# SUMMARY

40000701.00-en


| | |
|---|---|
| SAFETY INSTRUCTIONS | SECTION 1 |
| TECHNICAL DATA AND SPECIAL TOOLS | SECTION 2 |
| MACHINE STRUCTURE | SECTION 3 |
| ELECTRICAL SYSTEM | SECTION 4 |
| ELECTRONICS | SECTION 5 |
| HYDRAULICS | SECTION 6 |
| TROUBLESHOOTING AND REPAIR | SECTION 7 |
| REPAIR INSTRUCTIONS | SECTION 8 |

## Applying the safety belt

**If the machine overturns, the operator may be injured and/or thrown out of the cab. He may be severely injured or even crushed to death by the overturning machine.**

- **Before operating the machine, check the belt fabric, the closure and the fastening components carefully. If one of the parts is damaged or worn, replace the safety belt or the components before starting up the machine.**
- **Always remain seated and keep the safety belt fastened while operating the machine. This will help minimize the risk of injury in the event of an accident.**

**The safety belt must be replaced after any serious accident even if it appears to be undamaged.**

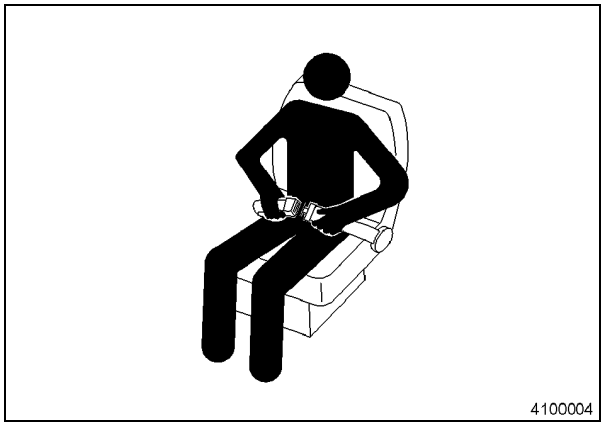



*Fig. 5*

## Working from the operator's seat only

**Starting up the engine incorrectly may cause the machine to make unexpected movements that might lead to severe, even fatal, injury.**

- **Always start up the engine from the operator's seat only.**
- **Never start the engine by short-circuiting the starter.**
- **After starting up the engine, check that all driving levers, driving pedals and control levers are in neutral position.**

## Never take passengers on the machine

**Passengers on the machine may suffer injury e.g. from foreign bodies or through being thrown off.**

- **Only the operator is allowed onto the machine. Never take passengers.**
- **Passengers also obstruct the operator's view so that the machine is no longer safely operated.**

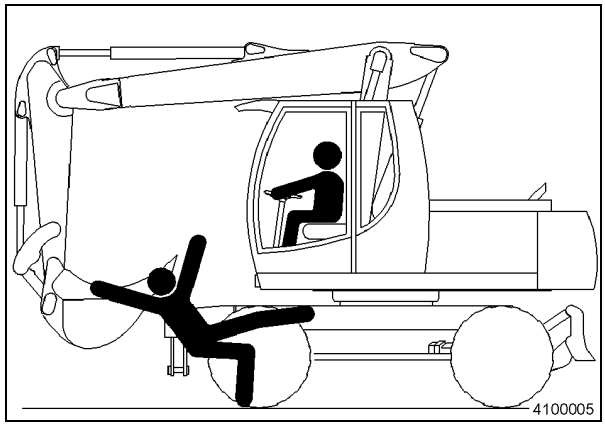



*Fig. 6*

□

## Prestressed units

**Never open defective prestressed systems but replace the entire system.**

**Open only in exceptional cases, when the system and the operational sequence are exactly known and the necessary special tools are available.**

## Never remove lead seals

**Never change the rated pressure of pressure-reducing valves without the explicit authorization of the manufacturer.**

**Never remove lead seals from pressure-reducing valves and accumulators.**

## Safety instructions for accumulators

**Accumulators are installed in the hydraulic system. They contain nitrogen under high initial pressure.**

**Even when the hydraulic system has been depressurized, the nitrogen pressure is maintained in the accumulator.**

**The accumulators are completely safe in operation. If incorrectly handled, however, there is a risk of explosion.**

**The accumulators installed in this machine cannot be repaired. Defective accumulators must be replaced.**

**Never handle accumulators mechanically, never weld or solder them.**

**Before dismantling the accumulator, put on goggles and working gloves, and depressurize the hydraulic system.**

**Use original spares only. If in doubt, contact your local agent or the after-sales service.**

**Never remove or paint over warning and information plates, rating plates or type identification markings. Replace illegible or damaged plates immediately.**

➔

## **Warning and instruction signs** (Page 2 of 2)

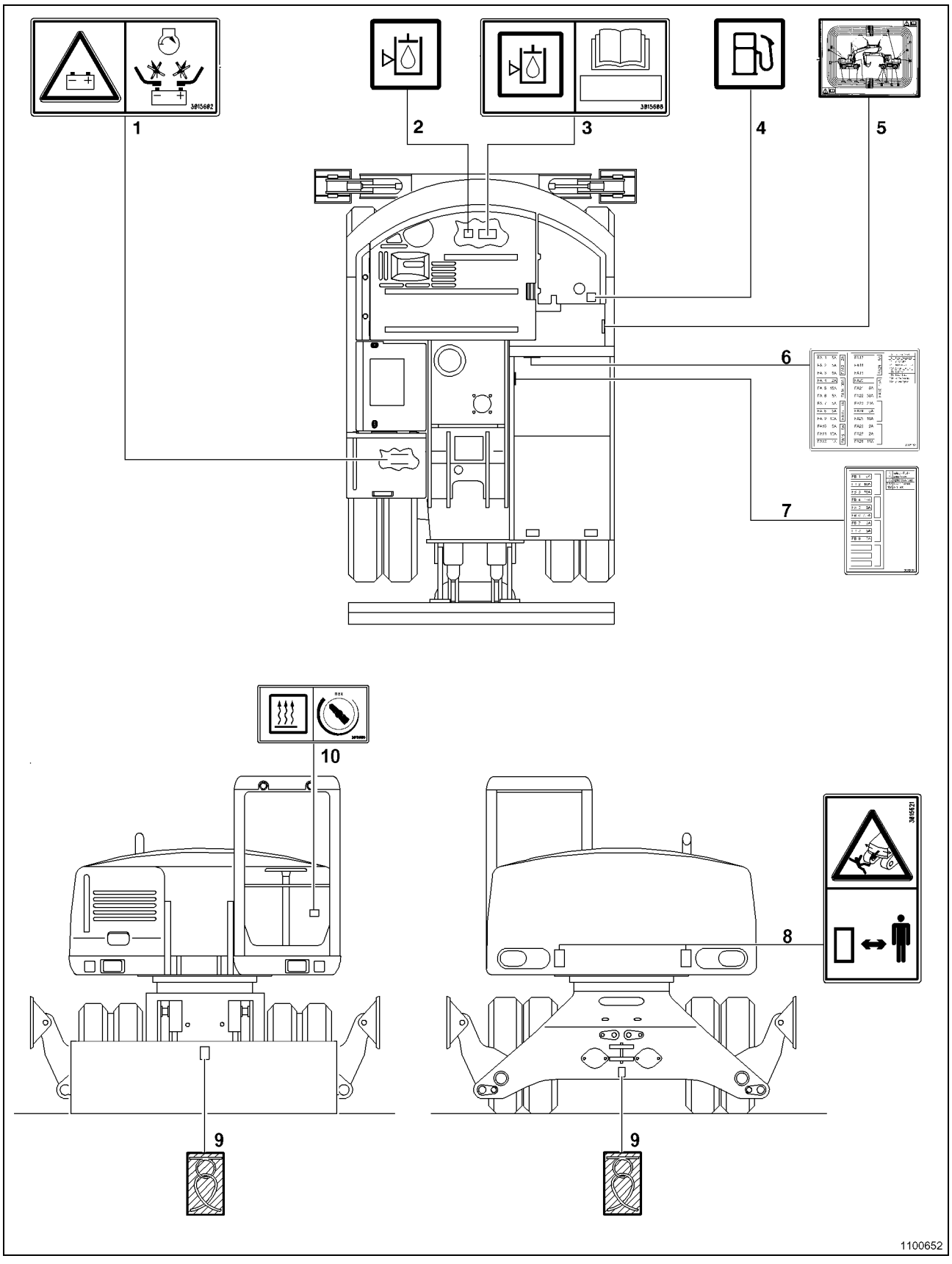



*Fig. 2*

➔

### Master shaft

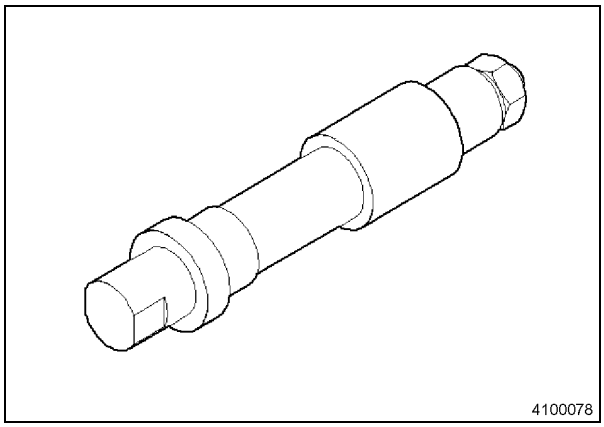



*Fig. 7*

Part number 2897007

### Extraction device

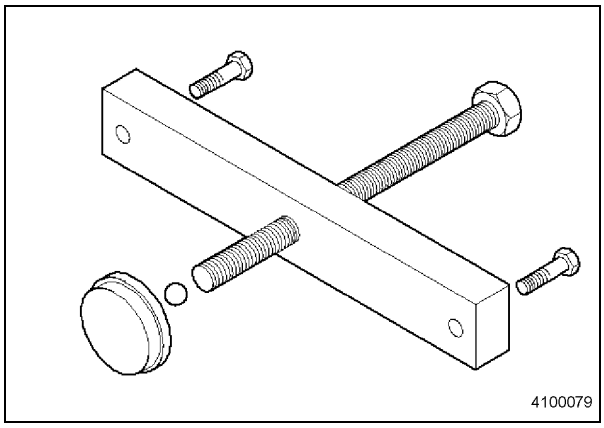



*Fig. 8*

Part number 2897008

### Driving tool

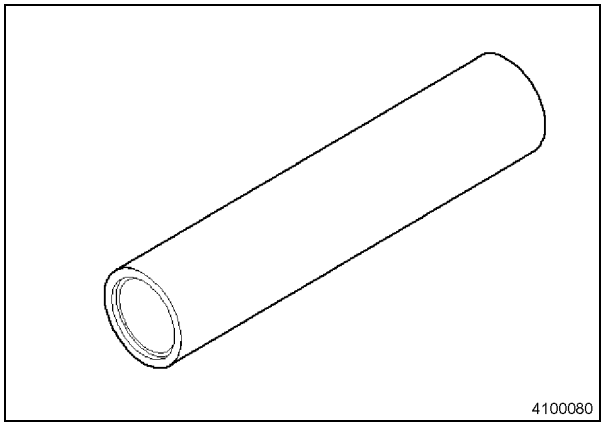



*Fig. 9*

Part number 2897009

### Driving tool

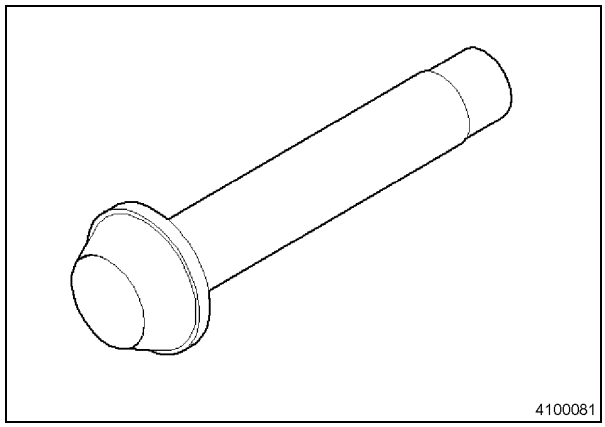



*Fig. 10*

Part number 2897010

### Driving tool

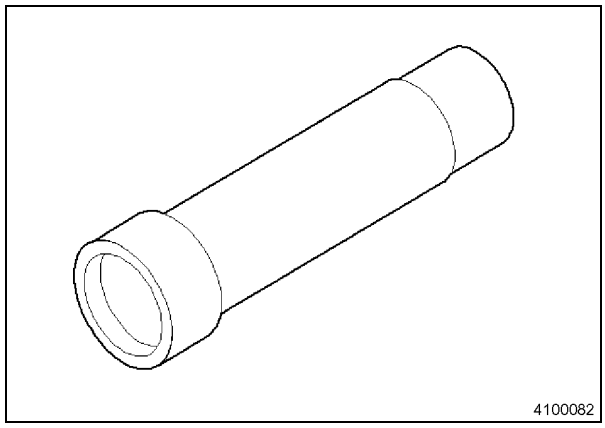



*Fig. 11*

Part number 2897011

### Assembly aid

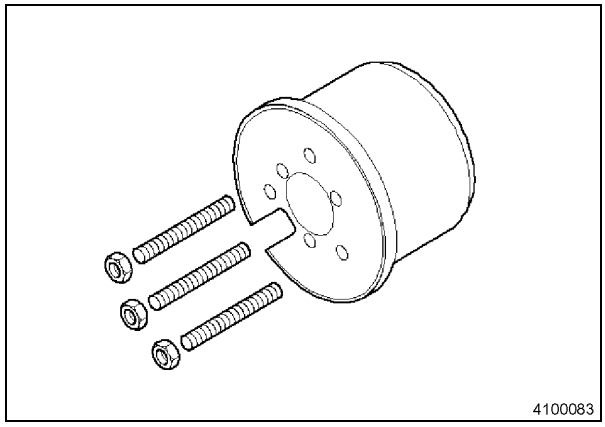



*Fig. 12*

Part number 2897012

➔

## Switches / Keys

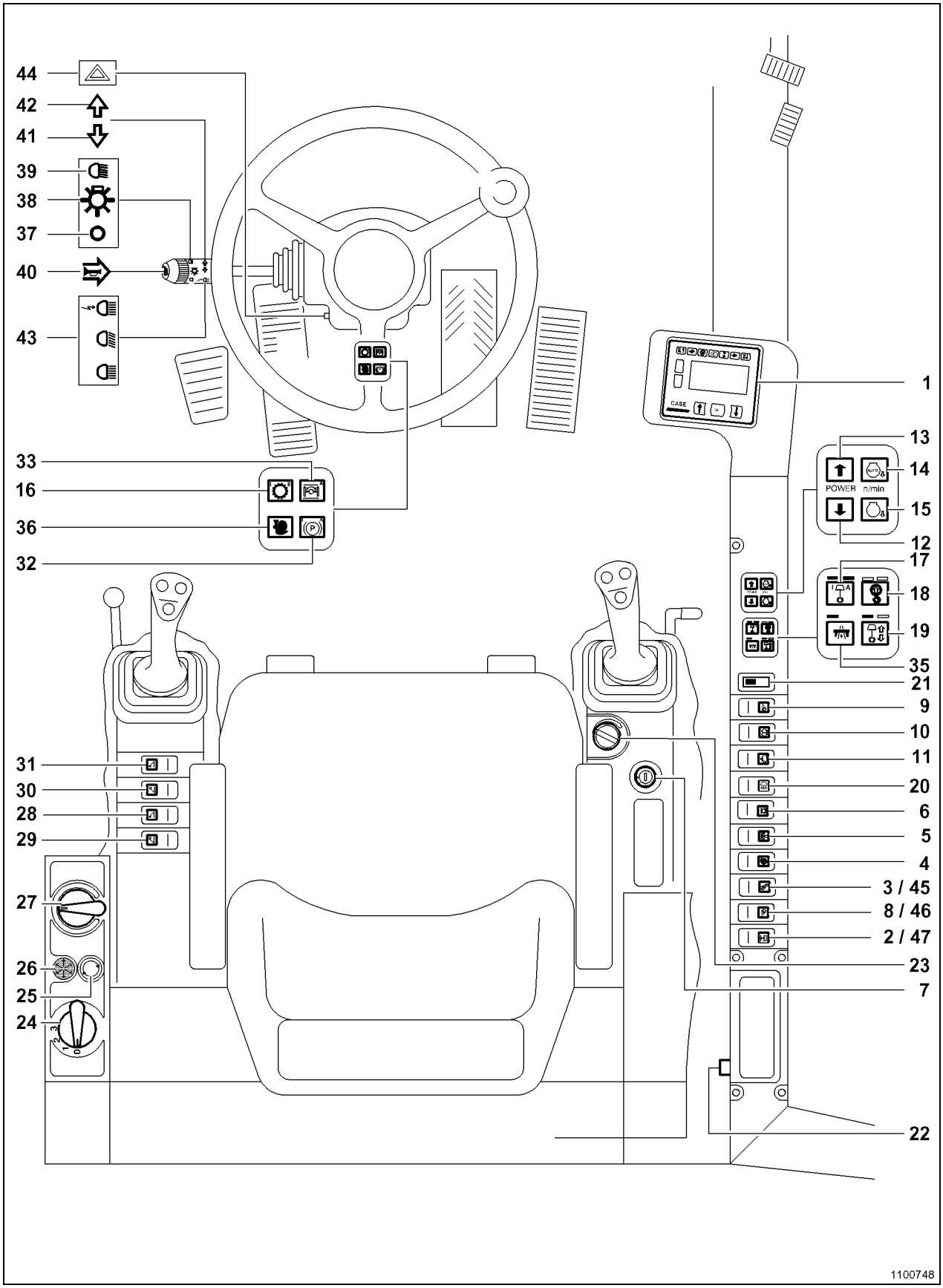



*Fig. 5*

➔

## Undercarriage components, overview

40000314-en

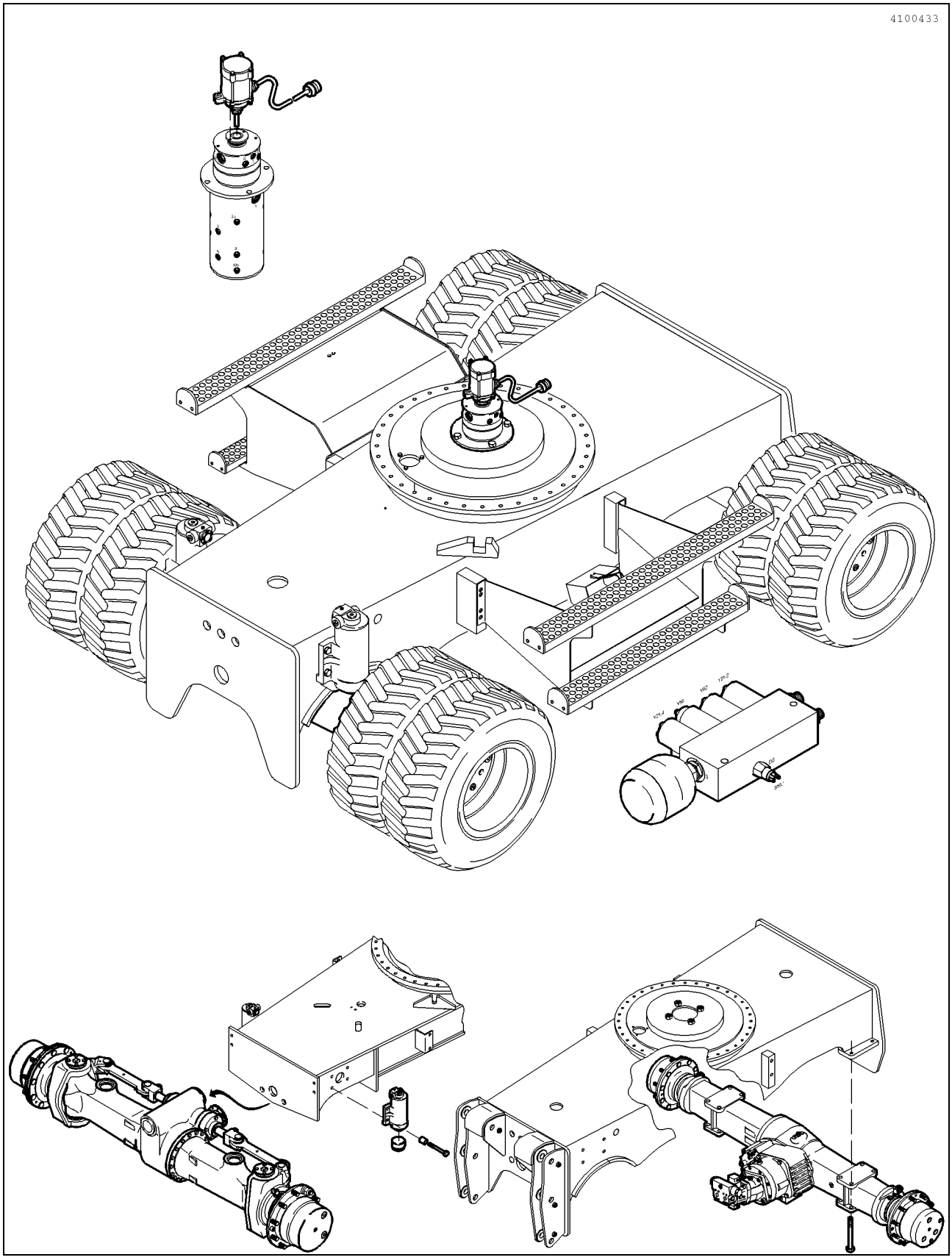



*Fig. 1*

□

## Driver's cab, wiper and washer, WX145

40000726.00-en

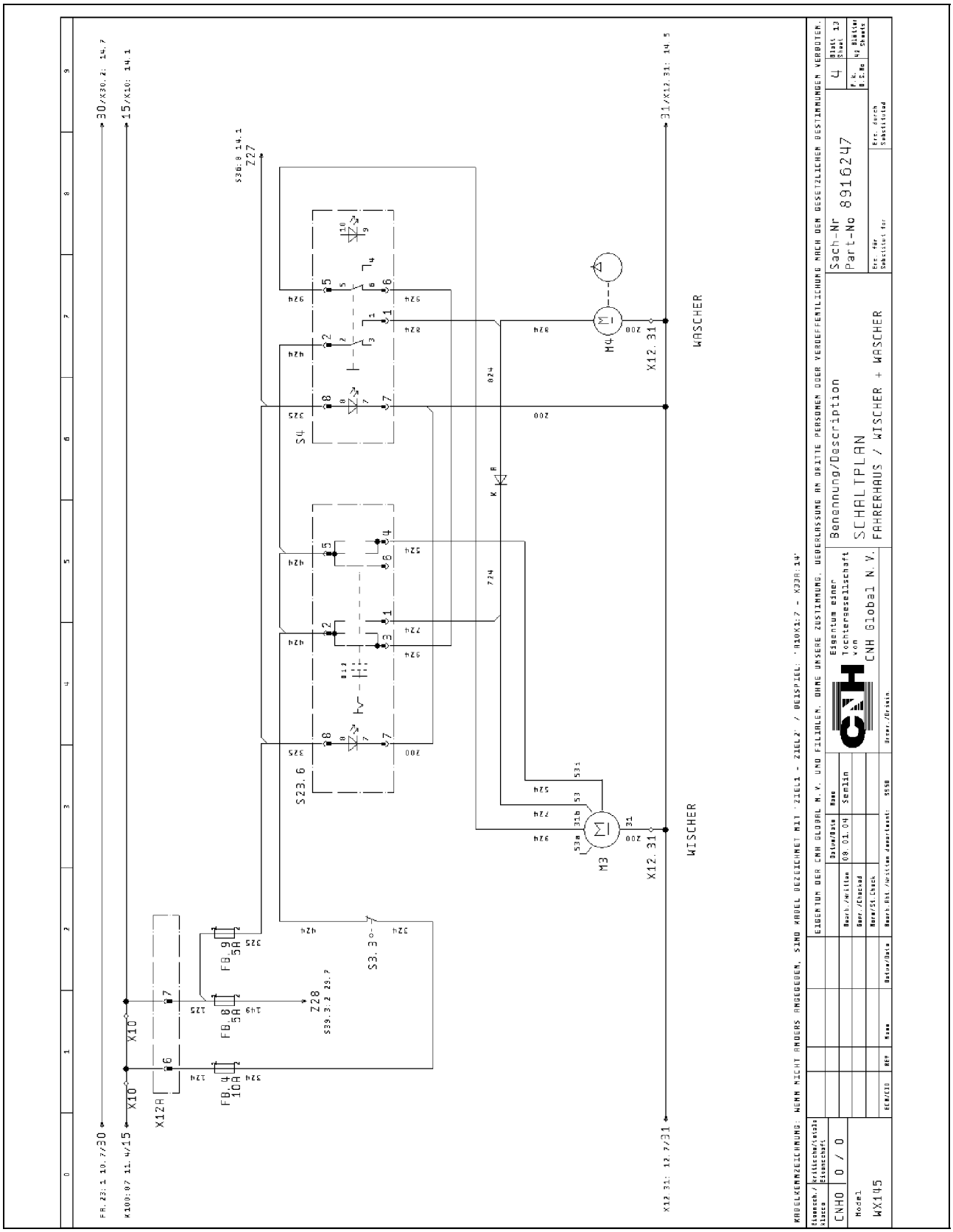
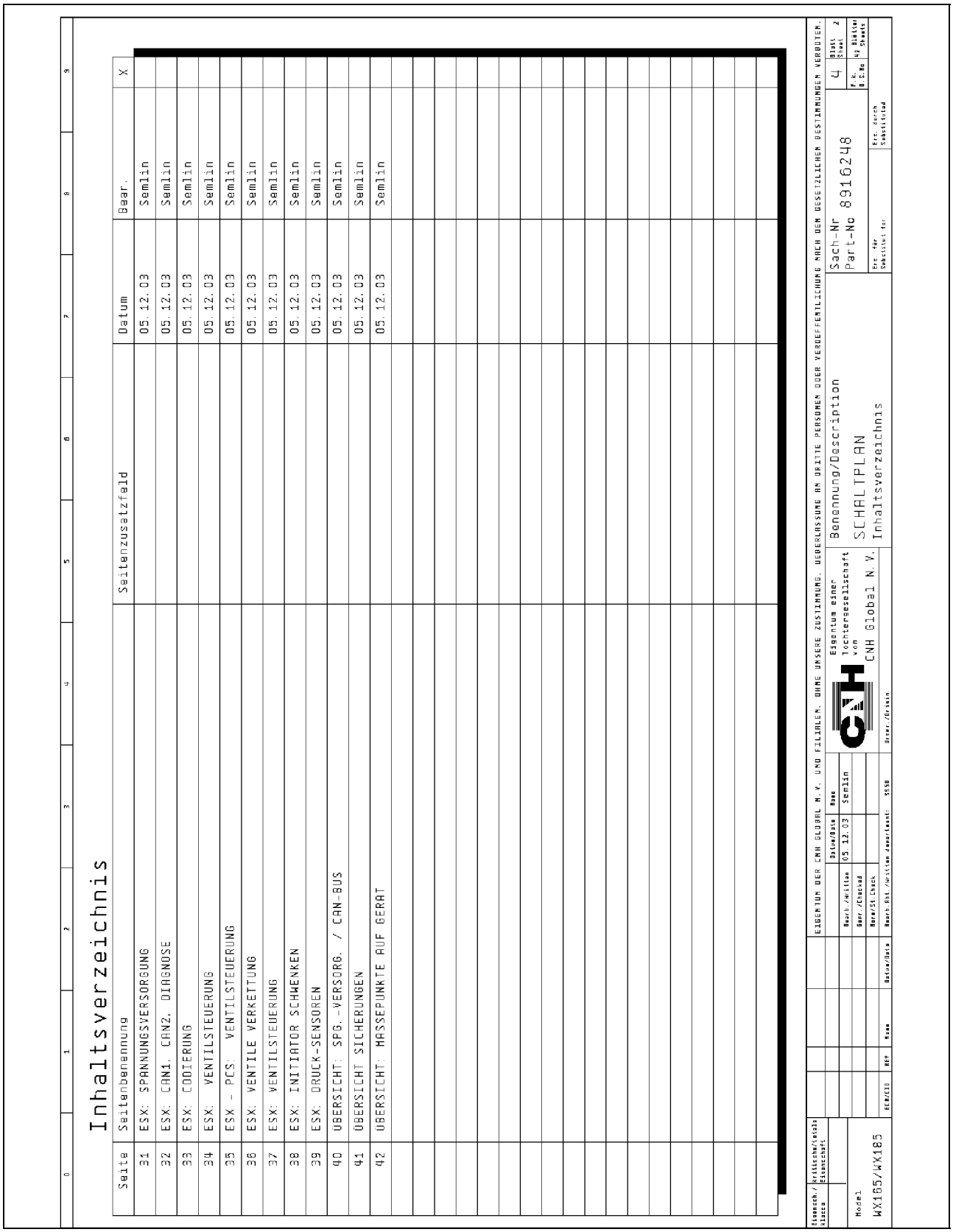



*Fig. 13*

## Table of contents, page 2, WX165/185

40000404.01-en



Inhaltsverzeichnis

| Seite | Seitenbenennung | Seitenzusatzfeld | Datum | Baar. | X |
|---|---|---|---|---|---|
| 31 | ESX: SPANNUNGSVERSORGUNG | | 05.12.03 | Semlin | |
| 32 | ESX: CAN1, CAN2, DIAGNOSE | | 05.12.03 | Semlin | |
| 33 | ESX: CODIERUNG | | 05.12.03 | Semlin | |
| 34 | ESX: VENTILSTEUERUNG | | 05.12.03 | Semlin | |
| 35 | ESX - PCS: VENTILSTEUERUNG | | 05.12.03 | Semlin | |
| 36 | ESX: VENTILE VERKETTUNG | | 05.12.03 | Semlin | |
| 37 | ESX: VENTILSTEUERUNG | | 05.12.03 | Semlin | |
| 38 | ESX: INITIATOR SCHWENKEN | | 05.12.03 | Semlin | |
| 39 | ESX: DRUCK-SENSOREN | | 05.12.03 | Semlin | |
| 40 | UBERSICHT: SPG.-VERSORG. / CAN-BUS | | 05.12.03 | Semlin | |
| 41 | UBERSICHT SICHERUNGEN | | 05.12.03 | Semlin | |
| 42 | UBERSICHT: MASSEPUNKTE AUF GERAT | | 05.12.03 | Semlin | |

EIGENTUM DER CNH GLOBAL N.V. UND FILIALEN. OHNE UNSERE ZUSTIMMUNG. UEBERLASSUNG AN DRITTE PERSONEN ODER VEROEFFENTLICHUNG NACH DEM GESETZLICHEN BESTIMMUNGEN VERBOTEN.

Eigentum einer Tochtergesellschaft von CNH Global N.V.

Benennung/Description
SCHALTPLAN
Inhaltsverzeichnis

Sach-Nr Part-No 8916248

Blatt Sheet 4 / 2

Modell WX165/WX185



*Fig. 2*

## Electrical circuit diagram, shears equipment

40000446-en

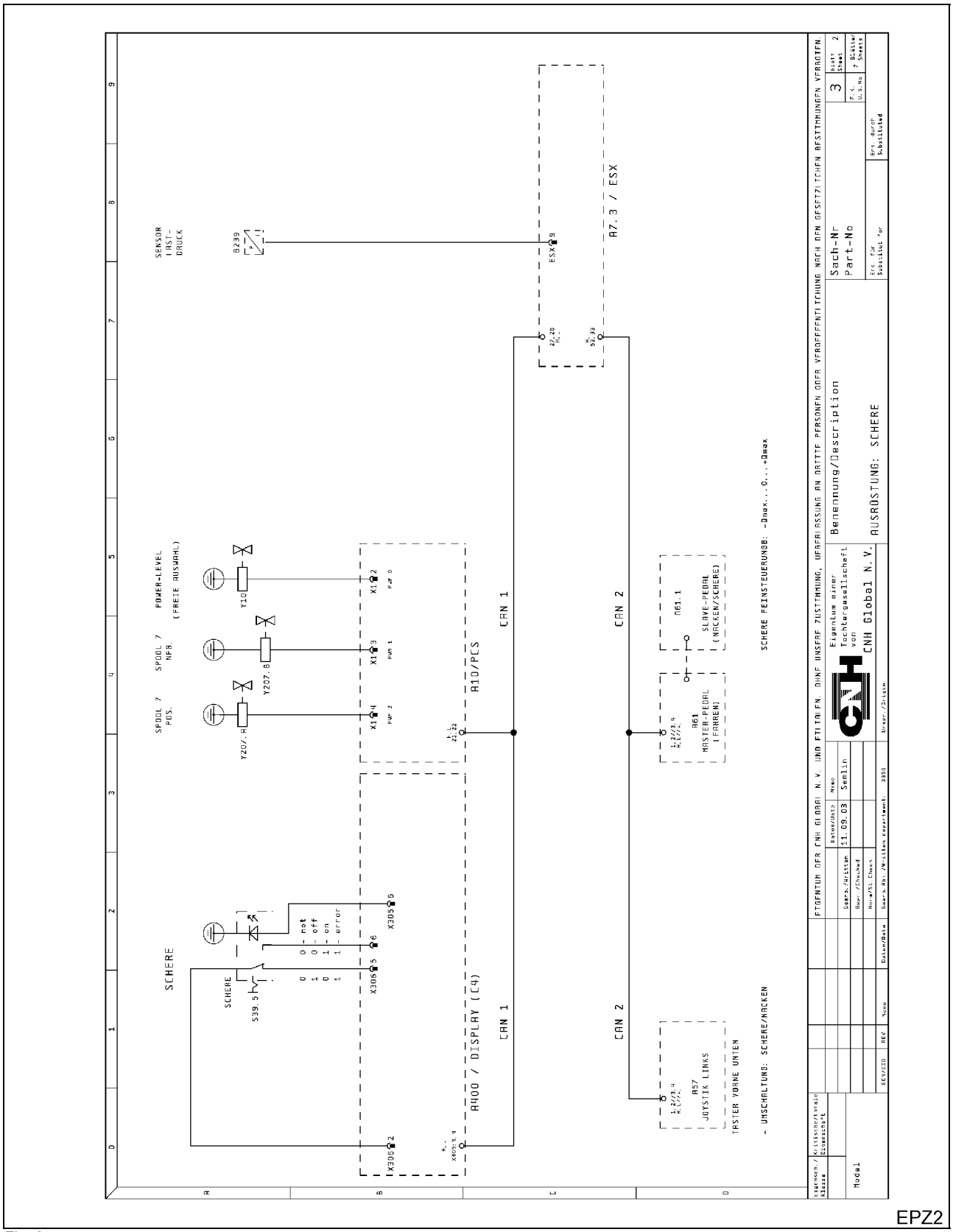



*Fig. 2*

# PCS: POWER CONTROL SYSTEM

40000758.00-en

## Function chart and location diagram of components

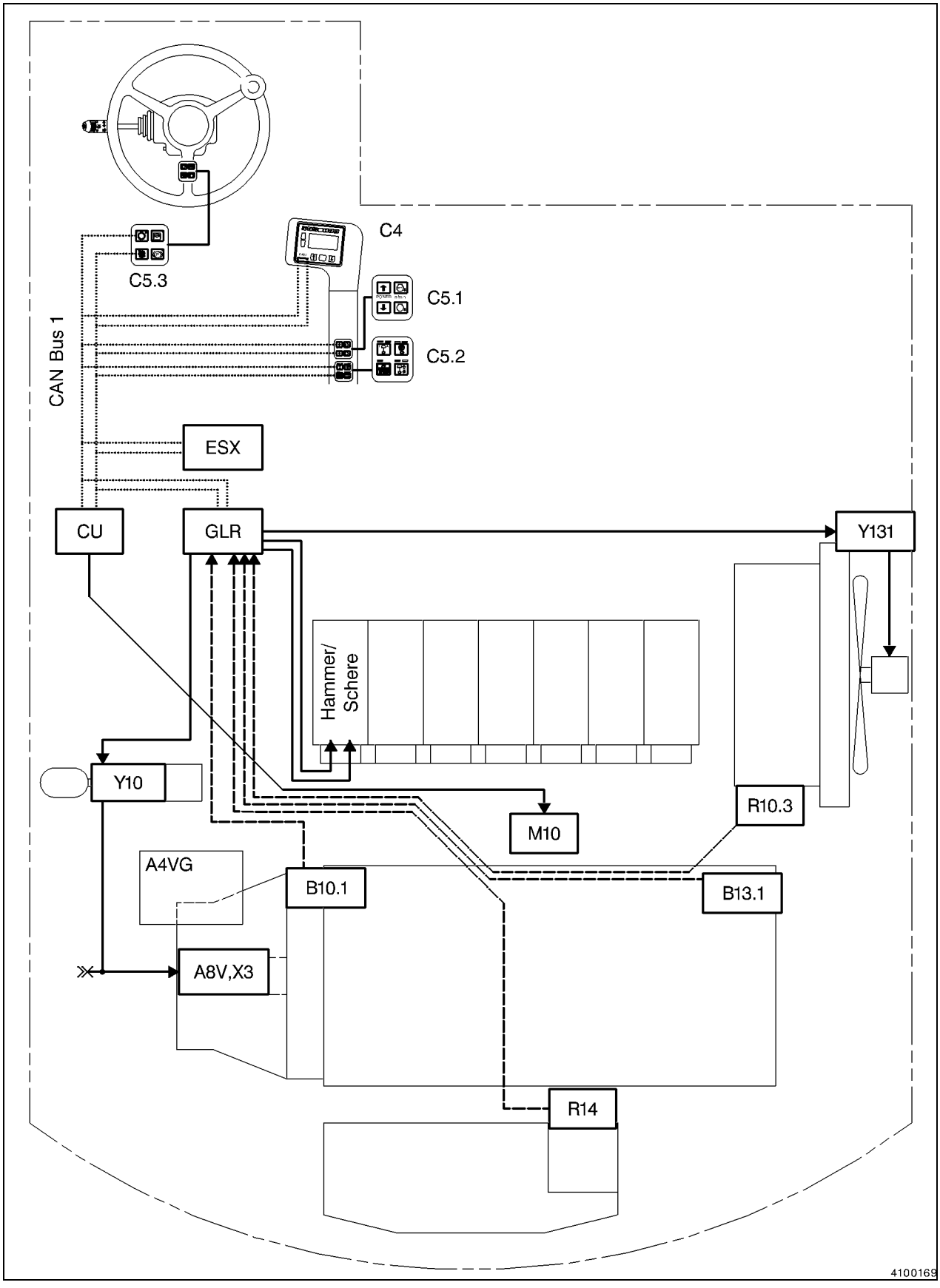



*Fig. 1*

## Output regulation by load-sensing pressure

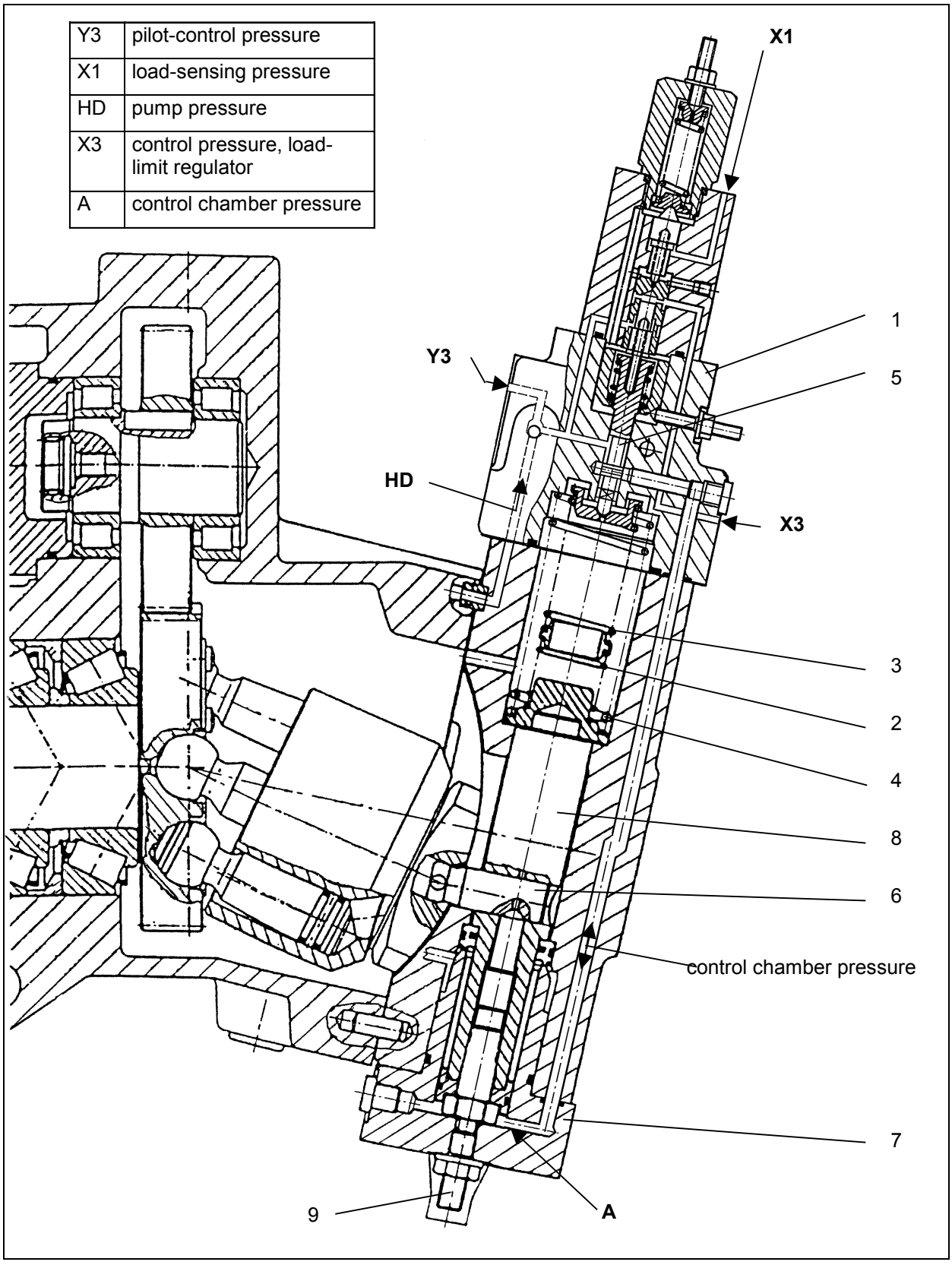



*Fig. 1*

## Pressure compensator for travel circuit

40000882.00-en

### Function

The function of the pressure compensator is to maintain the discharge flow to the hydraulic motor as determined by the cross-section of the control spool even under varying load pressures. The compensator is represented in the figures in its three states of operation.

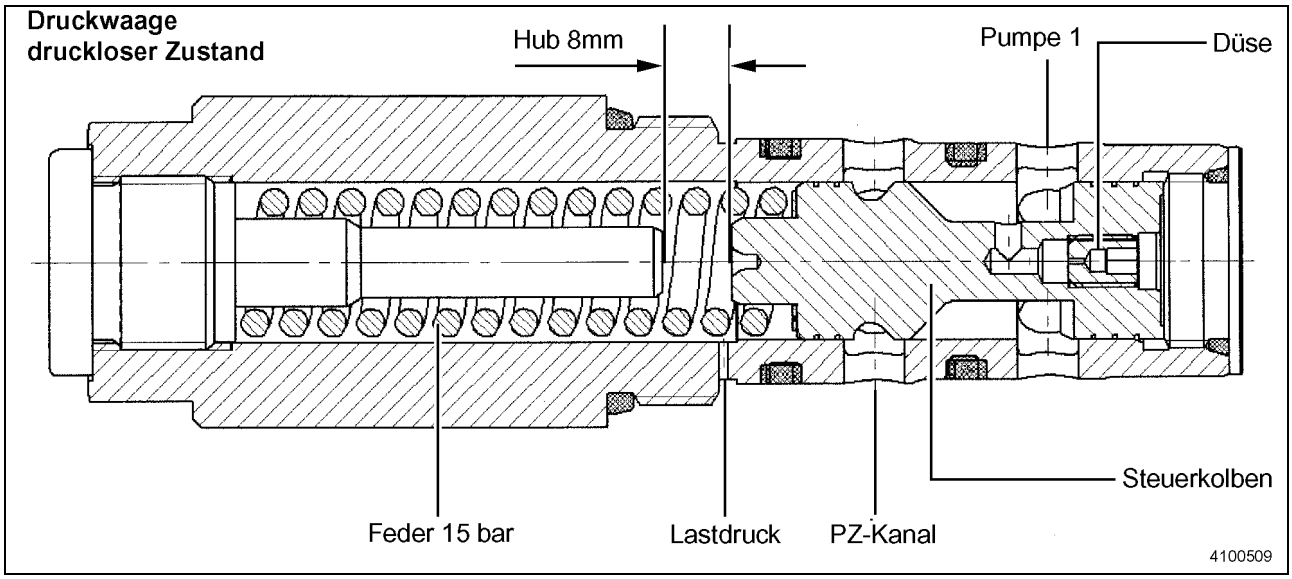



*Fig. 1*

### Operation

After engine start, pump 1 supplies oil to the inlet channel of the pressure compensator.

During activation of a function, the pump 1 generates a pressure of >15 bars. This pressure is admitted through the transverse bore and the orifice and builds up behind the piston. The force $F_P$ moves the piston against the spring whereby the non-return function of the piston is disabled. The oil from pump 1 flows into the P channel and to the control spool whose control edge is still closed.

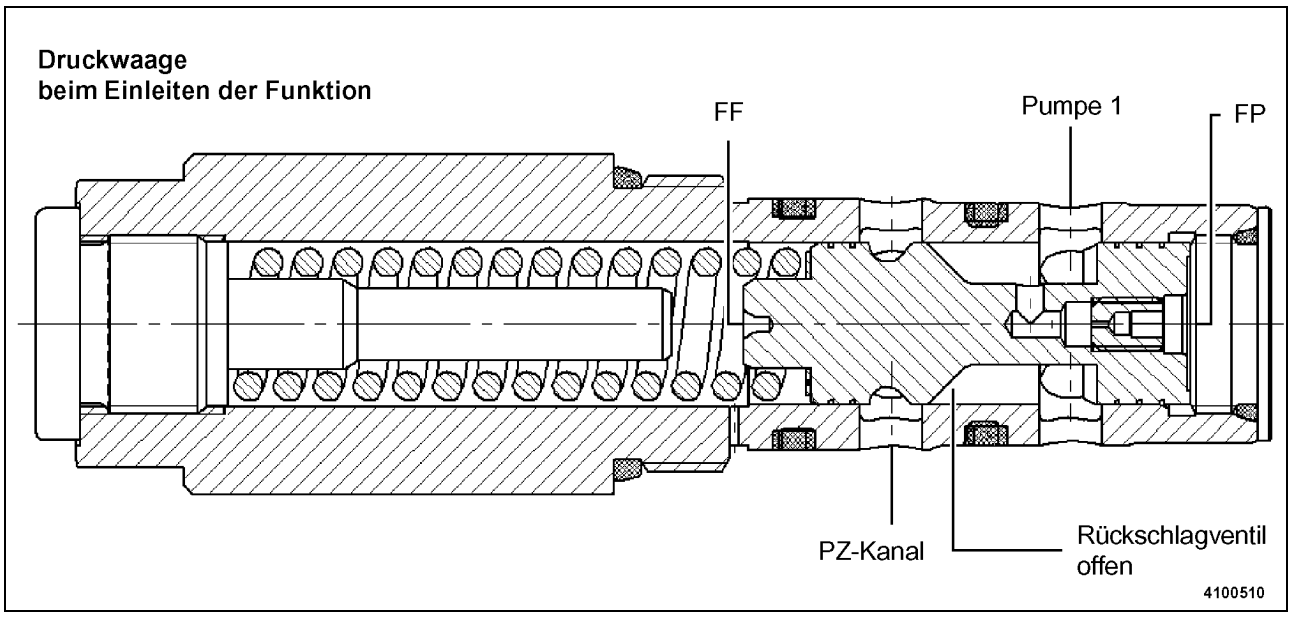



*Fig. 2*

➔

## Boom cylinder control spool with regeneration circuit

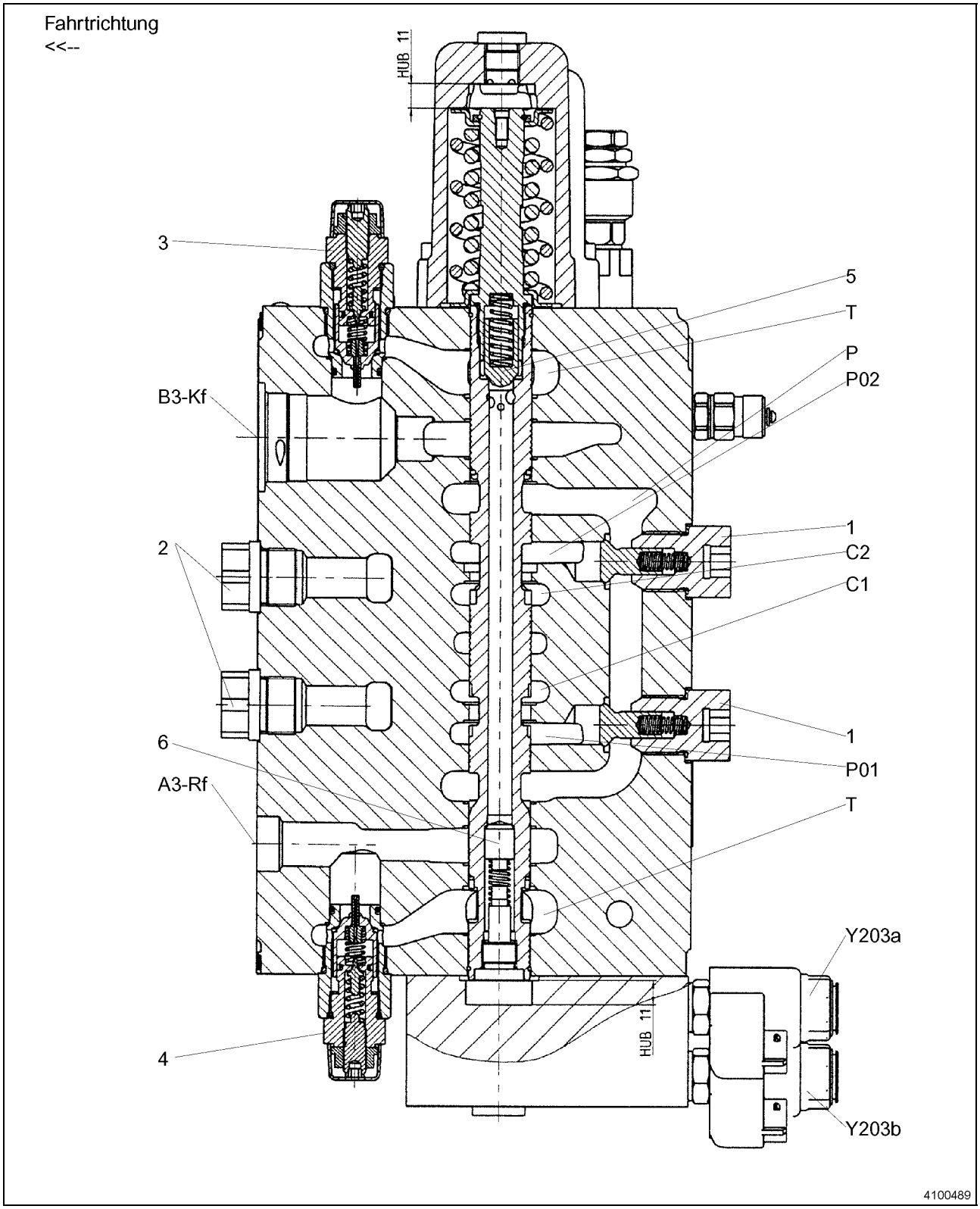



*Fig. 3*

➔

## Service brake

10000530.00-en

### Brake disks, checking the lining thickness

The brake disks must be checked in compliance with the servicing plans.

The required measuring equipment can be ordered from our spare-parts service under the respective parts number.

| | | |
|---|---|---|
| **WX145** | 424359A1 | max. release clearance 3.8 mm |

The checking procedure must be performed on all wheels. For checking, proceed as follows:

- Position the machine so that the screw plugs in the wheel hub are in the position shown (Fig. 1).
- Secure the machine (see: "Securing the machine".
- Screw out the plug (1, Fig. 1).
- Block the service brake (see: "Using the service brake").
- Screw the measuring device (2, Fig. 2) into the open bore of the screw plug (fork wrench SW 22).
- Slacken the lock-nut (4) of the measuring device.
- Screw down the measuring spindle (5) to the limit stop by turning the knurled knob.
- Set the graduated drum (3) to mark "0" and lock in this position with lock-nut (4).
- Release the service brake blocking.
- Turn the spindle (5) with the knurled knob down to the limit stop.
  Note the number of full turns (see mark **"0"**) and the number of the partial turn. A full turn corresponds to a tspindle travel of 1 mm. A turn by one graduation mark corresponds to 0.1 mm.
- The reference limit value (release clearance) is max. **3.8 mm** with the WX145 and max. **4.5 mm** with the WX185. Compare the measured value to the reference limit.
- Measurment of the brake wear must be performed every **1000 OH**. If the value found is greater or equal to the reference limit value, the brake disks must be replaced. Contact our Service Dept.
- Screw out the measuring spindle (2) and screw the plug (1, Fig. 1) back in place.

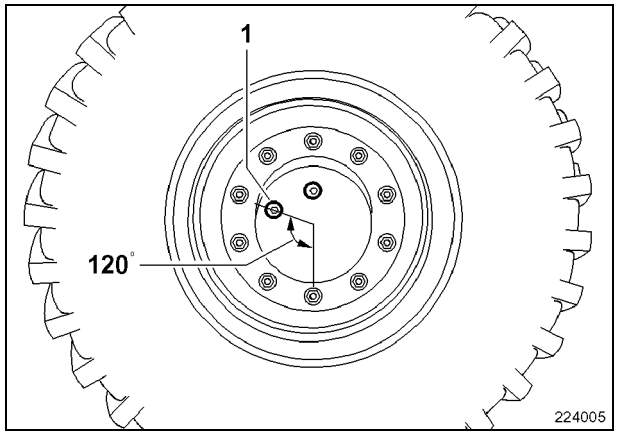



*Fig. 1*

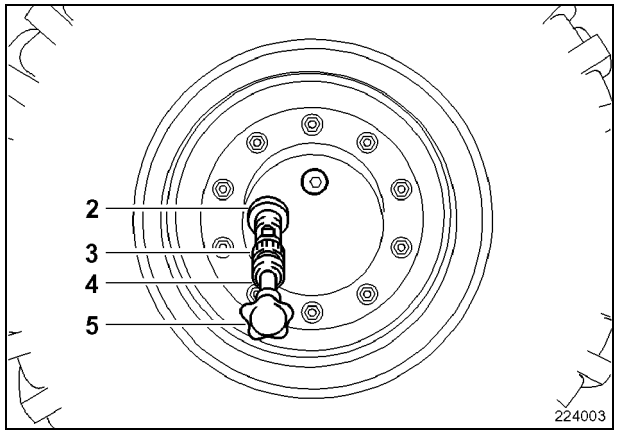



*Fig. 2*

□