

1695

Adams Township, MI

FORM 27 R.C.B.CO.

ROBINS CONVEYING BELT CO.
NEW YORK-CHICAGO

INQUIRY NO. _____ SKETCH NO. 23472

ESTIMATE NO. _____ DATE August 5th 1915. S. O. NO. 24219

BALTIC MINING COMPANY

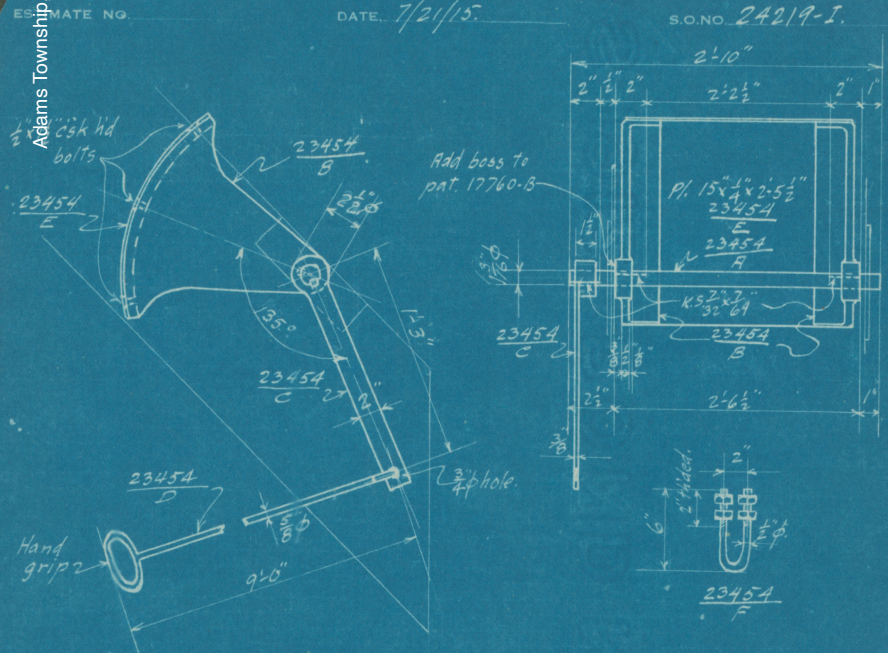
DRAWING LIST

DRAWING NUMBERS	TITLES.	DATE OF LAST REVISION.
L-5517	Arrangement & details of track hopper & Feeder casing.	
L-5518	General arrangement coal handling equipment.	
L-5519	Detail of Elevator casing.	
L-5559	Assembly of 5-ton weigh larry.	
L-5560	Steel details for frame of 5-ton weigh larry.	
M-4425	Detail of chute from crusher to elevator.	
M-4476	Details of gear guards.	
S-3868	Special Solid Box with Hyatt roller bearing.	
S-4057	Detail of roll feeder and drive.	
S-4063	Details of hopper for weigh larry.	
S-4065	Detail of worm support and casing for bevel gears.	
S-3866	Diagram of elevator showing location of bearing bolts.	
Sketches:		
23413	Detail of shafting for elevator.	
23434	Shaft outfits for weigh larry.	
23435	Short wheel shaft outfit for weigh larry.	
23445	Special cut off gate hub.	
23446	Gate operating shaft and lever.	
23454	Details of gate outfit for weigh larry.	
23468	Detail bolt list.	
23469	Summary Bolt list.	
CM-2243	Foundation Plan.	

Adams Township, MI

ROBINS CONVEYING BELT CO.
NEW YORK-CHICAGO

SKETCH NO. 23454.
S.O. NO. 24219-I.



BILL OF MATERIAL FOR ONE GATE OUTFIT. SYMBOL 23454

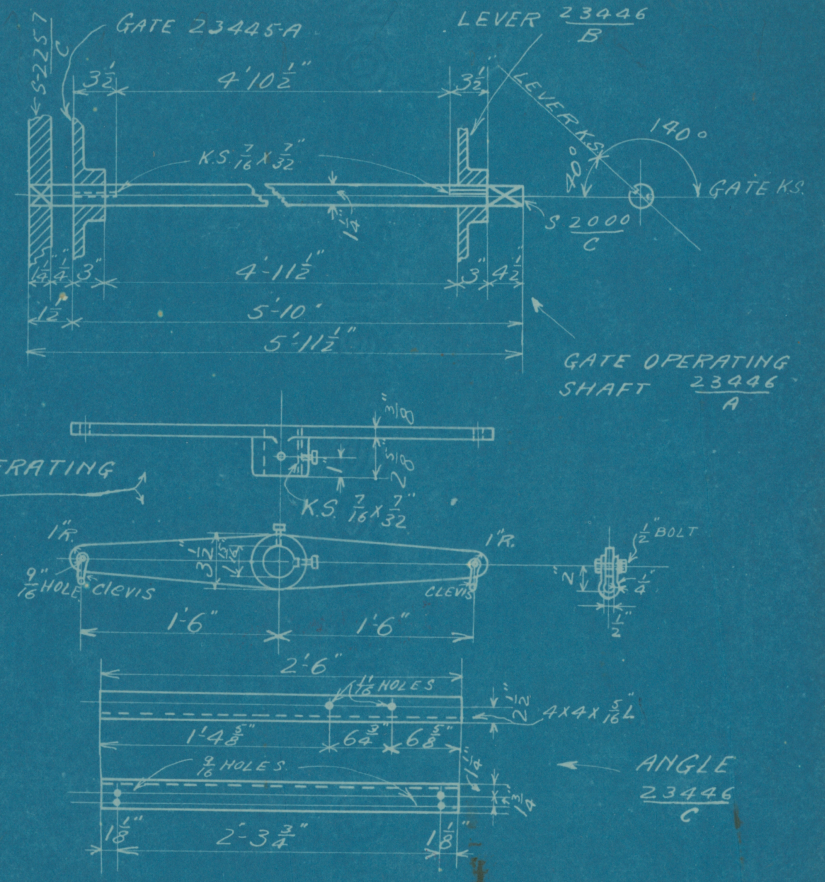
NO	SYMBOL.	NAME.	MATERIAL	REMARKS.
1	23454-A	Shaft.	C.R. Steel.	1 3/16" x 24". with 3 keys, 2 1/32" x 2 1/32" Taper 1/8" in 12"
2	23454-B	Gate Castings.	Cast Iron.	1 1/16" Bore. K.S. 7/32" x 24" Taper 1/8" in 12". Use pat. 17760-B
1	23454-C	Lever	Woot Iron.	1 1/16" Bore. K.S. 7/32" x 24". Taper 1/8" in 12"
1	23454-D	Hand Rod	Woot Iron.	5/8" φ x 9'-0" L.
1	23454-E	Plate.	Steel.	15 x 1/4 x 2-5 1/2". Punch 3 csk holes to suit castings.
6		Bolts.		1/2" φ x 1 1/2". Csk h/ds.
1	23454-F	U-bolt.	Woot Iron.	1/2" φ x 6". with four nuts.

DETAILS OF GATE OUTFIT
FOR WEIGHING LARRY.
BALTIC MINING CO.
HOUGHTON, MICHIGAN.

DRAWN *[Signature]*
CHECKED *[Signature]*
APPROVED *[Signature]*

ROBINS CONVEYING BELT CO.

INQUIRY NO. _____ NEW YORK-CHICAGO
ESTIMATE NO. _____ DATE, 7-17-15
SKETCH NO. 23446
S. O. NO. 24219-H



DETAILS OF SHAFT & LEVER
FOR OPERATING CUT OFF GATE

BALTIC MINING CO
HOUGHTON MICH.

DRAWN *[Signature]*
CHECKED *[Signature]*
APPROVED *[Signature]*

ROBINS CONVEYING BELT CO.

INQUIRY NO. _____

NEW YORK-CHICAGO

SKETCH NO. 23468

ESTIMATE NO. _____

DATE, 8-3-15

S. O. NO. 24219

Detailed Bolt List.

Do not order from this sheet.

See Summary Bolt List on Sketch 23469

S.O. Division	Number Required	Diarm.	Grip	Length	Number of Nuts	Location
B	2	5/8	1	2 1/2	2	Worm Shaft bearing to E S-4065-A
B	4	7/8	1 3/4	3 3/4	2	" " " " Support M-4476-D
B	8	3/4	1 3/8	3	CSK Head 2	Roll shaft bearings to Feeder casing.
B	2	5/8	1 3/4	3	2	" " bearing to E S-4065-A
B	4	3/8	1 1/4	2	1	Worm Gear case to E S-4065-A
C	4	1 1/2	8 1/2	12	2	Crusher to Supports
D	8	3/4	2	4	2	Elevator head shaft bearings.
D	4	5/8	1 7/8	3 1/2	2	" Knuckle Shaft bearings.
D	12	1/2	1 7/8	2	1	" Take Ups to boat.
D	4	3/4	1 7/8	3 1/2	2	" Pinion Shaft bearings
E	8	1/2	2 3/4	3 1/2	1	" Motor & Gear guard M-4476-A
E	2	1/2	5/8	1 1/2	1	" Head Shaft Gear guard M-4476-B
E	2	1/2		2	Lag Screws	" " " " " "
E	12	1/2	1/2	1 1/4	1	Crusher belt Guard M-4476-C
E	2	1/2	1/2	1 1/4	1	Feeder Bevel Gear Guard S-4065-B
F	4	5/8	1 3/8	3	2	Weigh Larry Motor
F	4	5/8	8 7/8	12	2	Elevator Motor
H	8	5/8	1 1/8	2	1	Gate to Storage bin.
H	2	5/8	1 1/8	2	1	Gate Shaft bearing to Angle 23446-C
H	4	1/2	3/4	1 1/2	1	Angle 23446-C to elevator casing.
I	2	5/8	9 3/8	11	2	Larry axle bearing to frame
I	4	5/8	1 5/8	3	2	Larry drive countershaft bearings

NOTE.-

Above outfit of field bolts plus allowance for waste & loss are ordered from Summary sk. 23469 on S.O. 24219-D

Copper Range Consolidated Co. Houghton Mich.
Baltic Stamp Mill, Redridge Mich.

DRAWN
CHECKED
APPROVED

ROBINS CONVEYING BELT CO.

INQUIRY NO. _____

NEW YORK-CHICAGO

SKETCH NO. 23469

ESTIMATE NO. _____

DATE, August 3rd 1915.

S. O. NO. 24219

BALTIC MINING COMPANY.

BOLT LIST

SUMMARY.

QUANTITIES GIVEN INCLUDE ALLOWANCE FOR WASTE AND LOSS. ALL BOLTS WITH SQUARE HEADS AND NUTS.

Quantity.	SIZE.	Nuts.
6	3/8" x 2"	1
18	1/2" x 1-1/4"	1
8	1/2" x 1-1/2"	1
14	1/2" x 2"	1
10	1/2" x 3-1/2"	1
12	5/8" x 2"	1
4	5/8" x 2-1/2"	2
12	5/8" x 3"	2
6	5/8" x 3-1/2"	2
4	5/8" x 11"	2
6	5/8" x 12"	2
10	3/4" x 3" CSK. HD.	2 - Revision 8/10/15
6	3/4" x 3-1/2"	2
10	3/4" x 4"	2
5	7/8" x 3-3/4"	2
5	1-1/4" x 12"	2
2	1/2" x 2"	Lag Screws.

For Detailed Bolt List Giving Locations See Sketch 23468.

DRAWN
CHECKED
APPROVED

Adams Township, MI

ROBINS CONVEYING BELT CO.
NEW YORK-CHICAGO

SKETCH NO. 23413

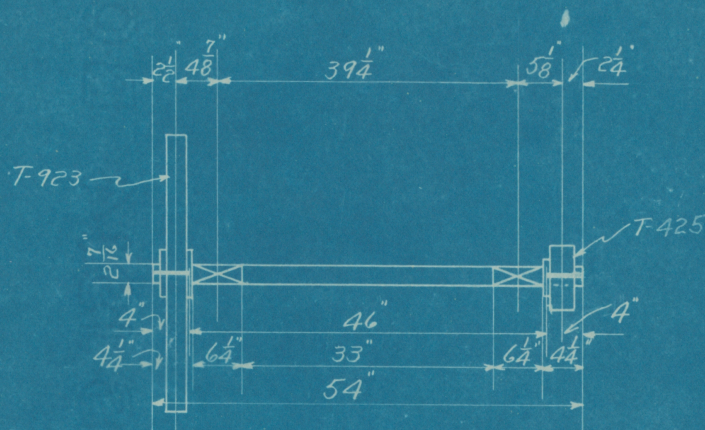
INQUIRY NO.

NEW YORK-CHICAGO

S. C. NO. 24219-D

ESTIMATE NO.

DATE. 7-3-15



PINION SHAFT OUTFIT WANTED SYMBOL 23413-A

- 1- C.R.S. SHAFT 2 7/16" x 54" WITH 2 KEYS 9/16" x 9/16" TAPER GIB 1/8" IN 12"
- 2 2 7/16" EXTRA HEAVY RIGID PILLOW BLOCKS PER SK. 23427.
- 1- C.I. CUT TOOTH PINION 18T. 8.5 P.D. 1 1/2" P. 3 3/4" F. 2 7/16" BORE HUB 2" f + 2" = 4" LG. EXCEPT NARROWER FACE. K.S. 9/16" x 3/32" TAPER 1/8" IN 12" - PER T. 425; LARGE END OF K.S. AT ROUGH SIDE OF HUB
- 1- C.I. CUT TOOTH GEAR 144T. 36" P.D. 4 D.P. 2 1/2" F. 2 7/16" BORE HUB 1 1/2" f + 1 1/4" = 3 1/2" LG. K.S. 9/16" x 3/32" TAPER 1/8" IN 12" USE PATT. T. 923 WITH WIDER FACE. LARGE END OF K.S. AT ROUGH SIDE OF HUB.

PINION SHAFT FOR ELEVATOR DRIVE
BALTIMING CO.
HOUGHTON, MICH.

DRAWN L.W.B.
CHECKED [Signature]
APPROVED [Signature]

FORM 37 R.C.B.CO.

ROBINS CONVEYING BELT CO.
NEW YORK-CHICAGO

SKETCH NO. 23434

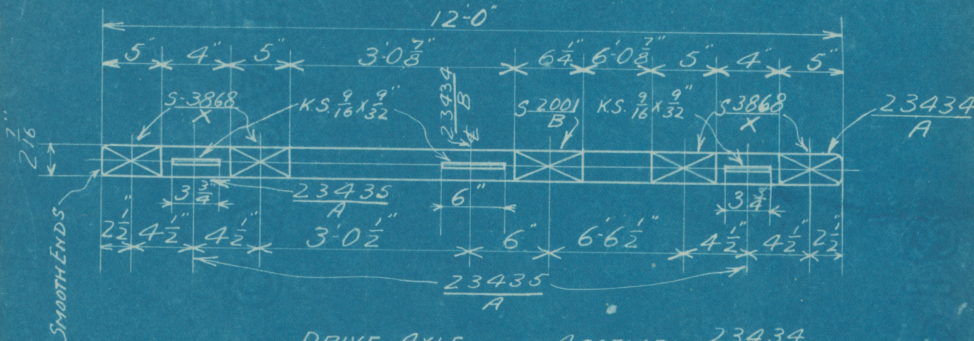
INQUIRY NO.

NEW YORK-CHICAGO

S. O. NO. 24219-I.

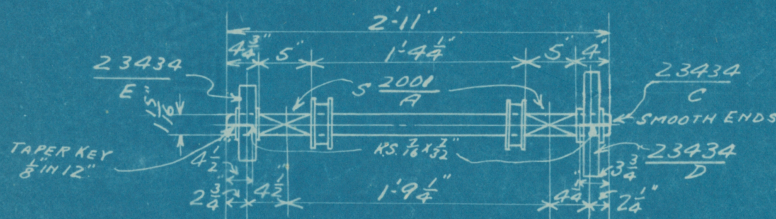
ESTIMATE NO.

DATE. 7-14-15



DRIVE AXLE ASSEMBLY 23434

No.	SYMBOL	DESCRIPTION	MATERIAL	REMARKS
1	23434-A	2 7/16" x 12'-0" SHAFT 3 KEYS 9/16" x 9/16"	C.R.S.	SMOOTH ENDS
1	S-2001-B	2 7/16" STANDARD RIGID PILLOW BLOCK	C.I.	
4	S-3868-X	2 7/16" SPEC. SOLID BOX.	C.I.	WITH HYATT ROLLER BEAR.
1	23434-B	CUT GEAR 70T-3DP 3" F. HUB 2" x 2" - 4 1/2"	C.I.	9/16" x 3/32" K.S. SS ON KEY & AT 90° PATT. T. 962.
2	23435-A	DOUBLE FLANGED TRACTION WHEELS	C.I.	9/16" x 3/32" K.S. SS ON KEY & AT 90°



COUNTERSHAFT ASSEMBLY 23434

No.	SYMBOL	DESCRIPTION	MATERIAL	REMARKS
1	23434-C	1 1/2" x 2'-11" SHAFT 2 KEYS 7/16" x 7/16" LEADER	C.R.S.	SMOOTH ENDS
2	S-2001-A	1 1/2" STANDARD RIGID PILLOW BLOCK	C.I.	
2	1 1/2"	STANDARD SAFETY COLLAR	C.I.	
1	23434-D	CUT GEAR 90T-4DP 2 1/2" F. HUB 1 1/2" x 1 1/2" - 3 1/2" LG.	C.I.	7/16" x 3/32" K.S. SS ON KEY & AT 90° PATT. T. 928
1	23434-E	CUT PINION 46T-3DP 3 1/2" RAWHIDE F. 1/2" BRASS FLANGES 7/16" x 3/32" K.S. TAPER 1/8" IN 12"		

SHAFT OUTFITS FOR WEIGH LARRY IN BOILER ROOM
BALTIMING CO. HOUGHTON, MICH.

DRAWN [Signature]
CHECKED [Signature]
APPROVED [Signature]

ROBINS CONVEYING BELT CO.

NEW YORK-CHICAGO

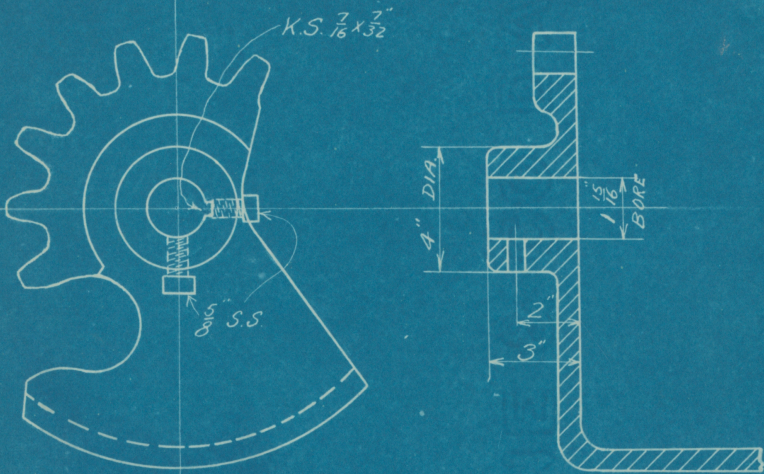
INQUIRY NO. _____

SKETCH NO. 23445

ESTIMATE NO. _____

DATE: 7-16-15

S. O. NO. 24219-H



SPECIAL HUB ON NEAR SIDE ONLY
STD. HUB ON OTHER SIDE.
ALL DIMENSIONS NOT GIVEN SAME AS S-2257-A

DETAIL OF RIGHT HAND VALVE FOR 20X24
CUT-OFF GATE WITH SPECIAL HUB

SYMBOL 23445-A

BALTIC MINING CO.

HOUGHTON MICH.

DRAWN EH
CHECKED W. J. P.
APPROVED W. J. P.

ROBINS CONVEYING BELT CO.

NEW YORK-CHICAGO

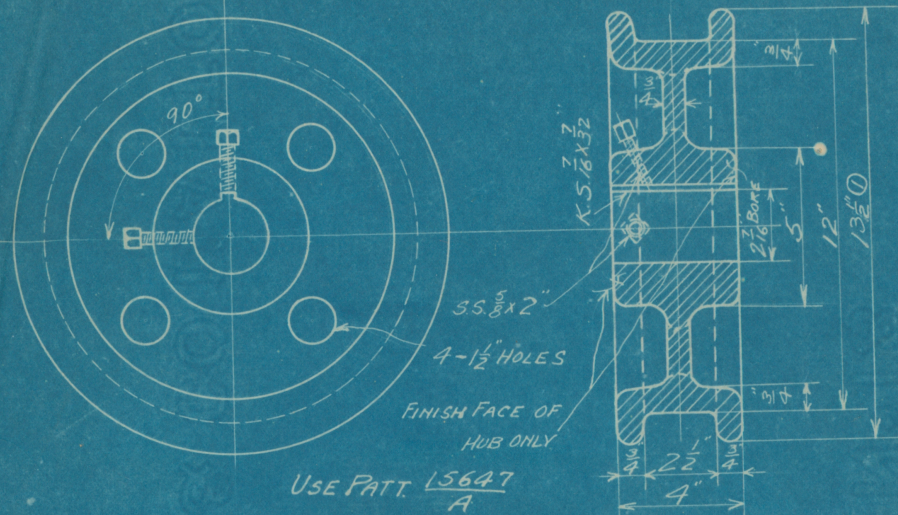
INQUIRY NO. _____

SKETCH NO. 23435

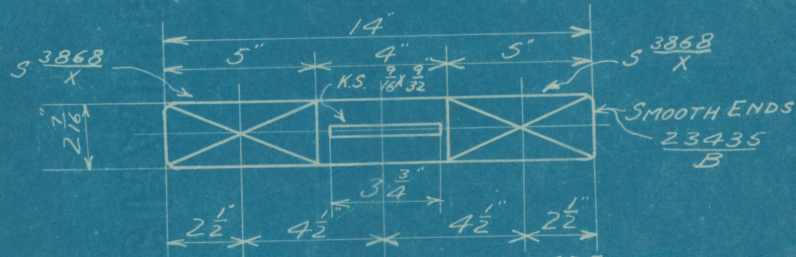
ESTIMATE NO. _____

DATE: 7-14-15

S. O. NO. 24219-I



12" C.I. DOUBLE FLANGED TRACTION WHEEL 23435 A



SHORT WHEEL SHAFT OUTFIT 23435 X 2 REQ'D.

No.	SYMBOL	DESCRIPTION	MATL.	REMARKS
1	23435-B	2 7/16 X 14" SHAFT 1 KEY 7/16 X 3/32	C.I.	SMOOTH ENDS
1	23435-A	DOUBLE FLANGED TRACTION WHEEL	C.I.	K.S. 7/16 X 3/32 S.S. ON KEY & @ 90°
2	S-3868X	SPECIAL SOLID BOX	C.I.	WITH HYATT ROLLER BEARING

Revised 7/24/15 406

12" TRACTION WHEEL & WHEEL SHAFT FOR
WEIGH LARRY IN BOILER ROOM
BALTIC MINING CO. HOUGHTON MICH.

DRAWN T.E.W.
CHECKED W. J. P.
APPROVED W. J. P.