

Abstract

SEAMLESS STEEL PIPE AND METHOD FOR PRODUCING SAME

A seamless steel pipe is provided that has a chemical composition which consists of, by mass%, C: 0.10 to 0.20%, Si: 0.05 to 1.0%, Mn: 0.05 to 1.2%, $P \leq 0.025\%$, $S \leq 0.005\%$, $Cu \leq 0.20\%$, $N \leq 0.007\%$, Ni: 0.20 to 0.50%, Cr: 0.30% or more and less than 0.50%, Mo: 0.30 to 0.50%, Nb: 0.01 to 0.05%, Al: 0.001 to 0.10%, B: 0.0005 to 0.0020%, Ti: 0.003 to 0.050%, V: 0.01 to 0.20%, a total of any one or more elements among Ca, Mg and REM: 0 to 0.025%, and the balance: Fe and impurities, and for which $P_{cm} (= C + (Si/30) + (Mn/20) + (Cu/20) + (Ni/60) + (Cr/20) + (Mo/15) + (V/10) + 5B) \leq 0.30$. The steel micro-structure includes, in area%, tempered martensite $\geq 90\%$. The tensile strength is 980MPa or more, and a Charpy impact value at -40°C using a 2 mm V-notch test specimen is 75 J/cm^2 or more.

(no drawing to be published)