

HYDRAULIC EXCAVATORS

Description:

The heaviest loaded joints on the machine (Boom foot, Boom cylinder foot, pivot, stick nose) and the joints of the bucket linkage (working in abrasive surrounding) on wheel and crawler excavators.

Conditions of use:

- Speed : oscillating move with low speed (about 0,01 m/s)
- Dynamic contact pressure : 70 to 100 MPa
- Temperature : ambient
- Use time : 8 hours/day
- Surrounding atmosphere: abrasion especially near the bucket, humidity
- Lubrication : periodic (daily or weekly)

Previous solution:

- Pin : induction hardened steel + hard chromium
 - Bearing : case hardened steel (1) or bronze (2)
- Problem : seizure after hundreds of hours (1) or important wear (2)

HEF solution:

- Induction hardened steel + hard chromium or Induction hardened steel only
 - Bearing : PEL or PEL BH
- Increasing of the life time : several thousands of hours
→ Increasing of lubrication interval (up to 1000 hours with PEL BH)

Customers:

CATERPILLAR

VOLVO

LIEBHERR

MECALAC

JCB India

CNH (former FIAT-KOBELCO)

KOBELCO