

Title (en)

FORMING TOOL FOR HYDROMECHANICALLY DEEP-DRAWING WORKPIECES FROM SHEET METAL BLANKS

Title (de)

UMFORMWERKZEUG ZUM HYDROMECHANISCHEN TIEFZIEHEN VON WERKSTÜCKEN AUS BLECHZUSCHNITTEN

Title (fr)

OUTIL DE FORMAGE DESTINE A L'EMBOUTISSAGE HYDROMECHANIQUE PROFOND DE PIECES EN TANT QUE COUPES DE TOLES

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Application

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Abstract (en)

[origin: WO02070163A1] The invention relates to a forming tool (1) for hydromechanically deep-drawing workpieces from sheet metal blanks (2), said tool comprising a water tank (3), which acts as a lower tool and can be filled with a liquid active medium (8), thus forming the drawing die. The tool is also provided with a drawing ring (10), which is located in the upper section of the water tank (3) and is sealed against a volume of the active medium lying below. The boundary of the ring aperture (11) of the drawing ring (10) forms a drawing edge for the workpiece (2). The forming tool also comprises a drawing punch (9), which can be displaced with the sheet metal blank (2) interposed, through the ring aperture (11) of the drawing ring (10) into the section containing the active medium (8), whereby the sheet metal blank is pressed onto the drawing punch (9) using a reaction pressure as the application pressure, by means of a targeted displacement of the active medium (8). According to the invention, a water tank insert (14), which can be filled with active medium (8) to leave free the remaining water tank volume, can be positioned in the water tank (3), whereby the ring section of the drawing ring (10) lies tightly on the upper edge of the lateral walls (15, 16, 19, 20) of the insert.

IPC 8 full level

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