

Crawler Loader

LR 614
Litronic®

Engine output: 72 kW / 98 HP
Operating weight: 11,100 – 12,004 kg
24,471 – 26,464 lb
Bucket capacity: 1.20 – 1.25 m³
1.57 – 1.63 yd³



LIEBHERR

Basic machine



Engine

John Deere Diesel engine	4045HF289 emission regulations according to 97/68/EC, 2004/26/EC Stage IIIA and EPA/CARB Tier 3
Net power (ISO 9249)	72 kW / 98 HP
Net power (SAE J1349)	72 kW / 97 HP
Engine rating	2,200 rpm
Displacement	4,5 l / 275 in ³
Bore/stroke	106 mm / 127 mm (4.17 in / 5.00 in)
Design	low emission water-cooled 4 cylinders in-line, 2 valve cylinder head, turbo charger, air-to-air after cooler, electronic engine control, steel pistons, 2 countershafts, cold starting aid automatically with heat flange
Fuel system	Common Rail direct injection system
Lubrication	pressurized lube system, engine lubrication guaranteed for intermittent inclination up to 35°, 30° in duration
Operating voltage	24 V
Alternator	55 A, Heavy-Duty version
Starter	7.0 kW
Battery	2 x 100 Ah / 12 V
Air cleaner	dry-type air cleaner with air-restriction indicator, main and safety elements, air intake with rain cap
Cooling system	combination cooler with three cooling units for cooling water, intake charge air and hydraulic oil
Cooling fan	hydrostatically driven, thermostatically controlled



Travel drive / control

Drive system	closed-loop infinitely variable hydrostatic travel drive powered by two axial piston variable displacement pumps and two axial piston 2 positions-displacement motors in swash-plate design, each track is driven independently from each other
Travel speed	infinitely variable electronic-controlled travel speed Speed range 1: 0–6.1 km/h/0–3.6 mph (work) Speed range 2: 0–9.5 km/h/0–5.9 mph (travel)
Litronic-System	electronic engine speed sensing control (load-sensing feature) automatically adjusts travel speed and drawbar pull to match changing load conditions
Steering	hydrostatic, unlimited maneuverability for full power turns and counterrotation
Service brake	hydrostatic, dynamic braking effect from travel drive system
Parking/emergency brake	multi-disc brake, wear-free, automatically applied with neutral joystick position
Cooling system	hydraulic oil single unit built in combination cooler
Filter system	micro cartridge filters in cooling circuit
Final drive	3 phase heavy duty spur gear
Control	single-lever travel control for all travel and steering motions, as well as for counterrotation



Track frame

Chains	sealed and lubricated, track chain tension via grease tensioner and hydraulic cylinder
Chain links	38 each side
Sprocket	screwed drive wheel
Track rollers	6 each side
Carrier roller	1 each side
Track shoes standard	457 mm / 18", double grouser
Track shoes optional	508 mm / 20", double grouser
Grouser height	42.5 mm / 1.67 in
Mount	inelastic track roller frame



Hydraulic equipment

Hydraulic system	open-center load sensing
Pump type	gear type pump
Pump flow max.	115 l/min / 30.4 US gpm
Pressure limitation	230 bar / 3,335 psi
Filter system	return filter
Control	single-lever implement control for all bucket functions, with magnetic detent functions for float position as well as for automatic bucket positioner



Operator's cab

Heater and air conditioner	pressurized, with fresh air intake and recirculation air filter, 8 louvered vents for all temperature controlled cab's areas
ROPS/FOPS cab	integral Rollover Protective Structure according to EN ISO 3471 and Falling Objects Protective Structure according to EN ISO 3449
Operator's seat	adjustable, suspended seat adjustable to operator's weight, fabric seat cover
Monitoring System	combination of analog and digital instrument panel: LC-Display with scroll key for fuel consumption, battery voltage, service codes; automatic monitoring from operating pressures, temperatures and fill levels; hour meter gauge
Tilting system	40° tiltable to the rear with hydraulic hand pump



Loader cycle times

Lifting	6.4 s
Bucket dumping	1.9 s
Lowering ¹	3.1 s
Total cycle time ²	8.5 s

¹ Float position and empty bucket, ² Lifting and dumping together



Noise emission

Operator sound exposure (ISO 6396)	$L_{pA} = 80$ dB(A) (emission at the operator's position)
Exterior sound pressure (2000/14/EC)	$L_{wA} = 107$ dB(A) (emission in the environment)

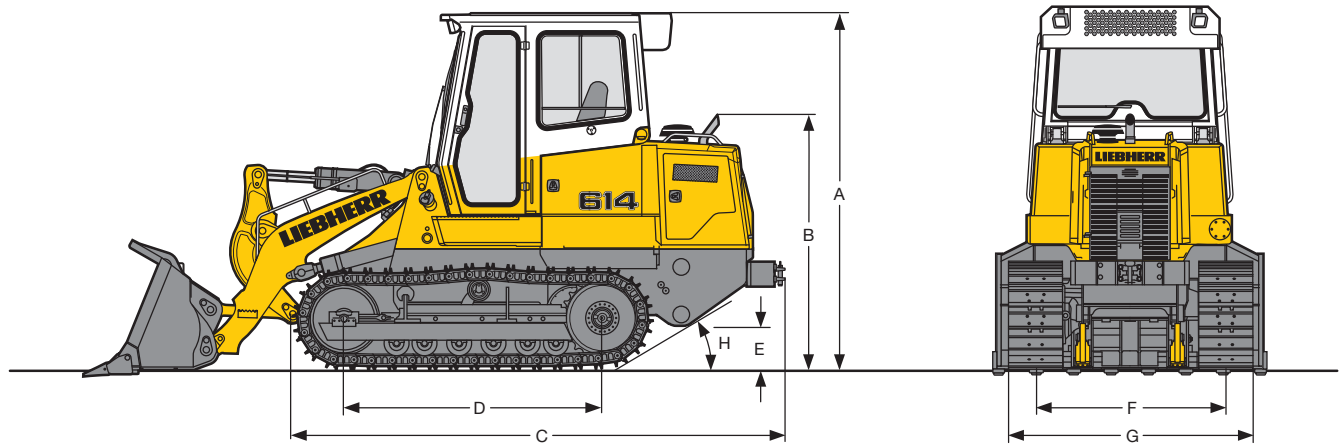
Basic machine



Refill capacities

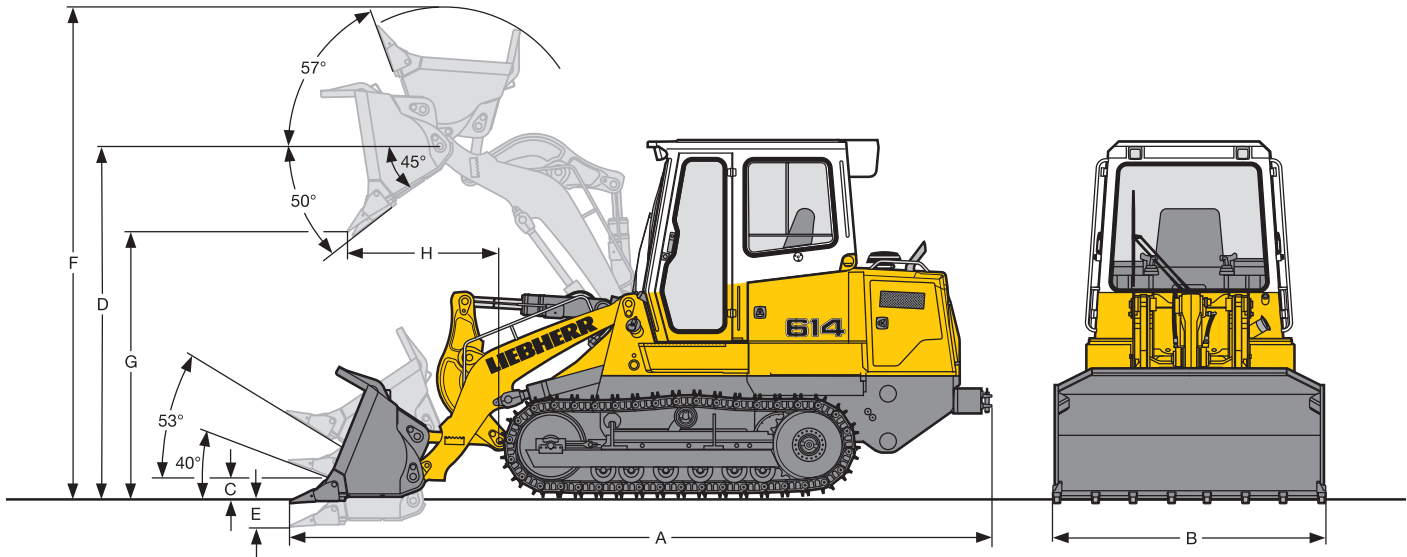
Fuel tank	210 l	55.4 US gal
Cooling system	24 l	6.3 US gal
Engine oil (with filter)	12 l	3.2 US gal
Splitter box	2 l	0.5 US gal
Hydraulic tank	102 l	26.9 US gal
Hydraulic tank + hydraulik system	163 l	43.0 US gal
Final drive, each	8,75 l	2.3 US gal

Dimensions



Dimensions		LR 614
A	Height over cab	2,998 9'10"
B	Height over exhaust pipe	2,276 7'6"
C	Length to front of track	3,859 12'8"
D	Distance idler/sprocket centre	2,174 7'2"
E	Ground clearance	408 1'4"
F	Track gauge	1,600 5'3"
G	Machine width, with track shoes	2,057 6'9"
	457 mm / 18"	
	Machine width, with track shoes	2,108 6'11"
	508 mm / 20"	
H	Approach angle	30°

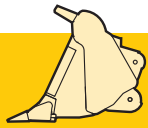
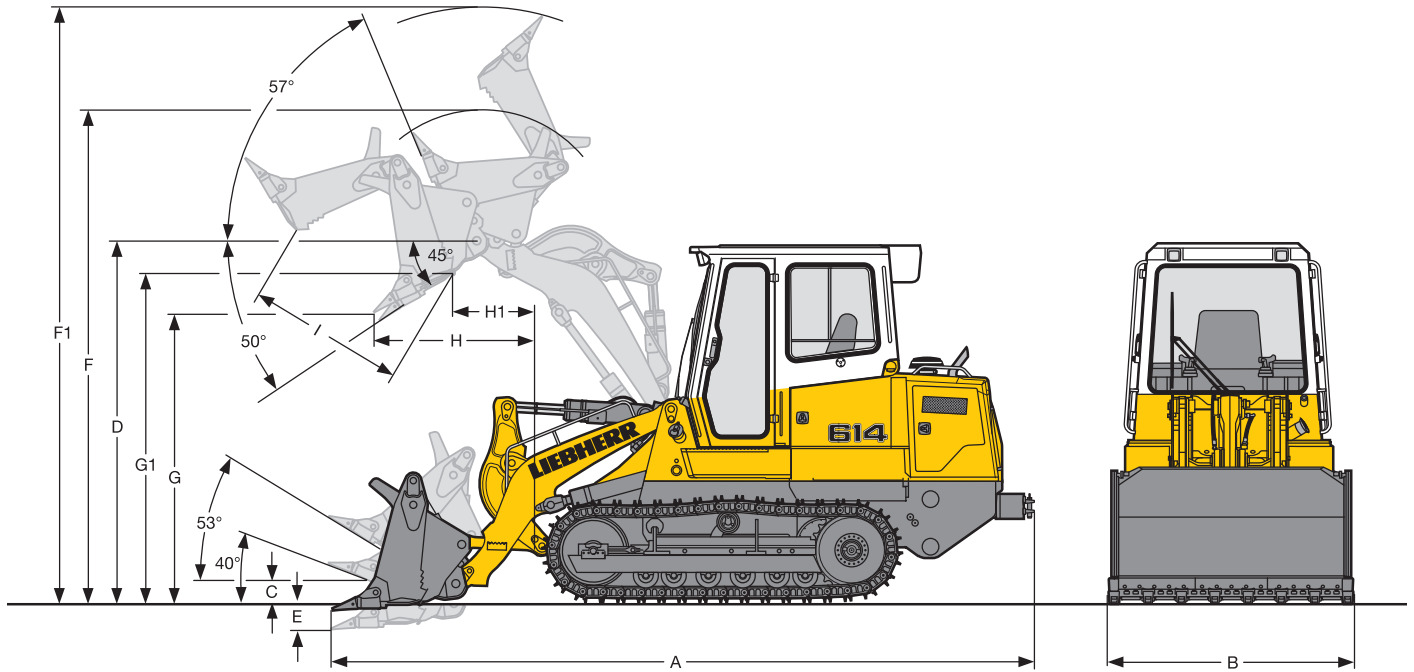
Front attachment



Standard bucket Version with		LR 614	
		bolt-on adapters and teeth	bolt-on adapters, segments and teeth
Nominal rated bucket capacity according to ISO 7546	m ³ yd ³	1.20 1.57	1.25 1.63
Nominal rated bucket capacity according to SAE J732	m ³ yd ³	1.2 1.57	1.3 1.7
Breakout force according to SAE J732	kN lb	100 22,473	90 20,226
Static tipping load according to SAE J732	kg lb	7,517 16,572	7,337 16,175
A Overall length bucket at ground with rear bumper	mm ft-in	5,585 18'4"	5,702 18'8"
B Bucket width, overall	mm ft-in	2,300 7'7"	2,300 7'7"
C Height of hinge pin, transport position	mm ft-in	459 1'6"	459 1'6"
D Height of hinge pin, max.	mm ft-in	3,368 11'1"	3,368 11'1"
E Digging depth, max.	mm ft-in	130 5.1"	155 6.1"
F Overall height with bucket at full lift	mm ft-in	4,474 14'8"	4,474 14'8"
G Dump clearance at full lift and 45° discharge according to ISO 7131	mm ft-in	2,679 8'9"	2,610 8'7"
H Reach at full lift and 45° discharge according to ISO 7131	mm ft-in	890 2'11"	923 3'0"
Bucket weight	kg lb	744 1,640	820 1,808
Operating weight ¹	kg lb	11,100 24,471	11,180 24,648
Ground pressure ¹	kg/cm ² psi	0.56 7.96	0.56 7.96

¹ Machine with ROPS/FOPS cab, coolant and lubricants, operator (75 kg), bucket, rear bumper and track pads 457 mm / 18"

Front attachment



Multi-purpose bucket

Version with

bolt-on adapters,
and teeth

LR 614

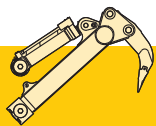
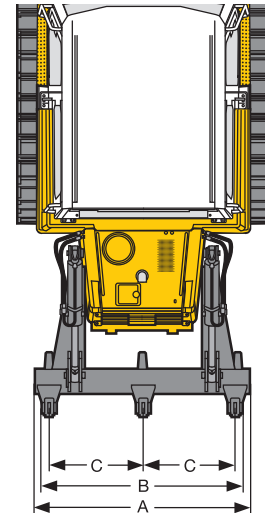
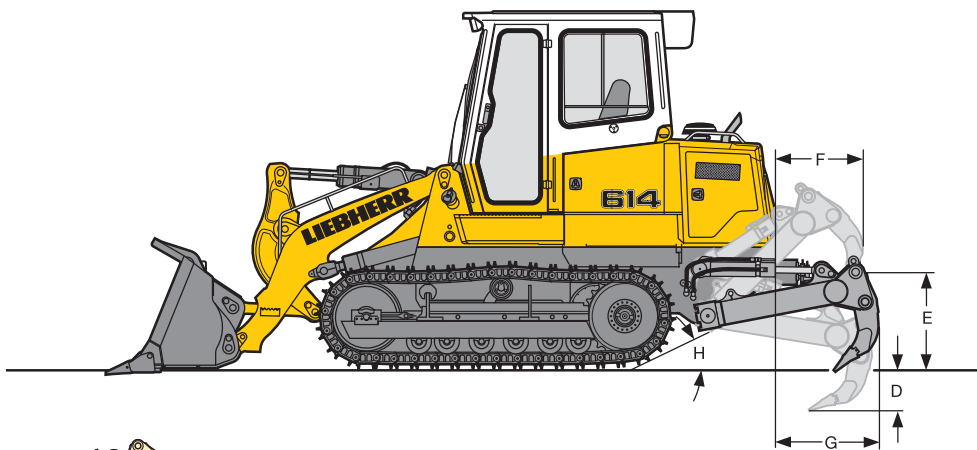
bolt-on adapters
segments and teeth

		bolt-on adapters, and teeth	bolt-on adapters segments and teeth
Nominal rated bucket capacity according to ISO 7546	m ³ yd ³	1.20 1.57	1.25 1.63
Nominal rated bucket capacity according to SAE J732	m ³ yd ³	1.20 1.57	1.20 1.57
Breakout force according to SAE J732	kN lb	95 21,349	86 19,327
Static tipping load according to SAE J732	kg lb	6,988 15,406	7,154 15,772
A Overall length bucket at ground with rear bumper	mm ft-in	5,653 18'7"	5,745 18'10"
B Bucket width, overall	mm ft-in	2,300 7'7"	2,300 7'7"
C Height of hinge pin, transport position	mm ft-in	459 1'6"	459 1'6"
D Height of hinge pin, max.	mm ft-in	3,368 11'1"	3,368 11'1"
E Digging depth, max.	mm ft-in	140 5.5"	165 6.5"
F Overall height with bucket at full lift (bucket closed)	mm ft-in	4,516 14'10"	4,519 14'10"
F1 Overall height with bucket at full lift (bucket open)	mm ft-in	5,023 16'6"	5,093 16'9"
G Dump clearance at full lift and 45° discharge (bucket) according to ISO 7131	mm ft-in	2,647 8'8"	2,578 8'5"
G1 Dump clearance at full lift and 45° discharge (blade) according to ISO 7131	mm ft-in	3,017 9'11"	3,017 9'11"
H Reach at full lift and 45° discharge (bucket) according to ISO 7131	mm ft-in	908 3'0"	941 3'1"
H1 Reach at full lift and 45° discharge (blade) according to ISO 7131	mm ft-in	542 1'9"	542 1'9"
I Width of opening	mm ft-in	1,095 3'7"	1,095 3'7"
Bucket weight	kg lb	1,115 2,458	1,187 2,617
Operating weight ¹	kg lb	11,475 25,298	11,780 ² 25,970 ²
Ground pressure ¹	kg/cm ² psi	0.58 8.25	0.59 ² 8.39 ²

¹ Machine with ROPS/FOPS cab, coolant and lubricants, operator (75 kg), bucket, rear bumper and track pads 457 mm / 18"

² with heavier rearbumper (550 kg / 1,213 lb)

Rear attachment



3-shank ripper radial

LR 614

		Standard bucket	Multi-purpose bucket
A	Beam width		1,732 5'8"
B	Ripping width		1,550 5'1"
C	Distance between teeth		750 2'6"
D	Penetration, max.		300 1'
E	Ground clearance, max. below teeth		669 2'2"
F	Additional length, ripper raised		614 2'0"
G	Additional length, transport position		756 2'6"
H	Approach angle, ripper raised		21°
	Ripper weight ¹		574 1,265
	Change in operating weight	224 494	224 494
	Change in ground pressure	0.03 0.43	0.02 0.28
	Change in static tipping load	995 2,194	645 1,422

¹ If the ripper is mounted, no rear bumper will be fitted to the machine

Equipment



Basic machine

	s	o
Towing system (air pressure cartridge)	•	
John Deere Diesel engine 4045HF289	•	
Electronic engine management	•	
Diesel particle filter	•	•
Cab tilting system	•	
Cold starting aid with heat flange	•	
Combination cooler for water, hydraulic oil and intake charge air	•	
Radiator guard Heavy Duty	•	•
Radiator guard, hinged	•	
Filling with bio-degradable hydraulic oil		•
Air pre-cleaner engine		•
Hydrostatic fan, thermostatically controlled	•	
Fan guard	•	
Engine access doors, hinged, lockable	•	
Lifting lugs	•	
Back up alarm		•
Dry type air filter (quick change)	•	
Special paint	•	•
Fuel priming pump	•	
Fuel water separator	•	
Fuel water separator, electric heater	•	•
Vandalism protection (fuel tank cap and service doors lockable)	•	
Tool kit (with towing kit)	•	
Towing hitch, front	•	
Towing hitch, rear	•	



Travel drive

	s	o
3 phase heavy duty spur gear	•	
Electronic control	•	
Parking brake, automatic applied	•	
Liebherr hydrostatic travel drive	•	
Litronic control system	•	
Measure console for test points connections	•	



Track frame

	s	o
Track pads, double grouser, 457mm 18"	•	
Track pads, double grouser, 508 mm 20"		•
Master link, two-piece	•	
Grease tensioner and hydraulic cylinder	•	
Lubricated chains	•	
Track guards		•
Center track guide		•
Track guides, front and rear	•	
Track rollers, lifetime lubricated, x6	•	
Track idler guards	•	
Track idlers, lifetime lubricated	•	
Carrier rollers, lifetime lubricated, x1	•	
Sprocket segments, bolted, x1	•	
Sprocket guards	•	



Operator's cab

	s	o
Storage space near left armrest	•	
Armrests, adjustable	•	
Speed switch, work/travel modes	•	
Braking pedal for single-lever control	•	
Cab with heating and air conditioning	•	
Pressurized with air recirculation	•	
Louvered vents, adjustable, x8	•	
Single-lever implement control with integrated magnetic detent functions	•	
Single-lever travel control (travel speed, all direction and steering motions)	•	
Air suspension seat		•
Mechanical suspension seat	•	
Fire extinguisher	•	
Fresh air intake filter	•	
Working lights (halogen), front, x2	•	
Working lights (halogen), additional, front, x2		•
Working lights (halogen), rear, x2	•	
Working lights (halogen), additional, rear, x2		•
Horn	•	
Dome light	•	
Coat hook	•	
Engine rpm switch, infinitely variable	•	
Emergency stop	•	
Radio		•
Radio installation provision	•	
ROPS/FOPS structures	•	
Seatback extension	•	
Rearview mirrors, outside, left and right	•	
Rearview mirror inside	•	
Windshield washer system with intermittent function	•	
Windshield wipers front and rear	•	
Sliding side window left	•	
Sliding side window right	•	
Key start switch	•	
Seat belt, automatic retractable	•	
Park lock lever	•	
Safety glass, tinted	•	
Pull-down sunshade	•	
Power port 12 V	•	
Power port 24 V	•	
V-pattern travel control (travel speed, direction) with steering pedals	•	
Heater and defroster	•	



Electrical system

	s	o
Starter motor 7.0 kW	•	
Batteries 100 Ah, maintenance free, x2	•	
Battery main switch	•	
Alternator 55 A Heavy Duty	•	
Anti-theft system, electronic		•

S = Standard
O = Option

Subject to changes.



Displays

	s	o
Hour meter	•	
Hydraulic oil temperature		•
Engine coolant temperature	•	
Digital LC-display electronic unit	•	
Digital LC-display with scroll key (fuel consumption, battery voltage, cooling water temp. and service codes)	•	
Engine oil pressure	•	
Fuel level	•	



Control and warning lights

	s	o
Electronic travel control system	•	
Parking brake	•	
Battery charging control	•	
Pump replenishing pressure	•	
Maintenance oil return filter	•	
Maintenance air filter	•	
Maintenance replenishing filter	•	
Main warning light	•	



Hydraulic equipment

	s	o
Hydraulic control multi-purpose bucket		•
Hydraulic control 3-shank ripper		•
Automatic bucket positioner	•	
Bucket quick drop	•	
Bucket float position	•	



Attachments

	s	o
Rear drawbar hitch, rigid		•
Bolt-on adapters		•
Weld-on adapters, flush mounted		•
3-shank ripper, radial		•
Multi-purpose bucket		•
Standard bucket with back blade edge		•
Rear bumper	•	
Lifting cylinder guards		•
Tilt cylinder guards		•
Clamping cylinder guards, multi-purpose bucket		•
Bolt-on cutting segments, reversible		•
Z-bar linkage	•	

Options and/or special attachments, supplied by vendors other than Liebherr, are only to be installed with knowledge and approval of Liebherr to retain warranty.

The Liebherr Group of Companies

Wide product range

The Liebherr Group is one of the largest construction equipment manufacturers in the world. Liebherr's high-value products and services enjoy a high reputation in many other fields, too. The wide range includes domestic appliances, aerospace and transportation systems, machine tools and maritime cranes.

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Hans Liebherr founded the Liebherr family company in 1949. Since that time, the enterprise has steadily grown to a group of more than 100 companies with over 32,000 employees located on all continents. The corporate headquarters of the Group is Liebherr-International AG in Bulle, Switzerland. The Liebherr family is the sole owner of the company.

www.liebherr.us



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