The Perfect Brake Job®

**BEFORE YOU START**

**Full Inspection**

- **1** Test drive vehicle to confirm owner’s comments
  - Check for warning lights
- **2** Inspect tire condition and hub bearings for excessive end play
- **3** Check suspension
  - Tie Rods
  - Ball Joints
  - Shocks
  - CV Axles
  - Bushings
- **4** Inspect master cylinder, booster, ABS unit and other components for leaks, damage, and contamination
- **5** Remove all four wheels
  - Mark rotor and drum to stud
- **6** Complete a brake inspection based on standard guidelines and record findings on the brake inspection check sheet

**Disc Brake Inspection**

- **7** Inspect caliper operation, hardware and rubber components
  - Free movement
  - Piston pullback
- **8** Inspect brake hoses
- **9** Inspect caliper body condition and bracket for damage or wear
- **10** Inspect pads
  - Measure lining thickness
  - Taper or uneven wear
  - Pad surface – for grooves or contamination
  - Shim migration or damage
- **11** Inspect rotor
  - Grooves
  - Discoloration
  - Proper thickness
  - Clogged cooling vanes
  - Delamination

**Drum Brake Inspection**

- **12** Remove and inspect drums
- **13** Inspect drum
  - Discoloration
  - Wear
  - Maximum diameter
- **14** Inspect shoes
  - Measure lining thickness
  - Wear pattern
  - Cracking
  - Contamination
- **15** Inspect hardware and cables
  - Springs and pins
  - Return and hold down items
  - Parking brake levers and cable
  - Back plates for grooves

**Post Inspection**

- **16** Write estimate based on the inspection results recorded on the check sheet

**STARTING THE JOB**

**Disc Brake Job**

- **17** Clamp off brake hose with proper line locks
- **18** Open bleeder and push piston in
- **19** Remove caliper and support using wire or other means – then remove pads
- **20** Remove rotor
  - Mark position if not done previously
- **21** Clean hub surface removing scaled rust with hub cleaning tool
- **22** If machining, using a bench or on the car lathe, first clean the hub mating surface of the rotor. When finished, sand both sides with 120 grit paper for one minute.
- **23** Wash all uncoated or machined rotors with soap and water. Coated and Phosphate Finish rotors do not need to be washed.
- **24** Install rotor and look up specifications. Retain rotor with all lug nuts and conical washers evenly torqued, then measure lateral run-out
- **25** Clean and lubricate caliper bracket and slide contact points with high temp silicone lube
- **26** Lubricate pads at all metal-to-metal contact points to include shim on backing plate
- **27** Install new brake pads and hardware
  - NAPA® Adaptive One®
  - NAPA® Premium™
  - NAPA® Proformer™
  - NAPA® StopRite®
- **28** Install caliper and bracket
- **29** Remove brake hose clamp
- **30** Flush and bleed brake system if needed

**Drum Brake Job**

- **31** Wash brake assembly with proper equipment
- **32** Disassemble drum brake system
  - Note position of shoes and springs
- **33** Lubricate backing plate at shoe rest
- **34** Install new brake shoes and hardware
- **35** Wash drums with soap and water if new or machined
- **36** Adjust shoe-to-drum clearance if applicable, and install drum
- **37** Flush and bleed brake system

**FINALIZE**

**The Perfect Brake Job®**

- **38** Install wheels and torque to specifications using star pattern
- **39** Check pedal height and feel
- **40** Top off master cylinder with proper fluid
- **41** Test drive vehicle and check that all warning lights are off to ensure customer satisfaction

Visit NAPABrakes.com for more information regarding brake repair procedures.