

# **GRADALL**<sup>®</sup> **SERIES**



**VERSATILITY, MOBILITY AND PRODUCTIVITY**  
FEATURING TIER-4 COMPLIANT HYDRAULIC EXCAVATORS

# ADVANCING THE LEGEND

Gradall Series V excavators represent a unique combination of power, speed, productivity and versatility – unmatched by any machine anywhere in the world.

First invented to meet the global need for one machine that could do the work of many machines and many workers, Gradall continues that focus. Now more than ever, Series V models accommodate environmental and operating efficiency concerns while continuing to provide governments and contractors with high-value machines that can handle many different jobs in many different locations.



## New with GRADALL Series V excavators

- ▶ Tier-4 Final compliant Volvo Penta diesel engine
- ▶ Engine meets highest global standards including State IV (EU) and Tier-4 Final emissions requirements
- ▶ Fuel efficiency increased by 5%
- ▶ High-performance, high-reliability 24-volt electrical system
- ▶ Integrated operator cab with optional rollover protection

## APPLICATIONS

- Asphalt and concrete repair
- Mass excavation
- Demolition
- Barrier placement
- Ditching
- Sloping
- Finished grading
- Spreading rip-rap
- Curb, gutter and sidewalk replacement
- Tree and vegetation trimming
- Storm and canal clean-out
- Right-of-way clearance
- Material movement
- Culvert replacement
- Mowing
- Guardrail clean-out
- Debris cleanup
- Brush cutting
- Bridge replacement
- Landscaping
- Dredging



## TYPICAL EXCAVATOR MARKETS

- State and federal DOTs
- Road and bridge contractors
- Local and municipal governments
- Specialty contractors

# CARVING OUT A SIGNATURE ADVANTAGE

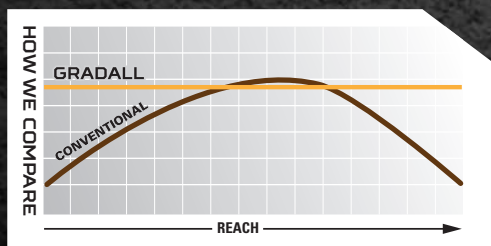
220°  
OR OPTIONAL  
360°

TELESCOPING

Gradall's full-tilting, telescoping, triangular boom is a legend in the industry, precisely positioning attachments to duplicate the work of a backhoe, grader, excavator, crane and many other machines.

The entire boom tilts 220°, to precisely create grades and position material, or demolish bridges and foundations. Because the entire boom tilts, there's no loss of power typical with boom-end tilt devices.

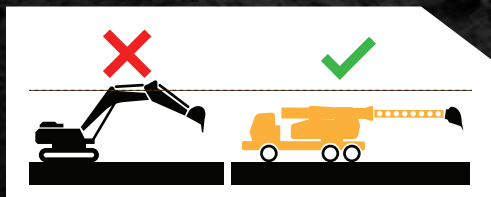
## CROWD FORCE



The unique boom design also delivers full crowd force power throughout the entire dig cycle – a huge advantage over knuckle booms that suffer from a severe reduction in force at stick angles over 90°.

The Gradall boom delivers full power at every angle, while conventional knuckle booms have full power only in the middle of a dig cycle.

## LOW PROFILE



With a low profile, Gradall excavators can work in tunnels, under bridges, beneath tree branches and on the ground floors of multi-story buildings where knuckle booms just won't fit.

## BOOM MOVEMENT ADVANTAGES

- Full boom tilts 220° without loss of bucket force power
- Highly efficient bucket angles for sloping, grading, spreading material
- Two overlapping triangular sections telescope rather than articulate into position
- Dig down at a 75° angle
- Raise up for truck loading
- Low profile allows for work in tunnels and under bridges
- During the entire dig cycle, the full boom is in full view from the operator cab

# HIGHWAY SPEED MOBILITY

## PUTS GRADALLS TO WORK ON MORE JOBS IN MORE LOCATIONS

Highway speed Gradall excavator models travel quickly to one or more job sites and then back to the safety of the equipment yard at the end of the day. Without the need for a lowboy trailer to transport the unit, there's a measurable savings in time, labor and expense.

And once it's on the job site, the excavator moves easy on both pavement and dirt. Without leaving the upperstructure cab, operators can use foot pedals to reposition the carrier around the jobsite or along the length of a ditch.



### ADVANTAGES AT-A-GLANCE

- Both the upperstructure and carrier are powered by a single, fuel-efficient Tier-4 Final Volvo engine
- Carriers available with 4 x 2 or 6 x 4 wheel drive, with optional 4 x 4 or 6 x 6 capabilities
- Front axle lockout cylinders and strong box plate frame construction provide a stable working platform without the need for outriggers
- Six-speed automatic transmission makes driving to job sites easier
- A switch in the operator cab allows operators to select Gradall, SAE or Deere joystick control pattern
- Compact counterweight design does not block traffic in adjoining lanes
- A state-of-the-art load-sensing hydraulic system eliminating the need for mode selection and saves fuel
- Designed to allow the operator to view the entire length of the boom through the full dig cycle
- Travel over highways at speeds up to 55 mph, reposition from the upper cab on the jobsite up to 5 mph

### CHASSIS CAB FEATURES CONVENIENCES AND COMFORT

Highway speed Series V Gradall models have a one-person chassis cab with a host of features designed to provide the operator with comfort and safety as he drives to job sites and back.

- Automatic transmission is standard
- Isolated from frame with rubber mounts
- Easily visible gauges for oil pressure, coolant temperature, air tank pressures, fuel level, DEF level, voltmeter and speed.
- Engine and transmission functions have easy-to-see monitors
- Engine shutdown controlled by engine electronics.
- Indicator lights and controls for front axle engagement (4 x 4 or 6 x 6 models) and rear axle differential lock.
- Comfort features include air suspension seat, sliding windows, fresh air heater and defroster and tinted glass.



### HIGHWAY SPEED MODELS

**XL 3100V**

Weight 41,720 lbs  
Reach 27' 3"  
Dig depth 18' 4"  
Hp 215 @ 2300 rpm



**XL 4100V**

Weight 50,925 lbs  
Reach 30' 3"  
Dig depth 20' 3"  
Hp 248 hp @ 2200 rpm



**XL 5100V**

Weight 58,379 lbs  
Reach 33' 9"  
Dig depth 24' 5"  
Hp 315 @ 2200 rpm



DETAILS MAKE THE DIFFERENCE

# HIGHWAY SPEED, MOBILITY AND PRODUCTIVITY,



**QUICK ATTACH WEDGE BOLT SYSTEM**  
Full line of attachments available

**SIX-SPEED AUTOMATIC TRANSMISSION**  
Travel over highways at speeds up to 55 mph

**SINGLE TIER-4 FINAL COMPLIANT VOLVO PENTA ENGINE**  
Powers upperstructure and carrier with a 5% increase in fuel efficiency and low emissions

**TRIANGULAR TELESCOPIC BOOM DESIGN**  
Operator has full view of the strong boom at all times

**STORABLE FRONT WINDOW AND HOLD-OPEN DOOR**  
Easier communication with ground crew

**ELECTRONIC FOOT PEDALS**  
Reposition chassis at up to 5 mph

**ELECTRONIC JOYSTICK CONTROLS**  
In-cab switch for Gradall, Deere or SAE patterns

**INTERNAL TOOTH SWING BEARING**  
Smooth, stable upperstructure movements



**STATE-OF-THE-ART LOAD-SENSING HYDRAULIC SYSTEM**  
Saves on fuel and eliminates the need for mode selection

**COMPACT COUNTERWEIGHT**  
Does not impede traffic around work area

**4 X 2 AND 6 X 4 WHEEL DRIVE CARRIERS**  
Optional 4 x 4 and 6 x 6



**...ALL IN ONE PACKAGE.**

# ON/OFF PAVEMENT MODELS

EFFICIENTLY COMPLETE JUST ABOUT ANY JOB,

# WORKING IN ANY DIRECTION

Gradall applies its technology and market experience to a collection of on/off pavement rubber tire excavators, perfectly engineered to out-pace conventional excavators' capabilities.

Thanks to a low profile with a compact telescoping boom, Gradall on/off pavement excavators are perfectly balanced for big jobs without the need for outriggers.

As a result, Gradall models have a 360° working range. You can pick and carry large loads around job sites. Or, you can handle big jobs working at the front, rear or either side of the carrier.



## ADVANTAGES AT-A-GLANCE

- Drive over pavement at speeds up to 20 mph
- A low center of gravity enables the telescoping, full-tilting boom to work in any direction
- Oscillation lock cylinders create a stable work platform, even when moving heavy materials
- Outriggers and grading blade are popular options, but they are not typically needed for carrier stability.
- Strong frame system uses box plate construction
- Short tail swing keeps traffic moving in an adjoining lane
- A low center of gravity stabilizes work and mobility functions
- One fuel-efficient Tier-4 Final engine provides plenty of power for both the carrier and boom functions
- Rubber tires provide mobility on highways or parking lots without damaging the paved surface

## ON/OFF PAVEMENT MODELS

XL 3300V

Weight 39,294 lbs  
Reach 27' 3"  
Dig depth 18' 5"  
Hp 172 @ 2000 rpm

XL 4300V

Weight 43,580 lbs  
Reach 30' 4"  
Dig depth 21' 3"  
Hp 173 hp @ 2200 rpm

XL 5300V

Weight 51,216 lbs  
Reach 33' 10"  
Dig depth 24' 7"  
HP 173 @ 2200 rpm

DETAILS MAKE THE DIFFERENCE

# ON/OFF PAVEMENT STABILITY AND MOBILITY ADVANTAGES...



**ELECTRONIC JOYSTICK CONTROLS**  
In-cab switch for Gradall, Deere or SAE patterns

**STANDARD 220° TILTING BOOM**  
No loss of bucket force power, even with optional 360° Tilting Boom

**TRIANGULAR TELESCOPIC BOOM DESIGN**  
Operator has full view of strong boom at all times

**QUICK ATTACH WEDGE BOLT SYSTEM**  
Full line of attachments available

**STEERING AXLE OSCILLATION LOCK CYLINDERS AND OPTIONAL STABILIZER ARMS**  
No need for outriggers

**VARIABLE DISPLACEMENT HIGH-TORQUE PISTON MOTOR**  
Two-speed power shift-on-the-fly transmission

**TILTING/TELESCOPING STEERING COLUMN AND ELECTRONIC TRAVEL SPEED PEDAL**  
Smooth performance with infinite controls

**STORABLE FRONT WINDOW AND HOLD-OPEN DOOR**  
Easier communication with ground crew

**STATE-OF-THE-ART LOAD-SENSING HYDRAULIC SYSTEM**  
Saves on fuel and eliminates the need for mode selection

**TIER-4 FINAL COMPLIANT VOLVO PENTA ENGINE**  
Low emissions, 5% increase in fuel efficiency

**COMPACT COUNTERWEIGHT**  
Does not impede traffic around work area

**INTERNAL TOOTH SWING BEARING**  
Smooth, stable upperstructure movements

**FULL TIME 4-WHEEL DRIVE**  
Up to 20 mph speeds



## ...KEEP BUSY JOBS MOVING FORWARD

# UPPERSTRUCTURE CABS DESIGNED FOR COMFORT AND WORKING EFFICIENCY

Gradall excavator upperstructure cabs are designed to meet the need for greater productivity with a comfortable environment that provides good visibility of the boom through the entire dig cycle. Plenty of windows and mirrors also give the operator a good view of the area around the machine – a big advantage when it comes to repositioning the carrier without leaving the upper cab.

Reliable, all-electric joystick controls are placed in the arms of the comfortable seating module. To shorten the learning curve for new Gradall operators, joystick control patterns can be changed with an in-cab switch.

## ADVANTAGES AT-A-GLANCE

- Cab structure, with optional rollover protection, is integrated into the overall machine frame
- Electronic joystick control system manages upperstructure and boom
- Monitor for critical functions is easy to read and reach
- Operators can easily view job site with ample tinted glass windows and mirrors
- Full length of the boom is visible from the operator cab during the entire dig cycle
- Wide doors and convenient grab handles make it easy to enter and exit
- Standard comfort and convenience features include heating, air conditioning, radio, storable front windows, four-way adjustable seat and work lights
- In-cab switch lets operators choose the joystick pattern they prefer — Gradall, Deere or SAE
- Reposition highway speed model chassis from the upper cab at speeds up to 5 mph with brake and foot pedals, moving around a jobsite, along the side of a road or over the length of a ditch
- Rough terrain wheeled models have a steering wheel for maneuverability
- Comfortable seating module has built-in joystick controls

## ATTACHMENTS TO MAXIMIZE YOUR VERSATILITY POTENTIAL AND INCREASE YOUR ROI

Gradall has a collection of factory-selected attachments that can help you do more work with just one machine, extracting more productivity from your equipment investment. In a single day, one machine can be used for drainage work, pavement repair, culvert replacement and mowing, thanks to a system that allows for fast attachment changes.

High-pressure, load-sensing hydraulics adjust automatically to deliver the power you need to handle various jobs while also conserving fuel. Boom end auxiliary hydraulics further extend the range of option choices.

### TYPICAL ATTACHMENTS

- Ditching buckets
- Pavement removal buckets
- Excavating buckets
- Grading buckets
- Dredging buckets
- Trenching buckets
- Boom extensions
- Live boom
- Hydraulic hammers
- Grapples
- Crushers
- Single-tooth ripper
- Tree limb shear
- Mowers
- Telestick™ long-reach boom



# GRADALL SERIES V



## EXCAVATORS ACHIEVE EXCELLENT VERSATILITY AND PRODUCTIVITY ON SPECIALIZED APPLICATIONS



### CRAWLER EXCAVATORS

Maneuver on rocks, dirt and sand with Series V Gradall excavators mounted on long, stable crawler undercarriages. Triple grouser excavator pads enhance tracking capability, traveling at speeds up to 3.4 mph. Tracks are powered with dual-range, high-torque piston motors for efficient, reliable carrier travel. Unlike conventional excavators, the telescoping boom delivers consistent, productive cycle times, even on low-overhead jobs.

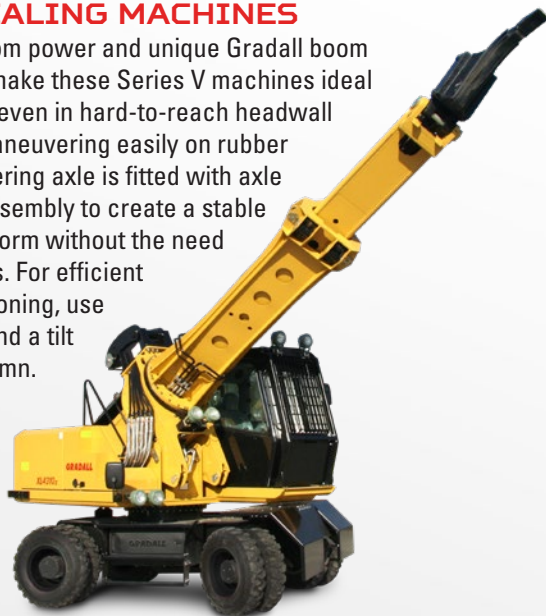


### RAILWAY MAINTENANCE MACHINES

Available with highway speed or on/off pavement undercarriages, these Series V models with rubber tires travel on pavement as well as rails with several available rail gear options. With a range of attachments, use them to clean up landslides, repair and replace rails, spread dirt and gravel and control vegetation. With a low-profile telescoping boom, these models also work inside tunnels and under bridges.

### MINE SCALING MACHINES

Excellent boom power and unique Gradall boom movements make these Series V machines ideal for scaling – even in hard-to-reach headwall locations. Maneuvering easily on rubber tires, the steering axle is fitted with axle oscillation assembly to create a stable working platform without the need for outriggers. For efficient carrier positioning, use two pedals and a tilt steering column.



### INDUSTRIAL MAINTENANCE MACHINES

Versatile, rugged, long-reach solutions use a 360° continuous boom tilt to handle challenging jobs including aluminum mill dross skimming and steel mill BOF maintenance work, tap hole replacement, pot cleaning, furnace teardowns and more. Built tough to handle the heat and rigors of mill work, special features also protect operators and machine components in specialized working environments.



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It is Gradall policy to continually improve its products. Therefore, designs, materials and specifications are subject to change without notice and without incurring any liability on units sold. Units pictured are equipped without optional equipment. See applicable specifications and price lists for optional equipment.

