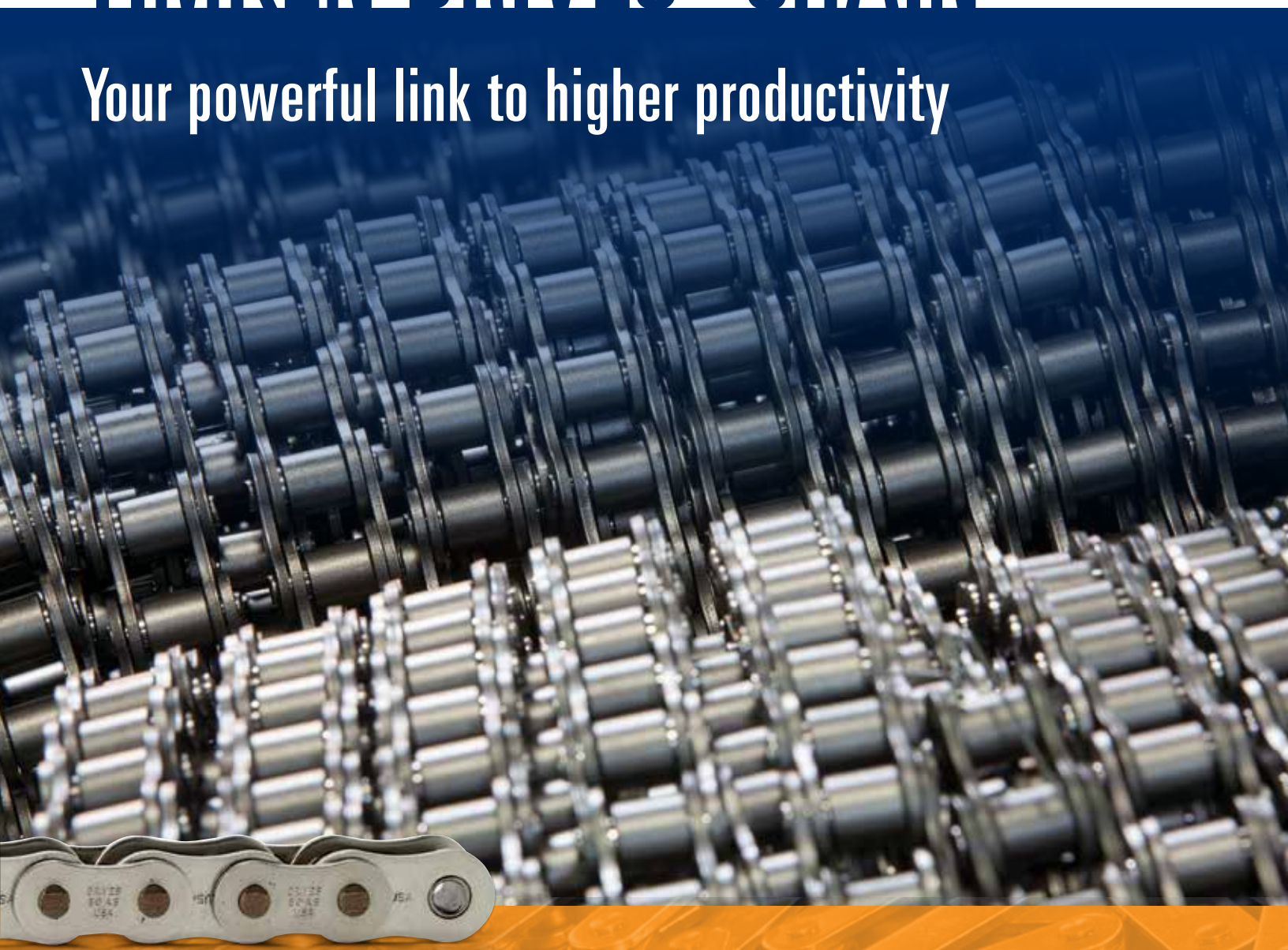
DRIVES®
CHAIN BY TIMKEN

MOVE FORWARD WITH TIMKEN DRIVES® CHAIN

Your powerful link to higher productivity



ENGINEERING SERVICES FROM THE CHAIN EXPERTS

When it comes to chain, our strength comes from both what we make and what we know. With their extensive experience, our engineers offer practical, real world insight, working with you to find the right product, solve current issues in the field and help avoid potential issues in the future. Specific services include:

- **Facility Surveys**: Conducted at your facility, our engineers take the time to understand your unique applications and suggest changes, maintenance techniques, handling procedures and products to help increase productivity, reduce downtime and lower your overall costs. The survey includes a report of the projected cost savings based on the suggested improvements.

- **Troubleshooting and Failure Analysis**: Send your chain with premature wear or damage to us, and we'll help you identify the root cause and offer solutions to prevent the problem from happening again.

TRAINING THAT EQUIPS YOUR TEAM

From chain basics and beyond, we provide the right training to maximize uptime. We show your team how to properly select, install and maintain chain, sharing the latest technology and time-tested processes, to get the most out of your investment. We offer a variety of training resources, and our experienced engineers tailor training sessions to your audience and deliver it at your site.

24/7 SUPPORT

When you choose Timken, you receive more than high-quality products: you gain a team of highly trained and experienced Timken representatives committed to working collaboratively with you to improve your business. This includes our dedicated after-hours support available by calling **1-866-290-9553**.



TIMKEN FACILITY SURVEY UNLOCKS $260,000 IN SAVINGS FOR BREWERY

Looking to improve uptime, a brewery tried Timken Drives® chain on one of its machines. When the Drives chain outperformed the existing chain, the brewery requested Timken engineers conduct a plant-wide survey to determine if their other equipment could benefit from Timken Drives products.

Timken engineers analyzed their equipment and current chain use. In many applications, they determined that switching from standard precision roller chain to Drives® Extended Life CHP® chain would greatly increase the replacement cycle. The brewery followed Timken's recommendations and switching to Extended Life CHP chain on just one carton erector provided 12 additional months of chain life and saved $260,000 a year.

PRECISION ROLLER CHAIN FOR TOUGH JOBS



Drives has an extensive range of long-lasting products to handle multiple applications – including industrial manufacturing, steel production, oil field, mining, food and beverage processing, and more. Drives chain meets ANSI/ASME standards. Our line of oil and gas chain meets the American Petroleum Institute's (API) 7F8 requirements.

- **WIDE WAIST LINK PLATES FOR ADDED STRENGTH**
  We manufacture the link plates of our 60H and larger, with a wide waist. For improved stress distribution, we ballize pitch holes by forcing a tungsten carbide ball through the pitch holes which increases the bearing area and press fits, improving fatigue life and working loads.

- **SHOT PEENED ROLLER AND LINK PLATES**
  Roller and link plates are shot peened for greater fatigue strength.

- **Precision Hole Quality Increases Fatigue Resistance and Pin Retention**
  After heat treatment, we impart residual compressive stresses to link plate pitch holes by pressing steel balls through the holes in a process called ballizing. This provides optimum bearing contact among mating pins, bushings and link plates. The ballized pitch hole surface finish increases both chain fatigue resistance and pin retention.

- **FACTORY PRELOADED TO WITHSTAND SHOCK LOADS**
  We preload our chain so that applications can withstand shock loads up to 50 percent of the chain's minimum ultimate tensile strength (MUTS) without premature elongation.

- **SPECIAL HOOK COTTER**
  We use a full hardened hook cotter to provide greater link plate support and up to twice the shear strength of conventional short split cotters.

- **PRE-LUBRICATED/HOT-DIP LUBRICATION FOR IMPROVED WEAR LIFE**
  After final assembly, we hot-dip the roller chains in a proprietary lubricant designed to penetrate and fully coat the bearing surface between pin and bushing. This process ensures that all the load-bearing surfaces are initially protected from metal-to-metal contact, improving the wear life of the chain.

- **SMOOTH ROTATION WITH SOLID ROLLERS**
  The solid roller allows for smooth rotation on the bushing, reducing the impact load as the chain engages the sprocket tooth.



CUT-TO-LENGTH CHAIN

Timken Drives offers a broad range of cut-to-length chain, so customers can purchase the exact length of roller chain required for each job. Above, Drives associate customizes an order for an Oil and Gas customer who required a cut to length API multi-strand of chain.



OIL AND GAS CHAIN FEATURES THESE ADDED BENEFITS:

- **Through-hardened pins**
  For protection from unpredictable overloads, we increase the fatigue strength of our pins by through-hardening and shot peening the metal.
- **Ballized pin plate, middle-bar and bushing –plate holes**
  To improve fatigue life and working loads, these processes increase precision tolerances and provide increased bearing area and press fits.
- **Full-hardened hook cotter**
  To improve stress distribution, increase fatigue strength, and reduce vibration, the hardened hook cotter is easily installed.
- **Coated high-shear t-pins**
  Coated "T" pins retain their position in the most extreme applications.

EXTENDED LIFE CHP® BUILT TOUGH TO HANDLE EXTREME JOBS

Engineered for three times the wear life of standard chain

CAN TRIPLE WEAR LIFE OVER CONVENTIONAL PREMIUM CHAINS

Timken Drives® Extended Life CHP® chain features chrome-hardened pins that provide an extremely hard surface to decrease the wear between the pin and bushing. This reduces chain elongation and can triple the wear life compared to conventional premium chains. Extended Life CHP chain directly interchanges with precision roller chain with no reduction in working loads. From dry, abrasive environments to elevated temperatures, Extended Life CHP chain provides outstanding wear and shockload performance.

We manufacture Extended Life CHP chain in single- and double-strand sizes 40 – 240.



ADDITIONAL OPTIONS INCLUDE:

- Corrosion-resistant finishes for side bars, bushings and rollers
- Full range of standard attachments.
- Multiple lubricants, including food grade and no-stain
- Riveted or cottered pins, depending on size





PROTECT WITH CORROSION RESISTANT CHAIN

STAINLESS STEEL CHAIN

We build our stainless steel chain to operate efficiently in environments that face corrosion and extreme temperatures. To meet the needs of your applications, we formulated three different material options:

- 600SS – Magnetic and designed for drive applications with high number of articulations. Hardened round parts provide up to a 50 percent higher working load and better wear life than 316/304 series, but feature less corrosion resistance.
- 304SS – Provides corrosion resistance at high temperatures and has low magnetism.
- 316SS – Offers a higher corrosion resistance than our 304 and 600 series chains and also operates more efficiently in extreme temperatures. Has very low magnetism.

SILVER SHIELD CR® CHAIN

Silver Shield CR®chain provides the strength of carbon steel chain and added corrosion resistance from a zinc-aluminum compound applied before assembly for complete, uniform protection. With three times more corrosion protection than our nickel-plated chain, it's one of the most suitable alternatives for applications that have had stainless as their only option. You also can order the product with chrome-hardened pins, helping increase wear life up to three times more than conventional premium chains. Please consult with a Timken Drives representative before making a change from stainless to Silver Shield CR® because there are some applications where stainless is the only option, such as when the chain is in direct contact with food.

NICKEL-PLATED CHAIN

Our nickel-plated carbon steel chain can resist rust from incidental exposure to water or water-based washdown operations. We achieve this by applying an electroless nickel plating to the component parts before assembly to cover any exposed carbon material.

SILVER SHIELD CR® CHAIN PERFORMS IN EXTREME CONDITIONS

Challenge: In the Northwest Territory of Canada, drilling rigs operate in extreme low temperatures. For the carbon steel roller chain used on these rigs, cold temperatures bring condensation and rust.

Solution: Timken Drives® Silver Shield CR® chain keeps this equipment running by combining the strength of carbon steel chain with a protective coating specifically designed for corrosion resistance in wet environments.

ENGINEERED CHAIN FOR SPECIALIZED APPLICATIONS

From custom Engineered Class drive chains to conveyor chains with attachments, our engineers will design the best chain for your application to keep your equipment operating.

FROM FOOD PROCESSING TO MINING, OUR LINE OF ENGINEERED CHAIN PROVIDES OPTIMAL PERFORMANCE FOR SPECIFIC APPLICATIONS.

AUTOMOTIVE
Caterpillar Drive Chain

AGRICULTURAL
Elevator Chain
Gathering Chain
Pintle Chain
Feederhouse Chain

MATERIAL HANDLING
Carbon Chain
Stacker Reclaimer Chain
Conveyor Chain

FOREST AND PAPER
Timber Processing Chain
81X Attachments
Wall Board Chain

METAL PROCESSING
Accumulator Chain
Metal Pin Transfer Chain

FOOD PROCESSING
Proofer Chain
Specialty Drive and Conveyor Chain
Oven Chain

MINING
Feeder Breaker Chain
Tram Chain
Reclaimer Chain

SUGAR MILL
Roller Conveyor Plain Chain
Main Cane Carrier Chain Bagasse Carrier ChainHarvester Chain

CEMENT MILL
Cement Plant Bucket
Elevator Chain









EZ CHAIN TOOLS DELIVER VALUE WITH VERSATILITY



EZ BREAKER™ CHAIN BREAKER

Make it easy on yourself the next time you need to break chain. With a simple pull of the handle, the compact Timken Drives EZ Breaker™ uses powerful cam-action to push both chain pins through the link plates. Using the easily interchangeable precision die sets, you can cut the following roller chain sizes:

- 35 through 100H
- 2040 through 2060H
- 40-2 through 80-2
- 550 through 557

No more grinding off pin heads. No more hammers and punches.



EZ CHAIN WEAR GAUGE®

Use the patented Timken Drives® EZ Chain Wear Gauge® to quickly check for worn chain. Simply slide the gauge between two roller links to the mark that corresponds with the size of the chain. If the gauge passes through the roller links, the chain is worn and needs to be replaced. It's a fast and efficient way to perform routine maintenance and prevent unexpected downtime. Choose from four sizes:

- Small: Checks chain sizes 35 – 100
- Large: Checks chain sizes 80 – 240
- British Standard: Checks chain sizes 06B to 24B
- Agricultural Sizes: Checks chain sizes CA550, CA550HD, CA555, CA557, CA960 and CA620

Gauges for single-sizes are available upon request.



EZ CHAIN RACK®

Make storing and cutting roller chain easy using the versatile Timken Drives® EZ Chain Rack®.

- Prevents chain from uncoiling with individual clutches on each station
- Holds up to two, 50-foot reels on each of its four stations
- Allows you to easily switch between chain sizes.
- Rotates in both directions

TIMKEN OFFERS A WIDE RANGE OF HOUSED UNITS THAT HANDLE DEMANDING HEAVY INDUSTRIAL OPERATIONS



SNT SPLIT PLUMMER BLOCKS
Customizable Solution,
Uptime Efficiency



SPHERICAL ROLLER BEARING SOLID-BLOCK HOUSED UNITS
Heavy-duty Protection,
High Performance



SAF PILLOW BLOCKS
Optimal Load Capacity,
Extended Service Life



TYPE E TAPERED ROLLER BEARING HOUSED UNITS
Improved Reliability,
Enhanced Performance



BALL BEARING HOUSED UNITS
Easy Installation,
A Wide Range of Options



UC-SERIES BALL BEARING HOUSED UNITS
Optimized Performance,
Industry Standard Configurations



REVOLVO SPLIT ROLLER BEARING HOUSED UNITS
Split to the Shaft for Faster Fitting, Reduced Downtime

INDUSTRIES AND APPLICATIONS

- Power Generation (Coal)
- Mining
- Aggregate/Cement
- Metal Mills
- Pulp & Paper/Sawmills/Forestry
- Water Treatment
- Food Processing
- Warehousing
- Movable Bridges/Structures
- Industrial Fans/Blowers



PREMIUM TIMKEN GREASES

- Extreme-pressure and antiwear additives, as well as corrosion inhibitors.
- Operates effectively in temperatures from -40°F to +300°F (-40°C to +149°C).
- Compatible with calcium- and lithium-thickened greases.
- Available for ongoing maintenance and lubrication needs.

CALL ON TIMKEN

For your nearest Timken sales representative, visit www.timken.com.

TIMKEN

The Timken team applies their know-how to improve the reliability and performance of machinery in diverse markets worldwide. The company designs, makes and markets high-performance mechanical components, including bearings, belts, chain, gears and related mechanical power transmission products and services.

Stronger. **Commitment.** Stronger. **Value.** Stronger. **Worldwide.** Stronger. **Together.** | **Stronger.** By Design.

www.timken.com

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