

460 MPA-GRADE EXTRA-THICK HOT-ROLLED H-SHAPED STEEL AND PRODUCTION METHOD THEREFOR

ABSTRACT

A 460 MPa-grade extra-thick hot-rolled H-shaped steel and a production method therefor. The 460 MPa-grade extra-thick hot-rolled H-shaped steel comprises components C: 0.10-0.20%, Si: 0.30-0.50%, Mn: 0.8% -1.50%, $P \leq 0.015\%$, $S \leq 0.005\%$, Nb: 0.010-0.050%, V: 0.040% - 0.100%, Ti: 0.006% -0.020%, Cr: 0.10% -0.30%, N: 0.0060% -0.0120%, and the balance of Fe and inevitable impurities, $0.35\% \leq C+Mn/6 \leq 0.45\%$, and $0.060\% \leq Nb+V \leq 0.130\%$. In production, after blanks are continuously cast, a blank slow cooling area is provided so as to slowly cool a pull-out blank pile by means of a specific process, and subsequently controlled rolling and controlled cooling are carried out, thereby solving difficulties in producing extra-thick high-strength hot-rolled H-shaped steel, and allowing for low components and excellent performance.

Fig. 2