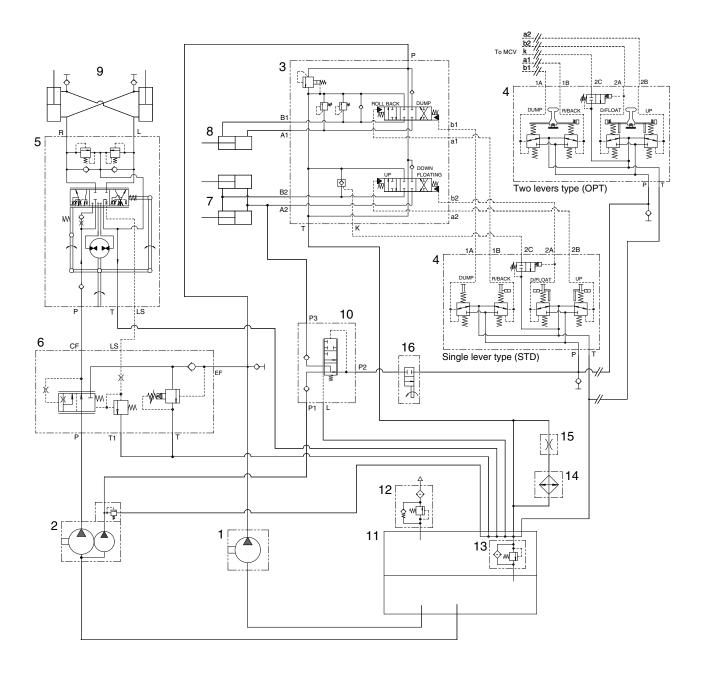
# SECTION 5 WORK EQUIPMENT

| Group | 1 | Hydraulic circuit ·····                | 5-1  |
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## **GROUP 1 HYDRAULIC CIRCUIT**

#### 1. HYDRAULIC CIRCUIT

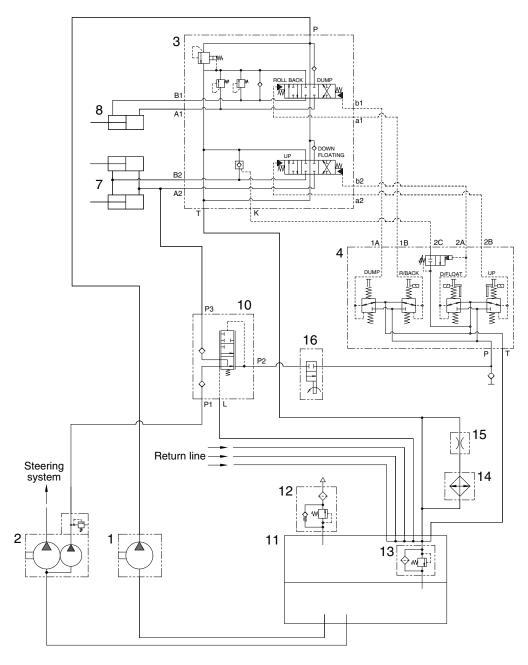


- 1 Main pump
- 2 Steering and pilot pump
- 3 Main control valve
- 4 Remote control valve
- 5 Steering unit
- 6 Steering valve

- 7 Boom cylinder
- 8 Bucket cylinder
- 9 Steering cylinder
- 10 Pressure select valve
- 11 Hydraulic tank
- 12 Air breather

- 13 Return filter
- 14 Oil cooler
- 15 Orifice fitting
- 16 Safety valve

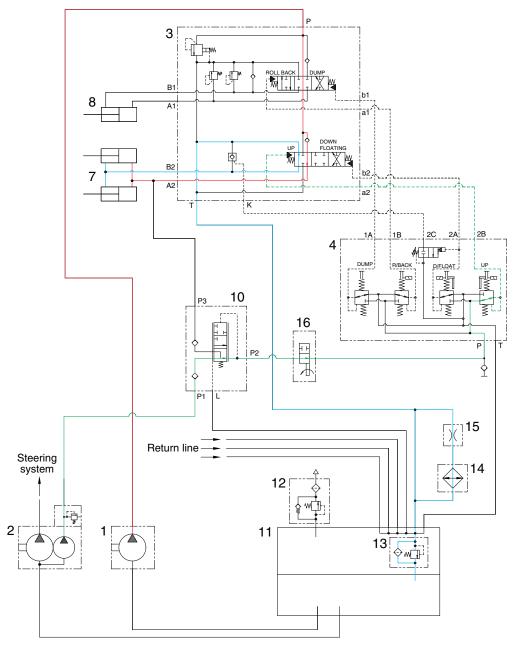
#### 2. WORK EQUIPMENT HYDRAULIC CIRCUIT



- 1 Main pump
- 2 Steering and pilot pump
- 3 Main control valve
- 4 Remote control valve
- 7 Boom cylinder
- 8 Bucket cylinder
- 10 Pressure select valve
- 11 Hydraulic tank
- 12 Air breather
- 13 Return filter

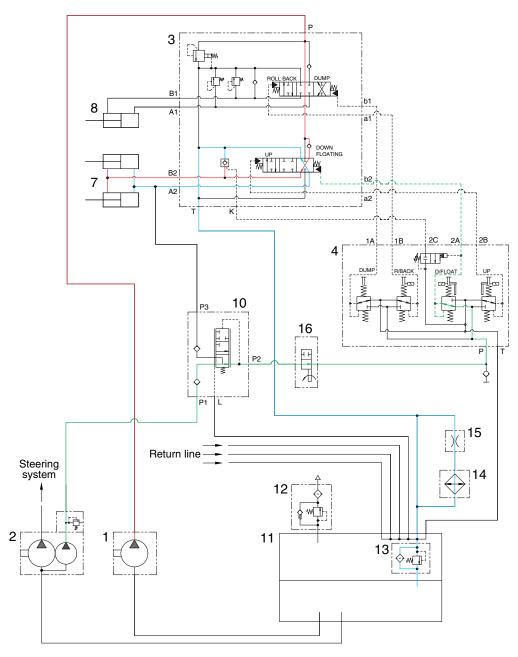
- 14 Oil cooler
- 15 Orifice fitting
- 16 Safety valve

#### 1) WHEN THE CONTROL LEVER IS IN THE BOOM RAISE POSITION



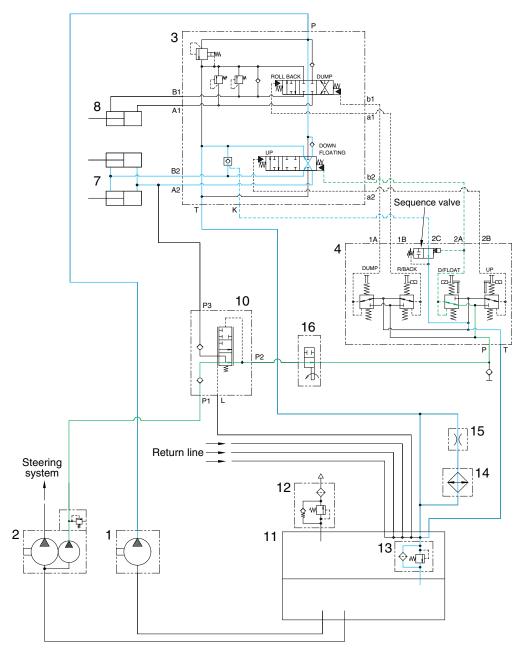
- · When the RCV lever is pulled back, the boom spool is moved to raise position by pilot oil pressure from port 2B of RCV.
- The oil from main pump (1) flows into main control valve (3) and then goes to the large chamber of boom cylinder (7).
- The oil from the small chamber of boom cylinder (7) returns to hydraulic oil tank (11) through the boom spool at the same time.
- · When this happens, the boom goes up.

#### 2) WHEN THE CONTROL LEVER IS IN THE BOOM LOWER POSITION



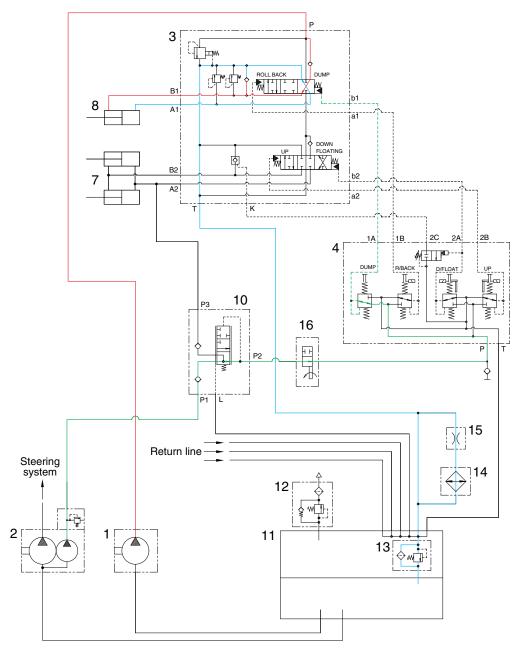
- When the RCV lever is pushed forward, the boom spool is moved to lower position by pilot oil pressure from port 2A of RCV.
- The oil from main pump (1) flows into main control valve (3) and then goes to small chamber of boom cylinder (7).
- The oil returned from large chamber of boom cylinder (7) returns to hydraulic tank (11) through the boom spool at the same time.

#### 3) WHEN THE CONTROL LEVER IS IN THE BOOM FLOAT POSITION



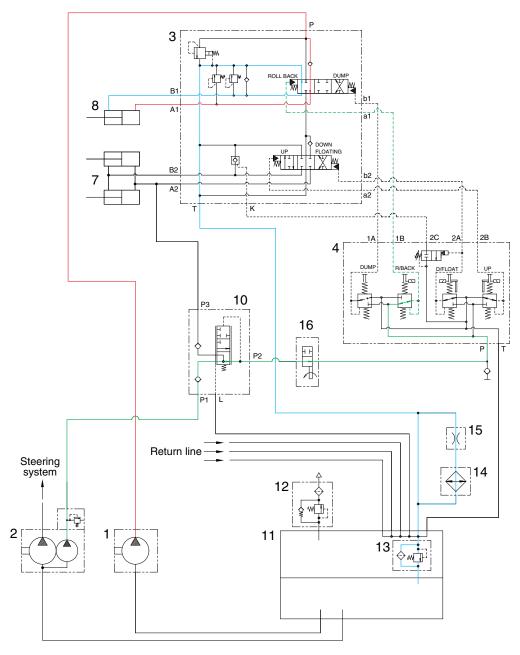
- · When the RCV lever of boom is in lower, move it futher to forward to get in floating position.
- · When the float detent is actived, the sequence valve opens and the flow in discharging way, K port, inside MCV is directed to tank through 2C port inside RCV.
- The port P, A2, B2 and T become connected to keep the cylinder in floating position.
  In this condition, when the bucket is in contact with the ground, it can be move up and down in accordance with the shape of the ground.

#### 4) WHEN THE CONTROL LEVER IS IN THE BUCKET DUMP POSITION



- · If the RCV lever (4) is pushed right, the bucket spool is moved to dump position by pilot oil pressure from port 1A of RCV.
- The oil from main pump (1) flows into main control valve (3) and then goes to the small chamber of bucket cylinder (8).
- The oil at the large chamber of bucket cylinder (8) returns to hydraulic tank (11).
- · When this happens, the bucket is dumped.

### 5) WHEN THE CONTROL LEVER IS IN THE BUCKET ROLL BACK (retract) POSITION



- · If the RCV lever is pulled left, the bucket spool is moved to roll back position by pilot oil pressure from port 1B of RCV.
- The oil from main pump (1) flows into main control valve (3) and then goes to the large chamber of bucket cylinder (8).
- The oil at the chamber of bucket cylinder (8) returns to hydraulic tank (11).
- · When this happens, the bucket roll back.