



Rev A: Removed connection rod & Second tiller arm



**MAC ♦ N ♦ HOM SYSTEMS**  
**KOCHI - 20**

**DESIGNATION**

Electro-Hydro. Circuit Single Rudder  
with BHIMA IRS

**DWG. No.**

MHS-1449A  
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**DATE**

20.03.2024

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# ELECTRO-HYDRAULIC CIRCUIT SYSTEM PARAMETERS

**1) Pump Capacity:**

**Discharge : 1 lpm**  
**Max. Pressure : 200 kg/cm<sup>2</sup>**

**2) Hydraulic Cylinder**

**Operating Pressure : 40 kg/cm<sup>2</sup>**  
**Relief Valve Set Pressure : 50 kg/cm<sup>2</sup>**

**3) Helm Steering Wheel**

**Diameter : 686 mm ( 27")**

**4) Seamless Steel Tube**

**Material : Carbon Steel,**  
**Cold Drawn, Normalised &**  
**Pickled Tube**

**Specification : EN 10305-4**  
**Diameter : 16 mm**  
**Thickness : 2 mm**

**5) Hydraulic Cylinder**

**Model : BHIMA**  
**Stroke : 260 mm**  
**Ram : 25 mm**

**6) Hydraulic Hose:**

**Grade : R1**  
**I.D :  $\frac{1}{2}$ "**

**7) Electric Motor**

**1.0 HP, 50 Hz, 1440 rpm, 230V AC**

**8) Emergency Helm Pump**

**Discharge : 50 cc/rev**

Sl No.	Description
1.	Suction Strainer
2.	Hydraulic pump
3.	Non- Return Valve
4.	Flexible Coupling
5.	Electric Motor (24V DC)
6.	Oil Level Sensor
7.	Oil Temp. Sensor
8.	Filler Breather
9.	Dip Stick Oil Level Gauge
10.	Pressure Gauge
11.	Pr.Relief Valve
12.	Pre.Switch.Low Pre.Alarm
13.	Unloading Valve
14.	Sol.Ope.Directionl Valve
15a,15b	Ele. Line to Sol. Opnrd. Valve
16.	Joystick
17.	Hyd. Actuator-BHIMA IRS
18.	Tiller Arm (customer supply)
19.	Limit Switch
20.	Mechanical Stopper(customer Supply)
21.	Joy Stick
22.	Rudder Angle Sensor
23.	Rudder Angle Indicator
24a,24b	Isolation Valve
25.	By-Pass Valve
26.	Double Check Valve
27.	Emergency Manual Pump
28.	Oil Reservoir



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