



HIRSCHMANN

PAT

LOAD MOMENT INDICATOR

MENTOR

central unit / console



CALIBRATION / SERVICE MANUAL

P/N 9333104117 REV A 04/05/06

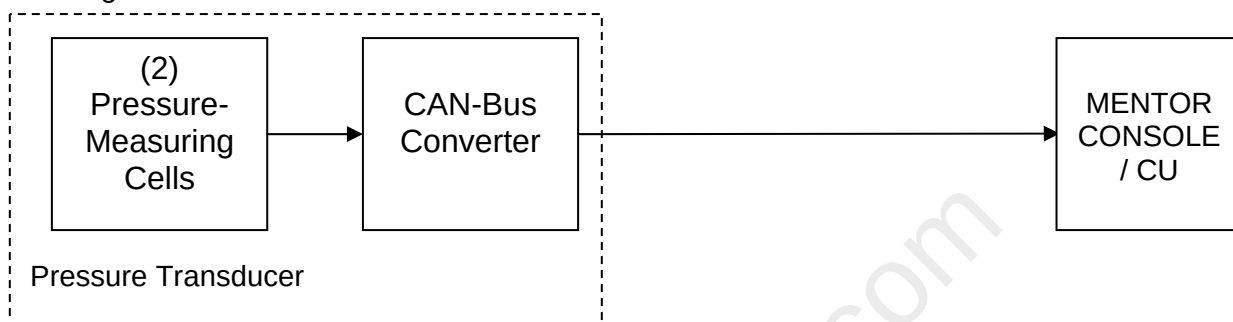
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7 PRESSURE SENSING

The System measures the pressure of the boom lift cylinder for both rod- and piston-side. Both sensors are contained within one box that also contains the electronics needed for amplification and creation of the CAN-Bus signal.

Block Diagram:



The signal runs from the pressure transducer as digital information on the CAN-Bus to the central unit.

So, what do you do when you are having a problem with your load read-out?

Start by checking the pressure display. Refer to the section "[Troubleshooting A Sensor Problem Using The Display](#)" to call up the sensor signal on your console display.

The easiest spot to check the signal at is when there is no pressure applied to the sensor at all. The only time this is for certain is when your pressure lines are drained and disconnected. In that case, the readout should show about 500mV (+/- 25mV) and 0 PSI. Small variations could be adjusted; see section [Service Screen For Sensor Calibration](#).

The CAN-Bus is digital and as such will either transmit the signal correctly or not at all. If your readings are off, chances are the pressure transducer is defective. Replace.

Note: After exchanging the pressure transducer block, BOTH transducer channels need to be zeroed, see procedure [Zero-Setting The Transducer Inputs](#).

12 SPARE PART LISTINGS

1. CONSOLE ASSY, (WIRED) W/ RAM MOUNT
PART NO. 9333107511



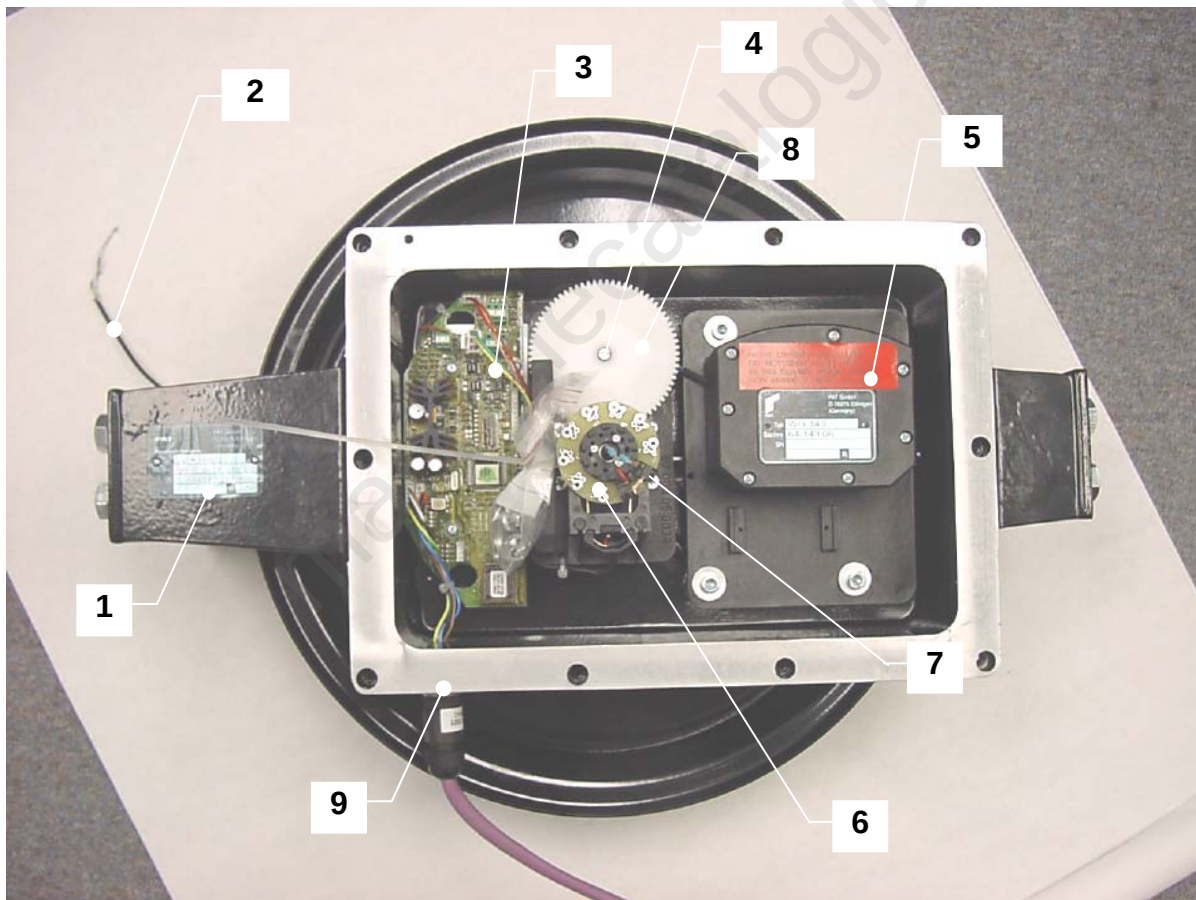
NO.	PART NO.	QTY	DESCRIPTION
1	9333104097	1	FRONTFACE, NATIONAL
2	9333104098	1	LCD, UNIT
3	NSS	1	HOUSING, PRE-ASSEMBLED
4	9333104099	1	MAIN BOARD, 10...30V
5	9333104100	1	BREATHER ELEMENT
6	147249	1	MOUNTING ARM
7	9333104077	1	CONNECTOR, CAN M12 5 PIN
8	9333104102	1	CONNECTOR, M23 19 POL.
9	9333104103	1	CONNECTOR, SUB-D 9 PIN

3. CABLE REEL, LWG508

PART NO. 9333103873

NO.	PART NO.	QTY	DESCRIPTION
1	NSS	1	CABLE REEL ACCY, LWG508 DRUM BODY W/LENGTH CABLE
2	9333102986	139'	LENGTH SENSOR CABLE
3	9333103896	1	BOARD, LENGTH AND ANGLE OUTPUT
4	9333103897	1	LENGTH POTENTIOMETER LWG508
5	9333103898	1	ANGLE SENSOR, WG143/09
6	9333103904	1	SLIP RING ASSEMBLY 2 CONDUCTOR
7*	9333103904	1	25T GEAR WHEEL
8	9333101625	1	75T GEAR WHEEL
9*	9333103906	1	CONNECTOR, 5 POLE W/WIRES
10*	9333103907	1	LID, BLACK
11*	9333101565	1	CABLE REEL ACCY, GASKET FOR COVER
12*	9333101566	10	CABLE REEL ACCY, SCREW/CAPTIVE

* ITEM NOT SHOWN



Also see detail on next page.

Error Code	Error	Possible Cause	Elimination
E22	Upper limit value in measuring channel "pressure piston side" has been exceeded	refer to E12	refer to E12
E23	Upper limit value in measuring channel "pressure rod side" has been exceeded.	refer to E12	refer to E12
E24	Upper limit value in measuring channel "force" has been exceeded.	refer to E14	refer to E14
E25	Upper limit value in measuring channel "main boom angle" has been exceeded.	refer to E15	refer to E15
E26	Upper limit value in measuring channel "angle 2" has been exceeded.	refer to E16	refer to E16
E27	Upper limit value in measuring channel "length telescope I (+II) has been exceeded.	refer to E17	refer to E17
E2A	Upper limit value in measuring channel "slewing angle 1" has been exceeded	refer to E1A	refer to E1A
E2B	Upper limit value in measuring channel "slewing angle 2" has been exceeded	refer to E1A	refer to E1A
E31	Error in the system program	- The system program file is defective. - Flash-EPROM defective	- Upload valid system software - Replace central unit
E37	Error in the logical program flow	- System program file is defective - Flash-EPROM defective	- Upload valid system software - Replace console
E38	System program and crane data file do not match.	The system program in the LMI does not match to the programming in the crane data file	Upload valid system program file or the valid crane data file
E39	System program and load chart file do not match	The system program in the LMI and the programming in the load chart file do not match.	Upload valid system program file or the valid load chart file

Full Version Available

PAT mentor Load Moment Indicator Service Manual

PAT mentor load moment indicator service manual with sensor calibration, error codes and troubleshooting. Complete 2-file PDF set. Instant PDF download.

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Book No: 9333104117 · File Pages: 91 · File Count: 2 · File Language: English