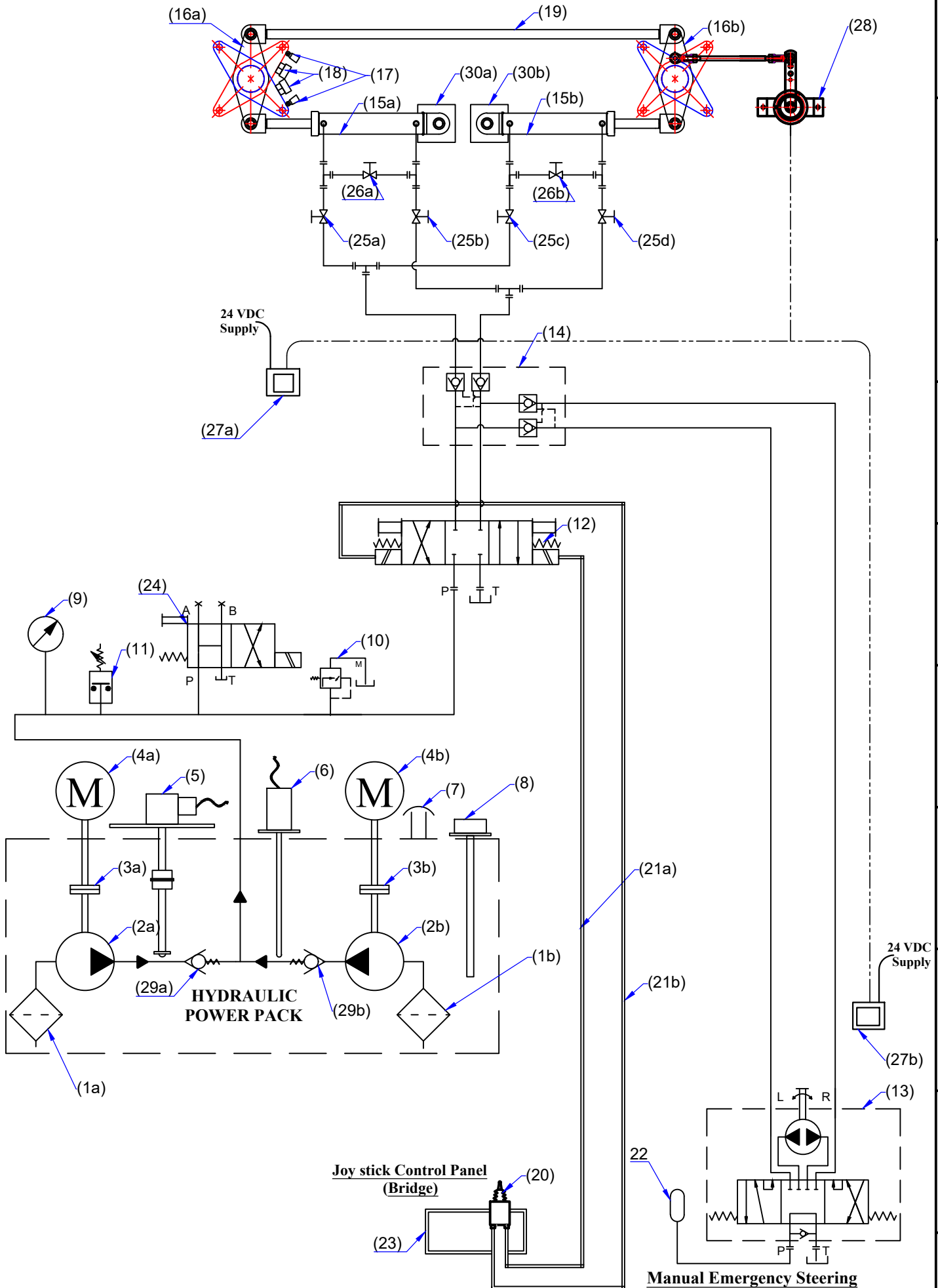


# Electro-Hyd. Circuit - JumboZ-1500



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

**DESIGNATION**

Electro-Hydro. Circuit Twin Rudder  
with Emer.Steering - JumboZ-1500E

**DWG. No.**

MHS-1836A  
(Page 1 of 2)

**DATE**

03.05.2023

A

B

C

D

E

F

G

H

# ELECTRO-HYDRAULIC CIRCUIT SYSTEM PARAMETERS

## 1) Pump Capacity:

**Discharge : 12 lpm**

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

## 2) Hydraulic Cylinder

**Operating Pressure : 70 kg/cm<sup>2</sup>**

**Relief Valve Set Pressure : 87.5 kg/cm<sup>2</sup>**

## 3) Helm Steering Wheel

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

## 4) Hydraulic Cylinder

**Model : JumboZ-1500**

**Stroke : 440 mm**

**Ram : 45 mm x 2**

## 5) Hydraulic Hose:

**Grade : R1**

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

## 6) Electric Motor

**5 HP, 50 Hz, 1440 rpm, 3Phase**

## 7) Emergency Helm Pump

**\*Discharge : 160 cc/rev**

## 8) Seamless Steel Tube

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

**Specification : EN 10305-4**

**Diameter : 16 mm**

**Thickness : 2 mm**

Sl No.	Description
1a,1b.	Suction Strainer
2a,2b.	Hydraulic Pump
3a,3b.	Flexible Coupling
4a,4b.	Electric Motor
5	Oil Level Sensor
6	Oil Temp. Sensor
7	Filler Breather
8	Dip Stick
9	Pressure Gauge
10	Pr.Relief Valve
11	Pre.Switch.Low Pre.Alam
12	Sol.Ope.Directiona Valve
13	Emergency Manual Pump
14	Pilot Operated Double Check Valve
15a,15b	Hyd. Actuator - JumboZ 1500
16a,16b	Tiller Arm
17	Limit Switch
18	Mechanical Stopper ( Yard Supply )
19	Connection Rod ( Yard Supply )
20	Joy Stick
21a,21b	Ele.Line to Sol.Ope.Valve
22	Reservoir
23	Steering Gear Control Panel
24	Unloading Valve
25a,25b 25c,25d	Isolation Valve
26a,26b	By-Pass Valve
27a,27b	Rudder Angle Indicator
28	Rudder Angle Sensor
29a,29b	Non-Return Valve
30a,30b	Rear End Bracket

\*RevA: Emergency helm pump discharge changed to 160cc



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

**DESIGNATION**

Electro-Hydro. Circuit JumboZ-1500

**DWG. No.**

MHS-1836A  
(Page 2 of 2)

**DATE**

03.05.2023

A

B

C

D

E

F

G

H