Claims

1. A method for wear detection during operation of a conveying system (1), which is formed of at least one running gear (13) circulating in a closed path, wherein the running gear (13) contains transport rollers (12), which are moved on rails (18), and wherein a pick-up (20), which has a predefined distance (d) from the rail surface (17), is fastened to the running gear (13);
characterized by the method steps

a) in the event of wear on the transport roller (12) and/or on the rail (18) which occurs due to operation, the pick-up (20) touches the rail surface (17) and is made to oscillate as a result;
b) an oscillation sensor (21) coupled to the pick-up (20) registers the oscillations;
c) the registered oscillations are transmitted (24, 26) wirelessly to a background system (27) by the oscillation sensor (21), together with a time stamp and an identity of the oscillation sensor (21);
d) in the background system (27), the data transmitted in method step c) is subjected to an analysis and, in the event of deviations, is detected as wear (V) and signaled by a message.

2. The method as claimed in claim 1,
in which the path is formed by two rails (18) and at least one fixed oscillation sensor (22) is fastened to each rail (18),
characterized by the method steps

e) registering the oscillations generated by a transport roller (13) which is rolling past and has wear by way of the fixed oscillation sensor (22);
f) transmitting (25, 26) the oscillations registered in method

step e) to the background system (27), together with a time stamp and an identity of the fixed oscillation sensor (22);

g) performing method step d) from claim 1 for the data transmitted in method step f).

3. The method as claimed in claim 1 or 2,
characterized in that
the transmission of the data from the sensors (21, 22) to the background system (27) takes place via a gateway (23), wherein the gateway (23) is installed at a fixed location in the path and, each time a running gear (13) having a sensor (21) passes over it, a zero time is set.

4. The method as claimed in one of claims 1 to 3,
characterized in that
the deviations are detected by a statistical comparison with preceding registrations or by a comparison with a fixed magnitude.

5. The method as claimed in one of claims 1 to 4,
characterized in that
in addition to the registered oscillations, state data of each sensor (21, 22) is transmitted.

6. The method as claimed in claim 5,
characterized in that
the state data of each sensor (21, 22) contains a remaining battery capacity and its temperature.

7. The method as claimed in claim 6,
characterized in that
when a specified battery capacity is fallen below or a particular temperature is exceeded, a message is likewise

issued according to method step d).

8. A conveying system (1), which is formed of at least one running gear (13) circulating on rails (18) in a closed path (2), wherein the running gear (13) contains transport rollers (12), a pick-up (20), which has a predefined distance (d) from the rail surface (17), is fastened to the running gear (13), wherein

a) in the event of wear on the transport roller (12) and/or on the rail (18) which occurs during operation of the conveying system (1), the pick-up (20) touches the rail surface (17) and is made to oscillate as a result;
b) an oscillation sensor (21), which registers the oscillations, is coupled to the pick-up (20);
c) the registered oscillations are transmitted (24, 26) wirelessly to a background system (27) by the oscillation sensor (21), together with a time stamp and an identity of the oscillation sensor (21);
d) in the background system (27), the wirelessly transmitted oscillations and the time stamp are subjected to an analysis and deviations are detected as wear (V) and signaled by a message.

9. The conveying system (1) as claimed in claim 8, in which the path is formed by two rails (18) and at least one fixed oscillation sensor (22) is fastened to each rail (18), which registers oscillations generated by a transport roller (13) which is rolling past and has wear and transmits (25, 26) said oscillations to a background system (27);
wherein

e) the oscillations generated by a transport roller (13) which is rolling past and has wear are registered by way of the fixed oscillation sensor (22);

f) the oscillations registered by the fixed oscillation sensor (22) are transmitted to the background system (27), together with a time stamp and an identity of the fixed oscillation sensor (22).

10. The conveying system (1) as claimed in claim 8 or 9, wherein
the deviations are detected by a statistical comparison with preceding registrations or by a comparison with a fixed magnitude.

11. The conveying system (1) as claimed in one of claims 8 to 10,
wherein
in addition to the registered oscillations, state data of each sensor (21, 22) is transmitted.

12. The conveying system (1) as claimed in claim 11, wherein
each sensor (21, 22) is operated by a battery and the state data of each sensor (21, 22) contains its temperature and a remaining battery capacity.