

Title (en)

OBJECT COMPRISING A STEEL PART OF A METAL CONSTRUCTION CONSISTING OF AN AREA WELDED BY A HIGH POWER DENSITY BEAM AND EXHIBITING AN EXCELLENT TOUGHNESS IN A MOLTEN AREA, METHOD FOR PRODUCING SAID OBJECT

Title (de)

OBJEKT MIT EINEM STAHLTEIL EINER METALLKONSTRUKTION AUS EINEM MITTELS HOCHLEISTUNGSDICHTESTRAHL GESCHWEISSTEN BEREICH UND MIT HERVORRAGENDER ZÄHIGKEIT IN EINEM SCHMELZBEREICH SOWIE VERFAHREN ZUR HERSTELLUNG EINES DERARTIGEN OBJEKTS

Title (fr)

OBJET COMPRENANT UNE PARTIE EN ACIER DE CONSTRUCTION METALLIQUE, CETTE PARTIE COMPORTANT UNE ZONE SOUDEE A L'AIDE D'UN FAISCEAU A HAUTE DENSITE D'ENERGIE ET PRESENTANT UNE EXCELLENTE TENACITE DANS LA ZONE FONDUE ; METHODE DE FABRICATION DE CET OBJET

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Application

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Abstract (en)

[origin: WO2006013242A1] The invention relates to an object comprising at least one steel part whose composition consists of the following contents expressed by weight: 0.005-0.27 % carbon, 0.5-1.6 % manganese, 0.1-0.4 % silicon, less than 2.5 % chromium content, less than 1 % molybdenum content, optionally one or several elements selected from nickel, copper, aluminium, niobium, vanadium, titanium, boron, zirconium and nitrogen, the rest being iron and impurities of production, wherein said steel part comprises at least one area welded by a high power density beam and is characterised in that the microstructure of the welded area is constituted of 60-75 % self-tempered martensite, preferentially 60-70 % self-tempered martensite, and, in addition, of 40-30 % lower bainite.

IPC 8 full level

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