Air conditioning



Environment

The air-conditioning system is filled with an HFC refrigerant which can damage the atmosphere. Be particularly careful when working on the air conditioning system. Maintenance and repair work may only be performed by specialized cryo-service centers. Refrigerant must always be extracted and recycled properly

Pressure accumulator



WARNING

Risk of injury due to liquids under high pressure.

Fluids penetrate the skin and can cause serious injuries.

► Work on the hydraulic system may only be carried out by specialist workshops.

First-aid measures

Breathing:

- Supply persons with fresh air and seek medical attention depending on symptoms.
- Remove person from the danger zone.

Eye contact:

Rinse thoroughly several minutes with plenty of water. Seek medical attention if necessary.

Skin contact:

Wash thoroughly with plenty of water and soap, immediately remove soaked clothes, seek medical attention in case of skin irritations (reddening, etc.).

Swallowing:

Do not induce vomiting, immediately seek medical attention.

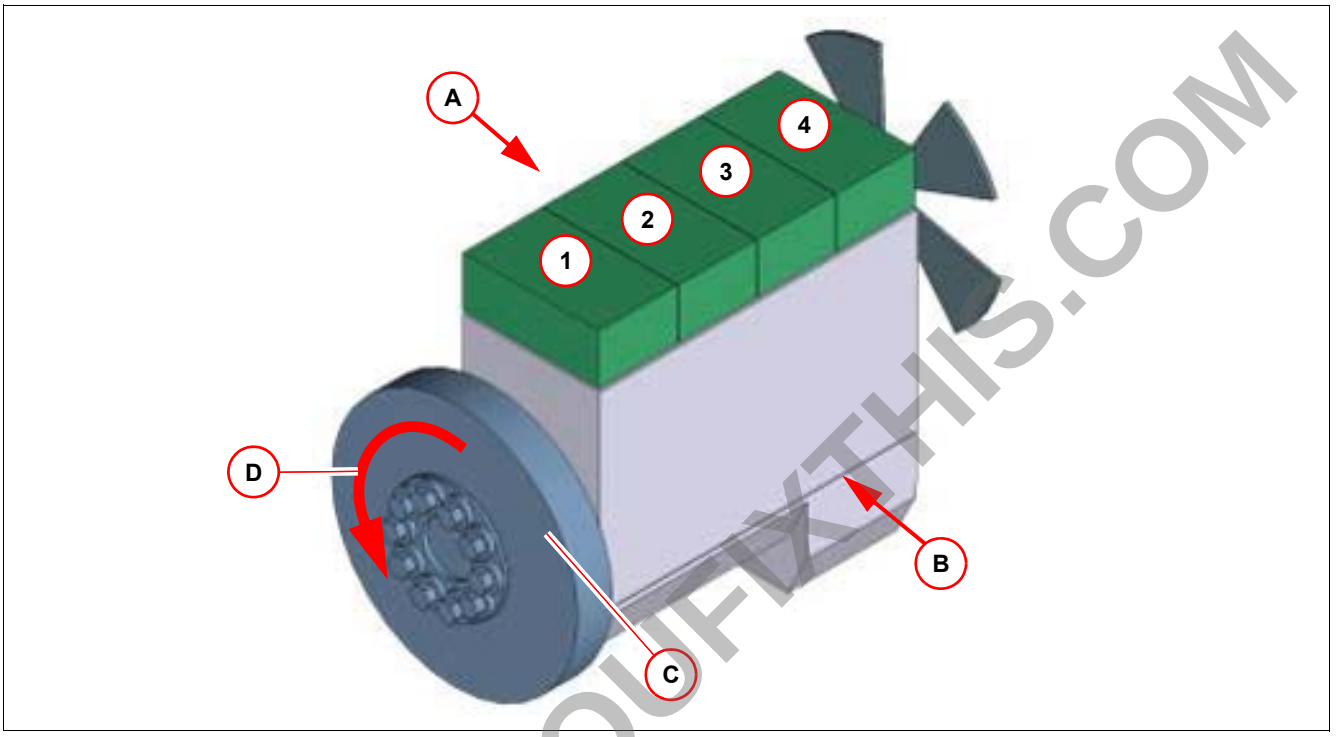
PREVIEW - YOUFIXTHIS.COM

Cylinder numbering

Cylinder arrangement

The cylinders are counted beginning at the flywheel **C**.

The direction of view is towards the flywheel.



Pos.	Component
A	Viewing direction, left
B	Viewing direction, right
C	Flywheel
D	Direction of rotation
1-4	Cylinder

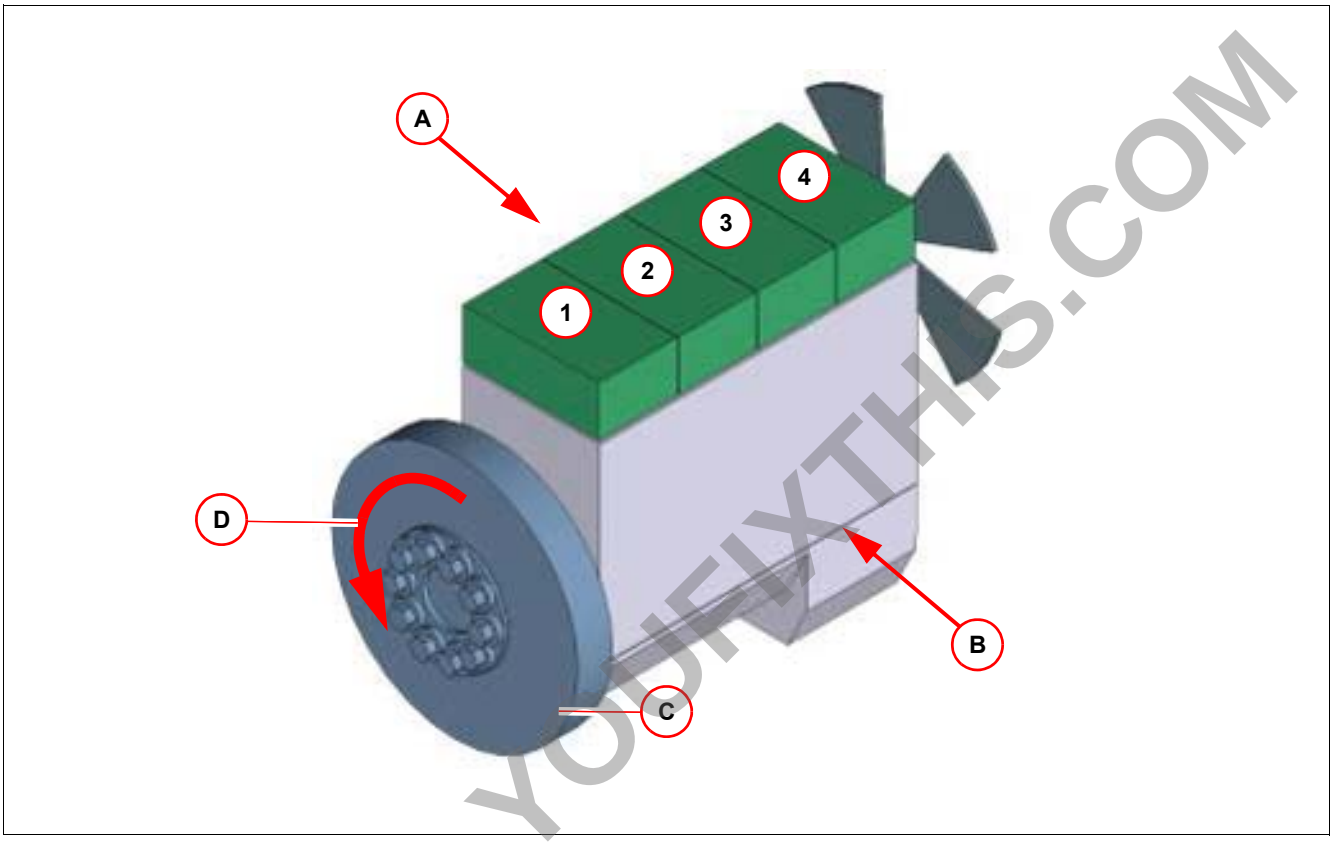
PREVIEW - YOUFIXTHIS.COM

Cylinder numbering

Cylinder arrangement

The cylinders are counted beginning at the flywheel **C**.

The direction of view is towards the flywheel.



Pos.	Component
A	Viewing direction, left
B	Viewing direction, right
C	Flywheel
D	Direction of rotation
1-4	Cylinder

PREVIEW - YOUFIXTHIS.COM

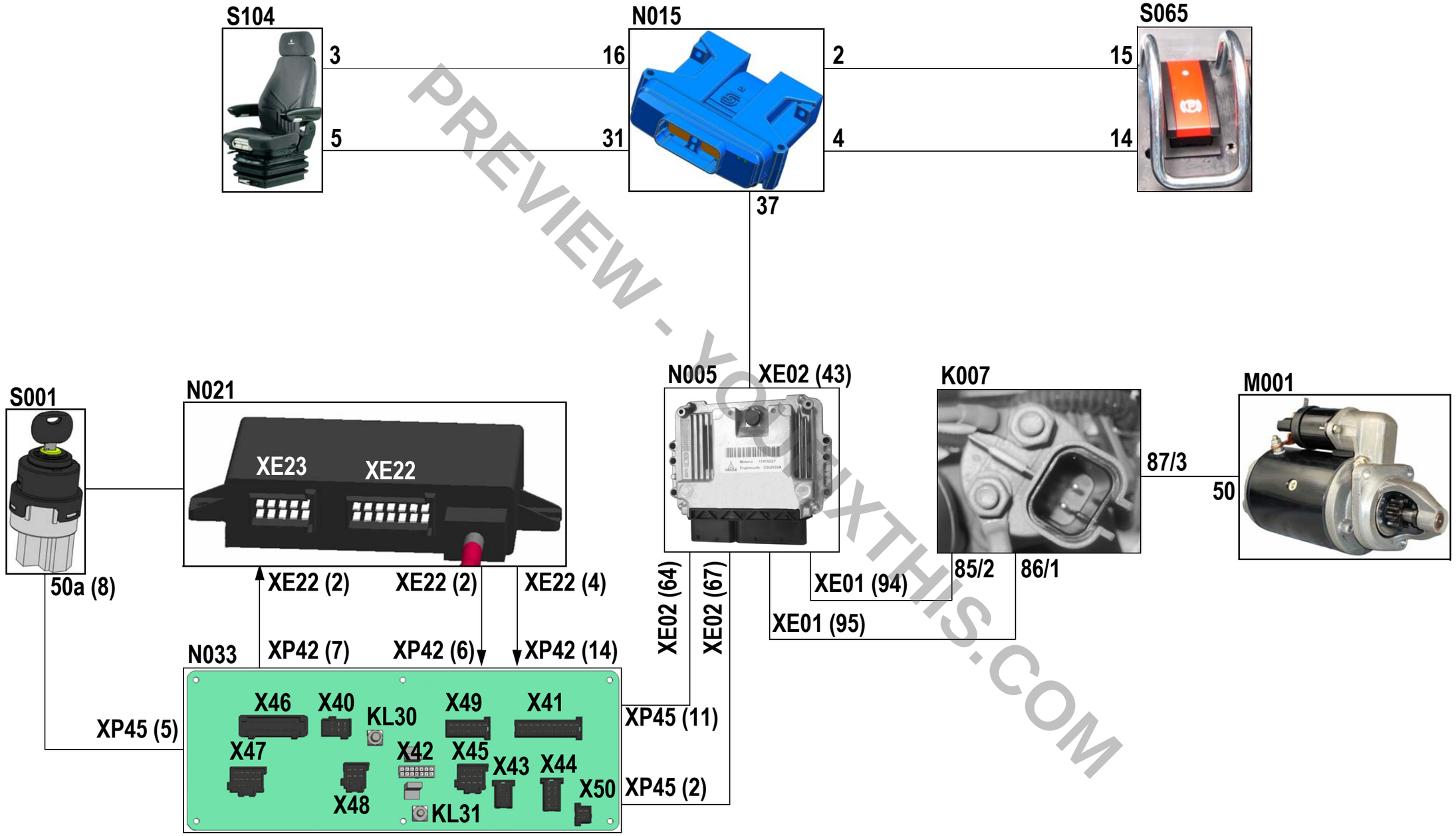
Abbreviations

Abbreviation	Explanation	Remarks
EAT	Exhaust gas treatment systems	Exhaust After-treatment
DEF	Urea	Diesel Emission Fluid
ATL	Exhaust turbocharger	–
DOC	Diesel oxidation catalyst	Diesel Oxidation Catalyst
DPF	Diesel particulate filter	Diesel particulate filter
CRT	Consists of a diesel oxidation catalyst (DOC) and a downstream diesel particulate filter (DPF)	Continuous Regeneration Trap
CSF	Diesel oxidation catalytic converter (DOC) and diesel particulate filter (DPF) integrated together	Coated Soot Filter or Catalyzed Soot Filter
SCR	Catalyst for selective catalytic reduction of nitric oxides	Selective Catalytic Reduction
HMI	Customer interface	Human Machine Interface
EPA	American environmental protection agency	Environmental Protection Agency

Abbreviation	Explanation
NO	Nitrogen monoxide
N_2	Nitrogen
NO_2	Nitrogen oxide
NO_X	Nitric oxide
NH_3	Ammonia
CO	Carbon monoxide
H_2O	Water

PREVIEW - YOUFIXTHIS.COM

Start diesel engine activation with drive interlock



PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

3.2 Components of the component control

Cooling description - standard

Hydraulic components

BMK	Component	Remarks	Function description	Installation position
001.1	Tandem pump	22 + 22 ccm^3 (1.34 cu in)	*3-12*	*19-3*
II	Fan motor	17 ccm^3 (1.04 cu in)	*3-13*	*19-4*
XIX	Pressure accumulator charge valve	Switch-on pressure 120 bar (1742 psi) Switch-off pressure 150 bar (2177 psi)	*8-82*	*19-22*
XXIV	Fan valve (standard)	–	*3-15*	*19-24*

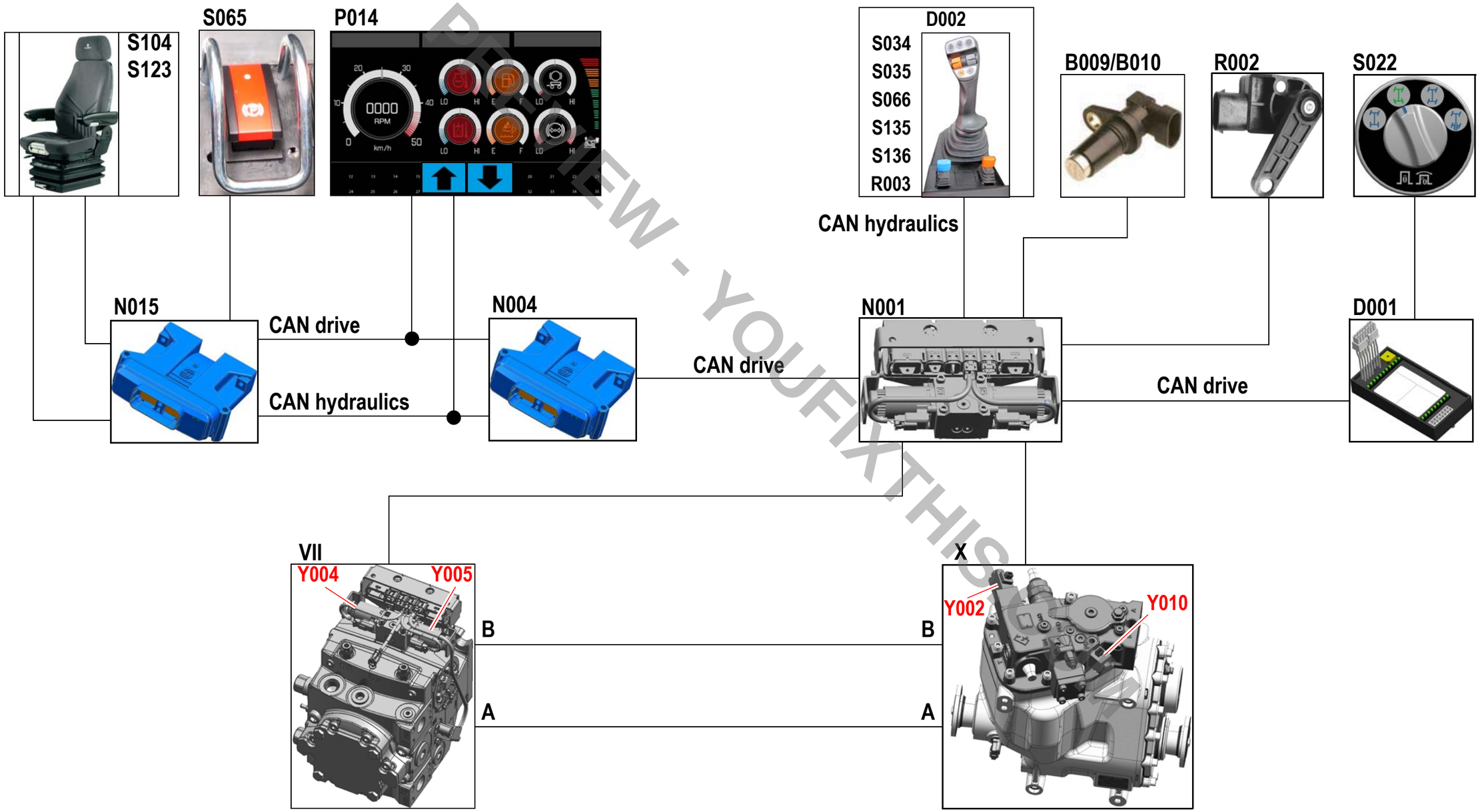
Electrical components

BMK	Component	Remarks	Function description	Installation position
B006	Engine temperature sensor	–	–	*2-30*, *2-64*
B015	Coolant level sensor	–	*3-16*	*19-99*, *19-116*
B016	Fan control temperature sensor	80°C – 69 Ω (176°F – 69 Ω)	*3-16*	*19-99*, *19-116*
N004	Frame controller	SC050-31	*9-11*	*19-85*
N005	Diesel engine controller	Deutz	*9-16*	*19-107*
N015	Cabin controller	SC050-31	*9-29*	*19-42*
P014	Display	CAN	*9-55*	*19-44*
Y035	Fan solenoid valve	12 V	*3-14*	*19-112* *19-130*

PREVIEW - YOUFIXTHIS.COM

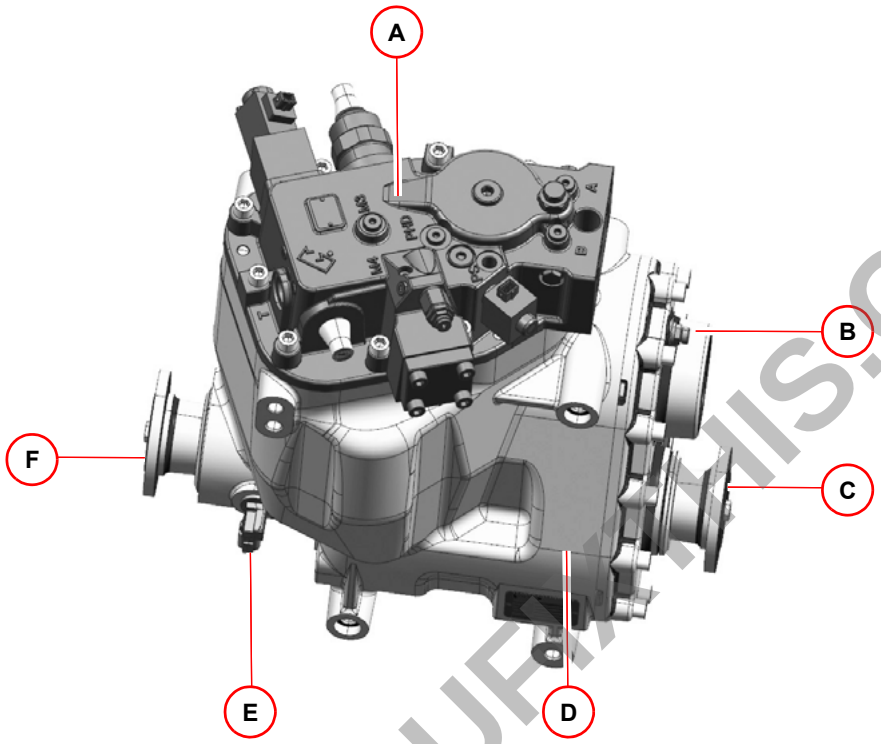
4.1 Drive control

Control of drive system with high speed transmission (ICVD)



PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

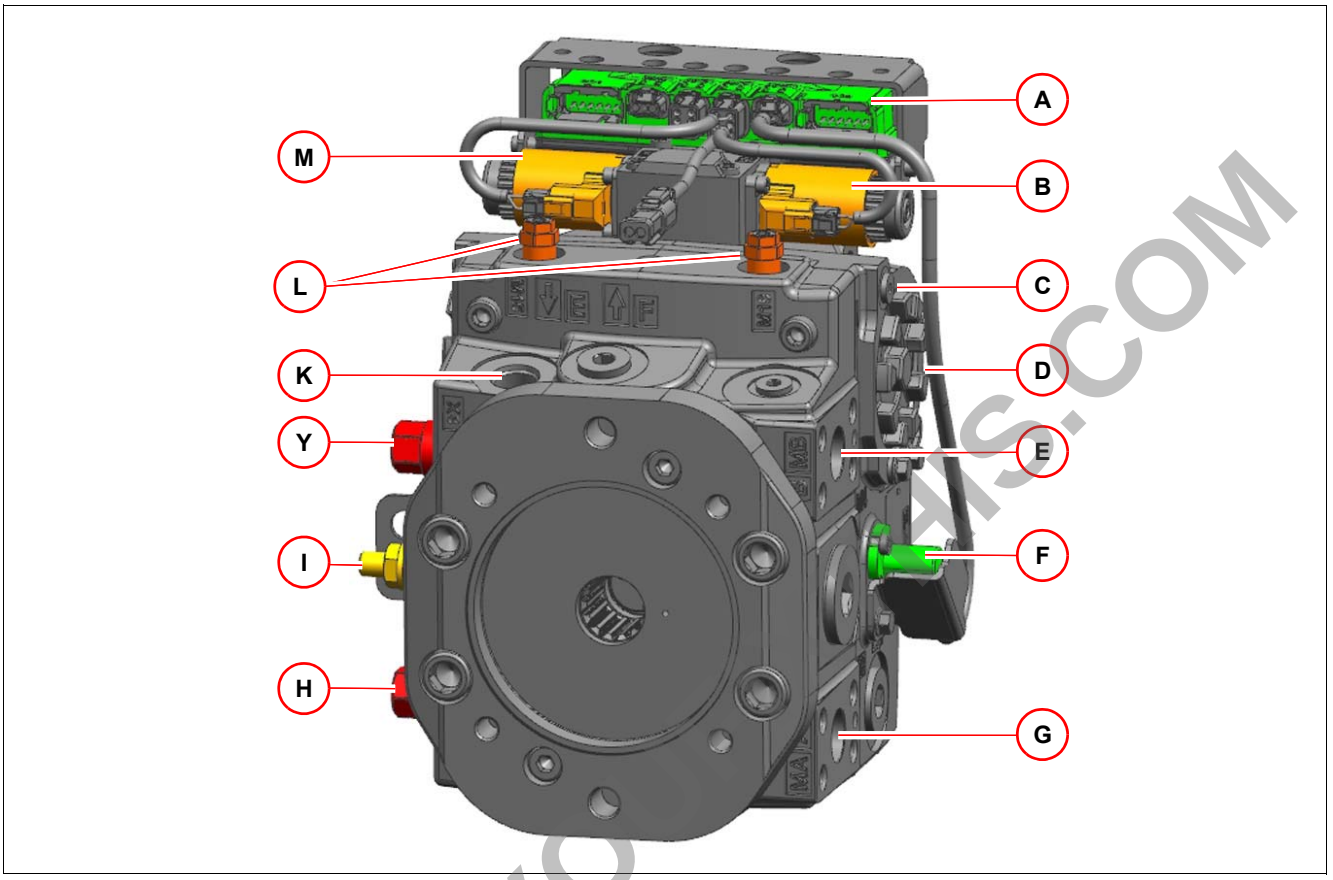
Overview of high-speed transmission X (ICVD)



Pos.	Component
A	Control cover
B	Gear ventilation
C	Drive to rear axle
D	Gear housing
E	Speed sensor for speed B009
F	Drive to front axle

PREVIEW - YOURPATHIS.COM

Overview of hydraulic pump VII

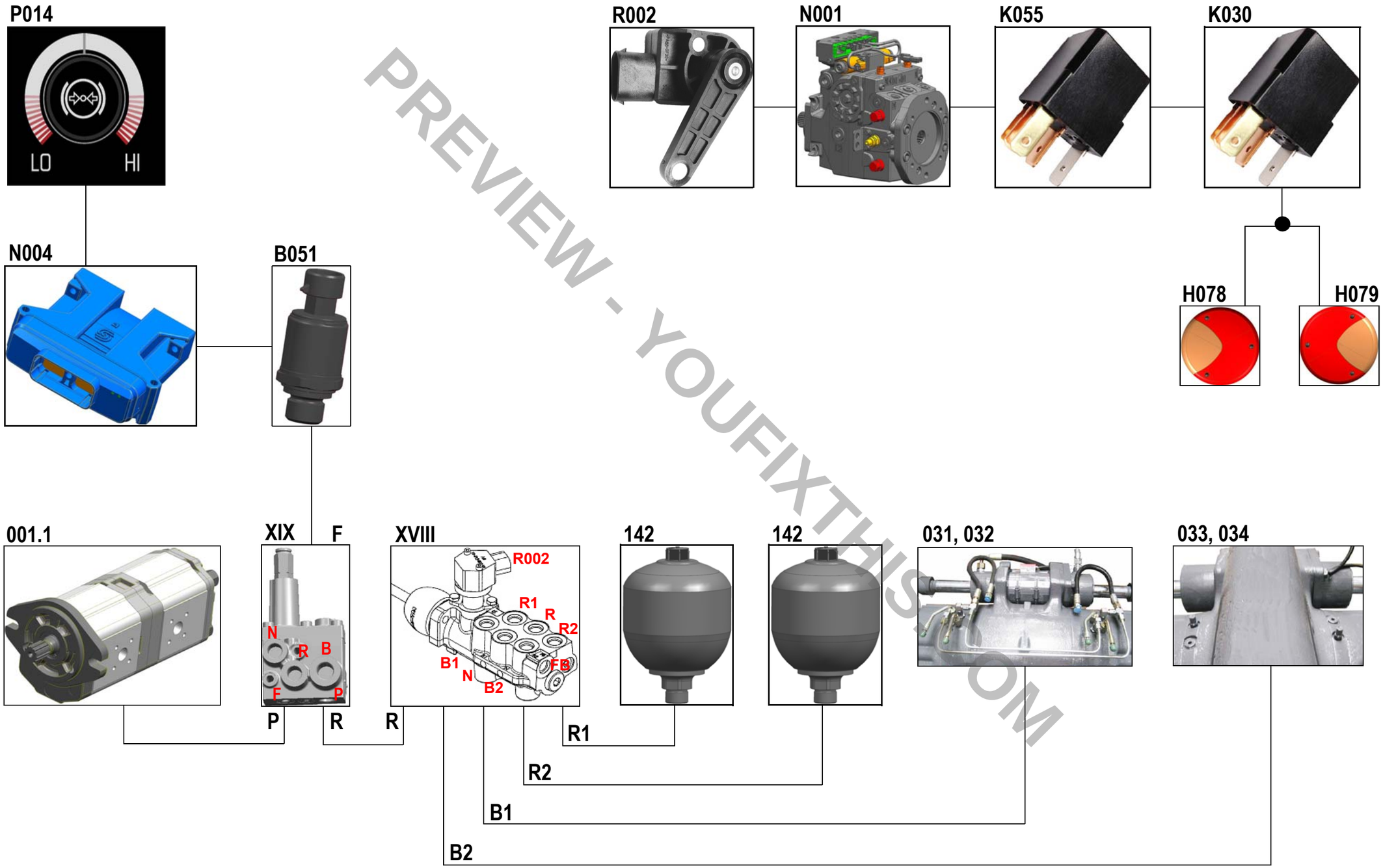


Pos.	Component
A	Traction electronics N001
B	Proportional valve Y005 forward driving direction
C	Test port (control pressure) in control cylinder
D	Mechanical zero position
E	High-pressure connection B
F	Speed sensor diesel engine B010
G	High-pressure port A
H	High-pressure valve 053
I	Boost pressure valve 051
Y	High-pressure valve 052
K	Power supply from reflux fan motor E
L	Pressure cut-off (high pressure)
M	Proportional valve Y004 reverse driving direction

PREVIEW - YOUR-MANUALS.COM

6.1 Brake control

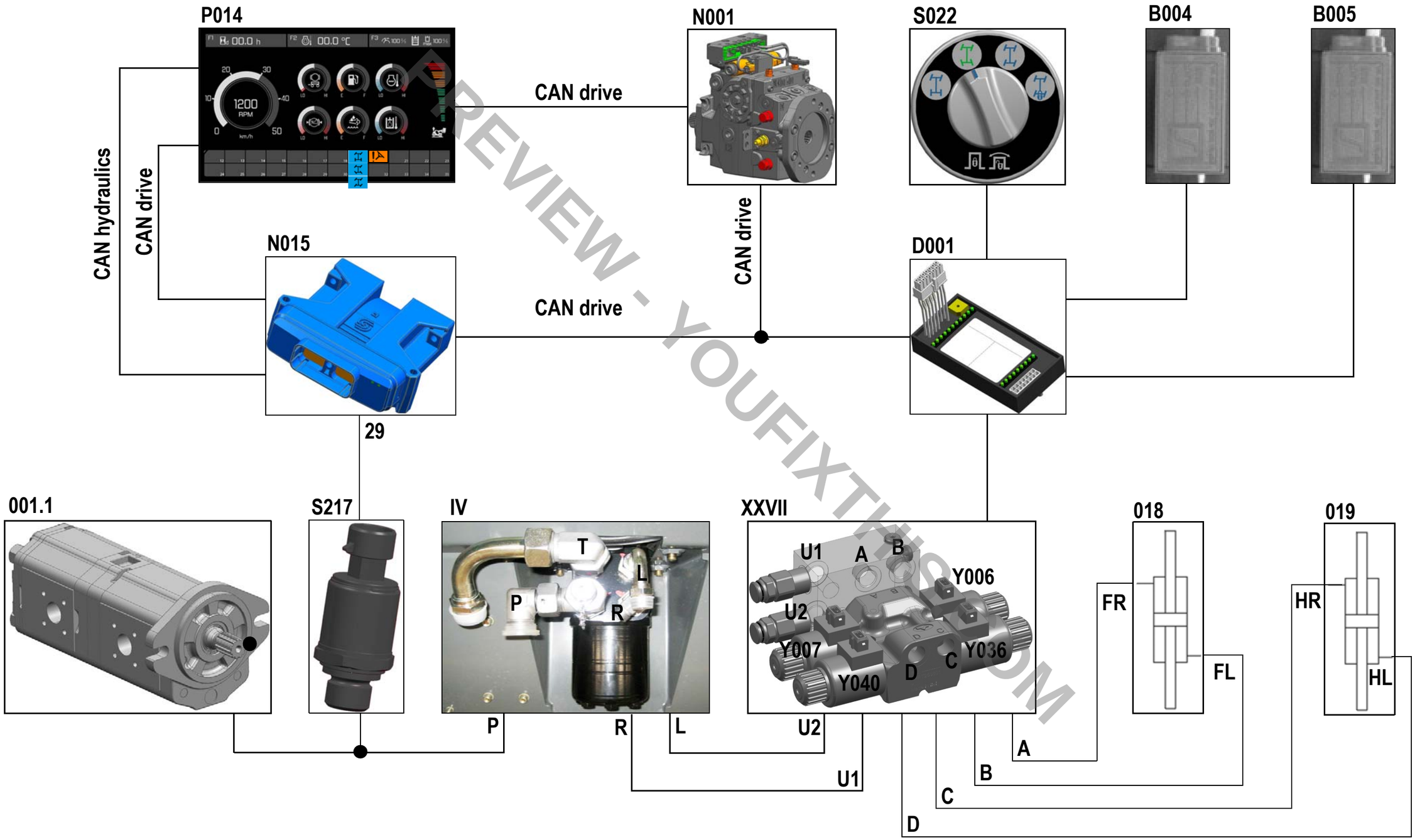
Control of the vehicle brake



PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

7.1 Steering system actuation

Overview of Steering Control

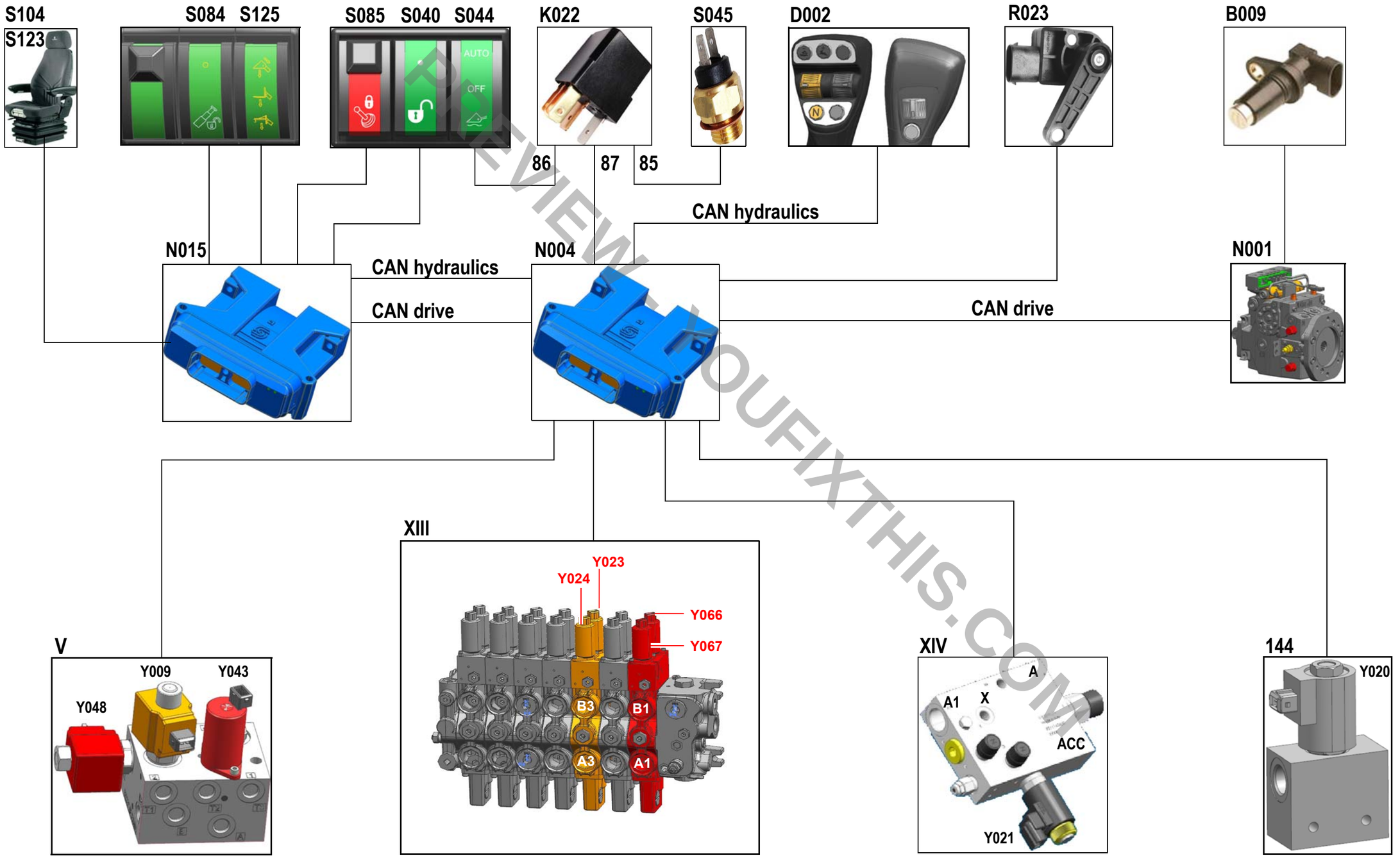


PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

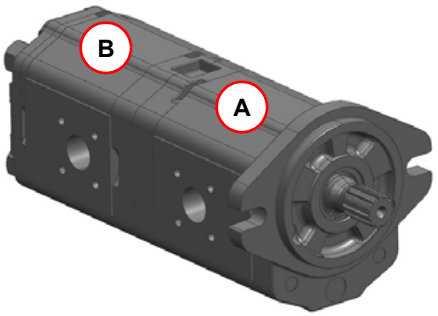
8.1 Lifting cylinder / load stabilizer actuation

Overview of electrical control



PREVIEW OF YOUFIXTHIS.COM
Download full manual at youfixthis.com

Tandem pump 001.1



Pos.	Remarks	System pressure
A	22 ccm/rev (1.34 cu in) corresponds to 49 L/min (12.94 gal/min)	160 bar (2322 psi)
B	22 ccm/rev (1.34 cu in) corresponds to 49 L/min (12.94 gal/min)	180 – 195 bar (2612 – 2830 psi)

Function description

The gear pump **A** is responsible for the oil supply for the trailer brake, fan, pilot pressure and boost pressure.

The gear pump **B** is responsible for the oil supply for the steering system.

PREVIEW - YOUFIXTHIS.COM

PREVIEW - YOUFIXTHIS.COM

Test report for work hydraulics: Model 416-32-34-38

Serial no.:	
Current service hours:	

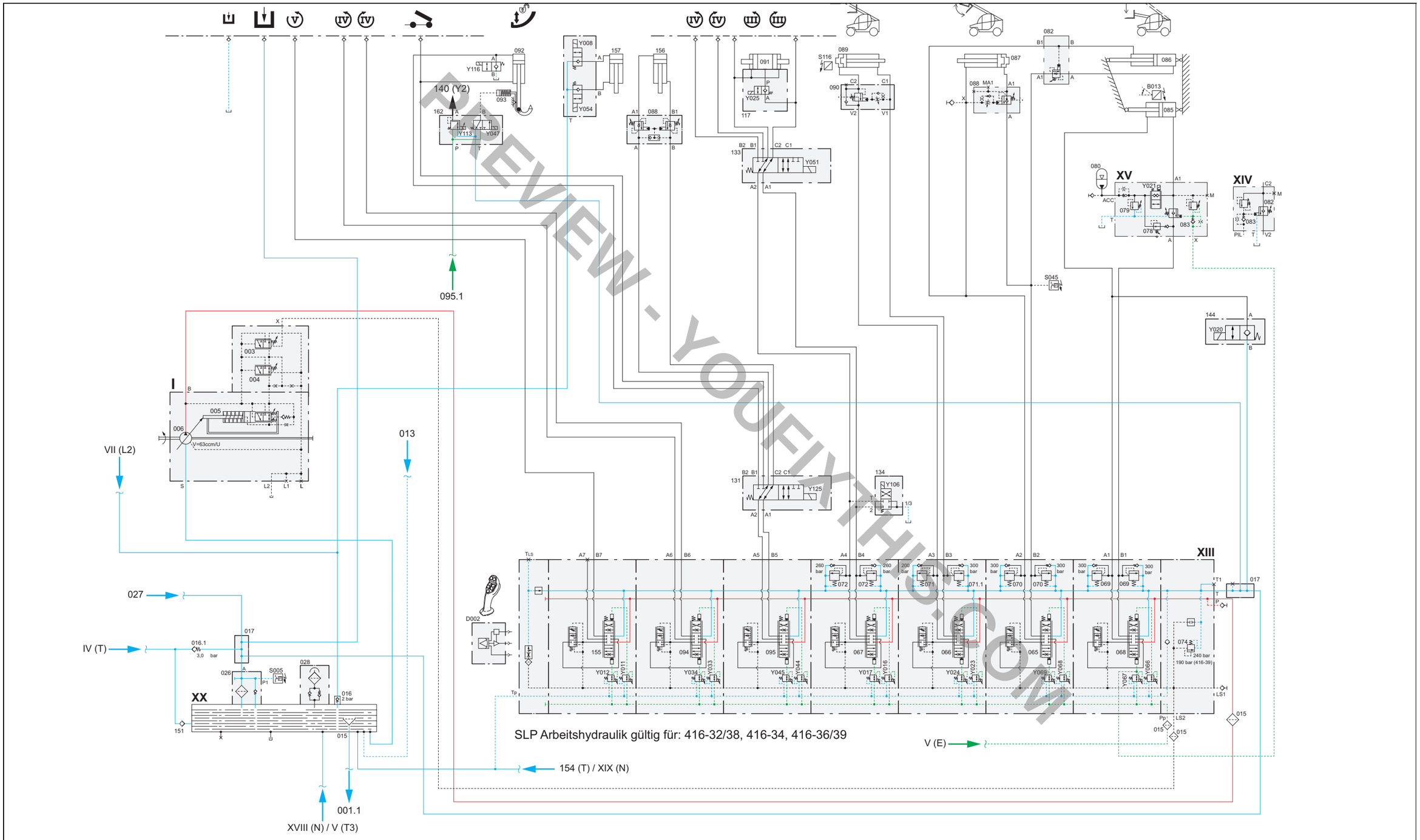
Reason for check (please tick as appropriate)

- Before troubleshooting/actual state
- After troubleshooting/after replacing components

Hydraulic oil temperature 40° – 60°C (104° – 140°F)

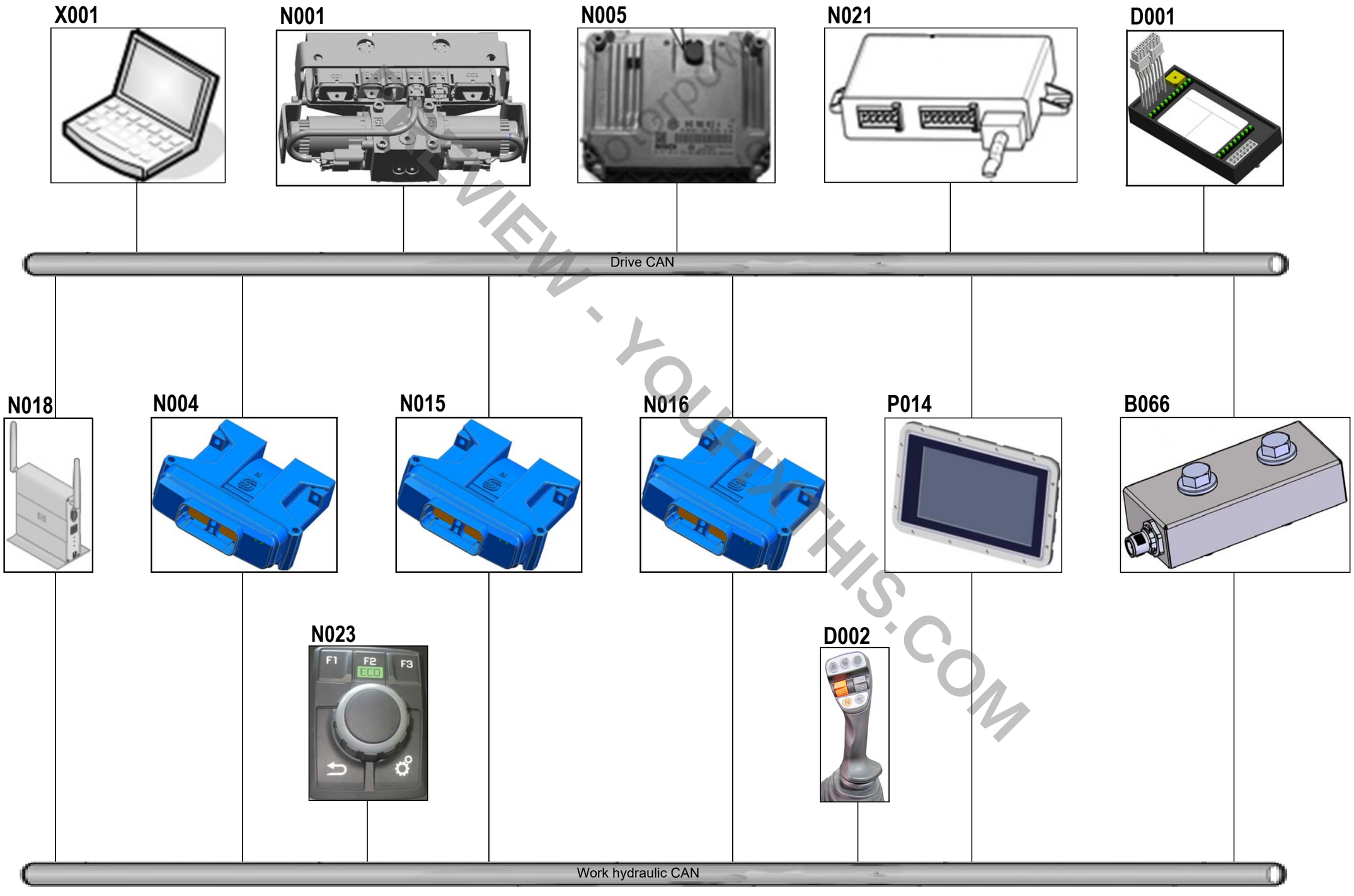
Page	Test features	Notes	Rated value	Actual value
8-91	Min. idling speed	Laptop	990 - 1020 rpm	
8-91	Upper idling speed (engine 3.6)	Laptop	2250 – 2400 rpm	
8-92	Circuit pressure of the variable displacement pump (Flow of discharge regulator 003)	At max. engine speed Test connection P_A	21 – 23 bar (305 – 334 psi)	
8-93	Main pressure of working hydraulics	At max. engine speed Test connection P_A	260 – 275 bar (3774 – 3991 psi)	
8-94	Pressure regulator 004 variable displacement pump	Test connection P_A	300 bar (4354 psi)	
8-95	LS – pressure of the variable displacement pump	At max. engine speed LS test port	21 – 23 bar (305 – 334 psi)	
8-96	Pilot control pressure	At max. engine speed Test connection P_{ST}	30 – 35 bar (435 – 552 psi)	

Hydraulic diagram for work hydraulics

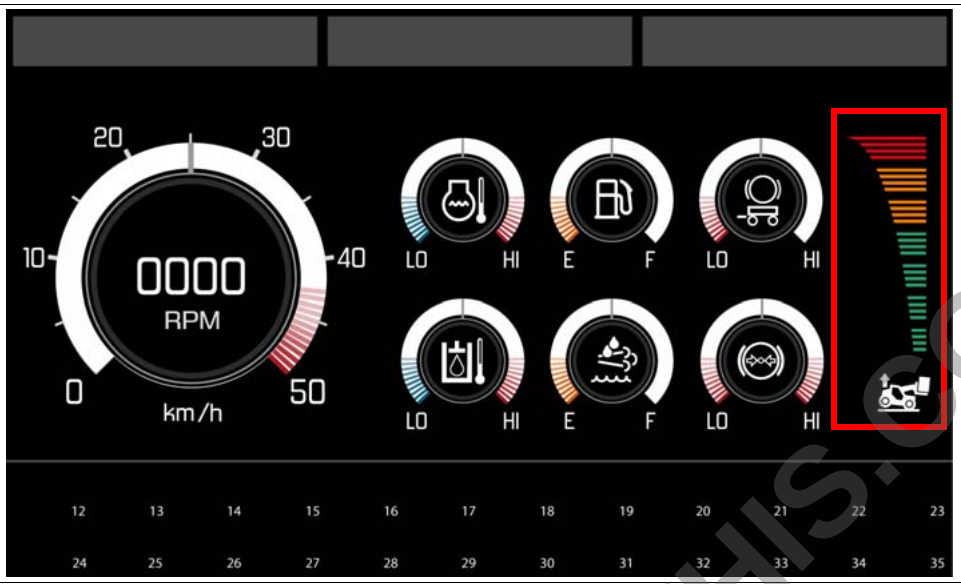


PREVIEW - YOUFIXTHIS.COM
Download full manual at youfixthis.com

9.1 CAN signals component overview



Download full manual at youfixthis.com
PREVIEW - YOUFIXTHIS.COM



CAUTION

Accident hazard due to tipping over of vehicle!

Ignoring the safe load indicator can lead to the vehicle tipping and to severe injuries.

► Reduce the load until the acoustic signal goes off and the red and orange light bars in the safe load indicator go out.

► Observe the safe load indicator and take appropriate measures.

► Observe the load diagram.

CAUTION

Danger of accident due to safe load indicator!

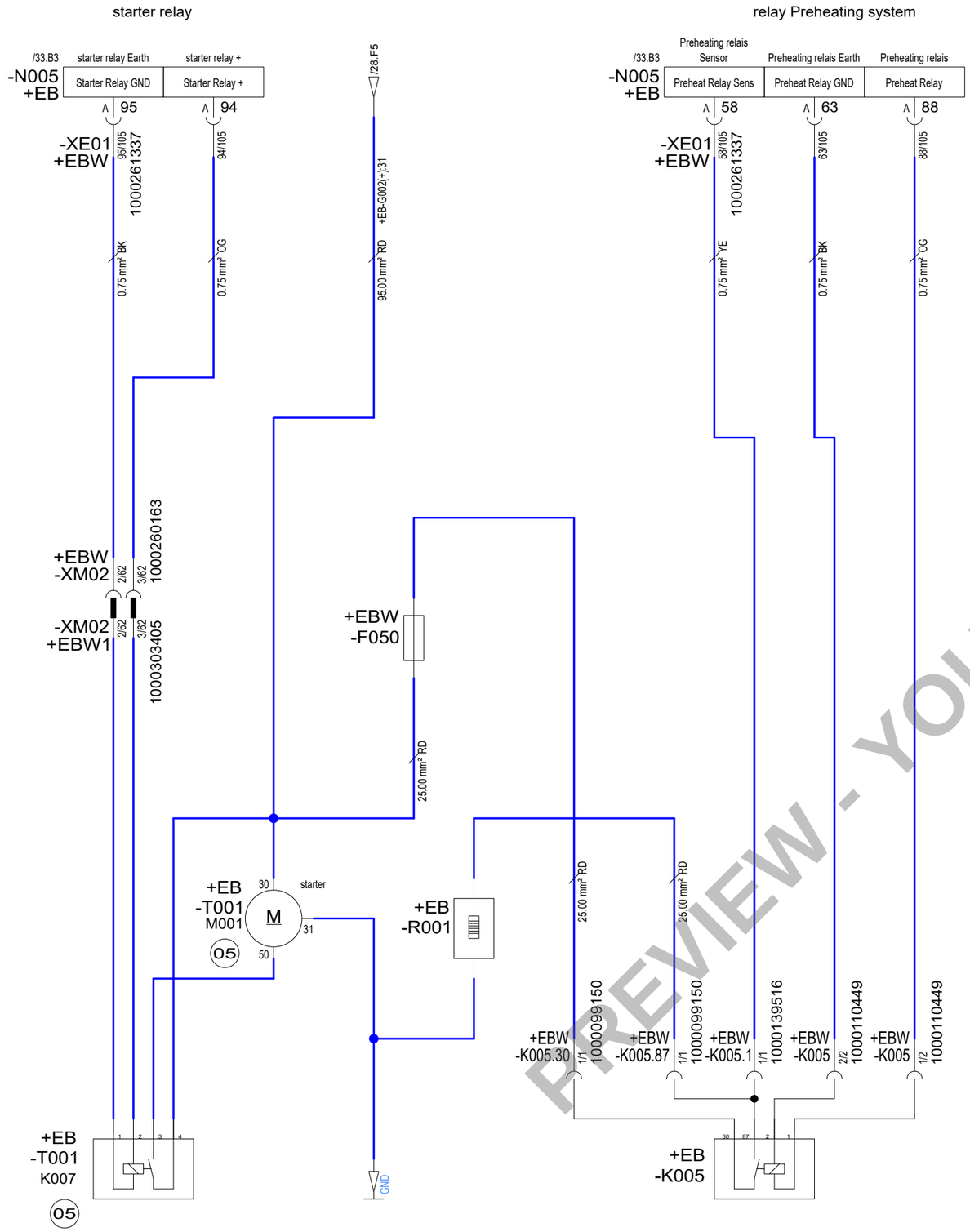
A defective safe load indicator can lead to the vehicle tipping over and therefore to severe injuries.

► Have a malfunctioning safe load indicator immediately repaired by an authorized service center.

PREVIEW - YOUFIXTHIS.COM

BMK	Component	Function description	Installation position
S056	Switch, additional control circuit	*9-132*	*19-53*
S064	Reversing fan	*9-133*	*19-53*
S065	Parking brake switch	*9-134*	*19-52*
S069	Additional control circuit I-0-II switch	*9-135*	*19-53*
S070	Raise/lower tipping trailer I-0-II tip switch	*9-138*	*19-53*
S084	Switch for cut-off of hydraulic functions	*9-140*	*19-51*
S085	Switch for joystick cut-off during road travel (lock for long-haul travel)	*9-141*	*19-51*
S103	Plunger switch	*9-142*	–
S104	Operator presence switch	*9-143*	–
S116	Limit switch 1 (telescopic boom fully retracted)	*9-145*	–
S119	Activation of diesel particulate filter regeneration (DPF)	*9-146*	*19-51*
S123	Seat belt contact switch	*9-147*	–
S125	Switch for vertical lowering	*9-148*	*19-51*
S127	Pressure relief switch	*9-153*	–
S130	Switch/push button (4 wheel drive OFF/axle cut-off)	*9-154*	*19-53*
S131	Raise/lower Auto-Hitch I-0-II push button	*9-155*	*19-53*
S137	Push button (Auto-Hitch raised)	*9-158*	*8-28*

PREVIEW - YOUFIXTHIS.COM



PREVIEW - YOUFIXTHIS.COM

project:	416-3x Stufe 5		
active Option:	-		
replace for Mat.-Nr:	1000399864		
Version SAP:	05	Version DS:	6.3.1.0

Wacker Neuson Group
Kramer Werke GmbH
88630 Pfullendorf
GERMANY

We reserve all rights in this document and in the information contained therein. Reproduction, use or disclosure to third parties without express authority is strictly forbidden.

	date	name
User	21.04.2020	lnzmosea
Proved	24.04.2020	lnzbohnc

Diesel engine starter/Preheating
Deutz 3.6er

Mat. -Nr. 1000411297 Doc. -Nr. 2060119932

Revision:	05
replace for Rev.	04
Message No	700019422

22

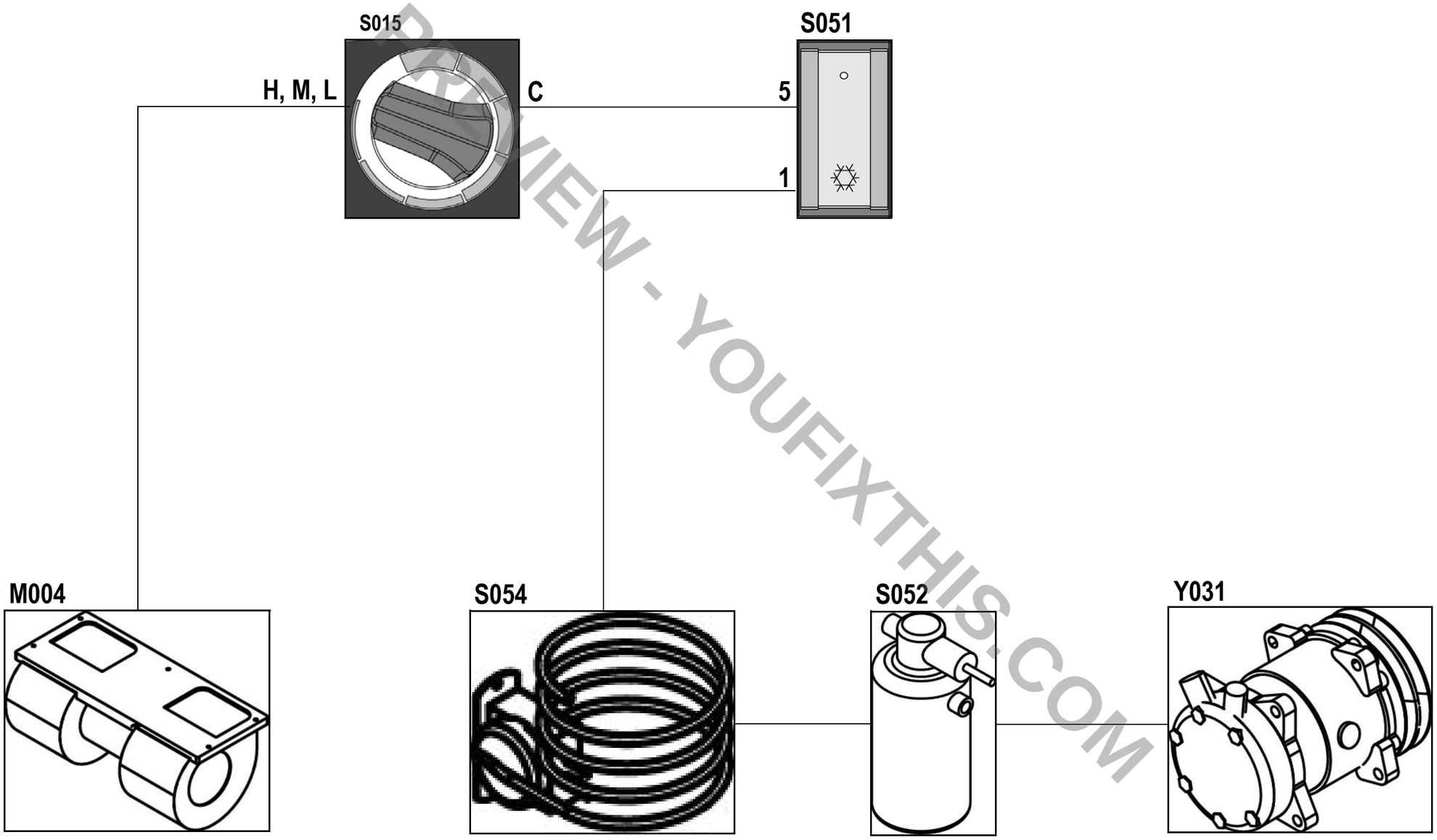
A3

Download full manual at: youfixthis.com

1589523667

15.1 Control of heating, air conditioning

Electrical control



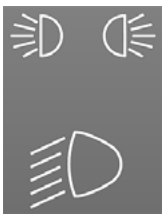
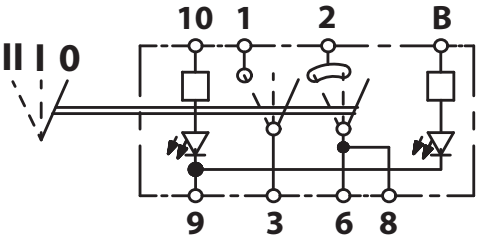
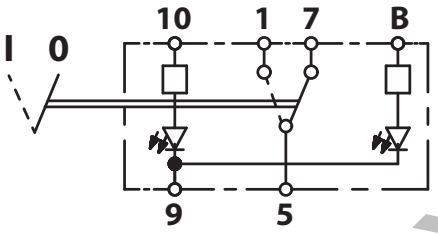
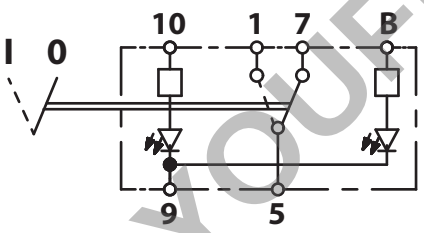
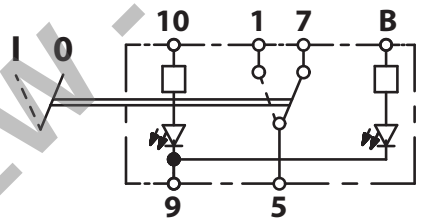
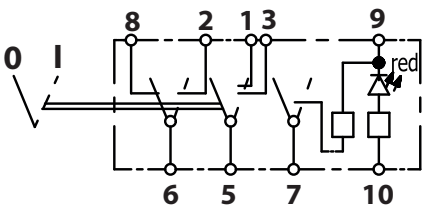
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

BMK	Description	Function description	Installation position
162	Valve block Advancement for hydraulic trailer brake Y113 Unlock autohitch Y047	*8-66*	*19-19*
163	Pilot-control valve block Differential lock solenoid valve Y009 Parking brake solenoid valve Y043 Solenoid valve for emergency lowering Y048	*8-72*	*19-19*
–	Valve block for load stabilizer Y092	–	–
I	Pump unit (pump work hydraulics)	*8-69*	*19-20*
IV	Hydrostatic steering	*7-8*	*19-21*
VII	Traveling drive variable displacement pump	*4-17*, *4-59*	*19-20*
XIII	Hydraulic controller	*8-74*	*19-21*
XIV	Hose burst valve with load stabiliser	*8-80*	*19-22*
XIX	Brake charge valve/pressure accumulator charge valve	*6-28*	*19-22*
XVIII	Brake valve	*6-29*	*19-23*
XXVII	Steering mode valve with check block	*7-10*	*19-23*
XXIII	Reversing valve Y035, Y037	*3-14*	*19-24*

PREVIEW - YOUFIXTHIS.COM

20.1 Switch assignment with symbols and installation location

BMK	Symbol	Wiring diagram	Description	Location
S014			Light switch	Instrument panel left
S016			Switch for rear working lights	Switch console for roof
S017			Switch for front working lights	Switch console for roof
S018			Rotating beacon switch	Switch console for roof
S019			Hazard lights switch	Instrument panel left

PREVIEW - YOUFIXTHIS.COM

E.1 Notes on system manual

Use of the system manual

This system manual should help you better understand the way in which the individual machine modules operate. The method by which modules are to be controlled will be depicted schematically and individual component descriptions will be provided. This will be followed by a functional description of the respective module.

Electrical diagrams will be depicted for the various modules at the end of the chapter on hydraulics and electrical systems. These will be of use when identifying functional faults. The experiences of our factory personnel and service technicians are summarized in this system manual.

Following repairs to or replacement of components, test logs must be used to ensure proper operation and that the components have been set up correctly.

The most important machine components are accompanied by a depiction of the installation position to ensure it can be easily located in the event of a fault.

Any errors displayed can be rectified using the error code lists.

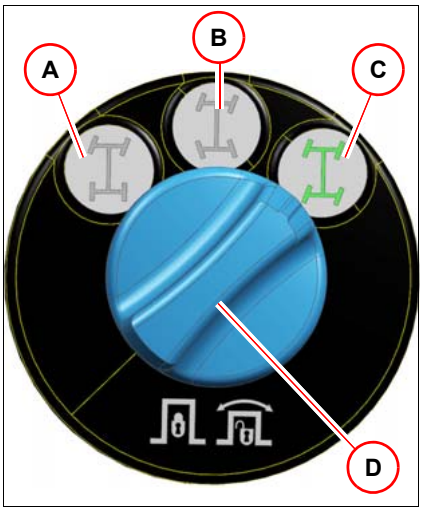
For reasons of safety and security, always compare the specified values and capacities with the latest Operator's Manual of the respective machine.

Deviations of images are possible.

Information

Careful and prudent working is the best way to avoid accidents!

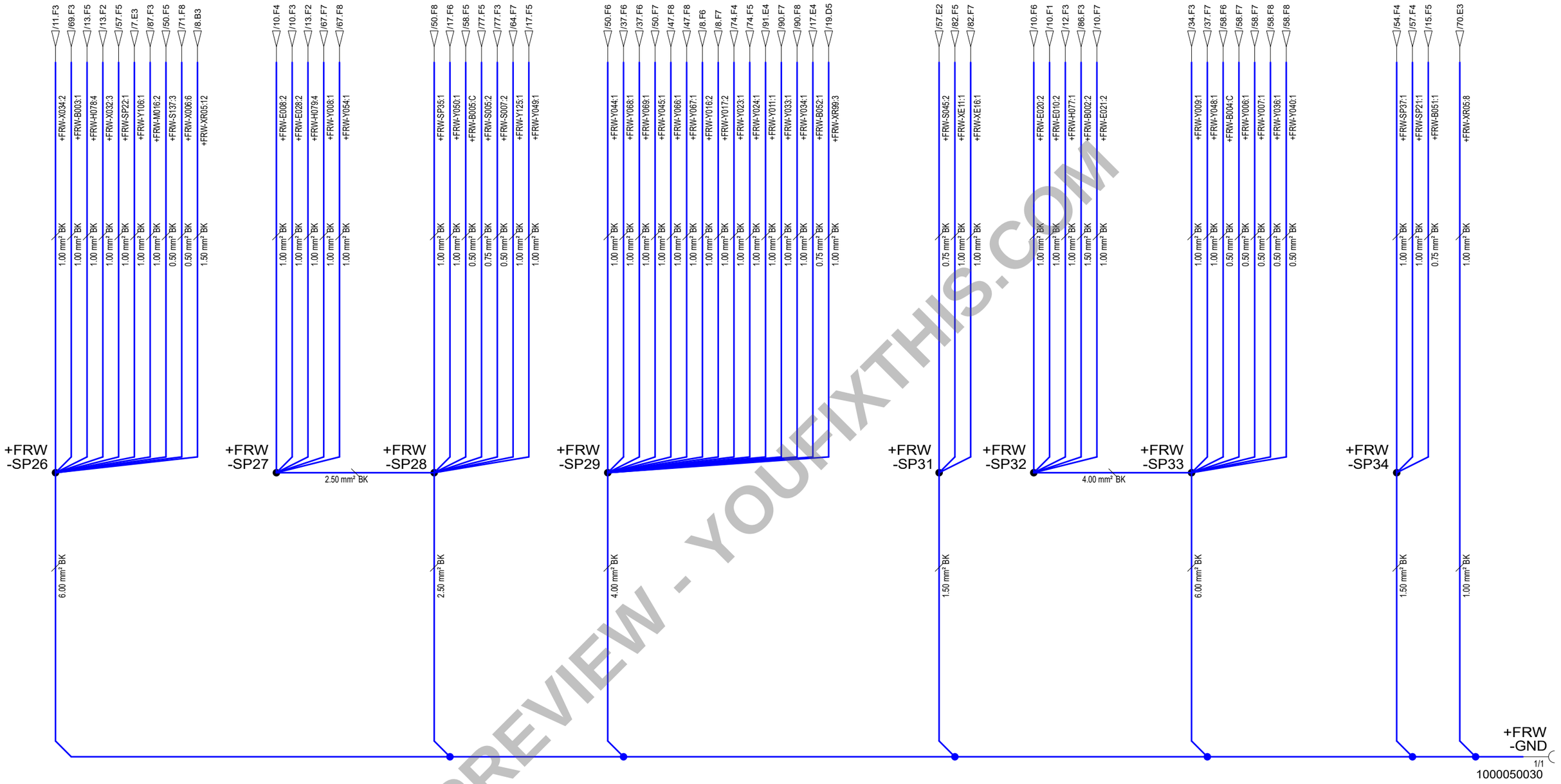
PREVIEW - YOUFIXTHIS.COM



The following pins are energized in the following switch positions for switch S022.

A - Front-wheel steering
➥ Pin 2 and 3 output of plug switch **S022**
B – 4 wheel steering
➥ Pin 2 and 4 output of plug switch **S022**
C - Crab steering
➥ Pin 2 and 5 output of plug switch **S022**
D - Switch pressed
➥ Pin 3, 4 and 5 output of plug switch **S022**

PREVIEW - YOUFIXTHIS.COM



PREVIEW - YOUFIXTHIS.COM

project:	416-3x Stufe 5
active Option:	-
replace for Mat.-Nr:	1000399864
Version SAP:	05
Version DS:	6.3.1.0

Wacker Neuson Group
Kramer Werke GmbH
88630 Pfullendorf
GERMANY

We reserve all rights in this document and in the information contained therein. Reproduction, use or disclosure to third parties without express authority is strictly forbidden.

	date	name
User	28.11.2018	lnzgrimm
Proved	04.06.2019	lnzgrimm

Earth-FRW

Mat. -Nr. 1000411297 Doc. -Nr. 2060119932

Revision:	05
replace for Rev.	04
Message No	62
	A3

Download full manual at youfixthis.com

1589523594

PREVIEW ONLY

You're viewing 25 of 1048 pages

The full manual includes:

- All 1048 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Kramer 4507, 5007, 5507, 4209, 5509, KT457, KT507, KT557, KT429, KT559 System Manual



Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual