

MCTR13.xls Revision No: 02 Date: December 30, 2020

MATERIAL HANDLING HYDRAULIC CRANE TRAINER

MODEL: MCTR13



FEATURES

- Robust and modular construction
- Electro hydraulic system

DESCRIPTION

Hydraulic crane is developed for demonstration purpose. Hydraulic components and its applications are demonstrated using the crane. Crane is supplied with hydraulic powerpack. There is a facility to deliberately induce faults for better training capabilities.

- Capacity: 200 kg
- Operations: winching, luffing, boom extension and slewing
- Hoisting/low<mark>ering</mark> operations can be achieved by hydraulic winch
- Overload protection provided
- Hoisting winch brake in case of power failure



- Counterbalance valve used in hoisting circuit
- Boom extension achieved by hydraulic cylinder
- Sequence valve is used for boom extension
- Limit switches are used for maximum slewing positions on either side

INSTRUCTION MANUAL

Self explanatory operating manuals are provided with each system. Detailed theory as well as practical exercises are also included in the manual.

EXPERIMENTAL CAPABILITIES

- Inlet Strainer Chocked
- Wrong Pressure Setting of Pressure Relief Valve
- Direction Control Valve Sticking
- Faulty Direction Control Valve
- Hydraulic Crane Overloaded
- Faulty Counter Balance Valve of Slewing Motor
- Faulty Counter Balance Valve of Luffing Cylinder
- The students then diagnose and locate the fault.

SERVICES REQUIRED

Electric supply

NiYo Engineers

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1. Since research and development is an on-going activity, the specifications mentioned herein are subject to change without notice

2. Photographs are indicative only.