

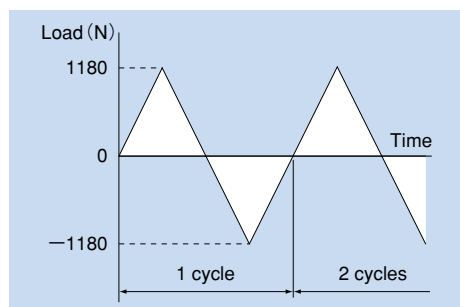
2. Performance Test with the Rod End

This test has been conducted to identify the difference in performance between THK Rod End model HS and an equivalent product by a competitor.

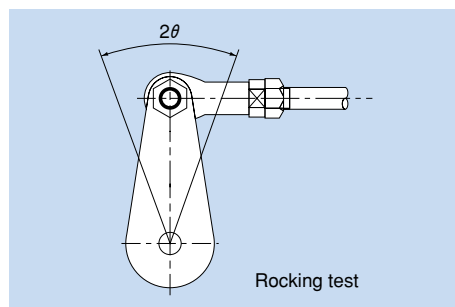
Wear Test Conditions

Subject Rod End	THK model HS8 Stainless steel model equivalent of the above
Type of test	Rocking test
Applied load	$\pm 1,180$ N in the radial direction
Kinematic angle	Rocking angle: $2\theta = 40^\circ (\pm 20^\circ)$
Lubrication	No lubrication
Number of cycles per minute	60 opm
Total number of cycles	1 million cycles
Testing equipment	Bench testing machine (normal temperature)

The applied load diagram is shown below.



The kinematic angle is shown below.



Result of the Wear Test

Table 1 Change in the Spherical Clearance
Unit: mm

Abrasion loss after 1-million-cycle test			
Model No.		Rocking test	
		Radial direction	Axial direction
HS 8	Initial stage (at start-up)	0.008	0.01
	1 million cycles	0.035	0.075
	Change	0.027	0.065
Stainless steel model equivalent of the above	Initial stage (at start-up)	0.005	0.005
	40,000 cycles	0.22	0.2
	Change after 40,000 cycles	0.215	0.065

Note: The holder is elongated and fractured after 76,300 cycles.

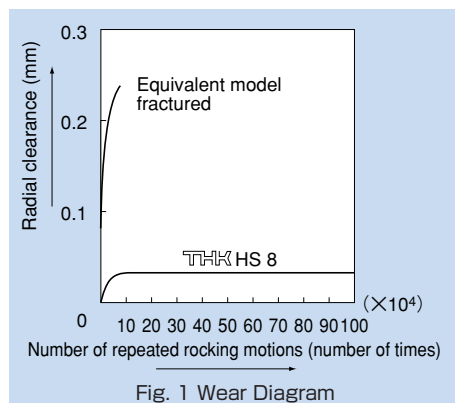


Fig. 1 Wear Diagram

- Although model HS8 withstood the repeated durability test with an applied load of $\pm 1,180$ N and the total number of cycles being 1 million, the holder of the stainless steel equivalent model was elongated and fractured after only 76,300 cycles.
- The result shows that the increase in wear of model HS8 in the radial direction since the initial wear (approximately 100,000 cycles) was minimal.