

# **BRAKE LINING TROUBLE TRACER**

www.sinobrake.com



Build up dirt between lining and brake shoe

#### **MAIN REASONS**

- Shoe radius out of line
- Shoe platform not blast cleaned and painted properly
- Shoe platform not parallel
- Lining riveted incorrectly

#### **POSSIBLE EFFECTS**

- Cracks in the lining material or crack in drum surface
- Loose linings
- Squeal and noise
- Improper cleaning causes rust scale to build up and lift the lining from the shoe

#### SOLUTION

Replace linings and ensure shoe is clean and free from contamination before lining figment



#### **APPEARANCE**

Poor bedding of friction material

#### **MAIN REASONS**

- Drum diameter is larger than lining radius
- Bedding-in period for the lining was too short
- Drum wear

#### **POSSIBLE EFFECTS**

- If the wear pattern differs across the axle, vehicle pull can result; also excessive brake noise
- Low deceleration
- Either low or very high deceleration, with high deceleration the linings may lock on to the drum
- If the wear pattern differs across the axle, vehicle pull and excessive noise can result

#### **SOLUTION**

Replace linings and ensure the correct lining radius to drum diameter is selected, or extend bedding-in period





Deep irregular circumferential grooves on the brake lining

#### **MAIN REASONS**

- Large particles loose in the brake
- Very poor drum condition and maintenance

#### **POSSIBLE EFFECTS**

- Lining wear out quickly
- Squeal and noise

#### SOLUTION

Avoid contamination. Replace linings and grind or replace drum as appropriate

#### **APPEARANCE**

Grooves on the brake lining surface

#### **MAIN REASONS**

- Small loose particles in the brake
- Insufficient drum cleaning at replacement

#### **POSSIBLE EFFECTS**

- Lining wear out quickly
- Squeal and noise

#### **SOLUTION**

Replace linings and avoid brake operation in dusty environment. Grind or replace drum as appropriate



Burnt the lining

#### **MAIN REASONS**

- Faults in brake mechanism
- Sticking brake shoes (weak return springs)
- Excessive use of brakes from high speed
- Wrong brake cylinders/air chambers or levers
- Overloaded vehicle
- Incorrect brake proportioning between tractor/trailer units

#### **POSSIBLE EFFECTS**

- Lining wear out quickly
- Vehicle pull and excessive brake noise
- Deceleration too low

#### **SOLUTION**

Replace linings, avoid overworking brakes and ensure brake components are correct and are in good condition



#### **APPEARANCE**

Crazing on the surface of brake lining

#### **MAIN REASONS**

Caused by excessive brake temperature, i.e. when brake is cold on motorway then having to perform a sudden stop i.e. off a slip road. Rapid temperature input does not allow for heat soak from material into brake system

#### **POSSIBLE EFFECTS**

- ➤ This condition has no effect on the integrity or performance of the lining
- Penetration of the crazing is usually no more than 1mm deep
- Wear through with normal brake use and
- has no effect on the lining

#### **SOLUTION**

Avoid high-speed heavy duty braking from cold





Dirt on the brake lining surface

#### **MAIN REASONS**

- Poor drum condition,e.g. heat crazing
- Wrongly adjusted or worn axle bearings

#### **POSSIBLE EFFECTS**

- Lining wear out quickly
- > Squeal and noise
- ➤ If linings not 100% bedded-in, low brake efficiency can result

#### **SOLUTION**

- Replace linings, replace wheel bearing and replace or grind drum as appropriate
- Avoid overheating brake

#### **APPEARANCE**

Lining surface tapered

#### **MAIN REASONS**

- Brake shoes misaligned with the brake drum
- Distorted brake shoe or brake drum turned on taper

#### **POSSIBLE EFFECTS**

- The linings may lock on to the drum when braking from high speeds
- Vehicle pull and excessive brake noise may occur

#### **SOLUTION**

Replace or grind/machine drum. Replace brake shoe anchor pins or parts that locate brake shoes



Dirt on the brake lining surface

#### **MAIN REASONS**

- Faults in brake mechanism
- Sticking brake shoes (weak return springs)
- Excessive use of brakes at high speed
- Overloaded vehicle
- > Too large air chambers

#### **POSSIBLE EFFECTS**

- Lining wear out quickly
- Vehicle pull and excessive brake noise
- Disintegration of lining
- Low deceleration

#### **SOLUTION**

Replace linings, avoid overworking brakes and ensure brake components are correct and are in good condition



#### **APPEARANCE**

Step on the brake lining surface

#### **MAIN REASONS**

- There may be a step in the brake drum surface
- General drum wear

#### **POSSIBLE EFFECTS**

- Rapid lining wear
- If the wear pattern differs across the axle, vehicle pull and excessive noise can result

#### **SOLUTION**

Grind/Machine drum surface or renew (a drum grind may incur oversize lining fitment)



# **CONTACT US**

## **CONTACT INFORMATION**

WhatsApp: +86-17335750286

🔀 E-mail: info@sinobrake.com

🐡 Website: www.sinobrake.com

## **MARKETING OFFICE**

Tel: +86-371-60195111

Fax: +86-371-60197111

Add: Add: No.80 Jinshuidong Road Zhengzhou City, Henan Province, China

# **MANUFACTURING CENTER**

★ WhatsApp: +86-17335750286

🖶 E-mail: info@sinobrake.com

Website: www.sinobrake.com