

BARNHART

Minds Over Matter

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2005 FIRST EDITION

A PUBLICATION OF BARNHART



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RIGGING INNOVATION SAVES PLANT DOWN TIME

One of Barnhart's long time customers requested assistance in changing out a 70,000 lb. economizer out of an operating unit. The challenge included process lines directly above the economizer that could not be removed allowing very little headroom. The new Barnhart engineered Tip Stick and a Demag 440-ton crane changed out the economizer from the side. This engineered solution saved the customer both down time and money.

350-TONS UP 350 FEET

Recently, Barnhart traveled to South Carolina to lift a 350-ton steam drum to an elevation of 350' at a new coal fired power plant. The drum was lifted at an angle for the first 300' to avoid multiple obstructions in route to the top of the structure. The lifting was performed with a pair of 450-ton strand jacks. Once at the top, the drum was moved horizontally 14' with Barnhart's Hydraulic Slide System and set on schedule.



BARNHART CREWS RELOCATE POWER PLANT TO MEMPHIS



At the end of 2004, Barnhart was contracted to provide turnkey relocation services to transport a 3-combustion power plant from New York to Barnhart's storage facilities in Memphis, TN. Barnhart provided the following services:

- Inventoried all plant equipment & prepared equipment for shipment
- Loaded & transported over 140 truck loads including multiple over dimensional and overweight loads requiring extensive route surveys, escorts & utility crews
- Due to rail restrictions, the 6 pieces of combustion equipment were loaded to barge with platform trailer and barged to Barnhart's Heavy Lift Terminal in Memphis
- Engineered and designed the new Pull Up Gantries to facilitate maximizing the deck space on the barge requiring one barge instead of two
- Developed & executed the cargo securement plan to comply with the ocean travel requirements of the marine insurance underwriter
- Received & inventoried all equipment upon arrival in Memphis
- Provided indoor, outdoor and covered storage as well as routine inspection and maintenance of the stored equipment at Barnhart's multiple Memphis locations





INNOVATIVE CALCINER REPLACEMENT

Barnhart traveled to Lake Charles, Louisiana to change out a Calciner weighing 180,000 lbs. in an area of a plant with restricted working room. The Calciner was framed in a small corner of the HPC building surrounded by platforms and structural steel. A central cable tray, that had to remain in service, provided additional problems. Barnhart provided an engineered solution. The unit was lifted off its supports from below with gantries and hydraulically slid out of the building to a waiting crane. The replacement was completed safely in one day for a satisfied customer.

METHOD FOR COMPRESSOR INSTALL BENEFITS SCHEDULE

The Hydraulic Slide System was employed to place three compressor units (240,000 lbs. each) on their respective foundations at a natural gas compressor station in Virginia. The Slide System permitted the customer to continue constructing the building around Barnhart's sliding and jacking operations. In addition to not hindering the customer's schedule, a smaller crane was utilized to set the partially assembled skids on to the Slide System. Finally, all three compressor skids were safely jacked down to their foundations.





BARNHART'S TIP STICK DEBUTS AT A HYDROELECTRIC PLANT

A common challenge in the rigging industry is the need to upend or down-end heavy over dimensional equipment. Such was the case at an Iowa hydroelectric plant during a recent turbine runner replacement. To change out the 100-ton runner, it was necessary to down-end the runner to clear through the door to travel across the dam. Barnhart designed the Tip Stick to be utilized with the facility's overhead crane specifically for this project. With the tip stick and some clever rigging, the runner was changed out safely in record time and for less cost than previous replacements.

TELESCOPIC BOOM CRANES

	MODEL NO.	BOOM
500 Ton Liebherr All-Terrain (2).....	LTM 1400	440'
440 Ton Demag Truck Crane (2).....	HC 1010	348'
300 Ton Demag All-Terrain.....	AC 665	389'
225 Ton Liebherr All-Terrain.....	LTM 1160	364'
210 Ton Krupp All-Terrain (2).....	GMK 5210	322'
180 Ton Demag All-Terrain (3).....	AC 435	262'
165 Ton Demag All-Terrain (3).....	AC 335	302'
150 Ton Demag All-Terrain (2).....	AC 395	253'
150 Ton Krupp All-Terrain (2).....	KMK 5100	227'
120 Ton Demag All-Terrain.....	AC 265	204'
110 Ton Liebherr (3)	LTM 1090	243'
110 Ton Krupp All-Terrain.....	KMK 5110	214'
100 Ton Demag All-Terrain (4).....	AC 205	219'
80 Ton Krupp All-Terrain (4)	KMK 4070	175'
80 Ton Grove RT (2).....	RT 990.....	206'
70 – 60 Ton Truck Crane (5) .....	.....	186'
50 – 30 Ton Grove Truck Crane (14) .....	.....	142'
22 Ton Grove All-Terrain/Truck (4).....	.....	113'
27 – 12 Ton Boom Truck (6) .....	.....	149'
17.5 – 8 Ton Carry Deck (7) .....	.....	37'

CRAWLER/RINGER CRANES

	MODEL NO.	BOOM
1800 Ton Demag with Ringlift	CC 4000	595'
880 Ton Demag Crawler with Superlift.....	CC 4000	550'
600 Ton Demag Crawler with Superlift.....	CC 2600	295'
500 Ton Demag Crawler	CC 2600	295'
440 Ton Demag Crawler with Superlift.....	CC 2000	435'
360 Ton Link-Belt Heavy Lift	LS 718 HL	480'
330 Ton Demag Crawler	CC 2000	433'
250 Ton Link-Belt Crawler Tower Crane (2)	LS 718.....	550'
250 Ton Link-Belt Crawler Crane (2).....	LS 718.....	450'

LATTICE BOOM TRUCK CRANES

	MODEL NO.	BOOM
800 Ton Demag Truck Crane with Superlift.....	TC 3000SL.....	496'
550 Ton Demag Truck Crane.....	TC 3000.....	496'
440 Ton Demag Truck Crane with Superlift.....	TC 1200 SL.....	472'
308 Ton Demag Truck Crane	TC 1200.....	472'
200 Ton Link-Belt Truck Crane	HC 258	370'
125 Ton Link-Belt Truck Crane (2).....	HC 238	300'

HEAVY LIFTING, MOVING & SLIDING

500 Ton Hydraulic Gantries (20)	Lift Towers to 1200 Tons
1000 Ton Sliding Systems (8)	2400 Ton Jacking System
Forklifts to 120,000 lbs. with hydraulic booms	Air Casters to 500 Tons
1800 Ton Strand Lift	

MARINE SERVICES

Memphis, TN - Heavy Lift Terminal with 1250 Ton Derrick Crane, Rail Service, Heavy Storage
 Mobile, AL - Heavy Cargo discharge and storage, RO-RO, Barge/Rail Loading Heavy Lift Services
 Decatur, AL - Barge Dock, Cranes to 500 Tons, RO-RO
 Pascagoula, MS - Heavy Cargo discharge and storage, Barge/Rail Loading, Heavy Lift Services

TRANSPORTATION SERVICES

Over 2000 Tons of Hydraulic Platform Trailer Capacity including SPMT
 Barge and Rail Loading and Securement
 Dolly Transporters to 1000 Tons
 48 State Heavy Haul, Stretch Trailers, Tank Trailer to 16' diameter
 Temporary Bridges to 152'
 Jumper Ramps 30'-152'

INTERNATIONAL SERVICES

The following can be shipped in standard containers:
 Lift Towers, Dolly Transporters, Gantries, Goldhofer Trailers, Sliding Systems,
 Barge Ramps, Temporary Bridges, Strand -Lift Systems

STORAGE CAPABILITIES

500,000 Square Feet of Indoor Warehousing
 Over 100 Acres of Outdoor Storage

**MULTIPLE BARNHART LOCATIONS**

1701 Dunn Ave • Memphis, TN 38106 • 901-775-3000 • 800-727-0149 • fax 901-775-2992
 731 Finley Island Road • Decatur, AL 35601 • 256-355-5531 • 800-830-4260 • fax 256-355-2091
 8216 Arch Street Pike • Little Rock, AR 72206 • 501-570-0700 • 800-543-2318 • fax 501-570-0304
 6033 155 South • Jackson, MS 39272 • 601-664-3005 • 800-394-8652 • fax 601-664-3077
 26374 Pollard Road • Daphne, AL 36526 • 251-654-0541 • 800-587-3249 • fax 251-654-0547
 100 Crane Lane • Oak Ridge, TN 37830 • 865-966-9786 • fax 865-966-9705
 938 E 4th Street • Richmond, VA 23224 • 804-233-9221 • fax 804-232-9141
 190 Smith Street • West Monroe, LA 71292 • 318-322-LIFT (5438) • fax 318-388-3808
 6875 Woolworth Road • Shreveport, LA 71129 • 318-687-4416 • fax 318-687-4421
 3115 N. State Route 23, Suite 1 • Ottawa, IL 61350-2107 • 815-431-0078 • fax 815-431-0776
 13402 South Freeway • Houston, TX 77047 • 713-433-6480 • fax 713-433-8214
 web page: www.barnhartcrane.com • e-mail: sales@barnhartcrane.com

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