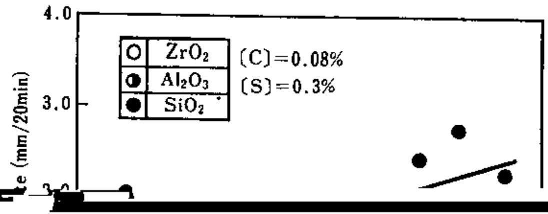
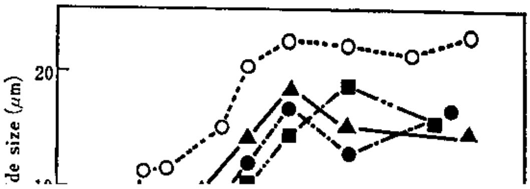
KAWASAKI STEEL TECHNICAL REPORT No. 8 September 1983

Development of a Low-Carbon Resulfurized Free Cutting Steel by Continuous Casting and Its Properties*


1.4
Killed region

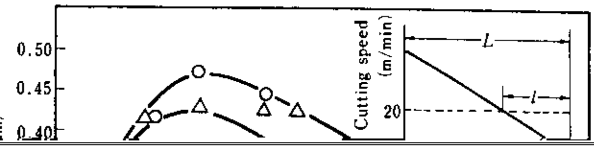

4.0
3.0
(mm/20min)
ZrO₂
Al₂O₃
SiO₂
〔C〕=0.08%
〔S〕=0.3%

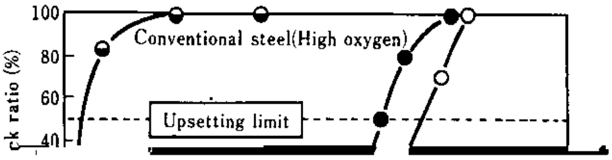

20
de size (μm)

The relationship between area reduction and the tool life evaluated through the turning test using H.S.S.

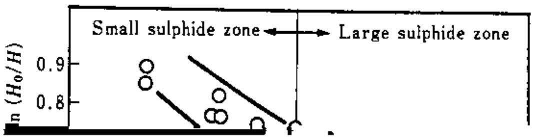
As shown in **Fig. 16**, the faster the cutting speed and the greater the area reduction, the smaller the

The reduced ductility caused by drawing acts favorably on the surface roughness and chip thickness. Particularly, with the carbide tool in which the build-up edge is generated less extensively than in the H.S.S. tool, the chip thickness and surf





100
80
60
40
ck ratio (%)
Conventional steel(High oxygen)
Upsetting limit



Small sulphide zone
Large sulphide zone
0.9
0.8
n (H_0/H)

References