



CBU UPGRADES

Safe, Sound, Cost-Saving.



Barge Unloader Boom Replacement



Vintage Photo From Our Archive

Heyl & Patterson's Continuous Barge Unloaders have been a staple solution for companies demanding reliable, safe and versatile systems for bulk material handling. Our newest "upgrade release" elevates performance and efficiency levels even more by incorporating integral mechanical and electrical advancements that offer:

1. Extended component life and greater overall system longevity through progressive design and operating features.
2. Lower maintenance and downtime through more durable and readily available parts.
3. Economical delivery while increasing CBU viability and capacity—this series of machine improvements maximizes off-loading over a wide range of materials. All executed within the demanding quality and safety control that define our excellence, and deliver the production and reliability you expect.



Equalized Trolley Wheels

KEY MECHANICAL UPGRADES:

- Equalized trolley wheels.
- Buckets.
- Auto-lube system.
- Trolley rack rope take-up device ratchet.
- Boom flex nose flexible spring assembly.
- Return chute wear pads—higher abrasion levels.
- Tail and pivot shaft AP bearing.
- Pivot shaft take-ups.
- Trolley drive shaft.
- Chain rollers.
- Service crane.

Modified Mechanics

Working Better So It Lasts Longer

Worry-free and reliable...unloader integrity and dependability are essential to job productivity. Mechanically, we've refined a host of key operating elements to significantly enhance wear life and decrease time lost including:

Equalized Trolley Wheels—Reduces wheel loads by 50% uniformly, thereby reducing stress and promoting longer life.

Buckets—Stronger material that wears better...efficient product-specific designs.

Auto-Lube System—Lubricates more consistently and safely with "green" lubricants available that are environmentally acceptable, even over water.

Trolley Rack Rope Take-Up Device Ratchet—Redesigned.

Flex Nose Flexible Spring Assembly—Upgraded heavy-duty shock absorbing system.

Return Chute Wear Pads—Endure higher abrasion levels enabling longer life.

Tail and Pivot Shaft—With Timken heavy duty AP Bearings.

Pivot Shaft Take-Ups—Now available.

Trolley Drive Shaft—Revamped style to extend service performance.

Chain Rollers—Upgraded design, better sealed with rebuildable/replaceable components.

Service Crane Retro Fit—Enlarged to accommodate 10 to 15 ton capacity.

Drive Upgrade

- **Complete upgraded boom** replacement.
- **Replaceable tooth sprockets** change the teeth and not the whole sprocket. Teeth can be purchased separately.
- **Chain** greaseable or permanently greased design available.
- **Head shaft** design is improved in composition and profile.
- **Bucket drive gear case** upgrade, auto-lube on pinion/intermediate gears.
- **Drive pinion** support structures upgraded design.

Fortified Electronics

Energized for Economy and Efficiency

A collection of select electrical improvements—limiting maintenance, providing greater performance output, smoother operation and prolonging service life. These electrical upgrades can be supplied individually or as a complete electrical upgrade to help increase power and production efficiency, savings and safety results:

Control Upgrade—Featuring

- **Variable Frequency Drive [VFD]** increases life-span of electrical/mechanical components to dramatically extend motor operation.
- **Operator control** trimming of unloading speed.
- **Control Cab HMI** to monitor drive data.
- **Digital drives** in AC or DC combination.
- **Control upgrade.**
- **Digital signal processor** to coordinate each drive.

Fiber Optic Cabling—For motor drives.

Digital-Based Data Collection and Troubleshooting and Remote Monitoring—Intuitive software that automatically assesses and addresses system/machine alerts and errors.

Boom Hoist VFD

Trolley Auto Sweep Control

Barge Haul Control VFD

Positioner Stem Slack-Rope Switch

Disc Brakes—For Barge Haul, Trolley, Boom Hoist and Bucket Drive.

Closed-Circuit Monitoring/Historian—Problem tracking/performance evaluation through cameras that document operating conditions.



Electrical Upgrades



Drive With Disc Brake Option

KEY ELECTRICAL UPGRADES:

- Digital-based data collection and trouble-shooting and remote monitoring.
- Boom hoist VFD.
- Trolley traverse control.
- Barge haul control VFD.
- Disc brakes for barge haul, trolley, boom hoist and bucket drive.
- Closed-circuit monitoring.
- Drive upgrade.
- Control upgrade.
- Fiber optic cabling.



Safe and Secure

Minimizing Risks, Protecting Workers and Equipment

We work diligently to ensure the utmost protection measures are incorporated into everything we do. Namely: mechanical upgrades, drive upgrades, and control upgrades—all collectively work to safeguard against overall component failures, while shielding workers and equipment at optimum levels.

At Heyl & Patterson we've been pioneering solutions for the bulk material handling industry since 1887—let us go to work for you. Go with a name you trust, a name with experience. For further information view our website at www.heylpatterson.com or call today!



Mechanical and Electrical Upgrades