2.1 BW 100 AD-5

2.1.1 Technical data

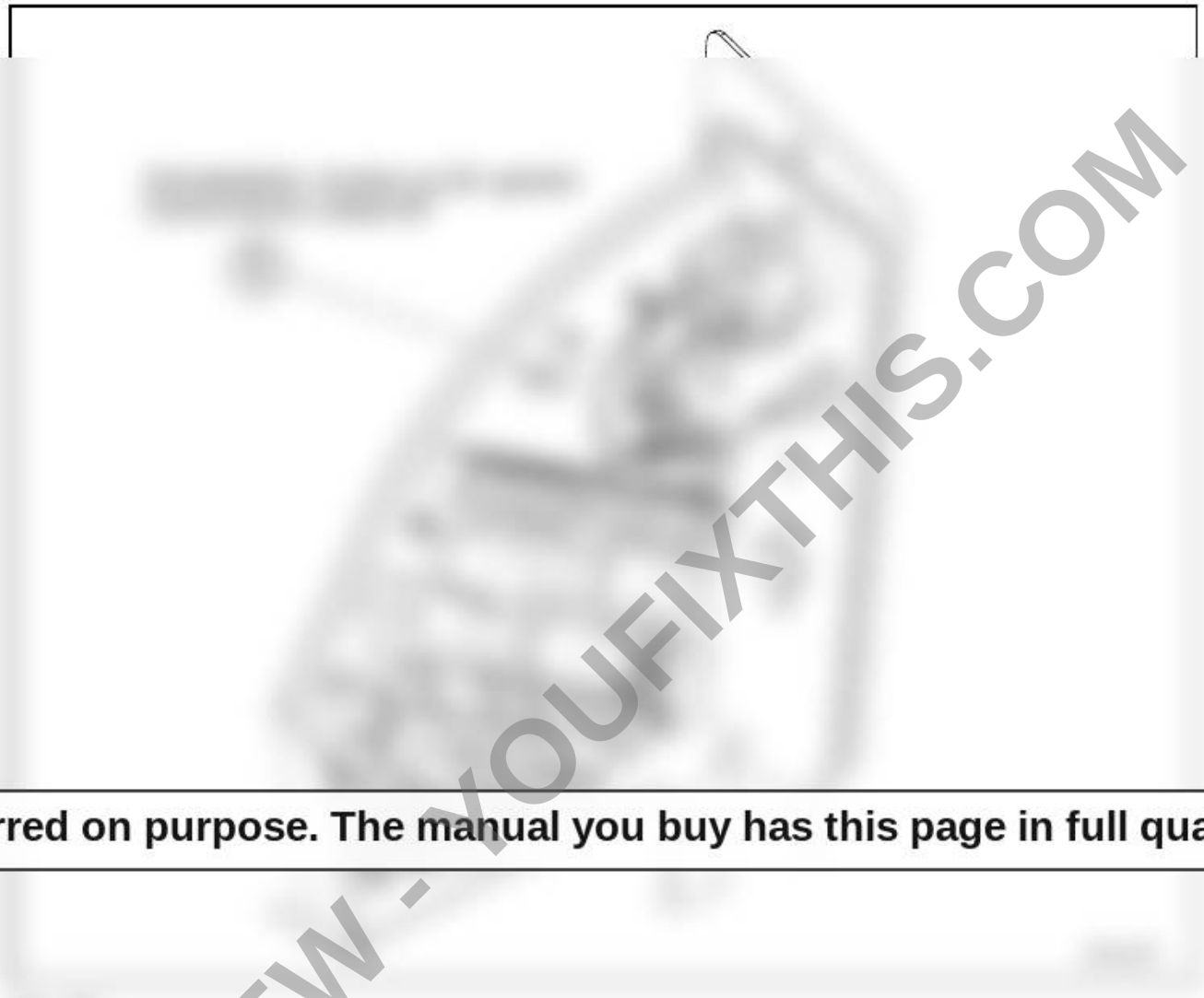


Blurred on purpose. The manual you buy has this page in full quality.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

4.3 Wiring



Blurred on purpose. The manual you buy has this page in full quality.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

6.1 Overview of hydraulics

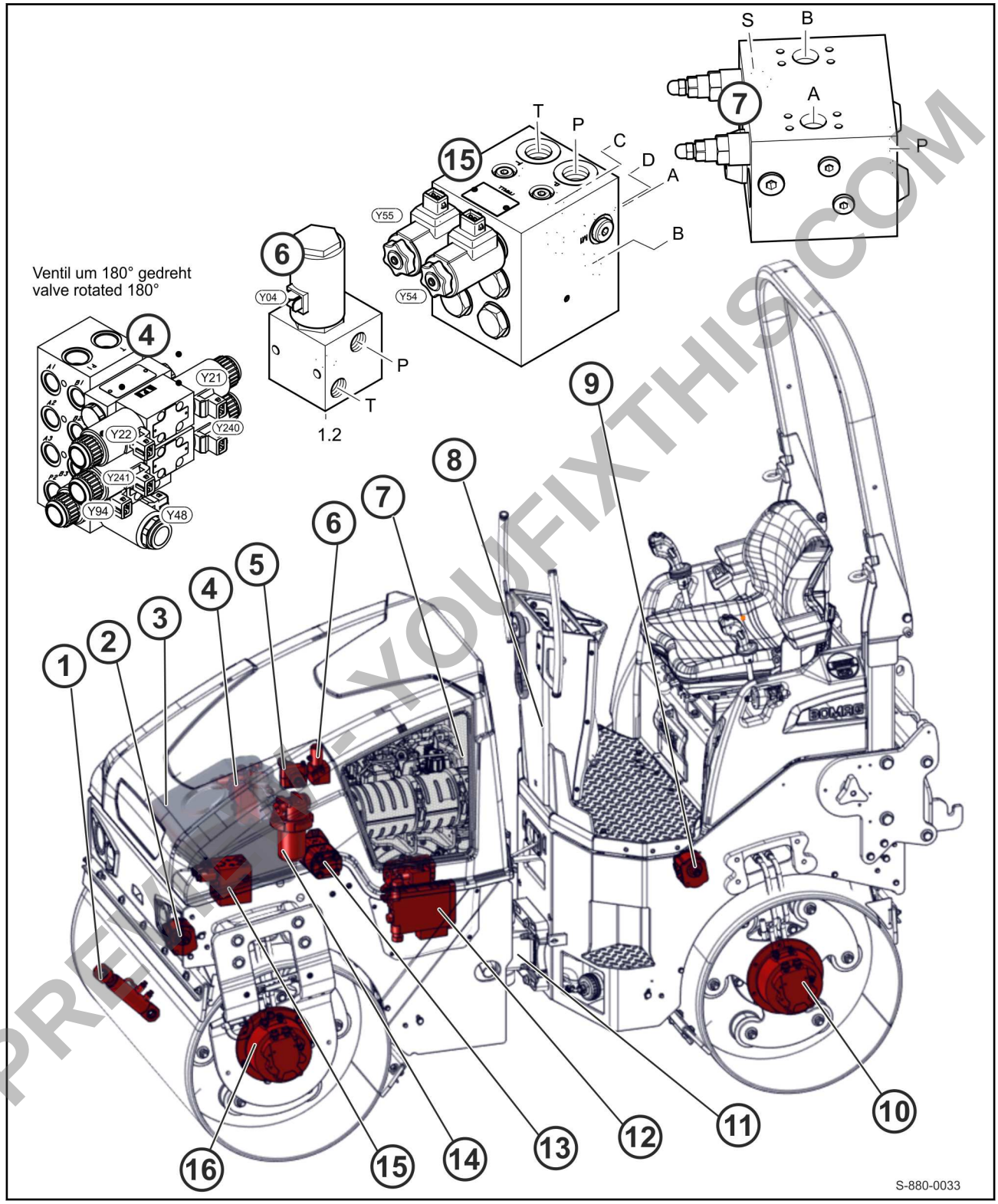


Fig. 205

1 Hydraulic cylinder for edge cutter

Download full manual at youfixthis.com

4.11 Starter

4.11.1 Repair of starter

Dismantling and assembling

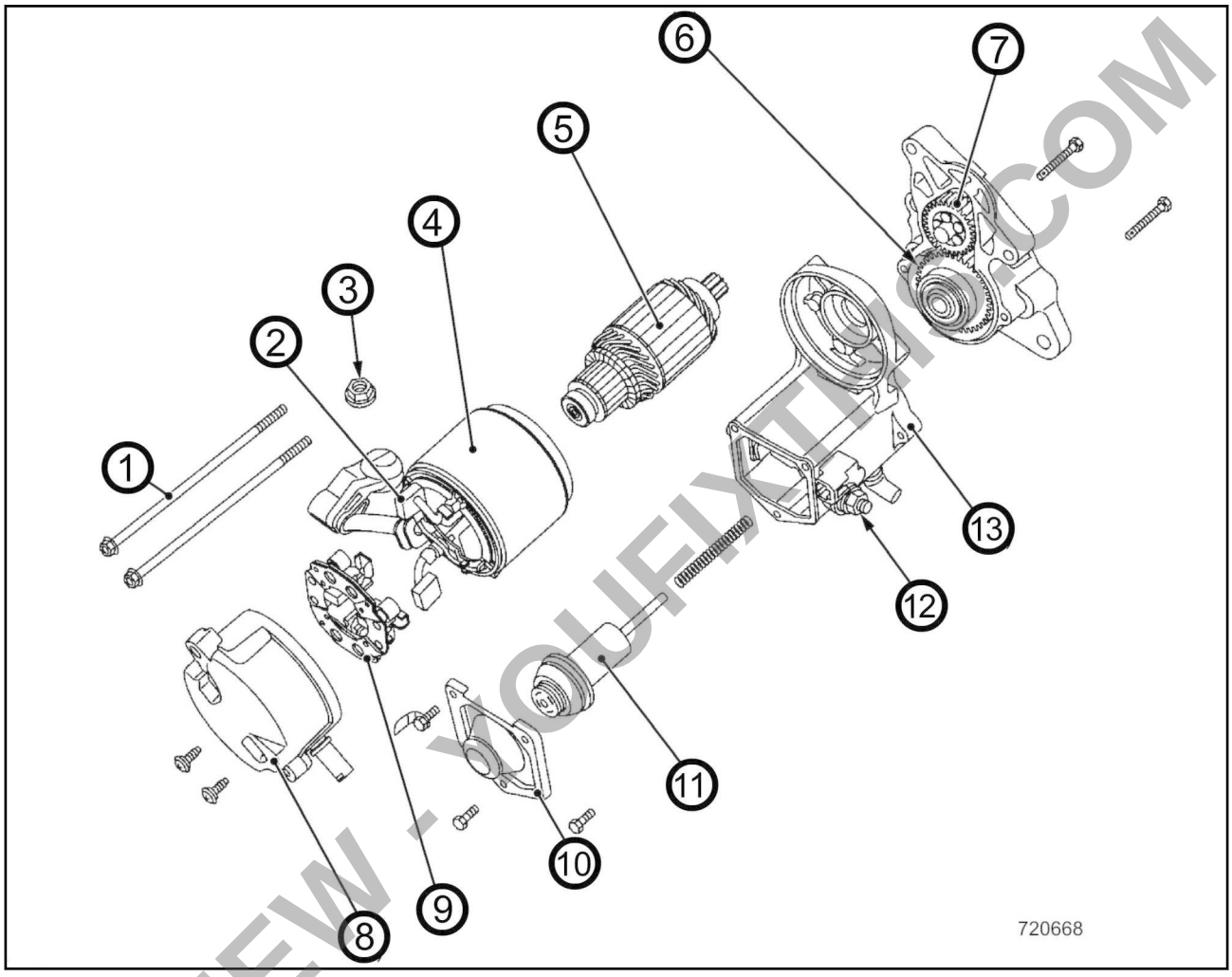


Fig. 86

1 Through bolt
2 Brush
3 Terminal nut C
4 Starter frame
5 Armature
6 Freewheel
7 Intermediate gear
8 Housing cover
9 Brush holder
10 Magnetic switch cover
11 Piston
12 Terminal nut B
13 Housing

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

DACROMET is a surface protection that mainly consists of zinc and aluminium in a chromium oxide matrix. DACROMETIZATION provides excel-

Blurred on purpose. The manual you buy has this page in full quality.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

11 Troubleshooting

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Table of contents

1 General ... **9**
1.1 Introduction ... **10**
1.2 Concerning your safety ... **12**
1.2.1 General prerequisites ... 12
1.2.2 Definition of responsible persons ... 15
1.2.3 Fundamentals for safe operation ... 16
1.2.4 Handling fuels and lubricants ... 17
1.2.5 Parking the machine in secured condition ... 23
1.2.6 What to do in events of emergency ... 24
1.2.7 Maintenance work ... 24
1.2.8 Repair ... 27
1.2.9 Signage, AD/SL ... 27
1.2.10 Signage, AC ... 31
1.3 Notes on repair ... **35**
1.3.1 General repair instructions ... 35
1.3.2 Tightening torques ... 43
1.4 Maintenance work ... **50**
1.4.1 Preliminary remarks and safety notes ... 50
1.5 Fuels and lubricants ... **51**
1.5.1 Fuels and lubricants ... 51
1.6 List of fuels and lubricants ... **55**
1.6.1 List of fuels and lubricants ... 55
2 Technical data ... **57**
2.1 BW 100 AD-5 ... **58**
2.1.1 Technical data ... 58
2.2 BW 100 AC-5 ... **62**
2.2.1 Technical data ... 62
2.3 Technical data BW 100 SL-5 ... **67**
2.3.1 Noise and vibration data ... 69
2.4 BW 120 AD-5 ... **71**
2.4.1 Technical data ... 71
2.5 BW 120 AC-5 ... **75**
2.5.1 Technical data ... 75
2.6 Technical data BW 120 SL-5 ... **80**
2.6.1 Noise and vibration data ... 82
2.7 Additional technical data ... **84**
3 Overview of machine ... **87**
3.1 Electric systems ... **91**
3.2 Diesel engine ... **93**
3.3 Hydraulic system ... **95**
3.4 Drum ... **97**
3.5 Oscillating articulated joint ... **99**
3.6 Water spraying system ... **100**

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Table of contents

4 Electric systems ... **103**
4.1 Overview of electric system ... **104**
4.2 Table of fuels and lubricants ... **108**
4.3 Wiring ... **114**
4.4 CAN BUS overview ... **128**
4.5 Central electrics ... **130**
4.6 Fuse assignment ... **135**
4.6.1 Notes on safety ... 135
4.6.2 Fuses in engine compartment ... 135
4.6.3 Central electrics ... 135
4.7 Control elements ... **137**
4.7.1 AD machine ... 137
4.7.2 AC machine ... 139
4.8 Battery service during prolonged machine downtimes ... **141**
4.9 Starting the engine with jump leads ... **142**
4.10 Generator repair ... **143**
4.11 Starter ... **147**
4.11.1 Repair of starter ... 147
4.11.2 Trouble shooting "Starter" ... 151
4.12 Instrument cluster (A15) ... **154**
4.13 Seat contact control ... **156**
4.14 Switching the vibration on ... **157**
4.15 Switching on the pressure sprinkler system ... **158**
4.16 Level sensor in diesel tank, R03 ... **159**
4.17 Sensor, water in fuel filter, B124 ... **160**
4.18 Charge control lamp and operating hour meter ... **161**
4.19 Engine oil pressure monitoring ... **162**
4.20 Coolant temperature monitoring ... **163**
4.21 Glow plugs, R81, R82 & R83 ... **164**
4.22 Engine solenoid, Y13 ... **165**
4.23 Inductive proximity switch, B63 ... **167**
4.24 Angle sensor on travel control lever, B39 ... **168**
4.25 Telemecanique switch ... **170**
4.26 Deutsch plug, series DT and DTM ... **172**
4.27 Inspection and maintenance work ... **176**
4.27.1 Maintenance Table ... 176
4.27.2 Every 250 operating hours ... 176
5 Diesel engine ... **177**
5.1 Overview of diesel engine ... **178**
5.2 Kubota diesel engine ... **182**
5.3 Checking the compression ... **186**
5.4 Checking the engine oil pressure ... **187**
5.5 Checking the thermostat in disassembled state ... **188**
5.6 Check the injection valves ... **189**
5.7 Checking the start of delivery ... **192**
5.8 Checking the fuel injection pump ... **195**

PREVIEW - YOUFIXTHIS.COM

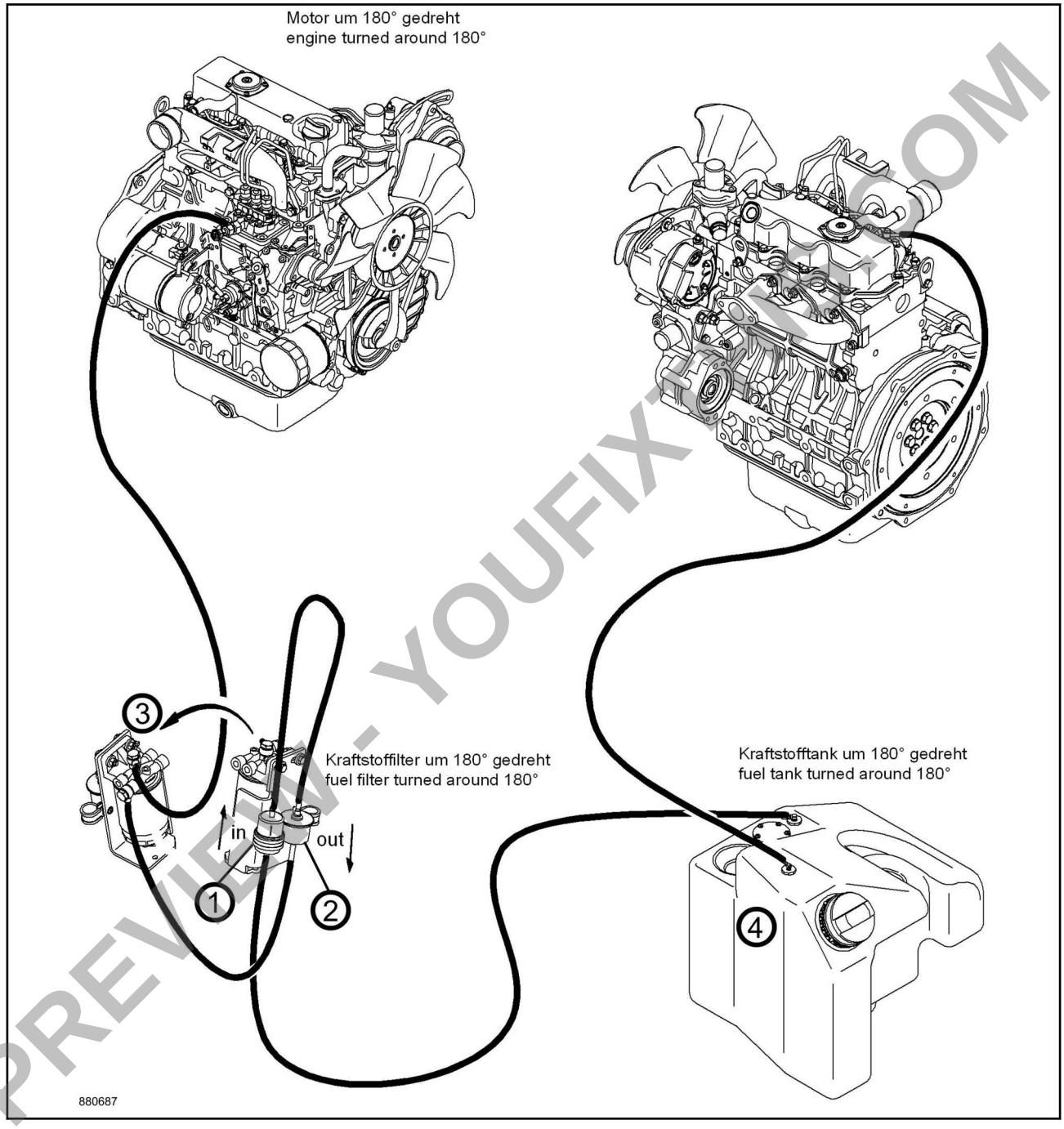
Download full manual at youfixthis.com

Thread	Spanner width	Tightening torque [Nm]
1 3/16″ - 12	36	125
1 5/16″ - 12	41	160
1 5/8″ - 12		220
1 7/8″ - 12		270

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

8 Diesel particulate filter (DPF) & diesel oxidation catalyst (DOC), only for machines with exhaust classification Tier4f



PREVIEW - YOUFIXTHIS.COM

Fig. 39

1 Electric fuel pump (M23)
2 Fuel pre-cleaner
3 Fuel filter
4 Tank

Download full manual at youfixthis.com

4.7.2 AC machine

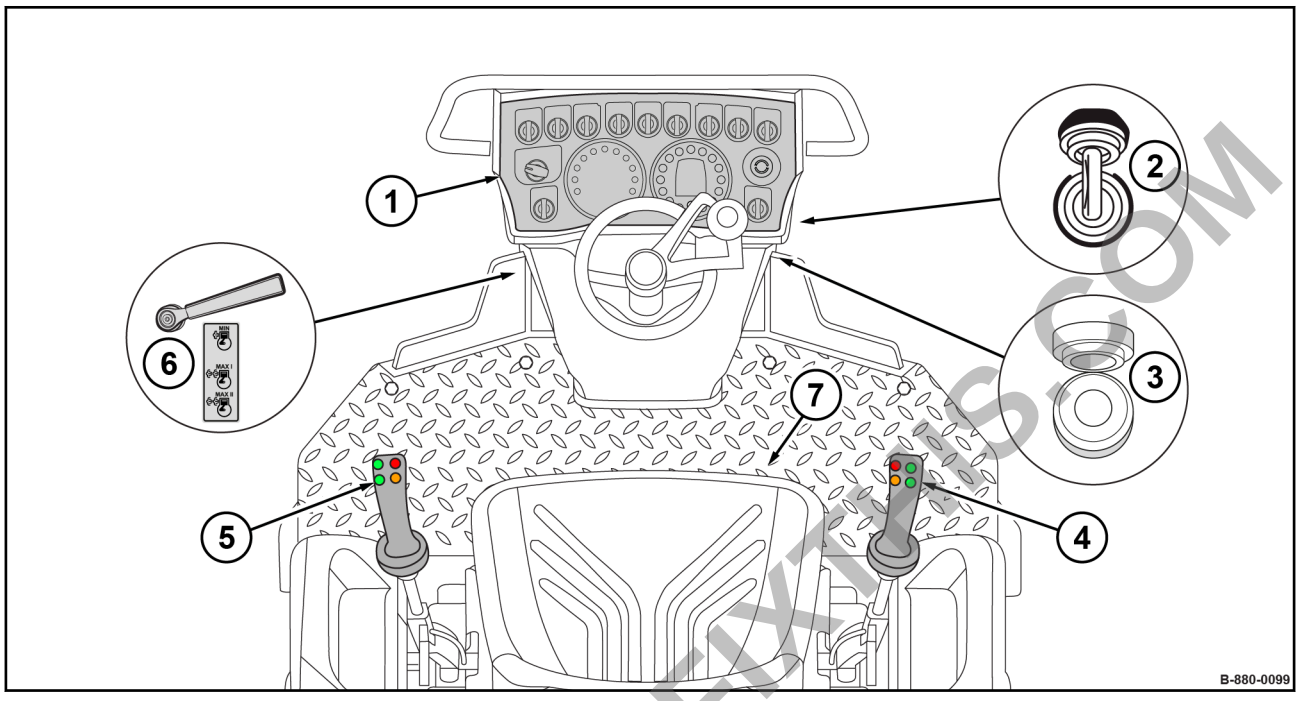


Fig. 74

1 Operating console
2 *[S00]* Starter switch
3 *[XS]* 12 V DIN-socket
4 Travel lever right with buttons for vibration *[S13]* , warning horn *[S03]* and edge cutter *[S82]*
5 Travel lever left with buttons for vibration *[S13]* and warning horn *[S03]* *(optional equipment)*
6 Throttle lever
7 *[S164]* Foot switch for emulsion spraying system

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Pressure oil lubrication

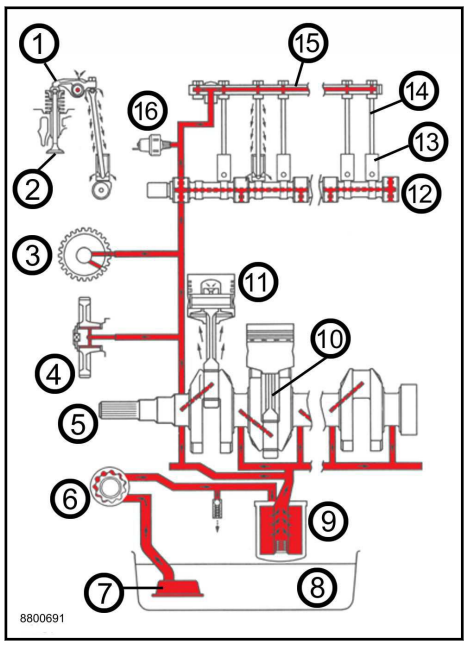


Fig. 155: Lubrication oil schematic

1 Rocker arm
2 Valves
3 Governor shaft
4 Intermediate gear
5 Crankshaft
6 Oil pump
7 Suction screen
8 Oil sump
9 Oil filter
10 Conrod
11 Piston
12 Camshaft
13 Plunger
14 Push rod
15 Rocker arm shaft
16 Oil pressure switch

The Kubota engines are equipped with pressurized circulation lubrication Oil pressure and oil flow quantity secure engine lubrication and, to a considerable extend, also the cooling of the engine.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

5 Brake spring
6 Drive flange
7 Tapered roller bearing

Brake principle

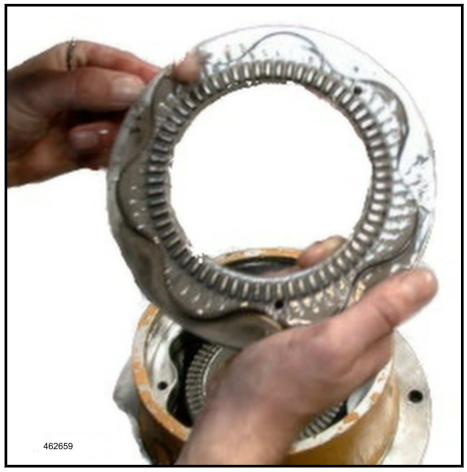


Fig. 222: Brake with gearing

NOTICE!
Brake releasing pressure

Under no circumstances must the brake releasing pressure exceed 30 bar.

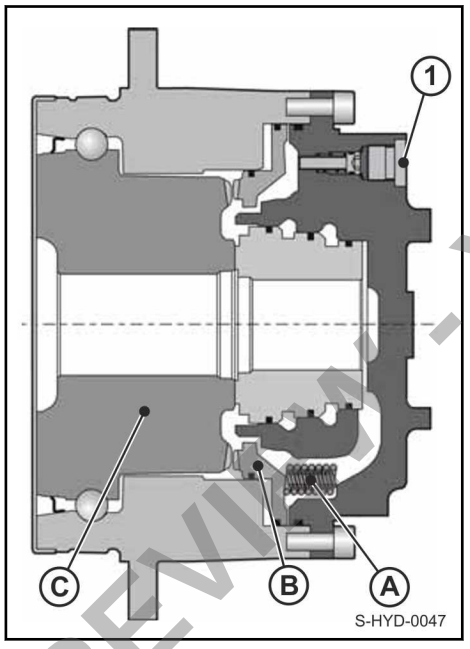


Fig. 223

The static brake consists of two parts with gears, whereby one part is mobile (B) ↳ Fig. 223 and one part is stationary (C). At standstill - without pressure - this spring (A) retained part engages in the teeth of the cylinder block and blocks it.

The brake is completely open when a releasing pressure of 17 bar is applied.

Releasing the brake

1. Remove two plugs (1) ↳ Fig. 223.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

6.12 Flushing and bleeding

6.12.1 Flushing - general

Flushing - general

NOTICE!

Changing a component

- Always flush the complete oil circuit after you have replaced a component.
- Solid particles in the circuit will very quickly cause damage to machine components.

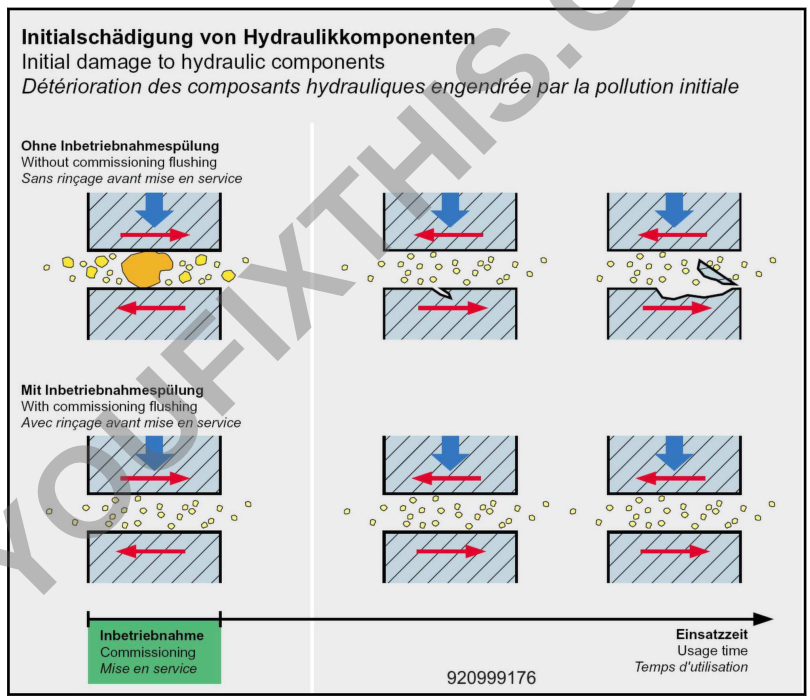


Fig. 283

Effect of contamination

- Coarse particles (> 15 µm)
  - Sudden failure of components.
- Fine particle contamination (5 – 15 µm)
  - Wear of components, internal leaks, inaccurate controlling behaviour, blockage of valves.
- Extra fine particle contamination (< 2 – 5 µm)
  - Silting of oil, accelerated aging of oil, corrosion.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Assembling the exciter shaft

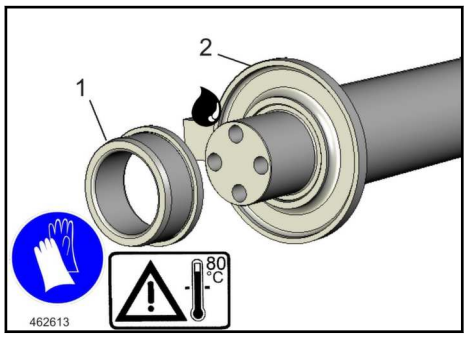


Fig. 381

1. Push on the sealing ring (2).

WARNING!
Danger of burning!
Wear protective gloves.

2. Heat the inner bearing races (1) up to approx. 80 °C and slide on both ends of the exciter shaft.

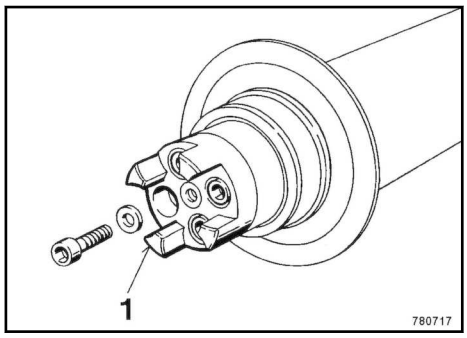


Fig. 382

3. Assemble the coupling hub (1).

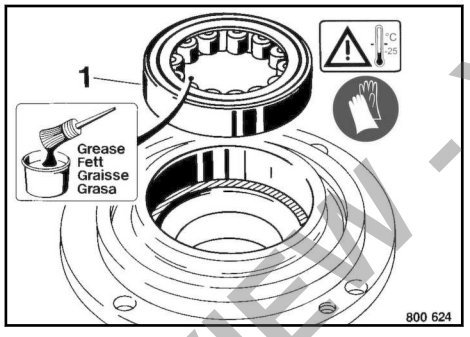


Fig. 383

4. Knock the new bearing (1) into the bearing housing until it bottoms.

5.

Fill approx. 30g of lithium saponified high pressure grease into the gap between the roller drums and another 30 g into the grease chamber of the bearing housing.

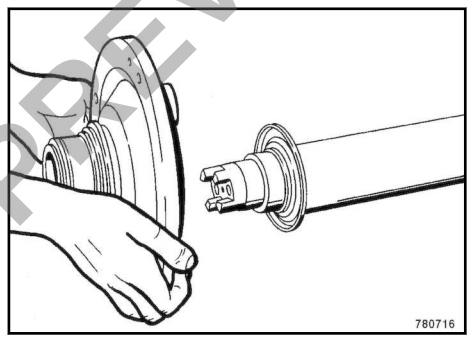


Fig. 384

6. Slide the bearing housing on the exciter shaft.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Cover sheet

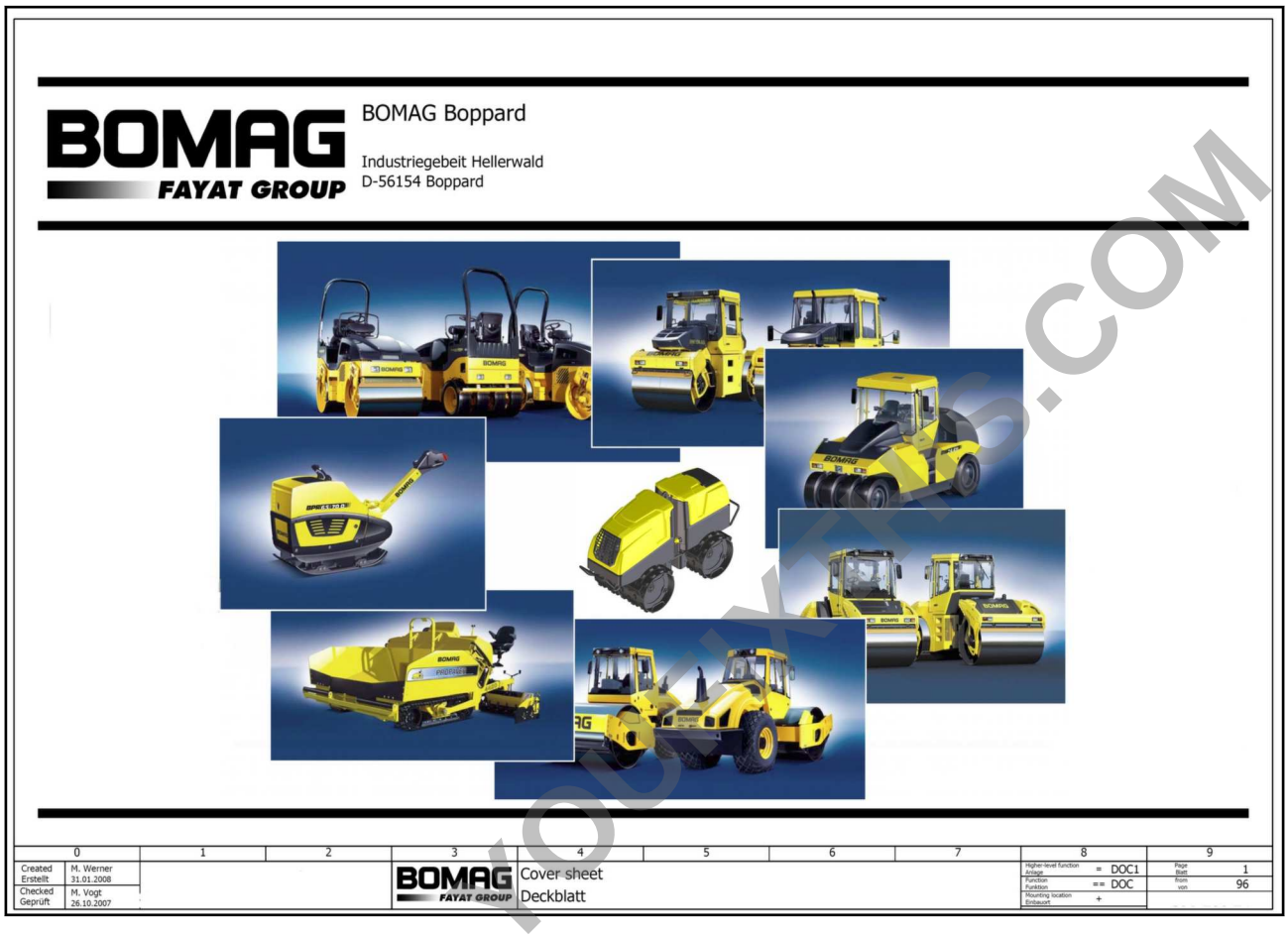


Fig. 467: Example: Cover sheet

The cover sheet contains general information.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

X64 128
X70 116
X71 117
X73 . . . . . 117, 118, 126
X75 126
X76 . . . . . 116, 127
X77 127
X79 127
X80 127
X87 116
XS 114, 137, 139

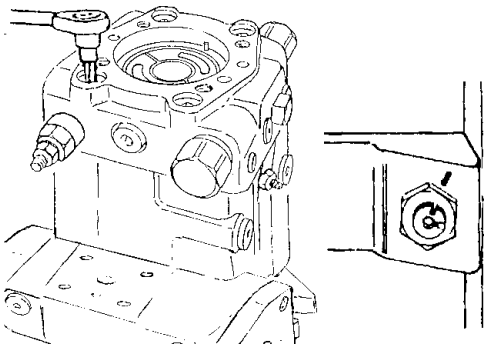
T

Table of operating means 108
Trouble shooting
Axial piston pumps 386
Diesel engine 393
Electric systems 351
Hydraulic system 383

PREVIEW - YOUFIXTHIS.COM

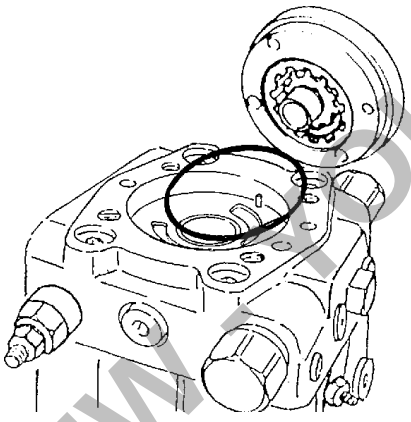
Download full manual at youfixthis.com

Pumpe montieren
Assembly of the pump



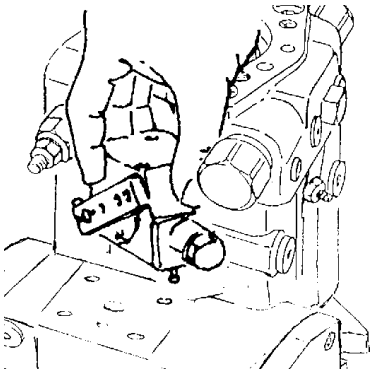
Schrauben über Kreuz anziehen.
Verdrillschraube auf Markierung drehen.

Tighten the screws aross corners.
Turn the eccentric screw until the marker is reached.



Hilfspumpe montieren.

Fit boost pump.



Ansteuergerät mit Dichtung montieren.

Fit control device with seal.

PREVIEW - YOUFIXTHIS.COM

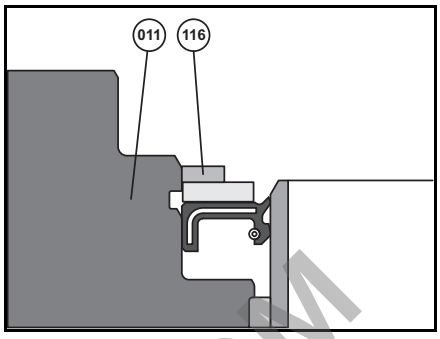
Download full manual at youfixthis.com

- Positionner l'anneau d'arrêt (116) dans le rotor (011) à l'aide d'une pince à anneau d'arrêt intérieur.

ATTENTION : l'anneau d'arrêt peut s'échapper et provoquer des blessures graves.

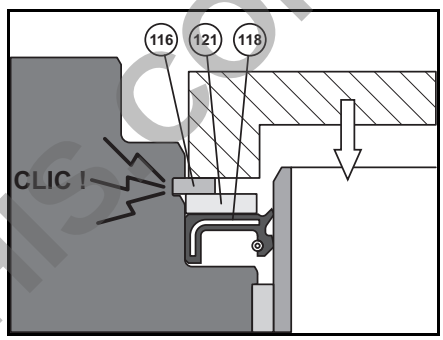
- *Install the snap ring (116) into the rotor (011) with inner snap ring pliers.*

BE CAREFULL: the snap ring may wrench itself free and cause serious wounds.



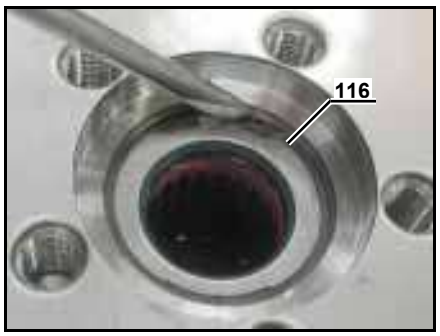
- Pousser l'ensemble anneau d'arrêt (116) + rondelle d'appui (121) + bague d'étanchéité (118) à l'aide du mandrin jusqu'à entendre le déclic d'engagement de l'anneau d'arrêt dans sa gorge sur le stator.

- *Push snap ring (116) + thrust washer (121) + sealing ring (118) assembly with the mandrel as to hear the snap ring engagement click into its groove on the stator.*



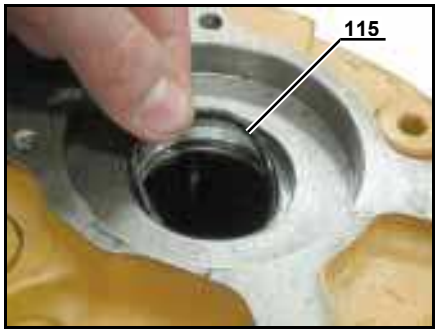
- Vérifier que l'anneau d'arrêt (116) soit engagé correctement dans la gorge à l'aide d'un chasse goupille. L'anneau d'arrêt doit tourner dans la gorge.

- *Check that the snap ring (116) is correctly engaged in the groove with a pin extractor. The snap ring must turn into the groove.*



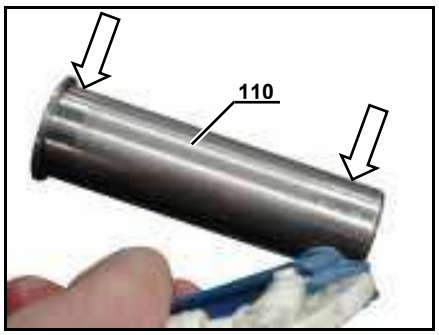
- Disposer le moteur en appui sur le rotor.
- Graisser puis monter le joint torique neuf (115).

- *Place the motor on the rotor.*
- *Lubricate and install the new O-ring (115).*



- Huiler légèrement les portées de la bague d'étanchéité (118), du coussinet (128) et du joint torique (115) sur le tube (110).

- *Lubricate lightly the sealing ring (118), the bushing (128) and the O-ring (115) mating surface on the tube (110).*



PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

Staff, workshop equipments and safety

- Standard tooling including wrenches, hex keys, pliers, retaining ring pliers, screwdrivers, nylon mallets, torque wrenches, Vernier or digital calipers and depth gauges…

Poclain Hydraulics recommends that measure equipments are checked and calibrated annually by a nationally accredited laboratory.

- Specific tooling to procure or manufacture from information and drawings contained in this document. These tools are intended solely for the repair of Poclain Hydraulics products: they are not suitable for repair of other products.
  Some toolings are identified with a part number without dimensioned drawing: these must compulsorily be bought to Poclain Hydraulics.

Using wood (mallet, blocks or worktable) is strictly prohibited.

Safety

It is mandatory to read carefully and understand the safety instructions indicated in this chapter before starting the repair work on products.

Poclain Hydraulics products are installed as components on mobile machines or industrial systems. The safety instructions indicated in this chapter relate only Poclain Hydraulics products. Please refer to safety instructions described in the documentation of manufacturers of mobile machines or industrial systems.

Personal protective equipments (PPE)

Technicians must mandatorily wear personal protective equipments during repair operations of Poclain Hydraulics products. These equipments must be conformed labor law in force in the country.



Protective clothes: against cuts and projections of hydraulic fluids, chemicals or metal particles.



Safety footwear: to prevent risks of foot crushing, cuts or perforation caused by falling parts.



Protective gloves: against cuts and physical contacts with hydraulic fluids and chemicals.



Eye protection: against physical contacts with chemicals (toxic fumes, spray can) and projections of hydraulic fluids, metal particles or dusts.



Hearing protection: against the noise from 85 decibels (compressed air tooling, test bench).



Respiratory protection: against inhalations of toxic fumes, spray can or dusts.

PREVIEW - YOUFIXTHIS.COM

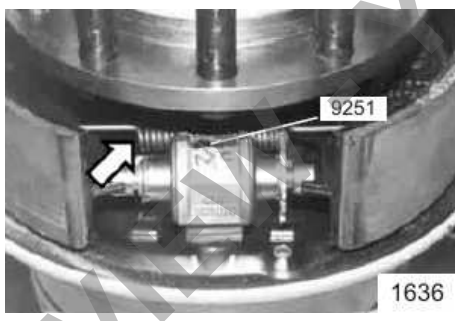
Download full manual at youfixthis.com

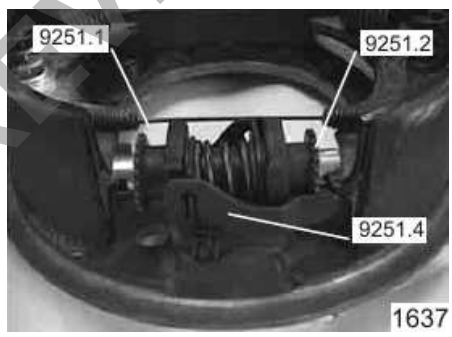


- Install the lower tension spring (9255.c).



- Measure the brake drum friction diameter D and a diameter over the shoes (9251), which have been installed.





- Adjust the shoes diameter to obtain correct gap between the brake padding and the drum (2705).

See the gap value,
Ref.: MS-RE-BR-VU-EN,
Table of values for brake repair.

Brake with mechanical adjustment:

- Use the adjusting wheel to set-up the gap.

Brake with automatic adjustment:

- Slightly release the lever (9251.4) to enable adjusting wheels operation.
- Use two adjusting wheels (9251.1 and 9251.2) for the automatic gap adjustment.

The two adjusting wheels should be adjusted symmetrically.

PREVIEW YOUFIXTHIS.COM

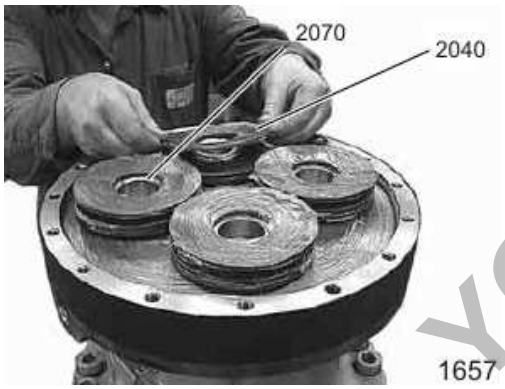
Download full manual at youfixthis.com

Spring washer installation

Type 3: Multi spring washers



- Coat with anti-oxidizing grease the top of the brake piston (2305).



- Install the guidance tubes (2070) and the spring washers (2040) on the brake piston (2305).

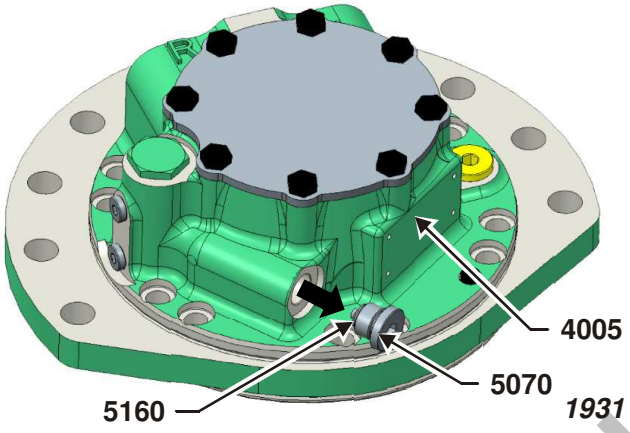
PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

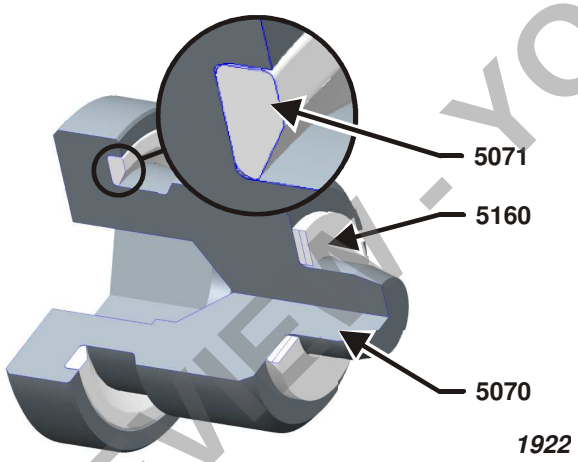
Integrated exchange spool with pressure relief valve removal and installation

- Perform the hydraulic test.

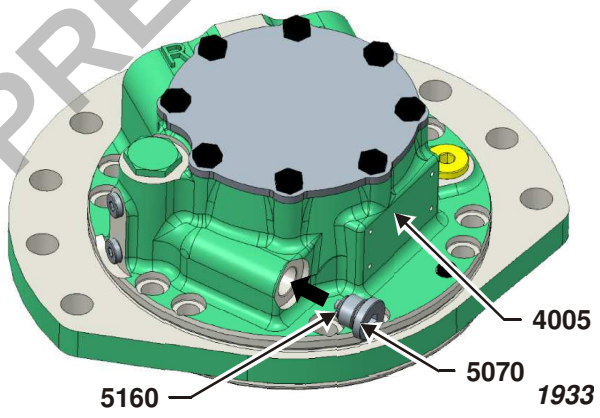
Ref.: MS-TE-EN-01,
Tests of repair product.



- Release and remove the plug (5070) together with washers (5160).



- Remove additional washers (5160) installed to increase the power of the spring (5025) and reinstall the plug (5070) with the good number of washers.



- Insert and tight the plug (5070) together with washers (5160) to the required torque.

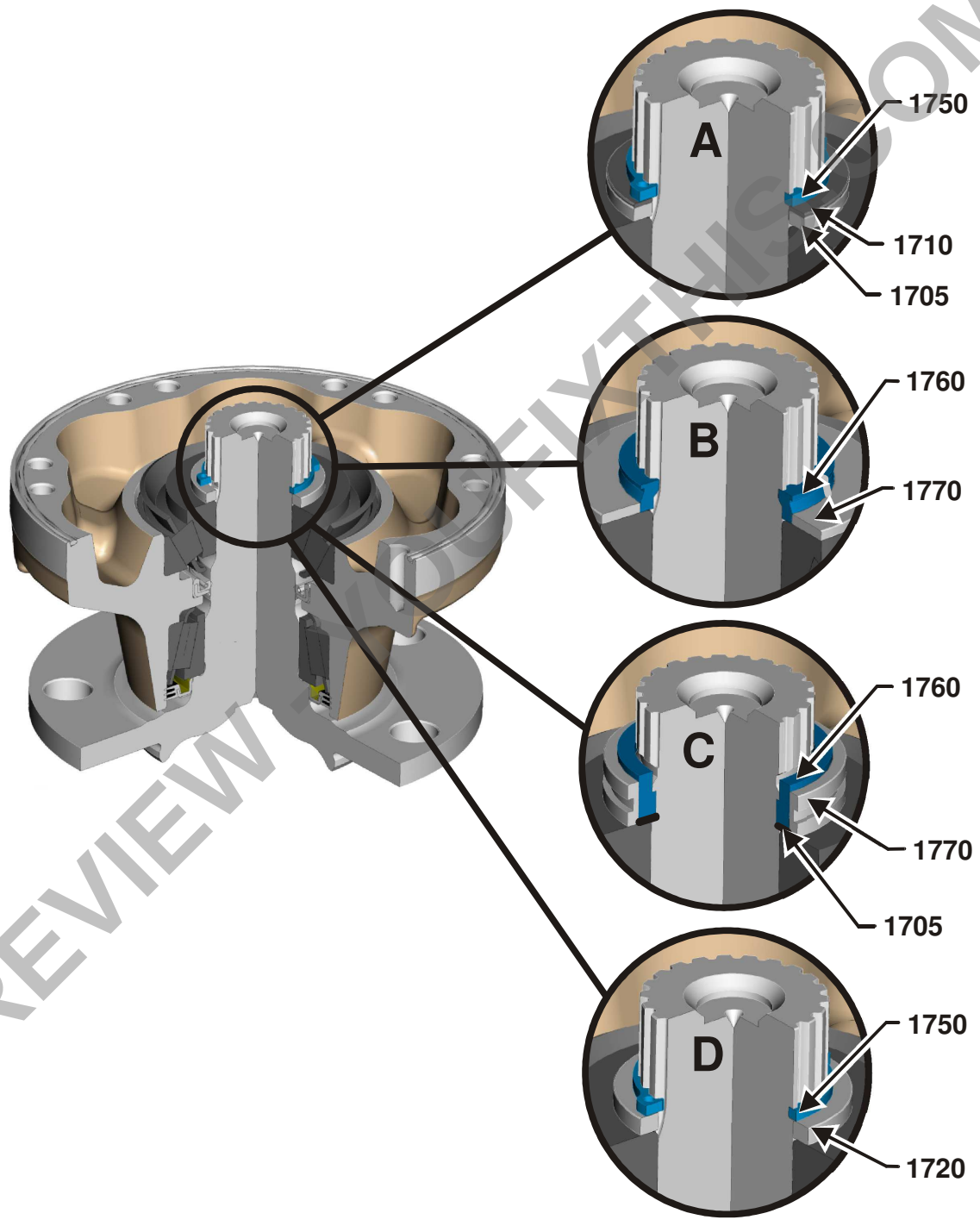
45 ±5 N.m
[32 ±3 lbf.ft]

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

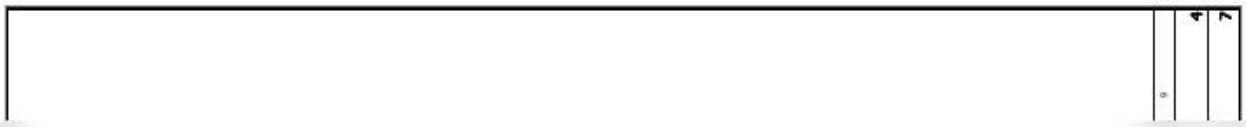
Bearing shimming kit removal and installation

Shimming kits overview



PREVIEW ONLY
YOUFIXTHIS.COM

Download full manual at youfixthis.com



Blurred on purpose. The manual you buy has this page in full quality.

PREVIEW - YOUFIXTHIS.COM

Download full manual at youfixthis.com

PREVIEW ONLY

You're viewing 25 of 822 pages

The full manual includes:

- All 822 pages, complete
- Searchable PDF (find any keyword)
- No watermarks
- Instant download
- Print-ready quality

GET FULL MANUAL NOW

Bomag BW 100 AD-5, BW 120 AD-5, BW 120 AC-5, BW 100 AC-5, BW 100 SL-5, BW 120 SL-5 Service Manual

Scan or click anywhere
youfixthis.com

Click anywhere on this page to get the full manual