

# 445 SERIES 3 SKID STEER TIER III CERTIFIED

# **ENGINE**

Model		
Case 432T/M3 diesel*, Tier III certified		
Туре	4-stroke, turbocharged	
Cylinders	4	
Bore/Stroke	3.9 in x 4.1 in (99 mm x 104 mm)	
Displacement	195 in³ (3.2 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	2675±75	
Rated - full load Low idle	2500 1075 ±75	
Horsepower per SAE J1349		
Gross Net	82 (61 kW) @ 2500 rpm 77 (57 kW) @ 2500 rpm	
Maximum torque @ 1	400 rpm	
Gross	229 lb·ft (310 N·m)	

# **ENGINE COOLING**

Radiator			
Core type	Square weave serpentine		
Core size area	377 in <sup>2</sup> (.243 m <sup>2</sup> )		
Rows of tubes	4		
Cap pressure	14 psi (97 kPa)		
Fan			
Diameter	18.9 in (480 mm)		
Ratio	1.1:1		
Water pump			
Style	Centrifugal		
Flow	29 gpm (110 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		

<sup>\*</sup>Manufactured for Case by Iveco.

# **POWERTRAIN**

Drive pump			
Tandem, axial piston hy with integral charge pu engine flywheel			
Pump to engine ratio	1:1		
Displacement	0 to 2.62 in <sup>3</sup> (43 cc)		
Pump flow @ high idle engine rpm	30.3 gpm (115 L/min)		
Flow	Bidirectional		
Charge pressure	360 psi (24 bar)		
System relief	5,220 psi (360 bar)		
Controls	Servo		
Drive motors Fixed displaceme radial pist			
Maximum displacement 28.7 (407 c			
Speed @ high idle rpm	&		
max. displacement	244 rpm		
Optional high speed 407 rpi			
Torque @ max. displace	ement		
& relief pressure	1,986 lb.ft (2692 N·m)		
Travel speeds - mph (km	ı/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	32,180 lb (143 144 N)		
Axles			
One-piece, forged indu high carbon steel	ction-hardened		
Torque @ max displacement			
and relief pressure	5,004 lb.ft		

# Parking brakes

Diameter

Length

Spring-applied, hydraulic release disc

# Engagement

Depress on/off brake button on handle or instrument panel, raise seat bar, get off seat, or stop engine

(6784 N·m)

2.5 in (63.5 mm)

14.92 in (379 mm)

# **HYDRAULIC SYSTEM**

Standard equipment pump			
Type	Gear pump		
Displacement	2.2 in <sup>3</sup> /rev (36 cc)		
Pump flow @ rated e	@ rated engine rpm		
Total	23.8 gpm (90.1 L/min)		
Optional high flow @			
rated engine rpm	33.2 gpm		
	(125.8 L/min)		
Loader control valve			
3-spool open center	series with		
power beyond port			
Relief pressure	3,050 psi (210 bar)		
Port relief pressures			
Loader Raise	3120 psi (215 bar)		
Bucket Dump	3800 psi (260 bar)		
Bucket Curl	3350 psi (230 bar)		
Hydraulic lines			
Tubing	37° JIC flare		
Loop hoses	SAE 100 R12		
Hydraulic oil cooler			
Core type	Four row in-line		
Hydraulic filter			
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6 micron Spin-on replaceable element on the return line w/warning indicator

# **INSTRUMENTATION**

Indicators

Digital Hourmeter

Fuel level LCD bar graph with alarm

Warning lights with alarms

Engine coolant temperature

Engine oil pressure

**Engine Malfunction** 

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	2.7 kW
Battery	

12-volt low-maintenance 1125 cold-cranking amps @ 0° F (-18° C)

# **OPERATOR ENVIRONMENT**

ROPS/FOPS level 1 canopy w/side screens
Tilt ROPS/FOPS
Rear window w/emergency escape feature
Instrument panels
Suspension vinyl seat
2 in (51 mm) retractable seat belt
Hand & foot throttles
Alarm package
Headliner
Top window
Cup holder
Power plug socket
Foot rest
Storage tray
Low effort ergonomic hand controls
Padded seat bar w/integral arm rests
Loader control lockout system
Electric parking brake control
Floor cleanout panel

# **CYLINDERS**

Lift cylinder				
Bore diameter	ter 2.5 in (63.5 mm)			
Rod diameter	1.75 in (44.4 mm)			
Stroke	41.3 in (1049 mm)			
Closed length	53.5 in (1361 mm)			
Bucket cylinder				
Bucket cylinder Bore diameter	2.75 in (70 mm)			
,	2.75 in (70 mm) 1.374 in (35 mm)			
Bore diameter	,			

# **OPERATING WEIGHTS**

Unit equipped with 12 x 16.5 Galaxy Beefy Baby II tires, 73 in (1.9 m) short lip bucket, mechanical attachment coupler, full fuel tank and 165 lb (75 kg) operator

8,120 lb (3683 kg)

Shipping weight	7,460 lb (3384 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	+862 lb (387 kg)

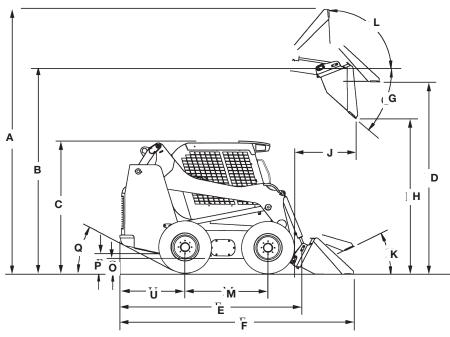
# **SERVICE CAPACITIES**

Fuel tank	17.3 gal (65.5 L)		
Engine oil w/filter	9 qt (8.5 L)		
Engine cooling system	12 qt (11.4 L)		
Hydraulic system			
Reservoir	5.7 gal (21.7 L)		
Total	11 gal (41.6 L)		
Chain tanks (per side)	8 qt (7.6 L)		

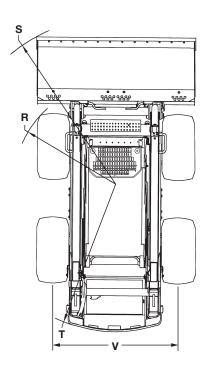
# **TIRE SELECTION**

					Width	
	Size	Ply Rating	Tread Depth	Tire Width	Over Tires	Tire Weight*
Galaxy XD 2002	12.00 x 16.5	10	0.69 in (17 mm)	12.4 in (315 mm)	72 in (1.83 m)	72 lb (32.7 kg)
Galaxy Beefy Baby II	12.00 x 16.5	10	0.81 in (21 mm)	12.4 in (315 mm)	72 in (1.83 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)	72 in (1.83 m)	94 lb (42.6 kg)
Galaxy King Kong	12.00 x 16.5	12	1.25 in (32 mm)	11.6 in (295 mm)	72 in (1.83 m)	97 lb (44 kg)
Galaxy Bulky Hulk	33/15.50 x 16.5	14	1.37 in (35 mm)	15.1 in (384 mm)	80 in (2.03 m)	117 lb (53.1 kg)
Galaxy Hulk	12.00 x 16.5	12	1.37 in (35 mm)	12.0 in (305 mm)	72 in (1.83 m)	96 lb (43.5 kg)
Galaxy Solid Flex	12.00 x 16.5	n/a	0.8 in (20 mm)	11 in (279 mm)	71 in (1.80 m)	280 lb (127 kg)
Galaxy Solid Flex (offset wheel)	12.00 x 16.5	n/a	0.8 in (20 mm)	11 in (279 mm)	77 in (1.95 m)	280 lb (127 kg)

NOTE: \* Tire weight does not include wheel weight.



DI	MENSIONS*	
Α.	Overall operating height	
	Short lip dirt bucket	140.5 in (3.57 m)
	Dirt bucket	159.1 in (4.04 m)
	Light material bucket	161.8 in (4.11 m)
	Height to	
В.	Bucket hinge pin	122.4 in (3.11 m)
C.	Top of rollover protection structure	83.2 in (2.11 m)
D.	Bottom of level bucket, loader arm fully raised	114.3 in (2.90 m)
	Overall length	
E.	w/o attachment w/coupler	104.5 in (2.65 m)
F.	w/short lip bucket on ground	131.3 in (3.34 m)
F.	w/dirt bucket on ground	137.2 in (3.48 m)
F.	w/light material bucket on ground	144.9 in (3.68 m)
G.	Dump angle @ full height	51°
H.	Dump height – loader arm fully raised	
	Short lip dirt bucket	93.3 in (2.37 m)
	Dirt bucket	90.2 in (2.29 m)
	Light material bucket	85 in (2.16 m)
J.	Dump reach – loader arm fully raised	
	Short lip dirt bucket	33.7 in (0.86 m)
	Dirt bucket	36.8 in (1.04 m)
	Light material bucket	47.9 in (1.22 m)
	Maximum attachment rollback	
K.	Bucket on ground	27°
<u>L.</u>	Bucket at full height	86°
М.	Wheel base	45 in (1.14 m)
	Ground clearance	
Ο.	Bottom of chain case	9.3 in (236 mm)
P	Bottom of belly pan	11.1 in (283 mm)
P	Bottom of optional counterweight	9.3 in ( 236 mm)
Q.	Angle of departure	28°
	Clearance circle front	
R.	less bucket	53.3 in (1.36 m)
S.	w/73 in (1.85 m) short lip dirt bucket in carry position	79.8 in (2.03 m)
S.	w/73 in (1.85 m) dirt bucket in carry position	83.4 in (2.12 m)
S.	w/82 in (2.08 m) dirt bucket in carry position	86 in (2.18 m)
S.	w/82 in (2.08 m) light material bucket on ground	92.7 in (2.35 m)
T.	Clearance circle rear	61.7 in (1.57 m)
U.	Rear axle centerline to back bumper	38.3 in (0.97 m)
V.	Tread width, centerline to centerline	58.5 in (1.48 m)
	NOTE: *Equipped with 12x16.5 Galaxy Beefy Baby II tires.	



# **PERFORMANCE SPECS**

2,500 lb (1134 kg)
2,750 lb (1247 kg)
5,000 lb (2268 kg)
5,500 lb (2495 kg)
5,000 lbf (22 241 N)
7,400 lbf (32 917 N)
0.1 in (3 mm)
4.2
2.7

2.0

NOTE: SAE rated lift capacities.

Rollback

# **OPTIONAL BUCKETS**

OI HOUSE DOUGLE		
Width inch (m)	Weight Ib (kg)	Heaped Capacity ft³ (m³)
73	409	13.9
(1.9)	(186)	(.39)
73	553	16.8
(1.9)	(251)	(.48)
84	620	19.4
(2.1)	(281)	(.55)
73	621	16.8
(1.9)	(282)	(.48)
84	676	19.4
(2.1)	(307)	(.55)
73	628	22.4
(1.9)	(285)	(.63)
84	674	25.7
(2.1)	(306)	(.73)
73	696	22.4
(1.9)	(316)	(.63)
84	755	25.7
(2.1)	(343)	(.73)
82	584	32.5
(2.1)	(265)	(.92)
	rinch (m)  73 (1.9)  73 (1.9)  84 (2.1)  73 (1.9)  84 (2.1)  73 (1.9)  84 (2.1)  73 (1.9)  84 (2.1)  82	inch (m)         lb (kg)           73         409           (1.9)         (186)           73         553           (1.9)         (251)           84         620           (2.1)         (281)           73         621           (1.9)         (282)           84         676           (2.1)         (307)           73         628           (1.9)         (285)           84         674           (2.1)         (306)           73         696           (1.9)         (316)           84         755           (2.1)         (343)           82         584

# STANDARD EQUIPMENT

# **OPERATOR'S COMPARTMENT**

ROPS/FOPS level 1 canopy w/side screens Tilt ROPS/FOPS

Rear window w/emergency escape feature

Instrument panels

Suspension vinyl seat

2 in (51 mm) retractable seat belt

Hand & foot throttles

Alarm package

Headliner

Top window

Cup holder

Power plug socket

Foot rest

Storage tray

Low effort ergonomic hand controls

Padded seat bar w/integral arm rests

Loader control lockout system

Electric parking brake control

Floor cleanout panel

# LOADER

Heavy lift-and-reach linkage
Mechanical attachment coupler

# **ENGINE**

Case/Iveco 432T/M3 diesel

Tier III Certified

No maintenance belt

Grid heater

Integral engine oil cooling

Fuel filter w/water trap

Dual element air cleaner

95 amp alternator

1125 CCA 12-volt battery

Battery disconnect w/jumpstart terminals

Side-by-side radiator and oil cooler

# **POWERTRAIN**

Hydrostatic four wheel drive

Servo controls

ASA #100HVdrive chain

SAHR disc parking brakes

# **HYDRAULICS**

Auxiliary hydraulics 3,050 psi (210 bar) – 23.8 gpm (90 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, 2 side, 1-rear flood

(halogen)

Rear tail lights

Options harness

Remote oil drain

# **OPTIONAL EQUIPMENT**

### **OPERATOR'S COMPARTMENT**

Deluxe cloth suspension seat w/heater and lumbar support

3 in (76 mm) retractable seat belt

Electric auxiliary hydraulic control

Glass front door w/wiper & washer Sliding side windows

Air conditioning

Heater (deluxe)

Demolition door

Radio

# **LOADER**

Ride control

Hydraulic attachment coupler

Hydraulic self-leveling

Auxiliary front electric control

Pilot controls

# **HYDRAULICS**

High-flow auxiliary hydraulics

3050 psi (210 bar) - 33.2 gpm (126 L/min)

Second auxiliary hydraulics

Attachment case drain plumbing

### **ENGINE**

Coolant block heater

# **OTHER**

2 speed ground drive

Deluxe instrument panel

Road lights

Rotating beacon

Lift hooks

Draw bar

Heavy-duty rear door

Language decals

Factory-installed tires – see page 2

Buckets - see page 3

Bolt-on spill guards

Bolt-on bucket cutting edges

42 in (1.07 m) and 48 in (1.22 m) pallet forks

Steel tracks

Super counterweight

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

NOTE: All engines meet current EPA emissions requirements.

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