Claims - ~~amended according to Art. 34 PCT~~

1. An improved cell plug filter ~~(8)~~ for a cell frame ~~(4)~~ of a main frame ~~(1)~~ for a shaker screen filter ~~(2)~~ arranged for being inserted in ~~for~~ a well fluid shale shaker ~~(7)~~ for screening of well fluids such as drilling mud,

~~– said cell frame (4) having an edge profile (5) for holding said cell plug filter (8)~~

wherein said cell plug filter ~~(8)~~ comprises:

- one or more layers of screen cloth ~~(20)~~ arranged on top of a support layer ~~(18,17)~~ in a cell plug filter frame ~~(81)~~arranged to be held in said cell frame,

characterized by

- a pre-tensioned locking mechanism ~~(10, 12, 13, 15)~~ comprising a locking profile ~~(85) on said cell plug filter frame (81) for engagement with said edge profile (5) of said cell frame (4)~~ arranged for locking said cell plug filter frame ~~(81)~~ in said cell frame ~~(4)~~,
- said locking mechanism ~~(10, 12, 13, 15)~~ further comprising a displacement mechanism comprising ~~a screw (12) in a sleeve(13) connected to~~ a link arm structure ~~(14) connected to said locking profile (85) and~~ arranged for unlocking by moving said locking profile ~~(85)~~ out of engagement with ~~said~~ an edge profile ~~(5)~~ of said cell frame ~~(4)~~ to release said cell plug filter frame ~~(81)~~ from said cell frame ~~(4)~~, and
- ~~wherein said locking mechanism (85, 10, 12, 13, 15) of said cell plug filter frame (81) is in a locking position relative to said cell frame (4) when in a passive condition~~said locking mechanism being preloaded in a locking position relative to said cell frame in a way that said locking mechanism in a passive or partly defect condition is locking, and that said preloading has to be counteracted to release said cell plug filter frame from said cell frame, by controlling said locking profile of a side wall via the link arm structure.

2. The device according to claim 1, wherein said support layer ~~(17) comprising~~ comprises a set of parallelly extending wires ~~(171)~~.

3. The device according to claim 2, wherein said parallelly extending set of wires ~~(171)~~ of said support layer ~~(17)~~ are

arranged in said cell plug filter (8) and relative to said main frame (1) parallel with a main direction of the vibration of said mainframe (1).

4. The device according to claim 1, wherein said displacement mechanism of said locking mechanism comprises a screw mechanism arranged for moving said locking profile and said edge profile into and out of mutual engagement.

4.5. The device according to claim 14, wherein a screw portion (12) of said screw mechanism (12) is arranged from an upstream side of said cell plug filter frame (81).

5.6. The device according to claim 12 or 3, wherein said wires (171) of said support layer (17) along their upper face towards said overlaying screen cloth (20) are flush, in the same level as the with said cell plug filter frame upper portion of the plug filter frame (81).

6.7. The device according to claim 1, wherein said screen cloth (20) is attached near said cell plug filter frame (81) upper portion.

7.8. The device according to claim 1, wherein said screen cloth (20) is spanned over said cell plug filter frame's (81) upper portion and extends down along an external side of said cell plug filter frame (81) in such way that it ends up between said cell plug filter frame (81) and said surrounding cell frame (4).

8.9. The device according to claim 1, with a condition sensor (90) arranged for sensing at least a material condition of at least one of said cell plug filters (8), for instance whether said screen cloth (20) is intact or broken, or if it is entirely or partly worn down.

9.10. The device according to claim 9, wherein said condition sensor (90) comprises an electromagnetic sensor (91).

10.11. The device according to claim 10, wherein said electromagnetic sensor (91) is arranged for sensing

electromagnetic properties of said cell plug filter's (8) screen cloth (20), for instance by

* electrodes (92) for measuring direct current resistance,
* an electric coil (93) for measuring alternating current resistivity, changes in alternating current resistivity, electric phase change, or other alternating current induced parameters, or
* an electric coil (94) or magnetometer (95) for measurement of magnetic susceptibility or magnetization.

11.12. The device according to claim 10, wherein said electric sensor (91, 92, 93, 94, 95) is arranged as an integrated part of said cell plug filter (8), preferably in said cell plug filter frame (81).

12.13. The device according to claim 1011, wherein said electric sensor (91, 92, 93, 94,) is placed with a distance from said cell plug filter (8).

13.14. The device according to claim 13, wherein said electric sensor is arranged in said cell frame (4) of said main frame (1).

14.15. The device according to claim 9 or 10, wherein said condition sensor (90) comprises an acoustic sensor (96), for instance a sensor for said cell plug filter's (8) screen cloth's (20) acoustic natural frequency or changes in said natural frequency or said screen cloth's (20) amplitude resulting from a given vibration admission.

15.16. The device according to claim 9 or 10, wherein said condition sensor (90) comprises an optical sensor (97), for instance a laser sensor arranged for sweeping said screen cloth (20) of said cell plug filter (8) for measuring a natural frequency or changes in said natural frequency or changes of said natural

fequency or said screen cloth's ~~(20)~~ amplitude upon a given vibration admission.

~~16.~~17. The device according to claim 1, with a stabilization point ~~(22)~~ formed in one or more cell plug filters ~~(8)~~, wherein said stabilization points ~~(22) formed in~~ is a synthetic or hardening paste material, of an injection of unhardened material ~~arranged~~ between the wires of said screen cloth ~~(20)~~ and said underlying support layer ~~(17)~~ or support cloth ~~(18)~~, respectively.