STEERING BRAKE STRUCTURE AND FUNCTION

STEERING BRAKE

1. Brake cover
2. Lever
3. Rod
4. Lever
5. Anchor
6. Pin
7. Cap
8. Adjusting nut
9. Spring
10. Pin
11. End
12. Brake band
13. Lining
14. Pin
STEERING BRAKE

The contracting band type brake is mounted on the brake drum and immersed in the steering clutch case oil. This brake is actuated as a steering when a steering lever is pulled fully, and as a parking brake when the brake pedal is depressed. When a steering lever is pulled fully, first a steering clutch is disengaged and then a steering brake interlocked with the steering lever is actuated. When the brake pedal is depressed, both the right and left brakes actuate simultaneously to stop the machine without disengagement of steering clutches. The brake pedal is provided with a locking device to keep the pedal in the depressed position.

One end of the brake band (12) is suspended from the anchor (5) through the end (11) and pin (10). While the other end is suspended from anchor (5) through rod (3), adjusting nut (8) and pin (14).

Two springs (9) are provided for making uniform the tension of brake band (12) around the drum. The adjusting nut (8) is used for adjusting the clearance between brake lining (13) and the brake drum.
Functions
When one steering lever on the turning side of machine is pulled, the steering clutch on the same side is disengaged. Then, the track on the side where the flow of power has been cut off by the steering clutch is free from driving power. However, it is dragged somewhat by the track on the opposite side, thereby causing the machine to make a gradual turn. When the same steering lever is fully pulled, the brake band contracts the brake drum and the track is held still, thereby causing the machine to make a sharp turn.

1. Brake operation when the machine is traveling forward
While the machine is traveling forward, the brake drum is turning clockwise. Therefore, the brake band is pulled clockwise. Accordingly, end (11) is pushed to the right, and pin (10) pushes anchor (5). As a result, pin (14) moves in the direction as shown by the arrow R and the brake band contracts the brake drum.

2. Brake operation when the machine is traveling reverse
When pulling a steering lever fully, lever (2) turns in the direction shown as the arrow P, and the left end of lever (4) moves upward. As the brake drum turns counterclockwise while the machine is traveling reverse, the brake band is pulled counterclockwise. Therefore, rod (3) is pulled to the left, and pin (6) pushes anchor (5). As a result, lever (4) turns clockwise as a forum of B point, end (11) moves in the direction shown by the arrow Q and the brake band contracts the brake drum.
When pulling left steering lever:

- When pulling the left steering lever, parts move in the direction shown by an arrow. As a result, the left steering control valve is run away and the clutch is disengaged. Then, the steering brake is actuated.
When depressing the brake pedal:

- When depressing the brake pedal, parts move in the direction shown by an arrow. The right and left steering valves move and the clutches are disengaged. (Refer to the section of the steering control valve, Page 21-38.) Then, the right and left steering brakes are actuated.
When pulling parking brake lever:

- When depressing the brake pedal fully and then pulling the parking brake lever, parts move in the direction shown by an arrow. In this case, the right and left steering brakes are actuated and at the same time the brake pedal is locked.