

# Development of Hot-Rolled Sheet Steel with Significant Increase in Tensile Strength Induced by Strain Age Hardening\*



K. L.,  
L.



J. H. F.,  
C., L.



M. I.,  
M.

### Synopsis:

A new type of bake-hardenable high strength hot-rolled sheet steel has been developed, which has remarkable increase in tensile strength and yield strength after strain age hardening in addition of special elements. The new sheet steel has excellent characteristics of high strength and high fatigue strength, and also has good formability almost equal to that of conventional high strength sheet steel. This new combination of properties makes it possible to reduce the weight of the car body by using high-strength steel.











- 5) A. , . F , . : *Ka a aki Seel Giho*, 2(2000)1, 1-6
- 6) M. : 180 f . P ., (1998), 9
- 7) K. M , . , . K , . M , . : *Ma e ia Ja an*, (1996)5, 570
- 8) K. M , . , . H , . F : AE P , N . 980952
- 9) H. H : *J. of JSAE*, (1995), 5
- 10) E. I , . H , . F : *CAMP-ISIJ*, 12(1999), 1222
- 11) E. I , J. H , . H , . F : P . f J AE, (1999)81-99, 21
- 12) . K , J. H , . M , K. : P . f J AE, (2001)11-01, 1
- 13) J. H , . K , . H , K. , H. A : P . f J AE, (2001)11-01, 5
- 14) . K , J. H , . M , K. : *CAMP-ISIJ*, 1 (2001), 1386
- 15) . K , A. , K. , F. K , I. H - : *Ma e ia Ja an*, 1(2002), 48
- 16) . K , J. H , . M , A. , K. : AE P , N . 2002-01-0040
- 17) . I , . H : *Te - o-Hagan*, (1981)9, 236
- 18) M. K , . , K. : *Ka a aki Seel Giho*, 1 (1987)2, 119
- 19) . , . K , . H , . H , H. : *Ka a aki Seel Giho*, 2 (1991)4, 293
- 20) K. M , . , . F , . : *J. of JSMS*, (1998)10, 1053