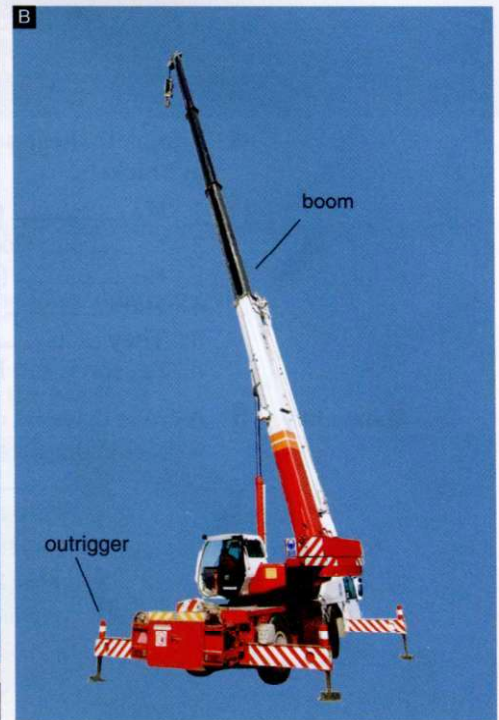
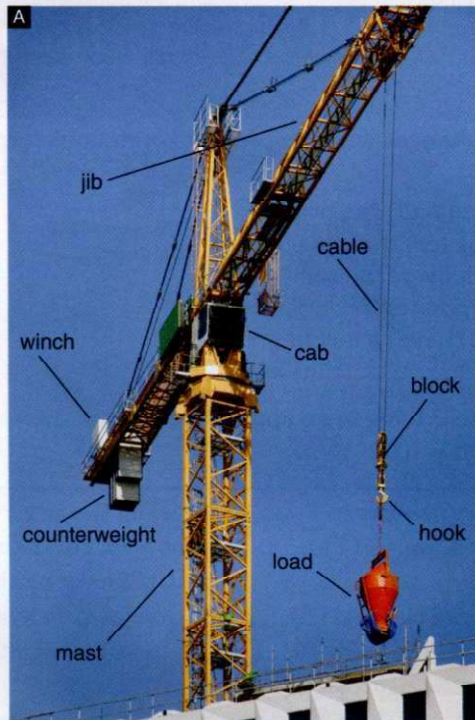


# Cranes

**Vocabulary 1** Look at the photos of the two cranes and complete this conversation.



A: What are the differences between the two cranes?

B: The crane on the left is a tower crane. The operator sits in a(n) (1) \_\_\_\_\_ near the top of the (2) \_\_\_\_\_. There's a counterweight behind the cab. The load is on the other side of the jib. The operator uses the winch and block to lower or raise the (3) \_\_\_\_\_.

A: I see.

B: The crane on the right is a mobile crane. The operator's cab is near the ground. The operator extends or retracts the (4) \_\_\_\_\_, or moves it from left to right or up and down. Both cranes use stabilisers or (5) '\_\_\_\_\_' and counterweights to maintain stability.

A: OK. Thank you.


**2** Write the opposites.

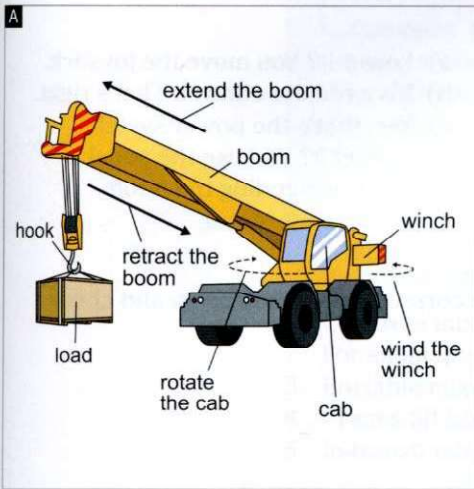
- 1 extend \_\_\_\_\_
- 2 lower \_\_\_\_\_
- 3 left \_\_\_\_\_

**3** Match 1-5 to a-e to make expressions about cranes.

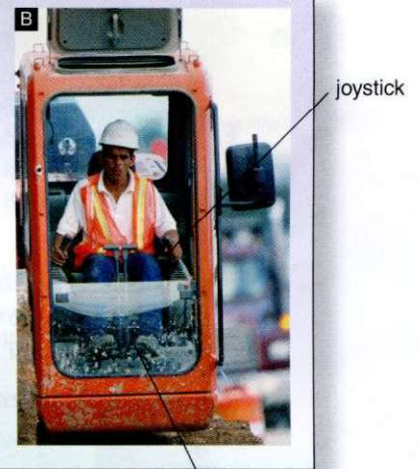
- |              |             |
|--------------|-------------|
| 1 operator's | a) crane    |
| 2 extend     | b) cab      |
| 3 mobile     | c) the boom |
| 4 raise      | d) the load |
| 5 tower      | e) crane    |

**4** Work in pairs. Close your books. Student A draw a tower crane for Student B to label. Student B draw a mobile crane for Student A to label. Check each other's work.

**Listening 5**  18 Listen to a description of crane controls and look at A and B. Then complete this text.



Crane operators use different controls to raise and lower the (1) \_\_\_\_\_, rotate the cab, extend and retract the boom, wind and unwind the (2) \_\_\_\_\_ and control other equipment. This operator has two (3) \_\_\_\_\_. One controls left-to-right movement of the boom and the other controls forward and backward movement. The operator uses the foot (4) \_\_\_\_\_ to retract or extend the boom.



**6** Listen again and check your answers to 5.

**Language**

**There is/There are**

We use <b>there is/there are</b> to say that somebody or something exists.	<b>There is</b> a key switch on the right. <b>There are</b> two joysticks.
Singular questions:	<b>Is there</b> a start button? Yes, <b>there is</b> ./No, <b>there isn't</b> .
Plural questions:	<b>Are there</b> any buttons? Yes, <b>there are</b> ./No, <b>there aren't</b> .
Negative forms:	<b>There isn't</b> a light. (singular) <b>There aren't</b> any switches. (plural)

**Reading 7** Read this text about a remote control and label the illustration.

Sometimes crane operators use remote controls. In this model there's a stop button on the left. There's a key switch on the right. There are two joysticks in the middle. There are three toggle switches on the top.




**Writing 8** Rewrite the text in 7 for this remote control.

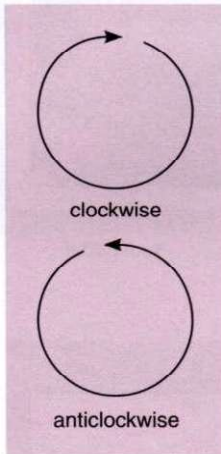



**Speaking 9** Work in pairs. Draw a remote control. Put the controls where you like. Describe it for your partner to draw.

## Controls and equipment

**Listening 1**  **19** Match questions 1–6 to answers a–f. Then listen and check your answers.

- |                                                   |                                         |
|---------------------------------------------------|-----------------------------------------|
| 1 What's this? A remote control?                  | a) Lower it? You move the joystick.     |
| 2 What's this for?                                | b) It's a remote control. That's right. |
| 3 What does this do?                              | c) Yes, that's the power switch.        |
| 4 How do I extend the boom?                       | d) Extend it? You use the pedal.        |
| 5 How do I lower the boom?                        | e) It's for extending the boom.         |
| 6 What's this switch for? Is it the power switch? | f) It starts the motor.                 |



**2**  **20** Put each conversation in the correct order. Then listen and check your answers.

- 1  7 Did you say turn the key?  
 Thanks.  
 Yes, that's right.  
 Clockwise.  
 Clockwise or anticlockwise?
- 2  7 What do I do next?  
 Thank you.  
 OK. Which one is the start button?  
 Press the start button.  
 It's the green one, on the left.
- 3  7 How do I start the engine?  
 Switch off? Press the big red button here.  
 Press the green button and turn the key.  
 Thanks.  
 And how do I stop it?

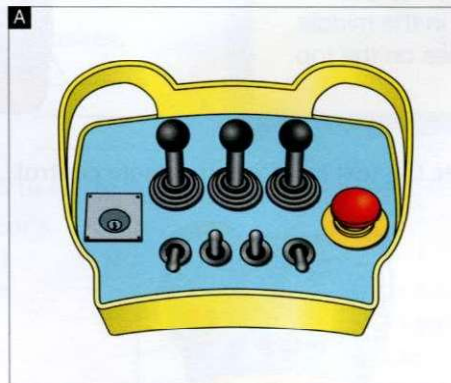
**Speaking 3** Work in pairs. Student A look at illustration A on this page. Student B look at illustration B on page 68. Write down what each control is for. Then take turns to explain your illustration. Use these questions to help you.

*What's this for?*

*What does this do?*

*What's this switch/button/joystick for?*

*How do I ...?*



**Reading 4** Read this text about mixing concrete. Are sentences 1–5 *true* (T) or *false* (F)?

**C**oncrete mixers mix and pour concrete. For small quantities of concrete, hand mixers are ideal. The portable mixer has wheels and uses electricity. It has a small drum which rotates. Concrete transport trucks – or in-transit mixers – transport large quantities of concrete to the site. The drum rotates during transport. The chute man pours the concrete down the chute, or uses a pump to get the concrete to difficult locations. Sometimes a crane lifts a hopper full of concrete to the job site.

- 1 Concrete mixers mix and pour concrete. (T / F)
- 2 For small quantities of concrete, transport trucks are ideal. (T / F)
- 3 Portable mixers use electricity. (T / F)
- 4 Cranes lift hoppers full of chute men to the job site. (T / F)
- 5 In-transit mixers rotate during transport. (T / F)

**Vocabulary 5** Label photos A–F with the equipment in the box.

chute concrete pump concrete transport truck  
hand mixer hopper portable mixer



**Speaking 6** Work in pairs. Look at the photos in 5. Make three sentences about each photo. Then compare your sentences with another pair.