

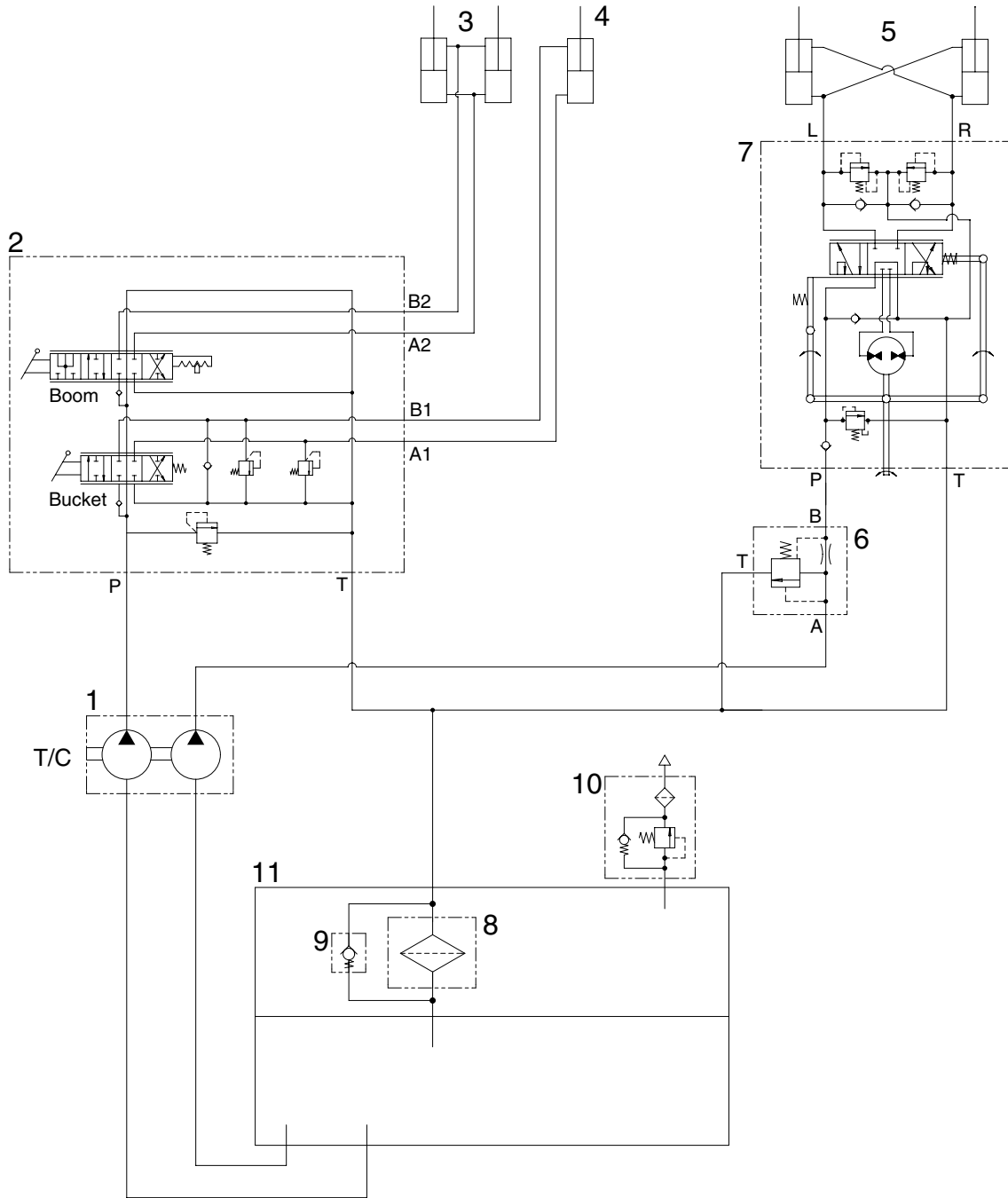
## SECTION 5 WORK EQUIPMENT

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# SECTION 5 WORK EQUIPMENT

## GROUP 1 HYDRAULIC CIRCUIT

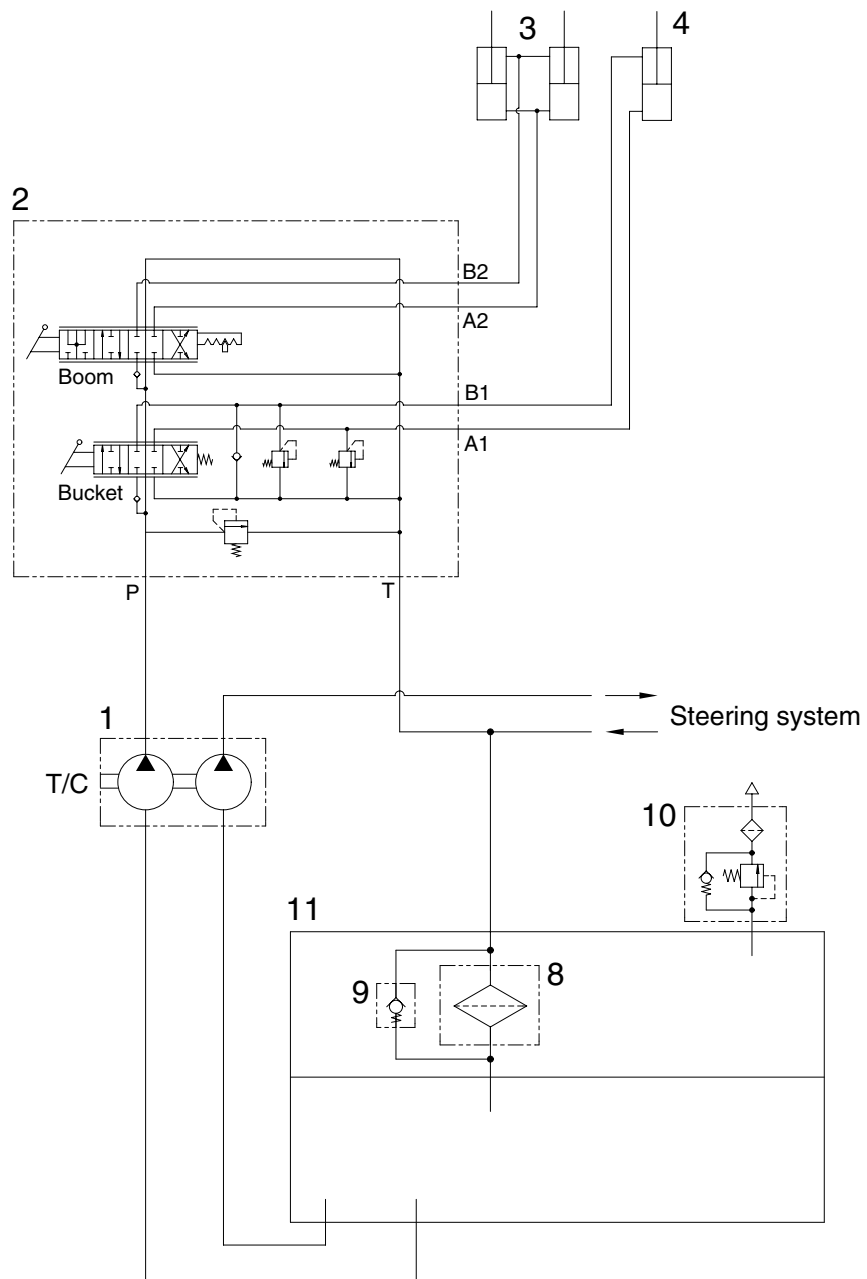
### 1. HYDRAULIC CIRCUIT



830K3HC01E

- |   |                    |   |                   |    |                |
|---|--------------------|---|-------------------|----|----------------|
| 1 | Main pump          | 5 | Steering cylinder | 9  | Bypass valve   |
| 2 | Main control valve | 6 | Steering valve    | 10 | Air breather   |
| 3 | Boom cylinder      | 7 | Steering unit     | 11 | Hydraulic tank |
| 4 | Bucket cylinder    | 8 | Return filter     |    |                |

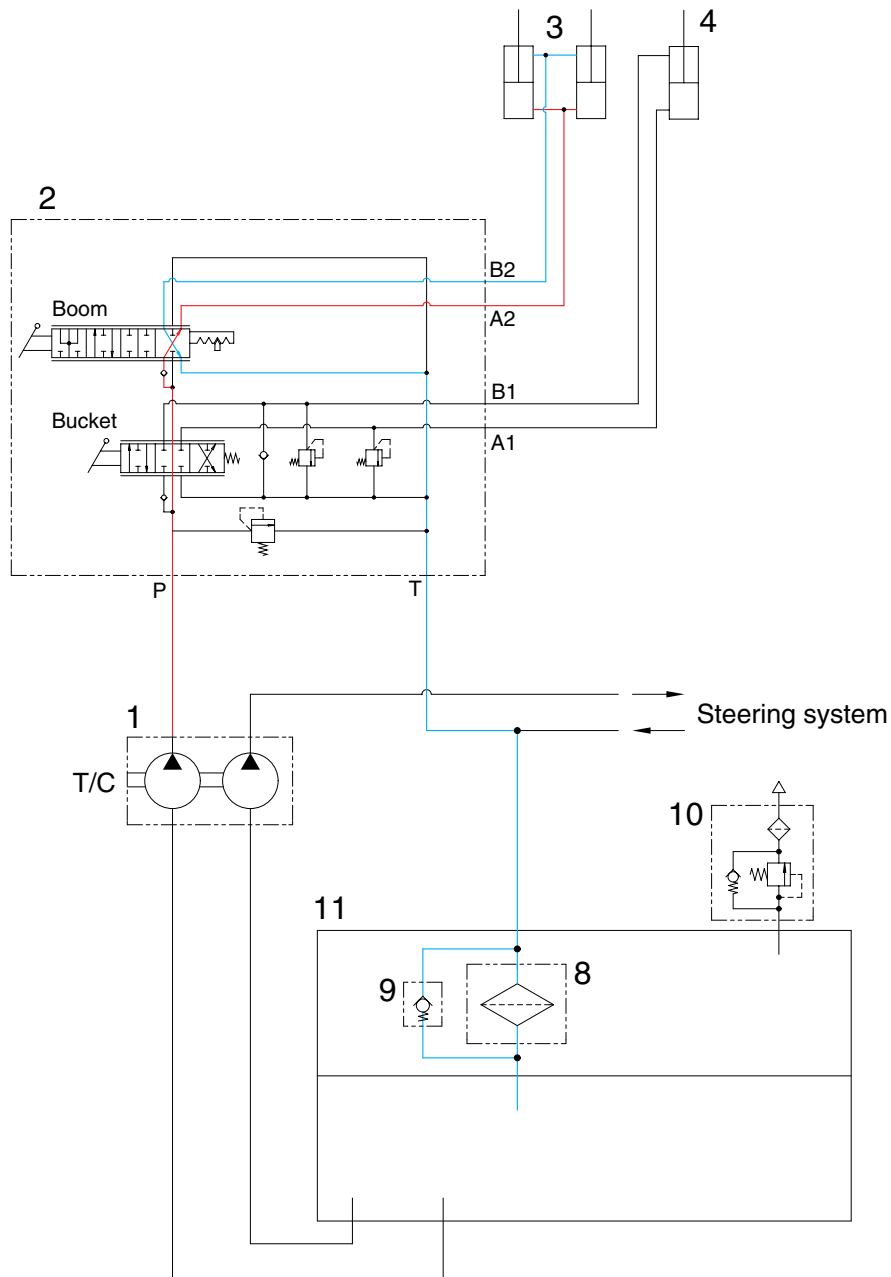
## 2. WORK EQUIPMENT HYDRAULIC CIRCUIT



830K3HC02E

- |   |                    |    |                |
|---|--------------------|----|----------------|
| 1 | Main pump          | 8  | Return filter  |
| 2 | Main control valve | 9  | Bypass valve   |
| 3 | Boom cylinder      | 10 | Air breather   |
| 4 | Bucket cylinder    | 11 | Hydraulic tank |

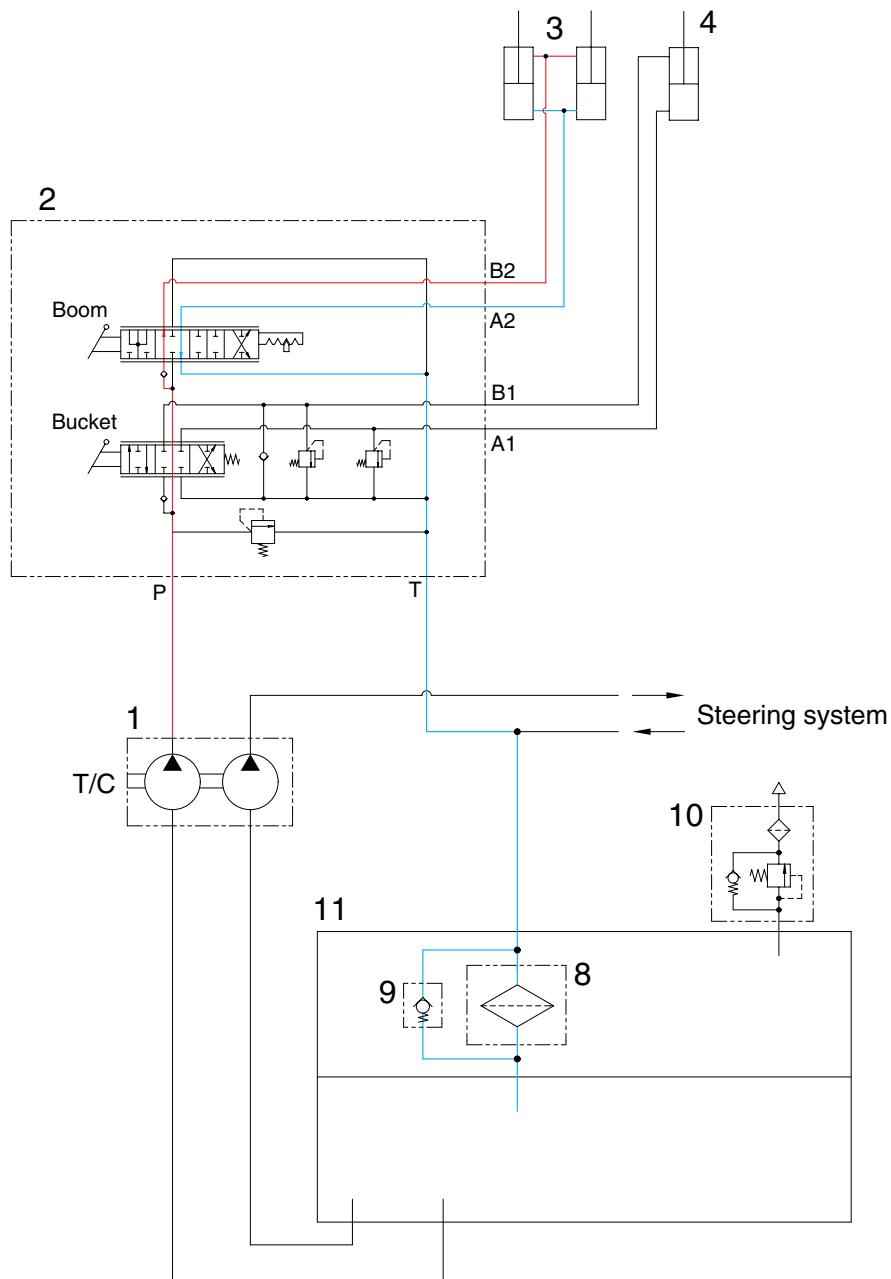
## 1) WHEN THE BOOM CONTROL LEVER IS IN THE RAISE POSITION



830K3HC21

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

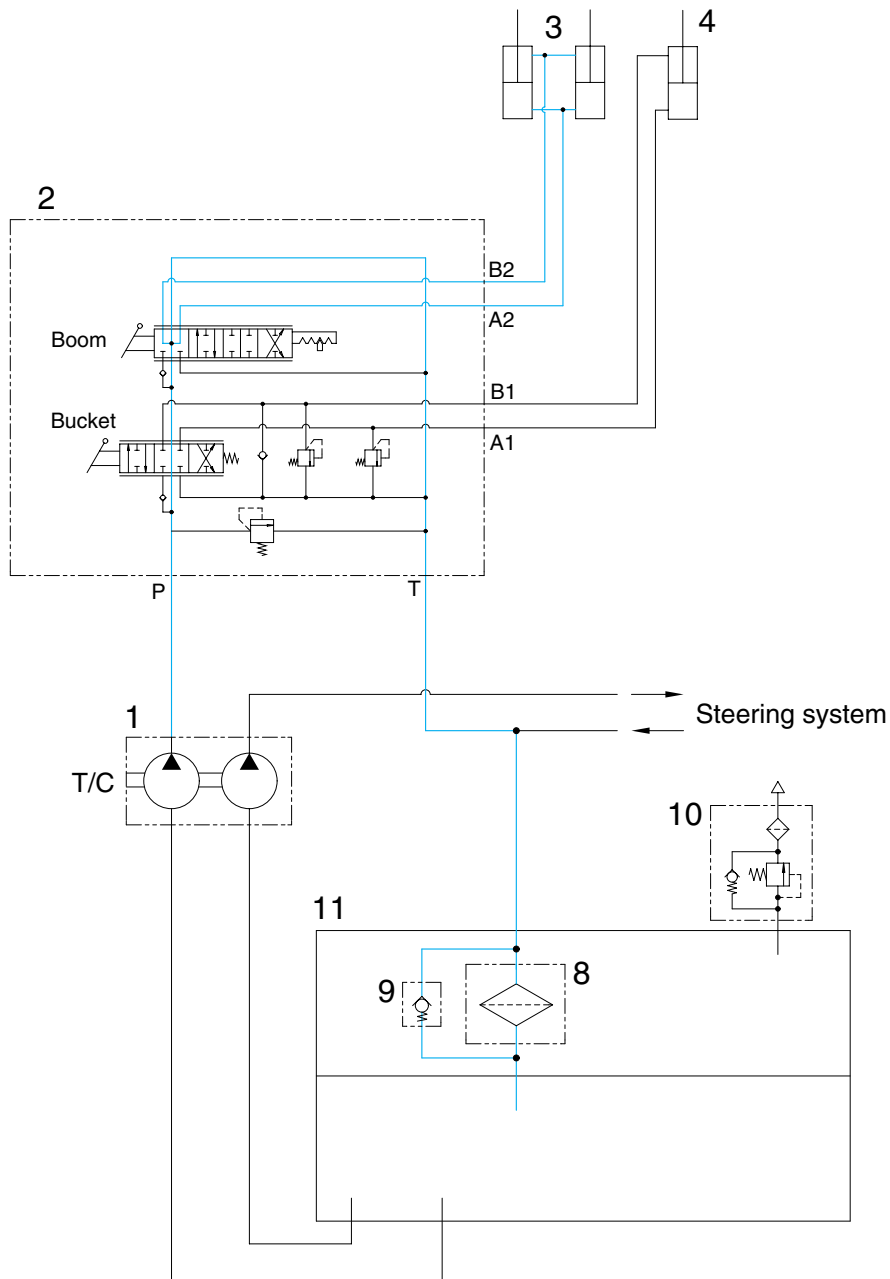
## 2) WHEN THE BOOM CONTROL LEVER IS IN THE LOWER POSITION



830K3HC22

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

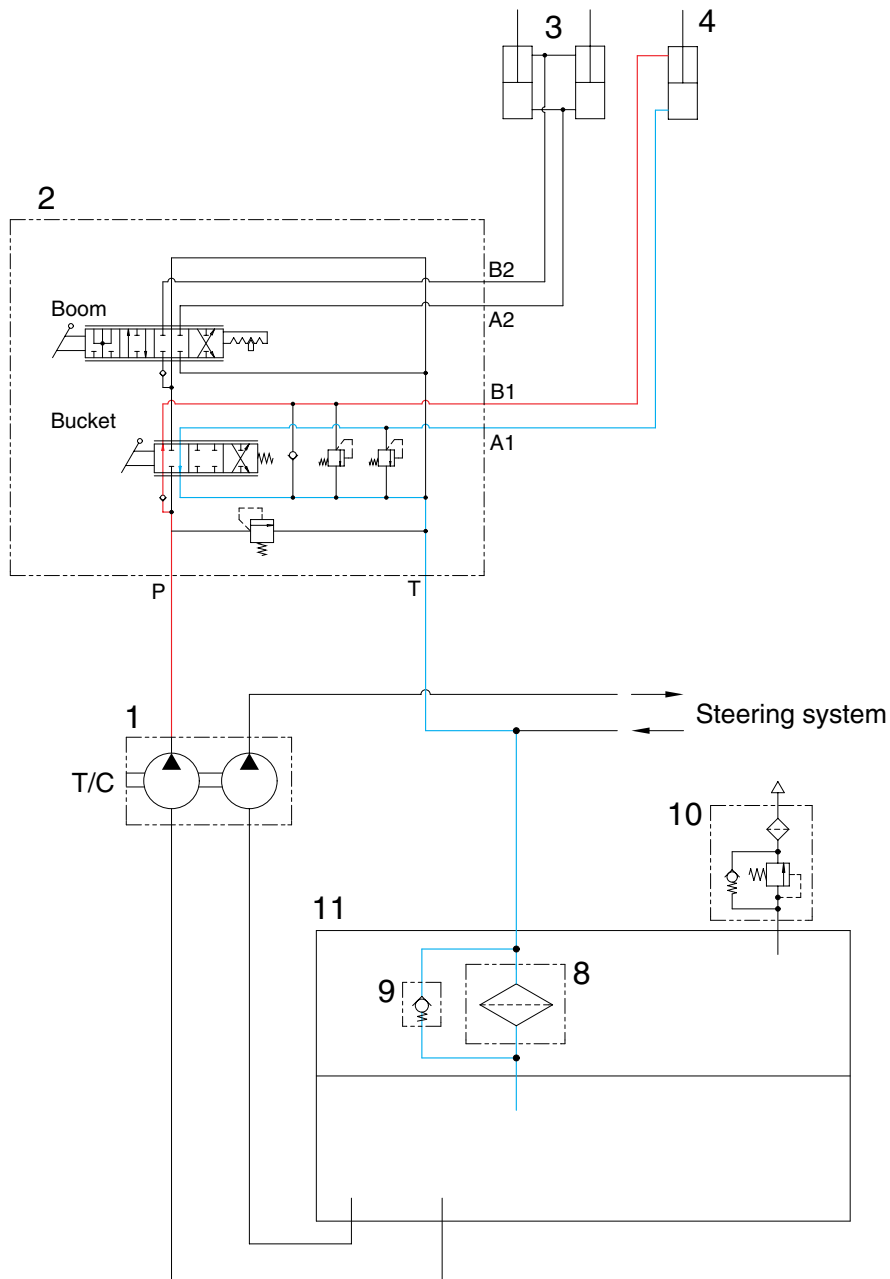
### 3) WHEN THE BOOM CONTROL LEVER IS IN THE FLOAT POSITION



830K3HC23

- When the boom control lever is pushed further forward from the lower position, then the boom spool is moved to floating position.
- The work ports (A2), (B2) and the small chamber and the large chamber are connected to the return passage, so the boom will be lowered due to its own weight.
- 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.

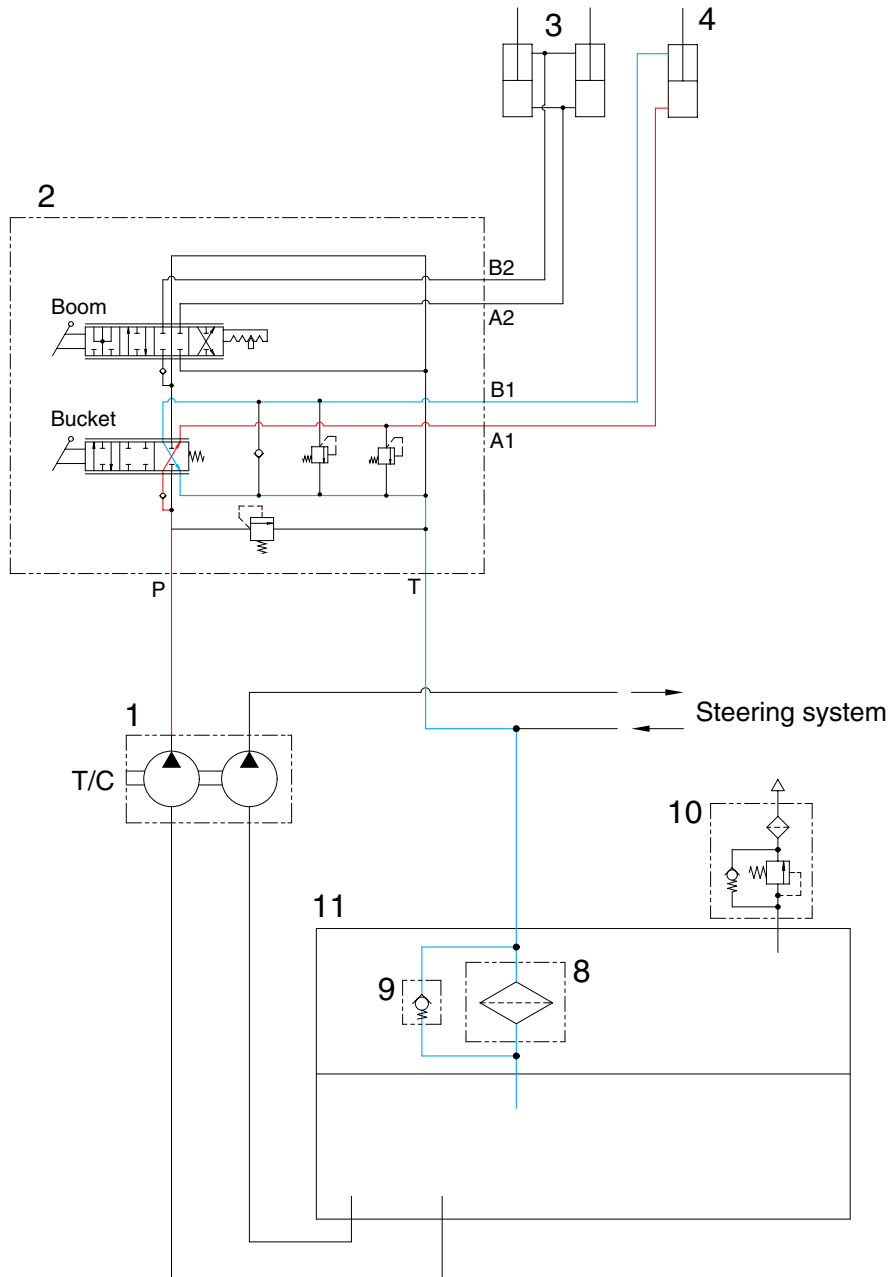
#### 4) WHEN THE BUCKET CONTROL LEVER IS IN THE DUMP POSITION



830K3HC24

- If the bucket control lever is pushed forward, the bucket spool is moved to dump position.
- The oil from main pump (1) flows into main control valve (2) and then goes to the small chamber of bucket cylinder (4).
- The oil at the large chamber of bucket cylinder (4) returns to hydraulic tank (11).
- When this happens, the bucket is dumped.

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



830K3HC25

- If the bucket control lever is pulled back, the bucket spool is moved to roll back position.
- The oil from main pump (1) flows into main control valve (2) and then goes to the large chamber of bucket cylinder.
- The oil at the chamber of bucket cylinder (4) returns to hydraulic tank (11).
- When this happens, the bucket roll back.