TRAIL-EZE®

SERVICE & MAINTENANCE
AIR BRAKES

The Air Brake System of a trailer is entirely dependent upon the Air Brake System of the towing vehicle for its air supply and control. Therefore, the Air Brake System of the towing vehicle must be in good condition; otherwise, it will be impossible to obtain good brake performance on the trailer. Before condemning the Air Brake System on the trailer, always be sure the Air Brake System on the towing vehicle is functioning properly. The following is based on the assumption the tractor Air Brake System is functioning properly.

1. **INSUFFECIENT BRAKES**
    a. **Brake Needs:**
        i. **Adjusting**
        ii. **Lubricated**
        iii. **Relined**
        iv. **Replaced – Check that correct brand of brake shoes were used during the last service replacement**
    b. **Tractor protection valve not in the "normal" position**
    c. **Faulty relay valve**
    d. **No trailer air supply**
        i. **Clogged emergency line**
    e. **Low air pressure in the air brake system (below 100-105 PSI)**
    f. **Brake valve delivery pressure in towing vehicle below normal**
    g. **Restricted hose, line filter or tubing**
    h. **Wrong size air chambers**

2. **BRAKES APPLY TOO SLOWLY**
    a. **Brake Needs:**
        i. **Adjusting**
        ii. **Relined**
    b. **Low air pressure in the air brake system (below 100-105 PSI)**
    c. **Brake valve delivery pressure in towing vehicle below normal**
    d. **Restricted hose, line filter or tubing**
    e. **Excessive leakage with the brakes applied**
    f. **Faulty relay emergency valve**

3. **BRAKES RELEASE TOO SLOWLY**
    a. **Brake Needs:**
        i. **Adjusting**
        ii. **Lubricating**
    b. **Truck brake rigging binding**
    c. **Exhaust port of relay emergency valve is restricted or plugged.**
    d. **Restricted hose, line filter or tubing**

e. **Check the towing vehicle governor**
    i. **Proper setting at 100-105 PSI**
    ii. **Service- If you are unable to adjust the proper PSI, you will not have adequate air pressure to fully release the trailer brakes.**
    iii. **Defective—Replace**

4. **BRAKES DO NOT APPLY**
    a. **Connecting hoses to the trailer are crossed**
    b. **Faulty relay emergency valve**
    c. **Tractor protection valve is not functioning properly or not placed in normal position**
    d. **No air pressure in the air brake system**
    e. **Restricted hose, line filter or tubing**
    f. **Hoses between the tractor and trailer are not connected**
    g. **Spring brakes are caged**

5. **BRAKES DO NOT RELASE**
    a. **Connecting hoses to the trailer are crossed**
    b. **Brake valve on tow vehicle in the applied position**
    c. **Truck brake rigging is binding**
    d. **Check foundation brakes for:**
        i. **Excessive wear**
        ii. **Lubrication**
        iii. **Missing Components**
    e. **Trailer relay emergency valve is in the emergency position**
        i. **Connect the emergency line of your towing vehicle to the trailer emergency line. DO NOT connect the service line.**
            a.) **Air comes out the service line on the trailer—Replace the relay emergency valve**
            b.) **No Air comes out the service line on the trailer- Check the air lines for being: plugged, pinched, restricted**
    f. **Restricted hose, line filter or tubing**
    g. **Tractor protection valve is not functioning properly or not placed in normal position**
    h. **Check to ensure the slack adjusters do not contact the axle tube when the brakes are released. If they do, check to see if the air chamber push rods are fully retracted at this time.**
        i. **If they are fully retracted you are ok.**
        ii. **If they are not fully retracted, it may be necessary to replace the air chamber push rod with one slightly longer in order to allow the air chamber push rod to fully retract.**

6. **BRAKES "GRAB"**
    a. **Grease on the brake lining- Reline the brakes**
    b. **Towing vehicle brake rigging binding**
    c. **Faulty relay emergency valve**
    d. **Check the towing vehicle brake valve for:**
        i. **Compatibility with the trailer brake valve (trailer is typically at 4 PSI cracking pressure). If the crack pressure is higher on the towing vehicle it will allow the trailer to brake first and cause excessive wear on the trailer brakes and possibly tires.**

ii. Brake rigging binding
e. Faulty brake valve on towing vehicle
f. No trailer load
g. Check that correct brand of brake shoes were used during the last service replacement.

7. UNEVEN BRAKES
   a. Brakes needed:
      i. Adjusting
      ii. Lubricating
      iii. Relining
   b. Grease on the brake lining
      i. Reline the brakes
   c. Brake shoes return spring broken
   d. Brake drum out of round
   e. Leaking brake chamber of diaphragm
   f. Restricted hose, line filter or tubing
   g. Check that correct brand of brake shoes were used during the last service replacement

8. EXESSIVE LEAKAGE WITH BRAKE RELEASE
   a. Leaking
      i. Relay emergency valve
      ii. Drain valve
      iii. Tubing
      iv. Hose
      v. Coupling
   b. Hose uncoupled

9. EXCESSIVE LEAKAGE WITH BRAKES FULLY APPLIED
   a. Faulty relay emergency valve
   b. Leaking
      i. Brake Chamber-Diaphragm
      ii. Tube
      iii. Hose
      iv. Coupling
   c. Hose uncoupled

10. EXCESSIVE LEAKAGE WITH BRAKES FULLY APPLIED
    a. Faulty relay emergency valve

11. EXCESSIVE LEAKING WITH RELAY MANAGEMENT VALVE IN EMERGENCY POSITION
    a. Reservoir not drained enough
    b. Air drier on towing vehicle not operating properly