

## 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	80.5 (60 kW) @ 2300 rpm
Net	74 (55.2 kW) @ 2300 rpm
Maximum torque @ 1400 rpm	
Gross	236 lb-ft (320 N·m)

## ENGINE COOLING

Radiator	
Core type	Serpentine
Core size area	449 in <sup>2</sup> (.29 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	48 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 w/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 @ high idle rpm	29.6 gpm (112 L/min)
Flow	Bidirectional
Charge pressure	361 psi (24 bar)
System relief	5,000 psi (345 bar)
Controls	Servo
Drive motors	Fixed displacement radial piston
Maximum displacement	28.7 in <sup>3</sup> (470 cc)
Speed @ high idle rpm & max. displacement	238 rpm
Torque @ max. displacement & relief pressure	5,920 lb.ft (8027 N·m)
Travel speeds – mph (km/h)	
Low range	7.0 (11.3)
High range (optional)	11.7 (18.8)
Final drive	Single-reduction chain drive
Drive chain	
Size	ASA #100HV
Tensile strength	30,000 lb (133 452 N)
Axles	One-piece, forged induction-hardened high carbon steel
Torque @ rated rpm	5,920 lb.ft (8027 N·m)
Diameter	2.5 in (63.5 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	
pump	Gear pump
Displacement	2.2 in <sup>3</sup> /rev (36 cc)
Pump flow @ rated engine rpm	
Total	21 gpm (80 L/min)
Optional high flow @ rated engine rpm	33.7 gpm (128 L/min)
Loader control valve	3-spool open center series with power beyond port
Relief pressure	3,050 psi (210 bar)
Port relief pressures	
#1B Raise	3,350 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 w/warning indicator

## INSTRUMENTATION

Battery Voltage
LCD hourmeter
Fuel level LCD bar graph
Warning lights
Engine preheat
Engine coolant temperature
Hydraulic oil temperature
Air cleaner restriction
Hydraulic filter restriction
Engine oil pressure
Hydraulic charge pressure
Parking brake
Seat belt reminder
Warning alarms
Engine coolant temperature
Hydraulic charge pressure
Engine oil pressure
Hydraulic oil temperature
Seat belt reminder

## ELECTRICAL SYSTEM

Alternator	95 amp
Starter	2.7 kW
Battery	12-volt low-maintenance 850 cold-cranking amps @ 0° F (-18° C)

## OPERATOR ENVIRONMENT

No-tool tilt ROPS/FOPS canopy w/side screens
Vinyl seat
Seat presence switch
2 in (51 mm) retractable seat belt
Restraint bar w/integral armrests
Two adjustable, hands-only control levers
Hand and foot throttles
Loader control lockout system
In-cab loader lock
Rear window w/escape provision
Front and rear halogen floodlights
Floor cleanout panel

## CYLINDERS

Lift cylinder	
Bore diameter	2.5 in (63.5 mm)
Rod diameter	1.75 in (44.4 mm)
Stroke	41.3 in (1.05 m)
Closed length	53.5 in (1.36 m)
Bucket cylinder	
Bore diameter	2.5 in (63.5 mm)
Rod diameter	1.25 in (32 mm)
Stroke	20.67 in (525 mm)
Closed length	32.4 in (823 mm)

## OPERATING WEIGHTS

Unit equipped with 12.00 x 16.5 Solideal Hauler SKS tires, 73 in (1.85 m) long lip bucket, mechanical attachment coupler, 165 lb (75 kg) operator and full fuel tank 7,677 lb (3482 kg)

Add-on weights	
Side cab glass	+70 lb (32 kg)
Glass door w/wiper	+77 lb (35 kg)
Heater	+60 lb (27 kg)
Suspension seat	+10 lb (4.5 kg)
Hydraulic attachment coupler	+38 lb (17 kg)
Counterweight	+875 lb (387 kg)

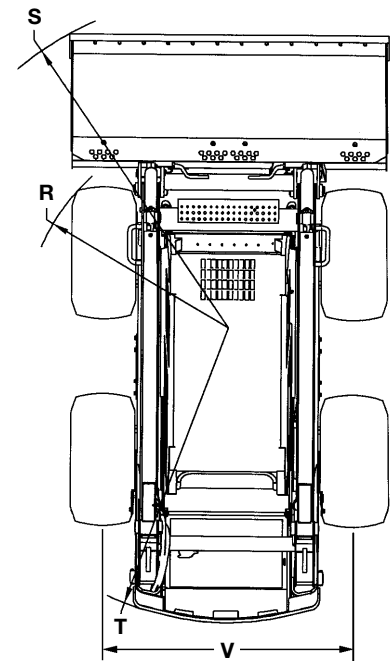
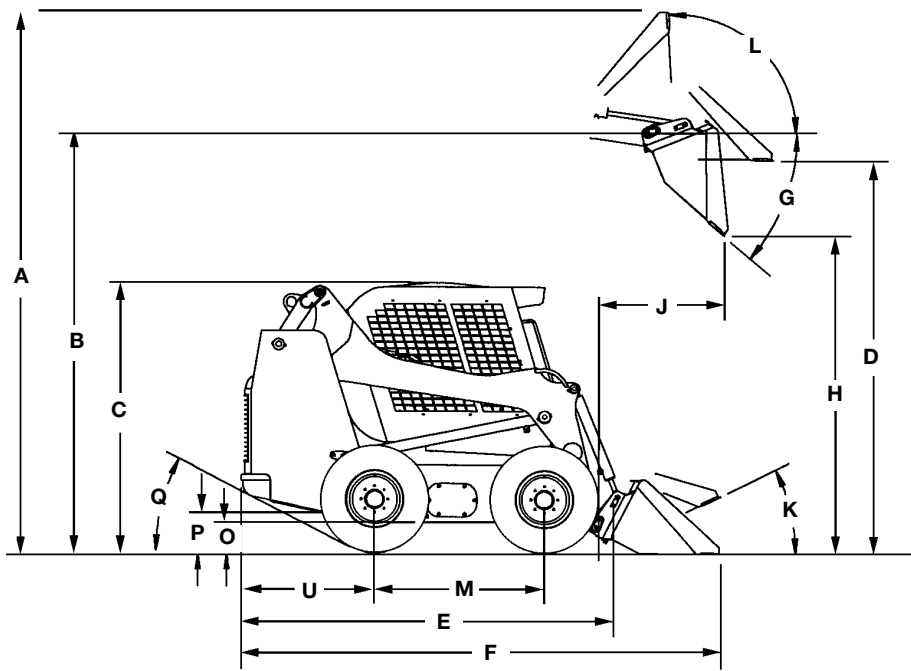
## SERVICE CAPACITIES

Fuel tank	17.3 gal (65.5 L)
Engine oil w/filter	3.2 gal (12 L)
Engine cooling system	18 qt (17 L)
Hydraulic system	
Reservoir	5.7 gal (21.7 L)
Total	11 gal (41.5 L)
Chain tanks (per side)	2 gal (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)	72 in (1.83 m)	74 lb (33.6 kg)
Galaxy Beefy Baby II	12.00 x 16.5	10	0.75 in (19 mm)	12.3 in (312 mm)	72 in (1.83 m)	81 lb (36.7 kg)
Galaxy King Kong	12.00 x 16.5	10	1.25 in (32 mm)	10.2 in (259 mm)	72 in (1.83 m)	96 lb (43.5 kg)
Galaxy Hulk	12.00 x 16.5	12	0.81 in (21 mm)	12.3 in (312 mm)	72 in (1.83 m)	100 lb (45.3 kg)
Galaxy Bulky Hulk	33/15.50 x 16.5	14	0.81 in (21 mm)	16.7 in (424 mm)	80 in (2.03 m)	124 lb (56.2 kg)
Case Steel Tracks	12.00 x 16.5	NA	1.4 in‡ (36 mm)	14.7 in‡‡ (373 mm)	78 in (1.98 m)	959 lb (435 kg)

NOTE: \* Tire weight does not include wheel weight. ‡ Equals grouser depth. ‡‡ Equals track width.



## DIMENSIONS

<b>A.</b>	Overall operating height	
	Dirt bucket	158 in (4.01 m)
	Light material bucket	165.5 in (4.20 m)
	Height to*	
<b>B.</b>	Bucket hinge pin	120.6 in (3.06 m)
<b>C.</b>	Top of rollover protection structure	80 in (2.03 m)
<b>D.</b>	Bottom of level bucket, loader arm fully raised	111.5 in (2.83 m)
	Overall length	
<b>E.</b>	w/o attachment w/coupler	103.1 in (2.62 m)
<b>F.</b>	w/dirt bucket on ground	135.5 in (3.44 m)
<b>F.</b>	w/light material bucket on ground	143.2 in (3.64 m)
<b>G.</b>	Dump angle @ full height	40°
<b>H.</b>	Dump clearance at maximum height	
	Dirt bucket	92.3 in (2.34 m)
	Light material bucket	90.5 in (2.30 m)
<b>J.</b>	Dump reach – loader arm fully raised	
	Dirt bucket	33.7 in (.86 m)
	Light material bucket	47.9 in (1.22 m)
	Maximum attachment rollback	
<b>K.</b>	Bucket on ground	27°
<b>L.</b>	Bucket at full height	95°
<b>M.</b>	Wheel base	44.9 in (1.14 m)
	Ground clearance	
<b>O.</b>	Bottom of chain case	9.0 in (229 mm)
<b>P.</b>	Bottom of belly pan	11 in (279 mm)
<b>P.</b>	Bottom of optional counterweight	9.1 in (231 mm)
<b>Q.</b>	Angle of departure	31°
	Clearance circle front	
<b>R.</b>	less bucket	53.9 in (1.37 m)
<b>S.</b>	w/73 in (1.85 m) dirt bucket in carry position	82.6 in (2.09 m)
<b>S.</b>	w/82 in (2.08 m) dirt bucket in carry position	85.8 in (2.18 m)
<b>S.</b>	w/82 in (2.08 m) light material bucket on ground	92.7 in (2.35 m)
<b>T.</b>	Clearance circle rear	61.1 in (1.55 m)
<b>U.</b>	Rear axle centerline to back bumper	8.3 in (.97 m)
<b>V.</b>	Tread width, centerline to centerline	60.0 in (1.52 m)

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

## PERFORMANCE SPECS

Operating load	2,500 lb (1134 kg)
Tipping load	5,000 lb (2268 kg)
Breakout force	
Lift	5,066 lbf (22 534 N)
Bucket –	
Short lip	6,000 lbf (26 668 N)
Long lip	5,100 lbf (22 685 N)
Dig depth w/bucket flat	0.24 in (6 mm)
Cycle time – seconds	
Raise	4.9
Lower	3.8
Dump (stop-to-stop)	2.3
Rollback	1.7

NOTE: SAE rated lift capacities.

## OPTIONAL BUCKETS

Type	Width inch (m)	Weight lb (kg)	Heaped Capacity ft <sup>3</sup> (m <sup>3</sup> )
Dirt	73 (1.9)	553 (251)	16.8 (.48)
	84 (2.13)	593 (269)	19 (.54)
HD Dirt	73 (1.9)	621 (282)	16.8 (.48)
	84 (2.13)	676 (307)	19 (.54)
Utility	73 (1.9)	696 (285)	22.4 (.63)
	84 (2.13)	674 (306)	25.3 (.72)
HD Utility	73 (1.9)	696 (316)	22.4 (.63)
	84 (2.13)	758 (344)	25.3 (.72)
Light Material	82 (2.1)	584 (265)	32.5 (.92)

## STANDARD EQUIPMENT

### OPERATOR'S COMPARTMENT

ROPS/FOPS canopy w/side screens  
No-tools tilt ROPS/FOPS  
Instrument panel  
Vinyl seat  
2 in (51 mm) retractable seat belt  
Hand & foot throttles  
Ergonomic hand controls  
Seat bar w/integral arm rests  
Loader control lockout system  
Electric brake control  
Rear window w/escape provision  
Floor cleanout panel

### LOADER

Heavy lift-and-reach linkage  
Mechanical attachment coupler

### ENGINE

Case Family III 445/M2 diesel  
Tier II certified  
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 controls  
ASA #100HV drive chain  
SAHR disc parking brakes

### HYDRAULICS

Auxiliary hydraulics 3,000 psi  
(207 bar) – 21 gpm (80 L/min)  
Auxiliary interlock system  
Loader arm mounted ISO flat face hydraulic quick connectors  
Auxiliary function lockout override  
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  
Electric auxiliary hydraulic control  
Glass front door w/wiper & washer  
Sliding side windows  
Air conditioning  
Heater (deluxe)  
Accessory power outlet  
Floor mat w/footrests  
Headliner

### LOADER

Auxiliary front electric control  
Ride Control  
Hydraulic attachment coupler  
Hydraulic self-leveling

### ENGINE

Coolant block heater (120V factory or dealer installed, 240V dealer installed only)  
Grid heater

### HYDRAULICS

Auxiliary high flow 3,000 psi  
(207 bar) – 33.7 gpm (128 L/min)  
Attachment case drain plumbing

### OTHER

2-speed ground drive  
Backup alarm and horn package  
Rotating beacon  
875 lb (397 kg) counterweight  
Lift hooks  
Drawbar  
Heavy-duty rear door  
Language decals  
Special paint  
Buckets – see page 3  
42 in (1.07 m)/48 in (1.22 m) pallet forks  
Bolt-on bucket edges  
Steel tracks  
Factory installed tires – see page 2  
Jump start terminals/battery disconnect switch  
Bolt-on spill guard

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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