

Title (en)
METHOD FOR THE PRODUCTION OF A HIGH-PRESSURE ACCUMULATOR PIPE MADE OF STEEL FOR FUEL INJECTION SYSTEMS AND HIGH-PRESSURE ACCUMULATOR PIPE PRODUCED ACCORDING TO THIS METHOD

Title (de)
VERFAHREN ZUR HERSTELLUNG EINES HOCHDRUCKSPEICHERROHRES AUS STAHL FÜR KRAFTSTOFFEINSPRITZANLAGEN SOWIE MIT DIESEM VERFAHREN HERGESTELLTES HOCHDRUCKSPEICHERROHR

Title (fr)
PROCÉDÉ DE FABRICATION D'UN TUBE ACCUMULATEUR DE HAUTE PRESSION EN ACIER POUR DES SYSTÈMES D'INJECTION DE CARBURANT ET TUBE ACCUMULATEUR DE HAUTE PRESSION

Publication
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Application
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Priority
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Abstract (en)
[origin: US2011041946A1] In a method of making a high-pressure accumulator pipe as composite pipe of steel for pressures of up to 1800 bar and above with high static strength and fatigue strength for fuel injection systems with common rail systems for internal combustion engines, a first inner pipe part is inserted into a second outer pipe part with little clearance, and the inner pipe part is connected to the outer pipe part gap-free and by interference fit through mechanical forming. The mechanical forming includes a rolling-in process, wherein the inner pipe part is subjected to a ductile expansion and the outer pipe part is subjected to an elastic expansion using an oversized rolling tool that is moved within the inner pipe part, and wherein a residual compressive stress adjusted to the operating pressure is applied to the inner pipe part after the forming process via the elastic resilience of the outer pipe part.

IPC 8 full level
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