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(54) CLOSED, GASTIGHT SYSTEM AND METHOD FOR GAINING SELLABLE PETROLEUM COKE PIECES OUT OF SOLIDIFIED PETROLEUM COKE IN A COKE DRUM UNIT

(57) A closed, gastight system for gaining sellable petroleum coke pieces out of solidified petroleum coke in a coke drum unit according to the invention is configured to be connected to a coke drum unit (X) containing solidified petroleum coke and comprises

a coke crushing unit (C) for crushing the petroleum coke into sellable petroleum coke pieces, configured to be connected to the coke drum unit (X), particularly by means of a flexible transition piece (A);

a line, particularly a closed sluice way (D) leading petroleum coke slurry to a closed slurry basin;

a closed slurry basin (E);

a dewatering bin unit (G) configured to receive the petroleum coke slurry from the slurry basin (E), to collect the sellable petroleum coke pieces, and to act as a filter leading runoff drain water from a lower area thereof as filtered water and petroleum coke fines out of it;

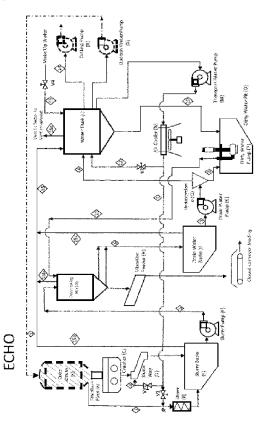
a closed drain water basin (I), separate from the slurry basin (E), configured to receive the filtered water and the petroleum coke fines from the dewatering bin unit (G); a single water tank (L) configured to receive the filtered water from the drain water basin (I);

a hot quench water draining line (2) configured to receive hot quench water from the coke drum unit (X) and to lead the same to the closed slurry basin (E); and

a cooling water line (3) leading from the water tank (L), particularly from a intermediate portion thereof, to the hot quench water draining line (2), in particular to a joining point (IP) in the hot quench water draining line (2) at a position above the closed slurry basin (E), configured to feed cooling water from the water tank (L) to the hot

quench water in the hot quench water draining line (2), in order to prevent steam generation within the slurry basin (E).

Fig. 1



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