**ELECTRIC CHAIN**

**LODESTAR**
1/8 to 3 ton
- Available with hook, lug, plain, geared or motorized trolley
- Adjustable limit switch
- Grease filled transmission
- Overload protection
- H4 duty rating
- Available in single, two, or variable speeds
- Metric Rated
- Lifetime warranty

**LODESTAR XL**
2 to 7 1/2 ton
- Forged ten pocket oblique-lay liftwheel
- Overload protection
- Adjustable limit switches
- Available in single, two, or variable speeds
- H4 Duty Rating
- Metric Rated
- Lifetime warranty

**POWERSTAR**
2 to 15 ton
- Rated H4, heavy duty
- Dual braking system
- Variable speed models available
- Wide range of lifting speeds
- Adjustable limit switches Metric rated
- Lifetime warranty

**VALUSTAR**
1/4 to 2 ton
- Overload protection
- Hook suspension standard
- Fully machined and heat treated gear train
- Metric rated
- One-year warranty

**SHOPSTAR**
250 to 1000 lbs.
- Single reeved units weigh less than 30 lbs.
- Lifting speeds up to 40 feet per minute
- H4 duty rated
- Metric rated
- Lifetime Warranty

**AIR CHAIN**

**AIRSTAR**
1/4 to 1 ton
- Limit lever prevents over-travel in both directions
- Spark-resistant models available
- Metric rated
- Lifetime warranty

**AIRSTAR 6**
1/2 to 3 ton
- Positive action, spring biased Weston-type load brake holds the load & provides exacting load spotting and control
- Spark-resistant models available
- Metric rated
- Lifetime warranty

**XL AIR**
2 to 7 1/2 ton
- Forged ten pocket oblique-lay liftwheel
- Overload protection
- Air actuated motor brake
- Spark resistant models
- Metric rated
- Lifetime Warranty

**TMM 140**
300 lbs.
- Weighs only 20 lbs.
- Handle-mounted pendant control for one-handed operation and load positioning
- Precise speed control for accurate load spotting
- Lifetime Warranty

**SHOPAIR**
250 to 1000 lbs.
- Lifting speeds up to 31 feet per minute
- Normal operating air pressure is 90 PSI
- Gear train is lifetime lubricated
- Metric rated
- Lifetime warranty
**The Industry Leader**

### Hand Chain

**CYCLONE**
- 1/4 to 10 ton
- Standard load limiter for overload protection
- Two-stage gear reduction with machined and hardened gears providing stable lifting and dependability
- Metric Rated
- Lifetime warranty

**HURRICANE 360°**
- 2 to 10 ton
- Handwheel cover rotates 360° for hoist operation in any direction to keep operator away from the load
- Standard overload limiter
- Metric rated

**622 SERIES**
- 1/2 to 10 ton
- Lightweight steel construction
- Weston-type load brake requires no lubrication
- Easy to install, even in tight quarters (low headroom)
- Metric rated

### Lever Hoist

**CYCLONE ARMY TYPE**
- 1/4 to 12 ton
- Low headroom models available
- Universal trolley wheels for flat or I-beam
- Overload limiter
- Metric rated
- Lifetime warranty

**602 - 603 SERIES**
- 550 to 1100 lbs.
- Overall length ~11”
- Free chaining feature serves to quickly attach the load
- Weston-type load brake
- Rubber hand grips for better comfort and security
- Metric Rated

**653 SERIES**
- 3/4 to 6 ton
- Impact resistant, stamped steel frame
- Simple one-handed, free chaining for fast load attachment
- All metal surfaces are plated for outdoor operation
- Metric Rated

### Puller

**PULLER**
- 3/4 to 6 ton
- Weather proof brake
- Optional overload device
- Metric Rated
- Lifetime warranty

**SHORT HANDLE PULLER**
- 3/4 to 3 ton
- Easy one-hand operation
- Optional load limiter device
- Lifetime brake disc
- Metric rated
- Lifetime warranty

### Specialty Hoist

**RIGGER LEVER HOIST**
- 3/4 to 1 1/2 ton
- Ratchet, driving pawl, and loading pawl for positive load control
- Metric Rated

**LOW HEADROOM CHAIN HOIST**
- 1 to 24 ton
- Worm gear driven for smooth, quiet, trouble-free operation
- Redundant limit switches for both upper and lower hook travel
- One year warranty

**ZEPHYR MANUAL HOIST**
- 1/2 to 25 ton
- Fast acting Weston style brake provides smooth, positive load handling
- Army type trolley hoist available
- Spark resistant models
- One year warranty
**ZEPHYR SWIVEL TRUCK**
1/4 to 6 ton
- Efficient on runways located close to walls
- Great from patented monorail, especially when required for use with switches, turntables and interlocks
- One year warranty

**ZEPHYR LOW HEADROOM**
1 1/2 to 24 ton
- Designed for limited head room applications
- Minimum distance from bottom of I-beam to hook only 6 1/4" for smallest capacities
- One year warranty

**SERIES 632**
1/4 to 3 ton
- Exclusive Dial-Fit collar quickly adapts trolley to wide range of beams and patented rails
- Lightweight
- Negotiates radius curves as tight as 7-10 inches
- Lifetime Warranty

**SERIES 633**
1/2 to 5 ton
- Frames connected by steel equalizer pin, secured by two nuts on each side
- Rugged steel side plates formed to include bumpers and trolley guards
- Fits wide range of beam applications

**CBT**
1/4 to 5 ton
- Plain and geared models available
- Wrap ground side plates
- Economical
- Metric rated
- Lifetime Warranty

**SERIES 84A**
1/2 to 25 ton
- Heavy duty steel side frames extend beyond the wheels to provide these trolleys with maximum strength, rigidity, and added protection for the trackwheels
- Available in both plain and geared versions

**RAILSTAR**
1/8 to 3 ton
- Lifetime lubricated double row ball bearings for high efficiency and low maintenance
- Four-button control station included for operating single hoist proportioned to 20 ft. lift

**TRACTOR DRIVE**
Up to 5 ton
- Monorail trolley track or twin unit synchronized drives available
- Squirrel cage motor with permanently lubricated bearings

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**WARNING**
Overloading and Improper use can result in injury
- Do not exceed working load limit, load rating, or capacity.
- Do not use to lift people or loads over people.
- Use only alloy chain and attachments overhead lifting.
- Read and follow all instruction.
Demag DR rope hoists
Versatile and fast – for load capacities up to 50 t
Efficiency and high operating reliability are clearly defined requirements to be met by state-of-the-art material flow, logistics and drive solutions. Demag Cranes & Components develops and manufactures innovative products for industrial drives, load handling and material flow applications for a wide variety of production and storage solutions. Products that guarantee minimised maintenance requirements thanks to low wear.

With expertise for materials handling components, cranes and hoists gained from almost 200 years of experience, Demag Cranes & Components supplies efficient product solutions and services to companies in all industries and to customers of all sizes. Demag Cranes & Components places priority on meeting customer needs, so that its products and services can be seamlessly integrated into the customer’s value creation process.
Demag DR rope hoists – high performance for tomorrow’s needs

Demag DR rope hoists meet all the requirements of state-of-the-art hoist units and give you the certainty of a secure long-term investment. Besides their particularly long service life, they also offer comprehensive standard features at an attractive price.

**Higher hoist speed for faster handling**
Most Demag DR rope hoist models have a lifting speed of at least 6 m/min with 4/1 reeving as standard.

**Higher availability for greater efficiency**
DR rope hoists are supplied with an increased FEM classification. The rope drive mechanism precisely meets FEM specifications, however, the gearbox service life is 20 percent longer. This means that there is 20 percent more time until the general overhaul is due when the safe working period has elapsed. The generous dimensioning of all components also ensures constant availability.

The modular rope hoist design facilitates simple and rapid maintenance and repair of individual components, thus cutting any downtime to a minimum.

In addition to the economic benefits, Demag DR rope hoists also provide a high level of safety for the operator and the load.

**Outstanding versatility**
Available in four basic designs, the right solution can be found for virtually any application with Demag DR rope hoists:
- GDR basic hoist
- FDR foot-mounted hoist
- EKDR monorail hoist
- ZKDR double-rail crab

Demag rope hoists move helicopters into position for maintenance.
Safety and efficiency down to the last detail

Low-vibration motor for quiet operation
- Optimised motor design for low-vibration, quiet operation
- 12/2-pole or 4-pole squirrel-cage motor with cylindrical rotor
- Thermal contacts to protect against overheating as standard
- IP 55 enclosure
- Pulse encoder to monitor the speed and direction of rotation as standard
- Duty factor higher than FEM classification

Fast acting brake
- Demag DC disk brake with brake release monitoring, minimum brake safety factor of 1.8
- Fast acting brake thanks to integrated electronic modules

Gearbox lubricated for life
- Three-stage helical gearbox with high endurance gearing and oil lubrication for the entire service life

Protective rope guide
- Rope guide made of tough plastic – reliable operation even in critical environments
- Smooth rope lead-in by means of hardened pressure rollers mounted on anti-friction bearings
- Inclined pull up to 4° without touching the rope guide

User-friendly bottom block
- Guard for improved safety – moving plastic elements protect the opening where the wire rope enters the bottom block
- Two handle recesses make it easier to handle and guide the bottom block
State-of-the-art electrical equipment
- Reliable internal signal transmission
- Electrical equipment completely of modular design
- Electrical enclosure with IP 55 protection
- Load spectrum recorder integrated in the controls to determine the remaining safe working period

Precision geared limit switch
- Automatic cut-off of the lifting and lowering motions in the limit positions
- Four contacts set for emergency cut-off in the upper and lower positions as standard
- Additional safety thanks to fast-to-slow cut-off
- Other functions, e.g. an operating limit switch, can also be set

Overload protection
- Electro-mechanical overload protection integrated in the rope retaining crosshead
- Evaluation by means of the central electronic unit which also specifies the partial load switching point for a measuring run at slow lifting speed
- Optional: electronic overload protection for summation when several hoists are used, load display and slack rope cut-off

Ergonomically optimised controls
- Cable-connected Demag DSE-10R control pendant
- For two-stage and stepless operation
- Control cable available in three lengths, each infinitely adjustable in length by 4 m or with 2 TY cable for extremely arduous applications
- Load display for use with electronic overload protection
- Demag DRC-10 radio control
- Tough hand-held transmitter with proportional push-buttons
- Frequency hopping for reliable radio signal transmission
- Bi-directional signal transmission
- Intelligent charging system
- Both control pendant switches fitted with a display for the load range and specific installation status information
- IrDA interface for direct data transfer with a laptop or PDA
GDR basic hoist – the optimum solution for plant engineering

- For individual installation in any design
- Four different mounting positions and four rope
  lead-off variants for versatile solutions
- Rope guide can be used for every rope lead-off position
- Can be attached on three sides (two attachment
  arrangements for size GDR 20)
- Additional electrical enclosure can be fitted
  to the hoist frame
- Load capacities up to 50 t

Load elevator precisely positioned by a Demag GDR basic hoist.

Attachment variants and rope lead-offs

Load bar operation
FDR foot hoist – the solution ready for installation in cranes

- Reeving parts for all common reeving arrangements are fitted to the hoist unit – enabling foot hoists to be integrated direct into prepared steel structures or special crabs
- Can be used in two mounting positions, each with one rope lead-off direction
- Can be attached on three sides
- Load capacities up to 50 t

Demag FDR foot hoists travelling on a semi-automatic circuit in a galvanising plant.
EKDR monorail hoist – the series travelling hoist for single-girder cranes

- Compact design with optimum approach dimensions
- Infinitely-variable cross-travel speeds for low sway and gentle positioning
- Cross-travel inverter and braking resistor integrated in the electrical enclosure to save space
- Load capacities up to 12.5 t

Two EKDR monorail hoists transporting aluminium profile sections in tandem operation.
EZDR double-rail crab – the series hoist for double-girder cranes

- Features as for EKDR monorail hoists
- 1,400/2,240/2,800 mm standard track dimensions, other track gauge dimensions possible
- Anti-derailment and lift-off protection for improved safety as standard
- Load capacities up to 50 t
Demag Service – always ready to help

Demag Cranes & Components offers you comprehensive and reliable service with its world-wide network of Demag expert service teams and Demag partners. They ensure the maximum possible availability and safety in your installation.

Rapid and reliable spare part supply
Customers all over the world are supplied with the required spare parts quickly and flexibly by Demag Cranes & Components and its service network.

Service systems: Demag IDAPSY
Demag Cranes & Components has developed an integrated service system for Demag DR rope hoists: Demag IDAPSY. IDAPSY stands for Inspection Diagnosis Application System.

Service system with a wide range of benefits:

- **Transparency**
  By recording utilisation of the installation, Demag IDAPSY facilitates predictive and plannable service to ensure a high level of availability.

- **Analysis**
  Recorded data provides an excellent basis for analysis, e.g. the load spectrum recorder can be read out and error messages can be called up for maintenance or repair purposes.

- **Efficiency**
  Maintenance work carried out in good time ensures that your installation is in optimum condition and increases overall efficiency.

Demag IDAPSY enables service work to be carried out more quickly. This means that your hoist is also ready for operation again even more quickly if service work has to be carried out.

Your individual service package
Demag Service and our Demag partners offer a comprehensive portfolio of services to ensure the lasting availability of your installation throughout its entire lifecycle:

- Recurring inspections according to relevant accident prevention regulations
- Inspection and maintenance
- Fault elimination both with and without on-call standby
- Service training for operators and maintenance engineers
Crane system data can be read out for predictive and scheduled service.
The size of the hoist is determined by:
- the load spectrum
- the average operating time
- the load capacity and
- the reeving arrangement

1. What are the operating conditions?
2. What is the specified safe working load?
3. To what height must the load be lifted?
4. What is the required lifting speed?
5. Do the loads need to be lifted and lowered with great accuracy?
6. Is horizontal load travel necessary?
7. How is the hoist to be controlled?

The group is determined from the operating time and load spectrum.

<table>
<thead>
<tr>
<th>Load spectrum</th>
<th>Average operating time per working day (h)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Light</td>
<td>2 – 4</td>
</tr>
<tr>
<td>2 Medium</td>
<td>1 – 2</td>
</tr>
<tr>
<td>3 Heavy</td>
<td>0.5 – 1</td>
</tr>
<tr>
<td>4 Very heavy</td>
<td>0.25 – 0.5</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Group of mechanisms</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Am</td>
<td>2 m</td>
</tr>
<tr>
<td>2 m</td>
<td>3 m</td>
</tr>
<tr>
<td>3 m</td>
<td>4 m</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>SWL (t)</th>
<th>Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>0.5</td>
<td>1</td>
</tr>
<tr>
<td>0.63</td>
<td>2</td>
</tr>
<tr>
<td>0.8</td>
<td>3</td>
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<tr>
<td>1</td>
<td>4</td>
</tr>
<tr>
<td>1.25</td>
<td>5</td>
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<tr>
<td>1.6</td>
<td>6</td>
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<tr>
<td>2</td>
<td>8</td>
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<tr>
<td>2.5</td>
<td>10</td>
</tr>
<tr>
<td>3.2</td>
<td>12.5</td>
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<tr>
<td>4</td>
<td>16</td>
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<tr>
<td>5</td>
<td>20</td>
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<tr>
<td>6.3</td>
<td>25</td>
</tr>
<tr>
<td>8</td>
<td>32</td>
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<tr>
<td>10</td>
<td>40</td>
</tr>
<tr>
<td>12.5</td>
<td>50</td>
</tr>
</tbody>
</table>

The average operating time per working day is estimated or calculated as follows:

\[
\text{Operating time/day} = \frac{2 \cdot \text{av. hook path} \cdot \text{no. of cycles/h} \cdot \text{working time/day}}{60 \cdot \text{liftnig speed}}
\]

For the “medium” load spectrum and an average daily operating time of 2.66 hours, the table shows FEM group 2 m. For a load capacity of 5 t and 4/1 rope reeving, the table indicates hoist size DR 5 - 5.

The load spectrum (estimated in most cases) can be ascertained in accordance with the following definitions:

- **1 Light**: Hoist units which are usually subject to very small loads and in exceptional cases only to maximum loads.
- **2 Medium**: Hoist units which are usually subject to small loads but rather often to maximum loads.
- **3 Heavy**: Hoist units which are usually subject to medium loads but frequently to maximum loads.
- **4 Very heavy**: Hoist units which are usually subject to maximum or almost maximum loads.
## Selection table

<table>
<thead>
<tr>
<th>Range</th>
<th>SWL</th>
<th>Hook path</th>
<th>Lifting speed</th>
<th>Group of mechanisms</th>
<th>SWL</th>
<th>Hook path</th>
<th>Lifting speed</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>t</td>
<td>m</td>
<td>m/min</td>
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<td>t</td>
<td>m</td>
<td>m/min</td>
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<tr>
<td>DR 3</td>
<td>1.6</td>
<td>2/1</td>
<td>12/2 18/3 1–25</td>
<td>2m / M5 **</td>
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<td>6/10</td>
<td>9/1.5 0.5–12.5 *</td>
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<tr>
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<td>1.25</td>
<td></td>
<td></td>
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<td>2.5</td>
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<tr>
<td></td>
<td>1</td>
<td></td>
<td></td>
<td>4m / M7 **</td>
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<td></td>
<td></td>
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<tr>
<td>DR 5</td>
<td>3.2</td>
<td>2/1</td>
<td>9/1.5 12/2 0.8–16</td>
<td>1Am / M4 **</td>
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<td>6/10</td>
<td>9/1.5 0.4–8 *</td>
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<td></td>
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<td></td>
<td>2m / M5 **</td>
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<td>3m / M6 **</td>
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<td></td>
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<td></td>
<td>4m / M7 **</td>
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<tr>
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<td>2/1</td>
<td>8/1.4 0.4–9 * 1–18</td>
<td>1Am / M4 **</td>
<td>12.5</td>
<td>6/10</td>
<td>0.2–4.5 * 0.5–9 *</td>
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<td></td>
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<td>2m / M5 **</td>
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<td>4m / M7 **</td>
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<td>6.3</td>
<td>2/1</td>
<td>8/1.4 0.4–9 * 1–18</td>
<td>1Am / M4 **</td>
<td>12.5</td>
<td>6/10</td>
<td>0.2–4.5 * 0.5–9 *</td>
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<td>3m / M6 **</td>
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<tr>
<td>DR 20</td>
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<td>6/1 12/2 1–16</td>
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<td>3/0.5 6/1 0.5–5 * 0.5–8 *</td>
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<td>2/1</td>
<td>6/1 12/2 1–16</td>
<td>1Am / M4 **</td>
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<td>4/0.7 0.3–3.3 * 0.3–5.3 *</td>
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<td>2m / M5</td>
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<td>8/2</td>
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<td>3/0.5 6/1 0.5–5 * 0.5–8</td>
<td>1Am / M4</td>
<td>50</td>
<td>3/0.5 0.3–2.5 * 0.2–4 *</td>
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<td>20</td>
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<td>2m / M5</td>
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<td>3m / M6</td>
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<td>12.5</td>
<td></td>
<td></td>
<td>4m / M7</td>
<td>25</td>
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</tr>
</tbody>
</table>

* Loads weighing up to one third of the rated load are moved at 1.5 times the rated speed (Prohub)

** Gearbox service life 20 % longer than the ISO/FEM full load service life
NER/ER Electric Chain Hoists with Hook and Lug Suspensions

We have added several new features and upgrades to our NER/ER Series of electric chain hoists. These improvements to our high quality, full-featured hoist include the latest technologies making these models absolutely the best electric chain hoists in the market today.

Features and Benefits

**UL® Listed**
Certified and listed to UL 1340 “Standard for Hoists.”

**Easy Access Suspension**
External pins allow for quick change from hook to lug for trolley mount configurations on most models.

**Green Initiative**
Built smarter without the use of harmful materials. Environmentally friendly. RoHS compliant.

**Notched Hook and Latch System**
Provides positive closing and improves resistance against lateral forces.

**Limit Switches**
Low-profile upper and lower limit switches are standard.

**Extended Chain Life**
Decreased chain wear as a result of a revolutionary heat treatment process, improved material and chain size.

**High Air Flow**
Cooler motor and brake attributed to an engineered motor fin, fan blade and fan cover design.

**Unique Load Sheave**
Increased number of pockets reduce chain vibration and increase chain life. 5 pockets standard; 6 pockets on smaller body hoists.

**Friction Clutch and Load Brake**
Friction clutch is standard on NER/ER models and friction clutch with mechanical load brake standard on ER models. Carbon friction material provides consistent performance over a wide temperature range.

**Standard Count Hour Meter**
Records and displays the number of lowering starts and hoist on time which is valuable for preventive maintenance. Integral to VFD on dual speed models.

**Contactors**
Mechanically interlocked, heavy-duty contactors on single speed models.

**High Strength, Corrosion and Wear Resistant Load Chain**
Grade 80, super strength, nickel-plated load chain, certified to DIN standards, uses unique technology to greatly increase resistance to fatigue and wear.

**Dual Speed VFD**
Under-the-cover VFD standard for dual speed hoists. Speed ratio is 6:1 with adjustability up to 12:1.

**“The Guardian”: Smart Brake Technology**
A current driven electromagnetic brake does not release unless the motor is energized. 10 year hoist brake warranty.

**Pendant Controls**
Ergonomic design for operator comfort. Red button emergency stop is standard on all 2-button dual speed pendants.

Standard Hoist Specifications

**Capacity Range**
NER/ER – 1/8 Ton – 5 Ton
(See page 30 for 8 – 20 Ton)

**Standard Voltage**
208-230 / 460-3-60
Optional voltages available
Dual speed models are not reconnectable

**Control Voltage**
110V (optional 24V)

**Duty Cycle**
Single Speed – 60 Min.
Dual Speed – 30/10 Min. with VFD

**Classification**
ASME H4
ISO M5 or M4
FEM 2M or 1Am

**Conformance**
UL 1340

**Ratings**
Hoist – IP55
Pendant – IP65

**Upper/Lower Limit Switch**
Overwinding / overlifting device
Standard on all models

**Chain Falls***
Single chain fall through 3 Ton

**Standard Lift**
10’ (longer lifts available)

**Standard Pendant Drop**
4’ less than lift (longer drops available)

**Standard Power Supply Length**
15’ (longer lengths available)

**Mounting**
Hook, lug or trolley

**Standard Pendants**
Single speed: 2-button (momentary contacts)
Dual speed: 2-button (momentary contacts) with emergency On/Off (maintained contacts)

**Chain Containers**
Optional
Canvas, plastic or steel

**Operating Conditions**
Recommended for -4°C to +104°F and humidity of 85% or less.

NER vs. ER Features

ER model has same high-quality features as NER plus the following:
• Second brake—Weston-style mechanical load brake

*See page 59 for additional information.
**Most models shipped with UL listing. Contact Customer Service for listed models.
***The 3 Ton (N)ER030L is the previous hoist model.
NERM/ERM Electric Chain Hoists
with Motorized Trolleys

The MR Series of electric trolleys further expand the capabilities of our NER/ER line of electric hoists. These trolleys feature an innovative side guide roller system that results in very smooth travel along the beam.

Features and Benefits

**UL® Listed**
Certified and listed to UL 1340 “Standard for Hoists.”

**Easy Access Suspension**
External pins allow for quick change from hook to lug for trolley mount configurations on most models.

**Perpendicular Orientation**
MR motorized trolley mount hoists are configured as perpendicular to the beam. Parallel mount is available as an option.

**Green Initiative**
Built smarter without the use of harmful materials. Environmentally friendly. RoHS compliant.

**Notched Hook and Latch System**
Provides positive closing and improves resistance against lateral forces.

**High Air Flow**
Cooler motor and brake attributed to an engineered motor fin, fan blade and fan cover design.

**Unique Load Sheave**
Increased number of pockets reduce chain vibration and increase chain life. 5 pockets standard; 6 pockets on smaller body hoists.

**Extended Chain Life**
Decreased chain wear as a result of a revolutionary heat treatment process, improved material and chain size.

**Limit Switches**
Low-profile upper and lower limit switches are standard.

**Contactors**
Mechanically interlocked, heavy-duty contactors on single speed models.

**Friction Clutch and Load Brake**
Fiction clutch is standard on NER/ER models and friction clutch with mechanical load brake standard on ER models. Carbon friction material provides consistent performance over a wide temperature range.

**High Strength, Corrosion and Wear Resistant Load Chain**
Grade 80, super strength, nickel-plated load chain, certified to DIN standards, uses unique technology to greatly increase resistance to fatigue and wear.

**Standard Count Hour Meter**
Records and displays the number of lowering starts and hoist on time which is valuable for preventive maintenance. Integral to VFD on dual speed models.

**Dual Speed VFD**
Under-the-cover VFD standard for dual speed hoists and trolleys. Speed ratio is 6:1 with adjustability up to 12:1.

**“The Guardian”: Smart Brake Technology**
A current driven electromagnetic brake does not release unless the motor is energized. 10 year hoist brake warranty.

**Pendant Controls**
Ergonomic design for operator comfort. Red button emergency stop is standard on all 4-button pendants.

Standard Motorized Trolley Specifications

**Capacity Range**
1/8 Ton – 5 Ton
(See page 34 for 8 – 20 Ton)

**Standard Voltage**
208-230/460-3-60
Optional voltages available
Dual speed models are not reconnectable

**Control Voltage**
110V (optional 24V)

**Duty Cycle**
Single Speed – 30 Min.
Dual Speed – 30/10 Min. with VFD

**Classification**
ASME H4
ISO M5 or M4
FEM 2M or 1Am

**Ratings**
Trolley – IP55
Pendant – IP65

**Standard Pendants**
4-button (momentary contacts) with emergency on/off (maintained contacts)

**Shafts**
Standard shafts fit wide flange range
Longer shafts for wider beams
Spacers for easy adjustments

**Drop Stops**
Standard

**Bumpers**
Standard

**Wheels**
All steel
Shielded ball bearings
Fit flat or tapered beam flange

**Standard Power Supply Length**
30’ (longer lengths available)

**Standard Pendant Drop**
4’ less than lift (longer drops available)

*See page 59 for additional information.
**Most models shipped with UL listing. Contact Customer Service for listed models.
The 3 Ton (N)ERM030L is the previous hoist model.
Mounting our NER/ER Series hoists to either a PT push or GT geared trolley will create an easy and economical method of transporting the load. This combination is ideal for small workshops and infrequent moves.

Features and Benefits

**UL® Listed**
Certified and listed to UL 1340 “Standard for Hoists.”

**Easy Access Suspension**
External pins allow for quick change from hook to lug for trolley mount configurations on most models.

**Perpendicular Orientation**
PT push trolley mount hoists are configured as perpendicular to the beam. Parallel mount is available as an option.

**Green Initiative**
Built smarter without the use of harmful materials. Environmentally friendly. RoHS compliant.

**Notched Hook and Latch System**
Provides positive closing and improves resistance against lateral forces.

**High Air Flow**
Cooler motor and brake attributed to an engineered motor fin, fan blade and fan cover design.

**Unique Load Sheave**
Increased number of pockets reduce chain vibration and increase chain life. 5 pockets standard; 6 pockets on smaller body hoists.

**Extended Chain Life**
Decreased chain wear as a result of a revolutionary heat treatment process, improved material and chain size.

**Limit Switches**
Low-profile upper and lower limit switches are standard.

**Contactors**
Mechanically interlocked, heavy-duty contactors on single speed models.

**Friction Clutch and Load Brake**
Friction clutch is standard on NER/ER models and friction clutch with mechanical load brake standard on ER models. Carbon friction material provides consistent performance over a wide temperature range.

**High Strength, Corrosion and Wear Resistant Load Chain**
Grade 80, super strength, nickel-plated load chain, certified to DIN standards, uses unique technology to greatly increase resistance to fatigue and wear.

**Standard Count Hour Meter**
Records and displays the number of lowering starts and hoist on time which is valuable for preventive maintenance. Integral to VFD on dual speed models.

**Dual Speed VFD**
Under-the-cover VFD standard for dual speed hoists. Speed ratio is 6:1 with adjustability up to 12:1.

**“The Guardian”: Smart Brake Technology**
A current driven electromagnetic brake does not release unless the motor is energized. 10 year hoist brake warranty.

**Pendant Controls**
Ergonomic design for operator comfort. Red button emergency stop is standard on all 2-button dual speed pendants.

Standard Trolley Specifications

**Capacity Range**
PT Push – 1/8 Ton – 5 Ton
GT Geared – 1/8 – 5 Ton
(See page 38 for 8 – 20 Ton)

**Shafts**
Standard shafts fit wide range
Longer shafts for wider beams
Spacers for easy adjustments

**Drop Stops**
Standard

**Bumpers**
Optional

**Standard Hand Chain Drop**
On geared trolleys
2’ less than lift
(longer drops available)

**Wheels**
All steel
Sealed ball bearings
Fit flat or tapered beam flange

**Standard Hoist Pendant Drop**
4’ less than lift
(longer drops available)

**Standard Hoist Power Supply Length**
15’ (longer lengths available)

**Standard Pendants**
Single speed: 2-button (momentary contacts)
Dual speed: 2-button (momentary contacts) with emergency On/Off (maintained contacts)

The 3 Ton (N)ERP030L and (N)ERG030L are the previous hoist models.
NER/ER Large Capacity Electric Chain Hoists
with Hook and Lug Suspensions

Large capacity lifting is now available in both our NER and ER models. Our three phase electric chain hoists provide the duty cycle, durability and ease of operation needed to support most heavy lifting applications.

Features and Benefits

UL® Listed**
Certified and listed to UL 1340 "Standard for Hoists."

Green Initiative
Built smarter without the use of harmful materials. Environmentally friendly. RoHS compliant.

Heavy-Duty Hook Latches
Standard

Limit Switches
Low-profile upper and lower limit switches are standard.

Extended Chain Life
Decreased chain wear as a result of a revolutionary heat treatment process, improved material and chain size.

Contactors
Mechanically interlocked, heavy-duty contactors on single speed models.

High Air Flow
Cooler motor and brake attributed to an engineered motor fin, fan blade and fan cover design.

Unique Load Sheave
Increased number of pockets reduce chain vibration and increase chain life. 5 pockets standard.

Friction Clutch and Load Brake
Friction clutch is standard on NER/ER models and friction clutch with mechanical load brake standard on ER models. Carbon friction material provides consistent performance over a wide temperature range.

Standard Count Hour Meter
Records and displays the number of lowering starts and hoist on time which is valuable for preventive maintenance. Integral to VFD on dual speed models.

High Strength, Corrosion and Wear Resistant Load Chain
Grade 80, super strength, nickel-plated load chain, certified to DIN standards, uses unique technology to greatly increase resistance to fatigue and wear.

Dual Speed VFD
Under-the-cover VFD standard for dual speed hoists. Speed ratio is 3:1 with adjustability up to 12:1.

“The Guardian”: Smart Brake Technology
A current driven electromagnetic brake does not release unless the motor is energized. 10 year hoist brake warranty.

Pendant Controls
Ergonomic design for operator comfort. Red button emergency stop is standard on all 2-button dual speed pendants.

Standard Hoist Specifications

Large Capacity Range
NER/ER 8 Ton – 20 Ton
(See page 8 for 1/8 – 5 Ton)

Standard Voltage
208-230/460-3-60
Optional voltages available
Dual speed models are not reconnectable

Control Voltage
110V (optional 24V)

Classification*
ASME H4
ISO M4
FEM 2M or 1Am

Conformance**
UL 1340

Duty Cycle*
Single Speed – 60 Min.
Dual Speed – 30/10 Min. with VFD

Ratings
Hoist – IP55
Pendant – IP65

Upper / Lower Limit Switch
Overwinding/overlifting device
Standard on all models

Standard Pendants
Single speed: 2-button (momentary contacts)
Dual speed: 2-button (momentary contacts) with emergency On/Off (maintained contacts)

Standard Lift
10’ (longer lifts available)

Standard Pendant Drop
4’ less than lift (longer drops available)

Standard Power Supply Length
30’ (longer lengths available)

Mounting
Hook, lug or trolley

Chain Containers
Optional
Canvas or steel

Operating Conditions
Recommended for -4˚ to +104˚ F and humidity of 85% or less.

NER vs. ER Features
ER model has same high-quality features as NER plus the following:
• Second brake—Weston-style mechanical load brake

*See page 59 for additional information.
**Most models shipped with UL listing. Contact Customer Service for listed models.
SNER Electric Chain Hoists
with Hook and Lug Suspensions and
Motorized, Push and Geared Trolleys

Our SNER Series of electric chain hoists furnishes single-phase operation in a heavy-duty, low-headroom design. Available in hook mount or coupled with a trolley, it easily transports any load. Look to this model when high quality and convenience are important for the job.

Features and Benefits

**Extreme Duty Motor**
Higher horsepower and top duty ratings provide increased performance.

**Pull-Rotor Motor Brake**
Extremely durable and reliable, this advanced design has no brake coil to fail.

**Unique Chain Guide**
Provides quiet and smooth guiding of chain. Easily removed without disassembly of hoist. Heavy cast iron construction for improved wear.

**Load Sheave**
Deep-groove pockets fully support the load chain, reduces vibration and chain wear and provides a true vertical lift.

**Long Life Friction Clutch**
Protects hoist from damage and prevents overwinding.

**Heat Treated Helical and Spur Gears**
Precision machined for long life. Oil bath lubrication results in a quiet, smooth, cool operation.

**Completely Sealed Body**
Suitable for indoor, outdoor and harsh environments.

**Compact Aluminum Body**
Die-cast body is lightweight and offers low headroom.

**Easy Maintenance Control Panel**
Fast on-site access with hinged cover, single swing-out panel and simple layout of controls.

**Superior Quality Chain**
Grade 80 nickel-plated load chain is heat treated for wear resistance and extended life.

**Forged Carbon Steel Hooks**
Under excessive loads will open gradually and not fracture. Bottom hook swivels 360 degrees.

**Motorized Trolley Side Guide Rollers**
Provide smooth trolley motion and reduced wear on wheels and beam.

**Motorized Trolley Drop Stops and Rubber Bumpers**
Built-in security for the operator and added protection for the equipment and load.

Standard Hoist/Trolley Specifications

<table>
<thead>
<tr>
<th>Capacity Range</th>
<th>1/4 Ton–3 Ton</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reconnectible Voltage</td>
<td>115/230-1-60</td>
</tr>
<tr>
<td>Control Voltage</td>
<td>110V</td>
</tr>
<tr>
<td>Duty Cycle*</td>
<td>Hoist—60 Min., Trolley—30 Min.</td>
</tr>
<tr>
<td>Classification*</td>
<td>ASME H4, ISO M5 or M4, FEM 2M or 1Am</td>
</tr>
<tr>
<td>Ratings</td>
<td>Hoist/Trolley—IP55, Pendant—IP65</td>
</tr>
<tr>
<td>Limit Switch</td>
<td>Prevents overwinding/overlifting Standard upper</td>
</tr>
<tr>
<td>Chain Falls</td>
<td>Single fall through 2 Ton</td>
</tr>
<tr>
<td>Standard Pendants</td>
<td>Hoist—2 Button, Hoist/Trolley—4 Button Momentary contacts</td>
</tr>
<tr>
<td>Chain Containers</td>
<td>Optional Canvas, plastic or steel</td>
</tr>
<tr>
<td>Geared Trolley Standard Hand Chain Drop</td>
<td>2’ less than lift (longer drops available)</td>
</tr>
<tr>
<td>Trolley Shafts</td>
<td>Standard shafts fit wide flange range</td>
</tr>
<tr>
<td>Trolley Wheels</td>
<td>All steel Shielded ball bearings Fit flat or tapered beam flange</td>
</tr>
</tbody>
</table>

*See page 59 for additional information.*
**LB Lever Hoist**

3/4, 1, 1 1/2, 2, 2 3/4, 3, 6, and 9 Ton capacity

The LB Series of lever hoists offers a low headroom, compact design that is perfect for use in tight quarters. Regarded as the best lever hoist in the industry, our LB is recommended for use in heavy-duty construction work, mining, manufacturing, shipbuilding and day-to-day maintenance and repair.

**Many Benefits From More Features:**
- Rugged, all-steel construction that actually weighs less than comparable aluminum models.
- Get positive braking action with Weston-style load brake incorporating two moisture-resistant brake pads with four braking surfaces. Includes two brake pawls for additional reliability.
- Enjoy protection against dirt and moisture with a totally enclosed brake mechanism.
- Ensure long life with machined, heat-treated, split load double reduction gears.
- Operate in close quarters with short steel handle and 15-degree recovery strokes.
- Patented spring-loaded freewheel mechanism permits easy adjustment of the load chain and safeguards against accidental freewheeling under load.
- Equipped with standard rubber grip for non-slip operation.

**Capabilities To Count On:**
- 5-foot lift is standard, 10-, 15- and 20-foot lifts also stocked; nonstandard lifts available as well.
- Grade 100 heat-treated load chain is nickel plated for corrosion resistance.
- Forged and heat-treated alloy steel hooks open slowly without fracturing under excessive loads. Top and bottom hooks rotate 360°.
- Test certificate verifies that every hoist has been factory load tested to 125% of rated capacity, in accordance with ASME B30.21 requirements.

**Options:** (See page 29)
- Load limit warning handle
- Top hook extender
- Point load hook
- Slip clutch
- Inspection hook
- Bullard® and Shur-Loc® hooks
CB Hand Chain Hoist
1/2 through 100 Ton capacity

Harrington CB hand chain hoists combine a rugged exterior shell with machined interior components to handle your most demanding lifting operations. An efficient drive train minimizes manual effort, while double enclosed brake cover, standard slip clutch, and double pawl springs enhance performance and reliability.

Many Benefits From More Features:
• Experience exceptional durability thanks to all-steel construction featuring rugged gear case enclosure and handwheel cover.
• Enjoy increased lifting height thanks to low headroom.
• Compact design results in lightweight and easy portability.
• Minimize manual effort thanks to efficient drive train.
• Standard slip clutch device prevents the hoist from being used to lift damaging loads beyond rated capacity.
• Double pawl springs provide redundancy for reliable operation of brake mechanism.
• Get reliable braking with double enclosed brake cover that keeps out dust, rain, and dirt.

Capabilities To Count On:
• 8-foot standard lift (12-foot for 10 Ton and greater), nonstandard lifts and hand chain drops are also available.
• Grade 100 heat-treated manganese alloy load chain resists abrasion and wear while minimizing chain weight.
• Forged and heat-treated alloy steel hooks are designed to open slowly, without fracturing under excessive loads.
• Test certificate verifies that every hoist has been factory load tested to 125% of rated capacity, in accordance with ASME B30.16 requirements.

Options: (See pages 28-29)
• Chain container
• Corrosion-resistant chain
• Inspection hook

CB Hand Chain Hoist
Harrington CF hand chain hoists give you a practical alternative thanks to an economical design using fewer parts for trouble-free service. Outstanding durability is due to a die-cast aluminum body and high-strength, heat-treated main pinion shaft and load gear. Pre-lubricated ball bearings, precision machined gears, and Weston-style load brake make lifting smooth and easy while allowing long service and low maintenance.

Many Benefits From More Features:
- Experience exceptional strength with a thick die-cast aluminum body.
- Handle tough demands with high-strength, heat-treated main pinion shaft and load gear.
- Get positive braking action with Weston-style load brake incorporating two moisture-resistant brake pads with four braking surfaces.
- Minimize manual effort thanks to smooth running, pre-lubricated ball bearings, and precision machined drive train components.
- Simplify maintenance with fewer parts and an easy-to-work-on design.

Capabilities To Count On:
- 10-foot lift is standard, 15- and 20-foot lifts are also stocked; nonstandard lifts and hand chain drops available as well.
- Grade 100 heat-treated manganese alloy load chain resists abrasion and wear while minimizing chain weight.
- Forged and heat-treated alloy steel hooks are designed to open slowly and not fracture under excessive loads.
- Test certificate verifies that every hoist has been factory load tested to 125% of rated capacity, in accordance with ASME B30.16 requirements.

Options: (See Pages 28-29)
- Chain container
- Corrosion-resistant chain
- Inspection hook
PT Push Trolley and GT Geared Trolley
Push trolley capacities from 1/2 through 10 Ton
Geared trolley capacities from 1/2 through 20 Ton

Harrington push and geared trolleys help you maneuver easily on your most demanding lifting operations. They feature specially designed contoured wheels that ensure reliable tracking, and their sealed ball bearings avoid maintenance hassles and provide smooth operation.

Many Benefits From More Features:
• Get sure trolley tracking with specially designed contoured wheels that fit both tapered and flat-flange beams.
• Maintenance-free, sealed precision ball bearings are lubed-for-life and offer smooth movement, with low friction and long life.
• Get strength and rigidity from a lightweight, compact design.
• Easily adjust trolley to fit a wide variety of beam flange widths.
• Load equalizing suspension distributes the load to all wheels.
• Wide standard flange ranges reduce the need for optional extended shaft kits.
• Match the needs of the job with a variety of trolley hoist suspenders.

Capabilities To Count On:
• Use the economical PT for applications involving longer traversing distances.
• Use the GT for precise load control and shorter traversing distances.
• 1/2 through 3 Ton are supplied with Suspenders C, which is suitable for most applications. Alternate suspenders may be required for your application—see trolley hoist suspenders on page 26.
• Geared trolleys of larger capacities are available. Please consult factory for details.