

Title (en)

FORGING METHOD FOR HIGH-EFFICIENCY CLOSING OF POROUS DEFECTS IN STEEL INGOTS OR BILLETS

Title (de)

SCHMIEDEVERFAHREN ZUM HOCHEFFIZIENTEN VERSCHLIESSEN PORÖSER DEFEKTE BEI STAHLBLÖCKEN ODER BARREN

Title (fr)

PROCÉDÉ DE FORGEAGE À HAUT RENDEMENT DE LA PARTIE INTERNE D'UN LINGOT D'ACIER OU D'UN FLAN PAR COALESCENCE À RETASSURES

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Abstract (en)

The present invention relates to the field of forging, and more particularly to a forging method which can heal the void in ingots or billets effectively. It can be used in open die forging process of ingots and billets of all shapes. Wide anvil radial forging method is used during forging, which uses two flat plates as upper and lower anvils. For ingots or billets with height-diameter ratio less than 2, the reduction ratio during wide anvil radial forging is 20% to 25%; for ingots or billets with height-diameter ratio larger than 2, the reduction ratio is 20% to 40%. This invention can heal the voids in the ingots or billets, especially the central porosities, which cannot be done by traditional forging methods. Moreover, this invention can also heal the voids in large height-diameter ratio ingots or billets using small reduction ratio.

IPC 8 full level

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