

DIAGNOSIS AND TESTING (Continued)

BRAKE SYSTEM DIAGNOSIS (Continued)

CONDITION	POSSIBLE SOURCE	ACTION
<ul style="list-style-type: none"> Noise at Wheels When Brakes are Applied — Squeaks, Squeals, or Chatter. <p>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 concern and does not indicate any loss of brake effectiveness.</p>	<ul style="list-style-type: none"> Rotors and pads worn or scored. On disc brakes — missing or damaged brake pad insulators. On disc brakes — burred or rusted calipers. Dirty, greased, contaminated or glazed linings. Improper lining parts. 	<ul style="list-style-type: none"> Inspect, service or replace. Replace. Clean or deburr. Clean or replace. Lightly sand off glaze. Inspect for correct usage. Replace.
<ul style="list-style-type: none"> Noise at Wheels, Brakes Not Applied — Squeak or Squeal 	<ul style="list-style-type: none"> Wheelcover attachment. Loose wheel retaining lug nuts. <p>Other brake system components:</p> <ul style="list-style-type: none"> Loose or extra parts in brakes. Worn, damaged, or insufficiently lubricated wheel bearings. Improper positioning of shoe in caliper. Outside diameter of rotor rubbing caliper housing. Improper installation of disc brake anti-rattle clip. 	<ul style="list-style-type: none"> Seat covers with a rubber mallet. Service flanges or replace cover. Tighten to specification. Replace wheel if stud holes are damaged. Inspect, service or replace as required.
<ul style="list-style-type: none"> Noise at Wheels, Brakes Not Applied — Growling, Click or Rattle 	<ul style="list-style-type: none"> Stones or foreign material trapped inside wheelcovers. Loose grease cap. Loose wheel lug nuts. Disc brake caliper — loose or missing anti-rattle clips or support pins. Worn, damaged or dry wheel bearings. 	<ul style="list-style-type: none"> Remove stones, etc. Service or replace. Tighten to specification. Replace if stud holes are elongated. Inspect, service or replace. Inspect, lubricate or replace.
<ul style="list-style-type: none"> Brakes Pull to One Side 	<ul style="list-style-type: none"> Unequal air pressure in tires. Grease or fluid on linings. Glazed linings. Loose or missing disc brake caliper retaining pins. Improper size or type lining on one wheel. Stuck or seized calipers. Restricted brake lines or hoses. <p>Other brake system components:</p> <ul style="list-style-type: none"> Improper positioning of disc brake shoe and lining in the caliper. Damaged or worn wheel bearings. 	<ul style="list-style-type: none"> Inflate tires to correct pressure. Replace. Replace missing bolts. Tighten to specification. Replace with correct brake lining in axle sets. Service or replace. Service or replace. Inspect, service or replace as required.
<ul style="list-style-type: none"> Brakes Grab or Lock-up When Applied 	<ul style="list-style-type: none"> Tires worn or incorrect pressure. Grease or fluid linings — damaged linings. Improper size or type of linings. <p>Other brake system components:</p> <ul style="list-style-type: none"> Pins for caliper attachment loose or missing. Worn, damaged or dry wheel bearings. Improperly adjusted parking brake. 	<ul style="list-style-type: none"> Inflate tires to correct pressure. Replace tires with worn tread. Inspect, service or replace. Replace with correct brake in axle sets. Inspect, service or replace as required.