

BRAKE SYSTEM DIAGNOSIS

NAME _____

DATE _____

The following is a list of typical problems and their symptoms found on brake systems. Put the correct letter or letters of the most likely solutions of the problems from the list (some answers may be used more than once).

- 1) _____ Vehicle pulls to the right when braking
- 2) _____ RWD vehicle dives under hard braking
- 3) _____ Brake pedal must be pushed harder than normal for brakes to operate
- 4) _____ Brake pedal sinks below normal level before vehicle will stop
- 5) _____ A “grinding” sound is heard from the front when brakes are applied
(disc brakes)
- 6) _____ Brake pedal feels mushy or spongy
- 7) _____ A “rattling” or clicking noise is heard from the front (disc brakes)
- 8) _____ Brakes will not release
- 9) _____ A “squeaking” noise is heard from the front (disc brakes)
- 10) _____ Brake warning light on dash is on
- 11) _____ Brake lights do not turn off after pedal is released
- 12) _____ Brake fluid must be re-filled regularly
- 13) _____ Rear brakes wear out quickly
- 14) _____ Brake warning light will not turn off after brakes are bled
- 15) _____ A “rubbing” sound is heard when brakes are applied
- 16) _____ Brakes “grab” when applied
- 17) _____ Noise is heard from the rear (drum brakes)
- 18) _____ A “vacuum sound” or sucking noise is heard inside vehicle when
brakes are applied
- 19) _____ Shaking through steering or brake pedal vibration when braking
- 20) _____ Vehicle has a lack of stopping power
- 21) _____ No brake lights
- 22) _____ Brake pedal suddenly sinks after car is stopped to a point lower than
normal.
- 23) _____ Vehicle pulls to left when braking
- 24) _____ Rear wheels lock up during hard braking
- 25) _____ Front brakes wear out quickly

SOLUTIONS

- A) Left front floating brake caliper sticks in spindle
- B) Master cylinder defective
- C) Brake switch out of adjustment
- D) No anti-squeal compound on brake pads
- E) Drum brakes need adjustment
- F) LF brake shoes are fluid contaminated
- G) Air in brake system
- H) Metering valve is stuck open
- I) Front brake rotors are warped or have excessive run out
- J) Brake shoes are contaminated with brake fluid
- K) Master cylinder pushrod out of adjustment
- L) Right front drum brake out of adjustment.
- M) Proportioning valve defective
- N) Brake shoes are binding/sticking on backing plates
- O) Metering valve is stuck closed
- P) Power assist brake booster is defective
- Q) Emergency brake out of adjustment.
- R) Brake light switch defective
- S) Brake rotors weren't cleaned after machining
- T) Brake return or holdown spring broken or missing
- U) Spool valve stuck in pressure differential switch
- V) Low fluid level in master cylinder
- W) Floating hardware for LF caliper is corroded
- X) Brake drums have excessive runout.
- Y) Grease or contaminants on brake linings
- Z) Emergency brake is on
- AA) Emergency brake cable corroded
- BB) Leak in hydraulic system
- CC) Disc brake pads are worn to wear indicator tabs
- DD) Open fuse to brake light circuit.
- EE) Drum brakes need to be cleaned/lubricated
- FF) Anti-rattle clips are missing or defective
- GG) Wheel cylinders leak
- HH) Left caliper piston is sticking in bore
- II) Hydraulic pressure is uneven in brake system
- JJ) Brake pads are completely worn out to metal
- KK) Leak in RF brake hose
- LL) Front brake disc not seated completely against hub