

**Link-Belt**  
EARTHMOVING • FORESTRY  
MATERIAL HANDLING EQUIPMENT

# 160Lx

Operating Weight: 36,200 lbs (16,400 kg)  
SAE Net Horsepower: 101 HP (75 kW)  
Bucket Range: .58 – 1.14 cu. yd. (.44 – .87 cu. m.)



## Designed for Durability and Performance...

### Smarter. Faster. Better.

**Inte-LX®** or **Intelligent LX** is the most advanced technology to date. Inte-LX® maximizes the balance between speed, power, and fuel efficiency. *Page 4*

### First Electronic Engine Control in an Excavator

This results in increased responsiveness to the job requirements; faster cycle times, increased fuel efficiency, cleaner and quieter. *Page 6*

### Reduced Maintenance and Extended Component Life

The Nephron® Filtration system means less wear and tear on the hydraulic components, reducing hydraulic system breakdowns and maintenance costs. *Page 8*

### Faster Cycle Times

A smarter more efficient hydraulic system uses dual pump flow, auto power swing and regenerative circuits for increased productivity. *Page 5*

### Anti-Theft System

To protect your investment, a password protected anti-theft system comes as standard equipment and can be activated at the users choice. *Page 4*

### Superior Serviceability

On-board diagnostics with memory and fewer hydraulic oil changes result in superior serviceability. *Page 8*

### Exceptional Travel Performance

High torque travel motors automatically shift to provide increased tractive effort when operating in difficult ground conditions. *Page 5*

### Maximized Operator Comfort

The industry's largest cab providing low noise, climate controlled heat and air conditioning, standard. *Page 3*

### Auto Power-Up

Auto power-up automatically increases system pressure by 9% to power through tough ground or when lifting a heavy load. *Page 4*

### Cleaner Side-Wall Cuts

With Auto Power-Swing, Inte-LX® automatically prioritizes swing torque when simultaneously working the swing and attachment. *Page 5*

### Low Ground Pressure and Exceptional Stability

LC undercarriage for low ground pressure and stability incorporates heavy-duty excavator style components. *Page 7*

### Long Life Pin and Bushing Design

Chrome pins and grease impregnated bushings at the boom foot and the boom to arm connection hold up to the torsional stresses at these key attachment points and reduce the greasing interval. *Page 7*

### Heavy Duty Boom and Arm

Built to handle powerful breakout forces, strong lifting capacities and the stresses of allied attachments. *Page 7*



# Operator's Control Station

## Large, Low Noise Cab Design

A wide cab design provides expanded leg and elbow room. **Six silicon filled isolation mounts** float the entire cab above the noise and vibration of an already quiet machine greatly reducing operator fatigue. Large entry door and access width makes entering and exiting the cab a breeze.

## Control Panel

Many machine function switches are concentrated in a panel in clear view and easy reach of the operator.

## Tilting Console and Sliding Seat

The seat slides independently of the control consoles to assure optimal joystick positions at all times.

The joysticks can be tilted to any of three settings, allowing the operator to work in the most comfortable position.



The entire platform can then be moved forward or backward for best foot pedal positioning.

## Panoramic Visibility

This cab provides more window space than ever. Even the sunroof is large. The Operator's "office with a view" has rear and side windows made of LEXAN® MARGUARD™. Standard vandal covers protect the safety glass front windows and stow on top when you're working.

## Informative LCD Monitor

Large size LCD Monitor displays graphically a wide range of operating information such as; engine temperature, hydraulic oil temperature, fuel level, travel speed, work mode and engine idle. Additional messages include system/machine warnings and service due messages in your choice of English and 13 other languages. Backlit illumination ensures displays are always readable – day and night.



## All Weather Visibility

With built-in washer and intermittent speed control, the wiper keeps your windshield clear, whatever the condition outside. The "rise-up" design takes the wiper arm and blade out of the line of sight when its not in use, plus lifts the blade from the cab surface so that it doesn't freeze to the cab in icy weather.

## Fresh Air Induction-Type Climate Control

LX provides exceptional heating/cooling capabilities with a climate control system that automatically regulates the temperature for the operator's comfort. Now with 6 vents, LX Series excavators provide exceptional air circulation for optimum operator comfort. Front-side air outlet and defroster ensure a comfortable operating environment while the open/close type rear window further improves the ventilation.



## Best Seat at the Site

The KAB 515 seat adjusts to your size and comfort. The semi-bucket seat provides firm support and comfort with armrests, adjustable seat suspension, adjustable lumbar support, and durable urethane cushions.

## Tripmeter

In addition to the hour meter, LX has added a Tripmeter. Every job or application can be measured.

## AM/FM Stereo Radio

Standard equipment.

## Emergency Escape Window

Allows operator to escape from the rear window in case of emergency.

## Inte-LX®

Inte-LX®, the intelligent computer command control system monitors hydraulic output, pressures, and regulates engine performance for the maximum balance between speed, power and fuel efficiency needed to handle the job.

### Auto Power-Up

The LX series can quickly respond to changes in operating conditions, automatically supplying a power increase, without operator interaction and regardless of the work mode. Hydraulic pressure sensors detect resistance and pressure is increased by 9% for 8 seconds. Auto Power-Up stays on 100% of the time in the "L" mode.

### Anti-Theft Device

Your Link-Belt distributor can set up your Inte-LX® control system to include a password protection feature that requires the password to start and run the machine.

### One-Touch and Auto Idle Control

When user-preset time has elapsed after leaving the control handles in the neutral position, auto-idling automatically drops the engine to idle speed (1000 rpm). Or, you can choose to use the one-touch idling switch, located at the top of the right controller so that you are always in control.



### Operating Modes

The LX series enables the operator to have a choice on how the machine is operated. Simply choose the work mode that matches the machine's output to the job application. Five operating modes are available.

#### A: Auto-Mode

The most revolutionary approach to maximizing power & fuel efficiency available today. Just select the Auto-Mode with the switch panel. Using actual working pressure readings, Inte-LX® instantly changes modes assuring the best combination of speed and power while you can stay focused on the work at hand.

#### H: Heavy Mode

For heavy excavation or whenever you need extra power.

#### S: Standard Mode

For standard digging and loading operations reducing fuel consumption.

#### L: Lift Mode

For lifting and other operations that need fingertip accuracy.



### Allied Attachment Work Mode

Automatically adjusts engine speed and pump output to match additional attachments such as hammers. The engine rpm's are presettable to match the hydraulic requirements.

### On-Board Diagnostics

An on-board diagnostic system allows service personnel to quickly analyze up to 148 items in four categories;

- **Machine Status:** The diagnostic system provides a detailed view of pump pressure, engine rpm, water temperature, oil temperature, fuel temperature, throttle setting and ongoing operating functions such as auto power-up and auto-mode.
- **Troubleshooting:** Service personnel can trace electrical faults such as sensor failures and harness damage.
- **History:** An on-going record of machine faults is stored in the computer including the hour meter reading at time of the fault to assist in the diagnostics procedure.
- **Systems Configuration:** Service personnel can change machine operating characteristics such as; time delay for auto-idle, language selection, and engine rpm preset for allied attachment mode.

# Performance

## Advanced Hydraulic System

### Top-of-the-Class Cycle Times/Fuel Efficient

The LX Series hydraulic system efficiently delivers power, speed and control when and where it's needed. **Fuel consumption and cycle times are more efficient** in 90° swing/dump operations over conventional models. This is accomplished through reducing system pressure loss, re-using return oil and providing double pump flow during key operations.

## Regeneration System

By re-using the returning oil from the arm and the boom, ground excavating operation speed is increased.

## Two Hydraulic Return Lines

Two hydraulic returns lines mean faster speed in the system, and reduces back pressure build-up.

## 2 Speed Boom and Arm

The 2-speed boom lifting and arm opening and closing function provides the LX series with top-of-its-class lifting speed especially in swing/excavating simultaneous operations such as truck loading.

## Auto Power-Swing

This patent pending design incorporates a selector valve that helps maintain attachment and hydraulic flow to achieve excellent swing and digging forces in side wall-cut operations. In normal digging when side pressure is not needed, LX sends all the flow to the attachment always insuring the best performance for either operation.

## Cushioned Swing

This built-in special cushion valve greatly reduces the shock and vibration at the end of each swing cycle.

## Cushioned Attachment Control

In addition to having cushioned cylinders, selectable cushioned attachment control lets you smooth out the attachment movements. A cushion valve in the boom and arm circuits reduce shock loading and vibration during attachment operation.

## Free Swing

Allows the operator to disengage the swing brake providing crane-like precision and control when handling loads.

## Automatic Speed Shifting

When operating in difficult travel conditions, the travel motor automatically downshifts from high to low speed for increased tractive effort and then automatically returns to high speed when travel conditions permit.

## Fuel Tank Capacity

The LX Series fuel tank provides the capacity to reduce refueling frequency, allowing for an extended work day.



## Dependable Isuzu Power

### First In Class

The 160 LX is the first excavator in its class to utilize an electronic engine control function. By optimizing the level of fuel injection to match the load, this responsive new system assures more efficient use of fuel, plus by keeping the engine closer to the target engine speed, less lugging takes place so cycle times are faster, exhaust noise, vibration, and smoke are reduced making the environment in the cab and around the machine cleaner and quieter.

### Electronic Engine Control (EEC)

Inte-LX® maintains engine rpm's when load demands change. Engines equipped with mechanical governors spike rpm's up-and-down when operating loads increase and decrease. This phenomena causes engines to consume extra fuel and be louder.

### Tier II Compliant

LX engines have already met 2003 EPA standards requirements.

### Idle Start

At start-up, the engine defaults to idle regardless of throttle position. This prevents over revving a cold engine, helping to extend its service life.

### Low Idle Up

When low temperatures or other conditions reduce engine rpm to a point that alternator output won't keep the battery charged, Inte-LX® automatically increases the idle speed from 1000 to 1100 rpm keeping the batteries fully charged.

### Auto Engine Warm-Up

If the engine temperature is low following start-up, the auto warm-up system will operate automatically and continue with engine speed increasing gradually until normal engine operating temperatures are reached.

### Air Filtration

LX Series engines are equipped with a dual element air filter with an evacuator cup, a restriction indicator and ground line serviceability for ease of maintenance.

### Cooling Package

This engine runs exceptionally cool because of the large radiator and oil cooler capacity. The high-efficiency cooling fan reduces air noise for quieter operation as well.

### Larger Muffler

The LX series features a larger muffler which absorbs more sound and makes this the quietest Link-Belt yet.

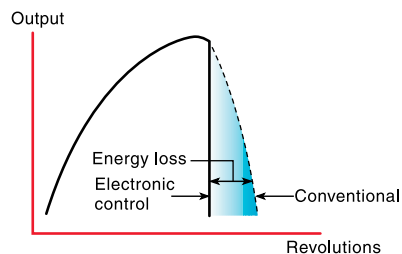
### Emergency Engine Shutdown

In emergency situations, the engine can be shut down with the push of a switch located on the control panel in the cab. This switch must be re-engaged prior to restarting the engine.

### Engine Product Support

Isuzu North America offers 24-hour access to their full line of engine parts through 2 regional distribution centers, 27 Master Distributors and 690 Authorized Service Dealers.

## Advantages of EEC



*Maintaining engine revolution at a fixed rate regardless of the load prevents the energy loss that occurs when shifting cycle times to accommodate higher or lower loads.*

### Low Fuel Consumption

The electronic governor responds to changes in operating loads quicker than a mechanical governor. As a result, EEC regulates the amount of fuel injection accurately and quickly.

### Lower, Cleaner Emissions

Low fuel consumption results in high ignition efficiency (cleaner emission) and low emissions.

### Low Sound Levels

At high idle, EEC can control engine speed rpm at rated horsepower. This means the engine doesn't overrun, resulting in lower sound levels.

### Low Vibration

EEC causes engine rpm to be stable, resulting in low vibration.