

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.