

to the park brake chambers. The spring in park brake chamber pushes the rod out to apply the park brake. There is another hose to R14 from R12 service brake relay valve. The second hose between the R12 and R14 relay valves is a balance line. When applied, the service brakes and the park brake are active at the same time. This prevents a compounding effect in event that both systems are applied simultaneously.

The service brake system applies brake pressure by air and is spring released. The R12 relay valve controls the service brakes. Supply air from primary dry air tank moves into the supply port on the service brake valve. Air from the foot operated service brake valve in cab moves to the service port to open the R12 relay valve. Air then moves out the delivery ports to the service brake chambers on the axle. Air also moves to the R14 relay valve into the balance port as a balance signal. The balance line pressure prevents a compounding result in the event both brake systems actuate at the same time. As brake pedal application increases, more air pressure moves to R12 valve and more air pressure moves to the air chambers, making more stopping power. When foot pedal is released, R12 valve releases pressure going to air chambers and spring pushes rod back into chamber to release brakes.

The cab has air ride suspension. The air ride suspension has two air bags that fill with compressed air from the air system. A height control valve regulates the amount of air pressure in the air bags.

A lateral control rod keeps the cab located in the center of the machine while permitting the cab to move up and down. There are two shock absorbers that control the bounce of the cab.

The front of the cab mounts in rubber bushings to let the cab to move and pivot with the suspension.

### 9.1.2 Air system component location

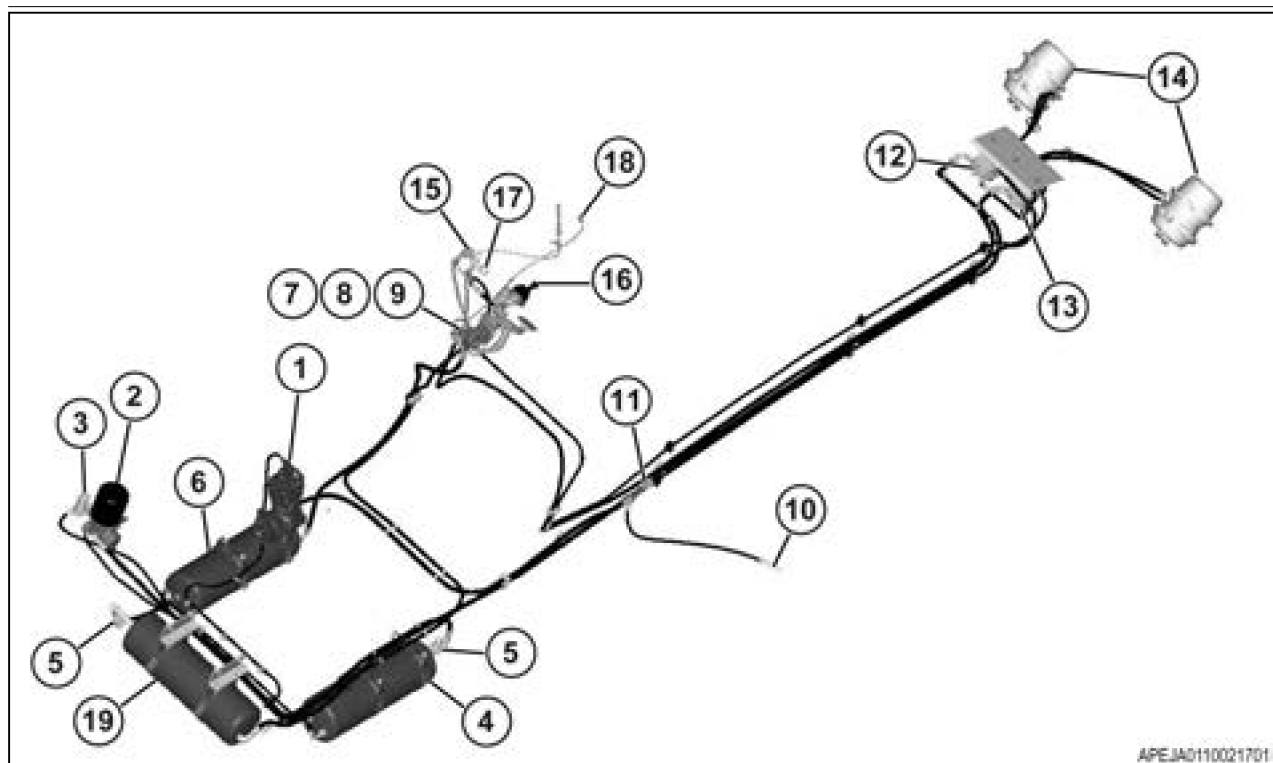


Fig. 1

- (1) Air compressor
- (2) Air dryer
- (3) Air governor
- (4) Wet tank
- (5) Pressure control check valve (PCCV)
- (6) Dry tank
- (7) Brake valve
- (8) Stop light switch
- (9) Pressure switch
- (10) Tank fill valve

- (11) Cab air ride suspension
- (12) R12 Relay valve
- (13) R14 Relay valve
- (14) Brake actuators
- (15) Pressure switch
- (16) Park brake modulating valve
- (17) Pressure protection valve
- (18) Application system
- (19) Emergency / Park brake tank

### 9.1.3 Air brake system description

The chassis equipped with air brakes on the rear wheels only and activates by pressing the brake pedal or the park brake. When the service brake pedal is pressed, air is routed through the brake valve, to the R12 relay valve, and to the service brakes. As the park brake activates, air moves through the modulating valve, to the R14 relay valve, to the park brakes. When the steering assist pedals activates, air moves through the R12 relay valves and operates the service brakes.

The park brake modulating valve (1) and the service brake pedal (2) mounted on the fire wall in the cab, with the hand operated park brake (3) located directly above the service brake pedal.

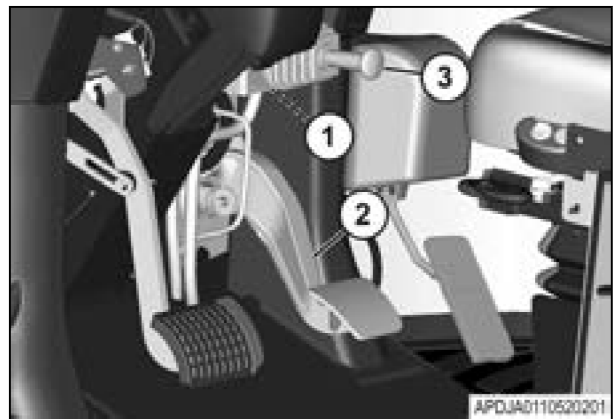


Fig. 2

### 9.1.4 Park brake system

The park brake system is spring applied, air released. The park brake also functions as an air brake.

The park brake is controlled by R14 relay valve (1). R14 relay valve has constant air supply from dry air tank.

When the park brake modulating valve is released, air is routed out of the delivery ports to the park brake chambers, and then to the override springs to release the park brakes. When the modulation valve is activated, air is released from the R14 relay, and air in the hoses to the park brake chambers is exhausted.

The spring in the park brake chamber pushes the rod out to apply the park brake. A hose to R14 from R12 service brake relay valve is a balance line. When the service brakes are applied, the park brake is applied as well. This prevents a compounding effect if both systems are applied simultaneously.

The park brake system consists of the following:

- Air tanks
- Park brake modulating valve

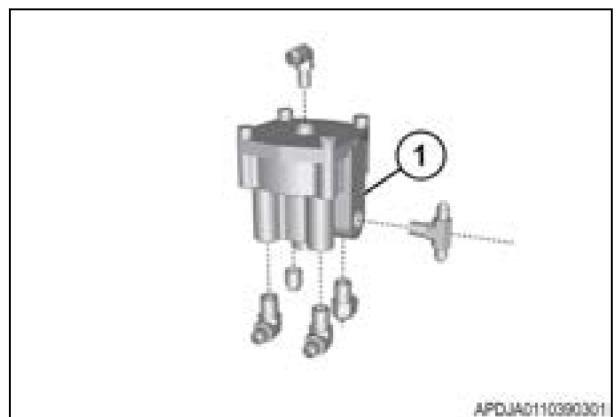


Fig. 3