

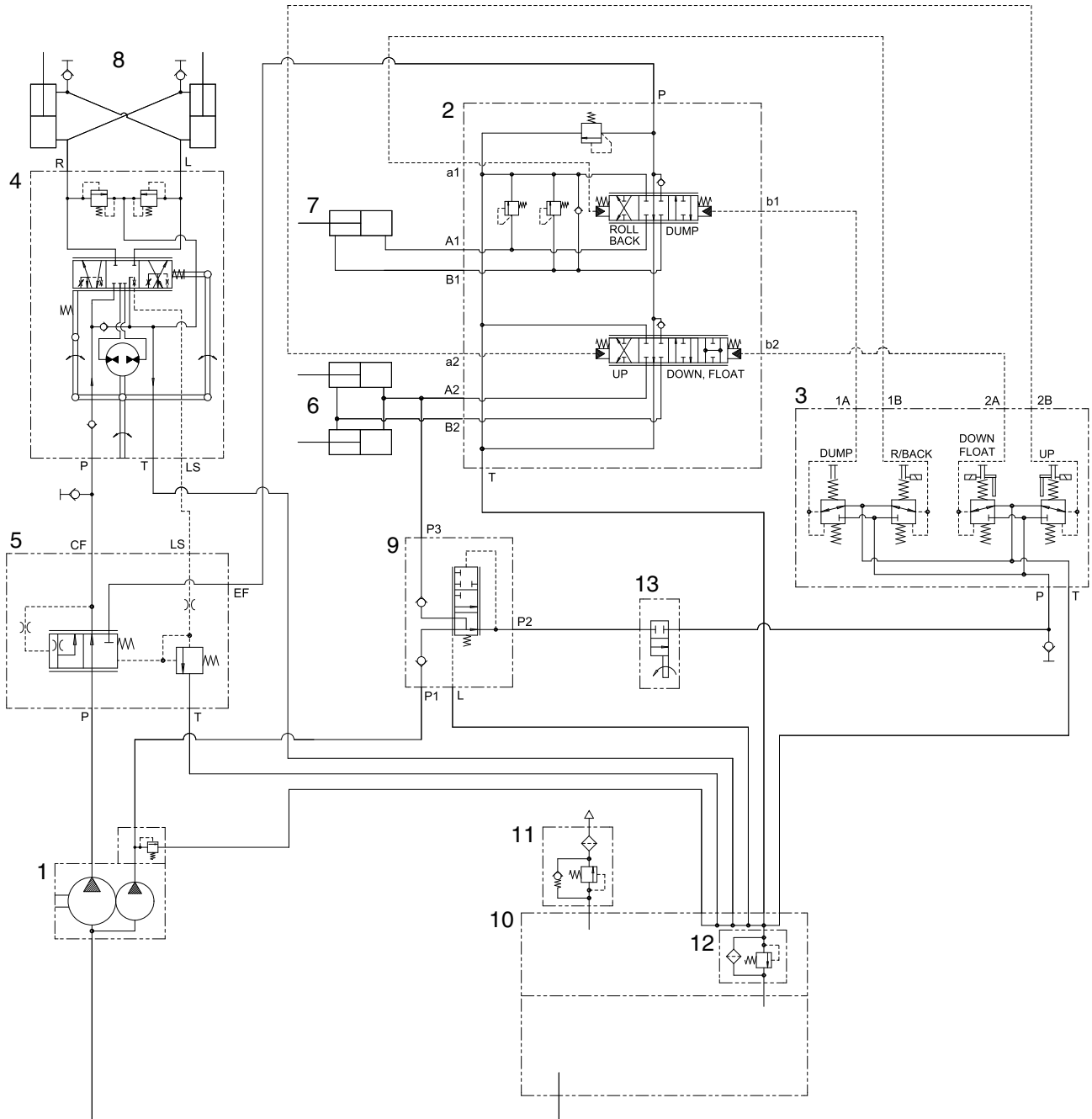
## SECTION 5 WORK EQUIPMENT

Group 1 Hydraulic circuit .....	5-1
Group 2 Structure and function .....	5-8
Group 3 Operational checks and troubleshooting .....	5-30
Group 4 Test and adjustments .....	5-40

# SECTION 5 WORK EQUIPMENT

## GROUP 1 HYDRAULIC CIRCUIT

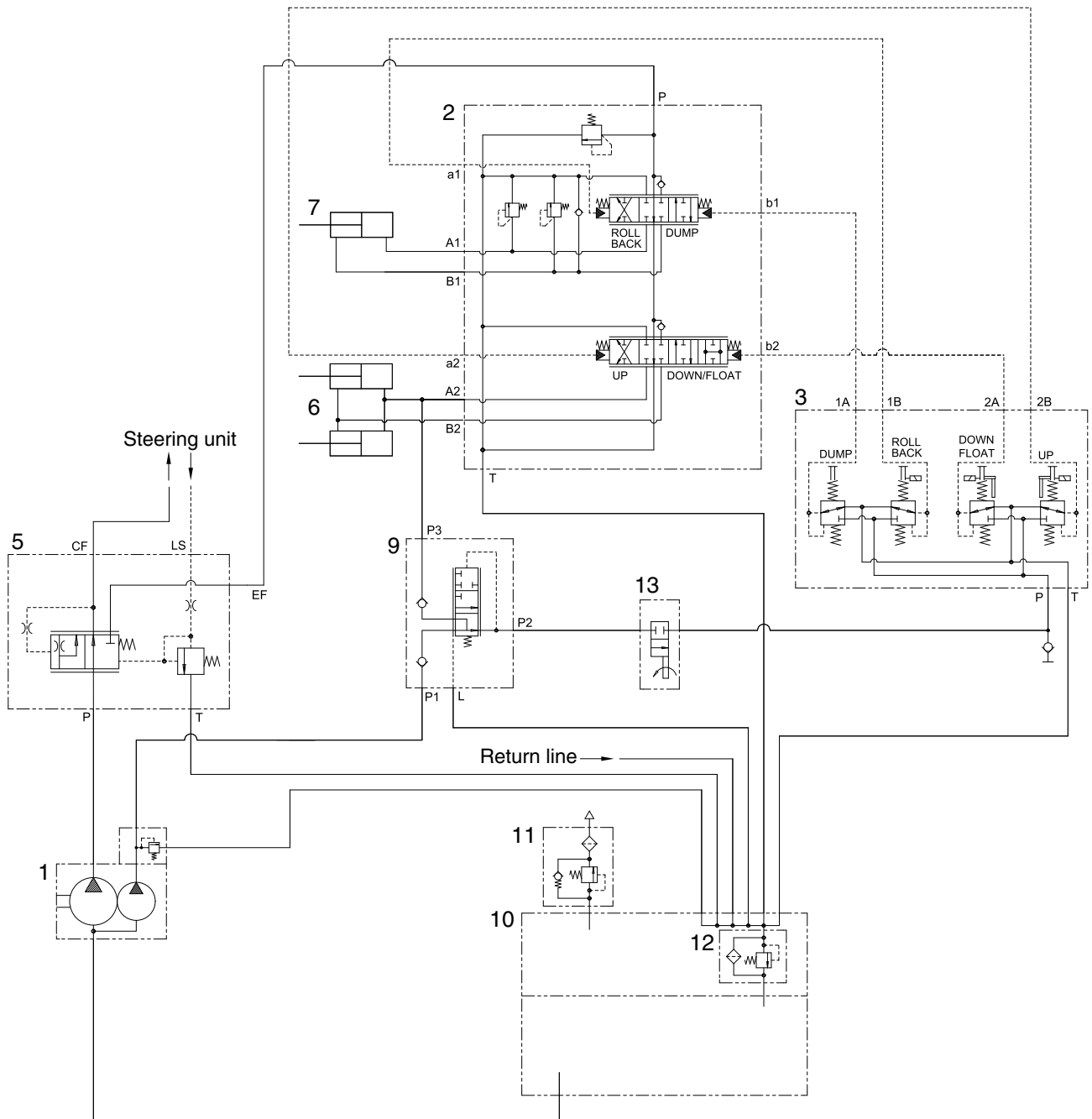
### 1. HYDRAULIC CIRCUIT



7355HC01

- |   |                         |    |                       |    |               |
|---|-------------------------|----|-----------------------|----|---------------|
| 1 | Main pump (+pilot pump) | 6  | Boom cylinder         | 11 | Air breather  |
| 2 | Main control valve      | 7  | Bucket cylinder       | 12 | Return filter |
| 3 | Remote control lever    | 8  | Steering cylinder     | 13 | Safety valve  |
| 4 | Steering unit           | 9  | Pressure select valve |    |               |
| 5 | Priority valve          | 10 | Hydraulic tank        |    |               |

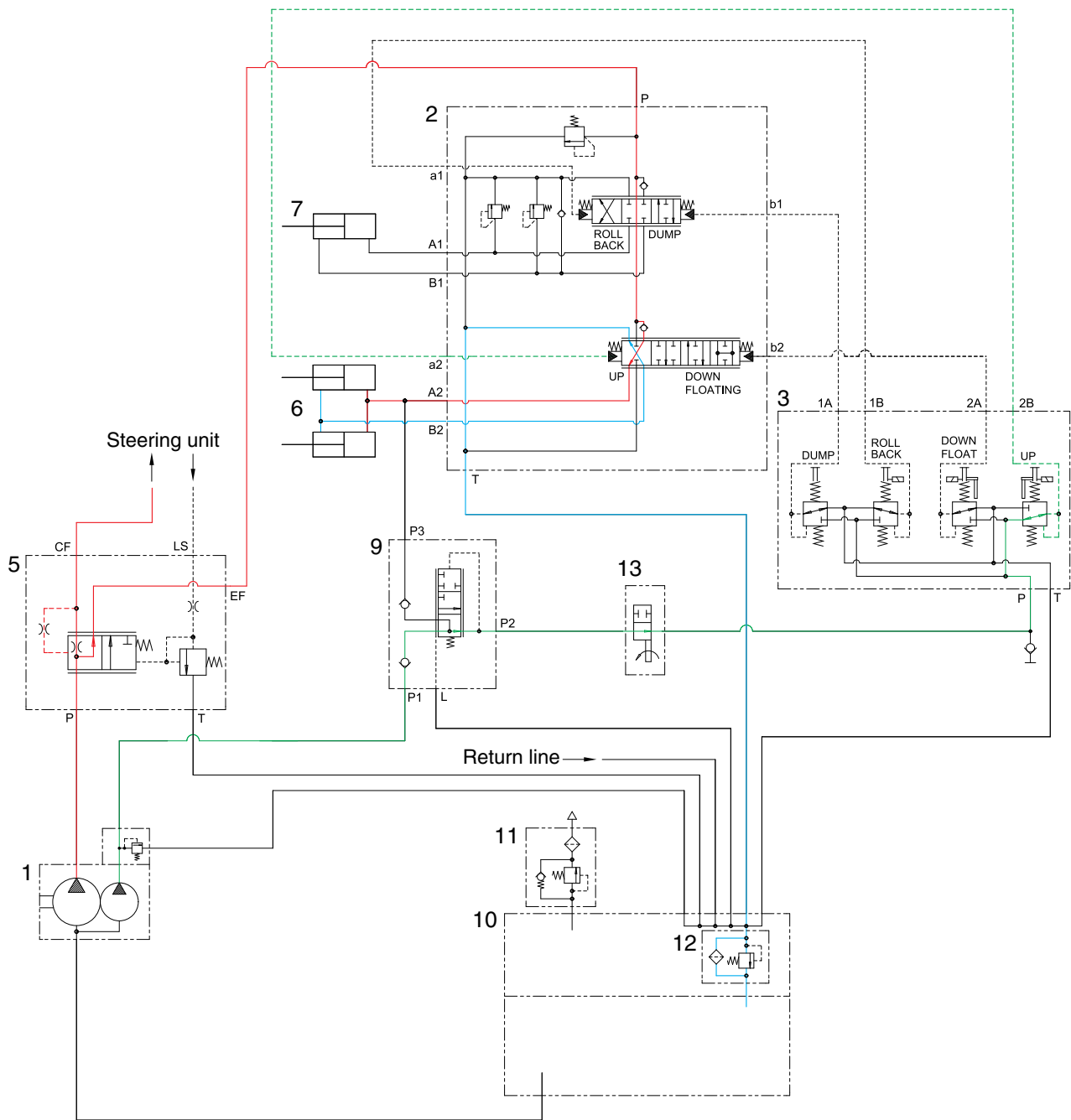
## 2. WORK EQUIPMENT HYDRAULIC CIRCUIT



7355WE01

- |   |                         |    |                       |    |               |
|---|-------------------------|----|-----------------------|----|---------------|
| 1 | Main pump (+pilot pump) | 6  | Boom cylinder         | 11 | Air breather  |
| 2 | Main control valve      | 7  | Bucket cylinder       | 12 | Return filter |
| 3 | Remote control valve    | 9  | Pressure select valve | 13 | Safety valve  |
| 5 | Priority valve          | 10 | Hydraulic tank        |    |               |

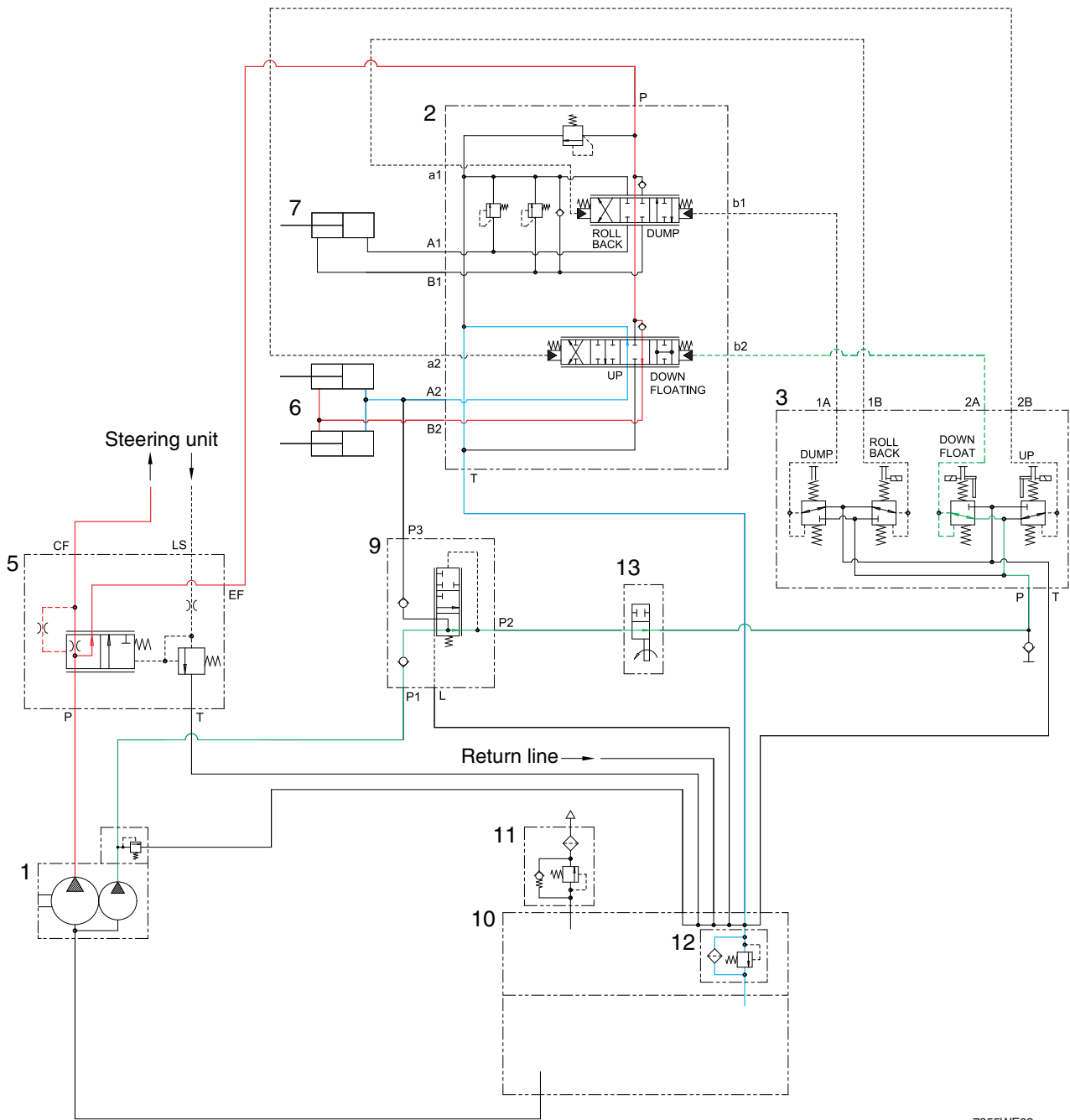
## 1) WHEN THE CONTROL LEVER IS IN THE BOOM RAISE POSITION



7355WE02

- 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 (2) and then goes to the large chamber of boom cylinder (6).
- The oil from the small chamber of boom cylinder (6) returns to hydraulic oil tank (10) through the boom spool at the same time.
- When this happens, the boom goes up.

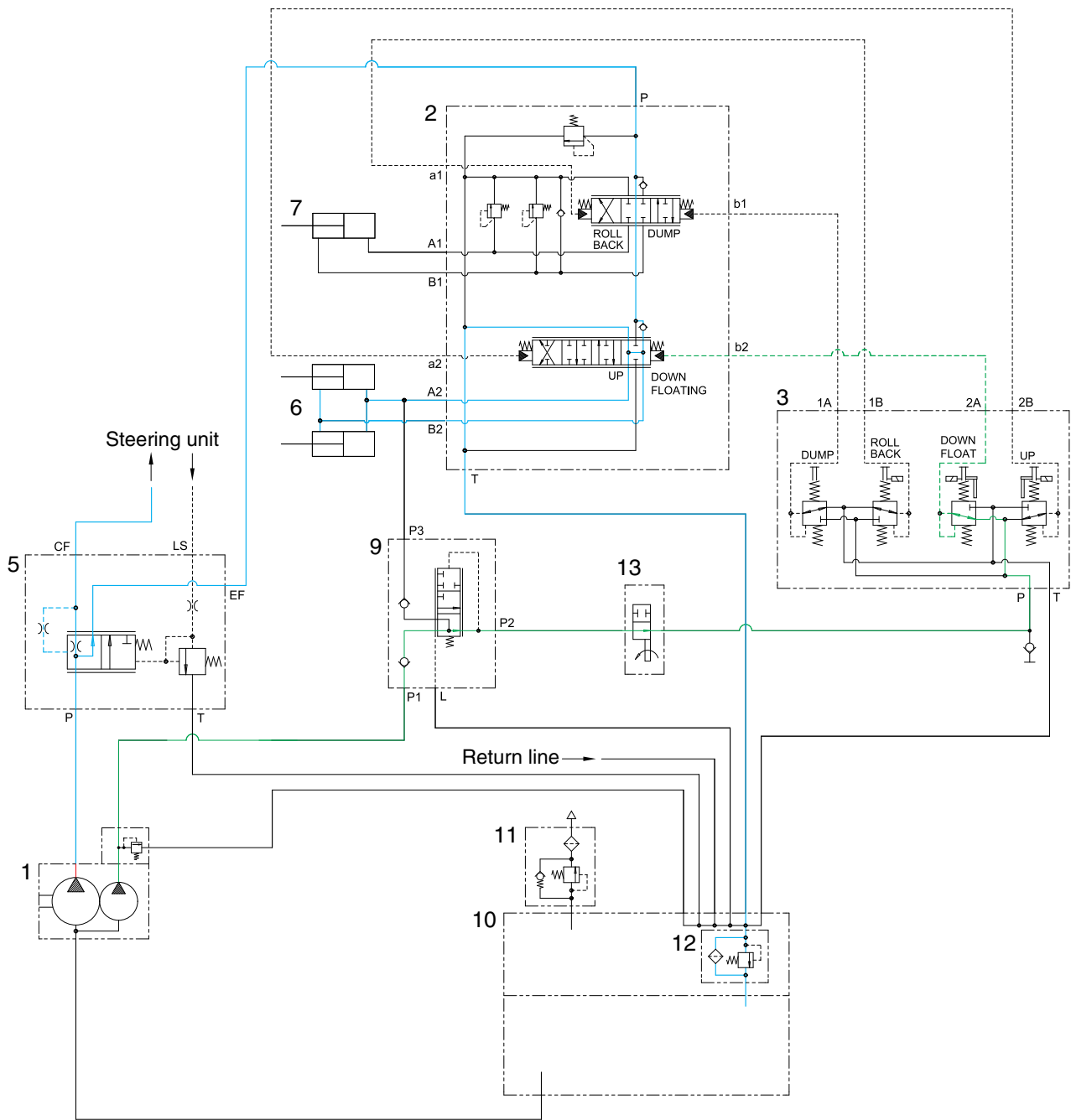
## 2) WHEN THE CONTROL LEVER IS IN THE BOOM LOWER POSITION



7355WE03

- 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 (2) and then goes to small chamber of boom cylinder (6).
- The oil returned from large chamber of boom cylinder (6) returns to hydraulic tank (10) through the boom spool at the same time.

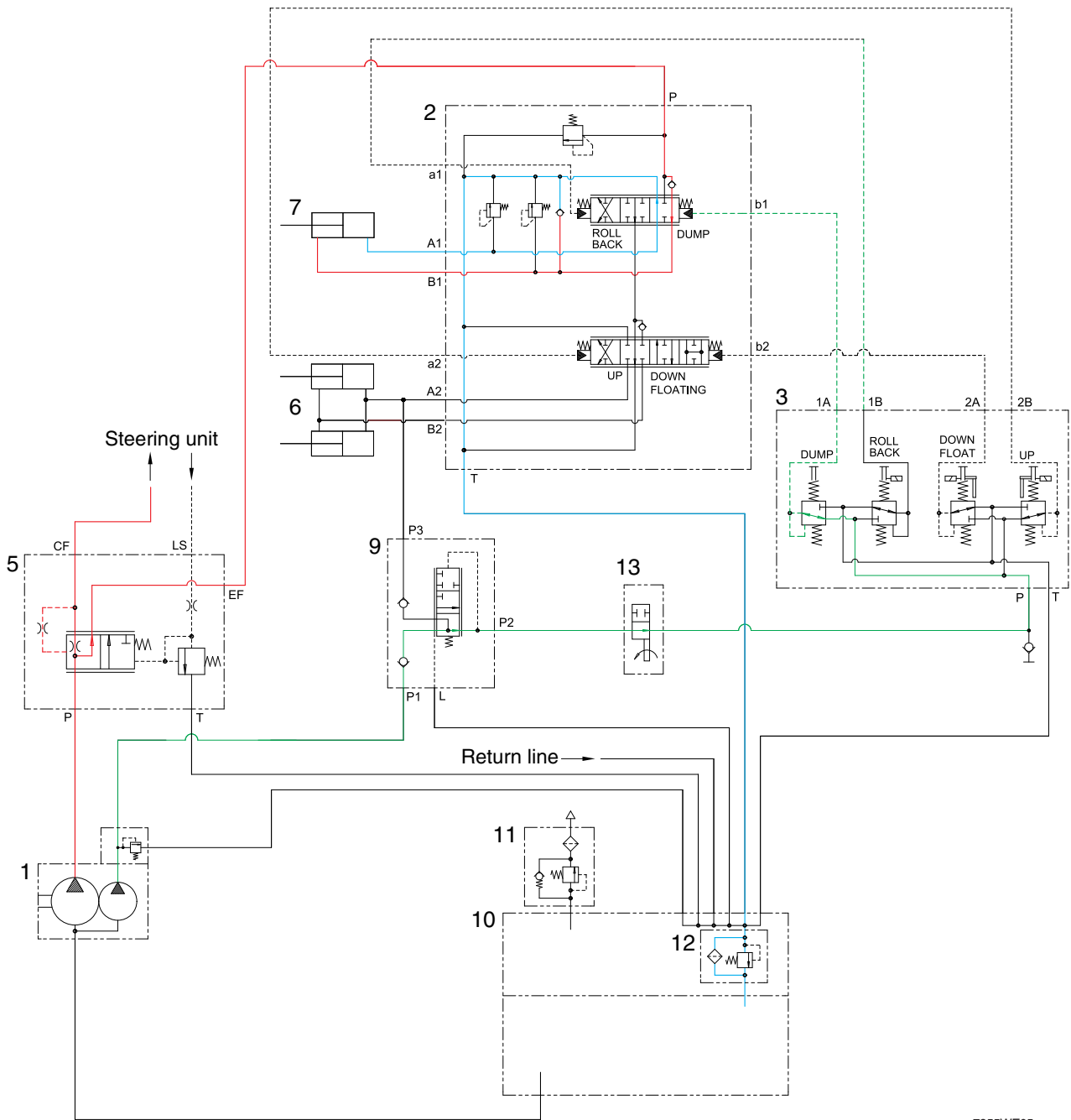
### 3) WHEN THE CONTROL LEVER IS IN THE BOOM FLOAT POSITION



7355WE04

- When the RCV 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 it's 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.

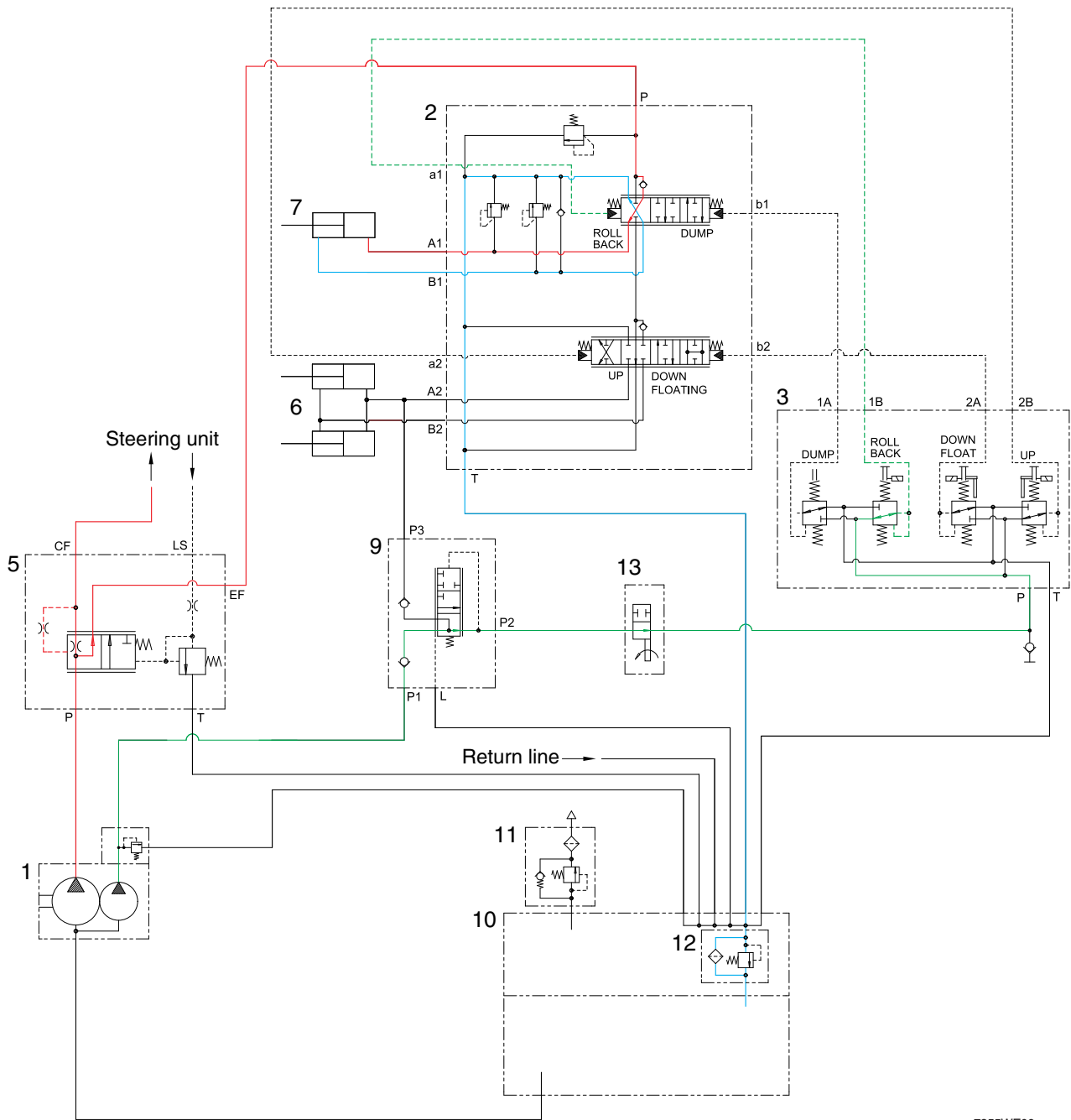
#### 4) WHEN THE CONTROL LEVER IS IN THE BUCKET DUMP POSITION



7355WE05

- When the RCV lever (3) 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 (2) and then goes to the small chamber of bucket cylinder (7).
- The oil at the large chamber of bucket cylinder (7) returns to hydraulic tank (10).
- When this happens, the bucket is dumped.

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



7355WE06

- When 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 (2) and then goes to the large chamber of bucket cylinder (7).
- The oil at the chamber of bucket cylinder (7) returns to hydraulic tank (10).
- When this happens, the bucket roll back.