Cat C4.4 A	CERT
122 kW	164 hp
120 kW	161 hp
1,800 rpm	
1,800 rpm	
105 mm	4.13 in
127 mm	5.00 in
4.4 L	269 in ³
	122 kW 120 kW 1,800 rpm 1,800 rpm 105 mm 127 mm

- The 320F L meets Tier 4 Final/Stage IV emission standards.
- No engine power derating required below 3000 m (9,800 ft) altitude.
- Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
- Rating at 1,800 rpm.

Weights		
Minimum Operating Weight (ANZ)*	22 000 kg	48,500 lb

• Long Undercarriage Reach Boom, R2.9 m (9'6") Stick, HD 1.19 m³ (1.56 yd³) Bucket and 700 mm (28") Triple Grouser Shoes.

Maximum Operating Weight	22 300 kg	49,200 lb
(ADSD-N)**		

- Long Undercarriage, Reach Boom, R2.9 m (9'6") Stick, GD 1.19 m³ (1.56 yd³) Bucket and 790 mm (31") Triple Grouser Shoes.
- *ANZ = Australia, New Zealand
- **ADSD-N = United States, Canada

Track	
Number of Shoes Each Side	49 pieces
Number of Track Rollers Each Side	8 pieces
Number of Carrier Rollers Each Side	2 pieces

Swing Mechanism		
Swing Speed	11.2 rpm	
Maximum Swing Torque	74 kN·m	54,440 lbf-ft

Drive		
Maximum Gradeability	35°/70%	
Maximum Travel Speed – High	5.6 km/h	3.5 mph
Maximum Drawbar Pull	205 kN	46,086 lbf

Hydraulic System		
Main System – Maximum Flow (Total)	428 L/min	113.1 gal/min
Maximum Pressure – Equipment		
Heavy Lift	38 000 kPa	5,511 psi
Normal	35 000 kPa	5,076 psi
Maximum Pressure – Travel	35 000 kPa	5,076 psi
Maximum Pressure – Swing	25 000 kPa	3,626 psi
Pilot System – Maximum Flow (Total)	24.3 L/min	6.4 gal/min
Pilot System – Maximum Pressure	3920 kPa	569 psi
Boom Cylinder – Bore	120 mm	5 in
Boom Cylinder – Stroke	1260 mm	50 in
Stick Cylinder – Bore	140 mm	6 in
Stick Cylinder – Stroke	1504 mm	59 in
Bucket Cylinder – Bore	120 mm	5 in
Bucket Cylinder – Stroke	1104 mm	43 in

Service Refill Capacities		
Fuel Tank Capacity	410 L	108.3 gal
DEF Tank Capacity	21 L	5.5 gal
Cooling System	30 L	7.9 gal
Engine Oil	25 L	6.6 gal
Swing Drive	8 L	2.1 gal
Final Drive	8 L	2.1 gal
Hydraulic System (including tank)	260 L	68.7 gal
Hydraulic Tank	159 L	42 gal

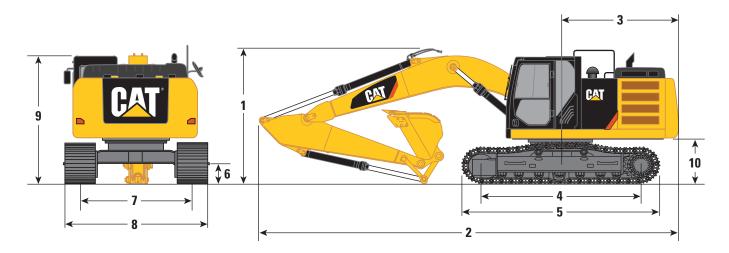
Sound Performance		
ISO 6395 (external)	99 dB(A)	
ISO 6396 (inside cab)	68 dB(A)	

- When properly installed and maintained, the cab offered by Caterpillar, when tested with doors and windows closed according to ANSI/SAE J1166 OCT98, meets requirements for operator sound exposure limits in effect at time of manufacture.
- Hearing protection may be needed when operating with an open operator station and cab (when not properly maintained or doors/ windows open) for extended periods or in a noisy environment.

Standards	
Brakes	ISO 10265 2008
Cab/FOGS	ISO 10262 1998
Cab/ROPS	ISO 12117-2 2008
DEF	ISO 22241

Dimensions

All dimensions are approximate.

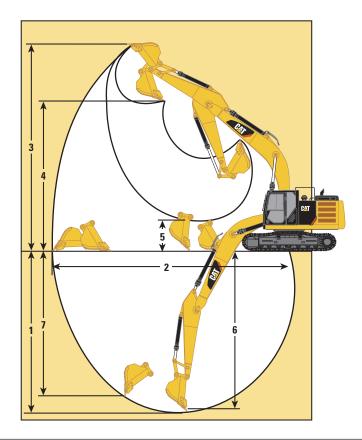


Boom Options	Reach Boom 5.7 m (18'8")		
Stick Options	R2.9 m*	R2.9 m* (9'6")	
1 Shipping Height	3130 mm	10'3"	
2 Shipping Length	9540 mm	31'4"	
3 Tail Swing Radius	2830 mm	9'3"	
4 Length to Center of Rollers – Long Undercarriage	3650 mm	12'0"	
5 Track Length – Long Undercarriage	4460 mm	14'8"	
6 Ground Clearance	450 mm	1'6"	
7 Track Gauge – Long Undercarriage (shipping)	2380 mm	7'10"	
8 Transport Width – Long Undercarriage			
600 mm (24") Shoes (ANZ)	2980 mm	9'9"	
700 mm (28") Shoes (ANZ)	3080 mm	10'1"	
790 mm (31") Shoes (ADSD-N)	3170 mm	10'5"	
9 Handrail Height	3010 mm	9'11"	
10 Counterweight Clearance	1020 mm	3'4"	

^{*}With 1.19 $\mbox{m}^{\mbox{\tiny 3}}$ (1.56 yd³) Bucket and 790 mm (31") Shoes.

Working Ranges

All dimensions are approximate.



Boom Options	Reach Boom – 5.7 m (18'8")	
Stick Options	R2.9 m (9'6")	
Bucket	HD 1.19 m ³	1.56 yd³
1 Maximum Digging Depth	6720 mm	22'1"
2 Maximum Reach at Ground Line	9860 mm	32'4"
3 Maximum Cutting Height	9370 mm	30'9"
4 Maximum Loading Height	6490 mm	21'4"
5 Minimum Loading Height	2170 mm	7'1"
6 Maximum Depth Cut for 2440 mm (8 ft) Level Bottom	6550 mm	21'6"
7 Maximum Vertical Wall Digging Depth	5060 mm	16'7"
Bucket Digging Force (SAE)	134 kN	30,100 lbf
Bucket Digging Force (ISO)	150 kN	33,810 lbf
Stick Digging Force (SAE)	103 kN	23,220 lbf
Stick Digging Force (ISO)	106 kN	23,920 lbf

Operating Weights and Ground Pressures

	600 mm (24") Shoes		600 mm (24") HD Shoes		700 mm (28") Shoes		790 mm (31") Shoes	
	Weight	Ground Pressure	Weight	Ground Pressure	Weight	Ground Pressure	Weight	Ground Pressure
	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)	kg (lb)	kPa (psi)
Long Undercarriage								
Reach Boom – 5.7 m (18'8")								
R2.9 m (9'6") Stick, 1.19 m ³ (1.56 yd ³) HD bucket	21 600 (47,600)	45.0 (6.5)	22 010 (48,500)	45.8 (6.64)	22 000 (48,500)	39.3 (5.7)	22 300 (49,200)	35.2 (5.1)

Major Component Weights

	kg	lb
Base Machine (with boom cylinder without counterweight, front linkage and track shoe)	7000	15,440
Long Undercarriage	4470	9,860
Counterweight	3700	8,160
Reach Boom (includes lines, pins and stick cylinder)		
5.7 m (18'8")	1740	3,840
Stick (includes lines, pins, bucket cylinder and bucket linkage)		
R2.9 m (9'6")	970	2,140
Track Shoes (long/per two track)		
600 mm (24") Triple Grouser (ANZ)	2690	5,930
600 mm (24") Triple Grouser HD (ANZ)	3100	6,840
700 mm (28") Triple Grouser (ANZ)	3070	6,770
790 mm (31") Triple Grouser (ADSD-N)	3360	7,410
Buckets		
HD 1.19 m ³ (1.56 yd ³)	1060	2,340
GD 1.3 m ³ (1.7 yd ³)	920	2,030

All weights are rounded up to nearest 10 kg and lb except for buckets. Kg and lb were rounded up separately so some of the kg and lb do not match. Base machine includes 75 kg (165 lb) operator weight, 90% fuel weight, and undercarriage with center guard.

Work Tool Offering Guide*

Boom Option	Reach Boom					
Stick Option	R2.9 m HD (9'6")					
Undercarriage	Long					
Hydraulic Hammer	H115Es H120Es H130Es					
Multi-Processor	MP318 CC Jaw MP318 D Jaw MP318 P Jaw^ MP318 S Jaw MP318 U Jaw^					
Pulverizer	P215					
Demolition and Sorting Grapple (D-Demolition shells, R-Recycling shells, WH-Waste Handling shells)	G315B-D/R G315B-WH					
Scrap and Demolition Shear	S320B^ S325B#					
Compactor (vibratory plate)	CVP110					
Orange Peel Grapple						
Rippers						
Thumbs	These work tools are available for the 320F L. Consult your Cat dealer for proper match.					
Pin Grabber Coupler	Consuit your Cat dealer for proper materi.					
Dedicated Quick Coupler						

^{*}Offerings not available in all areas. Matches are dependent on excavator configurations. Consult your Cat dealer to determine what is offered in your area and for proper work tool match.

[#] Match; boom mount

 $^{^{\}wedge}$ Work over the front only with Cat-PG (match; Pin-on, Dedicated Quick Coupler and Cat-PG)

Bucket Specifications and Compatibility (ADSD-N)

		Width		Capacity		Weight		Fill	Reach Boom
	Linkage	mm	in	m³	yd³	kg	lb	%	R2.9 m (9'6")
Without Quick Coupler									
General Duty (GD)	В	600	24	0.55	0.72	618	1,363	100%	•
	В	750	30	0.75	0.98	710	1,566	100%	•
	В	900	36	0.95	1.24	786	1,733	100%	•
	В	1050	42	1.16	1.52	847	1,867	100%	•
	В	1200	48	1.38	1.80	925	2,038	100%	Θ
	В	1350	54	1.59	2.08	1002	2,209	100%	O*
Heavy Duty (HD)	В	600	24	0.46	0.61	649	1,430	100%	•
	В	750	30	0.64	0.84	747	1,647	100%	•
	В	900	36	0.81	1.06	825	1,818	100%	•
	В	1050	42	1.00	1.31	879	1,937	100%	•
	В	1200	48	1.19	1.56	970	2,138	100%	θ
	В	1350	54	1.38	1.81	1051	2,316	100%	O*
Severe Duty (SD)	В	600	24	0.46	0.61	693	1,527	90%	•
	В	750	30	0.64	0.84	801	1,765	90%	•
	В	900	36	0.81	1.06	887	1,955	90%	•
	В	1050	42	1.00	1.31	962	2,121	90%	•
	В	1200	48	1.19	1.56	1051	2,316	90%	•
	•	,		М	aximum load	pin-on (paylo	ad + bucket)	kg	2940
								lb	6,480

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451.

Bucket weight with General Duty tips.

Maximum Material Density:

- 2100 kg/m³ (3,500 lb/yd³)
- 1800 kg/m³ (3,000 lb/yd³)
- → 1500 kg/m³ (2,500 lb/yd³)
- O 1200 kg/m³ (2,000 lb/yd³)

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

^{*}For light dirt loading applications only. Consult your dealer to understand your application before using this bucket in combination with this stick.

Bucket Specifications and Compatibility (ADSD-N)

		Width		Capacity		Weight		Fill	Reach Boom
	Linkage	mm	in	m³	yd³	kg	lb	%	R2.9 m (9'6")
With Pin Grabber Coupler									
General Duty (GD)	В	600	24	0.55	0.72	618	1,363	100%	•
	В	750	30	0.75	0.98	710	1,566	100%	•
	В	900	36	0.95	1.24	786	1,733	100%	•
	В	1050	42	1.16	1.52	847	1,867	100%	Θ
	В	1200	48	1.38	1.80	925	2,038	100%	0
	В	1350	54	1.59	2.08	1002	2,209	100%	\Diamond
Heavy Duty (HD)	В	600	24	0.46	0.61	649	1,430	100%	•
	В	750	30	0.64	0.84	747	1,647	100%	•
	В	900	36	0.81	1.06	825	1,818	100%	•
	В	1050	42	1.00	1.31	879	1,937	100%	θ
	В	1200	48	1.19	1.56	970	2,138	100%	0
	В	1350	54	1.38	1.81	1051	2,316	100%	\Diamond
Severe Duty (SD)	В	600	24	0.46	0.61	693	1,527	90%	•
	В	750	30	0.64	0.84	801	1,765	90%	•
	В	900	36	0.81	1.06	887	1,955	90%	•
	В	1050	42	1.00	1.31	962	2,121	90%	•
	В	1200	48	1.19	1.56	1051	2,316	90%	0
	·	•		М	aximum load	pin-on (paylo	ad + bucket)	kg	2530
								lb	5,577

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451.

Bucket weight with General Duty tips.

Maximum Material Density:

- 2100 kg/m³ (3,500 lb/yd³)
- 1800 kg/m³ (3,000 lb/yd³)
- → 1500 kg/m³ (2,500 lb/yd³)
- O 1200 kg/m³ (2,000 lb/yd³)
- \$\triangle\$ 900 kg/m³ (1,500 lb/yd³)

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

Bucket Specifications and Compatibility (ANZ)

		Width		Capacity		Weight		Fill	Reach Boom
	Linkage	mm	in	m³	yd³	kg	lb	%	R2.9 m (9'6")
Without Quick Coupler									
Heavy Duty (HD)	В	1050	42	1.00	1.31	879	1,937	100%	•
	В	1200	48	1.19	1.56	970	2,138	100%	Θ
	В	1350	54	1.38	1.81	1051	2,316	100%	Х
Severe Duty (SD)	В	1050	42	1.00	1.31	962	2,121	90%	•
				М	aximum load	pin-on (paylo	ad + bucket)	kg	2940
								lb	6,480
With Pin Grabber Coupler									
Heavy Duty (HD)	В	1050	42	1.00	1.31	879	1,937	100%	Θ
	В	1200	48	1.19	1.56	970	2,138	100%	0
	В	1350	54	1.38	1.81	1051	2,316	100%	\Diamond
Severe Duty (SD)	В	1050	42	1.00	1.31	962	2,121	90%	•
				М	aximum load	pin-on (paylo	ad + bucket)	kg	2530
								lb	5,577

The above loads are in compliance with hydraulic excavator standard EN474, they do not exceed 87% of hydraulic lifting capacity or 75% of tipping capacity with front linkage fully extended at ground line with bucket curled.

Capacity based on ISO 7451.

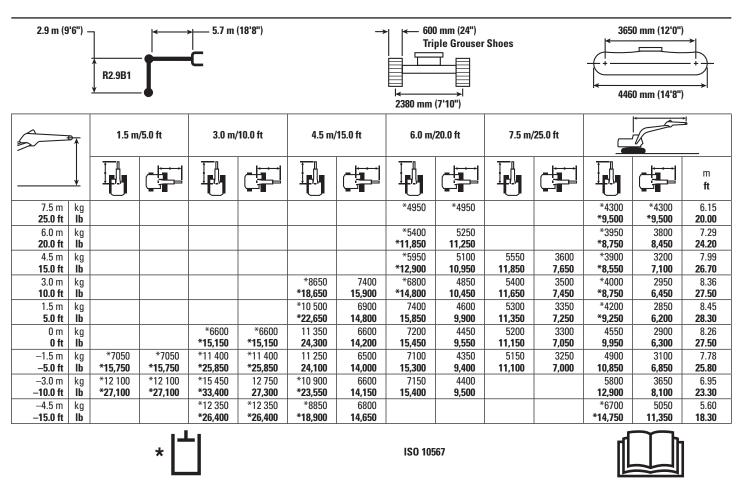
Bucket weight with General Duty tips.

Maximum Material Density:

- 2100 kg/m³ (3,500 lb/yd³)
- 1800 kg/m³ (3,000 lb/yd³)
- → 1500 kg/m³ (2,500 lb/yd³)
- 1200 kg/m³ (2,000 lb/yd³)
- 900 kg/m³ (1,500 lb/yd³)
- X Not allowed per structures matching guide

Caterpillar recommends using appropriate work tools to maximize the value customers receive from our products. Use of work tools, including buckets, which are outside of Caterpillar's recommendations or specifications for weight, dimensions, flows, pressures, etc. may result in less-than-optimal performance, including but not limited to reductions in production, stability, reliability, and component durability. Improper use of a work tool resulting in sweeping, prying, twisting and/or catching of heavy loads will reduce the life of the boom and stick.

Reach Boom Lift Capacities – Counterweight: 3.7 mt (8,160 lb) – with Bucket Linkages, without Bucket, Heavy Lift: On

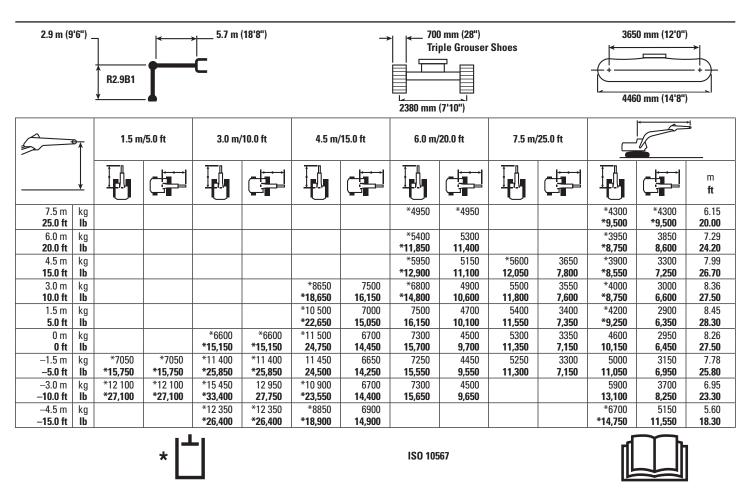


^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

Reach Boom Lift Capacities – Counterweight: 3.7 mt (8,160 lb) – with Bucket Linkages, without Bucket, Heavy Lift: On

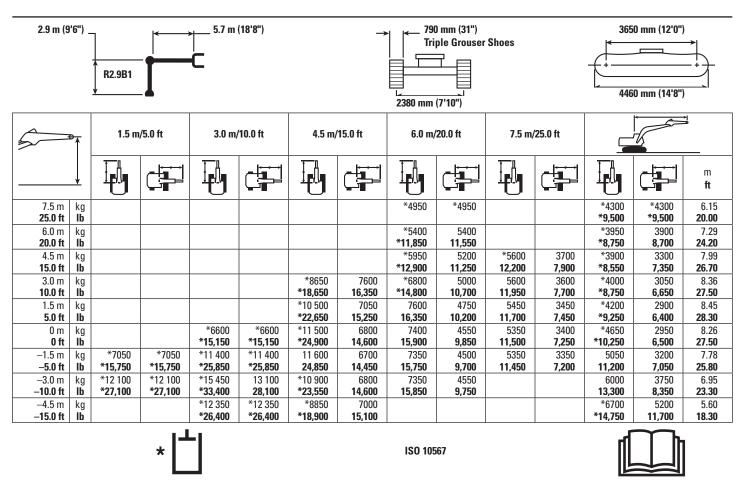


^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

Reach Boom Lift Capacities – Counterweight: 3.7 mt (8,160 lb) – with Bucket Linkages, without Bucket, Heavy Lift: On



^{*}Indicates that the load is limited by hydraulic lifting capacity rather than tipping load. The above loads are in compliance with hydraulic excavator lift capacity standard ISO 10567:2007. They do not exceed 87% of hydraulic lifting capacity or 75% of tipping load. Weight of all lifting accessories must be deducted from the above lifting capacities. Lifting capacities are based on the machine standing on a firm, uniform supporting surface. The use of a work tool attachment point to handle/lift objects, could affect the machine lift performance.

Lift capacity stays with ±5% for all available track shoes.

Always refer to the appropriate Operation and Maintenance Manual for specific product information.

320F L Standard Equipment

Standard Equipment

Standard equipment may vary. Consult your Cat dealer for details.

ENGINE

- Diesel engine, C4.4 ACERT that meets Tier 4 Final/Stage IV emission standards
- Two selectable power modes capability; STD and ECO
- Aftertreatment system: CEM (DOC+ DPF + SCR) and DEF system(DEF Tank and DEF Lines)
- Variable fan speed control with viscous clutch
- · One-touch low idle
- Automatic (programmable) idling shut down function
- Three-stage fuel filtration system with water separator and indicator
- 3000 m (9,800 ft) altitude capability without derate
- 52° C (126° F) high-ambient cooling capability with derate from 48° C (118° F)
- 85 amp alternator
- Radial seal air filter with double filter element
- Electric fuel lifting pump
- Capability of using biodiesel up to B20
- Starting kit for –18° C (0° F)

HYDRAULIC

- Electric boom regeneration circuit
- · Stick regeneration circuit
- One-touch lifting mode
- · Automatic two-speed travel
- · Boom and stick drift reduction valve
- Reverse swing damping valve
- High-performance hydraulic return filter (capsule filter type)
- CRN compliant accumulator
- Fine swing control

CAB

- Sound suppressed ROPS cab (ISO 12117-2 compliant) with viscous mount
- Openable skylight as emergency exit (dual exit hatch)
- Openable laminated front upper windshield with assist device
- Removable tempered lower windshield with in-cab storage bracket
- High back seat with air suspension, seat heater and head rest
- Fully adjustable seat, console and armrest
- Seat belt
- LCD monitor with distortion-free rearview camera picture
- Automatic bi-level air conditioner with pressurized function
- 12V × 2 power supply with sockets (maximum 10 amp)
- · Washable floor mat
- · Roll-down sun screen
- Interior utilities (interior lighting, coat hook, beverage holder, literature holder, document holding space, and cab rear storage compartment)
- 24V AM/FM radio (includes auxiliary input)
- · Control pattern quick-changer, two way
- Third pedal for straight travel

UNDERCARRIAGE & STRUCTURES

- 3.7 mt (8,160 lb) counterweight
- · Grease-lubricated track link
- Tie-down points on base frame (ISO 15818 compliant)
- 700 mm (28") triple grouser shoes

ELECTRICAL

- Maintenance-free battery
- · Centralized electrical disconnect switch
- Programmable time delay working lights (halogen); storage box mounted (one), cab mounted (two), boom mounted (two)

SERVICE & MAINTENANCE

- Engine oil, fuel, and hydraulic oil filters grouped for ease of maintenance
- Sampling ports for Scheduled Oil Sampling (S·O·SSM)
- Three side-by-side cooling package for easy maintenance

SAFETY & SECURITY

- Rearview camera with three mirrors and one additional cab mirror
- Right-hand rail and hand hold (ISO 2867 compliant)
- Bolt-free service platform with anti-skid plate
- Neutral lever (lock out) for all controls
- Ground-level accessible secondary engine shutoff switch in cab
- Signaling/warning horn
- Safety hammer for cab evacuation
- Boom lowering control valve
- Stick lowering control valve
- · Travel alarm

INTEGRATED TECHNOLOGIES

- · Product Link
- · Rearview camera