# SERVICE MANUAL

## E37C
Mini Excavator

Part number 51487922
English
August 2018

NEW HOLLAND CONSTRUCTION

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# Pump - Troubleshooting

| Problem | Possible Cause | Correction |
|---|---|---|
| **Overload to engine** | Speed is higher than standard | Readjust it as standard |
| | Setting pressure is higher than specifications | Readjust it as specifications |
| | Damage of internal parts of pump | Repair or replace |
| **Low pump flow or low pressure** | Speed down of engine | Readjust of engine speed |
| | Wrong coupling | Repair or replace |
| | Damage of internal parts of pump | Repair or replace |
| **Abnormal noise or abnormal vibration (cavitations)** | The level of oil in the tank is low | Replenish the tank with oil |
| | Air in the oil | Check piping<br>Bleed the air in the hydraulic circuit |
| | Water in the oil | Replace oil |
| | Clog of suction filter | Clean or replace |
| | High suction pressure | Correction |
| | Damage of piston shoe | Replace |
| | Installation condition is no good | Correction |
| | Wrong coupling | Replace |
| **Oil leakage** | Damage of O-ring or packing | Replace |
| | Loosened plug | Tight up |
| | Leaking from oil seal | Replace<br>Replace of oil seal |



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# Counterweight - Install

**⚠ WARNING**

**Avoid injury!**
**Shut off the engine, remove the key, and make sure all machine motion stops before you service the machine.**
**Failure to comply could result in death or serious injury.**

W0128B

**⚠ WARNING**

**Avoid injury!**
**Use Personal Protective Equipment (PPE), including protective goggles, gloves, and safety footwear.**
**Failure to comply could result in death or serious injury.**

W0038A

**⚠ WARNING**

**Crushing hazard!**
**The lifting systems must be operated by qualified personnel who are aware of the correct procedures to follow. Make sure all lifting equipment is in good condition, and all hooks are equipped with safety latches.**
**Failure to comply could result in death or serious injury.**

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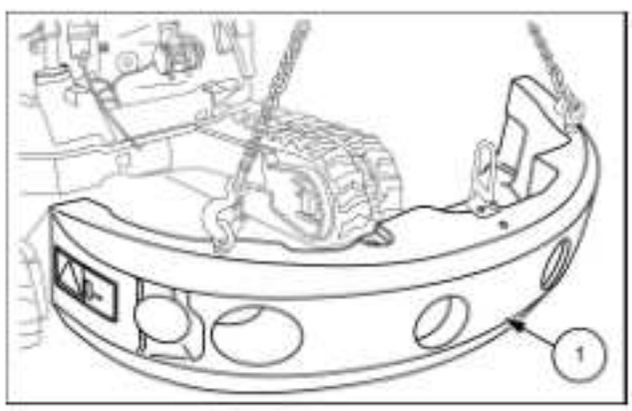
**⚠ WARNING**

**Heavy objects!**
**Lift and handle all heavy components using lifting equipment with adequate capacity. Always support units or parts with suitable slings or hooks. Make sure the work area is clear of all bystanders.**
**Failure to comply could result in death or serious injury.**

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1. Lift the counterweight **(1)** and place it on the machine.

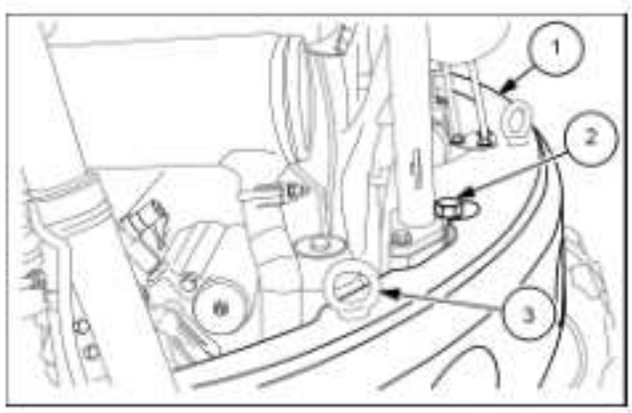
***NOTE:*** *the weight of the counterweight is approximately* ***410 kg (903.9 lb)***.




2. Use a wrench [ **30 mm**] to tighten the bolts **(2)** of the counterweight **(1)**.

   Tightening torque: **378.0 – 462.0 N·m**
   **(278.8 – 340.8 lb ft)**

3. Remove the eyebolts **(3)** and install the protective caps on the counterweight **(1)**.






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| Component | Connector | Connector type |
|---|---|---|
| Tacho sensor | **CD-17** | SUMITOMO |
| Intermediate connector: right-hand console harness - main harness | **CN-1** | AMP |
| Intermediate connector: main harness - right-hand console harness | **CN-2** | AMP |
| Intermediate connector: main harness - left-hand console harness | **CN-3** | AMP |
| Intermediate connector: relay harness - main harness | **CN-5** | KET |
| Intermediate connector: relay harness - main harness | **CN-6** | AMP |
| Fuse box | **CN-36** | – |
| Instrument cluster | **CN-56** | AMP |
| Fusible link | **CN-60** | AMP |
| Safety solenoid valve | **CN-68** | DEUTSCH |
| Engine Control Unit (ECU) | **CN-93** | FCI |
| Anti-restart relay | **CR-5** | – |
| Engine start relay | **CR-23** | KET |
| Air-heater relay | **CR-24** | KET |
| Starter switch | **CS-2** | KET |
| Safety switch | **CS-4** | AMP |
| Starter switch | **CS-46** | KET |
| Master switch | **CS-74** | RING TERM |
| Diode | **DO-1** | – |
| Resister | **RS-2** | – |

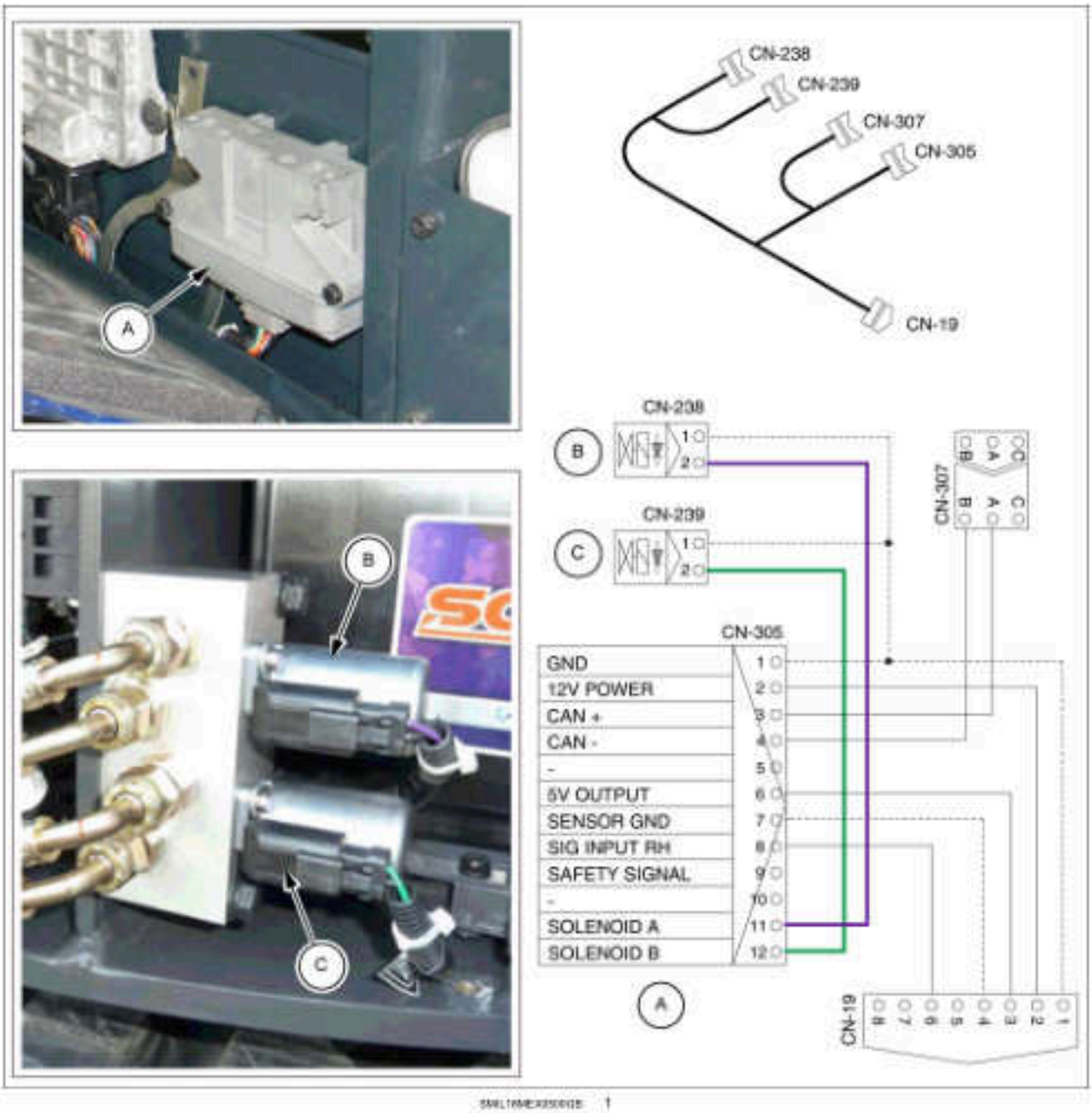


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# Electrical system - Component identification - First auxiliary system (2-way, option)

Specification: **12 V**

A. EPPR controller ( **CN-305A**)
B. EPPR solenoid (release) ( **CN-238A**)
C. EPPR solenoid (clamp) ( **CN-239A**)

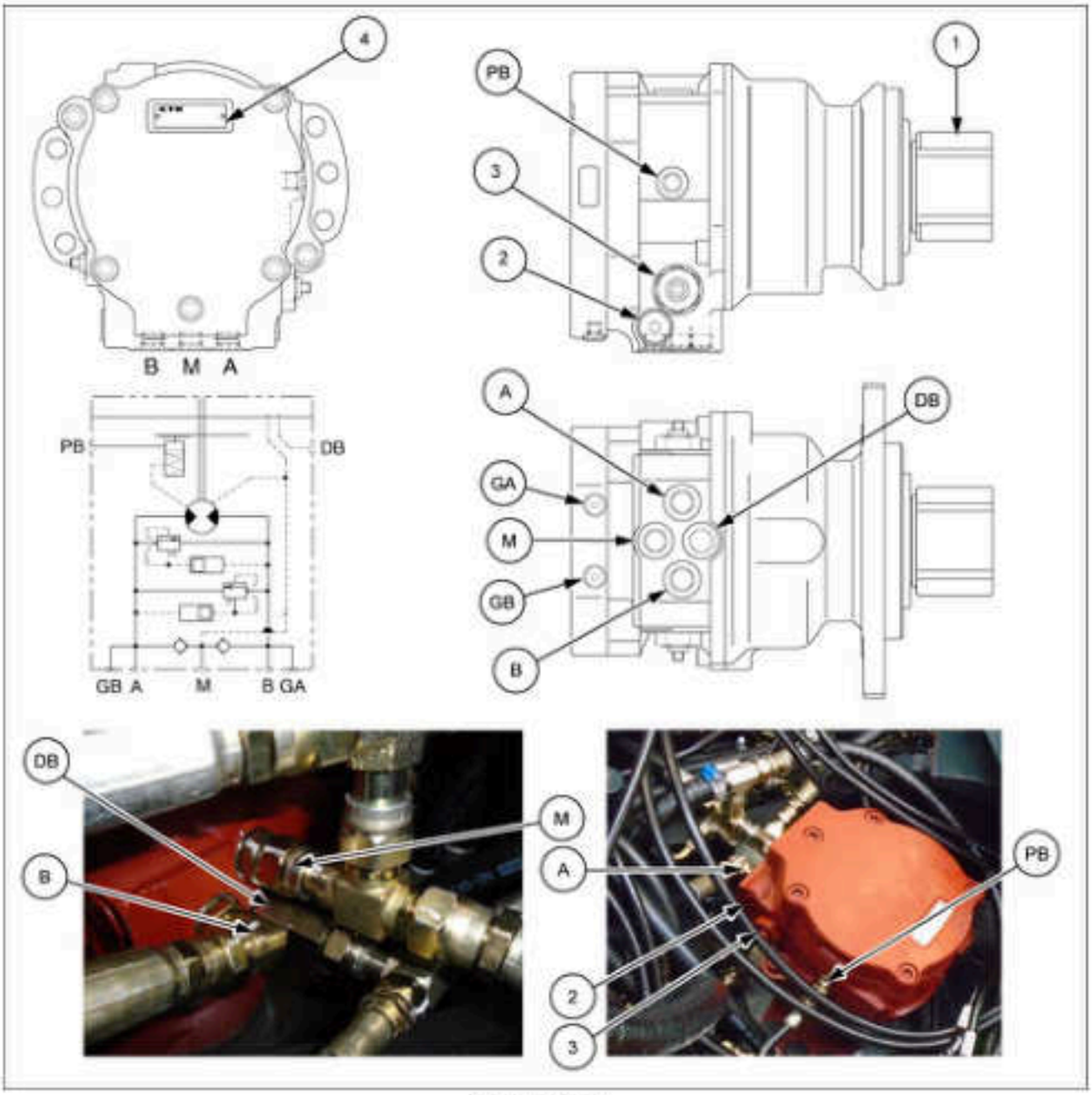



***NOTE:*** *the solenoids of the EPPR valve can be of two types (version A or version B). In the figure, version A is shown.*



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# Hydraulic swing system - Overview

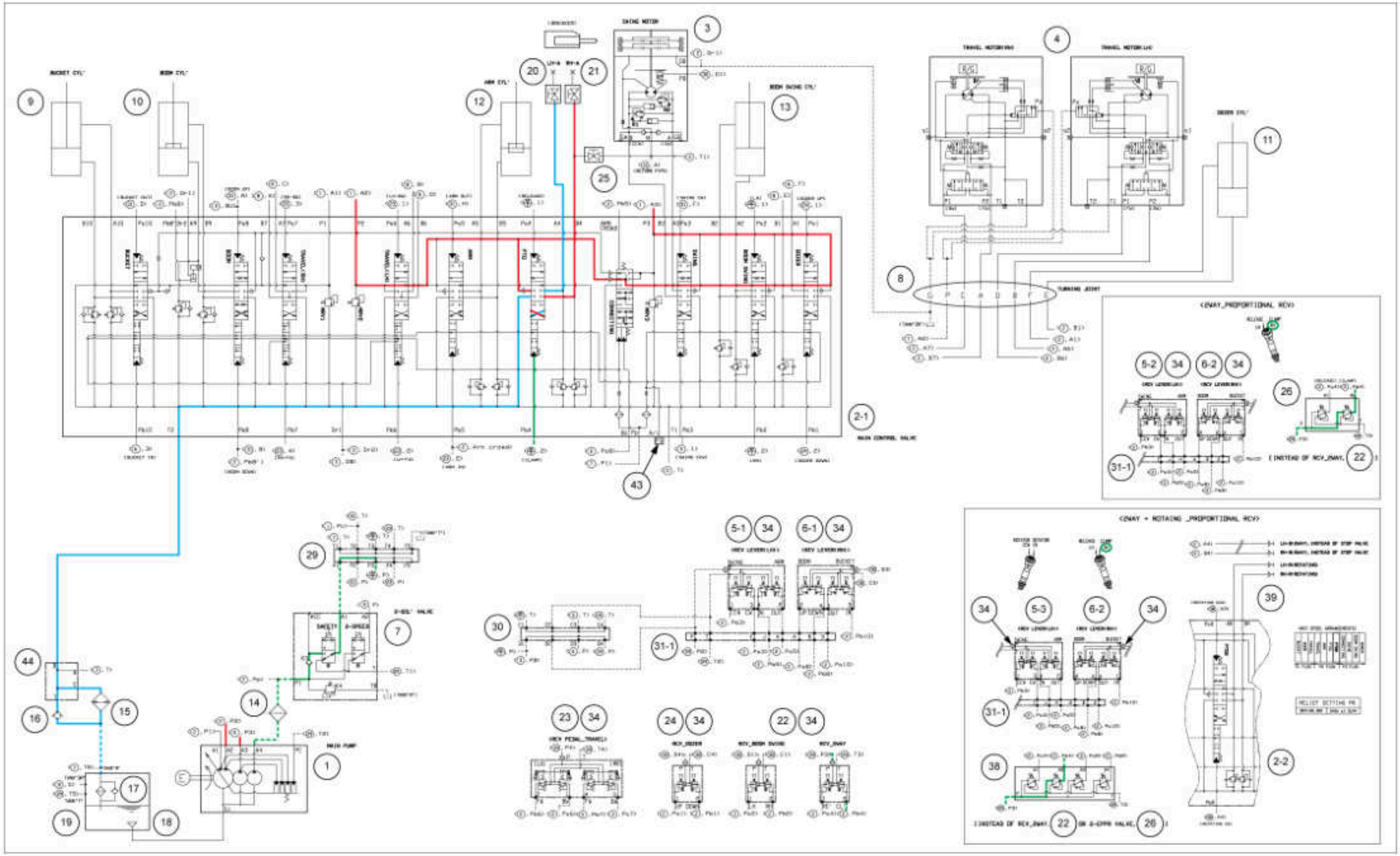



(1) Output shaft
(2) Check valve
(3) Relief valve
(4) Name plate

| Port | Port name | Port size |
|---|---|---|
| A | Main port (left-hand swing) | PF 3/8 |
| B | Main port (right-hand swing) | PF 3/8 |
| DB | Drain port | PF 3/8 |
| M | Make up port | PF 3/8 |
| PB | Brake release port | PF 1/4 |
| GA, GB | Gauge port | PF 1/8 |



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