

PRECAUTIONS

1. Care must be taken to replace each part properly as it could affect the performance of the brake system and result in a driving hazard. Replace the parts with parts of the same part number or equivalent.
2. It is very important to keep parts and the area clean when repairing the brake system.

TROUBLESHOOTING

Problem	Possible cause	Remedy	Page
Low or spongy pedal	Linings worn Leak in brake system Master cylinder faulty Air in brake system Wheel cylinder faulty Piston seals worn or damaged Rear brake automatic adjuster faulty	Replace brake shoes Repair leak Repair or replace master cylinder Bleed brake system Repair wheel cylinder Repair brake cylinder Repair or replace adjuster	BR-19, BR-26 BR-9 BR-7 BR-26 BR-19 BR-26
Brakes drag	Parking brake out of adjustment Binding parking brake wire Booster push rod out of adjustment Tension or return spring faulty Brake line restricted Lining cracked or distorted Wheel cylinder or caliper piston sticking Adjuster broken Master cylinder faulty	Adjust parking brake Repair as necessary Adjust push rod Replace spring Repair as necessary Replace shoe Repair as necessary Replace adjuster Repair or replace master cylinder	BR-8 BR-17 BR-26 BR-26 BR-21, BR-26 BR-26 BR-9
Brakes pull	Tires improperly inflated Oil or grease on shoes or pads Brake shoes distorted, linings worn or glazed Brake pads distorted, worn or glazed Drum or disc out of round Tension or return spring faulty Wheel cylinder faulty Piston frozen in brake cylinder Brake pad sticking	Inflate tires to proper pressure Check for cause. Replace shoes or pads Replace brake shoes Replace pads Replace drum or disc Replace spring Repair wheel cylinder Repair brake cylinder Replace pads	BR-19 BR-26 BR-26 BR-19 BR-21, BR-26 BR-26 BR-26 BR-21 BR-19

TROUBLESHOOTING (Cont'd)

Problem	Possible cause	Remedy	Page
Hard pedal but brakes inefficient	Oil or grease on linings Brake shoes distorted, linings worn or glazed, drums worn Brake pads distorted, worn or glazed Piston frozen in brake cylinder Brake booster faulty Vacuum leaks Brake line restricted	Check for cause. Replace shoes or pads Replace brake shoes Replace pads Repair cylinder Repair booster Repair as necessary Repair as necessary	BR-19, BR-26 BR-26 BR-19 BR-21 BR-16
Snapping or clicking noise when brakes are applied	(Drum brake) Brake shoes binding at backing plate ledges Backing plate ledges worn Loose or missing shoe hold-down spring Loose set bolt at backing plate (Disc brake) Loose or missing pad support plate Loose installation bolt Wear on slide bushing	Lubricate Replace and lubricate ledges Replace shoe hold-down spring Tighten Replace pad support plate Tighten Replace slide bushing	BR-26 BR-26 BR-26 BR-26 BR-19 BR-19 BR-19
Scraping or grinding noise when brakes are applied	Worn brake linings or pads Caliper to wheel or rotor interference Dust cover to rotor or backing plate to drum interference Other brake system components faulty Tires rubbing against chassis and/or body	Replace or refinish drums or rotors if heavily scored Replace as required Correct or replace Repair or replace as necessary Repair as necessary	BR-26 BR-21 BR-21, BR-26

TROUBLESHOOTING (Cont'd)

Problem	Possible cause	Remedy	Page
Squeaking, squealing, groaning or chattering noise when brakes are applied HINT: 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	Brake drums and linings, rotors and pads worn or scored	Inspect, repair or replace	BR-21, BR-26
	Dirty, greased, contaminated or glazed linings or pads	Clean or replace	
	Improper linings or pads using	Inspect for correct usage or replace	
	Maladjustment of brake pedal or booster push rod (Disc brake)	Inspect and adjust	BR-6
	Missing or damaged brake pad anti-squeal shim	Replace	BR-19
	Pad wear and pad wear indicator making contact with the rotor	Replace	BR-19
Squealing and squeaking noise when brakes are not applied	Burred or rusted calipers (Drum brake)	Clean or deburr	BR-19
	Weak, damaged or incorrect shoe hold-down springs, loose or damaged shoe hold-down spring pins and springs and grooved backing plate ledges	Inspect, repair or replace	BR-19, BR-26
	Maladjustment of brake pedal or booster push rod	Inspect and adjust or booster push rod	BR-6
	Poor return of brake booster or master cylinder or brake cylinder	Inspect, repair or replace	BR-9, BR-16 BR-21, BR-26
	(Disc brake)		
	Rusted or stuck piston	Inspect and lubricate as necessary	BR-19
	Improper positioning of pad in caliper	Reinstall correctly	BR-19
	Rotor rubbing against caliper housing	Inspect and replace	BR-21
	Improper installation of disc brake pad support plate	Reinstall correctly	BR-21
	Pad wear and pad wear indicator making contact with the rotor (Drum brake)	Replace	BR-19
	Weak, damaged or incorrect shoe hold-down springs	Replace	BR-26
	Grooved backing plate ledges	Replace	BR-26
	Bent or warped backing plate causing interference with drum	Repair or replace	
	Improper machining of drum causing interference with backing plate or shoe	Replace drum	BR-26
	Other brake system components:		
	Loose or extra parts in brakes	Inspect, repair or replace as necessary	BR-26
	Rear drum adjustment too tight causing lining to glaze		
	Worn, damaged or insufficiently lubricated wheel bearings		

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	Remove foreign material	
	Loose wheel nuts	Tighten to correct torque Replace if stud holes are elongated	
	Maladjustment of brake pedal or booster push rod	Inspect and adjust	BR-6, BR-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-21
	Failure of shim		
	Wear on slide bushing	Inspect, replace if necessary	BR-21
	Loose installation bolt	Inspect, replace if necessary	BR-21
	Poor return of piston (Drum brake)	Inspect, tighten if necessary	BR-21
	Loose or extra parts	Inspect, repair or replace Inspect and repair	BR-21 BR-26