solely on its outermost layer (outermost layer upstream relative to the direction of the air flow). These are filters comprising, for example, a layer of PTFE (Polytetrafluoroethylene) or of cellulose nanofibers on the surface. In effect, dust on the surface of the filter comes off more easily than dust stored inside the filter. The operation of dust removal (referred to as unclogging) from the filter is facilitated.

[5] However, during periods of operation of the system of equal duration, the amount of particles that can be retained by such filters is less than the storage capacity of filters which collect particles throughout their entire volume. The problem therefore arises of removing these particles so that the filter continues to operate optimally and has a longer service life.

Summary

[6] The present disclosure aims to remedy these disadvantages.

[7] The disclosure aims to provide a system for capturing braking particles from a friction braking system, in which the filter provides optimized efficiency and service life.

[8] This object is achieved due to the fact that the capture system further comprises a storage container which is capable of receiving the particles which become detached from the filter.

[8a] In an aspect, the present disclosure refers to a capture system for capturing braking particles from a friction braking system, which comprises a vacuum source, a pneumatic circuit which connects said friction braking system to the atmosphere, said vacuum source being located on said pneumatic circuit, and a filtration system for said particles which is located on said pneumatic circuit and which comprises a support and a filter mounted on said support and which becomes clogged by said particles during operation, preferentially on the surface, said capture system being characterized in that it further comprises a storage container which is capable of

receiving said particles which become detached from said filter, the storage container comprising an emptying port which is closed during operation, and which can be opened in order to empty the particles from the storage container, and said storage container comprising a closure mechanism which makes it possible to prevent the particles from coming into contact with an external operator, said storage container being removable from said support, and a face of the storage container which is open to the outside when the storage container is detached from support, is capable of being closed by a cover hinged to a side wall of the storage container.

[9] By means of these arrangements, the particles stopped by the filter are regularly stored in a separate area of the filter. The filter is thus regularly unclogged and retains its filtration capacity. Maintenance of the filter is also facilitated since the particles are removed by regularly emptying the storage container.

[10] Advantageously, the capture system further contains an unclogging device for the filter that is able to cause the particles to fall into the storage container.

[11] The particles are thus regularly detached from the filter, which extends the service life of the filter and therefore of the capture system.

[12] For example, this unclogging device is a vibrator which is able to cause the filter to vibrate.

Claims

[Claim 1] Capture system for capturing braking particles from a friction braking system, which comprises a vacuum source, a pneumatic circuit which connects said friction braking system to the atmosphere, said vacuum source being located on said pneumatic circuit, and a filtration system for said particles which is located on said pneumatic circuit and which comprises a support and a filter mounted on said support and which becomes clogged by said particles during operation, preferentially on the surface, said capture system being characterized in that it further comprises a storage container which is capable of receiving said particles which become detached from said filter, the storage container comprising an emptying port which is closed during operation, and which can be opened in order to empty the particles from the storage container, and said storage container comprising a closure mechanism which makes it possible to prevent the particles from coming into contact with an external operator, said storage container being removable from said support, and a face of the storage container which is open to the outside when the storage container is detached from support, is capable of being closed by a cover hinged to a side wall of the storage container.

[Claim 2] Capture system according to claim 1, further comprising an unclogging device for said filter that is able to cause said particles to fall into said storage container.

[Claim 3] Capture system according to claim 2, wherein said unclogging device is a vibrator which is able to cause said filter to vibrate.

[Claim 4] Capture system according to claim 2 or 3, wherein said unclogging device comprises a generator of an air flow that passes through said filter.

[Claim 5] Capture system according to claim 4, wherein said generator is the vacuum source.

[Claim 6] Capture system according to one of claims 1 to 5, such that said storage container and said support form a closed space.

[Claim 7] Capture system according to one of claims 1 to 6, such that said filter extends mainly within a plane P which is horizontal.

[Claim 8] Capture system according to one of claims 1 to 6, such that said filter extends mainly within a plane P which forms, with a horizontal plane H, a non-zero angle β which is less than or equal to 90°.

[Claim 9] Capture system according to one of claims 1 to 8, wherein said vacuum source is located on the part of said circuit which connects said braking system to said filtration system.