Suggested Reading Material for the STLE CLS Exam

The reference materials below will help you review and understand the subject areas that are covered by the exam. Practical experience of the candidate is of equal importance. Knowing the reference material ONLY will not guarantee passing the exam.

Neither STLE, nor its CLS Committee, approve or endorse any independent education or training programs, or publications by individuals or organizations. These listed here are in common usage. The list is not meant to be all-inclusive or exclusive, but rather to represent a reasonable cross-sectional industry consensus.

General References

"The Lubrication Engineers Manual - Third Edition” (2007), AIST, 186 Thorn Hill Road, Warrendale, PA


"The NLGI Grease Guide” latest edition, NLGI


ISO 6743 Lubricants, industrial oils and related products


Vehicle and equipment manufacturers literature and websites.

By Topic:

Bearings

"Interpreting service damage in rolling type bearings" 1997 published by STLE

Damage analysis, failure analysis, troubleshooting and technical support bulletins, brochures and manuals available in print or electronically at interactive web sites offered by all major bearing manufacturers. These encompass all types of bearings

Machine Design Magazine web site, Bearings 101 at www.bearings.machinedesign.com
“Grease Lubrication of Rolling Bearings”, 2013, Piet M. Lugt, John Wiley & Sons,

**Fluid Conditioning**

“Machinery Oil Analysis—Methods, Automation & Benefits: A Guide for Maintenance Managers,

Supervisors& Technicians, Third Edition” Larry A. Toms and Allison M. Toms. Co-published by STLE


“Handbook of Condition Monitoring: Techniques and Methodology” Ed A. Davies 1998 Springer

**Fluid Power**

Industrial Hydraulic Manuals from a variety of equipment manufacturers


Lubrication, Vol XLVIII, January 1962, pp 17-32


**Gears**

"Handbook of Practical Gear Design", Darle Dudley, CRC Press


AGMA standards available from AGMA, Alexandria, VA www.agma.org

AGMA 912-A04, "Mechanisms of Gear Tooth Failure";

ANSI/AGMA 1010-E95, "Appearance of Gear Teeth -Terminology of Wear and Failure"
ANSI/AGMA 9005-E02 “Industrial Gear Lubrication”

Lubrication, Vol. 66, Number 1, 1980, pp. 1-24 Level 2

**Lubrication Analysis**
ASTM test methods for lubricants, friction, wear, chemical analysis, oxidation stability, Section 05 Petroleum Products and Lubricants, ASTM International

**Lubrication Fundamentals**


“The Friction and Lubrication of Solids”, 1950, Bowden, F. and Tabor, D Oxford Univ. Press,


**Lubrication Manufacturing**

**Lubrication Programs**


**Monitoring and Reducing Consumption**
"The Lubrication Engineers Manual - Third Edition” (2007), AIST, 186 Thorn Hill Road, Warrendale, PA

**Metalworking**
"Cutting and Grinding Fluids Selection and Application, 2nd Edition”, 1992, Jeffrey D. Silliman, SME

“Metalworking Fluids, 2nd Edition”, 2006 Ed Jerry P. Byers CRC Press,


**Pneumatics**
The basic laws of thermodynamics

Multiple internet sources discussing the "Bubble Point" test including ASTM F316


Problem Solving
“Lubrication”, 1971, RC Gunther, Chilton


Solvents and Cleaners
“The Lubrication Engineers Manual - Third Edition” (2007), AIST, 186 Thorn Hill Road, Warrendale, PA

Seals

O-Ring Handbooks from Multiple seal manufacturers


“Industrial Sealing Technology”, 1979, H. Hugo Buchter, John Wiley & Sons

Storage, Handling, Application
"The Lubrication Engineers Manual - Third Edition” (2007), AIST, 186 Thorn Hill Road, Warrendale, PA

Transportation
ASTM D4485

API Publications and website www.api.org

SAE Standards