

# SPECIFICATIONS

# HX520L

Tier 4 Final Engine

## Net Power

SAE J1349 / 424 HP  
(316 kW) at 1,900 rpm

## Bucket Range

1.37 - 3.2 m<sup>3</sup>  
(1.8 - 4.19 yd<sup>3</sup>)

## Operating Weight

53,680 kg / 118,340 lb

## Standard Bucket

2.20 m<sup>3</sup> (2.88 yd<sup>3</sup>)

ENGINE		
Maker / Model	Scania DC13 084A	
Type	4-cycle air-cooled, charge air-cooled, diesel engine	
Rated flywheel horsepower	SAE J1995 (gross)	444 HP (331 kW) at 1,900 rpm
	SAE J1349 (net)	424 HP (316 kW) at 1,900 rpm
Max. torque	232 kgf-m (1,678 lbf-ft) at 1250 rpm	
Bore x stroke	130 x 160 mm (5.12" x 6.3")	
Piston displacement	12,700 cc (775 in <sup>3</sup> )	
Batteries	2 x 12 V x 200 Ah	
Starting motor	24 V - 6 kW	
Alternator	24 V - 100 Amp	

## HYDRAULIC SYSTEM

MAIN PUMP	
Type	Variable displacement tandem axis piston pumps
Max. flow	2 x 380.0 l/min (100.4 gpm)
Sub-pump for pilot circuit (Gear Pump)	28 l/min (7.4 gpm)

## CROSS-SENSING AND FUEL-SAVING PUMP SYSTEM

HYDRAULIC MOTORS	
Travel	Two-speed axial pistons motor with brake motor with automatic brake
Swing	Axial piston motor with automatic brake

## RELIEF VALVE SETTING

Implement circuits	330 kgf/cm <sup>2</sup> (4,690 psi)
Travel	330 kgf/cm <sup>2</sup> (4,690 psi)
Power boost (boom, arm, bucket)	360 kgf/cm <sup>2</sup> (5,120 psi)
Swing circuit	285 kgf/cm <sup>2</sup> (4,050 psi)
Pilot circuit	40 kgf/cm <sup>2</sup> (569 psi)
Service valve	Installed

## HYDRAULIC CYLINDERS

No. of cylinder bore X stroke	Boom: 170 x 1,570 mm (6.7 x 61.8")
	Arm: 190 x 1,820 mm (7.5 x 71.7")
	Bucket: 170 x 1,370 mm (6.7 x 53.9")

## DRIVES & BRAKES

Drive method	Fully hydrostatic type
Drive motor	Axial piston motor, in-shoe design
Reduction system	Planetary reduction gear
Max. drawbar pull	34,100 kgf (75,180 lbf)
Max. travel speed (high / low)	5.3 km/hr (3.29 mph) / 3.3 km/hr (2.05 mph)
Gradeability	35° (70%)
Parking brake	Multi wet disc

## CONTROL

Pilot pressure operated joysticks and pedals provide very-low-effort operation.

Pilot control	Two joysticks with one safety lever (LH) Swing and arm (RH) Boom and bucket
Traveling and steering	Two levers with pedals
Engine throttle	Electric, dial type



## OPERATING WEIGHT (APPROXIMATE)

Operating weight, including 7,060 mm (23' 2") boom, 3,380 mm (11' 1") arm, SAE heaped 2.20 m<sup>3</sup> (2.88 yd<sup>3</sup>) bucket, lubricant, coolant, full fuel tank, full hydraulic tank, 10,700 kg (23,590 lb) counterweight and all standard equipment.

## OPERATING WEIGHT

Shoes	Operating weight		Ground pressure
Type	Width mm (in)	kg (lb)	kgf/cm <sup>2</sup> (psi)
Triple grouser	700 (28") HX520L	53,420 (117,770)	0.80 (11.38)
	800 (32") HX520L	53,680 (118,340)	0.75 (10.67)

## SWING SYSTEM

Swing motor	Fixed displacement axial piston motor
Swing reduction	Planetary gear reduction
Swing bearing lubrication	Grease-bathed
Swing brake	Multi wet disc
Swing speed	8.6 rpm

## SERVICE REFILL CAPACITIES

Re-filling	liters	US gal
Fuel tank	610	161
Engine coolant	50	13.2
Engine oil	38	10
Swing device	7	1.8
Final drive (each)	12	3.2
Hydraulic system (including tank)	480	127
Hydraulic tank	262	74
DEF/AdBlue® tank	69	18.2

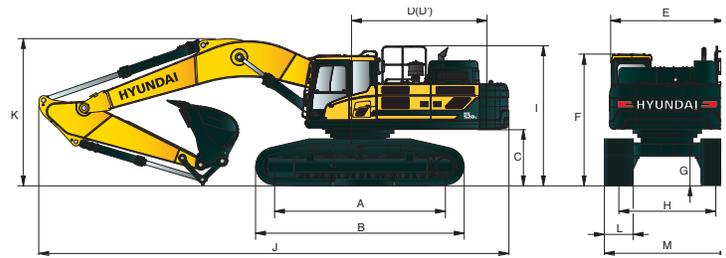
## UNDERCARRIAGE

The X-leg type center frame is integrally welded with reinforced box-section track frames. The undercarriage includes lubricated rollers, idlers, track adjusters with shock absorbing springs and sprockets, and a track chain with double or triple grouser shoes.

Center frame	X-leg type
Track frame	Pentagonal box type
No. of shoes on each side	53 EA
No. of carrier rollers on each side	3 EA
No. of track rollers on each side	9 EA
No. of rail guards on each side	2 EA

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## HX520L DIMENSIONS

Unit: mm (ft-in)

6.55 m (21' 6"), 7.06 m (23' 2"), 9.0 m (29' 6") boom and 2.4 m (7' 10"), 2.9 m (9' 6"), 3.38 m (11' 1"), 4.0 m (13' 1"), 6.0 m (19' 8") arm

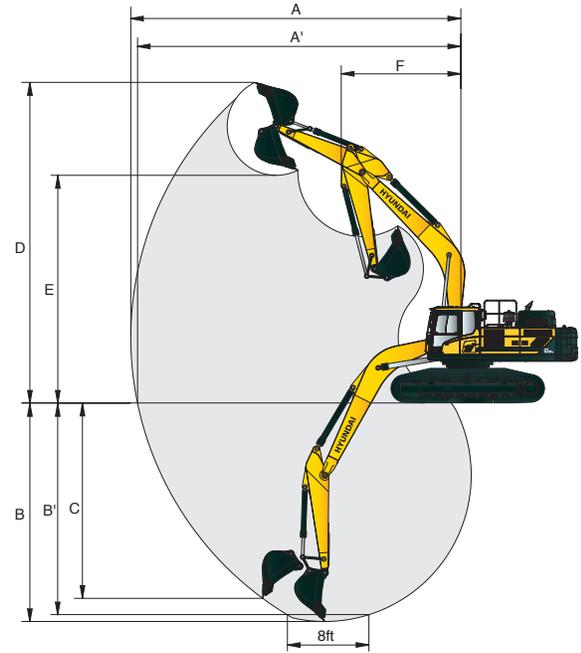
A	Tumbler distance	4,470 (14' 8")
B	Overall length of crawler	5,460 (17' 11")
C	Ground clearance of counterweight	1,445 (4' 9")
D	Tailswing radius	3,940 (12' 11")
D'	Rear-end length	3,885 (12' 9")
E	Overall width of upper structure	2,980 (9' 9")
F	Overall height of cab	3,340 (10' 11")
G	Min. ground clearance	770 (2' 6")
H	Track gauge	Extended 2,940 (9' 8")
	Retracted	2,380 (7' 10")
I	Overall height of guardrail	3,595 (11' 8")

Boom length	6,550 (21' 6")	7,060 (23' 2")			9,000 (29' 6")	
Arm length	2,400 (7' 10")	2,900 (9' 6")	2,400 (7' 10")	2,900 (9' 6")	3,380 (11' 1")	4,000 (13' 8")
J Overall length	12,000 (39' 4")	11,870 (38' 11")	12,510 (41' 1")	12,380 (40' 7")	12,260 (40' 3")	12,250 (40' 2")
K Overall height of boom	4,190 (13' 9")	4,080 (13' 5")	4,070 (13' 4")	3,920 (12' 10")	3,790 (12' 5")	4,090 (13' 5")
L Track shoe width	600 (24")	700 (28")	750 (30")	800 (32")		
M Overall width	Extended	3,540 (11' 7")	3,640 (11' 11")	3,690 (12' 1")	3,740 (12' 3")	
	Retracted	2,980 (9' 10")	3,080 (10' 1")	3,130 (10' 3")	3,180 (10' 5")	

## HX520L WORKING RANGE

Unit: mm (ft-in)

Boom length	6,550 (21' 6")		7,060 (23' 2")			9,000 (29' 6")	
Arm length	2,400 (7' 10")	2,900 (9' 6")	2,400 (7' 10")	2,900 (9' 6")	3,380 (11' 1")	4,000 (13' 1")	6,000 (19' 8")
A Max. digging reach	10,690 (35' 1")	11,130 (36' 6")	11,200 (36' 9")	11,620 (38' 1")	12,040 (39' 6")	12,600 (41' 4")	16,180 (53' 1")
A' Max. digging reach on ground	10,430 (34' 3")	10,870 (35' 8")	10,950 (35' 11")	11,380 (37' 4")	11,810 (38' 9")	12,380 (40' 7")	16,010 (52' 6")
B Max. digging depth	6,240 (20' 6")	6,740 (22' 1")	6,630 (21' 9")	7,130 (23' 5")	7,610 (25' 0")	8,230 (27' 0")	11,870 (38' 11")
B' Max. digging depth (8' level)	6,060 (19' 11")	6,580 (21' 7")	6,460 (21' 2")	6,980 (22' 11")	7,470 (24' 6")	8,110 (26' 7")	11,770 (38' 7")
C Max. vertical wall digging depth	4,370 (14' 4")	5,420 (17' 9")	4,650 (15' 3")	5,660 (18' 7")	5,770 (18' 11")	6,320 (20' 9")	8,360 (27' 5")
D Max. digging height	10,390 (34' 1")	10,660 (35' 0")	10,750 (35' 3")	10,980 (36' 0")	11,060 (36' 3")	11,280 (37' 0")	12,590 (41' 4")
E Max. dumping height	7,040 (23' 1")	7,210 (23' 8")	7,410 (24' 4")	7,540 (24' 9")	7,690 (25' 3")	7,910 (25' 11")	9,410 (30' 10")
F Min. swing radius	4,870 (16' 0")	4,540 (14' 11")	5,160 (16' 11")	4,890 (16' 1")	4,850 (15' 11")	4,710 (15' 5")	6,140 (20' 2")



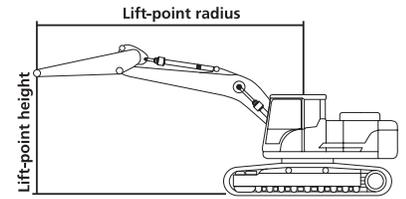
## DIGGING FORCE

Boom	Length	mm (ft-in)	6,550 (21' 6")			7,060 (23' 2")			9,000 (29' 6")	[Power Boost]
	Weight	kg (lb)	4,340 (9,570)			4,370 (9,630)			5,130 (11,310)	
Arm	Length	mm (ft-in)	2,400 (7' 10")	2,900 (9' 6")	2,400 (7' 10")	2,900 (9' 6")	3,380 (11' 1")	4,000 (13' 1")	6,000 (19' 8")	
	Weight	kg (lb)	2,430 (5,360)	2,630 (5,800)	2,430 (5,360)	2,630 (5,800)	2,670 (5,890)	2,760 (6,080)	3,290 (7,250)	
Bucket digging force	SAE	kN	241.2 [263.2]	241.2 [263.2]	241.2 [263.2]	241.2 [263.2]	241.2 [263.2]	241.2 [263.2]	184.4	
		kgf	24,600 [26,840]	24,600 [26,840]	24,600 [26,840]	24,600 [26,840]	24,600 [26,840]	24,600 [26,840]	18,800	
		lbf	54,230 [59,170]	54,230 [59,170]	54,230 [59,170]	54,230 [59,170]	54,230 [59,170]	54,230 [59,170]	41,450	
	ISO	kN	280.5 [306.0]	280.5 [306.0]	280.5 [306.0]	280.5 [306.0]	280.5 [306.0]	280.5 [306.0]	213.8	
		kgf	28,600 [31,200]	28,600 [31,200]	28,600 [31,200]	28,600 [31,200]	28,600 [31,200]	28,600 [31,200]	21,800	
		lbf	63,050 [68,780]	63,050 [68,780]	63,050 [68,780]	63,050 [68,780]	63,050 [68,780]	63,050 [68,780]	48,060	
Arm crowd force	SAE	kN	278.5 [303.8]	225.6 [246.1]	278.5 [303.8]	225.6 [246.1]	192.2 [209.7]	171.6 [187.2]	103.0	
		kgf	28,400 [30,980]	23,000 [25,090]	28,400 [30,980]	23,000 [25,090]	19,600 [21,380]	17,500 [19,090]	10,500	
		lbf	62,610 [68,300]	50,710 [55,310]	62,610 [68,300]	50,710 [55,310]	43,210 [47,130]	38,580 [42,090]	23,150	
	ISO	kN	291.3 [317.7]	235.4 [256.7]	291.3 [317.7]	235.4 [256.7]	200.1 [218.2]	177.5 [193.7]	105.9	
		kgf	29,700 [32,400]	24,000 [26,180]	29,700 [32,400]	24,000 [26,180]	20,400 [22,250]	18,100 [19,750]	10,800	
		lbf	65,480 [71,430]	52,910 [57,720]	65,480 [71,430]	52,910 [57,720]	44,970 [49,050]	39,900 [43,540]	23,810	

Note : Boom weight includes arm cylinder, piping, and pin  
Arm weight includes bucket cylinder, linkage, and pin

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## Lifting Capacity

Boom: 7.06 m (23' 2")

Arm: 3.38 m (11' 1")

Bucket: 2.20 m<sup>3</sup> (2.88 yd<sup>3</sup>) SAE heaped

Shoe 800 mm (32") triple grouser, CWT 10,700 kg (23,590 lb)

Capacities based on North American Standard Configuration in accordance with ISO condition 2 standard.



Rating over front



Rating over side or 360 degree

Lift-point height m (ft)		Lift-point radius										At max. reach		
		3.0 m (9.8 ft)		4.5 m (14.8 ft)		6.0 m (19.7 ft)		7.5 m (24.6 ft)		9.0 m (29.5 ft)		Capacity		Reach m (ft)
7.5 m 24.6 ft	kg lb							*12,320 *27,160	*12,320 *27,160			*8,520 *18,790	*8,520 *18,790	8.69 (28.5)
6.0 m 19.7 ft	kg lb							*13,110 *28,900	12,850 28,330	*10,380 *22,890	9,610 21,180	*8,440 *18,610	*8,440 *18,610	9.43 (31.0)
4.5 m 14.8 ft	kg lb			*22,420 *49,440	*22,420 *49,440	*16,970 *37,410	*16,970 *37,410	*14,180 *31,260	12,420 27,390	*12,540 *27,640	9,410 20,750	*8,610 *18,980	8,090 17,820	9.90 (32.5)
3.0 m 9.8 ft	kg lb			*24,650 *54,350	*24,650 *54,350	*19,160 *42,230	16,450 36,260	*15,350 *33,830	11,950 26,340	*13,110 *28,890	9,160 20,190	*9,020 *19,880	7,670 16,920	10.11 (33.2)
1.5 m 4.9 ft	kg lb			*18,980 *41,850	*18,980 *41,850	*20,690 *45,610	15,740 34,700	*16,260 *35,850	11,530 25,420	*13,550 *29,880	8,930 19,680	*9,720 *21,420	7,560 16,660	10.10 (33.1)
Ground Line	kg lb			*22,300 *49,160	*22,300 *49,160	*21,180 *46,680	15,330 33,800	*16,650 *36,700	11,250 24,800	13,450 29,660	8,760 19,310	*10,100 *22,280	7,730 17,040	9.86 (32.4)
-1.5 m -4.9 ft	kg lb	*16,590 *36,590	*16,590 *36,590	*25,980 *57,280	23,510 51,820	*20,580 *45,380	15,190 33,480	*16,290 *35,910	11,120 24,510	*13,070 *28,800	8,700 19,180	*10,820 *23,860	8,250 18,190	9.38 (30.8)
-3.0 m -9.8 ft	kg lb	*24,940 *54,980	*24,940 *54,980	*23,920 *52,730	23,720 52,290	*18,840 *41,540	15,250 33,620	*14,890 *32,820	11,160 24,600			*12,160 *26,820	9,330 20,570	8.60 (28.2)
-4.5 m -14.8 ft	kg lb	*23,780 *52,430	*23,780 *52,430	*19,490 *42,960	*19,490 *42,960	*15,500 *34,180	*15,500 *34,180					*11,590 *25,550	11,550 25,470	7.45 (24.4)

### NOTES:

- Lifting capacities are based on ISO 10567.
- Lifting capacity of the HX Series does not exceed 75% of tipping load with the machine on firm, level ground or 87% of full hydraulic capacity.
- The Lift-point is bucket pivot mounting pin on the arm (without bucket mass).
- (\*) indicates load limited by hydraulic capacity.



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Tier 4 Final Engine

ENGINE	STD	OPT
Scania DC13 084A engine	•	
HYDRAULIC SYSTEM	STD	OPT
Intelligent Power Control (IPC)		
3-power mode, 2-work mode, user mode	•	
Variable power control	•	
Pump flow control	•	
Attachment mode flow control	•	
Engine auto idle	•	
Engine auto shutdown control		•
CAB & INTERIOR	STD	OPT
ISO standard cabin		
Rise-up type windshield wiper	•	
Radio / USB player	•	
Bluetooth / hands-free mobile phone system with USB	•	
Miracast	•	
12-volt power outlet (24 V DC to 12 V DC converter)	•	
Electric horn	•	
All-weather steel cab with 360° visibility	•	
Safety glass windows	•	
Sliding fold-in front window	•	
Sliding side window (LH)	•	
Lockable door	•	
Hot and cool box	•	
Storage compartment and ashtray	•	
Transparent cabin roof-cover	•	
Sun visor	•	
Door and cab locks, one key	•	
Mechanical suspension seat with heater	•	
Pilot-operated adjustable joystick	•	
Console box height adjust system	•	
Cabin lights	•	
Cabin front window rain guard		•
Cabin roof-steel cover		•
Automatic climate control		
Air conditioner and heater	•	
Defroster	•	
Starting aid (air grid heater) for cold weather	•	
Centralized monitoring		
8" LCD display	•	
Engine speed or trip meter / accel.	•	
Engine coolant temperature gauge	•	
Max. power	•	
Low speed / high speed	•	
Auto idle	•	
Overload	•	
Check engine	•	
Air cleaner clogging	•	
Indicators	•	
ECO gauges	•	
Fuel level gauge	•	
Hydraulic oil temperature gauge	•	
Fuel warmer	•	
Warnings	•	
Communication error	•	
Low battery	•	
Clock	•	

CAB & INTERIOR	STD	OPT
Seat		
Adjustable air suspension seat with heater	•	
Cabin FOPS/FOG		
FOG ISO 10262 Level 2	Front and top guard	•
(FOPS ISO 3449 Level 2)	Top guard	•
Cabin ROPS		
ROPS ISO 12117-2	•	
SAFETY	STD	OPT
Battery master switch	•	
Rearview camera	•	
AAVM (All-Around View Monitoring)		•
Six front working lights (4 boom mounted, 2 front frame mounted)	•	
Dual boom working lights	•	
Travel alarm	•	
Rear work lamp		•
Beacon lamp		•
Automatic swing brake	•	
Boom holding system	•	
Arm holding system	•	
Safety lock valve for boom cylinder with overload warning device		•
Safety lock valve for arm cylinder		•
Swing Lock System		•
Three outside rearview mirrors	•	
OTHER	STD	OPT
Booms		
6.55 m, 21' 6"		•
7.06 m, 23' 2"	•	
9.00 m, 29' 6"		•
Arms		
2.4 m, 7' 10"		•
2.9 m, 9' 6"		•
3.38 m, 11' 1"	•	
4.0 m, 13' 1"		•
6.0 m, 19' 8"		•
Removable clean-out dust net for cooler	•	
Removable reservoir tank	•	
Fuel pre-filter with fuel warmer	•	
Rain cap	•	
Pre-cleaner		•
Self-diagnostics system	•	
Hi-mate Remote Management System	Mobile Satellite	•
Batteries (2 x 12V x 200 Ah)	•	
Fuel-filler pump (50 ℓ/min / 13 gpm)		•
Single-acting piping kit (breaker, etc.)		•
Double-acting piping kit (clamshell, etc.)	•	
Rotating piping kit		•
Quick coupler piping		•
Quick coupler		•
Boom float control		•
Pilot accumulator	•	
Pattern-change valve (SAE and ISO)	•	
Tool kit		•
UNDERCARRIAGE	STD	OPT
Lower frame under cover (additional)		•
Lower frame under cover (normal)	•	
Track shoes		
Triple grouser shoes (700 mm, 28")		•
Triple grouser shoes (800 mm, 32")	•	
Track rail guard	•	
Full track rail guard		•

NOTE: Standard and optional equipment may vary. Materials and specifications are subject to change without advance notice. Contact your Hyundai dealer for more information.

## PLEASE CONTACT



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