

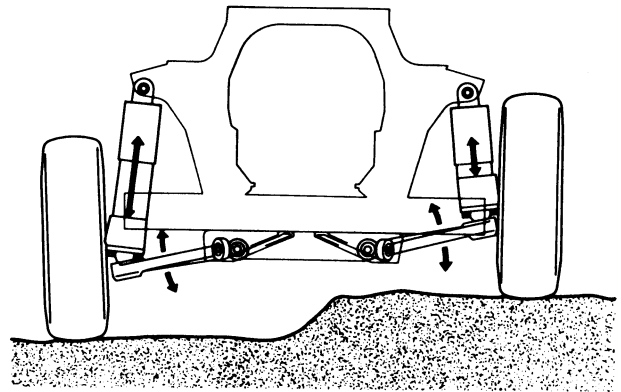
FUNCTIONS

FRONT SUSPENSION

The front suspension cylinder assembly functions as a shock absorber and a spring, and is connected to the front axle and main frame by spherical bearings.

The front wheels change their chamber according to the movement of the suspension cylinders. This gives the machine excellent adaptability to uneven surfaces and ensures the stability of the machine.

The steering lever is connected to the cylinder and serves as a steering king pin.



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REAR SUSPENSION

The rear suspension is a leaf spring type, and the leaf springs are used to absorb the shock from the road surface.

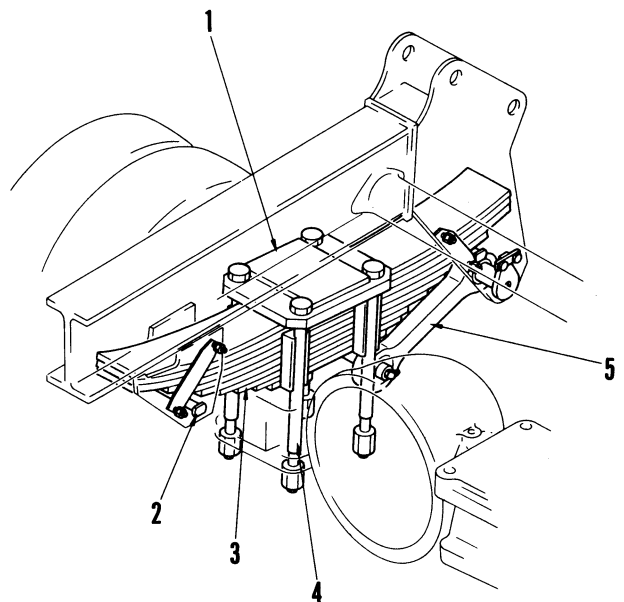
Type

Semielliptic leaf spring

Length (mm) x Width (mm) x Thickness (mm) = Number of leaf

1300 x 150 x 20 = 10

Leaf spring mounting bolt: dia. 33 mm

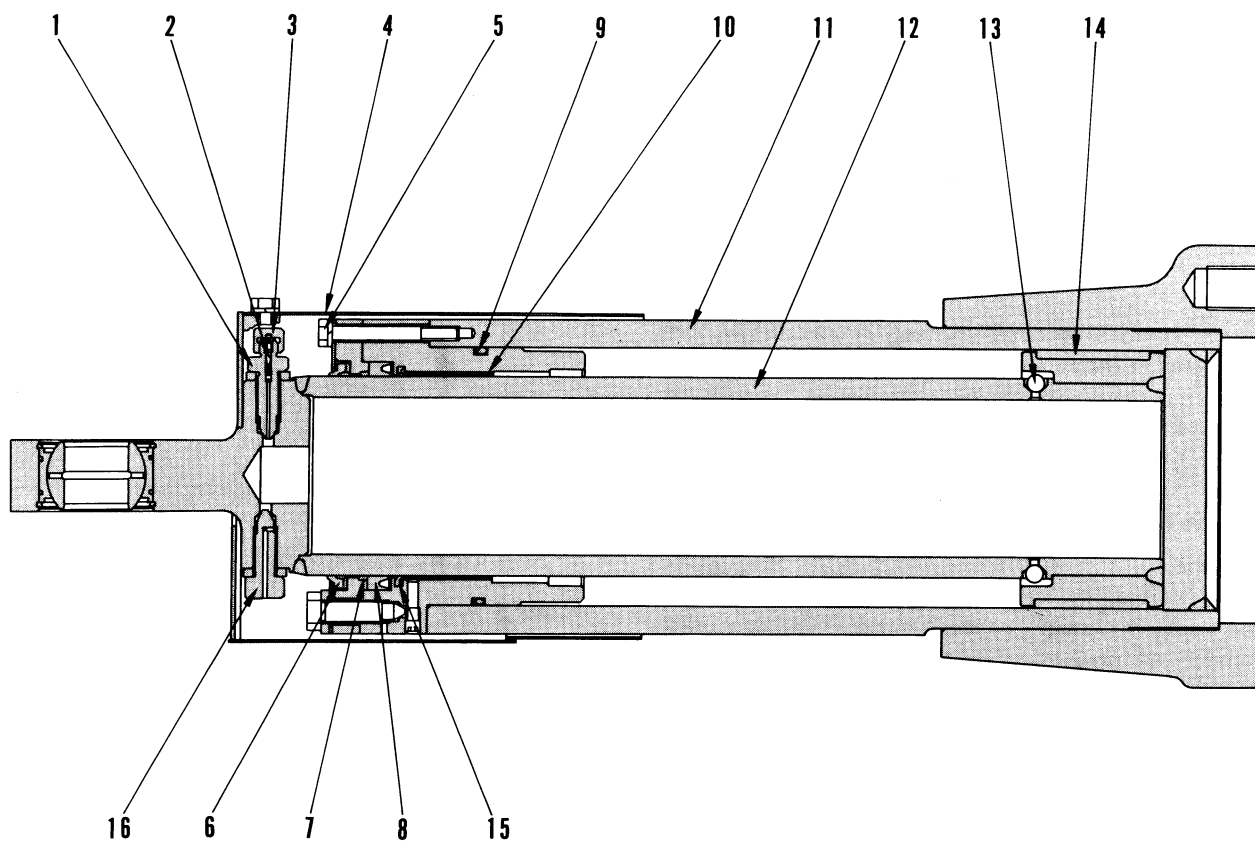


F567CH048

1. Seat
2. Pin
3. Leaf spring
4. Bolt
5. Rod

SUSPENSION CYLINDER

FRONT



F567CH049

- | | |
|-----------------------------|-------------------------|
| 1. Feed valve | 9. O-ring, back-up ring |
| 2. O-ring (Feed valve part) | 10. Bushing |
| 3. Valve core | 11. Cylinder |
| 4. Cover | 12. Rod |
| 5. Bolt | 13. Check ball |
| 6. Dust seal | 14. Wearing |
| 7. Bushing (Retainer part) | 15. Ring |
| 8. U-packing | 16. Air bleeding valve |

FUNCTIONS OF THE HYDRO-PNEUMATIC SUSPENSION SYSTEM

The suspension cylinders function as a shock-absorber and a spring.

The cushioning effect is obtained, when a certain quantity of oil is fed from the oil chamber (7) to cavity (3) through orifices (5) and (6).

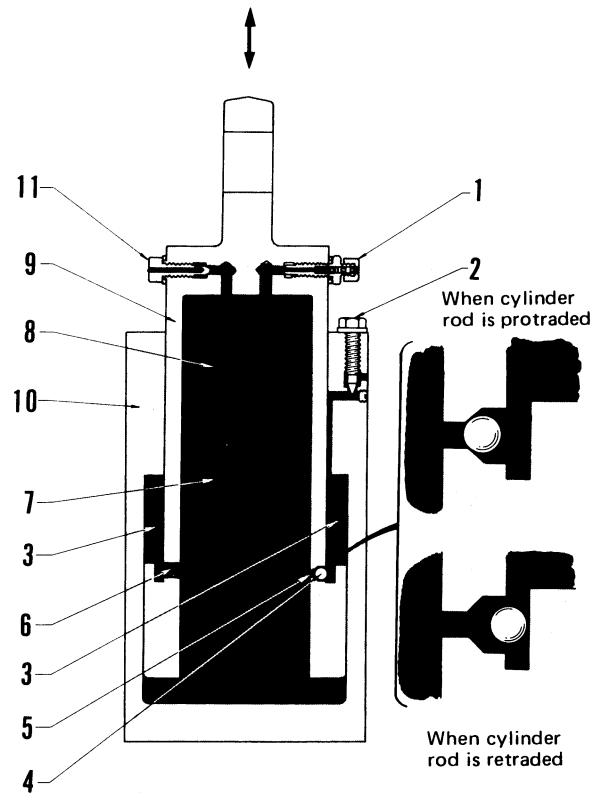
When the cylinder rods are contracted:

When the truck encounters a bump or an obstacle on the ground during traveling, the wheel will be raised, causing the cylinder rod to be pushed into the cylinder.

Thereby, the nitrogen gas in the chamber (8) will be compressed, causing the oil in the chamber (7) to be forced into the cavity (3) through orifices (5) and (6). Thus, the cavity (3) will be filled with oil faster than in extending the cylinder rods.

When the cylinder rods are extended:

When the truck passed over a bump or an obstruction on the ground, the cylinder rod will be extended upward under the weight of the wheels and axles as well as under the pressure of nitrogen gas in the chamber (8). Thereby, the oil quantity in the cavity (3) will be reduced and the remaining oil in the cavity will be pressurized. This pressurized oil will close the orifice (5) with the check ball (4), allowing the oil to flow to the chamber (7) only through the orifice (6). Consequently, the flow of oil through the orifice will be limited more than that when the cylinder rod is contracted. That is, the quantity of oil to flow back to the chamber (7) is adjusted so as to give rise to a cushioning effect.



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|-------------------|-------------------------------|
| 1. Air feed valve | 7. Oil chamber |
| 2. Air vent valve | 8. N ₂ gas chamber |
| 3. Cavity | 9. Cylinder rod |
| 4. Check ball | 10. Cylinder |
| 5. Orifice | 11. Air vent valve |
| 6. Orifice | |