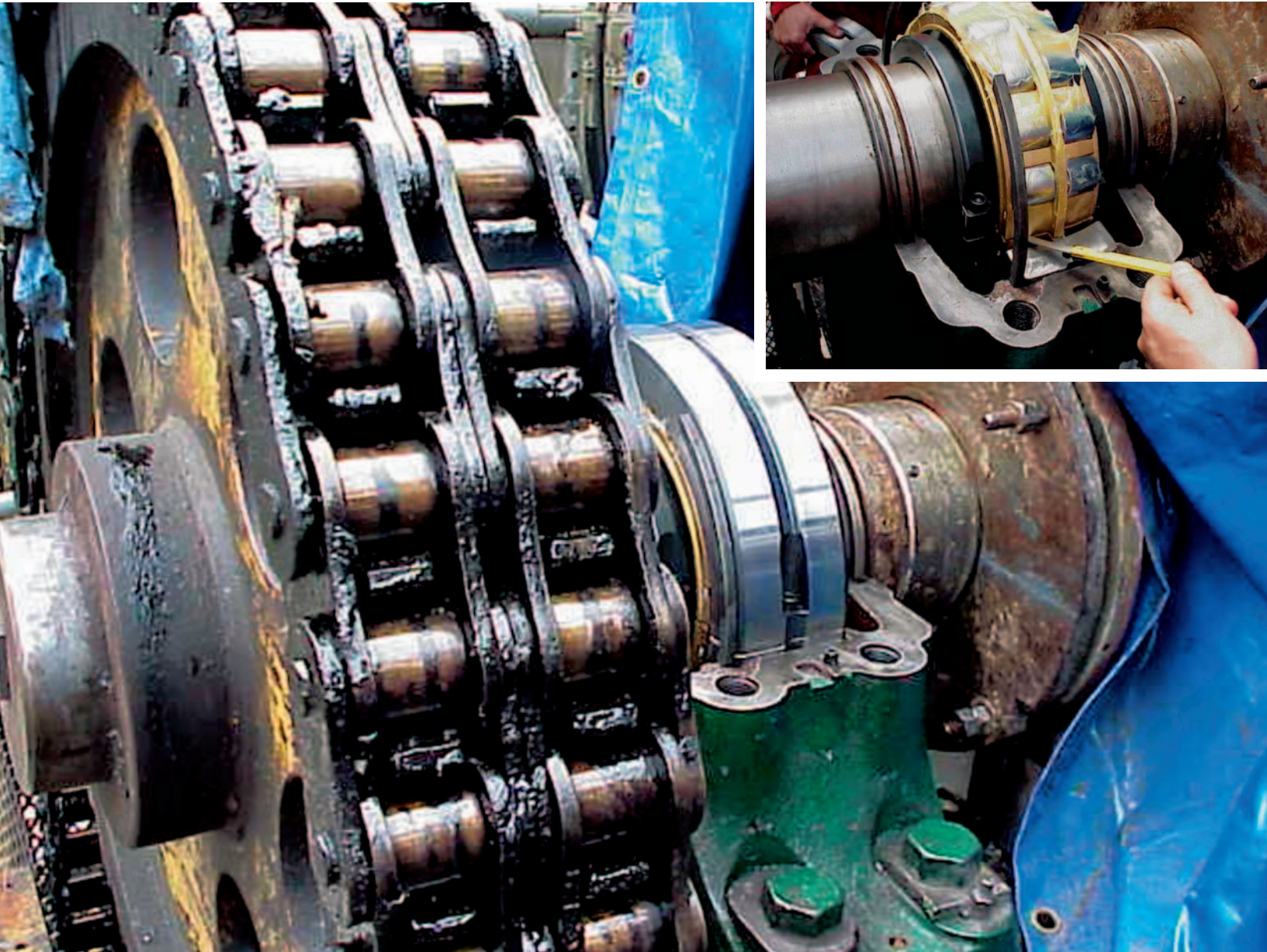


Split Spherical Roller Bearings in Extruders shorten Downtimes when it comes to exchanging Bearings

FAG

Examples of Application Engineering
WL 21 504 GB-D



Split spherical roller bearings in the drive unit of an extruder

Courtesy: ATOFINA – Feluy, Belgium

Extruders are used in the petroleum and chemical industry e.g. when manufacturing pellets. Bearing exchange is particularly time consuming due to the design

of the drive unit. For this reason FINA and FAG Belgium selected split FAG spherical roller bearings for this replacement.

FAG carried out mounting and provided their technical service and support.
Using split spherical roller bearings downtimes will be shorter and costs will be dropped down.

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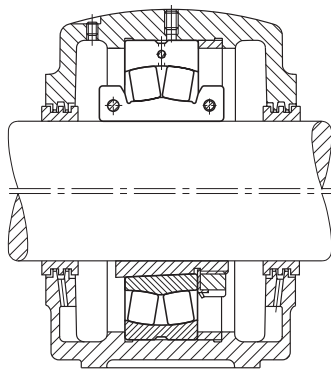
Solution up to now

Up to now FAG standard spherical roller bearings 22244-B-K fixed on the shaft by adapter sleeves FAG H3144X.800, were mounted in split plummer block housings FAG SAF544/8 as locating bearing – floating bearing units.

New solution

Now a FAG split spherical roller bearing with a machined brass cage is mounted as locating bearing into the same plummer block housing:

222S.800 (dxDxB) 203,2 x 400 x 108 mm



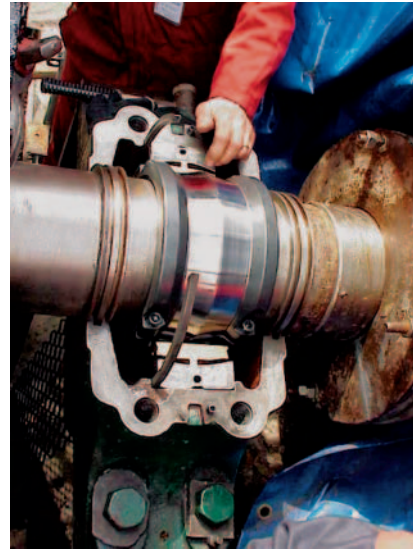
Bearing arrangement old

Bearing arrangement new

Technical and economic advantages of the new solution

- Mating parts do not need to be removed during bearing exchange
- Housings used up to this can be maintained
- Adapter sleeves no longer required
- Time required for bearing exchange is reduced
- Shorter downtimes mean less costs

Bearing mounting



- Inner ring halves screwed
- outer ring halves and cage halves mounted with roller and cage assembly in lower part
- locating ring inserted

Fits

Shaft h7 – h9

The tolerance limit of the diameter was reached due to the necessary grinding of the shaft. To insure that the inner ring would have the required interference fit after screwing; it was glued to the shaft with Loctite.

The bearing seat in the housing is machined to H7 / H8.

Lubrication and sealing

Split FAG spherical roller bearings are lubricated with lithium soap base grease of consistency class 2 with EP additives. As in the case of unsplit bearings, republication of the bearings takes place via a groove and three lubricating holes in the outer ring. Grease-filled labyrinth seals protect the bearing from contaminants.

Economic benefit for customers

The purchasing price of the split spherical roller bearings is higher than that of unsplit designs but it is certainly worth it when you take the reduced mounting costs and shorter downtimes into consideration.

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