

## Unit Standard **30518**

### **Bleed a hydraulic brake system**

Level 3 Credit 2 v1

**Student Name:**

**School:**

**Date:**

**Marked By:** \_\_\_\_\_ **Mark** \_\_\_\_\_ **%**

**Feedback:**      **Excellent work**

**Good work**

**Please attempt all questions**

**Please resubmit**

## **USEFUL WEBLINKS**

### **Brake Fluid**

<http://youtu.be/IHiIWLxQkBo>

[http://youtu.be/\\_Z1ctiw0Uck](http://youtu.be/_Z1ctiw0Uck)

### **Checking Brake Fluid**

<http://youtu.be/o29IPbQYPog>

### **Brake System Inspection**

<http://youtu.be/LFZ7zPqZCW0>

<http://youtu.be/9vbJX1MLrWY>

<http://youtu.be/ooqwmy7nfzo>

### **Topping Up Brake Fluid**

[http://youtu.be/PYXPNY8gl\\_Y](http://youtu.be/PYXPNY8gl_Y)

### **Manual Bleeding**

<http://youtu.be/lPwM2vn3bT0>

### **Pressure Bleeding**

<http://youtu.be/04DZuyzAQDQ>

### **Vacuum Bleeding**

<http://youtu.be/MPL7bpgcmVI>

## REVIEW QUESTIONS ONE

Q1 Complete the following sentence.

Brake fluid is designed to be \_\_\_\_\_ by wide  
changes and not to \_\_\_\_\_ any significant \_\_\_\_\_ in  
important physical characteristics such as \_\_\_\_\_ over  
the \_\_\_\_\_ temperature range.

Q2 Explain the meaning of each of the following terms:

Hygroscopic

Compressibility

Q3 Describe two consequences of moisture in brake fluid for vehicle operation.

Q4 List six properties of brake fluid.

- Q5 Name the two common standards of brake fluid measurement.
- Q6 Describe two main differences between DOT 3 and DOT 4-brake fluid.
- Q7 Explain why Silicone and DOT 4 brake fluid should never be mixed.
- Q8 Explain in your own words the route that brake fluid travels in the braking system.
- Q9 Explain the purpose of each of the following master cylinder components.
- Compensating ports
- Bore end seal
- Piston cups
- Q10 In which direction are the pistons forced in a wheel cylinder during braking?

Q11 In which direction are the pistons forced in a caliper during operation?

Q12 When must a brake pad or shoe be replaced?

Q13 When should a caliper be replaced?

Q14 Why is it important that the footrest rubber on a brake pedal is in good condition?

## **REVIEW QUESTIONS TWO**

- Q15 Explain in your own words the procedure involved in topping up brake fluid.
- Q16 Describe three symptoms of air presence in the braking system.
- Q17 Explain in your words the procedure involved in bleeding a master cylinder.
- Q18 Why is it important to top up the brake fluid level in the master cylinder reservoir during bleeding?
- Q19 List two advantages of using a pressure bleeder rather than carrying out a manual bleed.

Q20 How often should brake fluid be changed?

Q21 Explain in your words the procedure involved in pressure bleeding a braking system.

Q22 List three safety factors to be considered when using brake fluid.