

# DIAGNOSTIC THROUGH MESSAGES RR19-500



Rev. 01	20/02/2023	First Draft
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ERROR #	MEANING and ACTION
5	Too much difference between axle pressure sensors (On Rail). Close the aerial parts. Check the cable, connectors and valves. Change sensors.
6	Telescopic section not stowed. MAX driving slope exceeded. Retract telescopic section.
7	Telescopic section not stowed, MAX driving slope exceeded, retract telescopic section.
8 or 9	Boom angle sensor disconnected or cable broken. Check the cable and connectors. Unscrew and clean the connector. Change the sensor.
10 or 11	Column planarity sensor disconnected or cable broken. Check the cable and connectors. Unscrew and clean the connector. Change the sensor.
12	Slew ring angle sensor disconnected or cable broken. Check the cable and connectors. Unscrew and clean the connector. Change the sensor.
14	Load cell 1 is disconnected or cable is broken. Check cable and connectors. Unscrew and clean the connector. Change the sensor.
15	Load cell 2 is disconnected or cable is broken. Check cable and connectors. Unscrew and clean the connector. Change the sensor.
16	Too much difference between load cell sensor 1 and sensor 2. Make the "zero settings procedure" (see the appropriate instructions). Change the sensor.
17	Too much difference between slew ring sensor 1 and sensor 2. Make the "zero settings procedure" (see the appropriate instructions). Change the sensor.
18	Slew ring sensor is dismantled. Move the joystick faster. Check the sensor mounting. Check the sensor. Change the sensor.
19	Too much difference between boom angle sensor 1 and sensor 2. Make the "zero settings procedure" (see the appropriate instructions). Change the sensor.
20	Too much difference between turret angle sensor 1 and sensor 2. Make the "zero settings procedure" (see the appropriate instructions). Change the sensor.
21	Pressure sensor 1A is disconnected or wire broken. The cable and connectors should be checked, the connector should be unscrewed and cleaned, and the sensor may need to be changed.
22	Pressure sensor 1A is disconnected or wire broken. The cable and connectors should be checked, the connector should be unscrewed and cleaned, and the sensor may need to be changed.

23	Valve 1 with oscillating shaft has a wire that is disconnected or broken. The cable and connectors should be checked, the connector should be unscrewed and cleaned, and the sensor may need to be changed.
24	Valve 1 with oscillating shaft has a wire that is disconnected or broken. The cable and connectors should be checked, the connector should be unscrewed and cleaned, and the sensor may need to be changed.
27	Measuring pantograph (3064PB) is in the wrong position for RAIL mode.
28	Measuring pantograph (3064PB) is in the wrong position for ROAD mode.
29	CAN-SENS line is disconnected or the cable is broken. The user is advised to check the cable and connectors, unscrew and clean the connector, and check the termination resistance inside the panel.
31	Machine configuration is incorrect, the error message indicates that the machine is not initialized and the configuration is missing.  Contact the authorized dealer or service center for programming.
33	General panel I/O module is not connected or is broken. The user is advised to check the CAN-BUS network and replace the module.
34	Jib toggle switch on the basket panel is stuck. The user is advised not to move the switch during the boot up of the system and to change the switch.
35	Basket rotation toggle switch on basket panel stuck. Do not move the switch during system boot up. Change the switch.
36	Steering buttons on the basket panel joystick stuck. Do not press buttons during system boot up. Change the joystick.
37	Basket levelling toggle switch on basket panel stuck. Do not move the switch during system boot up. Change the switch.
38	Axel toggle switch on basket panel stuck. Do not move the switch during system boot up. Change the switch.
39	Pedal foot-switch on basket stuck. Do not press the switch during the boot up of the system. Change the pedal.
40	Upper Boom joystick on basket panel stuck. Do not move the joystick during the boot up of the system. Change the joystick.
41	Column joystick on basket panel stuck. Do not move the joystick during the boot up of the system. Change the joystick.
42	Boom extension joystick on basket panel stuck. Do not move the joystick during the boot up of the system. Change the joystick.

44	Driving joystick on basket panel stuck. Do not move the joystick during the boot up of the system. Change the joystick.
45	Column rotation toggle switch on ground panel stuck. Do not move the switch during system boot up. Change the switch.
46	Boom toggle switch on ground panel stuck. Do not move the switch during system boot up. Change the switch.
48	Boom extension toggle switch on ground panel stuck. Do not move the switch during system boot up. Change the switch.
49	Jib toggle switch on ground panel stuck. Do not move the switch during system boot up. Change the switch.
50	Basket rotation toggle switch on ground panel stuck. Do not move the switch during system boot up. Change the switch.
51	Basket levelling toggle switch on ground panel stuck. Do not move the switch during system boot up. Change the switch.
52	Steering toggle switch on ground panel stuck. Do not move the switch during system boot up. Change the switch.
53	Axle toggle switch on ground panel stuck. Do not move the switch during system boot up. Change the switch.
54	Turret levelling toggle switch on ground panel stuck. Do not move the switch during system boot up. Change the switch.
55	Man-present button on ground panel stuck. Do not move the switch during system boot up. Change the switch.
56	Boom joystick is disconnected or shorted. Check the joystick, wires, and connectors. Change the joystick.
57	Boom joystick is faulty. Check the joystick, wires, and connectors. Change the joystick.
58	Column joystick is disconnected or shorted. Check the joystick, wires, and connectors. Change the joystick.
59	Column joystick is faulty. Check the joystick, wires, and connectors. Change the joystick.
60	Boom extension joystick is disconnected or shorted. Check the joystick, wires, and connectors. Change the joystick.
63	Boom extension joystick is faulty. Check the joystick, wires, and connectors. Change the joystick.

64	Driving joystick is disconnected or shorted. Check the joystick, wires, and connectors. Change the joystick.
65	Driving joystick is faulty. Check the joystick, wires, and connectors. Change the joystick.
66	Driving joystick is disconnected or shorted. Check the joystick, wires, and connectors. Change the joystick.
68	Driving joystick CAN-BUS error. Check the joystick, wires, and connectors. Change the joystick.
69	Extension sensor for the 3064PB measuring pantograph is disconnected. Check the sensor, wires, and connectors. Change the sensor.
70	Angle sensor for the 3064PB measuring pantograph is disconnected. Check the sensor, wires, and connectors. Change the sensor.
73	I/O module for the 3064PB measuring pantograph is disconnected. Check the module, wires, and connectors. Change the module.
80	Battery Balancing System (BBS) is disconnected or the cable is broken. Check the cable and connectors. Change the BBS.
81	Inverter #1 is disconnected. Check the scroll menu (inverter's page), check cables and connectors, and change the inverter.
82	Inverter #2 is disconnected. Check the scroll menu (inverter's page), check cables and connectors, and change the inverter.
83	Engine CAN BUS line is disconnected or the cable is broken. Check cables and connectors and change the ECU.
84	WARNING for low voltage in the engine battery with the engine OFF. Check batteries voltage and alternator fuse.
85	WARNING for low voltage in the engine battery with the engine ON. Check batteries voltage and alternator fuse.
87	Basket level sensor disconnected or cable broken. Check the cable and connectors. Unscrew and clean the connector. Change the sensor.
88	Too much difference between basket level sensor 1 and sensor 2. Make the "zero settings procedure" (see the appropriate instructions). Change the sensor.
89	France version ONLY I/O module for the RFN is disconnected. Check the module, wires, and connectors. Change the module.



91	France version ONLY The aerial parts stopped due to the 3064PB measuring pantograph being dismantled.
92	France version ONLY Rail driving disabled. Basket not levelled. Warning of railway collision. Level the basket.
93	France version ONLY Driving disabled with RFN activated. One or more conditions are missing.
94	France version ONLY Driving disabled with RFN deactivated. One or more conditions are still present.
95	France version ONLY Machine on RAIL disabled. 3064PB measuring pantograph not correctly positioned.
99	VY151 valve wire broken (brake release valve)
100	VY90 valve wire broken (exchange valve)
101	VY110 valve wire broken (chassis dump valve)
102	VY125/YV125A valve wire broken (aerial movement dump valve)
103	KA216 rail/road exchange relay wire cut
104	VY140 valve wire broken (2 <sup>nd</sup> speed valve)
105	VY150 valve wire broken (differential valve)
106	VY141 valve wire broken (Axle 1 locking valve)
107	VY142 valve wire broken (Axle 1 locking valve)
108	VY143 valve wire broken (Axle 1 locking valve)
109	VY144 valve wire broken (Axle 1 locking valve)
111	PBT (Platform Basket Telematics) disconnected. Check the module, wires, and connectors. Change the module. (the machine display shows an icon/label, while the PBT website displays an "error" message.)
112	KA41 ZAPI enable relay wire cut
113	VY138 valve wire broken (Levelling forward valve)

114	VY139 valve wire broken (Levelling backward valve)
115	VY131 valve wire broken (Boom lowering valve)
116	VY130 valve wire broken (Boom raising valve)
117	VY135 valve wire broken (Jib closing valve)
118	VY134 valve wire broken (Jib opening valve)
120	VY136 valve wire broken (Basket rotation right valve)
121	VY137 valve wire broken (Basket rotation left valve)
122	VY127 valve wire broken (Column rotation right valve)
123	VY126 valve wire broken (Column rotation left valve)
124	VY133 valve wire broken (Boom extension in valve)
125	VY132 valve wire broken (Boom extension out valve)
126	VY112 valve wire broken (Turret levelling upward valve)
127	VY111 valve wire broken (Turret levelling downward valve)
128	VY123 valve wire broken (pantograph 3064PB extension out valve)
129	VY124 valve wire broken (pantograph 3064PB extension in valve)
130	VY115 valve wire broken (axle 1 raising valve)
131	VY116 valve wire broken (axle 1 lowering valve)
132	VY113 valve wire broken (axle 2 raising valve)
133	VY114 valve wire broken (axle 2 lowering valve)
134	VY117 valve wire broken (steering left valve)
135	VY118 valve wire broken (steering right valve)
136	VY119 valve wire broken (230VAC generator valve)
137	VY153 valve wire broken (main engine driving forward valve)
138	VY154 valve wire broken (main engine driving backward valve)
139	VY122 valve wire broken (lithium/emergency engine driving backward valve)

140	VY123 valve wire broken (lithium/emergency driving forward valve)
141	Working light (axle 1) wire broken
142	Working light (axle 2) wire broken
143	Red lights (axle 1) wire broken
144	Red lights (axle 2) wire broken
145	VY146 valve wire broken (steering unlock valve)
146	VY147 valve wire broken ("crab" steering valve)
147	VY148 valve wire broken ("narrow" steering valve)
148	Hatz 4H50 - K15 signal wire broken
149	Hatz 4H50 - Cranking signal wire broken
150	VY151 valve wire short (brake release valve)
151	VY90 valve wire short (exchange valve)
152	VY110 valve wire short (chassis dump valve)
153	VY125/YV125A valve wire short (aerial movement dump valve)
154	KA216 rail/road exchange relay wire short
155	VY140 valve wire short (2 <sup>nd</sup> speed valve)
156	VY150 valve wire short (differential valve)
157	VY141 valve wire short (Axle 1 locking valve)
158	VY142 valve wire short (Axle 1 locking valve)
159	VY143 valve wire short (Axle 1 locking valve)
160	VY144 valve wire short (Axle 1 locking valve)
161	KA41 ZAPI enable relay wire short
162	VY138 valve wire short (Levelling forward valve)
163	VY139 valve wire short (Levelling backward valve)
164	VY131 valve wire short (Boom lowering valve)



165	VY130 valve wire short (Boom raising valve)
166	VY135 valve wire short (Jib closing valve)
167	VY134 valve wire short (Jib opening valve)
170	VY136 valve wire short (Basket rotation right valve)
171	VY137 valve wire short (Basket rotation left valve)
172	VY127 valve wire short (Column rotation right valve)
173	VY126 valve wire short (Column rotation left valve)
174	VY133 valve wire short (Boom extension in valve)
175	VY132 valve wire short (Boom extension out valve)
176	VY112 valve wire short (Turret levelling upward valve)
177	VY111 valve wire short (Turret levelling downward valve)
178	VY123 valve wire short (pantograph 3064PB extension out valve)
179	VY124 valve wire short (pantograph 3064PB extension in valve)
180	VY115 valve wire short (axle 1 raising valve)
181	VY116 valve wire short (axle 1 lowering valve)
182	VY113 valve wire short (axle 2 raising valve)
183	VY114 valve wire short (axle 2 lowering valve)
184	VY117 valve wire short (steering left valve)
185	VY118 valve wire short (steering right valve)
186	VY119 valve wire short (230VAC generator valve)
187	VY153 valve wire short (main engine driving forward valve)
188	VY154 valve wire short (main engine driving backward valve)
189	VY122 valve wire short (lithium/emergency engine driving backward valve)
190	VY123 valve wire short (lithium/emergency driving forward valve)
191	Working light (axle 1) wire short

192	Working light (axle 2) wire short
193	Red lights (axle 1) wire short
194	Red lights (axle 2) wire short
195	VY146 valve wire short (steering unlock valve)
196	VY147 valve wire short ("crab" steering valve)
197	VY148 valve wire short ("narrow" steering valve)
198	Hatz 4H50 - K15 signal wire short
199	Hatz 4H50 - Cranking signal wire short
200	Driving configuration not allowed in rail mode. Please center the turret.
201	Oil filter I/O module disconnected or cable broken. Check cables and connectors. Change the module.
205	Extension boom steel measuring cable broken. Check the sensor and the steel cable. Change the sensor.
206	Too much difference between telescopic boom angle sensor 1 and sensor 2. Make the "zero settings procedure" (see the appropriate instructions). Change the sensor.
207	Telescopic boom extension sensor disconnected or cable broken. Check the cable and connectors, unscrew and clean the connector, or change the sensor.
208	Variable displacement pump out of neutral position. Check the pump, do the pump calibration procedure, or change the pump.
209	Chassis planarity sensor disconnected or cable broken. Check the cable and connectors, unscrew and clean the connector, or change the sensor.
210	Too much difference between chassis angle sensor 1 and sensor 2. Make the "zero settings procedure" (see the appropriate instructions). Change the sensor.
211	OLE mode activated (the machine display shows an icon/label, while the PBT website displays an "error" message.)
212	Overload bypass used (the machine display shows an icon/label, while the PBT website displays an "error" message.)
213	Overload 600kg stored (the machine display shows an icon/label, while the PBT website displays an "error" message.)
214	Overload 500kg stored (the machine display shows an icon/label, while the PBT website displays an "error" message.)