

TROUBLESHOOTING (Cont'd)

Problem	Possible cause	Remedy	Page
Hard pedal but brakes inefficient	<p>Oil or grease on shoes or pads</p> <p>Brake shoes distorted, linings worn or glazed, drums worn</p> <p>Brake pads distorted, worn or glazed</p> <p>Piston frozen in brake cylinder</p> <p>Brake booster faulty</p> <p>Vacuum leaks</p> <p>Brake line restricted</p>	<p>Check for cause. Replace shoes or pads</p> <p>Replace brake shoes</p> <p>Replace pads</p> <p>Repair cylinder</p> <p>Repair booster</p> <p>Repair as necessary</p> <p>Repair as necessary</p>	<p>BR-19, 27 36</p> <p>BR-27</p> <p>BR-19, 36</p> <p>BR-19, 36</p> <p>BR-15</p>
Snapping or clicking noise when brakes are applied	<p>(Drum brake)</p> <p>Brake shoes binding at backing plate ledges</p> <p>Backing plate ledges worn</p> <p>Loose or missing shoes hold-down spring</p> <p>Loose set bolt at backing plate</p> <p>(Disc brake)</p> <p>Loose or missing pad support plate</p> <p>Loose installation bolt</p>	<p>Lubricate</p> <p>Replace and lubricate ledges</p> <p>Replace shoes hold-down spring</p> <p>Tighten</p> <p>Replace pad support plate</p> <p>Tighten</p>	<p>BR-27</p> <p>BR-27</p> <p>BR-27</p> <p>BR-27</p> <p>BR-19, 36</p> <p>BR-19, 36</p>
Scraping or grinding noise when brakes are applied	<p>Worn brake linings or pads</p> <p>Caliper to wheel or rotor interference</p> <p>Dust cover to rotor or backing plate to drum interference</p> <p>Other brake system components faulty</p> <p>Tires rubbing against chassis and/or body</p>	<p>Replace or refinish drums or rotors if heavily scored</p> <p>Replace as required</p> <p>Correct or replace</p> <p>Repair or replace as necessary</p> <p>Repair as necessary</p>	<p>BR-19, 27 36</p> <p>BR-19, 36</p> <p>BR-19, 27 36</p>

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Problem	Possible cause	Remedy	Page
<p>Squeaking, squealing, groaning or chattering noise when brakes are applied Note: Brake friction materials inherently generate noise and heat in order to dissipate energy. As a result, occasional squeal is normal and is aggravated by severe environmental conditions such as cold, heat, wetness, snow, salt, mud, etc. This occasional squeal is not a functional problem and does not indicate any loss of brake effectiveness</p>	<p>Brake drums and linings, rotors and pads worn or scored Dirty, greased, contaminated or glazed linings or pads Improper linings or pads using Mal-adjustment of brake pedal or booster push rod (Disc brake) Missing or damaged brake pad anti-squeal shim Burred or rusted calipers (Drum brake) Weak damaged or incorrect shoe hold-down springs, loose or damaged shoe hold-down spring pins and springs and grooved backing plate ledges</p>	<p>Inspect, repair or replace Clean or replace Inspect for correct usage or replace Inspect and adjust Replace Clean or deburr Inspect, repair or replace</p>	<p>BR-19, 27 36 BR-19, 27 36 BR-19, 27 36 BR-6, 17 BR-19, 36 BR-19, 36 BR-27</p>
<p>Squealing and squeaking noise when brakes are not applied</p>	<p>Mal-adjustment of brake pedal or booster push rod Poor return of brake booster or master cylinder or wheel cylinder (Disc brake) Rusted or stuck piston Improper positioning of pad in caliper Rotor rubbing against caliper housing Improper installation of disc brake pad support plate (Drum brake or parking brake) Weak, damaged or incorrect shoe hold-down springs Grooved backing plate ledges Bent or warped backing plate causing interference with drum Improper machining of drum causing interference with backing plate or shoe Other brake system components: Loose or extra parts in brakes Rear drum adjustment too tight causing lining to glaze Worn, damaged or insufficiently lubricated wheel bearings</p>	<p>Inspect and adjust Inspect, repair or replace Inspect and lubricate as necessary Repair or replace Repair or replace Repair or replace Replace Repair or replace Repair or replace Replace drum Inspect, repair or replace as necessary</p>	<p>BR-6,17 BR-9,15 27 BR-19, 36 BR-19, 36 BR-19, 36 BR-19, 36 BR-27, 44 BR-27, 44 BR-27, 44 BR-27, 44</p>

TROUBLESHOOTING (Cont'd)

Problem	Possible cause	Remedy	Page
Groaning, clicking or rattling noise when brakes are not applied	Stones or foreign material trapped inside wheel covers Loose wheel nuts	Remove foreign material Tighten to correct torque Replace if stud holes are elongated	
	Mal-adjustment of brake pedal or booster push rod	Inspect and adjust	BR-6, 17
	Worn, damaged or dry wheel bearings (Disc brake)	Inspect and lubricate or replace	
	Loose or missing anti-rattle spring or pad support plate or crimping on outer pad	Inspect, repair or replace	BR-19, 36
	Failure of shim	Inspect, replace if necessary	BR-19, 36
	Wear on slide bushing	Inspect, replace if necessary	BR-19, 36
	Loose installation bolt	Inspect, tighten is necessary	BR-19, 36
	Poor return of piston (Drum brake or parking brake)	Inspect, repair or replace	BR-19, 36
	Loose or extra parts	Inspect and repair	BR-27, 44