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(54) **SPLINE ALIGNMENT FOR DTH HAMMER ASSEMBLY**

(57) A hammer drill assembly for coupling to a drill string having a drill bit positioned at the forward end having a drill head and a bit shaft; wherein a plurality of axially extending bit splines project radially outwards from a radially outward facing surface of the bit shaft; wherein each of the bit splines comprises a bit spline tip at its axially rearward end having a rearward axially outer edge and a central bit spline longitudinal axis; and a driver sub provided axially rearward of the drill bit comprising a plurality of axially extending driver sub splines projecting radially inwards from an inward facing surface of the driver sub; characterised in that: the rearward axially outer edge on at least of one of bit spline tips is non-perpendicular to the bit spline longitudinal axis along at least 25% of the width of the bit spline tip.

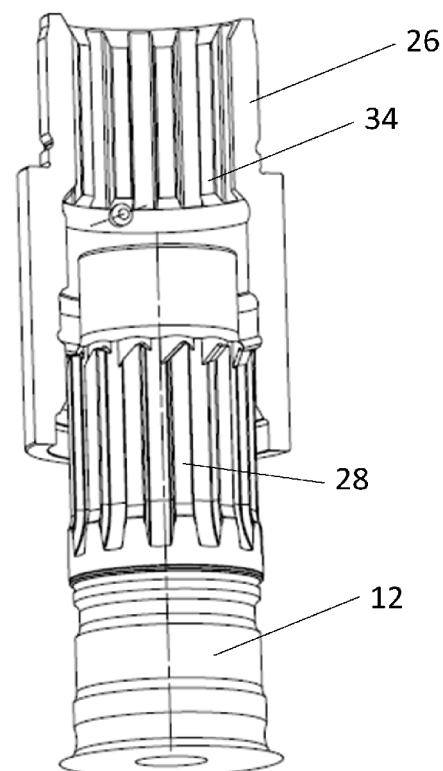


Fig 8



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Place of search Munich		Date of completion of the search 21 August 2026	Examiner Ott, Stéphane
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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