LEROY SOMER®

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Industrial Maintenance Exercises

Mechanical Engineering Electrical Engineering Exercises

FCR LS71 DID

Training case for studying the brake motor

FCR LS71 DID

Training case for studying the brake motor

1 - PRODUCT PRESENTATION

The BRAKE MOTOR training kit is designed for use in guided practical sessions in the following technical subjects: Mechanical Engineering, Electrical Engineering and Industrial Maintenance. However, it is also relevant to studies in Industrial Maintenance (see the Objective in Exercise Nr. 2).

2 - CONTENTS OF THE CASE

The FCR LS71 DID brake motor comes in a case containing:

- all component parts of the product, both separate parts and sub-assemblies (rotor, stator, front and rear shield, terminal box, etc.),
- two additional fans with lining-holders possessing different moments of inertia. Each inertia value is identified by a colour code,
- a set of additional springs and keys,
- the special tools for assembly and dismantling and for measuring the tightening torque with a 1/4" square wrench with dial (rating 2 to 9 Nm in steps of 0.2 Nm),
- a set of technical and training documents for both tutor and student,
- a set of computer disks with the source files for :
  - general documentation, practical exercises and course notes,
  - diagrams for CAD-type systems such as AUTOCAD / DMT 10 and DMX format.

3 - EXAMPLES OF PRACTICAL WORK

Exercise Nr. 1 - Objectives

Given that an industrial mechanism is defined by a set of drawings and documents, the student must be able to:

- produce cinematic line and technical schematic diagrams,
- draft maintenance and assembly instructions,
- identify the sequence of the rotational components,
- produce a workable solution.

Exercise Nr. 2 - Objectives

Using a part-assembled industrial mechanism with documentation provided, the student must be able to:

- determine the theoretical braking torque for the mechanism,
- validate results and modelling by means of experiment,
- predetermine braking torque by selecting the correct technical components,
- validate this predetermined torque,
- plot a graph representing the change in braking torque over time.

Exercise Nr. 3 - Objectives

Given that an industrial mechanism is defined by a set of drawings and documents, the student must be able to:

- identify the workable solution to perform any given technical function,
- identify the operating surfaces of each link in a series of components relating to a technical function,
- produce a list of dimensions suitable for a given operating condition.

4 - DIMENSIONS AND WEIGHT

H x L x D: 220 x 620 x 420 (mm)

Weight: 20 kg

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