

# 430

**SKID STEER  
TIER II CERTIFIED**

## ENGINE

Model	Case Family III 445/M2 diesel, Tier II certified	
Type	4-stroke, naturally aspirated	
Cylinders	4	
Bore/Stroke	4.1 x 5.2 in (104 x 132 mm)	
Displacement	274 in <sup>3</sup> (4.5 L)	
Fuel injection	Direct	
Fuel	#2 Diesel	
Fuel filter	In-line strainer	
Air intake	Cross-flow	
Cooling	Liquid	
Engine speeds (rpm)		
High idle – no load	2480±50	
Rated – full load	2300	
Low idle	1050±50	
Horsepower per SAE J1349		
Gross	80 (60 kW) @ 2300 rpm	
Net	74 (55 kW) @ 2300 rpm	
Peak torque		
@ 1400 rpm	236 lb-ft (320 N-m)	

## ENGINE COOLING

Radiator		
Core type	Square wave serpentine	
Core size area	450 in <sup>2</sup> (.290 m <sup>2</sup> )	
Rows of tubes	3	
Cap pressure	13 psi (89.6 kPa)	
Fan		
Diameter	18.9 in (480 mm)	
Ratio	1.1:1	
Water pump		
Style	Integral	
Flow	52.8 gpm (182 L/min)	
Engine lubrication		
Pump	Deep sump with plate cooler and pressurized under-piston nozzles	
Pump operating angle ratings		
Side-to-side	Rated 35°	
Fore and aft	Rated 35°	
Oil filtration	Replaceable, full-flow cartridge	

## POWERTRAIN

Drive pump	Tandem, axial piston hydrostatic transmission with integral charge pump driven directly off engine flywheel	
Pump to engine ratio	1:1	
Displacement	0 to 2.81 in <sup>3</sup> (46 cc)	
Pump flow @ rated rpm	28.0 gpm (106 L/min)	
Flow	Bi-directional	
Charge pressure	360 psi (24.8 bar)	
System relief	4350 psi (300 bar)	
Controls	Servo	
Drive motors	Fixed displacement radial piston	
Maximum displacement	28.7 in <sup>3</sup> (470 cc)	
Speed @ rated engine rpm		
@ max displacement	225 rpm	
Optional high speed	376 rpm	
Torque @ max displacement and relief pressure	1,655 lb-ft (2245 N-m)	
Travel speed mph (km/h)		
Low range	7.0 (11.2)	
High range (optional)	11.4 (18.3)	
Final drive	Single-reduction chain drive	
Drive chain		
Size	ASA #100HV	
Tensile strength	30,000 lb (133 447 N)	
Axles	One-piece, forged induction-hardened high carbon steel	
Torque @ max displacement and relief pressure	5,148 lb-ft (6980 N-m)	
Diameter	2.0 in (51 mm)	
Length	14.6 in (371 mm)	
Parking brakes	Spring applied, hydraulic release disc	
Engagement	Depress on/off brake button, raise seat bar, get off seat, or stop engine	

## HYDRAULIC SYSTEM

Standard equipment pump		
Type	Gear pump	
Displacement	2.2 in <sup>3</sup> /rev (36 cc)	
Pump flow @ rated engine rpm		
Total	21.9 gpm (83 L/min)	
Optional high flow @ rated engine rpm		
Total	32.6 gpm (123 L/min)	
Loader control valve	3-spool open-center series with power beyond port	
Relief pressure	3050 psi (210 bar)	
Port relief pressures		
#1B Raise	3350 psi (230 bar)	
Hydraulic lines		
Tubing	37° JIC Flare	
Loop hoses	SAE 100 R12	
Hydraulic oil cooler	Core type	
Core type	Two row in-line	
Hydraulic filter	6 micron spin onreplaceable element on the return line withwarning indicator	

## INSTRUMENTATION

Indicators	
Digital Hourmeter	
Fuel level LCD bar graph with alarm	
Warning lights with alarms	
Engine coolant temperature	
Engine oil pressure	
Air cleaner restriction	
Hydraulic charge pressure	
Hydraulic filter restriction	
Hydraulic oil temperature	
Warning alarms	
Battery voltage (plus display)	
Indicator light	
Engine preheat	
Parking brake	
Seat bar reminder	

## ELECTRICAL SYSTEM

Alternator	95 amp
Starter	3.3 kW
Battery	
12-volt low-maintenance 850 cold-cranking amps @ 0° F (-18° C)	

## OPERATOR ENVIRONMENT

Tilt ROPS/FOPS canopy w/side screens
Water-shedding vinyl seat
Seat presence switch
2 in (51 mm) retractable seat belt
Seat bar w/integral armrests
Two servo-assist, adjustable, hands-only control levers
Hand throttle
Loader control lockout system
Front and rear halogen floodlights
Floor cleanout access

## CYLINDERS

Lift cylinder	
Bore diameter	2.5 in (63.5 mm)
Rod diameter	1.5 in (38.1 mm)
Stroke	35.8 in (910 mm)
Closed length	46.8 in (1190 mm)
Bucket cylinder	
Bore diameter	2.75 in (69.9 mm)
Rod diameter	1.37 in (34.9 mm)
Stroke	14.6 in (370 mm)
Closed length	26.9 in (683 mm)

## OPERATING WEIGHTS

Unit equipped with 12.00 x 16.5 Solideal Hauler SKS tires, 66 in (1.6 m) foundry/excavating bucket, mechanical attachment coupler, full fuel tank and 165 lb (75 kg) operator	
	6,718 lb (3047 kg)
Shipping weight	6,135 lb (2783 kg)
Add-on weights	
Side cab glass	+70 lb (32 kg)
Lexan® door	+50 lb (22.6 kg)
Glass door w/wiper	+77 lb (35 kg)
Suspension seat	+10 lb (4.5 kg)

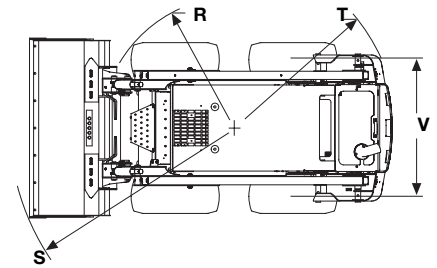
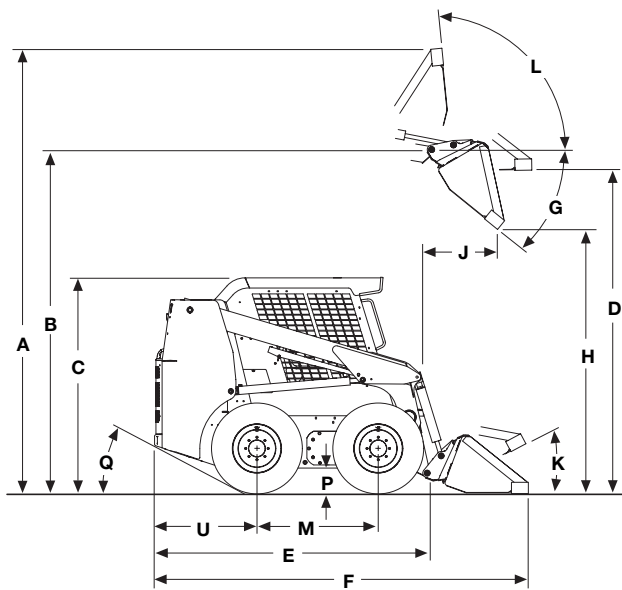
## SERVICE CAPACITIES

Fuel tank	22.0 gal (83.3 L)
Engine oil w/filter	12.7 qt (12 L)
Engine cooling system	18 qt (17 L)
Hydraulic system	
Reservoir	7.1 gal (26.8 L)
Total	13.2 gal (50 L)
Chain tanks (per side)	8 qt (7.6 L)

## TIRE SELECTION

	Size	Ply Rating	Tread Depth	Tire Width	Width Over Tires	Tire Weight*
Solideal Hauler SKS	12.00 x 16.5	10	0.75 in (19 mm)	13.1 in (333 mm)	64 in (1.63 m)	74 lb (33.6 kg)
Solideal Hauler SKS (offset wheel)	12.00 x 16.5	10	0.75 in (19 mm)	13.1 in (333 mm)	71 in (1.80 m)	74 lb (33.6 kg)
Galaxy Beefy Baby II	12.00 x 16.5	10	0.81 in (21 mm)	12.4 in (315 mm)	64 in (1.63 m)	82 lb (37.2 kg)
Galaxy Beefy Baby II (offset wheel)	12.00 x 16.5	10	0.81 in (21 mm)	12.4 in (315 mm)	71 in (1.80 m)	82 lb (37.2 kg)
Galaxy Hippo	33/15.50 x 16.5	12	0.81 in (21 mm)	15.2 in (386 mm)	70 in (1.78 m)	94 lb (42.6 kg)
Galaxy Hulk	12.00 x 16.5	12	1.37 in (35 mm)	12.0 in (305 mm)	64 in (1.63 m)	96 lb (43.5 kg)
Galaxy Bulky Hulk	33/15.50 x 16.5	14	1.37 in (35 mm)	15.1 in (384 mm)	70 in (1.78 m)	117 lb (53.1 kg)

\*tire weight does not include wheel weight.



### DIMENSIONS\*

<b>A.</b> Overall operating height	
w/foundry/excavating bucket – short lip	152.4 in (3.87 m)
w/low profile bucket – standard lip	158.0 in (4.01 m)
w/low profile extended bucket – long lip	163.0 in (4.14 m)
Height to	
<b>B.</b> Bucket hinge pin	121.5 in (3.09 m)
<b>C.</b> Top of rollover protective structure	76.7 in (1.95 m)
<b>D.</b> Bottom of level bucket, loader arm fully raised	114.2 in (2.90 m)
Overall length	
<b>E.</b> w/o attachment w/coupler	103.9 in (2.64 m)
<b>F.</b> w/foundry/excavating bucket on ground	127.2 in (3.23 m)
<b>F.</b> w/low profile bucket on ground	132.9 in (3.38 m)
<b>F.</b> w/low profile extended bucket on ground	137.9 in (3.50 m)
<b>G.</b> Dump angle at maximum height	39°
<b>H.</b> Dump height – loader arm fully raised	
w/foundry/excavating bucket	96.6 in (2.45 m)
w/low profile bucket	93.1 in (2.37 m)
w/low profile extended bucket	90.0 in (2.29 m)
<b>J.</b> Dump reach – loader arm fully raised	
w/foundry/excavating bucket	21.3 in (0.54 m)
w/low profile bucket	25.9 in (0.66 m)
w/low profile extended bucket	29.7 in (0.75 m)
Maximum attachment rollback	
<b>K.</b> Bucket on ground	32°
<b>L.</b> Bucket at full height	84°
<b>M.</b> Wheelbase	43.1 in (1.10 m)
Ground clearance	
<b>P.</b> Bottom of belly pan	9 in (229 mm)
<b>Q.</b> Angle of departure	28°
Clearance circle front	
<b>R.</b> less bucket	50.3 in (1.28 m)
<b>S.</b> w/66 in (1.68 m) foundry/excavating bucket on ground	76.7 in (1.95 m)
<b>S.</b> w/66 in (1.68 m) low profile bucket on ground	81.9 in (2.08 m)
<b>S.</b> w/66 in (1.68 m) low profile extended bucket on ground	83.1 in (2.20 m)
<b>T.</b> Clearance circle rear	59.1 in (1.50 m)
<b>U.</b> Rear axle to bumper	36.6 in (0.93 m)
<b>V.</b> Tread width, centerline to centerline	52.6 in (1.34 m)

NOTE: \*Equipped with 12.00 x 16.5 Solideal Hauler SKS tires.

### PERFORMANCE SPECS

Operating load	2,000 lb (907 kg)
Tipping load	4,000 lb (1814 kg)
Breakout force	
Lift cylinder	4,304 lbf (19 145 N)
Bucket cylinder	5,784 lbf (25 728 N)
Dig depth	
w/bucket flat	0 in (0 mm)
Cycle time	
Raise	4.1 seconds
Lower	2.6 seconds
Dump	1.9 seconds
Rollback	1.7 seconds

NOTE: SAE rated lift capacities. Breakout force and cycle time measured with rated load in F/E bucket.

### OPTIONAL BUCKETS

Type	Width inch (m)	Weight lb (kg)	Heaped Capacity ft <sup>3</sup> (m <sup>3</sup> )
Foundry/ Excavating	66 (1.6)	370 (168)	15.2 (0.43)
	72 (1.8)	390 (177)	16.7 (0.47)
	78 (2.0)	495 (225)	18.4 (0.52)
	66 (1.6)	400 (181)	13.2 (0.37)
Low Profile	72 (1.8)	425 (193)	14.5 (0.41)
	66 (1.6)	434 (197)	15.5 (0.44)
Low Profile Extended	72 (1.8)	477 (216)	17.1 (0.48)
	78 (2.0)	502 (228)	18.6 (0.53)
	72 (1.8)	434 (197)	23.7 (0.67)
	84 (2.1)	497 (225)	27.9 (0.79)
Utility/Light Material	66 (1.6)	474 (215)	13.3 (0.37)
	72 (1.8)	501 (227)	14.6 (0.41)
Heavy-Duty/ Dirt	78 (2.0)	527 (239)	15.9 (0.45)

## STANDARD EQUIPMENT

### OPERATOR'S COMPARTMENT

ROPS/FOPS canopy w/side screens  
Tilt ROPS/FOPS  
Instrument panels  
Water-shedding vinyl seat  
2 in (51 mm) retractable seat belt  
Hand throttle  
Ergonomic hand controls  
Seat bar w/integral armrests  
Loader control lockout system  
Floor cleanout panel  
Rear window w/emergency escape feature

### LOADER

Radial loader arm design  
Mechanical attachment coupler

### ENGINE

Case Family III 445/M2 diesel  
Tier II certified  
Automatic fan belt tensioner  
Integral engine oil cooling  
Fuel filter w/water trap  
Dual element air cleaner  
95 amp alternator  
850 CCA 12-volt battery  
Heavy-duty radiator

### POWERTRAIN

Hydrostatic four wheel drive  
Servo controlled pumps  
ASA #100HS drive chain  
SAHR disc parking brakes

### HYDRAULICS

Auxiliary hydraulics 3050 psi  
(210 bar) – 21.9 gpm (83 L/min)  
Hydraulic circuit pedal lock  
Loader arm-mounted ISO flat face connectors  
Auxiliary function lockout override  
Loader function lockout system  
Loader lift lockout override  
3-spool loader control valve  
Heavy-duty oil cooler  
Loader arm float position

### OTHER

Integral bumper counterweight  
Lockable service access hood  
Single-point daily servicing  
Halogen lights, 2-front, 1-rear  
Rear tail lights

## OPTIONAL EQUIPMENT

### OPERATOR'S COMPARTMENT

Vinyl suspension seat w/2 in (51 mm)  
retractable seat belt  
Vinyl suspension seat w/3 in (76 mm)  
retractable seat belt  
Electric auxiliary hydraulic control  
Glass front door w/wiper & washer  
Sliding side windows  
Air conditioning (adds 3 inches to height to top  
of ROPS)  
Heater (deluxe)  
Foot throttle  
Accessory power outlet  
Headliner

### LOADER

Auxiliary front electric control  
Ride control  
Hydraulic attachment coupler  
Hydraulic one-way self-leveling

### HYDRAULICS

High-flow auxiliary hydraulics  
3050 psi (210 bar) – 32.6 gpm (123 L/min)  
Second auxiliary hydraulics  
Attachment case drain plumbing

### ENGINE

Coolant block heater  
Grid heater

### OTHER

2 speed ground drive  
Backup alarm/horn package  
Rotating beacon  
Lift hooks  
Special paint  
Language decals  
Factory-installed tires – see page 2  
Buckets – see page 3  
Bolt-on bucket cutting edges  
42 in (1.07 m) and 48 in (1.22 m) pallet forks  
Battery disconnect switch/jump start terminals  
Steel tracks  
Lift cylinder guards  
Heavy-duty rear door

NOTE: All specifications are stated in accordance with SAE Standards or Recommended Practices, where applicable.

NOTE: All engines meet current EPA emissions requirements.

IMPORTANT: CNH America LLC reserves the right to change these specifications without notice and without incurring any obligation relating to such change. CNH America LLC does not warrant the safety or reliability of attachments from other manufacturers.

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