SMPC30006224

Shop Manual

KOMATSU®

PC3000-6

HYDRAULIC MINING SHOVEL

SERIAL NUMBERS PC3000-6 6224

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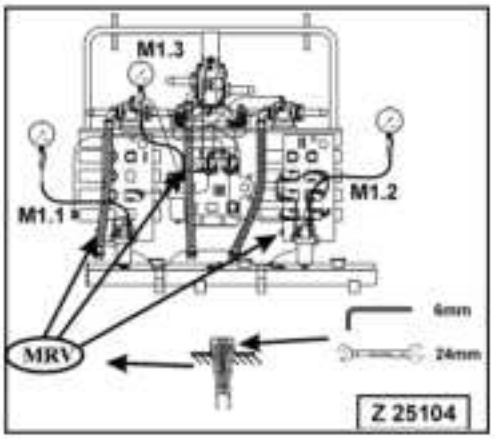
7. MAIN HYDRAULIC PUMPS AND PUMP REGULATION 199

7.1 General 200

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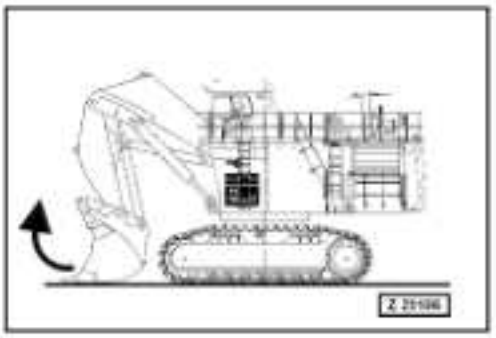
7.3.3 Cut off function

The cut off function shall reduce the pump output volume to Qmin if the pump pressure increase close to the maximum adjusted system pressure. The sense of this check is to make sure that the pump is in Q-min position at an operating pressure between 300 - 310 bar.



Test procedure of the cut off function

1. Connect reliable pressure gauges (0-400 bar) to check points M11.1, M11.2 and M11.3 at the high pressure filters.
2. Start engine and change to high idle.
3. Stall main pumps to maximum pressure. (e.g. move "bucket fill" (FSA) (Z 25106), "stick in" (BHA) to final stop)
4. Alter the operating pressure with the respective MRV between 280 and 310 bar
   The pump regulation must be in normal operation mode.
   Verify the gauge value with the Multi Monitor value
   (MPa x10 =bar), refer to "Multimonitor software instruction" auf Seite 225 (code: 01100 for P1/2, 01102 for P3/4 and 01104 for P5/6, write 99999 in the 4th yellow box and confirm)
5. Check the pump angel indicators, Z 25143.
   The indicator must indicate Qmin position (Z 25144) at a pressure of 300 bar.

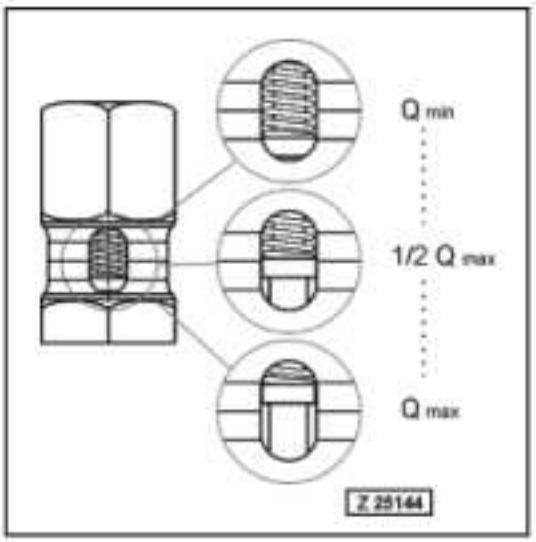


- **If there is a deviation of more as 10 bar refer to "Trouble shooting pump and pump regulation" auf Seite 241**
- **(Only Face shovel attachment) The pressure of the cut off function for clam close is reduced to 150bar.**
- **The engine RPM is a 2nd indicator of the cut off function. With increasing operating pressure from more as 160bar (all 3 pumps engaged) up to about 300bar the engine RPM drop and stay at 1800 RPM until the pressure reach the cut off level (~300 bar) the engine RPM increases to ~1890-1900 RPM.**



6. Stall all main pumps to maximum pressure. (e.g. move "bucket fill" (FSA) (Z 25106), "stick in" (BHA) to final stop) and adjust the MRVs back to 310-5 bar

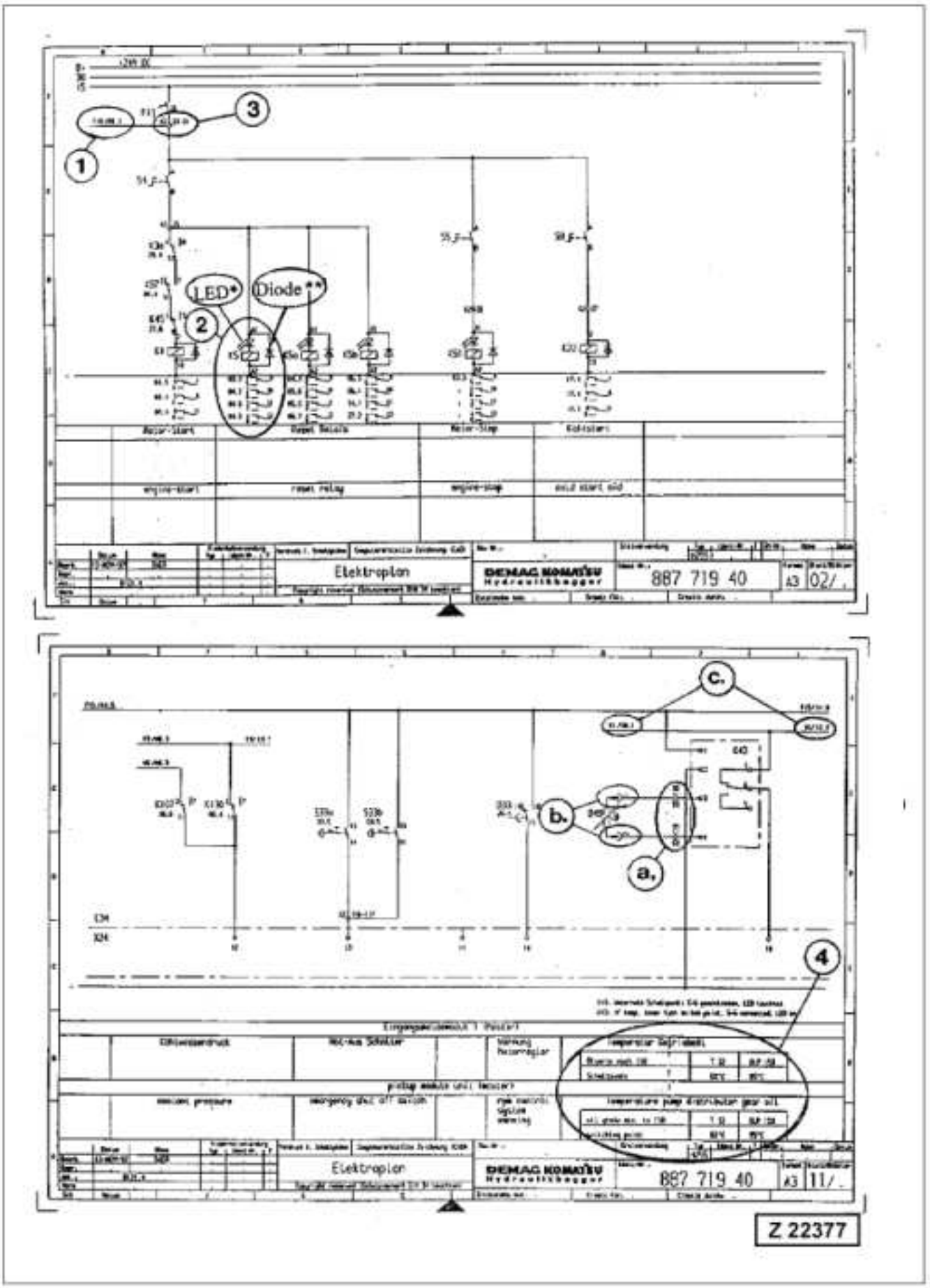
NOTICE
All main relieve valve (MRV) adjustments must be verified and fine tuned with the Multi Monitor values. The display value is in a small range inconstant that is normal, use the average value.



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Reading of the circuit diagram

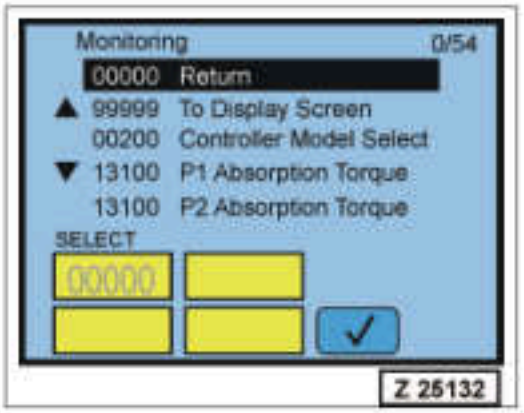


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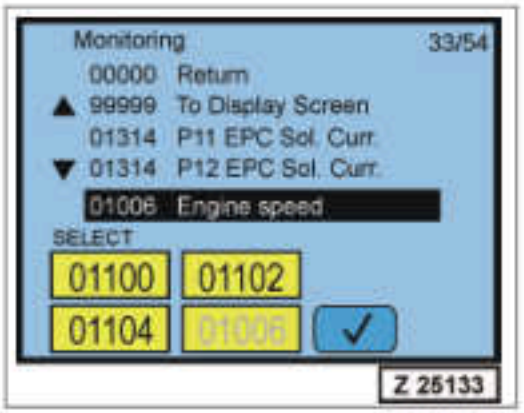
Monitoring (menu item 01)

All pump controller data can be displayed via the MM. Four items in the same time. A list of all possible monitoring items are shown in "Table of displayable values" auf Seite 236.

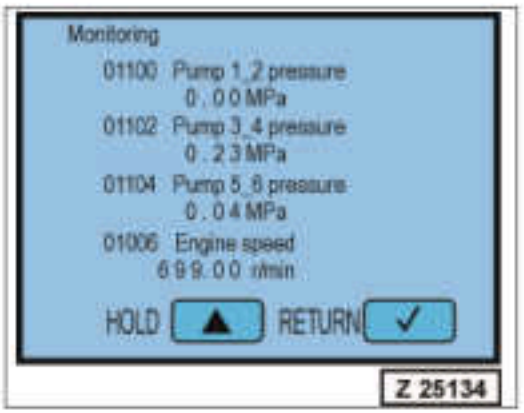
Select the first data item with the cursor key ▲ , ▼ or write the respective item code with the number keys. Confirm with the enter key ✓ and the cursor jump in the next box.



Select the next three items with the same procedure Z25133. With confirmation of the fourth box the screen change after a short delay to the display page Z 25134.



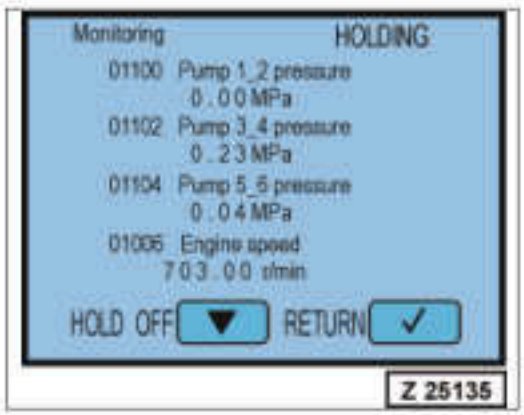
The selected items now shown with the item code and item designation. Below the designation is the respective currently real time value visible. It is possible to freeze in the actual values by activating the up key.



To go back to the real time monitoring press the down key ▼.
Z 25136

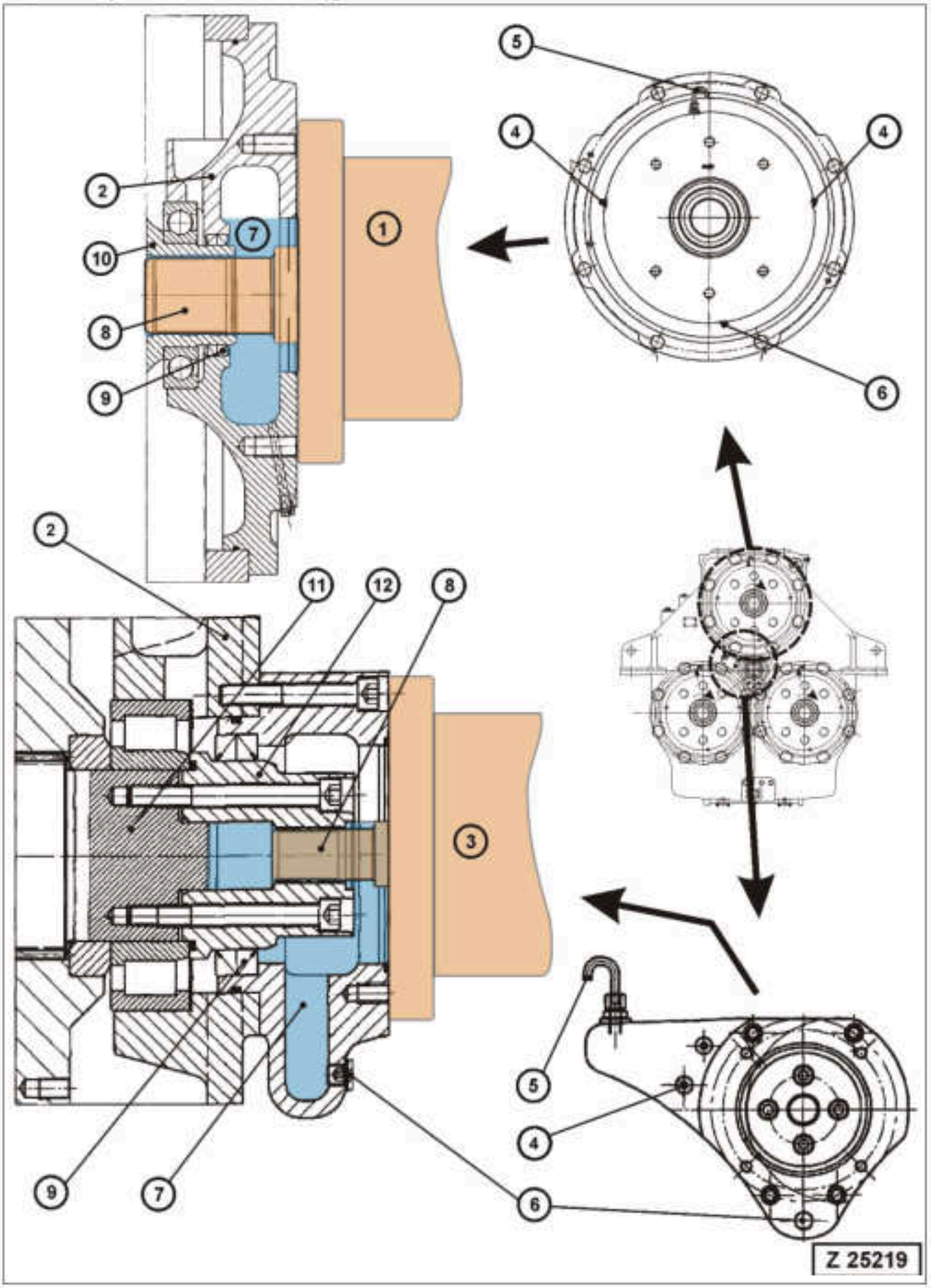
To go back to the main monitoring page press the enter key ✓.

The display shows now 00000 in the first selecting box, it is the code to go back to the main service screen Z 26129 after confirmation with the enter key ✓.



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2.5.1 Spline shaft housing



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