

DEMOLITION CONTRACTORS EXPLAIN LONG REACH VS. HIGH REACH EXCAVATORS

To meet their growing needs for building demolition, Portland and other large cities require equipment that can take down buildings safely and efficiently—sometimes in tight spaces. Oregon demolition experts are increasingly turning to hydraulic excavators to get the job done. Here's a look at the two main types: long-reach and high-reach excavators.

1951
First hydraulic excavator is built

2016
99% of demolition work is done by specialized equipment such as excavators

99%

Demolition Services in the U.S.

Demolition and wrecking is a **\$6 billion industry**.
It's growing **3% each year**.

LONG-REACH EXCAVATORS

Extend sideways to reach into a building and scoop out rubble

Reach: 20 to 150 ft.
Specialties:
• Scrap metal salvaging
• Digging out rubble

Long-reach excavators are about 20% more fuel efficient than high-reach excavators.



UP TO 90%
of demolition materials can be recycled using excavators

Compared to...

40%
Using conventional methods

HIGH-REACH EXCAVATORS

Extend upward to dismantle tall buildings from the top

Reach: 50 to 160 ft.

Specialties:
• Demolishing upper stories
• Precision demolition in tight spaces

Some high-reach excavators are tall enough to take down a 10-story building.

2 MILLION LBS

Weight of the largest excavator



EXAMINING THE EXCAVATOR

Take a look at just some of the features excavators can include, all of which contribute to accuracy in the demolition industry.

BOOM

Has two joints for maximum reach and precision

RAMS/CYLINDERS

Use hydraulic fluid to control movement of arm

CAB

Tilted for better operator vision

DIPPER (OR STICK)

Can be longer for more reach or shorter for more digging power

ENGINE

Contains a counterweight for balance

ROTATING PLATFORM

Allows the vehicle to rotate between 180 and 360 degrees

GUARDING

Protects the cab and machine

TRACKS

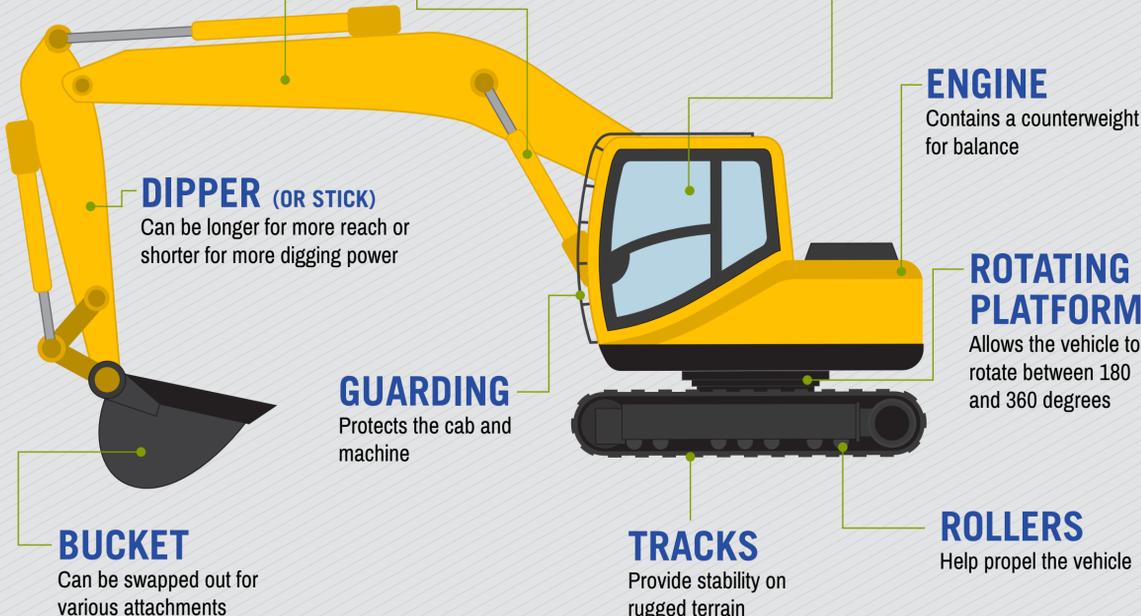
Provide stability on rugged terrain

ROLLERS

Help propel the vehicle

BUCKET

Can be swapped out for various attachments



GETTING ATTACHED

What makes excavators so efficient? Demolition contractors can use a variety of attachments to:



SCOOP

Some excavators can shovel up as much as **57 CUBIC YARDS** of debris.



HAMMER

Hydraulic hammers can apply **1,200 TO 20,000 FT. LBS.** of impact energy.



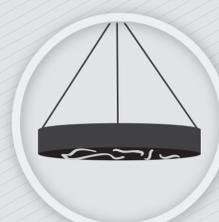
CRUSH

A pulverizer can crush a concrete foundation using **800 TONS OF FORCE**.



CLAMP

A demolition grapple can apply more than **4,000 LBS. OF CLAMP FORCE** and lift more than 1,000 lbs. of debris.



MAGNETIZE

A lifting magnet can be as **SMALL AS A CREDIT CARD** OR AS LARGE AS A BED.



MONITOR

A camera attachment **EXPANDS THE OPERATOR'S VISIBILITY**, making the machine safer and more productive.



SPRAY

A water-spraying attachment can **REDUCE DUST EXPOSURE BY MORE THAN 90%**.

More than **60% OF DEMOLITION CONTRACTORS** use a water suppression system to control dust.



SHEAR

An excavator's shears can apply up to **15,000 TONS OF FORCE**—enough to cut through 1 inch of steel.

Excavator shears can **GNAW THROUGH STEEL COLUMNS** thick enough to support a 20-story building.
Shears can shave **30% OR MORE OFF DEMOLITION TIMES**.

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SOURCES:

ibisworld.com, economist.com, forconstructionpros.com, ritchiewiki.com, greatpossibilities.com, constructionattachmentsinc.com, wikipedia.org, parracity.nsw.gov.au, annhyg.oxfordjournals.org