

**Forces** 

What makes things move? Forces do! A force is a push or pull on something. Gravity is a force that pulls something to the Earth. When you drop a rock, it is the force of gravity that pulls the rock towards the Earth. When the wind blows, you feel air push against you. Identify the force in action in each picture. Write whether it is a push or pull.



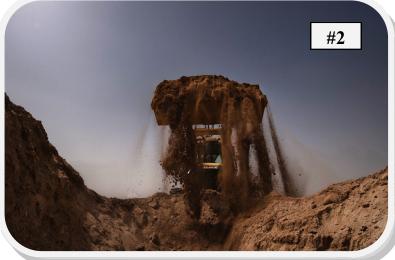
1. The 545C Wheel Skidder drags logs to the staging area for processing.

This force is a \_\_\_\_\_.

2. The 422F Backhoe Loader dumps dirt over a cliff.

This force is a \_\_\_\_\_.





3. The bulldozer is providing additional power from behind helping the scraper move forward.





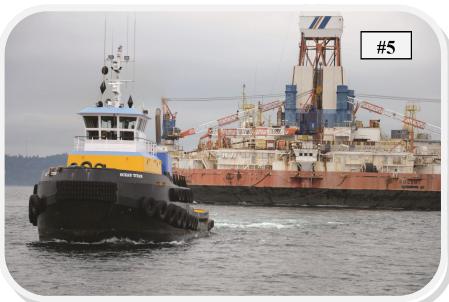
4. The service technician is applying a lubricant with a grease gun.

This force is a \_\_\_\_\_.

5. The tugboat, powered by Cat® Marine engines, guides the freighter into port.

This force is a \_\_\_\_\_.





6. The operator takes safety seriously. He is taking time to buckle his seat belt.





7. Workers maneuver the rig over the end of the pipe.

This force is a \_\_\_\_\_.

8. The operator uses the control pedal to move the machine.

This force is a \_\_\_\_\_





9. Cat Marine engines power the propellers on MVOCEARCH. The propellers move the research vessel through the water.





10. The scraper is attached to the back of the Caterpillar Twenty Tractor.

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11. This backhoe has a bucket that will dump to the side.

This force is a \_\_\_\_\_





12. The 3200L Excavators are using their buckets to tamp down the dirt along this trench.





The Telehandler is versatile and it can be used for many different tasks.

This force is a \_\_\_\_\_.



The Electro-Motive Diesel Locomotive transports a Cat Track Type Tractor.





The M325D Material Handler picks up scrap to load the semi trailer.

This force is a \_\_\_\_\_.



This team of PL87 Pipelayers work together to haul a long piece of pipe uphill.