Booster Jaw Bar

Igor Novitski
Material properties

- c*********
- c********* material properties
- c********* Metals for FE AISI 304 from MatWeb
- c********* 

alro=7.870          !density        , g/cc

kxx,1,16.2          ! Thermal conductivity W/m-K  16.2
dens,1,alro*1e3     ! Density              kg/m3
alpx,1,17.3e-6      ! CTE                  1/K
c,1,500             ! Specific heat        J/kg-K  450-500
ex,1,200e9
!
kxx,2,16.2
dens,2,alro*1e3    
alpx,2,17.3e-6
c,2,500
ex,2,200e9
Thermal Model
With ED and
Conventional Cooling
After 24 Hours, V3
10W/m² on ends
After 24 Hours, V3
10W/m² on ends

Booster Jaw Bar
After 24 Hours, V3
10W/m² on ends

Booster Jaw Bar
After 24 Hours, V3
10W/m² on sides and ends

Booster Jaw Bar
After 24 Hours, V3
10W/m² on sides and ends
After 24 Hours, V3
10W/m² on sides and ends

Booster Jaw Bar
After 1 month, V3
10W/m² on ends

Booster Jaw Bar
After 1 month, V3
10W/m² on ends

Booster Jaw Bar

1 hour running time
After 1 month, V3
10W/m² on sides and ends
After 1 month, V3
10W/m² on sides and ends
After 1 month, V3
10W/m² on sides and ends

Booster Jaw Bar
Thermal Model
With ED,
Conventional Cooling
and 25C water line
After 24 Hours, V3
10W/m² on sides and ends
25°C on hottest side y=0

Booster Jaw Bar
After 24 Hours, V3
10W/m² on sides and ends
25°C on hottest side y=0
After 24 Hours, V3
10W/m² on sides and ends
25°C on hottest side y=0
After 24 Hours, V3
10W/m² on sides and ends
25°C on hottest side y=0
After 24 Hours, V3
10W/m² on sides and ends
25°C on hottest side y=0
After 1 month, V3
10W/m² on sides and ends
25°C on hottest side y=0
After 1 month, V3
10W/m² on sides and ends
25°C on hottest side y=0
After 1 month, V3
10W/m² on sides and ends
25°C on hottest side y=0
After 1 month, V3
10W/m² on sides and ends
25°C on hottest side y=0
Model for Thermal Displacements

Booster Jaw Bar
After 1 month, V3
Total Displacements (in meters)
After 1 month, V3 UY Displacements
After 1 month, V3 UX Displacements
After 1 month, V3
UZ Displacements