

650L LT/WT/LGP CRAWLER DOZER

ENGINE

Model Case Family IV 445TA/EG7a diesel Tier 3 certified EPA Family NHXL04.5DCB

'	LFA Fairling NITIALU4.3DCB
Cylinders	4
Bore/Stroke	4.1 in x 5.2 in (104 x 132 mm)
Displacement	274 in³ (4.5 L)
Fuel injection	Direct
Fuel	#2 Diesel
Fuel filter	Spin-on with in-line strainer
Air intake	Cross-flow
Cooling	Liquid
Engine speeds (rpr High idle - no loa Rated - full load Low idle	•

Horsepower per SAE J1349

Net 74 (55 kW) @ 2000 rpm Gross 80.5 (60 kW) @ 2000 rpm

Peak torque @ 1400 rpm

Net 289 lb·ft (355 N·m) Gross 295 lb·ft (363 N·m)

Engine lubrication -

Pump Deep sump plate cooler

with pressurized under-piston nozzles

Pump operating angle ratings -

Side-to-side 45° Fore and aft 45°

Oil filtration Replaceable, spin-on full-flow cartridge

ENGINE COOLING

Radiator -	
Core size area 357.5 m ² Rows of tubes	² (2306 cm ²)
Fan –	
Diameter	20 in (500 mm)
Ratio	1.1:1

ELECTRICAL SYSTEM

Alternator	90 amp
Battery	
12-volt low-maintenance 700 cold-cranking	
amps @ 0° F (-18 C)	

POWERTRAIN

Dual path hydrostatic	
Pump – variable axial piston Motor – variable bent axis piston	

Maximum drawbar pull* 36,000 lb (160.5 kN)

Transmission Single lever control – electronic straight tracking

Transmission oil filter 4 micron, spin-on replaceable

Travel speeds* -

Forward 0-5.5 mph (0-9 km/h)
Reverse 0-5.5 mph (0-9 km/h)

*Measured using standard track chain. Increase travel speeds by 4% and reduce drawbar pull by 4% with the optional CELT track chain.

Parking brakes Heavy-duty, spring-applied, hydraulic pressure release

Steering brak	es Hydrostatic
Final drive	2 helical gear
	reduction to planetary output
Ratio	61:1

TRANSMISSION COOLING

Туре	Oil to air
Core size	225.7 in ² (1456 cm ²)

HYDRAULIC SYSTEM

Standard equipment pump)
Pump flow @ 2000 rpm	
@ 3000 psi (209 kPA)	20.3 gpm (78.8 L/min)
Max. system pressure	3025 <u>+</u> 75 psi (20 855+515 kPA)

CYLINDERS

Lift cylinder (2)	
Bore diameter	3.50 in (89 mm)
Rod diameter	1.75 in (44.5 mm)
Stroke	15.5 in (394 mm)
Angle cylinder (2)	
Bore diameter	3.50 in (89 mm)
Rod diameter	1.75 in (44.5 mm)
Stroke	13.5 in (342 mm)
Tilt cylinder (1)	
Bore diameter	3.50 in (89 mm)
Rod diameter	1.75 in (44.5 mm)
Stroke	5.4 in (137 mm)

UNDERCARRIAGE

Track adjustment	Hydraulic
Frame	Rigid suspension
Length of track on ground (CLT)	84 in (2141 mm)
Track link pitch	6.29 in (160 mm)
Track shoe height	2.06 in (52 mm)
Pin diameter	1.13 in (29 mm)
Bushing diameter -	
CLT track	2.125 in (54 mm)
CELT track	2.75 in (70 mm)
Bolt diameter	0.625 in (16 mm)
Track shoes per side	39
Track rollers per side	6
Carrier rollers per side	1
Track roller rail dia.	6.1 in (155 mm)

TRACK ON GROUND

Shoe	Area - in2 (cm2)
16 in (406 mm)	2630 (16 968)
20 in (508 mm)	3372 (21 755)
27 in (686 mm)	4552 (29 368)

TRACK

Long Track

16 in (406 mm) closed grousers and CLT 16 in (406 mm) open grousers and CELT

Wide Track

16 in (406 mm) closed grousers and CLT 16 in (406 mm) open grousers and CELT 20 in (508 mm) closed grousers and CLT 20 in (508 mm) open grousers and CELT

LGP

27 in (686 mm) closed grousers and CLT27 in (686 mm) open grousers and CELT

OPERATOR ENVIRONMENT

ROPS canopy		
Single lever control for speed, steering and direction		
Forward/reverse speed ratio selector		
Adjustable armrests		
Foot rests		
Retractable seat belt, 2 in (51 mm)		
Vinyl suspension seat w/back adjustment		
Rear view mirror		

INSTRUMENTATION

Warning lights:

Air filter

Alternator

Engine oil pressure

Hi range

Hydraulic filter

Transmission filter

Transmission pressure

Gauges:

Battery voltage

Fuel level

Hourmeter

Tachometer

Transmission oil temperature

Water temperature

Audible warnings:

Engine oil pressure

Transmission pressure

BLADE

Variable blade pitch	52°-60°
Lift speed (per second)	19.7 in (500 mm)
Cutting edge	Reversible and replaceable
Width	8.0 in (203 mm)
Thickness	0.625 in (16 mm)

RIPPER

Max. penetration	8.7 in (221 mm)			
Width	72.4 in (1839 mm)			
Cut width	70.1 in (1780 mm)			
Max. ground clearance	15.5 in (393 mm)			
Points	Replaceable			
Max. number of shanks	3			
Tooth spacing –				
with 3 teeth	31 in (785 mm)			
Hydraulic cylinder (double-acting)				
Diameter	3.2 in (82 mm)			
Stroke	8.4 in (213 mm)			
Rod	1.75 in (44.5 mm)			

SERVICE CAPACITIES

Fuel tank	41 gal (155 L)
Engine oil w/filter	13 qt (12.3 L)
Engine oil w/o filter	12.2 qt (11.5 L)
Engine cooling system	22.6 qt (21.4 L)
Hydraulic reservoir	16.5 gal (72.7 L)
Final drive (per side)	15 qt (14.2 L)
Track rollers (ea.)	0.19 qt (0.18 L)
Front idlers (ea.)	0.42 qt (0.40 L)
Carrier rollers (ea.)	0.25 qt (0.24 L)

OPERATING WEIGHTS

Unit equipped with ROPS, full fuel tank, 170 lb (77 kg) operator, track guides, backup alarm, horn and lights.

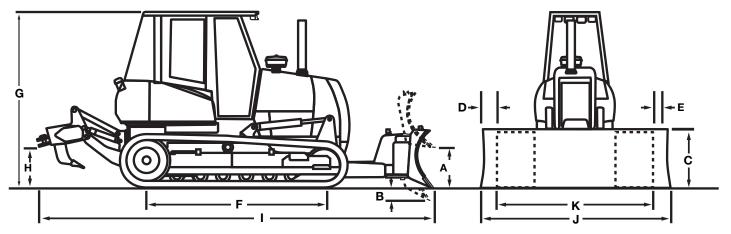
Long track (96 in blade, 16 in shoe) 16,250 lb (7370 kg)

Wide track (112 in blade, 20 in shoe) 16,800 lb (7619 kg)

LGP (120 in blade, 27 in shoe)

17,550 lb (7959 kg)

	,			
Add-on weights -				
Drawbar	146 lb (66 kg)			
Ripper (3 shank)	1,349 lb (612 kg)			
Winch	1,000 lb (454 kg)			
Front counterweight	752 lb (341 kg)			
Cab	1,588 lb (720 kg)			
ROPS heater	70 lb (32 kg)			
CELT chain	115 lb (52 kg)			
Center rockguard	154 lb (70 kg)			
Sweeps	110 lb (50 kg)			
Dual batteries	64 lb (29 kg)			
90 in blade	917 lb (416 kg)			
96 in blade	968 lb (439 kg)			
112 in blade	1105 lb (501 kg)			
120 in blade	1191 lb (540 kg)			
CLT w/16 in closed shoe	2880 lb (1306 kg)			
CELT w/16 in open shoe	2825 lb (1281 kg)			
CLT w/20 in closed shoe	3259 lb (1478 kg)			
CELT w/20 in open shoe	3204 lb (1453 kg)			
CLT w/27 in closed shoe	3916 lb (1776 kg)			
CELT w/27 in open shoe	3861 lb (1751 kg)			



DIMENSIONS

	Long Track (LT)	Long Track (LT, WT)	Wide Track (WT)	Low Ground Pressure (LGP)
BLADES				
Blade width	90 in (2286 mm)	96 in (2438 mm)	112 in (2845 mm)	120 in (3048 mm)
SAE blade capacity	1.58 yd³ (1.21 m³)	1.69 yd³ (1.29 m³)	2 yd³ (1.53 m³)	2.15 yd³ (1.64 m³)
A. Blade lift above ground	33.6 in (853 mm)	33.6 in (853 mm)	33.6 in (853 mm)	33.6 in (853 mm)
B. Blade depth below ground	20.9 in (531 mm)	20.9 in (531 mm)	20.9 in (531 mm)	20.9 in (531 mm)
Blade angle both directions	25°	25°	25°	25°
Blade tilt, each end (up to 9°)	14.2 in (361 mm)	15.2 in (386 mm)	17.8 in (452 mm)	19.0 in (482 mm)
C. Blade height	33.1 in (841 mm)	33.1 in (841 mm)	33.1 in (841 mm)	33.1 in (841 mm)
D. Cast reach	11.2 in (284 mm)	13.9 in (353 mm)	13.2 in (335 mm)	13.3 in (338 mm)
E. Cut reach	-1.6 in (-41 mm)	1.1 in (28 mm)	0.3 in (7 mm)	0.5 in (13 mm)
TRACKS				
Track gauge	56 in (1.42 m)	56 in (1.42 m)	68 in (1.73 m)	68 in (1.73 m)
Shoe width	16 in (406 mm)	16 in (406 mm)	20 in (508 mm)	27 in (686 mm)
F. Track on ground (CELT)	84 in (2.12 m)	84 in (2.12 m)	84 in (2.12 m)	84 in (2.12 m)
Area of track on ground	2630 in² (1.70 m²)	2630 in² (1.70 m²)	3372 in² (2.18 m²)	4552 in² (2.94 m²)
Ground pressure	6.2 psi (42.6 kPa)	6.2 psi (42.6 kPa)	5.0 psi (34.4 kPa)	3.9 psi (26.6 kPa)
DIMENSIONS				
G. Height to top of ROPS	104.7 in (2639 mm)	104.7 in (2639 mm)	104.7 in (2639 mm)	104.7 in (2639 mm)
Height to top of cab with air conditioning	104.7 in (2639 mm)	104.7 in (2639 mm)	104.7 in (2639 mm)	104.7 in (2639 mm)
H. Ground clearance at drawbar	14.4 in (366 mm)	14.4 in (366 mm)	14.4 in (366 mm)	14.4 in (366 mm)
I. Length –				
Blade straight with drawbar	163.3 in (4149 mm)	163.3 in (4149 mm)	163.3 in (4149 mm)	163.3 in (4149 mm)
Blade straight with ripper	195.8 in (4973 mm)	195.8 in (4973 mm)	195.8 in (4973 mm)	195.8 in (4973 mm)
J. Width –				
Blade straight	90 in (2286 mm)	96 in (2438 mm)	112 in (2845 mm)	120 in (3048 mm)
Blade angled	83.7 in (2126 mm)	89.2 in (2265 mm)	103.7 in (2634 mm)	110.9 in (2819 mm)
K. Over track	72 in (1828 mm)	72 in (1828 mm)	88 in (2235 mm)	95 in (2413 mm)

STANDARD EQUIPMENT

OPERATOR'S COMPARTMENT

Isolation mounted ROPS/FOPS canopy with headliner and floormat

Vinyl suspension seat w/back adjustment & adjustable armrests

Retractable seat belt, 2 in (51 mm)

Foot rests

ENGINE

Case Family IV 445TA/EG7a diesel, Tier 3 certified EPA Family NHXL04.5DCB

Automatic fan belt tensioner

Integral engine oil cooling

Fuel filter

Dual element radial seal air cleaner

90 amp alternator

700 CCA 12-volt battery

Anti-sandblast radiator

Engine side panel

Anti-freeze to -34°F

Pusher fan

POWERTRAIN

Dual path infinitely variable, single-lever controlled hydrostatic drive with electronic straight tracking & counter-rotation, 4-position forward/reverse ratio control

Final drive – Triple reduction – helical gear/ planetary

Decelerator with hydrostatic drive retardation

Automatic spring applied parking brake

10 incremental speed settings - Operator preference settings for max speed, shuttle sensitivity and steering sensitivity

BLADE

52° - 60° variable pitch Single lever control for blade lift, angle and tilt 90 in (2.29 m) blade 650 L 96 in (2.44 m) blade 650 LT

UNDERCARRIAGE

Case lubricated track chain

Easy clean track covers

Hydraulic track adjusters

Permanently lubricated track and carrier rollers

Track adjuster guard

Track guides (front and rear)

OTHER

Anti-vandalism package

Backup alarm

Decelerator

Final drive seal guard

Hand throttle

Horn

Lights – halogen, 2 front, 1 rear for cab or ROPS

Master disconnect switch

Mirror

Operator's manual enclosure

O-ring face seal hydraulic fittings

Pre-cleaner

Vertical spin-on hydraulic/filters

Hydraulics - 3 spool valve

OPTIONAL EQUIPMENT

OPERATOR'S COMPARTMENT

Cab (w/heater, 22,700 BTU (6.65 kW)/hr air conditioner, defroster, front windshield washer and 2F-1R lights)

3 in (76 mm) seat belt

Deluxe air suspension seat

HYDRAULICS

4 spool hydraulic valve for field-installed ripper

REAR MOUNTED EQUIPMENT

Ripper, parallelogram 5 slots with 3 shanks

BLADES

112 in (2.85 m)

120 in (3.05 m)

GUARDS

Brush guards (Sweeps) Center rockguard

SCREENS

Rear ROPS and cab

Side ROPS

Radiator brush screen

OTHER

Case extended life track

Cold start aid (Grid Heater) with dual

12-volt battery

Counterweight, front

Drawbar

Fan, reversible

Front pull hook

OTHER (continued)

Lights – halogen, 2 front, 1 rear for cab or ROPS

Retrieval hitch

Special paint

Sprocket, relieved (LT w/CLT only)

Turbo precleaner

Winch drive PTO

Rear Wiper for cab

Lights w/o brush guard

Lights with brush guard

Diagnostics check fittings Environmental drains

Lift/Tow decals (Export)

CASE Customer Assistance 866-54-CASE6

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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