1. Record Nr. UNINA9910457342503321

Titolo	Lubrication and reliability handbook [[electronic resource] /] / edited by M.J. Neale
Pubbl/distr/stampa	Boston, : Butterworth-Heinemann, 2001
ISBN	1-281-02206-3 9786611022068 1-4294-9314-3 0-08-052314-5
Descrizione fisica	1 online resource (265 p.)
Altri autori (Persone)	NealeM. J (Michael John)
Disciplina	621.8/9
Soggetti	Lubrication and lubricants Reliability (Engineering) Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di contenuto	Front Cover; Lubrication and Reliability Handbook; Copyright Page; Contents; Introduction; List of Contributors; Chapter 1. Lubricants; A1 Selection of lubricant type; A2 Mineral oils; A3 Synthetic oils; A4 Greases; A5 Solid lubricants and coatings; A6 Other liquids; Chapter 2. Lubrication of components; A7 Plain bearings; A8 Rolling bearings; A9 Gears and roller chains; A10 Wire ropes; A11 Flexible couplings; A12 Slides; A13 Lubricant selection; Chapter 3. Lubrication systems; A14 Selection of lubrication systems; A15 Total loss grease systems; A16 Total loss oil and fluid grease systems A17 Mist systems A18 Dip, splash systems; A19 Circulation systems; A20 Design of oil tanks; A21 Oil pumps; A22 Filters and centrifuges; A23 Heaters and coolers; A24 A guide to piping design; A25 Warning and protection devices; Chapter 4. Machine operation; A26 Commissioning lubrication systems; A27 Running-in procedures; A28 Industrial plant environmental data; A29 High pressure and vacuum; A30 High and low temperatures; A31 Chemical effects; Chapter 5. Machine maintenance; B1 Maintenance methods; B2 Condition monitoring; B3 Operating temperature limits; B4 Vibration analysis

B5 Wear debris analysis B6 Lubricant change periods and tests; B7 Lubricant biological deterioration; B8 Component performance analysis; B9 Allowable wear limits; Chapter 6. Component failures; B10 Failure patterns and analysis; B11 Plain bearings; B12 Rolling bearings; B13 Gears; B14 Pistons and rings; B15 Seals; B16 Brakes and clutches; B17 Wire ropes; B18 Fretting of surfaces; B19 Wear mechanisms; Chapter 7. Component repair; B20 Repair of worn surfaces; B21 Wear resistant materials; B22 Repair of plain bearings; B23 Repair of friction surfaces; Reference data; C1 Viscosity of lubricants
C2 Surface hardness C3 Surface finish and shape; C4 Shape tolerances of components; C5 SI units and conversion factors; Index

Sommario/riassunto

This handbook helps engineers in industry with the operation and maintenance of machinery. It provides the information that these engineers need in a form that is instantly accessible and easy to read. The manufacturers of machinery give guidelines on the operation, lubrication and maintenance required for their particular equipment. There are however many different machines in an industrial plant or service organisation, often supplied by many different manufacturers, and there is a need to select as many similar lubricants as possible and to use related machine techniques.