

410

**SKID STEER
TIER II CERTIFIED**

ENGINE

Model	Case 422/M2 diesel, Tier II certified	
Type	4-stroke, naturally aspirated	
Cylinders	4	
Bore/Stroke	3.3 x 3.93 in (84 x 100 mm)	
Displacement	134 in ³ (2.2 L)	
Fuel injection	Indirect	
Fuel	#2 Diesel	
Fuel filter	In-line strainer	
Air intake	Cross-flow	
Cooling	Liquid	
Engine speeds (rpm)		
High idle – no load	3050±50	
Rated – full load	2900	
Low idle	1050	
Horsepower per SAE J1349		
Gross	51 (38 kW) @ 2900 rpm	
Net	49 (37 kW) @ 2900 rpm	
Peak torque		
@ 1700 rpm	110 lb-ft (149 N·m)	

ENGINE COOLING

Radiator		
Core type	Square wave serpentine	
Core size area	450 in ² (.290 m ²)	
Rows of tubes	3	
Cap pressure	13 psi (89.6 kPa)	
Fan		
Diameter	20.4 in (518 mm)	
Ratio	1.1:1	
Water pump		
Style	Centrifugal	
Flow	18.5 gpm (70 L/min)	
Engine lubrication		
Pump operating angle ratings		
Side-to-side	Rated 30°	
Fore and aft	Rated 30°	
Oil filtration	Replaceable, full-flow cartridge	

POWERTRAIN

Drive pump	Tandem, axial piston hydrostatic transmission w/integral charge pump driven directly off engine flywheel	
Pump to engine ratio	1:1	
Displacement	0 to 2.1 in ³ (34.7 cc)	
Pump flow @ rated rpm	28.9 gpm (109 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	24 in ³ (393 cc)	
Speed @ rated engine rpm @ max displacement	260 rpm	
Torque @ max displacement and relief pressure	1,267 lb-ft (1719 N·m)	
Travel speed	0 - 6.8 mph (11.0 km/h)	
Final drive	Single-reduction chain drive	
Drive chain		
Size	ASA #80HS	
Tensile strength	21,000 lb (93 413 N)	
Axles	One-piece, forged induction-hardened high carbon steel	
Torque @ rated rpm	4,436 lb-ft (6014 N·m)	
Diameter	2.0 in (51 mm)	
Length	14.61 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	Gear pump	
Pump		
Displacement	1.55 in ³ /rev (25.4 cc)	
Pump flow @ rated engine rpm		
Total	18 gpm (68.3 L/min)	
Loader control valve	3-spool open-center series with power beyond port	
Relief pressure	3000 psi (207 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	Two row in-line	
Hydraulic filter	6 micron spin-on replaceable element on the return line with warning indicator	

INSTRUMENTATION

Digital hourmeter	
Fuel level LED bar graph	
Warning lights	
Fuel level	
Voltage	
Engine coolant temperature	
Engine oil pressure	
Air cleaner restriction	
Hydraulic filter restriction	
Hydraulic oil temperature	
Systems normal	
Seat belt reminder	
Warning alarms	
Engine coolant temperature	
Engine oil pressure	
Hydraulic oil temperature	
Seat belt reminder	

ELECTRICAL SYSTEM

Alternator	41 amp
Starter	2.5 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	35.16 in (893.1 mm)
Closed length	46.18 in (1173.0 mm)
Bucket cylinder	
Bore diameter	2.5 in (63.5 mm)
Rod diameter	1.37 in (35 mm)
Stroke	14.5 in (369 mm)
Closed length	26.9 in (683 mm)

OPERATING WEIGHTS

Unit equipped with 10.00 x 16.5 Solideal Hauler SKS tires, 60 in (1.5 m) short lip bucket, mechanical attachment coupler, full fuel and 165 lb (75 kg) operator		5,483 lb (2488 kg)
Shipping weight		4,815 lb (2185 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)

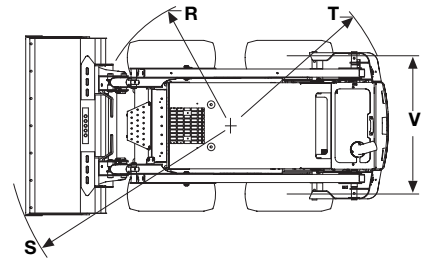
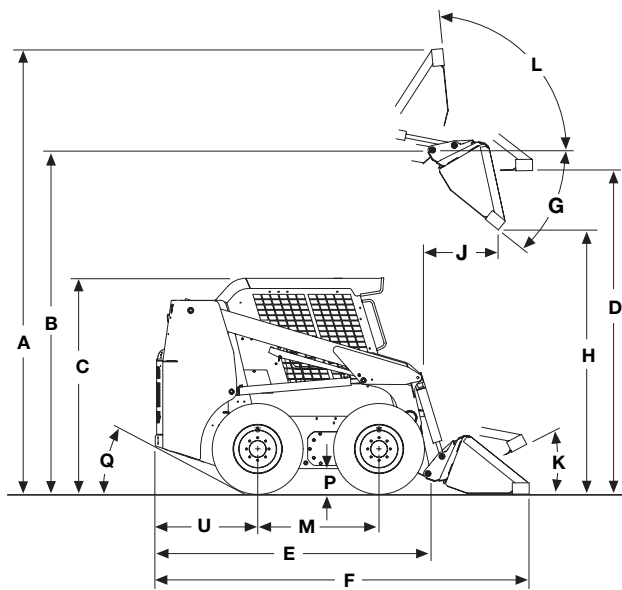
SERVICE CAPACITIES

Fuel tank	22.0 gal (83.3 L)
Engine oil w/filter	2.2 gal (8.7 L)
Engine cooling system	18 qt (17 L)
Hydraulic system	
Reservoir	7.1 gal (32.4 L)
Total	13.3 gal (50.2 L)
Chain tanks (per side)	6 qt (5.7 L)

TIRE SELECTION

	Size	Ply Rating	Tread Depth	Tire Width	Width Over Tires	Tire Weight*
Solideal Hauler SKS	10.00 x 16.5	8	0.75 in (19 mm)	11.2 in (284 mm)	59 in (1.50 m)	51 lb (23.1 kg)
Galaxy Beefy Baby II	10.00 x 16.5	8	0.75 in (19 mm)	10.2 in (259 mm)	59 in (1.50 m)	59 lb (26.8 kg)
Galaxy King Kong	10.00 x 16.5	10	1.25 in (32 mm)	10.2 in (259 mm)	59 in (1.50 m)	91 lb (41.3 kg)
Galaxy Hippo	13.00 x 16.5	10	1.38 in (35 mm)	12.8 in (325 mm)	64 in (1.63 m)	77 lb (34.9 kg)

*tire weight does not include the wheel weight



DIMENSIONS

A. Overall operating height	
w/foundry/excavating bucket – short lip	145.3 in (3.69 m)
w/low profile bucket – standard lip	150.9 in (3.83 m)
w/low profile extended bucket – long lip	155.9 in (3.96 m)
Height to*	
B. Bucket hinge pin	114.6 in (2.91 m)
C. Top of rollover protective structure	75.5 in (1.92 m)
D. Bottom of level bucket, loader arm fully raised	107.3 in (2.73 m)
Overall length	
E. w/o attachment w/coupler	100 in (2.54 m)
F. w/foundry/excavating bucket on ground	123.2 in (3.13 m)
F. w/low profile bucket on ground	129 in (3.28 m)
F. w/low profile extended bucket on ground	133.9 in (3.40 m)
G. Dump angle at maximum height	40°
H. Dump height – loader arm fully raised	
w/foundry/excavating bucket	89.4 in (2.27 m)
w/low profile bucket	85.9 in (2.18 m)
w/low profile extended bucket	82.7 in (2.10 m)
J. Reach – loader arm fully raised	
w/foundry/excavating bucket	23.6 in (0.60 m)
w/low profile bucket	28.1 in (0.71 m)
w/low profile extended bucket	31.9 in (0.81 m)
Maximum attachment rollback	
K. Bucket on ground	32°
L. Bucket at full height	80°
M. Wheelbase	41.2 in (1.05 m)
Ground clearance	
P. Bottom of belly pan	8 in (203 mm)
Q. Angle of departure	27°
Clearance circle front	
R. Less bucket	48.1 in (1.22 m)
S. w/60 in (1.52 m) foundry/excavating bucket on ground	73.2 in (1.86 m)
S. w/60 in (1.52 m) low profile bucket on ground	78.4 in (1.99 m)
S. w/60 in (1.52 m) low profile extended bucket on ground	83.1 in (2.11 m)
T. Clearance circle rear	57.6 in (1.46 m)
U. Rear axle to bumper	35.4 in (0.90 m)
V. Tread width, centerline to centerline	49 in (1.25 m)

NOTE: *Equipped with 10.00 x 16.5 Solideal Hauler SKS tires.

PERFORMANCE SPECS

Operating load	1,500 lb (681 kg)
Tipping load	3,000 lb (1361 kg)
Breakout force	
Lift cylinder	3,454 lbf (15 365 N)
Bucket cylinder	4,129 lbf (18 367 N)
Dig depth	
w/bucket flat	0 in (0 mm)
Cycle time	
Raise	4.0 seconds
Lower	2.4 seconds
Dump	1.9 seconds
Rollback	1.8 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 ³ (m ³)
Foundry/ Excavating	60 (1.5)	270 (122)	11.5 (0.33)
	66 (1.6)	370 (168)	15.2 (0.43)
	72 (1.8)	390 (177)	16.7 (0.47)
	72 (1.8)	425 (193)	14.5 (0.41)
Low Profile	60 (1.5)	330 (150)	11.5 (0.33)
	66 (1.6)	400 (181)	13.2 (0.37)
	72 (1.8)	425 (193)	14.5 (0.41)
	72 (1.8)	425 (193)	14.5 (0.41)
Low Profile Extended	60 (1.5)	360 (163)	14.3 (0.40)
	66 (1.6)	434 (197)	15.5 (0.44)
	66 (1.6)	434 (197)	15.5 (0.44)
	66 (1.6)	434 (197)	15.5 (0.44)
Utility/Light Material	60 (1.5)	(350) (159)	19.7 (0.56)
	72 (1.8)	434 (197)	23.7 (0.67)
	84 (2.1)	497 (225)	27.9 (0.79)
	84 (2.1)	497 (225)	27.9 (0.79)
Manure/ Slurry	60 (1.5)	340 (154)	16.7 (0.47)
	72 (1.8)	465 (211)	19.1 (0.54)
	72 (1.8)	465 (211)	19.1 (0.54)

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
Electric brake control
Floor cleanout panel

LOADER

Radial loader arm design
Mechanical attachment coupler

ENGINE

Case 422/M2 diesel
Integral engine oil cooling
Fuel filter w/water trap
Dual element air cleaner
41 amp alternator
850 CCA 12-volt battery
Glow plug
Heavy-duty radiator

POWERTRAIN

Hydrostatic four wheel drive
Servo controls
ASA #80HS drive chain
SAHR disc parking brakes

HYDRAULICS

Auxiliary hydraulics 3000 psi
(207 bar) – 19.1 gpm (72.2 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
Options harness

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
Auxiliary front electric controls
Glass front door w/wiper & washer
Sliding side windows
Heater (deluxe)
Rear window w/emergency escape feature
Foot throttle
Accessory power outlet

LOADER

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

ENGINE

Coolant block heater

OTHER

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

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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