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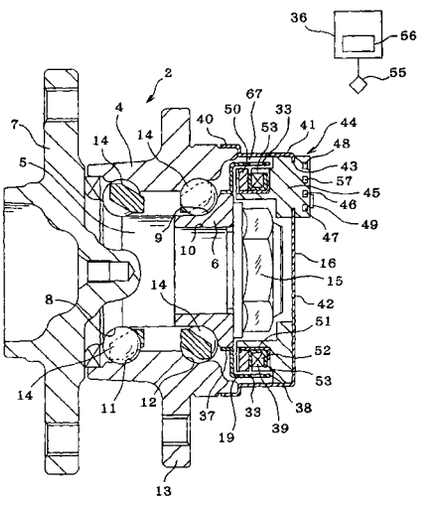
## (54) Rotation-speed sensor device

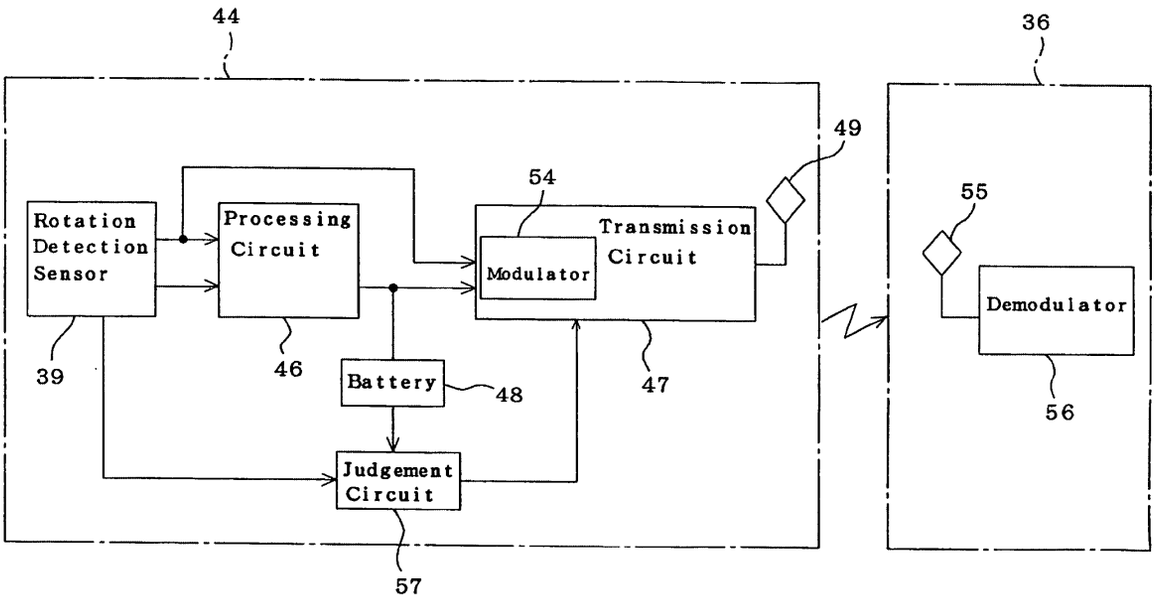
(57) A rotation-speed sensor device is provided to comprise an encoder supported by a rotating race of a rolling bearing unit for vehicle wheel support to be concentric with the rotating race and having a detected portion the characteristics of which are alternately changed in a circumferential direction, a rotation detection sensor supported by a non-rotating member on the vehicle chassis side and having a detecting portion facing the detected portion to produce a detection signal, a wireless transmission device for sending the detection signal from the rotation detection sensor to a controller provided on the vehicle chassis side, and a self-diagnosis circuit to judge whether there is an error or not in the rotation detection sensor.

Fig. 1




EP 1 329 727 A8

Fig. 2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Rotation Detection Sensor
Processing Circuit
Modulator
Transmission Circuit
Demodulator
39
46
Battery
48
47
56
Judgement Circuit
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