

Cat® Fusion™ Coupler System

Wheel Loaders 938, 950, 962, 966, 972 – H-series



Features

Improved Machine Performance

Unsurpassed Durability

Increased Visibility

Wide Range of Job Site Solutions

Benefits

New, patented Wheel Loader interface provides performance virtually identical to pin-on, and all the flexibility of a quick coupler system. The Fusion™ coupler sits back, close in to the loader arms – minimizing offset, enabling increased machine performance.

An advanced wedging mechanism creates a tight, rattle-free fit. This patented lock up system eliminates play and wear – resulting in a long service life.

A new, open coupler frame design clears sight lines from the operator's seat, making it easier than ever before to engage and disengage work tools with certainty.

The Fusion Coupler System work tool assortment gives many abilities and options to a single machine — or a whole fleet of Wheel Loaders – increasing versatility and production on the job site.

CATERPILLAR®

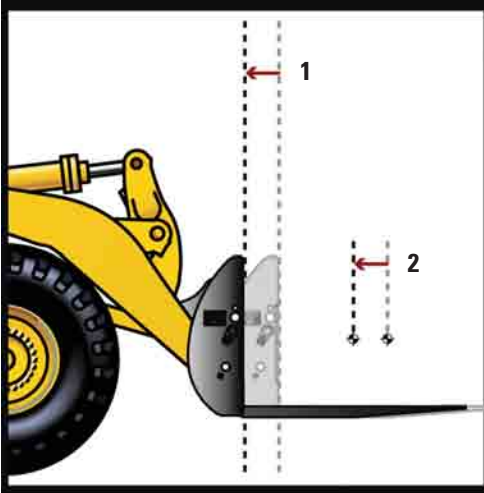
Cat Fusion Coupler System

Performance, Durability, Visibility, Flexibility



- 1 Fusion coupler is integrated into loader arms – minimizing offset, promoting more machine performance.
- 2 Alignment indicators enhance ease of use for coupling and uncoupling in ideal and less-than-ideal conditions.
- 3 Long-stroke cylinders keep wedges tight for the life of the coupler.
- 4 High performance hydraulics are fully integrated with Cat® Machines for flawless control. Separate Fusion control circuit keeps third valve free for running other attachments.
- 5 A tight fit is achieved by cylinders driving wedges down and into coupler pockets on the attachment. Tight fit eliminates rattle and premature wear, and substantially increases durability over traditional couplers.
- 6 Constructed of high-strength steels, and assembled to ISO9001 standards, the Fusion coupler endures like no other. Over 30 000 hours of on-the-job testing prove it.
- 7 Open frame design promotes better visibility at ground level and truck bed heights.
- 8 With Caterpillar on the side, you know Fusion is backed by the world's largest, most knowledgeable service organization.
- 9 Direct connection between wedge and cylinder is simple and reliable. Other couplers use complicated cross-linkages, prone to wear and failure.
- 10 Integral check valve keeps cylinders locked in place – even if hoses are compromised.

No Loss of Performance

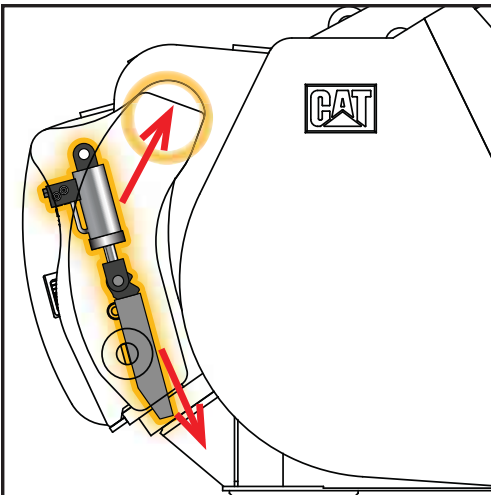


This new, patented interface provides coupler flexibility with performance virtually identical to pin-on.

Imagine lifting a hundred-kilogram box with your arms fully extended. Now, imagine lifting that same load close to your body. That's the genius of Fusion: designed to integrate the work tool and the machine by pulling the coupler and tool closer to the wheel loader. As a result, the center of gravity is moved inward, towards the machine. This translates to increased lifting ability when compared to machines equipped with competing coupler systems.

- 1 Fusion™ eliminates coupler offset...
- 2 ...with substantial improvements in center of gravity.

Designed for Durability



The advanced wedging mechanism of the Fusion Coupler creates a tight, rattle-free fit. This new lock up system eliminates play and wear – resulting in a long service life.

Wedges pull the work tool tight to the machine in two directions – in and down. Constant hydraulic pressure on the coupler wedges compensates for wear, assuring a tight fit throughout the life of the coupler. Tight fit gives better tool control and increased productivity. Plus, coupler durability is substantially increased over traditional couplers.

Increased Visibility



A new, open coupler frame design opens sight lines from the operator's seat, making it easier than ever before to engage and disengage work tool with certainty.

Offset tines and other design changes to Fusion Pallet Forks, working in conjunction with the Fusion Coupler, increase visibility substantially at ground level and truck bed height when compared to traditional coupler and fork combinations.

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Buckets



The Caterpillar Fusion Coupler System includes a full line of buckets for use in a wide range of job site situations.



Coal/Light Material

Coal Buckets maximize productivity in loading and stockpiling coal and other materials of similar density.

Sizes Available:

Capacity: 4.0 to 7.7 m³

Width: 3040 to 3405 mm



General Purpose

General Purpose Buckets provide good all-around performance for stockpiling, rehandling, excavating and bank loading.

Sizes Available:

Capacity: 2.5 to 4.8 m³

Width: 2689 to 3201 mm



Grapple

Grapple Buckets are key producers in transfer stations, landfills and similar applications. Twin top clamps hold down paper, refuse and other loose material. With a top clamp bucket, the loader becomes a versatile material handling machine.

Sizes Available:
Capacity: 2.7 to 3.6 m³
Width: 2692 to 3043 mm



High Dump

High dump buckets utilize dedicated dumping cylinders and a bottom hinge to “roll out” material. This bucket reaches up and over the sides of loading bins and truck sides, higher than ordinary bucket types.

Sizes Available:
Capacity: 3.1 to 5.4 m³
Width: 2895 to 3052 mm



Material Handling

Material Handling Bucket is a flat-floor bucket used for handling stockpiled materials such as aggregates or other easy-to-load materials requiring moderate breakout force.

Sizes Available:
Capacity: 3.1 to 5.0 m³
Width: 2689 to 3201 mm



Material Handling Back Grading Edge (BGE)

Sizes Available:
Capacity: 2.6 to 4.8 m³
Width: 2689 to 3294 mm



Rock

Rock Buckets are designed for face or bank loading in mining or quarry applications. The straight-edge rock bucket provides higher breakout force and increased dump clearance. The spade-edge rock bucket offers increased penetration in certain applications.

Sizes Available:
Capacity: 3.1 to 4.2 m³
Width: 2969 to 3252 mm



Woodchip

Woodchip and Clean-Up Buckets are available for forestry and millyard applications.

Sizes Available:
Capacity: 5.5 to 9.9 m³
Width: 3285 to 3923 mm

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Forks



Forks are essential tools on any job site. Unload trucks, place material and load up again.

No tools are so indispensable on the job site as pallet forks. Fusion Pallet Forks have an open frame design and offset tines for maximum visibility to the tines. Offset tines and other design changes to Fusion Pallet Forks, working in conjunction with the Fusion Coupler increase visibility substantially at ground level and truck bed height – when compared to traditional coupler and fork combinations.

Fusion pallet forks are designed to meet the needs of varying operator preferences. Forks can be configured to allow the tines to either swing or stay in a fixed position.

Sizes available:

2540 mm carriage with tines 1219, 1524, 1829, 2134, 2438 mm from 950H to 972H machine

Material Handling Arms



Material Handling Arms precisely place pipe, concrete blocks, highway dividers and other construction materials quickly – with maximum visibility and control. They provide superior performance when compared to chains-on-buckets or other improvised means. With a Material Handling Arm, the operator has full view of the load, job site and other workers. Work is faster, more efficient and more safe.

Sizes available:

2565mm retracted length 4166mm maximum extended length - for 938H

3124mm retracted length 4648mm maximum extended length - for 950H-972H

Retrofit adapters



Vertical wedge adapter



Horizontal pin adapter

The Fusion coupler system gives Caterpillar customers one common interface, eliminating the need for many different couplers across the entire range and allows to use a range of work tools. In combination with the Fusion coupler Caterpillar offers a series of retrofit adapters so that work tools with a horizontal pin (VCE) and vertical wedge interface (System 2000) can be used.

adapters (vertical wedge)

SW2006 - 938H

SW2007/8 - 950 - 972H

adapters (horizontal pin)

L90, L110, L120 - 938H and 950H-962H

L150, L180 - 966H and 972H

Retrofit hooks



Blank hooks



Flat hooks



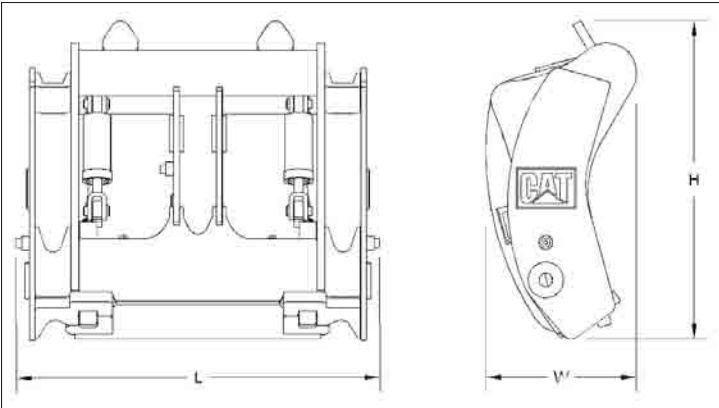
Broom hooks

Besides adapters, Caterpillar also offers a series of hooks to convert your work tool interface to match the Fusion coupler.

Blank hooks can be cut and welded. Flat hooks just need welding. A set of bolt-on hooks is available to match certain selected broom products.

Specifications and Dimensions

Coupler dimensions		938	Fusion 950-962	966-972
Overall Height (H)	mm	890	889	926
Overall Width (L)	mm	1096	1202	1325
Overall Depth (W)	mm	431	454	489
Weight	kg	372	484	564
Hydraulic				
Operating pressure couple (bar)		150	150	150
Operating pressure uncouple (bar)		150	150	150
Oil flow output (l/min)		20	20	20
Number of wedges:		2	2	2



Hydraulic Requirements

Coupler requires: Coupler arrangement – quick coupler configuration or specific lines group retrofit kit.

Matching Guide

Fusion Coupler	Wheel Loaders
	924*, 924z*, 928*, 930*, 938, 950, 962, 966, 972

* SWL H series couplers will be released at a later date.