

Title (en)  
PROGRAMMABLE TANK CLEANING NOZZLE

Title (de)  
PROGRAMMIERBARE TANKREINIGUNGSDÜSE

Title (fr)  
BUSE PROGRAMMABLE DE NETTOYAGE DE RÉSERVOIR

Publication  
**EP 3897998 A1 20211027 (EN)**

Application  
**EP 19903056 A 20191223**

Priority  
• US 201862784512 P 20181223  
• US 201916437796 A 20190611  
• US 2019068359 W 20191223

Abstract (en)  
[origin: WO2020139839A1] Manual, automated, or semi-automated programmable tank cleaning nozzle systems, devices and methods for providing safe and efficient methods for breaking up oil, tar, chemical, radioactive, hazardous, or any other liquid, solid, or sludge waste inside storage tanks, ballast tanks, floating roof tanks, void tanks, rail tank cars and the like with nozzles which utilize fluid jets to break up, liquefy, and motivate tank material. The programmable tank cleaning nozzle incorporates two degrees of freedom and can be mounted to existing booms, robotic arms, gantry systems, rigid beams, manways, or any other rigid structure. The programmable tank cleaning nozzle can be a standalone, independent unit or integrated into new designs and/or existing systems. Simplified programming and user interface allowing an operator to remotely operate the system without the need for a camera system. The system is hydraulically controlled and can work in the presence of flammable vapors and dust.

IPC 8 full level  
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CPC (source: EP)  
**B05B 3/0445** (2013.01); **B05B 3/049** (2013.01); **B08B 9/0813** (2013.01); **B08B 9/0933** (2013.01); **B08B 9/0936** (2013.01)

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DOCDB simple family (publication)  
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