

# Product Specifications For 428



## Engine

**Power - Net** 70 hp

**Power** 55.4 kW, 70 kW or 74.4 kW

## Engine - EU Stage V (Standard)

**Stroke** 4.72 in

**Bore** 3.86 in

**Note (1)** Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.

**Displacement** 220 in<sup>3</sup>

**Engine** C3.6 55.4 kW Electronic Turbo Intercooled

**Emissions** Meets EU Stage V emission standards.

**Net Torque - SAE J1349** 308 lb/ft

**Torque Rise (net)** 86% @ 1,200 rpm

**Note (2)** No derating required up to 3048 m altitude. Auto derate protects hydraulic and transmission systems.

**Net Power Rating @ 2,200 rpm - SAE J1349:2011** 52 kW/70 hp

**Ratings at 2,200 rpm - Engine Power ISO 14396:2002** 55 kW/75 hp

**Ratings at 2,200 rpm - Gross Power SAE J1995:2014** 56 kW/76 hp

**Net Power Rating @ 2,200 rpm -** 51 kW/70 hp  
**ISO 9249:2007**

## Engine - EU Stage V (Optional)

**Stroke** 4.72 in

**Note (1)** Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.

**Emissions** Meets EU Stage V emission standards.

**Torque Rise (net)** 43% @ 1,500 rpm

**Displacement** 220 in<sup>3</sup>

**Net Torque - SAE J1349** 291 lb/ft

**Engine** C3.6 70 kW Electronic Turbo Intercooled

**Note (2)** No derating required up to 3048 m altitude. Auto derate protects hydraulic and transmission systems.

**Bore** 3.86 in

**Net Power Rating @ 2,200 rpm -** 64 kW/86 hp  
**SAE J1349:2011**

**Ratings at 2,200 rpm - Engine** 70 kW/95 hp  
**Power ISO 14396:2002**

**Ratings at 2,200 rpm - Gross** 71 kW/97 hp  
**Power SAE J1995:2014**

**Net Power Rating @ 2,200 rpm -** 63 kW/86 hp  
**ISO 9249:2007**

## Engine - EU Stage V (Optional) - A

**Net Torque - SAE J1349** 322 lb/ft

<b>Torque Rise (net)</b>	48% @ 1,500 rpm
<b>Engine</b>	C3.6 74.4 kW Electronic Turbo Intercooled
<b>Emissions</b>	Meets EU Stage V emission standards.
<b>Displacement</b>	220 in <sup>3</sup>
<b>Note (2)</b>	No derating required up to 3048 m altitude. Auto derate protects hydraulic and transmission systems.
<b>Note (1)</b>	Net power advertised is the power available at the flywheel when the engine is equipped with fan, air cleaner, muffler and alternator.
<b>Bore</b>	3.86 in
<b>Stroke</b>	4.72 in
<b>Ratings at 2,200 rpm - Gross Power SAE J1995:2014</b>	76 kW/103 hp
<b>Net Power Rating @ 2,200 rpm - SAE J1349:2011</b>	68 kW/92 hp
<b>Net Power Rating @ 2,200 rpm - ISO 9249:2007</b>	68 kW/92 hp
<b>Ratings at 2,200 rpm - Engine Power ISO 14396:2002</b>	74 kW/101 hp

## Transmission

<b>Note</b>	Travel speeds of backhoe loader at full throttle, when equipped with 480/80-26 rear tires.
-------------	--

## Transmission - Standard Shift Transmission (Standard)

<b>Forward - 4th</b>	24.9 mile/h
<b>Reverse - 1st</b>	3.7 mile/h

<b>Reverse - 2nd</b>	5.6 mile/h
----------------------	------------

<b>Forward - 1st</b>	3.7 mile/h
----------------------	------------

<b>Reverse - 3rd</b>	13 mile/h
----------------------	-----------

<b>Forward - 3rd</b>	13 mile/h
----------------------	-----------

<b>Forward - 2nd</b>	5.6 mile/h
----------------------	------------

<b>Reverse - 4th</b>	24.9 mile/h
----------------------	-------------

## **Transmission - Powershift Transmission (Optional)**

<b>Reverse - 3rd</b>	16.8 mile/h
----------------------	-------------

<b>Reverse - 1st</b>	3.7 mile/h
----------------------	------------

<b>Forward - 4th</b>	24.9 mile/h
----------------------	-------------

<b>Forward - 2nd</b>	6.2 mile/h
----------------------	------------

<b>Forward - 3rd</b>	12.4 mile/h
----------------------	-------------

<b>Reverse - 2nd</b>	7.5 mile/h
----------------------	------------

<b>Forward - 1st</b>	3.7 mile/h
----------------------	------------

## **Transmission - Auto-Shift Transmission (Optional)**

<b>Reverse - 1st</b>	3.7 mile/h
----------------------	------------

<b>Forward - 4th</b>	12.4 mile/h
----------------------	-------------

<b>Forward - 3rd</b>	7.5 mile/h
----------------------	------------

<b>Forward - 6th</b>	24.9 mile/h
----------------------	-------------

<b>Forward - 1st</b>	3.7 mile/h
----------------------	------------

Reverse - 2nd	7.5 mile/h
---------------	------------

Forward - 2nd	6.2 mile/h
---------------	------------

Reverse - 3rd	16.8 mile/h
---------------	-------------

Forward - 5th	16.8 mile/h
---------------	-------------

## Transmission - Auto-Shift Transmission With Lock-Up Torque Converter (Optional)

Reverse - 3rd	16.8 mile/h
---------------	-------------

Reverse - 1st	3.7 mile/h
---------------	------------

Forward - 3rd	7.5 mile/h
---------------	------------

Forward - 6th	24.9 mile/h
---------------	-------------

Forward - 1st	3.7 mile/h
---------------	------------

Reverse - 2nd	7.5 mile/h
---------------	------------

Forward - 5th	16.8 mile/h
---------------	-------------

Forward - 4th	12.4 mile/h
---------------	-------------

Forward - 2nd	6.2 mile/h
---------------	------------

## Axle Ratings

Rear Axle - Static	58422 lb
--------------------	----------

Front Axle (AWD) - Static	51809 lb
---------------------------	----------

Front Axle (AWD) - Dynamic	19842 lb
----------------------------	----------

Rear Axle - Dynamic	22046 lb
---------------------	----------

## Weights

<b>Operating Weight - Nominal</b>	18232 lb
<b>Operating Weight - Maximum</b>	24251 lb
<b>Counterweights - Maximum</b>	1014 lb
<b>Minimum Counterweight Recommendations - Extendible Stick: Loader Bucket - MP</b>	0 lb
<b>Minimum Counterweight Recommendations - Standard Stick: Loader Bucket - MP</b>	0 lb
<b>Air Conditioning</b>	99 lb
<b>Minimum Counterweight Recommendations - Extendible Stick: Loader Bucket - GP</b>	1014 lb
<b>Counterweights - Base</b>	254 lb
<b>Ride Control</b>	33 lb
<b>Minimum Counterweight Recommendations - Standard Stick: Loader Bucket - GP</b>	254 lb
<b>Operating Weight - ROPS Capacity - Maximum</b>	24251 lb
<b>Extendible Stick</b>	459 lb
<b>Auto-Shift Transmission</b>	212 lb
<b>MP Bucket (1.03 m<sup>3</sup>/1.3 yd<sup>3</sup>) - with Fold-over Forks</b>	1896 lb

<b>Cab - ROPS/FOPS</b>	Standard
------------------------	----------

<b>Total Gross Weight Not to Exceed</b>	24251 lb
---	----------

<b>Operating Weight (estimated) (55 kW/74 hp)</b>	18232 lb
---	----------

<b>MP Bucket (1.03 m<sup>3</sup>/1.3 yd<sup>3</sup>) - without Fold-over Forks</b>	1486 lb
--	---------

<b>Note</b>	Machine Configuration – 70 kW HRC engine; standard stick hoe; standard cab with A/C; AWD standard shift transmission; 1.03 m <sup>3</sup> MP loader bucket; 600 mm standard duty hoe bucket; 340/80-20 and 480/80-26 tires; no counterweight; One Way Aux Lines; AWD Guard; Front Fenders; HD Battery; 80 kg operator; full fuel tank.
-------------	--

<b>Operating Weight (estimated) (70 kW/94 hp)</b>	18398 lb
---	----------

<b>Loader QC</b>	408 lb
------------------	--------

<b>Counterweights - Mid</b>	529 lb
-----------------------------	--------

## Hydraulic System

<b>System Pressure - Loader</b>	3626 psi
---------------------------------	----------

<b>System Pressure - Backhoe</b>	3626 psi
----------------------------------	----------

<b>Pump Type</b>	Variable-Flow, Axial Piston
------------------	-----------------------------

<b>Type</b>	Closed Center
-------------	---------------

<b>Pump Capacity @ 2,200 rpm</b>	42.3 gal/min
----------------------------------	--------------

## Steering

<b>AWD Cylinder, One (1) Double Acting - Stroke</b>	4.2 in
---	--------

<b>Power Steering</b>	Hydrostatic
-----------------------	-------------

<b>AWD Cylinder, One (1) Double Acting - Bore</b>	2.6 in
---	--------

<b>AWD Cylinder, One (1) Double Acting - Rod Diameter</b>	1.6 in
---	--------

<b>Type</b>	Front Wheel
-------------	-------------

<b>Turning Circle - AWD (inner wheel not braked) - Outside, Front Wheels</b>	30.42 ft
--	----------

<b>Turning Circle - AWD (inner wheel not braked) - Outside, Widest Loading Bucket</b>	38.13 ft
---	----------

## Service Refill Capacities

<b>Rear Axle</b>	4.2 gal (US)
------------------	--------------

<b>Rear Axle - Planetaries</b>	0.4 gal (US)
--------------------------------	--------------

<b>Hydraulic Tank</b>	11.1 gal (US)
-----------------------	---------------

<b>Engine Oil - With Filter</b>	2.4 gal (US)
---------------------------------	--------------

<b>Hydraulic System</b>	25.1 gal (US)
-------------------------	---------------

<b>Fuel Tank</b>	42.3 gal (US)
------------------	---------------

<b>Cooling System - A/C</b>	4.8 gal (US)
-----------------------------	--------------

<b>Diesel Exhaust Fluid</b>	5 gal (US)
-----------------------------	------------

<b>Front Axle - Planetaries</b>	0.2 gal (US)
---------------------------------	--------------

<b>Front Axle</b>	2.9 gal (US)
-------------------	--------------

## Service Refills Capacities

<b>Transmission (Powershift/Autoshift)</b>	4.18 gal (US)
--	---------------

<b>Transmission (Standard Shift)</b>	3.69 gal (US)
--------------------------------------	---------------

## Loader Performance

**Breakout Force**

12320 ft·lbf

## Backhoe Digging Depth

**Dig Depth**

4778 mm/5700 mm (E-Stick)

## Operator Station

**Controls**

Mechanical Loader; Mechanical Hoe (Pilot Hoe Optional)

## 428 Standard Equipment

### Cab ROPS And FOPS

Cab, Standard

### Tires/Steering/Brakes

All Wheel Drive

100% Differential Lock

Hydraulic Boosted Brakes

Tires 26 inch

### Engine/Transmission

Engine, C3.6 55.4 kW

Battery, 750 CCA, Standard

Hinged Radiator Pack

Standard Mode

Transmission Neutralizer

Transmission, Four Speed Standard Shift

### Controls

Controls, Mechanical Levers

Power Steering, Hydrostatic

### Electrical

Display Screen, Soft Key

Product Link Cellular

Reversing Alarm

Stabilizer Alarm

### Hydraulics

Variable Displacement Piston Pump

Side Shift Lock

Hydraulic Oil Cooler

Loader Kickout, Float

Loader Kickout, Return to Dig

## **Booms, Sticks And Linkages**

Stick Standard, 4.3 m

Transport Lock, Swing

Transport Lock, Boom

## **Other Attachments**

External Tool Box

Transport Tie Downs

## **428 Optional Equipment**

### **Cab ROPS And FOPS**

Cab, Deluxe

### **Tires/Steering/Brakes**

Tires 28 inch

### **Engine/Transmission**

Engine, C3.6 70 kW

Engine, C3.6 74.4 kW

Battery, 750 CCA, Heavy Duty

Auto Idle

Eco Mode

Standard + Mode

Engine Block Heater

Transmission, Four Speed Powershift (not on 55 kW engine)

Transmission, Six Speed Autoshift (not on 55 kW Engine)

Transmission, Six Speed Autoshift with Lock-Up Torque Converter (not on 55 kW engine)

### **Controls**

Controls, Pilot Hoe Joysticks

Pattern Selector (ISO/SAE)

### **Electrical**

Display Screen, Touchscreen

Product Link, Dual Mode (cellular and satellite)

Beacon, Rotating

Beacon, Strobe

### **Hydraulics**

Hydraulic Quick Disconnects

Hydraulic Lines, One Way  
Hydraulic Lines, Two Way  
Powered Side Shift  
Ride Control  
Continuous Flow  
Programmable Auxiliary Flow

## **Booms, Sticks And Linkages**

Stick Extending, 4.3 m  
Hoe Quick Coupler, Mechanical  
Hoe Quick Coupler, Hydraulic  
Loader Quick Coupler, Hydraulic

## **Other Attachments**

Counterweight, 115 kg  
Counterweight, 240 kg  
Counterweight, 460 kg  
Front Fenders  
Street Pads, Stabilizers