

Title (en)
GUN BARREL

Publication
EP 0550847 A3 19930908 (DE)

Application
EP 92121123 A 19921211

Priority
DE 4200171 A 19920107

Abstract (en)
[origin: EP0550847A2] The invention relates to a gun barrel having rifling with a variable rifling angle and having a strip force $R(x)$ (which acts when a round is fired) over the round path (x) in the gun barrel, the calibre d , the round mass mG , the mass moment of inertia J about the round longitudinal axis, the gas force $P(x)$ on the base of the round and the speed of the round $v(x)$ being predetermined. In order to achieve exact rifling (in the context of manufacturing tolerances) corresponding to diverse desired properties of the strip force, it is provided that the strip force $R(x)$ be determined in accordance with $R(x) = R_{\max} R_n(x)$, where R_{\max} is the maximum value of the strip force which is dependent on a predetermined final rifling angle βE , and $R_n(x)$ is a predetermined, normalised strip-force behaviour with a specific rifling start, a specific initial rifling angle and a specific rifling profile, the course of the rifling on the calibre diameter being derived from the differential equation $\langle \text{IMAGE} \rangle$ and R_{\max} being determined for a predetermined final rifling angle βE . $\langle \text{IMAGE} \rangle$

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F41A 21/18

IPC 8 full level
F41A 21/18 (2006.01)

CPC (source: EP US)
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Citation (search report)

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