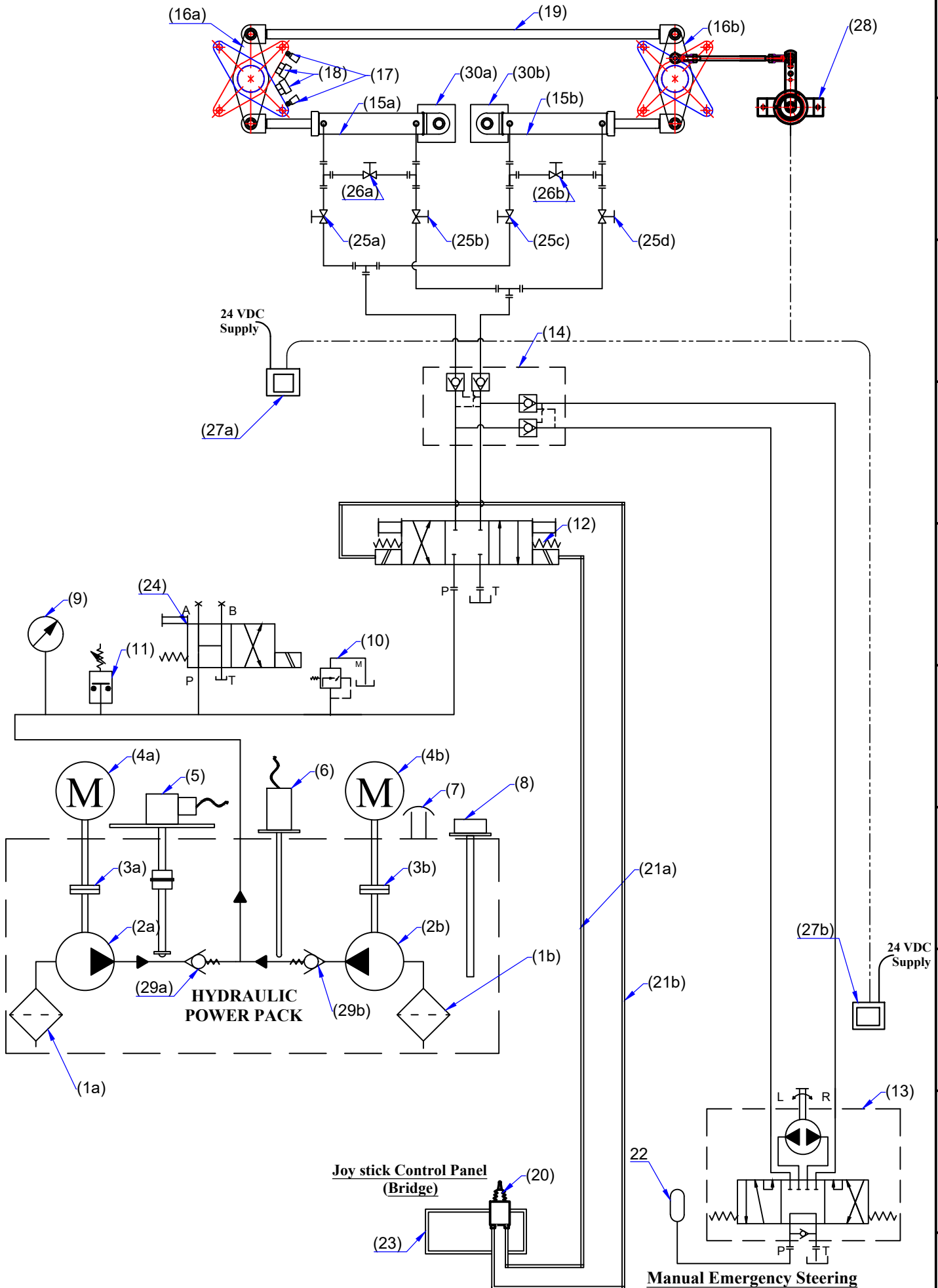


# Electro-Hyd. Circuit - JumboZ-2800



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

**DESIGNATION**  
Electro-Hydro. Circuit Twin Rudder  
with Emer.Steering - JumboZ-2800E

**DWG. No.**  
MHS-1834  
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**DATE**  
28.04.2023

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# 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) Stainless Steel Tube

**Material : Stainelss Steel**

**Specification : ASTMA 269 TP  
304 Grade**

**Diameter : 16 mm**

**Thickness : 2 mm**

## 5) Hydraulic Cylinder

**Model : JumboZ-2800**

**Stroke : 440 mm**

**Ram : 50 mm x 2**

## 6) Hydraulic Hose:

**Grade : R1**

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

## 7) Electric Motor

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

## 8) Emergency Helm Pump

**Discharge : 100 cc/rev**

| 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.Directionl Valve           |
| 13                 | Emergency Manual Pump              |
| 14                 | Pilot Operated Double Check Valve  |
| 15a,15b            | Hyd. Actuator - JumboZ 2800        |
| 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<br>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                   |



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