

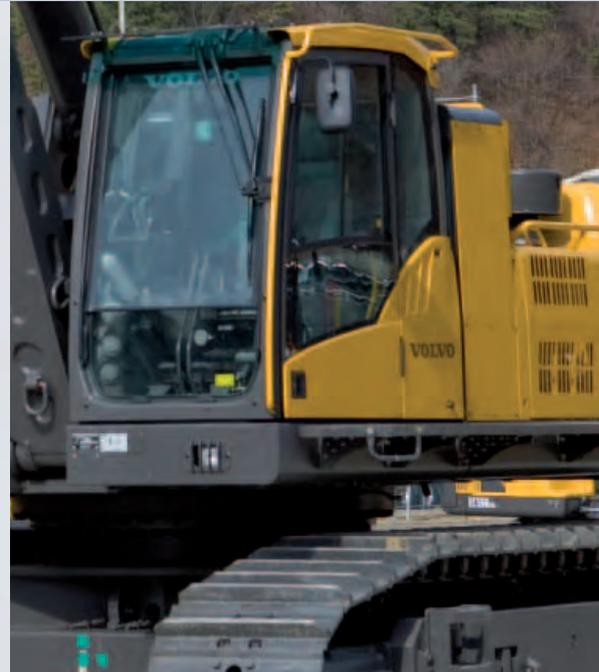
VOLVO PIPELAYERS

PL4608, PL4611

Tipping capacity PL4608: 80t, PL4611: 110t



VOLVO PL4608.



Volvo gives pipeline contractors a new lift with a revolutionary line-up of excavator-based pipelayers. From the pipe yard to the trench, Volvo Pipelayers deliver a competitive edge in even the most demanding conditions. Backed by Volvo Articulated Haulers, Volvo Excavators, Volvo Wheel Loaders, Volvo Motor Graders and Volvo Trucks, Volvo's full line provides the total solution for your next pipeline projects. The ability to convert Volvo Pipelayers from a pipelayer to a standard Volvo Excavator configuration increases versatility, ensuring full machine utilization and allowing second life application opportunities for the machine at re-sale.



Hydraulically elevating cab

Improved overall visibility increases site safety in general. The elevating cab offers superior visibility into the trench, by raising the cab 760 mm / 30 in and the possibility to stop at any point during the rise. For road transportation the cab should be hydraulically lowered to the lowest position.

Removable counterweight

For ease of transport, the counterweight can be lowered to the ground and removed using the standard, hydraulic counterweight removal system. The two track frame mounted counterweights can easily be lifted off with help of the boom and winch.



Variable undercarriage

The hydraulically variable undercarriage on the PL4608 expands by 500 mm / 19.6 in to give a wide operating platform for excellent stability and safe operation. In retracted position the pipelayer is easy to transport.

VOLVO PL4611.

Boom mounting

The boom foot is mounted as far inboard as possible, moving its centre of gravity closer to the machine's centre-line, for enhanced stability.



Extra-wide undercarriage

Outstanding operational stability for safe operation, both across and along the undercarriage. Extremely stable in lowering and laying in operations.



Choice of track shoe widths and profiles

Perfect traction in all surface conditions. A choice of single, double or triple grouser shoes are available, to suit all underfoot conditions. Different shoe widths are available to reduce the ground pressure.



Removable counterweight

For ease of transport, the counterweight can be lowered to the ground and removed using the standard, hydraulic counterweight removal system.



Retractable jacks

Retractable jacks provide complete machine support for removal of the track frames for transport.



Removable track frames

The track frames are removable for easy transport. After the frames are hydraulically disengaged, heavy lifting eyes on the track frames provide optimum lifting points for removal and reassembly.



Transportation weight

Removal of side track frames and rear counterweight reduces the machine weight and width to fulfill on-road transportation regulations.

Transportation of base machine

Once raised on the hydraulic jacks the machine can be lowered directly onto a trailer.

Save time and money

Machine self-disassembly and loading for transportation can be achieved in under one hour by two people.



Pipelaying is a real team effort. Thanks to the boom mounted light bars – an integral part of the unique, Load Management System – the lowering-in foreman and other operators on the line can effectively monitor the management of the load and react accordingly.

A WHOLE NEW WAY TO DELIVER.

Long boom

provides high hook height and long reach, allowing the machine to work further from the trench.

Load-management system

The Load-management system uses a boom-mounted light bar, in-cab monitor and warning systems to optimize safety.

Asymmetric boom

gives the operator a clear view to the load block at all heights and into the trench for safe, precise load placement.

Planetary, high line pull winch

delivers smooth lifting performance and precise control.

Anti-two-block device

automatically prevents blocks from making contact, improving operator efficiency and safety.

Boom mounting

The boom foot is mounted as far inboard as possible, moving its centre of gravity closer to the machine's centre-line, for enhanced stability.



Care Cab

The roomy Volvo cab has it all: clear visibility, comfort, ergonomically positioned controls... reducing operator fatigue for a more productive working day. Automatic climate control is standard.

Elevated cab

further improves visibility over the job site and into the trench, improving operator confidence, comfort, safety and effectiveness.

360 degree swing

Lift and positioning performance through 360 degrees for maximum flexibility and infinite load positioning. High tractive effort and stability allow working on up to 35° grades for the PL4611 and 30° grades for the PL4608.

Removable counterweight

For ease of transport, the rear counterweight can be lowered to the ground and removed using the standard, hydraulic counterweight removal system.

Extra-wide undercarriage

and wide track shoes increase machine stability and reduce ground pressure.

Retractable jacks

on the PL4611, raise the machine to enable the removal of track side frames and to facilitate loading the base machine onto a trailer.

Removable track frames

On the PL4611, the track frames are removable to facilitate easy machine transportation. The frames are hydraulically disengaged and can be removed using the pipelayer boom.



SAFETY CAN NEVER BE UNDERESTIMATED.

Safety is a Volvo core value and Volvo Pipelayers are packed with safety enhancing features. The fully enclosed cab offers a comfortable and safe working environment for the operator. A wide operating platform provides excellent operational stability and Volvo's unique, state-of-the-art, Load Management System further enhances site operation for both operators and personnel on the ground.



Highly stable working platforms

Volvo's pipelayer undercarriages show their strength across the undercarriage. Thanks to the extra wide platforms, machine stability is greatly increased.



Boom mounted light bars

Safety for the operator and co-workers. Highly visible light bars mounted at either side of the boom tips use a sequence of lights passing from green through amber to red, which reflect the state of the load.



Load Management System

Unique, state-of-the-art Load Management System. This enables the operator to see what he can safely pick up. Real-time information is displayed on an in-cab monitor, together with visible and audible warning signals when the safe load limit is being reached. The system calculates all relevant angles, including when working on steep slopes, to notify the operator of the safe working range at all times.

PRODUCTIVITY, BY DESIGN.



Flag block

Mounted at the end of the boom, the flag block pivots 52° to left and right, facilitating load self-centering and is useful when moving with pipe on a slope.

Long boom with optional extension

The long booms on Volvo pipelayers enable them to easily, and safely, lift pipes from transport vehicles. On the PL4611 there is a 2,00 m / 6' 56" optional extension available.



Volvo Pipelayers are designed and built around standard Volvo Excavators and, therefore, easy for operators to learn and operate. Real time information provided by the Load Management System, combined with their many productivity enhancing features, guarantee profitable operation. The ability to convert Volvo Pipelayers back to a standard excavator configuration, with no loss of performance, ensures maximum machine utilization and return on investment. For two people it takes approximately a working day to convert. You can use your Volvo Pipelayer as excavator, operate with hammer or assemble a vacuum shoe for stringing.

Boom in best position

Swinging uphill with the boom is easily done, to hold the load in the best and most stable position.



Ease of operation

Volvo excavator-based pipelayers are very easy and smooth to operate. Any excavator operator can, in a short time, learn to operate them safely and efficiently.



VOLVO PL4608 IN DETAIL.

Engine

Volvo pipelayers use state of the art diesel engines with Volvo Advanced Combustion Technology (V-ACT) to deliver lower emissions and maintain superior performance and fuel efficiency. The EU Stage IIIA / EPA Tier 3 compliant engine uses precise, high-pressure fuel injectors, turbo charger and air-to-air intercooler and electronic engine controls to optimize machine performance.

Engine	Volvo	D12D EAE3		
Max power at	r/s / rpm	30/1800		30/1,800
Net, ISO 9249/ SAE J1349	kW/hp	235/320	kW/hp	235/315
Gross, ISO 14396/ SAE J1995	kW/hp	245/333	kW/hp	245/329
Max torque at	Nm / rpm	1720/1350	lb-ft	1,269
No. of cylinders		6		6
Displacement	l	12,1	cu in	738
Bore	mm	131	in	5.2"
Stroke	mm	150	in	5.9"

Electrical system

The high capacity electrical system is well protected. Waterproof double lock harness plugs are used to secure corrosion-free connections. Main relays and solenoid valves are shielded to prevent damage.

Track Drive System

Each track is powered by an automatic shift two speed travel motor. Track brakes are multi-disc, spring applied and hydraulically released. Travel motors, brakes and planetary final drives are well protected within the track frame.

Travel speed	km/h	2,9/4,8	mph	2.0/3.0
--------------	------	---------	-----	---------

Undercarriage

The hydraulically variable gauge system allows the PL4608 to have a wide gauge for working stability, yet the ability to be retracted to achieve reduced transport width. Removable track frame mounted counterweights provide added stability and lower machine center of gravity. These counterweights can be easily self-removed to reduce transport weight.

Hydraulic system

The hydraulic system is designed for high productivity, high lifting capabilities, high maneuvering precision and superb fuel economy.

Main pump, Type 2 x variable displacement axial piston pumps				
Maximum flow	l/min	2 x 345	gpm	2 x 91
Pilot pump, Type Gear pump				
Maximum flow	l/min	31	gpm	8.2

Hydraulic motors

Travel: Variable displacement axial piston motor with mechanical brake
Swing: Fixed displacement axial piston motor with mechanical brake

Cab

The unique Care Cab, with operator protective structure, provides security along with more interior space, leg room and foot space. In work mode the cab is hydraulically elevated 760 mm / 30" to provide a wide field of vision to the entire job site, winch, boom, and load block. Through efficient use of cab glass, transparent roof hatch and 2-piece sliding door window, visibility is maximized. This improves operator confidence, comfort, safety and effectiveness. Deluxe seat with adjustable height, tilt, recline, forward-back settings, retractable seat belt and selectable horizontal suspension cushions the operator from vibrations.

Boom

The asymmetric boom gives the operator a clear view to the hook block at all heights and into the trench for safe, precise load placement. The long boom provides high hook height and reach allowing the machine to work further from the trench.

Winch

Planetary, high line pull winch delivers smooth lifting performance and precise control. Winch hydraulic motor has a multi-disc friction brake which is spring applied and hydraulically released.

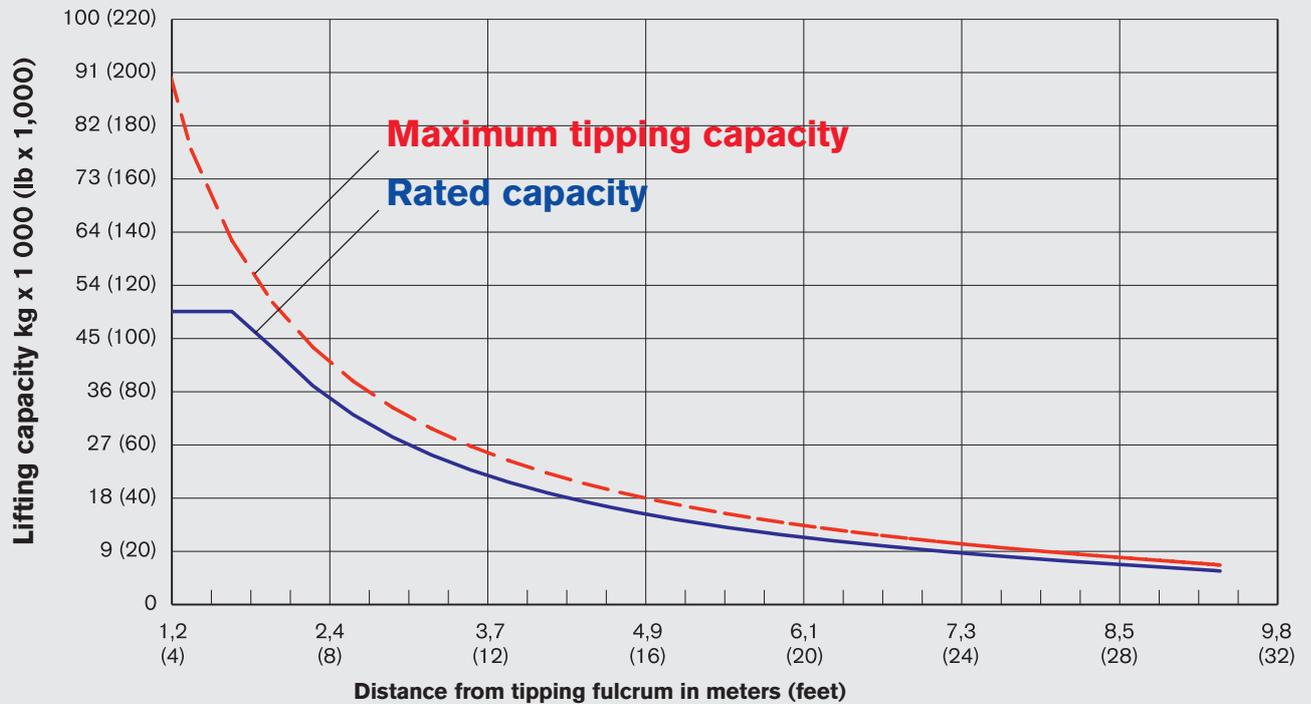
Load Management System

Operator confidence, effectiveness and safety are enhanced with Volvo's Load Management System. Volvo pipelayers utilize load, boom and superstructure-mounted sensors that allow onboard computers to monitor boom angle and cab orientation and inclination. The computer uses this information to compute and display actual loads and rated working loads in real time through an in-cab monitor with audible warning systems. This allows the operator to maintain full control of the machine both on flat and level ground and on steep slopes throughout the 360 degree swing. The Load Management System utilizes boom-mounted load indicator lights for visual communication with ground staff and between adjacent machines during multiple lift operations.

Transportability

The hydraulically removable rear counterweight is standard, as are the easily removable counterweights mounted on the outside of each track frame. The PL4608 can self-remove, self-load, and self-reassemble these counterweights to achieve effective transport weight. Coupled with hydraulically variable gauge and the hydraulically lowered cab, the PL4608 is the most easily transportable machine in its class.

LOAD CHART PL4608, WITH STANDARD CONFIGURATION



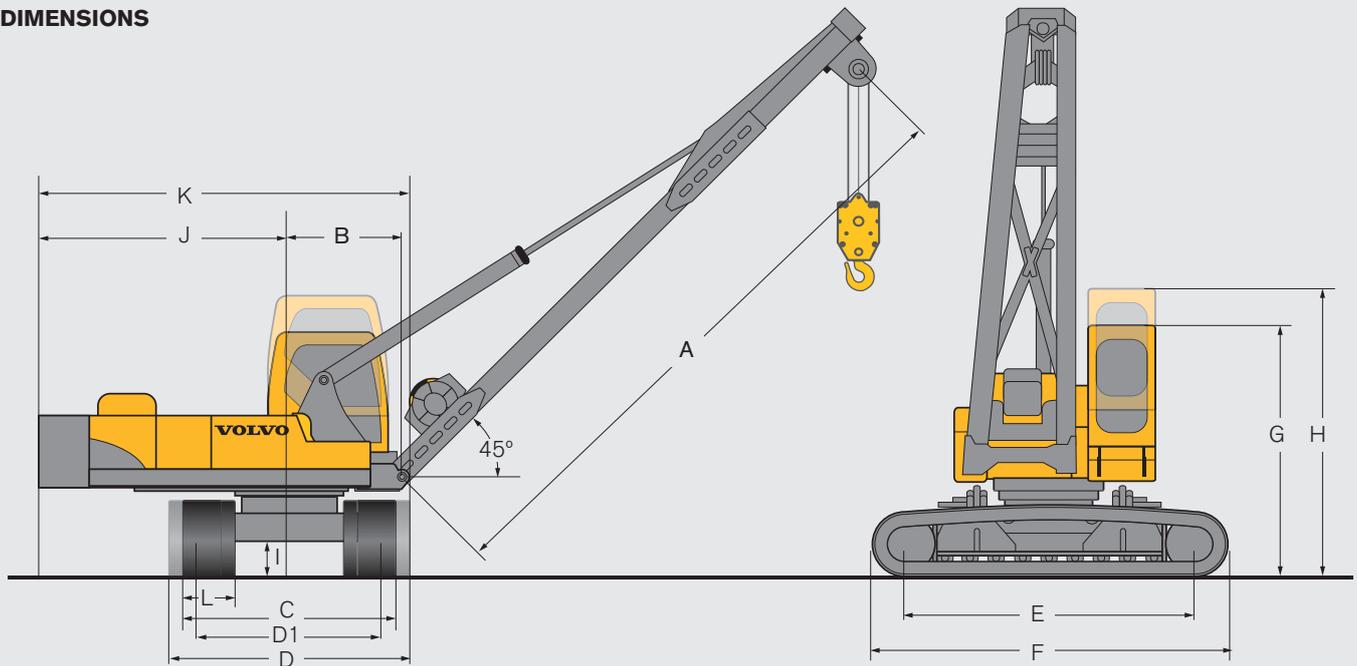
PL4608 Footnotes

Max tipping capacity per ISO 8813, SAE J743, and ASME B30.14, rated capacity per ISO 8813 and ASME B30.14, lift capacity valid through 360 degree rotation

Boom length	m	9,2	ft in	30' 2"
Rear counterweight	kg	9190	lb	20,260
Track frame counterweights	kg	3010	lb	6,636
Wire rope	mm	22,2	ft in	7/8"
with minimum breaking strength of	kg	34000	lb	75,000
Reeving on load block	Parts	6	Parts	6

VOLVO PL4608 IN DETAIL.

DIMENSIONS



PL4608

A	Boom length	mm	9200	ft in	30' 2"
B	Swing center - Boom mount pin	mm	1680	ft in	5' 6"
C	Overall width, retracted *	mm	3152	ft in	10' 4"
D	Overall width, extended *	mm	3652	ft in	12' 0"
D1	Track gauge, extended	mm	2902	ft in	9' 7"
E	Tumbler length	mm	4370	ft in	14' 4"
F	Track length	mm	5377	ft in	17' 8"
G	Overall height, cab in lower position	mm	3353	ft in	11' 0"
H	Overall height, cab in upper position	mm	4115	ft in	13' 6"
I	Min. ground clearance	mm	556	ft in	1' 10"
J	Tail swing radius	mm	3780	ft in	12' 5"
K	Maximum base machine width, across undercarriage *	mm	5654	ft in	18' 7"
L	Track shoe	mm	750	in	30"
L1	Track shoe	mm	900	in	36"
L2	Track shoe	mm	1050	in	42"

* with 750mm / 30" track shoes

OPERATING WEIGHT AND GROUND PRESSURE

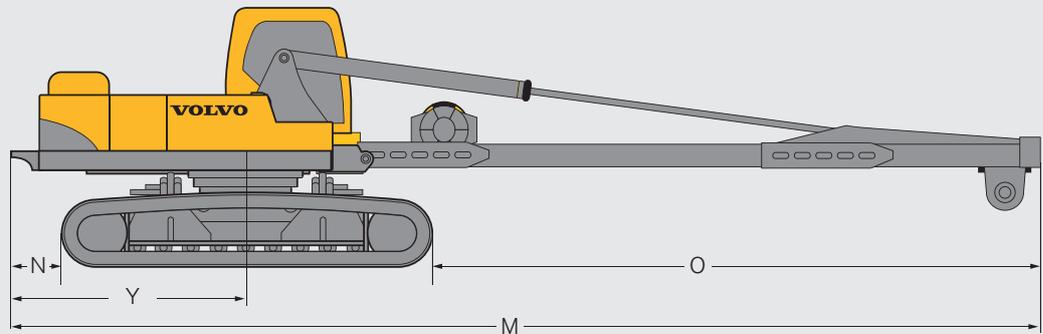
PL4608 with standard configuration

Track shoe width				Operating weight (up to)				Ground pressure			
mm	750	in	30"	kg	57931	lb	127,716	kPa	80,2	psi	11,64
mm	900	in	36"	kg	58670	lb	129,345	kPa	67,7	psi	9,82
mm	1050	in	42"	kg	59418	lb	130,994	kPa	58,8	psi	8,53

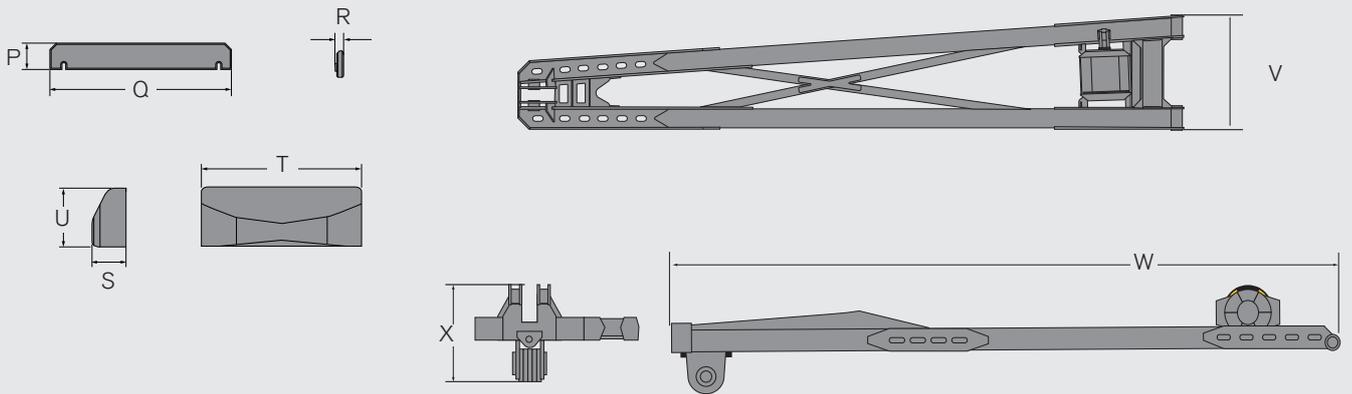
OTHER WEIGHTS

	Complete machine (with 750mm / 30" track shoes)	kg	57931	lb	127,716
1	Boom structure incl. winch + flag block	kg	7572	lb	16,693
2	Boom cylinder (dry)	kg	1425	lb	3,142
3	Adapter between base machine - boom	kg	3285	lb	7,242
4	Hook block	kg	580	lb	1,279
5	Track frame counterweights	kg	(2 x 1505) 3010	lb	(2 x 3,318) 6,636
6	Rear counterweight	kg	9190	lb	20,260
	Base machine (complete machine minus 1-6)	kg	32869	lb	72,464
	Base machine (complete machine minus 5-6)	kg	45731	lb	100,820

DIMENSIONS BASE MACHINE



DIMENSIONS COMPONENT MODULES



PL4608

Overall transport width

Track shoe width				Retracted				Extended			
mm	750	in	30"	mm	3152*	ft in	10' 4"*	mm	3652	ft in	12' 0"
mm	900	in	36"	mm	3552	ft in	11' 8"	mm	3802	ft in	12' 6"
mm	1050	in	42"	mm	3952	ft in	13' 0"	mm	3952	ft in	13' 0"

* without walkway

Dimensions

M	Total transport length	mm	14800	ft in	48' 7"
N	Rear radius to undercarriage	mm	730	ft in	2' 5"
O	Undercarriage - Boom top end	mm	8700	ft in	28' 7"
P	Height track frame counterweight	mm	540	ft in	1' 9"
Q	Length track frame counterweight	mm	3395	ft in	11' 2"
R	Width track frame counterweight	mm	180	ft in	7"
S	Length rear counterweight	mm	770	ft in	2' 6"
T	Width rear counterweight	mm	2990	ft in	9' 10"
U	Height rear counterweight	mm	1105	ft in	3' 7"
V	Boom width	mm	1790	ft in	5' 10"
W	Total boom length	mm	9792	ft in	32' 2"
X	Complete boom height	mm	1820	ft in	6' 0"
Y	Rear radius without counterweight	mm	3406	ft in	4' 2"

VOLVO PL4611 IN DETAIL.

Engine

Volvo pipelayers use state of the art diesel engines with Volvo Advanced Combustion Technology (V-ACT) to deliver lower emissions and maintain superior performance and fuel efficiency. The EU Stage IIIA / EPA Tier 3 compliant engine uses precise, high-pressure fuel injectors, turbo charger and air-to-air intercooler and electronic engine controls to optimize machine performance.

Engine	Volvo	D12D EAE3		
Max power at	r/s / rpm	30/1800		30/1,800
Net, ISO 9249/ SAE J1349	kW/hp	235/320	kW/hp	235/315
Gross, ISO 14396/ SAE J1995	kW/hp	245/333	kW/hp	245/329
Max torque at	Nm / rpm	1720/1350	lb-ft	1,269
No. of cylinders		6		6
Displacement	l	12,1	cu in	738
Bore	mm	131	in	5.2"
Stroke	mm	150	in	5.9"

Electrical system

The high-capacity electrical system is well protected. Waterproof double lock harness plugs are used to secure corrosion-free connections. Main relays and solenoid valves are shielded to prevent damage.

Track Drive System

Each track is powered by an automatic shift two speed travel motor. Track brakes are multi-disc, spring applied and hydraulically released. Travel motors, brakes and planetary final drives are well protected within the track frame.

Travel speed	km/h	2,9/4,8	mph	2.0/3.0
--------------	------	---------	-----	---------

Undercarriage

Special purpose lower frame and track frame system provides a nearly square working platform, optimizing stability throughout the full 360-degree swing. The heavy weight of the lower frame and heavily reinforced track frames lower the machine center of gravity, increasing its stability. Track frames are hydraulically pinned to the lower frame for ease of removal to reduce transport weight and width.

Hydraulic system

The hydraulic system is designed for high productivity, high lifting capabilities, high maneuvering precision and superb fuel economy.

Main pump, Type 2 x variable displacement axial piston pumps				
Maximum flow	l/min	2 x 345	gpm	2 x 91
Pilot pump, Type Gear pump				
Maximum flow	l/min	31	gpm	8.2

Hydraulic motors

Travel: Variable displacement axial piston motor with mechanical brake
Swing: Fixed displacement axial piston motor with mechanical brake

Cab

The unique Care Cab, with operator protective structure, provides security along with more interior space, leg room and foot space. The fixed elevated cab riser, 776 mm / 2' 7", provides a wide field of vision to the entire job site, winch, boom, and load block. Through efficient use of cab glass, transparent roof hatch and 2-piece sliding door window, visibility is maximized. This improves operator confidence, comfort, safety and effectiveness. Deluxe seat with adjustable height, tilt, recline, forward-back settings, retractable seat belt and selectable horizontal suspension cushions the operator from vibrations.

Boom

The asymmetric boom gives the operator a clear view to the load block at all heights and into the trench for safe, precise load placement. Long boom provides high hook height and reach allowing the machine to work further from the trench.

Winch

Planetary, high line pull winch delivers smooth lifting performance and precise control. Winch hydraulic motor has a multi-disc friction brake, which is spring applied and hydraulically released.

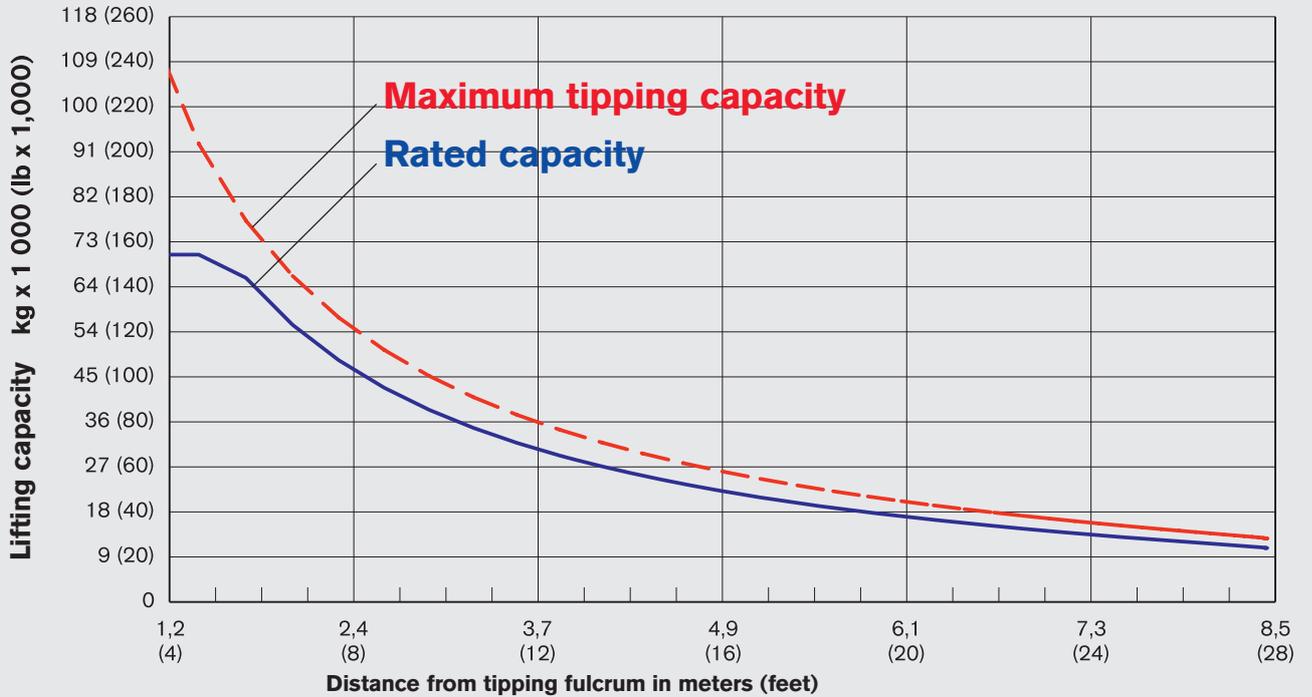
Load Management System

Operator confidence, effectiveness and safety are ensured with Volvo's Load Management System. Volvo pipelayers utilize load, boom and superstructure mounted sensors that allow onboard computers to monitor boom angle and cab orientation and inclination. The computer uses this information to compute and display actual loads and rated working loads in real time through an in-cab monitor with audible warning systems. This allows the operator to maintain full control of the machine from flat and level ground up to steep slopes throughout the 360 degree swing. The Load Management System utilizes boom-mounted load indicator lights for visual communication with ground staff and between adjacent machines during multiple lift operations.

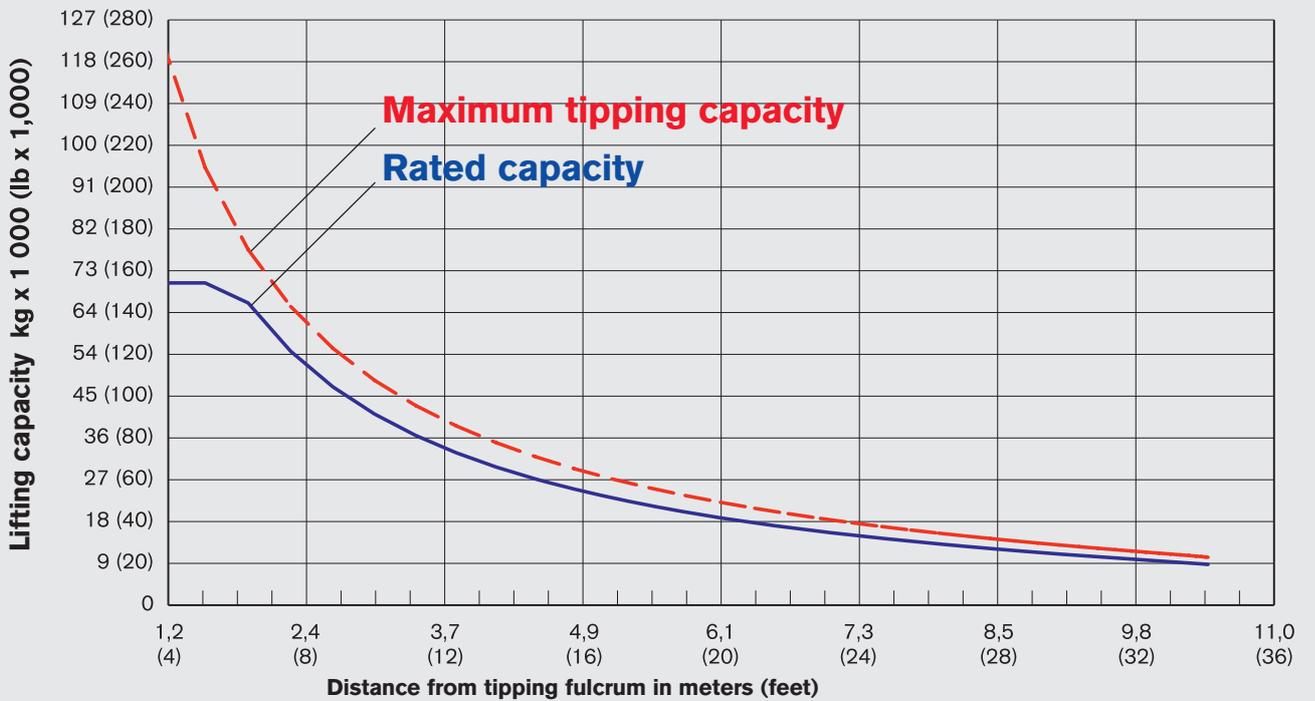
Transportability

The PL4611 has a unique design that allows removal of the track frames from the base machine to reduce weight and width for transport. Coupled with the standard hydraulically removable rear counterweight, the PL4611 can self-disassemble in less than one hour and reassemble in a similar time. Disassembly begins when the outriggers are deployed and the machine is raised off the ground. Pins that lock the track frames to the lower frame are disengaged allowing the pipelayer to load its own side frames onto a flatbed truck. Next the counterweight is hydraulically removed and loaded. Then the machine is raised to full outrigger height to allow a low-body truck to back in underneath it. Finally the outriggers are retracted to sit the base machine onto the lowboy and all components are chained for transport. The PL4611 is the most easily transportable machine in its class.

LOAD CHART PL4611, WITH STANDARD CONFIGURATION



LOAD CHART PL4611, WITH BOOM EXTENSION PLUS EXTRA COUNTERWEIGHT



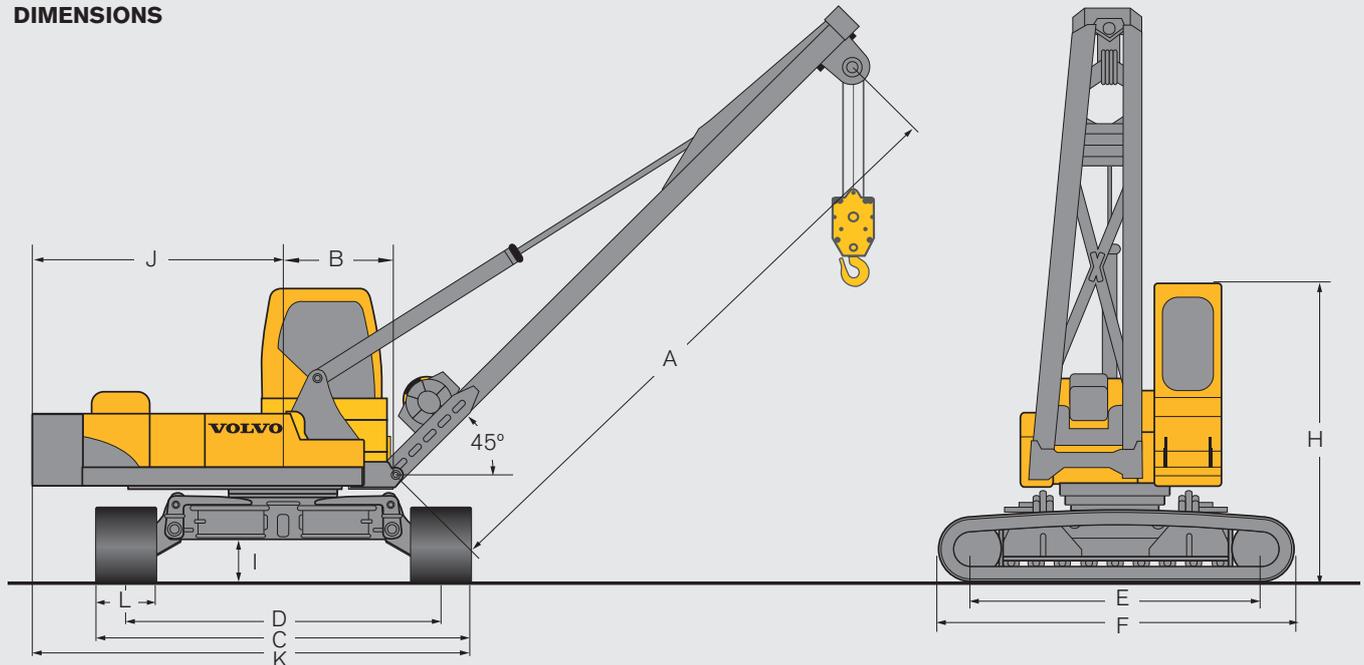
PL4611 Footnotes

Maximum tipping capacity per ISO 8813, SAE J743, and ASME B30.14; rated capacity per ISO 8813 and ASME B30.14; lift capacity valid through 360 degree rotation

Boom length	m	9,2	ft in	30' 2"
Rear counterweight	kg	9190	lb	20,260
Wire rope	mm	25,4	ft in	1"
with minimum breaking strength of	kg	50000	lb	110,000
Reeving on load block	Parts	6	Parts	6

VOLVO PL4611 IN DETAIL.

DIMENSIONS



PL4611

Dimension	Description	mm	ft in	mm	ft in
A	Boom length ***	9240	30' 4"		
B	Swing center - Boom mount pin	1680	5' 6"		
C	Overall width*	5600	18' 4"		
D	Track gauge	4700	15' 5"		
E	Tumbler length	4370	14' 4"		
F	Track length	5377	17' 8"		
H	Overall height **	4287	14' 1"		
I	Min. ground clearance	650	2' 2"		
J	Tail swing radius	3780	12' 5"		
K	Maximum base machine width, across undercarriage*	6580	21' 7"		
L	Track shoe	750	30"		
L1	Track shoe	900	36"		
L2	Track shoe	1050	42"		

* with 900mm / 36" track shoes, ** with single grouser, *** with boom extension 11200mm / 36' 9"

OPERATING WEIGHT AND GROUND PRESSURE

PL4611 with standard configuration

Track shoe width				Operating weight (up to)				Ground pressure			
mm	750	in	30"	kg	68278	lb	150,527	kPa	94,6	psi	13,7
mm	900	in	36"	kg	69017	lb	152,156	kPa	79,7	psi	11,5
mm	1050	in	42"	kg	69765	lb	153,805	kPa	69	psi	10

PL4611 with extra counterweight and boom extension

Track shoe width				Operating weight (up to)				Ground pressure			
mm	750	in	30"	kg	72627	lb	160,115	kPa	100,6	psi	14,6
mm	900	in	36"	kg	73366	lb	161,744	kPa	84,7	psi	12,3
mm	1050	in	42"	kg	74114	lb	163,393	kPa	73,3	psi	10,6

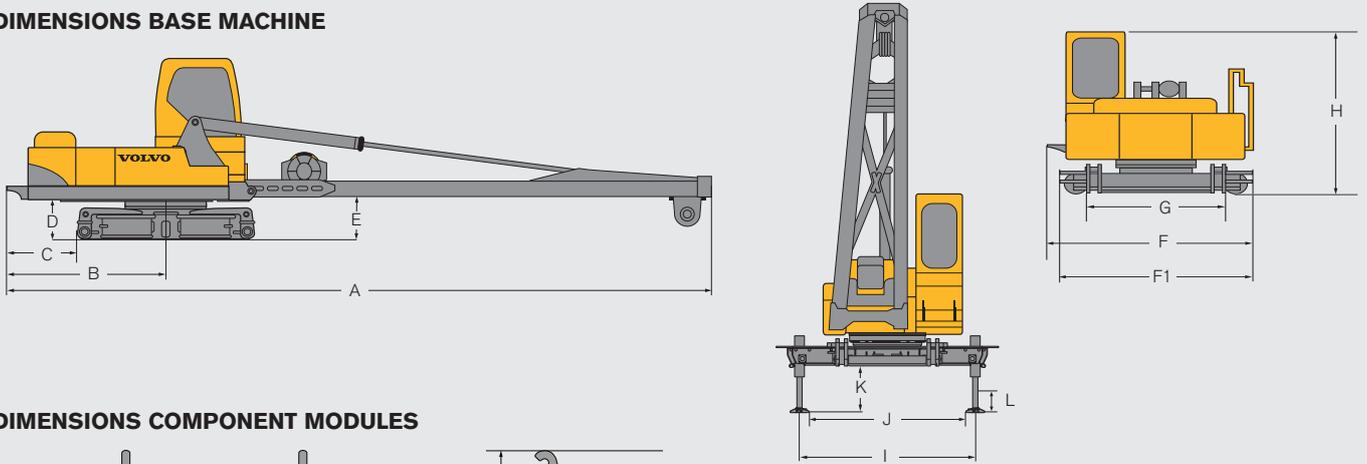
OTHER WEIGHTS

	Complete machine (with 900mm / 36" track shoes)	kg	69017	lb	152,156
1	Boom structure incl. winch + flag block	kg	7891	lb	17,397
2	Boom cylinder (dry)	kg	1425	lb	3,142
3	Adapter between base machine - boom	kg	3285	lb	7,242
4	Hook block	kg	720	lb	1,587
5	Track frames	kg	(2 x 8641)	lb	(2 x 19,050)
6	Rear counterweight	kg	9190	lb	20,260
	Base machine (complete machine minus 1-6)	kg	29224	lb	64,428
	Base machine (complete machine minus 5-6)	kg	42545	lb	93,796

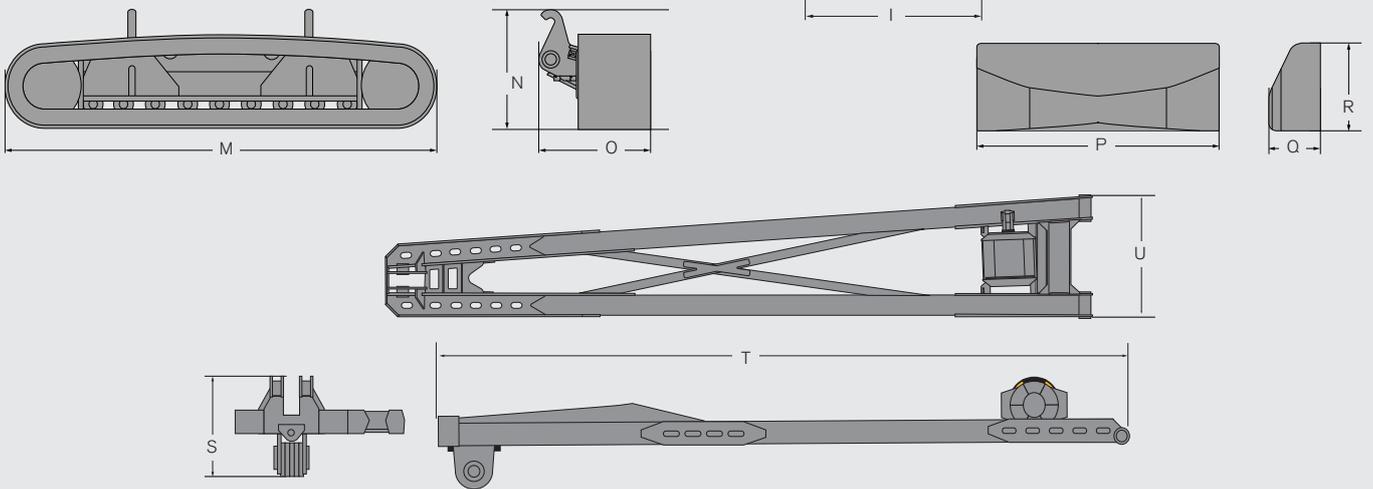
OPTIONAL WEIGHTS

	Boom extension jib	kg	1637	lb	3,609
	Extra counterweight	kg	3800	lb	8,378

DIMENSIONS BASE MACHINE



DIMENSIONS COMPONENT MODULES



PL4611 Dimensions Base Machine

A	Total transport length	mm	14786	ft in	48' 6"
B	Rear radius without counterweight	mm	3406	ft in	11' 2"
C	Rear radius to undercarriage	mm	1686	ft in	5' 6"
D	Ground clearance to superstructure	mm	817	ft in	2' 8"
E	Ground clearance to boom	mm	905	ft in	3' 0"
F	Maximum shipping width	mm	3553	ft in	11' 8"
F1	Maximum shipping width without walkway, superstructure across undercarriage	mm	3314	ft in	10' 10"
G	Contact with lowbed	mm	2474	ft in	8' 1"
H	Overall height without undercarriage	mm	3556	ft in	11' 8"
I	Center - center jacks	mm	4498	ft in	14' 9"
J	Inside - inside jacks	mm	4098	ft in	13' 5"
K	Maximum ground clearance	mm	1079	ft in	3' 6"
L	Minimum ground clearance	mm	457	ft in	1' 6"

PL4611 Dimensions Component Modules

M	Track length	mm	5377	ft in	17' 8"
N	Track frame height	mm	1348	ft in	4' 5"
O	Track frame width	mm	1321	ft in	4' 4"
P	Width rear counterweight	mm	2990	ft in	9' 10"
Q	Length rear counterweight	mm	820	ft in	2' 8"
R	Height rear counterweight	mm	1105	ft in	3' 8"
S	Complete boom height	mm	1762	ft in	5' 9"
T	Total boom length	mm	9790	ft in	32' 1"
U	Boom width	mm	1790	ft in	5' 10"

VOLVO CONSTRUCTION EQUIPMENT



Volvo Construction Equipment is different. Our machines are designed, built and supported in a different way. That difference comes from an engineering heritage of over 175 years. A heritage of thinking first about the people who actually use the machines. About how to help them be safer, more comfortable, more productive. About the environment we all share. The result of that thinking is a growing range of machines and a global support network dedicated to helping you do more. People around the world are proud to use Volvo. And we're proud of what makes Volvo different.

Not all products are available in all markets. Under our policy of continuous improvement, we reserve the right to change specifications and design without prior notice. The illustrations do not necessarily show the standard version of the machine.

VOLVO

Volvo Construction Equipment
www.volvoce.com

Ref. No 21A1006739
2011.02
Volvo, Global Marketing

English (Global)
PIP