

Mountain Crane Service

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www.mountaincrane.com

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July 2014

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Refined Rigging

Mountain Crane Service was recently featured in AC&T Magazine's <u>June issue</u>. In addition to the <u>original article</u> featured below, we were also thrilled to make the back cover.

AS THE OFT-USED ADAGE GOES, TIME IS MONEY. So when Chevron decided to replace the crude unit cold train in their Salt Lake City Refinery, they were extremely concerned about the potential for downtime. To mitigate this potential, they decided to fully construct the new cold train modules off-site and then to transport and hoist them into their final location. To save additional time, the demolition of the old cold



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train and setting of the new unit were scheduled to happen during a previously scheduled crude unit turnaround. Due to their expertise in lift planning



and refinery operation, Chevron selected Mountain Crane Service of Salt Lake City, Utah to execute all pre-lift planning, transportation and hoisting of the modules.

Planning

Mountain Crane started planning the

transportation and critical lifts over a year prior to the actual lifting of the new cold train modules. Under the direction of is Director of Engineering, Jared Belcher, Mountain Crane's engineering team created 3D models of the unit in CAD and used them to determine the parameters and constraints for the actual lifts. Jared explained: "The initial challenge in completing the project was selecting the right crane for

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014 2	013 C	OMPANYNAME	WEBSITE	CRANES	CRANES	CRANE	САРАСПУ	ACT INDEX
1	□1	Maxim Crane Works	www.maximcrane.com	1,901	274	Manitowoc 18000w/Maxer	825	401,198
2	_2	ALL Erection& CraneRental Corp. (Central, Dawes, Jeffers)	www.allcrane.com	2,040	370	Manitowoc 21000	1,000	183,650
3	3	Lampson Internationa	www.lampsoncrane.com	72	373	Lampson LTL-3000	3,000	121,318
4	4	Essex CraneRental Corp. (including Coast Crane)	www.essexrental.com	244	365	Manitowoc 888Ringer	661	96,221
5	_5	Mammoet North America	www.mammoet.com	414	92	Mammoet PTC 200DS	4,500	93,375
6	□6	Bigge Crane andRigging Co.	www.bigge.com	300	90	Liebherr LR1600	600	58,680
7	_7	TNT Crane&Rigging	www.tntcrane.com	455	20	Liebherr LTM 1/200/9.1	1,300	57,487
8	9	Deep South Crane&Rigging	www.deepsouthcrane.com	197	19	TC36000 VersaCrane	2,500	44,900
9	12	AmQuip CraneRental	www.amquip.com	425	48	Terex Demag CC3800	715	38,656
10	□11	Guay Inc.	www.gruesguay.com	439	28	Liebherr LTM 112009.1	1,500	38,319
11	1 0	NCSG Crane and Heavy Haul	www.ncsg.com	257	43	Liebherr LTM11200	1,440	34,437
12	□ 14	Buckner Heavy Lift Cranes	www.bucknercompanies.com	15	72	Liebherr LR 11000/P1300	1,434	31,903
13	_8	J.F. Lomma Inc.	www.jflommainc.com	166	71	Manitowoc 18000w/Maxer	826	31,720
14	13	Barnhart Crane&Rigging	www.barnhartcrane.com	223	19	Terex Demag CC4000RL	1,760	31,705
15	19	SarensNorth America	www.sarens.com	146	38	Terex Demag CC6800	1,250	28,537
16	15	Bragg Crane Service *	www.braggcrane.com	249	18	Manitowoc Grove GMK 7550	550	28,242
17	1 6	W.O. Grubb Inc.	www.wogrubb.com	198	49	Manitowoc Grove GMK 7550	550	24,514
18	18	Sims Crane and Equipment Co.	www.simscrane.com	200	31	Kobelco SL6000	600	24,270
19	1 7	Sterett Crane&Rigging	www.sterettcrane.com	128	32	Terex CC 2800-1	660	22,473
20	23	Scott-Macon Equipment	www.smequipment.com	418	67	Terex AC140	170	20,249
21	21	Marco Crane&Rigging	www.marcocrane.com	183	16	Manitowoc Grove GMK 7550w/Me	gawing 550	19,994
22	20	Imperial Crane Services	www.imperialcrane.com	225	15	Liebherr LTM1500-8.1	600	19,928
23	25	ENTREC Corporation	www.entrec.com	222	21	Manitowoc 2250w/Maxer	500	19,432
24	22	TheWalsh Group *	www.walshgroup.com	112	79	Manitowoc 2250	300	18,752.5
25	NEW	M-L Holdings (Crane Service,Marks and United Cr	www.mlholdingscranegroup.com	121	15	Grove GMK 7550 / Me, awing	550	17,936
26	29	Allegiance Crane& Equipment	www.allegiancecrane.com	132	10	Liebherr LTM1500	600	17.816
27		CraneRental Corp.	www.cranerentalcom	56	39	Manitowoc 18000w / Maxer	825	15.581
28	33	Mountain Crane Service	www.mountaincrane.com	71	18	Liebherr LR 1600/2	660	15,448
29	24	H&E Equipment Services*	www.he-equipment.com	399	0	Manitowoc Grove RT 9130	130	15,299
	31	Beyel Brothers Inc. *	www.beyel.com	123	24	Terex Demag AC 650	750	13,508
31	32	Stevenson Crane Service Inc.	www.stevensoncrane.com	113	26	Manitowoc 18000w/Maxer	826	13,381
32	27	Irving Equipment	www.irvingequipment.com	97	24	Liebherr LR 1750	825	12,770
	30	Bay Limited*	www.bayltd.com	147	14	Terex American 11320	450	12,323
	37	Dozier Crane& Machinery Inc.	www.doziercrane.com	62	46	Terex Demag AC 350/6	400	11,269
-	38	Ness & Campbell Crane Inc.	www.nessandcampbell.com	86	1	Liebherr LTM 1500-8.1	600	11,240
	35	Kelley Equipment Company	www.kelleyequipment.com	40	33	Manitowoc 2250w/ Maxer	500	11,100
37	34	Dielco Crane Service *	www.dielcocrane.com	71	12	Liebherr LR-1750	826	10,797
38	60	Ring Power Crane	www.ringpowercrane.com	105	12	Manitowoc 16000	440	10,631
20	36	The Clanbro Companies*	www.cianbro.com	76	46	Manitowoc 16000	440	10,516
	40	Mr. Crane/Inquipco	www.mrcrane.com/inquipco.com	72	11	Manitowoc 2250w/ Maxer	550	10,294
	□ 41	Barcelona Equipment	www.barcelonaequipment.com	41	36	Tadano ATF 400G-6	450	10,172
40	39	Laramie Enterprises Group+	www.laramiecrane.com	49	24	Terex Demag AC 1200	500	9,566
	NEW	Circle 8Cranes	www.circle8services.com	65	0	Manitowoc Grove GMK 7550	550	9,385

the job. Many cranes have the capacity to make the lift, but very few could fit into the extremely tight working area inside of the crude unit. Mountain Crane's Manitowoc 2250 with MAXER-2000 fit the bill perfectly." During demolition the Manitowoc 2250 only had 2 feet of clearance on its tail swing to existing structures. After the demolition was complete the MAXER-2000 wagon was added changing the crane's capacity from 300 tons to 500 tons providing the capacity needed for hoisting the new modules. Mountain Crane's engineering team worked closely with Chevron to develop a 127-page lift plan that included nearly 50 3D drawings detailing all aspects of the rigging, module transportation, crane erection, demolition of the existing cold train unit, installation of the new cold train modules, and ground bearing pressures for all lifting scenarios.

Execution

After a year of planning, Mountain Crane transported the first new cold train module to the crude unit using its Goldhofer modular trailers. The modules were then rigged to Mountain Crane's Mani-



towoc 2250 with MAXER-2000. Mountain Crane's team designed over 21,000 pounds of rigging to allow for quick transitions between the different modules and varying numbers of picking points. After lifting the modules off of the Goldhofer trailers, the Manitowoc 2250 pivoted and tracked into the crude unit while suspending the modules over existing refinery structures. Due to expert planning



and precise performance, Mountain Crane was able to hoist all four modules into their permanent location exactly as planned. Mountain Crane Project Manager Tyler Poulson said: "It is very fulfilling to see over a year's worth of planning executed flawlessly by our operators." Mountain Crane helped Chevron and its other contractors successfully complete the construction of the new cold train unit during the previously scheduled crude unit turnaround, resulting in minimal downtime and maxi-

mum efficiency for the refinery.







Mountain Crane Service provides a variety of services across the Intermountain West including plant shutdowns, steel, pre-cast panels, heating and cooling units, transformers, pools and hot tubs, demolition, windturbines, and bridge girders, to name a few.

Heavy Haul service is also available.

Mountain Crane Service employees receive continual training through Operating Engineers Local 3 and have their CCO Certification.

Check out our website at <u>www.mountaincrane.com</u> for more information.



Utah's Largest Crane Fleet

load charts for each of our cranes are available online at www.mountaincrane.com/fleet



July Giveaway: WIN A WOODEN CRANE!





Made of all natural wood, this hand-crafted wooden crane is functional, complete with moving parts. Mountain Crane had these custom made, with only 10 in existence. The crane is a replicate of the Grove 30ton.

Dimensions: 28 1/2" x 7 3/4" x 8 1/2"

ENTER TO WIN!