

Title (en)  
PISTON FOR INTERNAL COMBUSTION ENGINES

Title (de)  
KOLBEN FÜR BRENNKRAFTMASCHINEN

Title (fr)  
PISTON DE MOTEUR À COMBUSTION INTERNE

Publication  
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Application  
**EP 12783978 A 20121106**

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Abstract (en)  
[origin: WO2013083342A1] The invention relates to a piston of an internal combustion engine, which piston forms a single-piece piston (1a) according to the production thereof and comprises a piston upper part (2a) and a piston lower part (3a) which are supported via corresponding joining webs (4a, 5a; 6a, 7a), in each case forming a joining zone (8a, 9a), and are connected in a material-to-material manner by means of a multi-orbital rotary friction weld. Here, the joining webs (4a, 5a) and (6a, 7a) which are in each case directly connected have a wall thickness S1, S2 which is identical as far as possible. The piston (1a) encloses a combustion-chamber recess (15a) and at least one cooling duct (18a) which are made centrally or eccentrically in the piston (1a). Here, the combustion-chamber recess (15a) and the cooling duct (18a) form a circular contour or a contour which deviates from a circular shape.

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See references of WO 2013083342A1

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