

Link-Belt[®]

C R A N E S

PREFERRED TECHNICIAN TRAINING
CUSTOMER TECHNICIAN TRAINING





A message from Link-Belt

Welcome to Link-Belt Training. We are committed to providing quality training experiences.

Our goal is to provide the necessary skills, knowledge and abilities to Link-Belt crane service personnel, so that they can perform their job effectively and efficiently. To accomplish this goal, we provide online training resources and classroom courses with hands-on troubleshooting scenarios.

The dedicated training staff here at Link-Belt strives to ensure that you have the most effective and enjoyable learning experience as possible. Our students can expect a comfortable training atmosphere with our knowledgeable instructional staff, access to modern Link-Belt crane models, quality accommodations and our Kentucky hospitality.

We look forward to seeing you in class and thank you for your interest in Link-Belt training.

Contact Information

Training Department
Phone: (859) 264-6285
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Link-Belt Cranes
Phone: (859) 263-5200
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www.linkbelt.com

Link-Belt Technician Training

The Link-Belt Preferred Technician Training program is provided to meet the needs of technicians who service Link-Belt cranes. Technicians who work for a company that owns at least one Link-Belt crane are eligible to enroll. Courses available include:

Preferred Technician Training:

- Level 1: Online Basic Training
- Level 2: General Knowledge & Skills
 - Telescopic RTC or Telescopic HTC Course
 - Large RTC Course
 - ATC Course
 - TCC Course
 - Lattice Course

Program Fee

There is a one-time administrative fee of \$537 per student to enroll in the Preferred Technician Training program. This enrollment fee covers the online training and all of the instructor-led training courses at the factory.

Program Completion

To complete the Preferred Technician Training program the technician must complete the following courses:

- Level 1.0 Online Training
- Level 2.0 Telescopic - RTC or Level 2.0 Telescopic - HTC
 - Level 2.1 Large RTC, Level 2.1 ATC **or** Level 2.1 TCC
- Level 2.0 Lattice

Program Registration

Enrollments into the Preferred Technician Training require approval through a Link-Belt Distributor. To enroll contact your local Link-Belt Distributor and provide the following information:

- Technician's Name
- Technician's Email Address
- Company Training Coordinator's Name
- Company Training Coordinator's Email Address

Upon enrollment into the program, students will receive an email with the details on how to begin the Level 1 online training.

Online Training Access

You must be enrolled in the Preferred Training Program to access the online training through our Link-Belt Preferred website.

www.Linkbelt.com

1. Click the "Sign in to Link-Belt Preferred" button on the lower left side of the main page.
2. Sign in with your user name and password.
3. Click the "Training" tab.
4. Click the "Online Training" menu option on the left hand side to access the online training system.

Note: Only people who are enrolled in the Preferred Technician Training can see the "Online Training" menu option.

Course Registration

Once the technician has completed the Level 1 online training, they can register for the instructor-led training held at the Link-Belt factory in Lexington, Kentucky. The course schedule is posted on the Link-Belt Preferred website "Training" tab.

To register for instructor-led training, a dealer training coordinator will need to complete the online enrollment request form on behalf of the technician.

Courses are confirmed 30 to 45 days in advance. Do not make travel arrangements before the course is confirmed due to the possibility of a cancellation.

Once the course is confirmed, the technician registered for the course and their training coordinator will be emailed a confirmation letter with class and hotel information.

Preferred Technician Training Program

Level 1.0

Online Basic Training

[Must complete, test-out or show proof of previous training before advancing to either path.]

Telescopic Path

Lattice Path

Level 2.0

RTC

{ Choose
1 or both }

Level 2.0

HTC

Level 2.0

Lattice

Level 2.1

Large RTC

Level 2.1

ATC

{ Choose
1 or all }

Level 2.1

TCC

{ Telescopic Path Complete }

{ Lattice Path Complete }

Program Complete

Program is complete when telescopic and lattice paths are both complete.
[For more Link-Belt training opportunities, please review the Additional Training section of this catalog.]

Level 1: Online Training

The first level of our technician training is taught through a series of online courses. The Level 1 courses help ensure that every technician that attends factory training has the same base of knowledge and is ready for the technical depth of our training courses. Technicians must pass or complete all the assigned on-line learning courses to complete Level 1. Once the Level 1 online courses are completed, the technician qualifies to register for the instructor-led training sessions at the Link-Belt factory in Lexington, Kentucky.

COURSE DESCRIPTIONS

Basic Electrical

Estimated completion time: 2 hours

- Ohm's Law
- Wiring and Symbols
- Introduction to Electrical Circuits
- Using a Multimeter

Basic Mechanical

Estimated completion time: 4 hours

Fundamentals of Mechanics

- Actuators
- Clutches
- Brakes
- Bearings
- Gears
- Belt/Chain Drives
- Couplings

Basic Hydraulics

Estimated completion time: 4 hours

- Introduction to Hydraulics
- Hydraulic Pumps
- Hydraulic Actuators
- Hydraulic Valves

Link-Belt Preferred Website Overview

Estimated Completion Time: 50 minutes

- Website Access
- Link-Belt Crane Catalog
- Distributor Search
- Link-Belt Company Information and News
- Sales and Parts Information
- Services
- Training
- Logo Gear
- Technical Manuals and Parts Search

Link-Belt Cranes General Lube and Maintenance

Estimated Completion Time: 30 minutes

- Link-Belt Crane Operator's Manual General Information
- General Lubrication Information
- Overview of Lubrication and Maintenance Charts

Crane Nomenclature

Estimated Completion Time: 60 minutes

Part 1 – The Basics

- Link-Belt Cranes
- Link-Belt Serial Numbers
- Terms for Sections of a Crane

Part 2 – Beyond the Basics

- Boom Types and Their Components
- Upper Components
- Carrier Components for Each Crane Type

Link-Belt Crane Operating Safety Series

Estimated Completion Time: 90 minutes

- Safety Decals and Captions
- General Safety Overview
- Working Near Power Lines
- Crane Safety
- Luffing Attachment Operation
- Personnel Handling Guidelines

Link-Belt Crane Rating Manual (CRM)

Estimated Completion Time: 30 minutes

- Overview of CRM Notes Section
- Overview of CRM Charts
- Utilizing the CRM Charts



Level 2: Factory Training

Level 2 technician training includes instructor led training held here at the Link-Belt factory in Lexington, KY. Level 2 consists of two distinct categories; telescopic cranes and lattice cranes. Within the telescopic category, there are two primary courses and three secondary courses. Technicians must complete one or both of the primary courses before they are eligible to enroll in the secondary courses.

LEVEL 2 COURSES:

Primary Courses (Your choice of one or both):

- Level 2.0 Telescopic - RTC
- Level 2.0 Telescopic - HTC

Secondary Courses (Your choice of one or all):

- Level 2.1 Telescopic Crawler Cranes
- Level 2.1 Large Rough Terrain Cranes
- Level 2.1 All Terrain Cranes

Primary Course:

- Level 2.0 Lattice

COURSE DESCRIPTIONS

Level 2.0 Telescopic - RTC or HTC

Class Size: Minimum 4/Maximum 8

Duration: 3 days

Prerequisite: Successful completion of Level 1.0 Online Training

Set-Up, operations, lubrication and maintenance of Link-Belt HTC and RTC product lines (100 ton and below). At the end of the course students will have an understanding of the electrical and hydraulic systems used in the Link-Belt telescopic product. Topics covered include:

- Machine Overview & Set-Up
- Fly Erection
- Hydraulics
- Electrical
- Full Power & Latching Booms
- RCL Navigation
- Troubleshooting

Level 2.1 Telescopic Crawler Cranes (TCC)

Class Size: Minimum 4/Maximum 8

Duration: 3 days

Prerequisite: Level 2.0 Telescopic - RTC or Level 2.0 Telescopic - HTC

This course focuses on the assembly/disassembly, hydraulic circuits and electrical circuits used on the TCC product line.

Topics covered include:

- Assembly/Disassembly
- Linde Pump Controllers
- IQAN Engine Display
- Hydraulic Systems
- Electrical Systems
- TCC Troubleshooting and Diagnostics

Level 2.1 Large Rough Terrain Cranes (RTC)

Class Size: Minimum 4/Maximum 8

Duration: 3 days

Prerequisite: Level 2.0 Telescopic - RTC or Level 2.0 Telescopic - HTC

This course focuses on the hydrostatic travel circuit, closed loop winch circuits and electronic control systems of the RTC-80110 II / 80130 II / 80150 II. Topics covered include:

- Hydrostatic Travel
- Suspension
- Closed Loop Winch Circuits
- Parker IQAN Control systems
- Linde DVC 10 Pump Control Module
- RTC Troubleshooting and Diagnostics

Level 2.1 All Terrain Cranes (ATC)

Class Size: Minimum 4/Maximum 8

Duration: 3 days

Prerequisite: Level 2.0 Telescopic - RTC or Level 2.0 Telescopic - HTC

Topics covered include:

- Hydraulic suspension/outriggers
- Rear steer
- ATC fly erection
- Closed loop winch circuits
- Parker IQAN control systems
- ATC troubleshooting and diagnostics



Level 2: Factory Training, Cont.

Level 2.0 Lattice

Class Size: Minimum 5/Maximum 12

Duration: 4.5 days

Prerequisite: Successful completion of Level 1.0 Online Training

This course focuses on H, HII, H5 and HSL lattice cranes. At the end of the course students will have an understanding of the mechanical, electrical and hydraulic systems used in the Link-Belt lattice product.

Topics covered include:

- Machine Overview & Set-up
- Machine Assembly/Disassembly
- Boom Assembly/Disassembly
- 2 Shoe Clutch Theory
- HYLAB Hydraulics
- HYLAB Electrical
- SML-10 Operations and Troubleshooting
- HSL Hydraulics
- HSL Electrical
- HSL Winch
- HSL-1 Operations and Troubleshooting
- Crane Rating Manual & Lift Concepts

Additional Training

Boom Inspection and Welding Course

Target Audience: Crane Technicians and Welders

Class Size: Minimum 4/Maximum 6

Duration: 4.5 days

Prerequisite: None

Materials Fee: \$250

The Boom Inspection and Welding class is intended to familiarize participants with inspection of telescopic box and formed boom, lattice boom, lattice jib and telescopic fly attachments. Participants are also given the opportunity for hands-on learning of proper welding techniques for lattice boom, jib and/or telescopic fly repair.

This class **does not** provide welding certification.

Topics covered include:

- Boom Repair Manual
- Lattice Boom Inspection
- Telescopic Boom Inspection
- Lattice Boom Repair/Welding

All Terrain Crane (ATC) Operator/Technician Orientation

Target Audience: Crane Owners/Crane Operators

Class Size: Minimum 5/Maximum 10

Duration: 2-3 days

Prerequisite: Company must be receiving an ATC.

The ATC class is intended to familiarize operators, oilers and technicians with carrier and upper operations and practices that are unique to Link-Belt ATC cranes. At the end of the course students should be able to properly set the crane up for a job, break the crane down and prepare it for travel after a job.

Topics covered include:

- Intarder Operation
- Suspension Operation
- Rear Steer Operation
- Outrigger Operation
- Crane Rating Manual Familiarization
- Latching Boom Familiarization
- Pulse Familiarization
- Electronic Crane Controls
- Fly Erection
- Emergency Mode Operation
- Engine Regeneration



Travel and Lodging

Traveling to Link-Belt

DRIVING

Link-Belt Cranes is located in Lexington, Kentucky. Drivers can get to Lexington via Interstate 75 from the north or south and Interstate 64 from the west or east.

FLYING

The Blue Grass Airport is located within Lexington and is serviced by Allegiant Air, American Airlines, Delta Air Lines, United Airlines and US Airways. For more information about the Blue Grass Airport please visit <http://www.bluegrassairport.com>.

LODGING IN LEXINGTON

Link-Belt has partnered with a local hotel to provide rooms for our students. The student's employer is responsible for the hotel cost. Link-Belt will contact the hotel to reserve rooms and send the confirmation number to each student.

TRANSPORTATION

Students are responsible for their own transportation while they are attending training. Link-Belt will provide a shuttle service for the class on evenings when hospitality events and dinners are scheduled.



Link-Belt Cranes

2651 Palumbo Drive

Lexington, Kentucky 40509

Training Phone: (859) 264-6285

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