## **GEHL R SERIES SKID LOADERS**

R190 • R220 • R260

Product Overview	1
Performance	2
Operator's Cab	3
Controls	4
Engine	5
Hydraulics	6
Attachment System	7
Lift Arm	8
Serviceability	9
Specifications	10

Comp. Comparisons 11

**Table of Contents** 





# PRODUCT OVERVIEW

## **R Series Skid Loaders**



The all-new Gehl R Series Skid Loaders replace the previous E-Series models in the large-frame category, incorporating several enhanced features designed to meet the needs of equipment owners and operators.

- New, redesigned operator area with spacious entry, enhanced controls, digital display, improved visibility and unsurpassed creature comforts.
- Tier IV emissions compliant Yanmar engines.
- Enhanced hydraulic performance with improved cycle times, increased auxiliary flow and impressive breakout forces.
- Compact frame and proven radial lift boom design.
- Thumb-controlled, fully-proportionate auxiliary control switch is located on the control grip in all control configurations.
- Relief under pressure coupler blocks make attachment changes simple and quick.



# **PERFORMANCE**



With over 40 years of skid loader manufacturing experience, Gehl has taken performance to the next level with the R Series Skid Loaders.

- Tier IV emissions compliant engines deliver
  70.7 hp (52.7 kW) and 206 ft.-lbs. (279.3 Nm) of peak torque. (model R260)
- Impressive rated operating capacities from 1900 lbs. (862 kg) on the R190 to 2780 lbs.
   (1261 kg) on the R260 with optional counterweight.
- Increased auxiliary flow on high flow configurations up to 35 gpm (132.49 L/min) on the R260.







# **OPERATOR'S CAB**



The new R Series skid loaders have spacious operator stations with plenty of adjustability and enhanced comfort features that users have come to expect from Gehl.

- Large Level II ROPS/FOPS is standard equipment.
- New side-folding restraint bar and adjustable armrests enhance operator safety and comfort.
- Adjustable control pods (joystick and hand/foot configurations) and an optional air-ride seat deliver outstanding comfort.
- Cab forward design enhances view to the bucket edge. Lowered rear towers improve visibility to the rear of the machine.
- Extra-large side screens combined with Gehl PowerView<sup>®</sup> low-profile lift arm design provide a wide field-of-view to the side work areas.
- Optional pressurized sealed cab enclosure with sound reduction material and rear-mounted air filter provide a cleaner, quieter, climate controlled operating environment.



# **CONTROLS**



T-Bar



Joystick



Hand/Foot





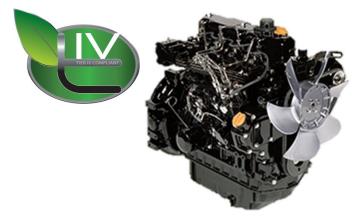
Controls on the new R Series skid loaders incorporate intuitive design, state-of-the-art technology and plenty of options to suit the preference of any operator.

- Three control options include T-Bar, Joystick, and Hand/Foot.
- Auxiliary controls are located on the control grip in all control configurations for easy access.
- Customizable integrated digital display provides coolant, fuel, battery, environmental and engine regeneration, and more information in real time.
- Adjustable joystick control pods provide ease of operator control with minimal effort, reducing fatigue.
- New upper-left and upper-right instrument panels provide easy readout and switch access.
- Hydraloc<sup>™</sup> system applies brakes whenever the operator raises the restraint bar, leaves the operator's seat or switches off the ignition.



# **ENGINE**





The new R Series skid loaders are equipped with top-of-the-line Yanmar Tier IV engines that meet emissions standards and provide the muscle needed to tackle demanding jobs with ease.

- Yanmar Tier IV engines with 69.3 hp (51.7 kW) on the R190 and 72 hp (53.7 kW) on the R220 and R260.
- Optimal torque ratings from 173 ft.-lbs. (235 Nm) on the R190 to 206 ft.-lbs. (279.3 Nm) of peak torque on the R260.
- The DPF (Diesel Particulate Filter) system provides clean emissions without the need for additional fuel after-treatment additives.
- The DPF requires regeneration to maintain optimal running conditions. This occurs passively as the machine is operated, but also requires occasional manual regeneration by the operator.
- Regeneration is intuitively managed through the digital display and a clearly labeled rocker switch.



# **HYDRAULICS**

The R Series skid loaders have amped-up hydraulic systems which incorporate intuitive design for precise controllability.

- Auxiliary flow rates from 31.5 gpm (119.24 L/min) on the R190 to 35 gpm (132.49 L/min) on the R220 and R260 with the high-flow configuration.
- Impressive breakout forces deliver optimal digging and lifting performance.
- Improved cycle times increase productivity on the jobsite.
- Excellent ease of operation and proportionate flow adjustability are achieved with the auxiliary flow control rocker switch located on the control grip.
- HydraGlide<sup>TM</sup> option helps keep material in the bucket and provides a smoother ride by allowing the bucket to float when travelling over rough terrain.
- Hardened chrome cylinder rods resist pitting, rusting and scratching, extending the life of the cylinders.





# **ATTACHMENT SYSTEM**

## **R Series Skid Loaders**



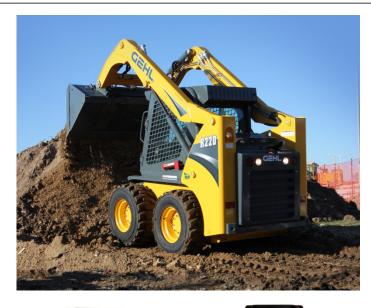
Attachments are the life-blood of a skid loader. Gehl has made it fast and simple to change work tools on the R Series skid loaders so operators can focus on productivity.

- All-Tach® system manually engages and disengages attachments with a single lever.
- Power-A-Tach® system allows for attachment changes hydraulically at the push of a button, further enhancing jobsite productivity.
- Both systems are compatible with all universaltype skid loader attachments.
- Pressure relieving coupler block makes hydraulic attachment changes fast and easy.

Power-A-Tach®



# **LIFT ARM**





# The R Series skid loaders are built with a robust, radial lift arm that incorporates performance and durability.

- Radial lift path offers enhanced performance in excavating, grading and digging below grade applications.
- Selectable hydraulic self-leveling option keeps the bucket level throughout the lift cycle.
- 4.5" width lift arm construction delivers superior strength and rigidity.
- Between the tire design on the R190 keeps the machine length short and compact.
- Over the tire design on the R220 and R260 provides wider access.
- Gehl PowerView<sup>®</sup> low-profile boom design offers optimal side-to-side visibility.



# **SERVICEABILITY**



Excellent service access and quality components pair up to provide durable machines that are easy to maintain.

- Oversized engine hood and rear door opens completely, exposing engine components and daily maintenance points.
- ROPS/FOPS tilts up with the aid of gas struts for access to hydraulic components.
- Drive chains and axle bearings are sealed systems that require no maintenance.
- All high-rotation pins have grease points for ease of maintenance.
- Features such as the remote oil drain and filter provide simple and easy maintenance access.



# **R190 SPECIFICATIONS**

## **R Series Skid Loaders**

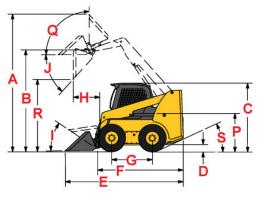
#### **DIMENSIONS**

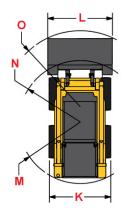
A. Overall Operating Height (mm)	158" (4013)
B. Height to Hinge Pin (fully raised) (mm)	120.5" (3061)
C. Overall Height (to top of ROPS) (mm)	80" (2032)
D. Ground Clearance to Chassis ( mm)	6.5" (165)
E. Overall Length w/ 66" Bucket (mm)	127" (3226)
F. Overall Length w/o Bucket (mm)	94" (2388)
G. Wheelbase (mm)	42" (1067)
H. Dump Reach at Full Height (mm)	22.5" (572)
I. Bucket Rollback at Ground	26°
J. Bucket Dump Angle	42°
K. Overall Width (mm)	66.5"/64.5" (1689/1638) <sup>(1)</sup>
L. Bucket Width - Specified (mm)	66" (1676)
M. Clearance Circle - Rear (mm)	58.5" (1486)
N. Clearance Circle (front, w/o bucket) (mm)	44.5" (1130)
O. Clearance Circle (front, w/ bucket) (mm)	79" (2007)
P. Seat to Ground Height (mm)	39" (991)
Q. Bucket Rollback at Full Height	96°
R. Dump Height (mm)	91" (2311)
S. Departure Angle	25°
Standard Tire Size	10.00 x 16.5 HD

#### **ENGINE**

Make/Model	Yanmar 4TNV98C-NMS
Туре	Naturally Aspirated, Tier IV-certified
Displacement (L)	202.6 cu. in. (3.319)
Gross Power (kW) @ rpm	69.3 hp (51.7) @ 2500
Net Power (kW) @ rpm	68.4 hp (51) @ 2500
Maximum Torque (Nm) @ rpm	173 ftlbs. (235) @ 1625

#### **REFERENCE DIAGRAMS**





#### **HYDRAULIC SYSTEM**

Auxiliary Hydraulics – Standard (L/min)	18.5 gpm (70)
High-Flow Option (L/min)	31.5 gpm (119)
System Relief Pressure (bar)	3000 psi (207)
Reservoir Capacity (L)	8 gal. (30.3)

#### **CAPACITIES/WEIGHTS**

Rated Operating Capacity <sup>(2)</sup> (kg)	1900 lbs. (862)
Rated Op. Capacity w/ Opt. Counterweight (2) (kg)	2110 lbs. (957)
Tipping Load (kg)	3800 lbs. (1724)
Operating Weight <sup>(3)</sup> (kg)	6880 lbs. (3121)
Fuel Tank (L)	16.5 gal. (62.5)

- (1) Narrow width with off-set tire option
- (2) Per SAE J818, SAE J732, and ISO 14397
- (3) Unit weight with standard equipment, standard tires (heavy-duty flotation), standard dirt-construction bucket and 175 lb. (79 kg) operator.



# **R220 SPECIFICATIONS**

## **R Series Skid Loaders**

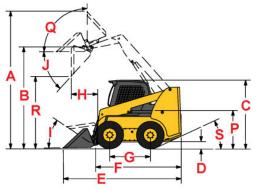
#### **DIMENSIONS**

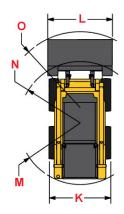
A. Overall Operating Height (mm)	161" (4089)
B. Height to Hinge Pin (fully raised) (mm)	123" (3124)
C. Overall Height (to top of ROPS) (mm)	81" (2057)
D. Ground Clearance to Chassis ( mm)	8" (203)
E. Overall Length w/ 70" Bucket (mm)	136.5" (3467)
F. Overall Length w/o Bucket (mm)	105" (2667)
G. Wheelbase – Nominal (mm)	43" (1092)
H. Dump Reach (mm)	27" (686)
I. Bucket Rollback at Ground	28°
J. Bucket Dump Angle	40°
K. Overall Width (mm)	69.5"/65.5" (1765/1664) <sup>(1)</sup>
L. Bucket Width - Specified (mm)	70" (1778)
M. Clearance Circle (rear) (mm)	60" (1524)
N. Clearance Circle (front, w/o bucket) (mm)	52" (1321)
O. Clearance Circle (front, w/ bucket) (mm)	87.5" (2223)
P. Seat to Ground Height (mm)	40" (1016)
Q. Bucket Rollback at Full Height	95°
R. Dump Height (mm)	94" (2388)
S. Departure Angle	25°
Standard Tire Size	12.00 x 16.5 HD

#### **ENGINE**

Yanmar 4TNV98CT-NMS
Turbocharged Diesel, Tier IV-certified
202.6 cu. in. (3.319)
72 hp (53.7) @ 2500
70.7 hp (52.7) @ 2500
206 ftlbs. (279.3) @ 1625

#### **REFERENCE DIAGRAMS**





#### **HYDRAULIC SYSTEM**

Auxiliary Hydraulics – Standard (L/min)	23.5 gpm (88.96)
High-Flow Option (L/min)	35 gpm (132.5)
System Relief Pressure (bar)	3300 psi (227.5)
Reservoir Capacity (L)	8 gal. (30.3)

#### **CAPACITIES/WEIGHTS**

Rated Operating Capacity <sup>(2)</sup> (kg)	2200 lbs. (998)
Rated Op. Capacity w/ Opt. Counterweight (2) (kg)	2370 lbs. (1075)
Tipping Load (kg)	4400 lbs. (1996)
Operating Weight <sup>(3)</sup> (kg)	7980 lbs. (3620)
Fuel Tank (L)	18 gal. (68.1)

- (1) Narrow width with off-set tire option
- (2) Per SAE J818, SAE J732, and ISO 14397
- (3) Unit weight with standard equipment, standard tires (heavy-duty flotation), standard dirt-construction bucket and 175 lb. (79 kg) operator.



# **R260 SPECIFICATIONS**

## **R Series Skid Loaders**

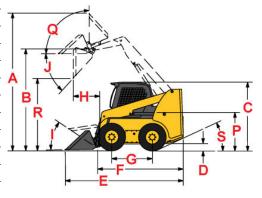
#### **DIMENSIONS**

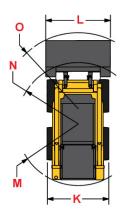
A. Overall Operating Height (mm)	161" (4089)
B. Height to Hinge Pin (fully raised) (mm)	123" (3124)
C. Overall Height (to top of ROPS) (mm)	81" (2057)
D. Ground Clearance to Chassis ( mm)	8" (203)
E. Overall Length w/ 70" Bucket (mm)	143" (3632)
F. Overall Length w/o Bucket (mm)	111.5" (2832)
G. Wheelbase - Nominal (mm)	49.5" (1527)
H. Dump Reach (mm)	27" (686)
I. Bucket Rollback at Ground	28°
J. Bucket Dump Angle	40°
K. Overall Width (mm)	69.5"/65.5" (1765/1664)(1)
L. Bucket Width - Specified (mm)	70" (1778)
M. Clearance Circle (rear) (mm)	64" (1626)
N. Clearance Circle (front, w/o bucket) (mm)	56" (1422)
O. Clearance Circle (front, w/ bucket) (mm)	90" (2286)
P. Seat to Ground Height (mm)	40" (1016)
Q. Bucket Rollback at Full Height	95°
R. Dump Height (mm)	94" (2388)
S. Departure Angle	25°
Standard Tire Size	12.00 x 16.5 HD

#### **ENGINE**

Make/Model	Yanmar 4TNV98CT-NMS
Туре	Turbocharged Diesel, Tier IV-certified
Displacement (L)	202.6 cu. in. (3.319)
Gross Power (kW) @ rpm	72 hp (53.7) @ 2500
Net Power (kW) @ rpm	70.7 hp (52.7) @ 2500
Maximum Torque (Nm) @ rpm	206 ftlbs. (279.3) @ 1625

#### **REFERENCE DIAGRAMS**





#### **HYDRAULIC SYSTEM**

Auxiliary Hydraulics - Standard (L/min)	23.5 gpm (88.96)
High-Flow Option (L/min)	35 gpm (132.5)
System Relief Pressure (bar)	3300 psi (227.5)
Reservoir Capacity (L)	8 gal. (30.3)

#### **CAPACITIES/WEIGHTS**

Rated Operating Capacity <sup>(2)</sup> (kg)	2600 lbs. (1179)
Rated Op. Capacity w/ Opt. Counterweight (2) (kg)	2780 lbs. (1261)
Tipping Load (kg)	5200 lbs. (2358)
Operating Weight <sup>(3)</sup> (kg)	8200 lbs. (3719)
Fuel Tank (L)	21.5 gal. (81.4)

- (1) Narrow width with off-set tire option
- (2) Per SAE J818, SAE J732, and ISO 14397
- (3) Unit weight with standard equipment, standard tires (heavy-duty flotation), standard dirt-construction bucket and 175 lb. (79 kg) operator.



## **COMPETITIVE COMPARISONS**

MAKE	GEHL	JOHN DEERE	CATERPILLAR	BOBCAT	NEW HOLLAND	CASE
MODEL	R220	320D	246C	S630	L223	SR220 Interim Tier 4
Emission Rating	Tier 4	Interim Tier 4	Interim Tier 4	Interim Tier 4	Interim Tier 4	Interim Tier 4
PERFORMANCE						
Rated Operating Load, Standard ***	2200 lbs.	2000 lbs.	2150 lbs.	2180 lbs.	2248.7 lbs.	2200 lbs.
Tipping Load	4400 lbs.	4000 lbs.	4300 lbs.	4360 lbs.	4500 lbs.	4400 lbs.
Height to Bucket Pin	123"	119"	122.9"	121"	129.5"	125.1"
Dump Height at Bucket Discharge	94"	95"	95.4"	93.2"	102.9"	100.9"
Reach at Max. Dump Height	27"	36"	23.6"	21.4"	32.2"	19.4"
Max. Dump Angle at Full Height	40°	42°	40°	42°	55°	38.1°
Bucket Breakout Force	5600 lbf	5125 lbf	7328 lbf	np	8587.7 lbf	8700 lbf
Bucket Rollback at Ground	28°	32°	np	31°	34°	30.7°
Arm Lifting Force	4200 lbf	3500 lbf	np	np	5090 lbf	5490 lbf
Loader Raise Time	4 sec	np	np	np	3.9 sec	3.6 sec
Lift Geometry	Radial	Vertical	Radial	Radial	Vertical	Radial
ENGINE						
Engine Manufacturer	Yanmar	John Deere	Caterpillar	Kubota	FPT	Case
Engine Model	4TNV98CT	PowerTech E 4024HT	C3.4 DIT	V3307-DI-TE3	F5C E9454	434T/E4
Cylinders	4	4	4	4	4	4
Displacement	202.6 cu.in.	149 cu.in.	201.3 cu.in.	203.3 cu.in.	195.2 cu.in.	207 cu.in.
Net Power	70.7 hp	63 hp	73 hp	np	68.3 hp	76 hp
Gross Power	72 hp	68 hp	74 hp	74.3 hp	74 hp	82 hp
Peak Torque	206 ftlbs.	170 ftlbs.	np	np	203 ftlbs.	225 ftlbs.
DRIVE TRAIN						
Max Travel Speed, Standard	8 mph	6.8 mph	7.7 mph	7.1 mph	7.2 mph	7.2 mph
Max Travel Speed, Optional	11.9 mph	11 mph	11.9 mph	11.1 mph	11.9 mph	11.9 mph
Tire Size	12 x 16.5	12 x 16.5	12 x 16.5	12 x 16.5	12.00 x 16.5	12.00 x 16.5
HYDRAULICS						
Loader Pump Flow	23.5 gpm	20 gpm	22 gpm	23 gpm	22.4 gpm	24.2 gpm
Loader Pump - High Flow	35 gpm	31 gpm	33 gpm	30.5 gpm	34.6 gpm	37.6 gpm
Hydraulic Pressure	3300 psi	3100 psi	3335 psi	3500 psi	3000 psi	3050 psi
DIMENSIONS						
Reference Bucket Capacity	16.1 cu.ft.	np	np	np	16.7 cu.ft.	16.5 cu.ft.
Overall Length w/Bucket	136.5"	132"	145.3"	136.8"	142.9"	141.2"
Length Less Bucket	105"	108"	117.2"	108.4"	117.8"	117.4"
Width Over Tires	65.5"	63"	66"	72.1"	69.2"	69.6"
Width With Standard Bucket	70"	np	np	74"	72"	72"
Height to ROPS	81"	79"	82.8"	81.3"	78.8"	78.8"
Ground Clearance	8"	10"	8.8"	8.1"	8"	8"
Rear Angle of Departure	25°	27.5°	26°	25°	24°	23.5°
Wheelbase, Standard	43"	42"	48.8"	45.3"	52"	52"
Fuel Tank	18 gal.	19 gal.	26 gal.	27.3 gal.	25.5 gal.	25.5 gal.
Hydraulic Tank Refill	8 gal.	np	11 gal.	np	6 gal.	7 gal.
Operating Weight	7980 lbs.	6600 lbs.	7480 lbs.	7707 lbs.	7400 lbs.	7400 lbs.

