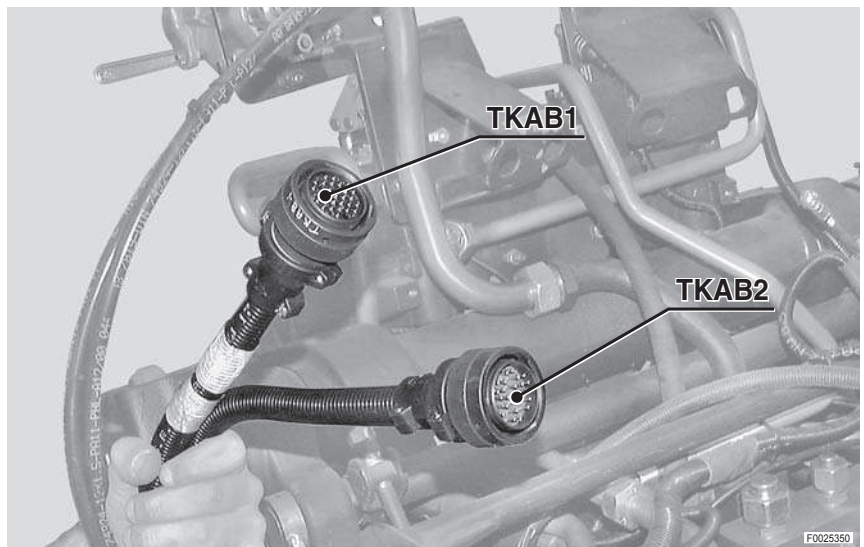
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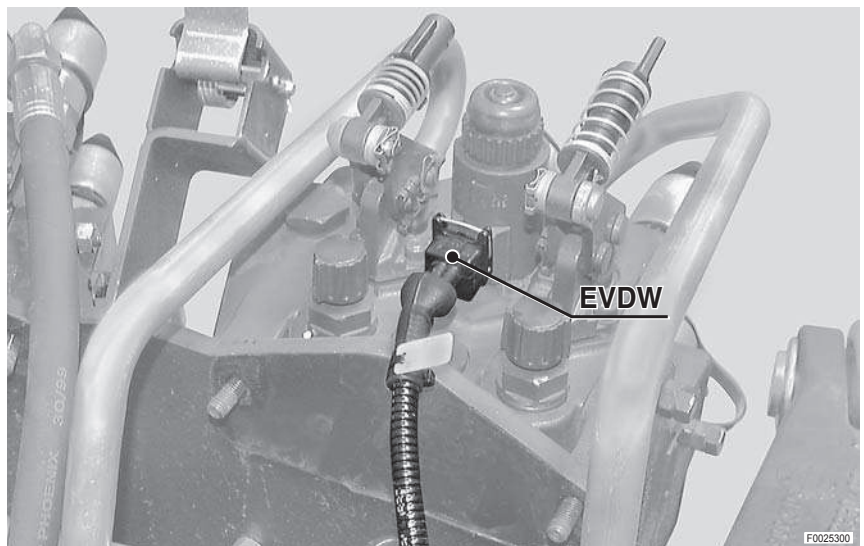
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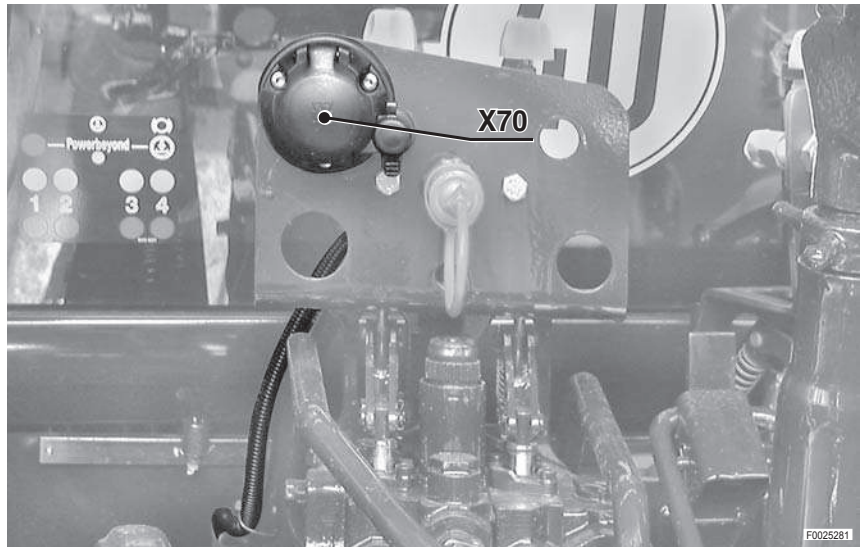
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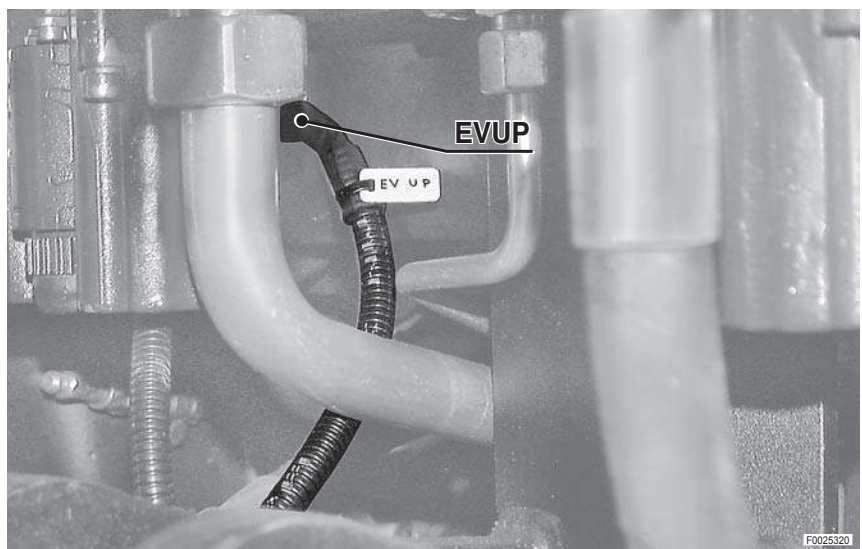
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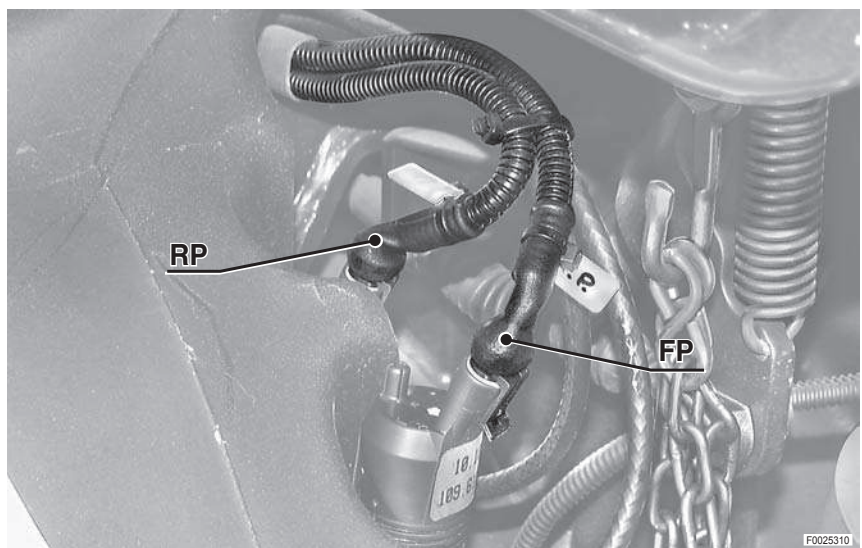
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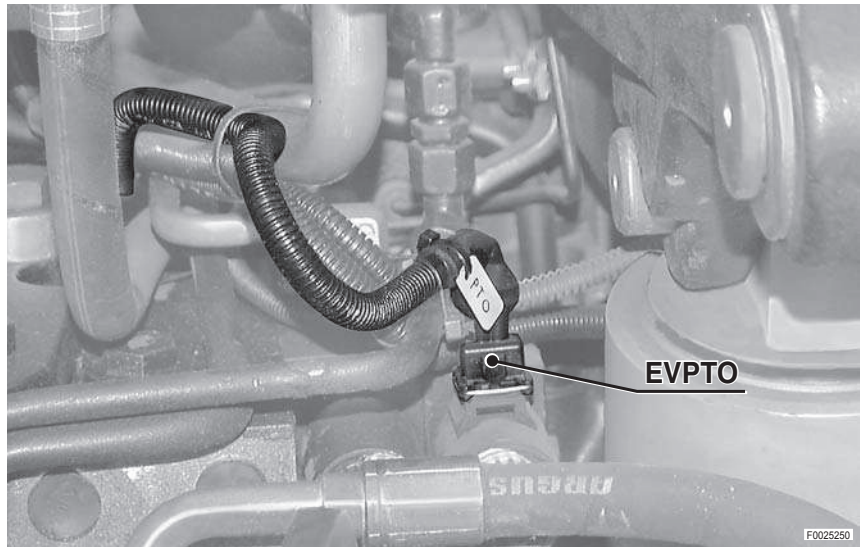
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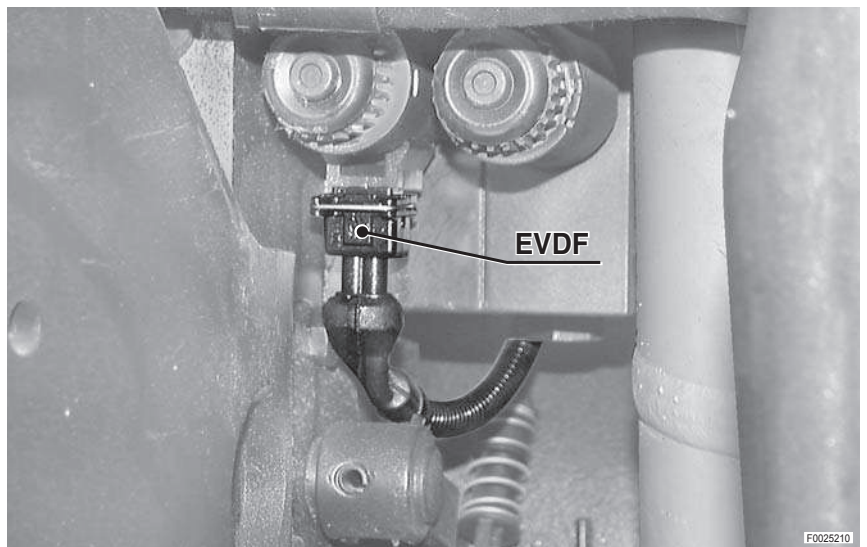
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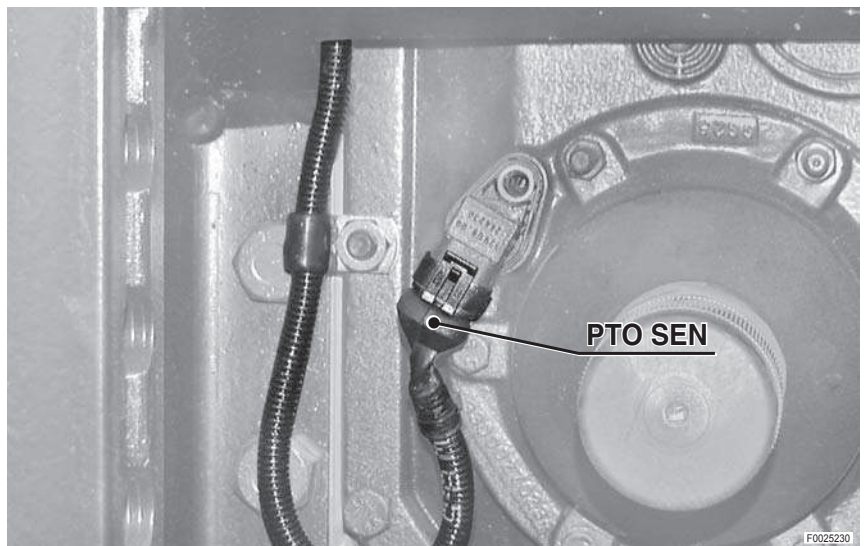
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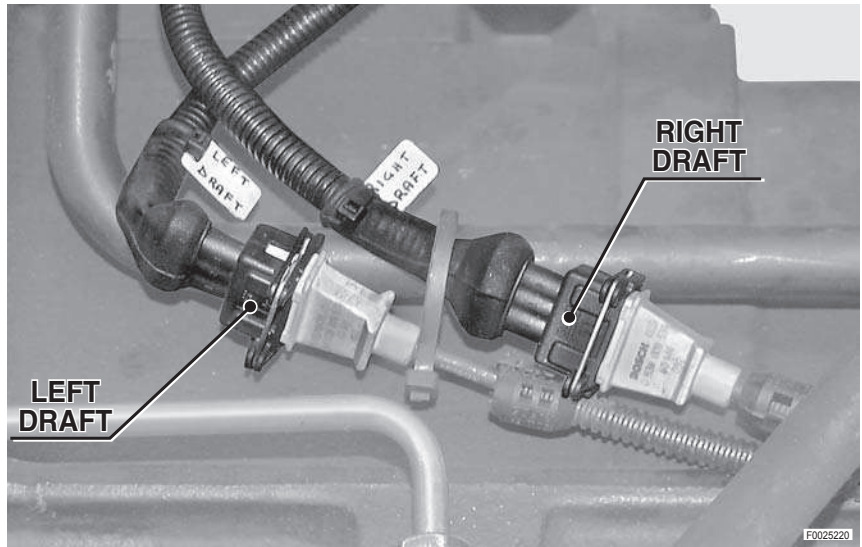
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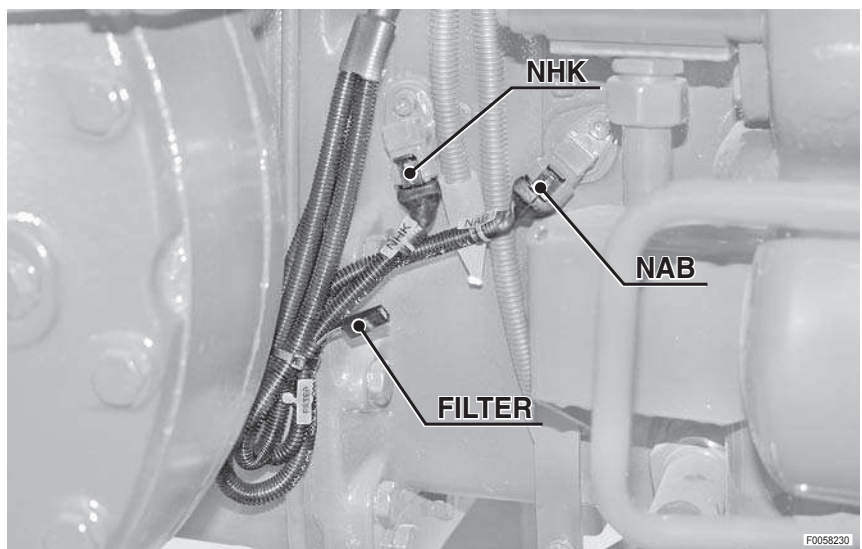
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16



17



18

