Patent claims

1. Escalator (10) comprising a step belt (18) or moving walkway (50) comprising a plate belt (58), with a first deflecting region (13, 53) and with a second deflecting region (14, 54), wherein the plate belt (58) or the step belt (18) is arranged to circulate between the first deflecting region (13, 53) and the second deflecting region (14, 54) and in addition the escalator (10) or the moving walkway (50) includes at least one guide rail (16, 56, 56A, 56B), which is arranged between the deflecting regions (13, 14, 53, 54), for guidance of the step belt (18) or plate belt (58) and the guide rail (56A, 56B) has at least one base surface (81) with a guide surface (82) for rollers (74) of the step belt (18) or plate belt (58), wherein the escalator (10) or the moving walkway (50) comprises at least one guide strip (90, 90') with a guide flank (97) for lateral guidance of these rollers (74), wherein the rollers (74) during guidance are in lateral contact with the guide flank (79), and wherein the guide strip (90, 90') is a separate component and during installation the position of the guide strip (90, 90') relative to the guide rail (56A, 56B) is selectable, characterised in that at least one guide strip (90, 90') is arranged on the guide rail (56A, 56B) section-wise.

2. Escalator (10) or moving walkway (50) according to claim 1, wherein the guide strip (90) is detachably arranged on the base surface (81) near the guide surface (82) of the guide rail (56A, 56B).

3. Escalator (10) or moving walkway (50) according to one of claims 1 or 2, wherein the guide rail (56A, 56B) comprises at least one further base surface (81') with a further guide surface (82') which is arranged below the base surface (810 and the guide surface (82) is designed for a forward run (19, 59) of the rollers (74) of the step belt (18) or plate belt (58) and the further guide surface (82') is designed for a return run (20, 60) of the rollers (74).

4. Escalator (10) or moving walkway (50) according to claim 3, wherein the guide strips (90, 90') for the forward run (19, 59) of the rollers (74) are arranged to be offset in movement direction (R) with respect to the guide strips (90') of the return run (20, 60).

5. Escalator (10) or moving walkway (50) according to any one of claims 1 to 4, wherein the guide rail (56A, 56B) and/or the guide strip (90, 90') has or have fastening means (13, 100) which enable lateral setting of a position of the guide strip (90, 90')

transversely with respect to a direction (R) of movement of the rollers (74).

6. Escalator (10) or moving walkway (50) according to any one of claims 1 to 5, wherein the guide rail (56A, 56B) has a plurality of guide strips (90, 90') in the forward run (19, 59) and/or in the return run (20, 60).

7. Escalator (10) or moving walkway (50) according to any one of claims 1 to 6, wherein a flank angle (α) between the guide flank (97) and the guide surface (82, 82') lies between 90° and 140°, preferably between 90° and 135°, particularly preferably between 90° and 125°.

8. Escalator (10) or moving walkway (50) according to any one of claims 1 to 7, wherein at least one guide strip (90, 90') comprises a sensor (95) for detecting or measuring lateral forces (F) acting on the guide strip (90, 90').

9. Escalator (10) or moving walkway (50) according to claim 8, wherein the at least one guide strip (90, 90') with the sensor (95) is arranged to protrude relative to the remaining guide strips (90, 90') laterally in direction towards the guide surface (82, 82') of the rollers (74).

10. Escalator (10) or moving walkway (50) according to claim 8 or 9, wherein a signal issued by the sensor (95) is used for generating maintenance reports.

11. Guide strip (90, 90') for an escalator (10) or moving walkway (50) according to any one of claims 1 to 10 for lateral guidance of rollers (74) of a step belt (18) or plate belt (58), wherein the guide strip (90, 90') has a guide flank (97) with a flank angle (α), characterised in that the guide strip (90, 90') is constructed as a separate component and has fastening means (93) for fastening to a guide rail (56A, 56B).

12. Guide strip (90, 90') according to claim 11, wherein the guide flank (97) has in at least one end region (96) of the guide strip (90, 90') in movement direction (R) a convex curvature and/or an entry angle (β) between 1° and 45°, preferably between 5° and 35°, particularly preferably between 10° and 25°.

13. Guide strip (90, 90') according to claim 11 or 12, wherein a sensor (95) for scanning and/or measuring lateral forces (F) acting on the guide flank (97) is arranged at the guide strip (90, 90').

14. Guide strip (90, 90') according to claim 13, wherein the sensor (95) is arranged in a region between two fastening means (23), preferably centrally.

15. Guide strip (90, 90') according to any one of claims 11 to 14, wherein the guide strip comprises at least one sensor for detecting or measuring at least one of the measurement variables of solid-borne sound, vibration, the lining thickness of rollers, the thickness of dirt adhering to the guide track and/or the rollers or the position of a ball-bearing ring of a roller relative to the roller axis thereof.

Patent claims

1. Escalator (10) comprising a step belt (18) or moving walkway (50) comprising a plate belt (58), with a first deflecting region (13, 53) and with a second deflecting region (14, 54), wherein the plate belt (58) or the step belt (18) is arranged to circulate between the first deflecting region (13, 53) and the second deflecting region (14, 54) and in addition the escalator (10) or the moving walkway (50) includes at least one guide rail (16, 56, 56A, 56B), which is arranged between the deflecting regions (13, 14, 53, 54), for guidance of the step belt (18) or plate belt (58) and the guide rail (56A, 56B) has at least one base surface (81) with a guide surface (82) for rollers (74) of the step belt (18) or plate belt (58), wherein the escalator (10) or the moving walkway (50) comprises at least one guide strip (90, 90') with a guide flank (97) for lateral guidance of these rollers (74), wherein the rollers (74) during guidance are in lateral contact with the guide flank (79), and wherein the guide strip (90, 90') is a separate component and during installation the position of the guide strip (90, 90') relative to the guide rail (56A, 56B) is selectable, characterised in that at least one guide strip (90, 90') is arranged on the guide rail (56A, 56B) section-wise.

2. Escalator (10) or moving walkway (50) according to claim 1, wherein the guide strip (90) is detachably arranged on the base surface (81) near the guide surface (82) of the guide rail (56A, 56B).

3. Escalator (10) or moving walkway (50) according to one of claims 1 or 2, wherein the guide rail (56A, 56B) comprises at least one further base surface (81') with a further guide surface (82') which is arranged below the base surface (810 and the guide surface (82) is designed for a forward run (19, 59) of the rollers (74) of the step belt (18) or plate belt (58) and the further guide surface (82') is designed for a return run (20, 60) of the rollers (74).

4. Escalator (10) or moving walkway (50) according to claim 3, wherein the guide strips (90, 90') for the forward run (19, 59) of the rollers (74) are arranged to be offset in movement direction (R) with respect to the guide strips (90') of the return run (20, 60).

5. Escalator (10) or moving walkway (50) according to any one of claims 1 to 4, wherein the guide rail (56A, 56B) and/or the guide strip (90, 90') has or have fastening means (13, 100) which enable lateral setting of a position of the guide strip (90, 90')

transversely with respect to a direction (R) of movement of the rollers (74).

6. Escalator (10) or moving walkway (50) according to any one of claims 1 to 5, wherein the guide rail (56A, 56B) has a plurality of guide strips (90, 90') in the forward run (19, 59) and/or in the return run (20, 60).

7. Escalator (10) or moving walkway (50) according to any one of claims 1 to 6, wherein a flank angle (α) between the guide flank (97) and the guide surface (82, 82') lies between 90° and 140°, preferably between 90° and 135°, particularly preferably between 90° and 125°.

8. Escalator (10) or moving walkway (50) according to any one of claims 1 to 7, wherein at least one guide strip (90, 90') comprises a sensor (95) for detecting or measuring lateral forces (F) acting on the guide strip (90, 90').

9. Escalator (10) or moving walkway (50) according to claim 8, wherein the at least one guide strip (90, 90') with the sensor (95) is arranged to protrude relative to the remaining guide strips (90, 90') laterally in direction towards the guide surface (82, 82') of the rollers (74).

10. Escalator (10) or moving walkway (50) according to claim 8 or 9, wherein a signal issued by the sensor (95) is used for generating maintenance reports.

11. Guide strip (90, 90') for an escalator (10) or moving walkway (50) according to any one of claims 1 to 10 for lateral guidance of rollers (74) of a step belt (18) or plate belt (58), wherein the guide strip (90, 90') has a guide flank (97) with a flank angle (α), characterised in that the guide strip (90, 90') is constructed as a separate component and has fastening means (93) for fastening to a guide rail (56A, 56B).

12. Guide strip (90, 90') according to claim 11, wherein the guide flank (97) has in at least one end region (96) of the guide strip (90, 90') in movement direction (R) a convex curvature and/or an entry angle (β) between 1° and 45°, preferably between 5° and 35°, particularly preferably between 10° and 25°.

13. Guide strip (90, 90') according to claim 11 or 12, wherein a sensor (95) for scanning and/or measuring lateral forces (F) acting on the guide flank (97) is arranged at the guide strip (90, 90').

14. Guide strip (90, 90') according to claim 13, wherein the sensor (95) is arranged in a region between two fastening means (23), preferably centrally.

15. Guide strip (90, 90') according to any one of claims 11 to 14, wherein the guide strip comprises at least one sensor for detecting or measuring at least one of the measurement variables of solid-borne sound, vibration, the lining thickness of rollers, the thickness of dirt adhering to the guide track and/or the rollers or the position of a ball-bearing ring of a roller relative to the roller axis thereof.