

# IH quenching steel wheel

DHF has been providing IH quenching service for wheels which have deep hardened, low distortion as quenched and no soft-zone.



**Single-shot quenching of**



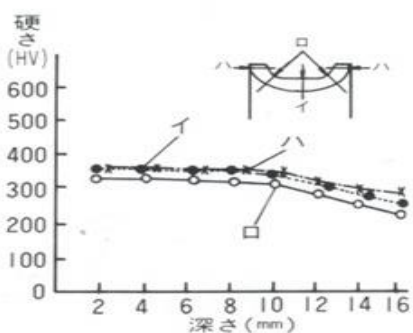
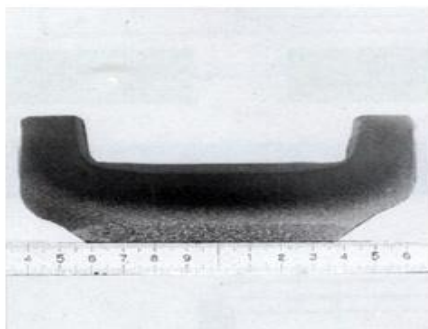
**Moving quenching of  
single flange wheel surface**

## Surface hardness and hardeneddepth (typical wheels)

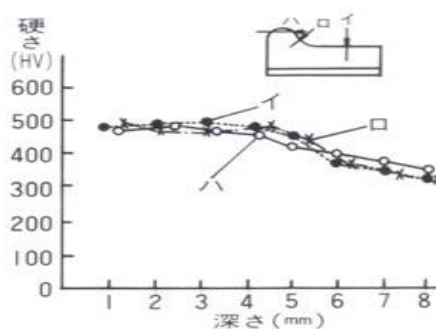
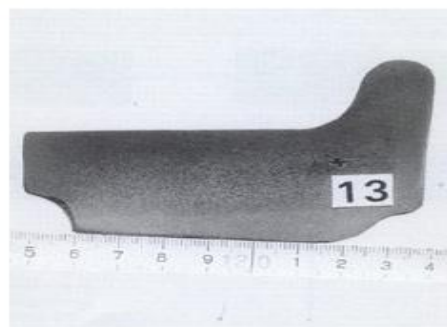
Application	JIS Code	Simultaneous all surface quenching		Zone quenching of surface	
		Hardness (HS)	Depth (mm)	Hardness (HS)	Depth (mm)
Carbon steel for Railway wheels made by rolling	SSW(R.Q)	40~50	13~17		
Carbon steel for Railway wheels	STY(R.N.Q)	40~50	13~17		
Freight cars, coal transportation	S35C	60~70	1.5~2	60~70	1~1.5
	S45C	60~70	2.5~3	60~70	1.5~2
	SCMn2	60~70	4~6	60~70	2~4
	SCMnCr2	63~73	5~7	63~73	3~5
	SC60	45~55	3~6	55~65	2~3

## Macro and cross-sectional hardness (representative example)

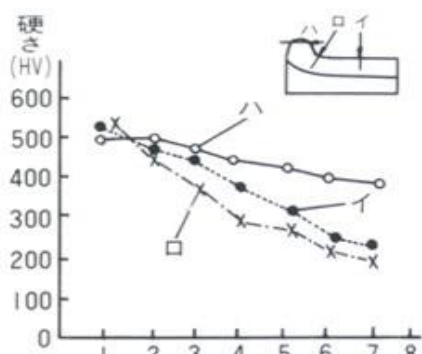
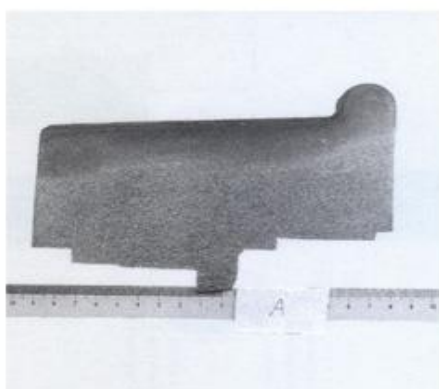
One-time quenching Double flanged  
(SSW-R1.HS40 ~ 50)



One-time quenching Single flanged wheel  
(SCMn2.HS60 ~ 70)



One-time quenching Single flanged wheel  
(Over S45C.HS65)



Zone quenching Single flanged wheel  
(SCMn2.HS60~70)

