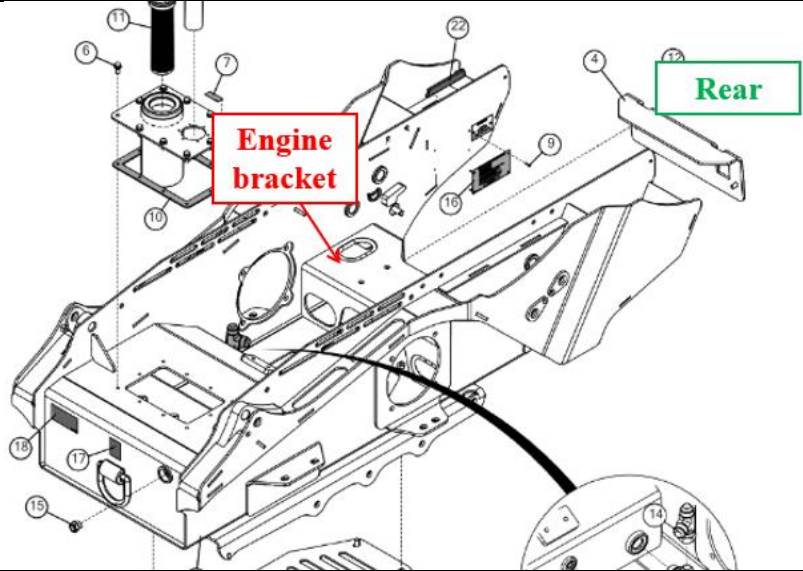


U.S. Patent 9,321,386

Comparing the Vermeer CTX50 to Independent Claims 1 and 15

Claim 1 of the '386 Patent	Vermeer CTX50														
1. A compact tool carrier configured for standing or walk-behind operator control and having a longitudinal axis and a mass of less than about 1500 kg, the compact tool carrier comprising:	 CTX50 MINI SKID STEER GENERAL <table><tr><td>Length:</td><td>75" (190.5 cm)</td></tr><tr><td>Width:</td><td>35.5" (90.2 cm)</td></tr><tr><td>Height:</td><td>54.5" (138.4 cm)</td></tr><tr><td>Weight:</td><td>2100 lb (952.5 kg)</td></tr><tr><td>Hinge pin height:</td><td>72" (182.9 cm)</td></tr><tr><td>Ground clearance:</td><td>6" (15.2 cm)</td></tr><tr><td>Ground pressure:</td><td>4.5 psi (31.0 kPa)</td></tr></table>	Length:	75" (190.5 cm)	Width:	35.5" (90.2 cm)	Height:	54.5" (138.4 cm)	Weight:	2100 lb (952.5 kg)	Hinge pin height:	72" (182.9 cm)	Ground clearance:	6" (15.2 cm)	Ground pressure:	4.5 psi (31.0 kPa)
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a loader having an arm, the loader being adapted to carry a tool;	 Arm Tool														

Claim 1 of the '386 Patent	Vermeer CTX50
a mainframe for supporting the loader, the mainframe having a first side and a second side, and having a front end and a rear end relative to the longitudinal axis,	 Front end Mainframe First Side Rear end  Mainframe second side

Claim 1 of the '386 Patent	Vermeer CTX50
the mainframe comprising an engine bracket that extends from the first side toward the second side for mounting an engine to the mainframe, the engine bracket being spaced from the rear end of the mainframe,	
the loader arm not being directly attached to the mainframe;	

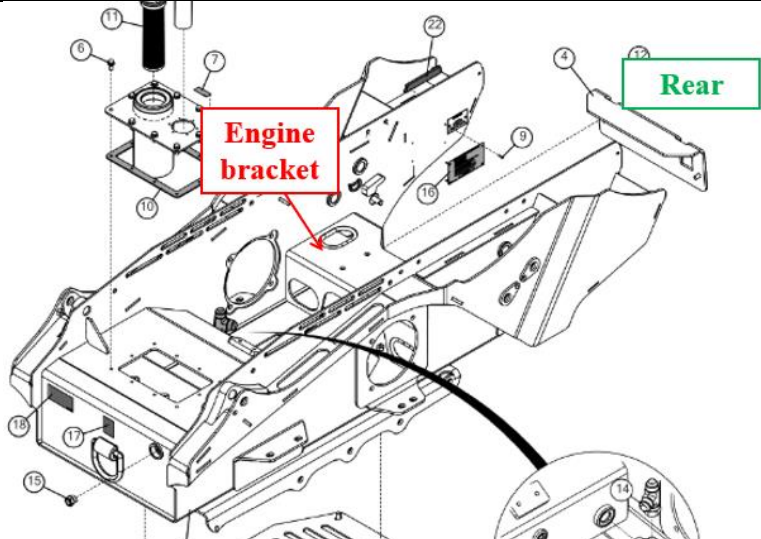
Claim 1 of the '386 Patent	Vermeer CTX50
a linkage pivotally attached to the first side of the mainframe and pivotally attached to the loader arm;	 The image shows a yellow Vermeer CTX50 compact track loader operating on a dirt site. A worker in a high-visibility vest is seated on the machine. The loader arm (boom) is raised, and the bucket is filled with dirt. Annotations include: Loader arm: Points to the black boom. Linkage: Points to the hydraulic cylinder connecting the boom to the bucket. Pivotally attached: Two green boxes point to the pivot points where the boom and bucket meet the mainframe.

Claim 1 of the '386 Patent	Vermeer CTX50
an actuator pivotally attached to the first side of the mainframe and pivotally attached to the loader arm; and	 The top photograph shows a Vermeer CTX50 skid steer loader in operation. A worker in a hard hat and safety vest is standing on the loader. The loader is yellow and black. The callout 'Pivotally attached to loader' points to the actuator on the loader arm. The callout 'Actuator' points to the hydraulic cylinder. The callout 'Pivotally attached to mainframe' points to the pivot point on the mainframe. The bottom photograph shows the same loader from a different angle, with the callout 'Actuator' pointing to the hydraulic cylinder. The loader is positioned next to a green dumpster labeled 'H-10'.

Claim 1 of the '386 Patent	Vermeer CTX50
a control station having operator controls for propelling the compact tool carrier forward and for raising and lowering the loader, the control station being mounted toward the rear of the compact tool carrier and adapted to allow for standing or walk-behind operation.	

Claim 15 of the '386 Patent	Vermeer CTX50	
15. A compact tool carrier comprising:		
a loader adapted to carry a tool;		

Claim 15 of the '386 Patent	Vermeer CTX50
a mainframe for supporting the loader, the mainframe having a first side and a second side, and having a front end and a rear end relative to the longitudinal axis,	 Front end Mainframe First Side Rear end  Mainframe second side

Claim 15 of the '386 Patent	Vermeer CTX50
the mainframe comprising an engine bracket that extends from the first side toward the second side for mounting an engine to the mainframe, the engine bracket being spaced from the rear end of the mainframe, each side having a top and a bottom,	
the first side of the mainframe having at least two pivot points relative to the loader,	

Claim 15 of the '386 Patent	Vermeer CTX50
the loader not being directly attached to the mainframe;	 This diagram shows a side view of a Vermeer CTX50 skid steer loader. A worker in a white hard hat and yellow safety vest is operating the machine. The loader arm is raised, and a red arrow points to it with the label 'Loader arm'. Another red arrow points to the mainframe with the label 'Mainframe'. A green box with the text 'Not directly attached' has a green arrow pointing from the mainframe to the loader arm, indicating the connection point.
a linkage pivotally attached to the first side of the mainframe at a pivot point and pivotally attached to the loader;	 This diagram shows a side view of the Vermeer CTX50 skid steer loader from a different angle. A worker in a white hard hat and yellow safety vest is operating the machine. The loader arm is lowered, and a red arrow points to the linkage with the label 'Linkage'. A green box with the text 'Pivotally attached to loader' has a green arrow pointing to the linkage. Another green box with the text 'Pivotally attached to mainframe' has a green arrow pointing to the mainframe. The linkage is shown connecting the mainframe to the loader arm.

Claim 15 of the '386 Patent	Vermeer CTX50
an actuator pivotally attached to the first side of the mainframe at a pivot point and pivotally attached to the loader;	

Claim 15 of the '386 Patent	Vermeer CTX50
a drive mechanism comprising tracks or wheels for propelling the compact tool carrier over a supporting surface, the drive mechanism being attached to the mainframe about a rotational axis, the compact tool carrier having a bottom at which the drive mechanism contacts the supporting surface,	
the rotational axis and bottom of the compact tool carrier being separated by a vertical distance D1, the rotational axis and the bottom of the first side of the mainframe being separated by a vertical distance D5, the rotational axis and the pivot point at which the linkage is attached to the mainframe being separated by a vertical distance D2, the rotational axis and the pivot point at which the actuator is attached to the mainframe being separated by a vertical distance D4, D2 and D4 each being less than 1.5 times D1 and each being less than twice D5; and	 D2 and D4 are less than 1.5 times D1 and less than twice D5.

Claim 15 of the '386 Patent	Vermeer CTX50
a control station having operator controls for propelling the compact tool carrier forward and for raising and/or lowering the loader, the control station being mounted toward the rear of the compact tool carrier and adapted to allow for standing or walk-behind operation.	 The photograph shows a yellow Vermeer CTX50 compact track loader in operation. A worker, wearing a white hard hat and a high-visibility yellow safety vest, is standing on the rear of the machine, operating the controls. The machine is positioned on a dirt mound, and its bucket is raised, dumping a load of soil. In the background, there are residential houses. Two red arrows point from text labels to specific parts of the machine: one points to the control station at the rear, and the other points to the operator platform. The machine has 'Vermeer' and 'CTX50' printed on its side.