

# Technical Data - LI806E

## ENGINE

**Type**  
John Deere POWERTECH™ 6068H

**Non-road emissions standard**  
Certified to EPA Tier 2 EU Stage II

**Cylinders**  
6 (4 valves per cylinder)

**Displacement**  
6.8 l

**Net Peak Power**  
173 kW @ 1 700 rpm

**Net Peak Torque**  
1 016 Nm @ 1 400 rpm

**Fuel System**  
High Pressure Common Rail

**Aspiration**  
Turbocharged, charge air cooled

**Air Cleaner**  
Dual-element dry type, restriction indicator in cab monitor for service

**Fan Drive**  
Hydraulically driven, proportionally controlled, fan aft coolers

**Lubrication**  
Full-flow spin-on filter and integral cooler

**Electrical System**  
24 volt with 80-amp alternator (100-amp alternator optional)

**Batteries (2 by 12V)**  
950 CCA (each)

## TRANSMISSION

**Type**  
Countershaft-type PowerShift™

**Torque Converter**  
Single stage, single phase

**Shift Control**  
Electronically modulated, adaptive, load and speed dependant

**Operator Interface**  
Joystick-mounted FNR and gear select lever, kick-down button on Joystick

## Shift Modes

Manual/auto (1st-4th or 2nd-4th); quick-shift button with two selectable modes: kick down or kick up/down; and three clutch cutoff settings adjustable on switch pad

## Travel Speeds

Forward Maximum  
Gear 1 7.6 km/h  
Gear 2 12.6 km/h  
Gear 3 24.7 km/h  
Gear 4 36.6 km/h

## Reverse Maximum

Gear 1 7.9 km/h  
Gear 2 12.9 km/h  
Gear 3 24.9 km/h  
Gear 4 NA

## AXLES / BRAKES

**Final Drive**  
Heavy-duty inboard planetary

**Differentials**  
Hydraulic locking front with conventional rear

**Rear Axle Oscillation, Stop to Stop**  
26°

**Brakes**  
(conform to SAE J1473, ISO3450)  
Service Brakes  
Hydraulically actuated, inboard sun-shaft mounted, oil cooled, self-adjusting, single disc

**Parking Brakes**  
Automatic spring applied, hydraulically released, driveline mounted, oil cooled, multi-disc

## TYRES

**Standard Sizes**  
23.5 x 25, L5, 16 Ply

## REFILL CAPACITY

**Fuel Tank**  
(with ground-level fueling)  
352 l

**Cooling System**  
29.5 l

**Engine Oil with Vertical Spin-on Filter**  
24.5 l

**Transmission Fluid with Vertical Filter**  
27 l

**Axle Oil (front and rear)**  
22 l

**Hydraulic Reservoir and Filters**  
110 l

**Park Brake Oil (wet disc)**  
0.6 l

## HYDRAULIC SYSTEM / STEERING

**Pump (Loader and Steering)**  
Variable-displacement, axial-piston pump; closed-center, pressure-compensating system

**Maximum Rated Flow**  
310 l/m @ 6 895 kPa and 2 350 rpm

**System Relief Pressure (Loader and Steering)**  
25 166 kPa

**Loader Controls**  
Two-function valve; single-dual-lever controls; control lockout feature; optional third- and fourth-function valve with auxiliary lever

**Steering (conforms to SAE J1511)**  
Type  
Power, fully hydraulic

**Articulation Angle**  
80° arc (40° each direction)

**Hydraulic Cycle Times Standard Z-Bar**  
Raise  
6.4 sec

**Dump**  
1.6 sec

**Lower (float down)**  
3.0 sec

**Total**  
11.0 sec

**Turning Radius (measured to centerline of outside tyre)**  
5.57 m

## STANDARD Z-BAR PIN-ON

**Type Bucket Information**  
Standard Z-Bar Linkage, with Pin-On General-Purpose Bucket with Bolt-On, Segments and Teeth

**Bucket Type/Size**  
Capacity, Heaped  
3.3 m³

**Capacity, Struck**  
2.8 m³

**Bucket Weight**  
1 735 kg

**Bucket Width**  
3.04 m

**Breakout Force**  
15 378 kg

**Tipping Load, Straight**  
14 906 kg

**Tipping Load, 40° Full Turn**  
12 879 kg

**Safe Operating Load**  
6 440 kg

**Reach, 45° Dump, Clearance**  
(2.13 m)  
1.61 m

**Reach, 45° Dump, Full Height**  
•• 1.06 m

**Dump Clearance, 45°, Full Height**  
• 2.91 m

**Overall Length, Bucket on Ground**  
••• 8.10 m

**Loader Clearance Circle, Bucket Carry Position**  
13.19 m

**Operating Weight**  
18 333 kg

# Material

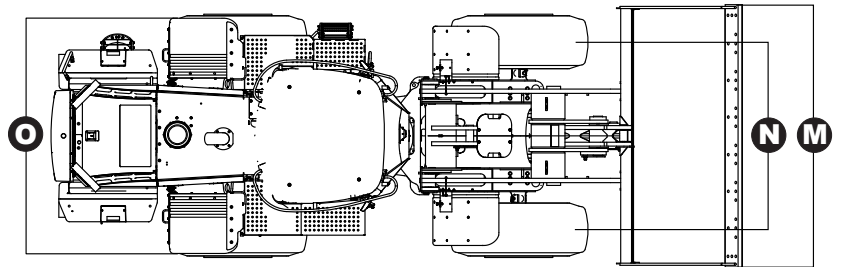
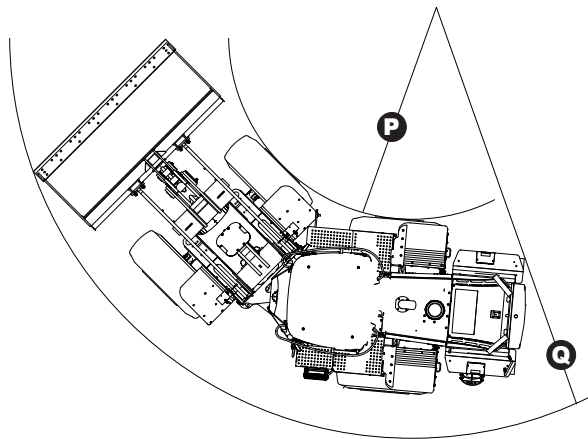
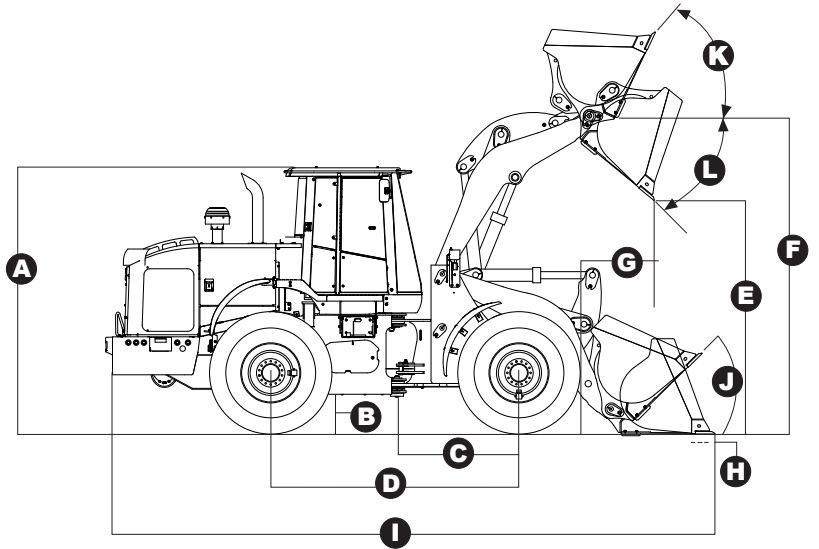
## LOOSE MATERIAL

	kg/m³		kg/m³		kg/m³
Caliche	1 250	Earth, wet, excavated	1 600	Sand and gravel, dry	1 720
Cinders	590	Granite, broken or large crushed	1 660	Sand and gravel, wet	2 020
Clay and gravel, dry	1 420	Gravel, dry	1 510	Sand, dry	1 420
Clay and gravel, wet	1 540	Gravel, dry 13 to 50 mm	1 690	Sand, wet	1 840
Clay, dry	1 480	Gravel, pit run (graveled sand)	1 930	Sandstone, broken	1 510
Clay, natural bed	1 660	Gravel, wet 13 to 50 mm	2 020	Shale	1 250
Clay, wet	1 660	Gypsum, crushed	1 600	Slag, broken	1 750
Coal, anthracite, broken	1 100	Limestone, broken or crushed	1 540	Stone, crushed	1 600
Coal, bituminous, broken	830	Magnetite, iron ore	2 790	Topsoil	950
Earth, dry, packed	1 510	Phosphate rock	1 280		
Earth, loam	1 250	Pyrite, iron ore	2 580		

## Dimensions with Pin-On Bucket

Standard Z-Bar Linkage, with Pin-On General-Purpose Bucket with Bolt-On Segments and Teeth

A	Height to Top of Cab and Canopy	3.43 m
B	Ground Clearance	0.461 m
C	Length from Centerline to Front Axle	1.60 m
D	Wheelbase	3.26 m
E	Dump Clearance •	2.91 m
F	Height to Hinge Pin, Fully Raised	4.12 m
G	Dump Reach ••	1.06 m
H	Maximum Digging Depth	0.106 m
I	Overall Length •••	8.10 m
J	Maximum Rollback at Ground Level	42°
K	Maximum Rollback, Boom Fully Raised	55°
L	Maximum Bucket Angle, Fully Raised	50°
M	Overall Bucket Width	3.040 m
N	Wheel Track	2.143 m
O	Outside Wheel Width	2.705 m
P	Full Turn Radius, Inside	5.179 m
Q	Full Turn Radius, Outside	6.580 m



## Attachment Options

### BUCKET OPTONS

Size	Type	Blade/Lip	Teeth	Cutting Edge
3.3 m <sup>3</sup>	GP	Straight	Bolt-on 2 strap, male adaptors	Segments
3.3 m <sup>3</sup>	GP	Straight	None	4 Piece Bolt-on Segments
2 m <sup>3</sup>	High Density	Straight	Bolt-on 2 strap, male adaptors	Segments
2 m <sup>3</sup>	High Density	Straight	None	4 Piece Bolt-on
2.2 m <sup>3</sup>	High Density	Spade	None	Weld-on Half Arrows
2.9 m <sup>3</sup>	Rock	Spade	Bolt-on 2 strap, male adaptors	Segments
2.9 m <sup>3</sup>	Rock	Spade	None	Weld-on Half Arrows
4 m <sup>3</sup>	Low Density	Straight	None	4 Piece Bolt-on
4.9 m <sup>3</sup>	Coal	Spade	None	4 Piece Bolt-on
9 m <sup>3</sup>	Wood Chip	Straight	None	4 Piece Bolt-on

### QUICK ATTACH BUCKETS

Size	Type	Blade/Lip	Teeth	Cutting Edge
3.3 m <sup>3</sup>	GP Bucket	Straight	Bolt-on 2 strap, male adaptors	Segments
4.9 m <sup>3</sup>	Coal	Straight	None	4 Piece Bolt-on

### QUICK ATTACH IMPLEMENTS

Quick attach pallet fork frame  
Quick attach cane grab

### LOG GRABS

Load fork log grab  
Large diameter log grab  
Sorting grapple  
Millyard grapple