OVERHEAD CRANE DIVISION

ENGINEERING AND PRODUCTION COPY

Spec.

Key 11/15

SOLD TO
Kaiser Engineers Div.
Kaiser Industries Corp.
300 Lakeside Drive
Oakland, California

SHIP TO
Kaiser Engineers
% Kaiser Steel Corp.
Fontana, California

Mark Eq. #J-33&

SPECIAL INSTRUCTIONS AND INFORMATION:

CUSTOMER ORDER NO.	PLEASE REFER TO OUR ORDER NO.
P.O. # 877K0087	CL-21778

DATE ENTERED	SHIPMENT	VIA	SERIAL NO.
11/10/66	Mar. 167	Best Way	CL-21778

PROPOSAL DATE	PROPOSAL NO.	F.O.B.	FREIGHT	SHIPPING WT.	DELIVERY TIME
9 /1/66	35803-B(Rev)	Norwalk	Incl.	118000#	

TERMS: See order

REPRESENTATIVE-DISTRICT	NO.	REPRESENTATIVE-DISTRICT	NO.	REPRESENTATIVE-DISTRICT	NO.	CUSTOMER NO.
S. F. Maurer -		L. A. - Kowalik				

QUAN.	CAPACITY	MOTORS	OVERHEAD TRAVELING CRANE TYPE	SPAN	CRANE TO BE ERECTED BY
1	50 TON	3	Industrial	71'0"	Purchaser

ENGINEERING DATA

TROLLEY	SPREAD 9'6"	TYPE W15/KHR	POWER SUPPLY 440 V A 3 PH 60 CYCLE		CLEARANCE SKETCH 5071	SERVICE Locomotive Repair	(IN) DOOR	
	MAIN HOIST CAPACITY 50	TYPE KHR	LIFT 30'0"	BRAKING Magnetorque	ROPE 12 PARTS	3/4" SIZE #9	477'-0" LG	
	AUX. HOIST CAPACITY	TYPE	LIFT	BRAKING	ROPE PARTS	SIZE	LG	

BRIDGE	TYPE PHR24	WHEELS 4	MATERIAL FSRT	GIRDERS Welded box	TR. RAIL 60#	OUTRIGGER None	FRONT PLATFORM Check. Stl.	REAR PLATFORM None
	CONTROL P&H full magnetic 5 step V.S. w/o time delays all motions (FLOOR)						ATTACHED TO (BRIDGE)	messenger

RUNWAY	LENGTH 125'0"	RAIL SIZE 105#	COLLECTORS Gravity C.I.	COND. SIZE Rail	FURNISHED BY Purch.	RAIL TO ROOF 8'2"	RAIL TO FLOOR 27'6"

ELECTRICAL DATA by Purch.

MOTION	SPEED	MOTOR DATA MFR	TYPE	FRAME	H.P.	R.P.M.	BRAKE	CONTROLLER DATA MFR	TYPE	RESISTORS	LIMIT SWITCH
M. HOIST	9	P&H	HEW	RX365	40	1200	CDR	P&H	PVA P.B.	CL162 NB/EW	DB
A. HOIST											
TROLLEY	75	P&H	HEW	RX284	7-1/2	900	None	P&H	PVA P.B.	CL162 NB/EW	
BRIDGE	100	P&H	HEW	RX326	15	900	CDR	P&H	PVA P.B.	CL162 NB/EW	

REMARKS

Two (2) coats of paint for indoor service finished in P&H hi-visibility yellow #437 throughout.

See attached addenda for detail features.

Purch. Dwgs. U00310.

P&H Sketch A

KHR - PHR E. T. K. N.

PRICING

QUAN. SHIPPED	
CRANE NO.	CL-21778
RUNWAY COND.	
ERECTION	
FREIGHT	XX
TOTAL	(Est.)

UNIT	MAIN HOIST	AUX. HOIST	TROLLEY	BRIDGE	OUR ORDER NO.
					CL 21778

FORM C-81

SCF-P&H-1035

PHM_Leek 02445

Addenda for Crane No. CL-21778

The following two part addenda constitutes a complete specification for one (1) 50 ton 3 motor push button operated electric overhead traveling crane to be designed and fabricated in accordance with P&H standards for industrial service. Crane will consist of a 1 motor, double girder 4 wheel bridge and a 2 motor top running trolley.

1. Motors:
P&H enclosed wound rotor crane motors with anti-friction bearings. Motors rated 30 minuted 75°C rise with Class "F" insulation.

2. Controls:
   a.) P&H PVA 5 step variable speed push button control with 2 time delays on all motions and suitable for floor operation. Hoist to be arranged for Magnetorque braking. Resistors will be Class 162 non breakable edgewound type. Panel enclosures will be NEMA 3, panels and resistors will be located on the front footwalk.

   b.) Provide I-beam messenger system to be located under the front footwalk, so push button station can be operated along the full length of the bridge. Mainline contactor will be included with start-stop buttons in the pendant station.

3. Brakes:
Both hoist and bridge motors will be equipped with P&H AISE rectified DC magnetic brakes. Brakes will be rated at 150% of full motor torque. No trolley brake required, however, we must provide for future installation.

4. Misc. Elec.:
   a.) Provide six (6) 1000 watt /Appleton lighting units for 110 volt operation, wired into start button circuit.
   b.) P&H type DB power circuit limit switch. (Youngstown type)
   c.) Provide siren on bridge with switch on push button station.
   d.) Mainline safety disconnect switch.

5. Bridge span conductors will be Insul-8 safety type between girders. Provide 150 amp. copper clad.

6. Mainline collector staff and shoes will be in accordance with Kaiser drawing #V-00310. Collector system will mate with Kaiser Engineers standard systems. **Coll. shoes complete to be furnished by Kaiser Steel & shipped to P&H for mounting.**

7. All wiring will be placed in rigid steel conduit, wherever possible, and wired in accordance with the National Electrical Code.

8. Push button floor operated, with messenger system.

9. Bridge will have a full length footwalk on the drive girder side with checker steel floor plate. Thirty inch work space in front of control panels and plywood lined truss hand railing is to be provided. Access ladder to be provided, one (1) on each end of crane. **Plywood panels opposite controls on footwalk to be applied by L. A. Plant.**

10. A guard will be provided between girders to prevent hoisting cables from coming in contact with the mainline conductors and the bridge span conductors.

11. Rail sweeps will be provided in front of the bridge wheels and the trolley wheels.

12. Crane will be provided with spring bumpers on all 4 corners of the bridge.

13. Spring type trolley chocks will limit the trolley travel on the bridge.

(over)

PHM_Leek 02389

14. All couplings will be furnished with removable guards. Couplings will be of the compression type except motor couplings which will be Fast flexible couplings.

15. Crane will be equipped with Alemite Industrial type lubrication fittings and a suitable grease gun will be provided. All gear case bearings will be oil lubricated.

16. All gearing, except the bridge truck gears will be enclosed in gear cases designed to retain lubricants. Gasketed construction will be employed and spring backed oil seals will be used wherever possible. The bridge truck gears will be suitably guarded.

17. Crane bridge will be conventional type furnished with a single type drive consisting of a plain motor connected by means of a flexible coupling to a self contained gear reduction unit located at the center of the bridge. Track wheels driven through gears pressed and keyed on their axles and pinions mounted in section of the line shaft.

18. One set of sepia drawings of all wearing parts same as furnished on CHL20960-1 should be included.

19. Crane will meet the Safety and Electrical Code requirements of the State of California, (except) clearance on bridge walkway of 30" okayed per Kaiser Engineers.

20. Provide safety latch on hook.

21. Crane will be assembled, wired and tested without load in our shops, after which it will be suitably match-marked and dismantled to the extent required for shipment. Machined surfaces will be suitably protected against corrosion. Erection, re-assembly and field wiring will be completed by the Purchaser.

PHM_Leek 02390

SAN FRANCISCO, CAL.

ATTENTION OF

C. Schafer & G. Mross
Crane Sales - Milw.

REFERRED TO	DATE	ACK.
Estimating	11/17	
Engineering	11/18	
Elec. Appli.	11/18	
Specification		
Crane Sales		

November 15, 1966

cc: Los Angeles - Kowalik
Los Angeles - Coyle

Subject: Kaiser Engineers Orders CL-21778 & CHL-21779
Gerry Mross' wire of 11/7/66

Gentlemen:

Mr. Fink of Kaiser Engineers is mailing directly to Gerry's attention Kaiser Engineers' drawing J-07080 showing the detail of the runway mainline collector conductor system. This drawing shows the relationships as indicated on the attached drawing information which went in with the original order. However, a bill of material now shows the sizes of the elements.

As on CHL-20960 and 61, the Kaiser Steel Fontana mill will ship the six collector shoes or necessary collector shoes to our Norwalk plant to be mounted on the collector staff by P&H during final assembly.

There has been some concern indicated by Kaiser Engineers regarding Cranes CL-20605 through 13 as regards changes in G, H, Y, and Z dimensions from the original approved prints to the certified clearance prints. These changes have made it difficult for them to cover certain parts of the runway that they were going to cover.

So that this does not happen on the locomotive shop job, Mr. Fink has asked that we submit to him revised clearance sketches for both Cranes CL-21778 and 9 as soon as possible. If it is possible that these drawings are ready for certification, send the certified prints.

Thank you very much.

Walt

Walt Maurer

WM/ps

PHM_Leek 02481

ENGINEERING AND PRODUCTION COPY

SOLD TO
Kaiser Steel
P.O. Box 217
Fontana, Calif. 92335

SHIP TO
Kaiser Steel Corp.
General Warehouse
Fontana, Calif.

SPECIAL INSTRUCTIONS AND INFORMATION:

CUSTOMER ORDER NO.	PLEASE REFER TO OUR ORDER NO.
F-89A5541	154532

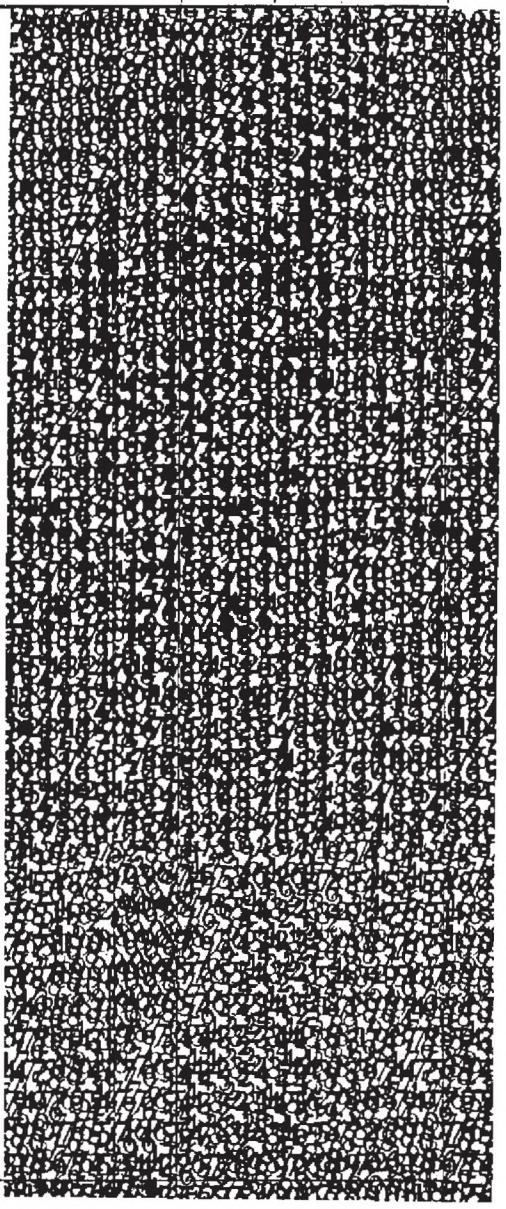
DATE ENTERED	SHIPMENT	VIA	SERIAL NO.
6/12/68	7/23/68	Best Way	CL-21778

PROPOSAL DATE	PROPOSAL NO.	F.O.B.	FREIGHT	SHIPPING WT.	DELIVERY TIME
1/4/68	---	Milwaukee,Wisconsin	Collect		

TERMS: Net 30 Days

REPRESENTATIVE-DISTRICT	NO.	REPRESENTATIVE-DISTRICT	NO.	REPRESENTATIVE-DISTRICT	NO.	CUSTOMER NO.
Kowalik - L.A.		Bender- L.A.	o/r			

DESCRIPTION	QUANTITY
Furnish the following to uprate trolley motion on CL-21778:	
1. 8CDR100 motor mtd. trolley brake complete w/wheel, rectifier & mounting bracket.	1
3 copies of parts books.	



FORM O-815

154532

Form 0-821