



TRACK SWEEPER CAR
AND
100 T. DIRT CAR CONVEYOR.

LIST OF ANTI-FRICTION BEARINGS AND OIL SEALS.

TRACK SWEEPER CARS: 498175, 498177.

MECHANICAL ENGINEERS DEPT.
PHILA., DEC 14 1951

SKETCHES SHOWING LOCATION OF ANTI-FRICTION BEARINGS, OIL SEALS ETC,
USE ON TRACK SWEEPER CARS 498175, 498177.

TITLE	PAGE NO
SWEEPER UNIT- FLIGHT & LATERAL CONVEYOR DRIVE	1
" " CONVEYOR TAKE UP & FOOT SHAFTS	2
" " BROOM DRIVE & BROOM SHAFT	3
" " BROOM BALANCING DEVICE	4
" " TRAILING WHEEL & AXLE	4
"B" CONVEYOR	5
"C" CONVEYOR	6
PILLAR CRANE	7

FOR TRACK SWEEPER CAR LIST OF TRACINGS SEE F415414

SKETCH SHOWING LOCATION OF ANTI-FRICTION BEARINGS, ETC,
USED ON 100T. DIRT CAR CONVEYOR.

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FOR 100T. DIRT CAR CONVEYOR LIST OF TRACINGS SEE F436071.

SKETCH INDEX.

ANTI-FRICTION BEARINGS USED ON TRACK SWEEPER CARS 498175, 498177
 " " " " " " 100T. DIRT CAR CONVEYOR.

MANUFACTURER			SHEET
LINK BELT CO.	PHIL'A.,	PA.	A
SHAFFER BEARING CORP.	CHICAGO,	ILL.	A
S.K.F. INDUSTRIES INC.	PHIL'A.	PA.	B
TORRINGTON CO.	TORRINGTON	CONN.	B
TIMKEN ROLLER BEARING CO.	CANTON	OHIO	B
NORMA-HOFFMAN BEARING CORP.	STAMFORD	CONN.	B
ROLLER BEARING CO. OF AMERICA	TRENTON	N.J.	C
ROLLWAY BEARING CO., INC.	SYRACUSE	N.Y.	C

OIL SEALS USED ON BEARINGS FOR TRACK SWEEPER CARS 498175, 498177

MANUFACTURER			SHEET
CHICAGO RAWHIDE MFG. CO.	CHICAGO	ILL.	C.

DRIVE CHAINS USED ON TRACK SWEEPER CARS 498175, 498177.

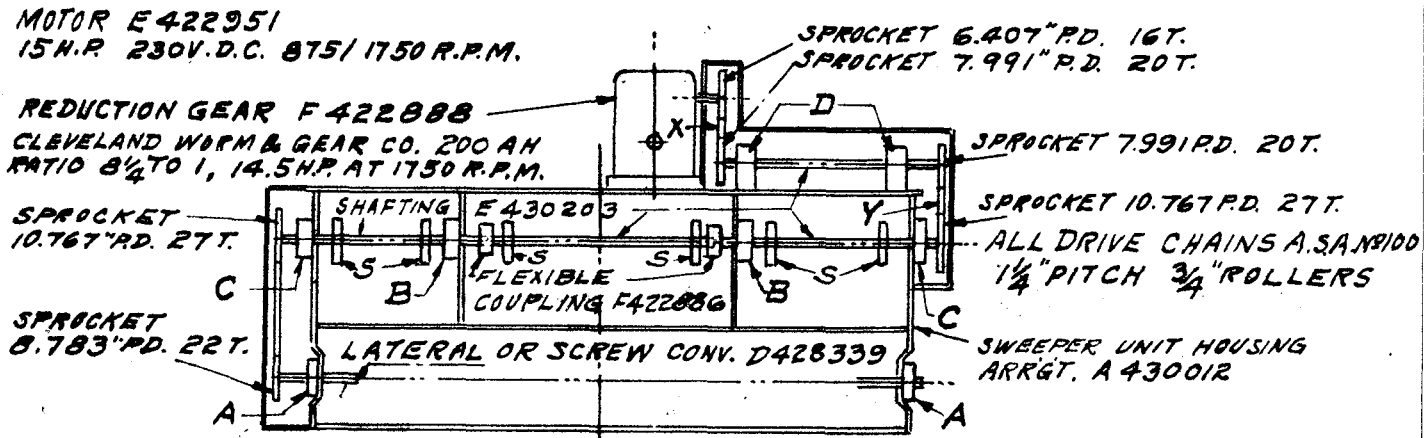
MANUFACTURER			SHEET
DIAMOND CHAIN CO.	INDIANAPOLIS,	INDIANA	D

DRIVE CHAIN USED ON 100T. DIRT CAR CONVEYOR

MANUFACTURER			SHEET
CHAIN BELT CO.	MILWAUKEE	WISCONSIN	D

TRACK SWEEPER CARS 498175, 498177.

SWEEPER UNIT- FLIGHT & LATERAL CONVEYOR DRIVE- ARR'GT. SEE A 430209.



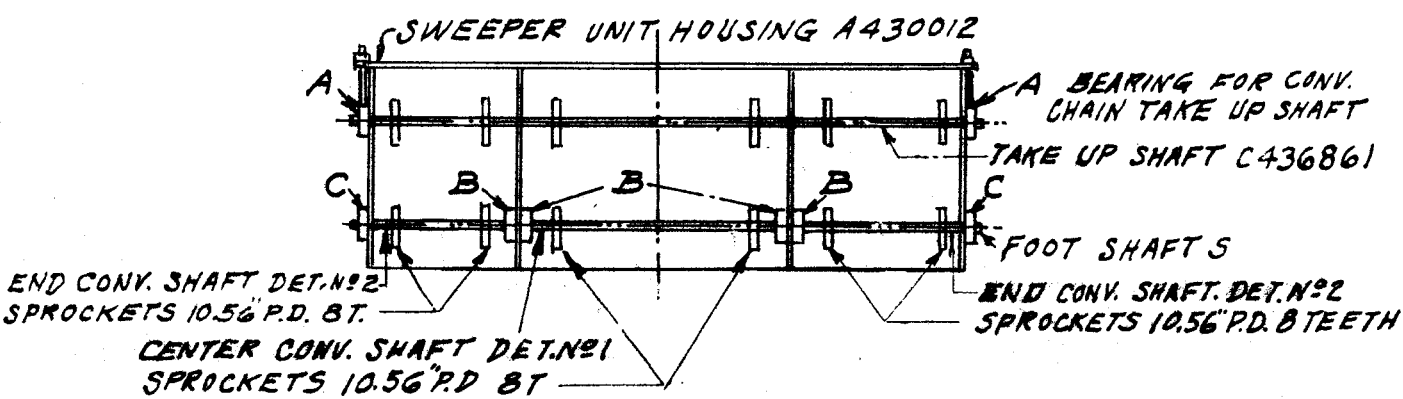
FOR CHAIN TAKE UP SPROCKETS AT "X" & "Y" SEE C 430207, ALSO F 430212. THESE SPROCKETS HAVE TORRINGTON NEEDLE BEARINGS NO B 1612 - 2 PER SPROCKET. SPROCKETS "X" & "Y" 6.407" P.D. 16 T.

DETAILS INDICATED "S" ARE FLIGHT CONVEYOR SPROCKETS 8.08" P.D. 8 T. FOR DETAILS OF FLIGHTS & CHAIN ASSEMBLY SEE C 446603 & D 446619. CHAIN PITCH = 4.04" ROLLER DIA. = 2" D 446600.

BEARING AT.	SHAFT DIA.	LINK BELT. NUMBER	SHAFT NUMBER	R.R.R. TRAC. NUMBER	NUMBER REQ'D.
A	2 3/16"	F-435	B-2203	E430739	2
B	2 1/16"	F-439	B-2207	E430739	2
C	2 1/16"	FC-439	ZBR-207	F447270	2
D	2 1/16"	FE-439	ZA-2207	F.447270	2

TRACK SWEEPER CARS 498175, 498177

**SWEEPER UNIT- FLIGHT CONVEYOR - TAKE UP & FOOT SHAFTS
ARR'G'T. SEE B 429889.**



FOR FLIGHT DETAILS & CHAIN ASSEMBLY SEE C446603 & D446619
 CONVEYOR CHAIN PITCH = 4.04" ROLLER DIA. = 2" D446600
 FOR FOOT SHAFTS DETAILS N°1 & N°2 SEE TRAC D437265.

BEARING AT	SHAFT DIA.	LINK BELT NUMBER	SHAFT NUMBER	P.R.R. TRAC. NUMBER	NUMBER REQ'D.
A	2 1/2"	FC-440	BR-208	F436834	2
B	1 5/16"	F-431	B-2115	E430739	4
C SEE NOTE	1.5753" 1.5748"	—	—	E430099	2

BEARING "C" IS P.R.R. DESIGN WITH S.K.F. BALL BEARINGS N°1308 AND PERFECT OIL SEAL N°3192.

TRACK SWEEPER CARS 498175, 498177

SWEeper UNIT- BROOM DRIVE - ARRGT. SEE A 430303.

BROOM SHAFT ASSEMBLY SEE A 432317

SPROCKET 10.540" P.D. 22T

MOTOR E 422950
40HP. 230V. D.C. 875/1750 R.P.M.

SPROCKET 10.540" P.D. 22T

REDUCTION GEAR F 422887.
CLEVELAND WORM & GEAR CO.
400 AT. RATIO 6²/₅ TO 1.
38 HP AT 1750 R.P.M.

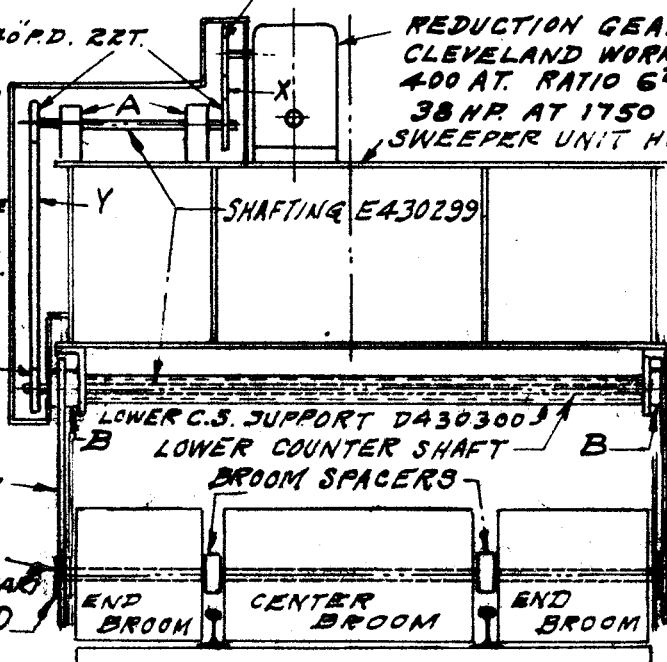
FOR CHAIN TAKE UP
SPROCKETS AT "X" & "Y"
SEE C 430301, ALSO
F 430222. THESE
SPROCKETS HAVE
TORRINGTON NEEDLE
BEARINGS NO B1612
TWO PER SPROCKET.
SPROCKETS AT "X" & "Y"
7.689" P.D. 16T.

SWEeper UNIT HOUSING A 430012

ALL CHAINS A.S.A. NO 120
1 1/2" PITCH. 7/8" ROLLER.

SPROCKET 11.016" P.D. 23T.

SPROCKET 11.016" P.D. 23T.



LOWER C.S. SUPPORT D 430303

LOWER COUNTER SHAFT

BROOM SPACERS

END BROOM

CENTER BROOM

END BROOM

DRIVE CHAIN TO BROOM
SHAFT.
RADIUS BAR WITH CHAIN CASING
C 430302.

SHAFT A 430317 DET NO 1

SPROCKET 13.874" P.D. 29T.
C (BEARING HOUSING BOLTED
TO RADIUS BAR.)

BEARING AT	SHAFT DIA.	LINK BELT NUMBER	SHAFT NUMBER	P.R.R. TRAC. NUMBER	NUMBER REQ'D.
A	2 7/16"	PZ-439	ZA-2207	F-447270	2
B	2.750" 2.748"			E-430298	2
C	2.9536" 2.9530"				1
D	2.9536" 2.9530"				1

BEARING "B" IS P.R.R. DESIGN WITH S.K.F. BALL BEARINGS NO 1312 AND PERFECT OIL SEALS NO 387224 & NO 475320. FOR DETAILS SEE A 430303 & E 430298.

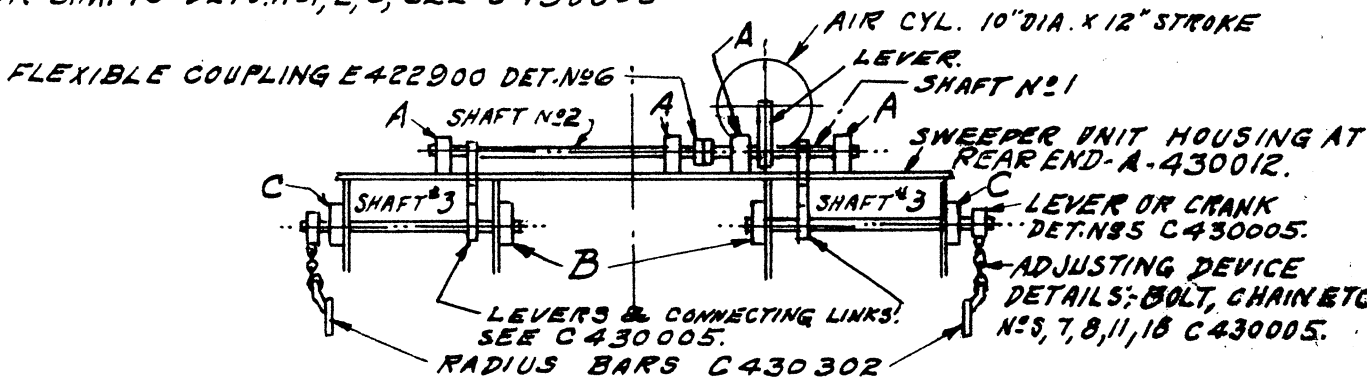
BEARING "C" IS P.R.R. DESIGN WITH S.K.F. BALL BEARING NO 1315 AND PERFECT OIL SEALS NO 525324 & NO 575416. FOR DETAILS SEE A 432317, D 422904.

BEARING "D" IS P.R.R. DESIGN WITH S.K.F. BALL BEARING NO 1315 AND PERFECT OIL SEAL NO 525324. FOR DETAILS SEE A 432317, D 422904.

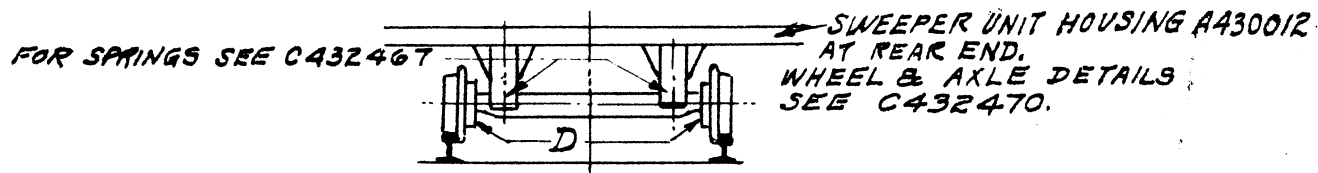
TRACK SWEEPER CARS 498175, 498177.

**SWEEPER UNIT - BROOM BALANCING DEVICE - ARR'GT.
SEE A-480011.**

FOR SHAFTS DETS. NO. 1, 2, 3, SEE C430005



BEARING AT	SHAFT DIA.	LINK BELT NUMBER	SHAFT NUMBER	P.R.R. TRAC. NUMBER	NUMBER REQ'D.
A	1 1/16"	P2-427	A-2111	F424213	4
B	1 1/16"	F-427	B-2111	F-430295	2
C	1 1/16"	FC-427	BR-111	F-430296	2



SWEEPER UNIT - TRAILING WHEELS. SEE A-432583.

BEARING AT	AXLE DIA.	TIMKEN ROLLER BEARING				P.R.R. TRAC. NUMBER	NUMBER REQ'D. PER AXLE
		SERIES	BORE	CONE	CUP		
D	3.500" 3.499"	755	3.501" 3.500"	759	752	E432469	4.

TRACK SWEEPER CARS 498175, 498177

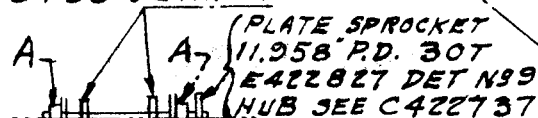
TRACK SWEEPER CAR - "B" CONVEYOR SEE ~~A422732~~ A436843

E 446768 15 H.P. 230V. D.C. 1750 R.P.M.

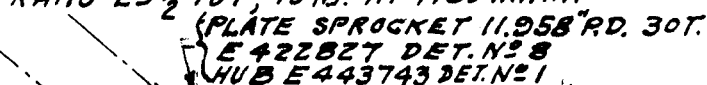
MOTOR ~~E422949 10 H.P. 230V. D.C. 1750 R.P.M.~~

CONV. CHAIN SPROCKETS
10.560" P.D. 8T
E443733 DET. N°4

REDUCTION GEAR F423446
PHILA. GEAR WORKS N°9 TYPE AX.
RATIO 29½ TO 1, 10 H.P. AT 1750 R.P.M.



CONVEYOR TAKE UP SHAFT BEARINGS & DETAILS
SEE D422728



CONVEYOR TAKE UP SHAFT.

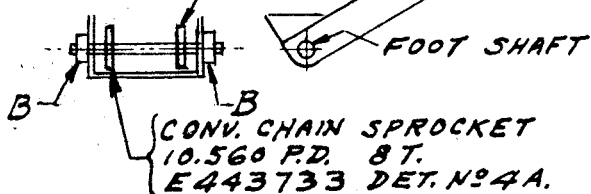
CHAIN A.S.A. N°100
1½" PITCH. ¾" ROLLERS.
SEE C422793

TAKE UP SPROCKET 6.40" P.D. 16T.
WITH HOFFMAN ROLLER BEARINGS N°R-135-L.
& 2- PERFECT OIL SEALS N°250122.
SEE D422871.

SEE C422737. FOR HEAD SHAFT
" D446276 FOR FOOT SHAFT

CONV. CHAIN SPROCKET
10.560 P.D. 8T
E443733 DET. N°4

FOR FLIGHT DETAILS & CONVEYOR CHAIN
ASSEMBLY SEE C446603, D446600, C422737.
CONV. CHAIN PITCH-4.04" ROLLER DIA 2"

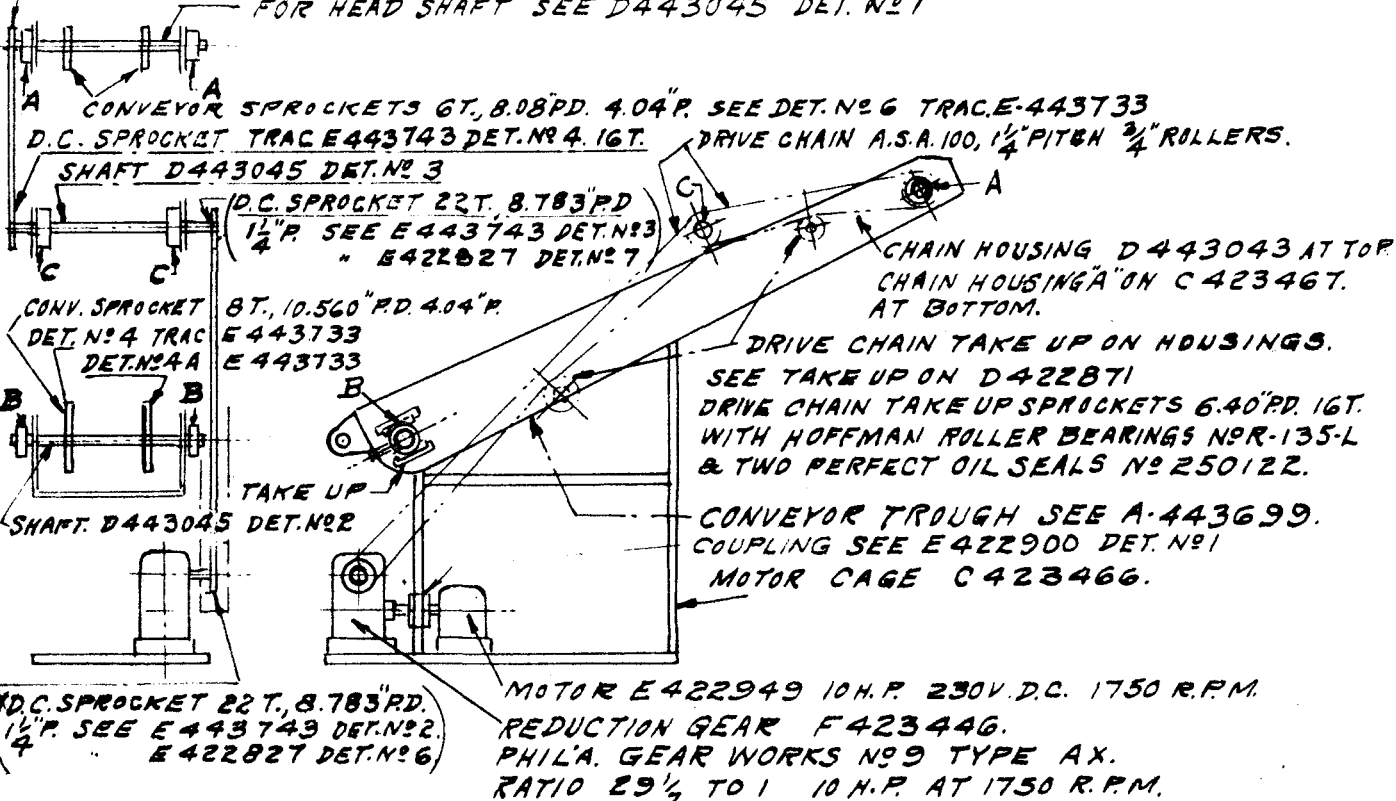


BEARING AT	SHAFT DIA.	LINK BELT NUMBER.	SHAFTER NUMBER	P.R.R. TRAC. NUMBER.	NUMBER REQ'D.
A	2 7/16"	F-439	IC-207	D422728	2
B	1 15/16"	F-431	B-2115	E430739	2
B	2 7/16"	F-439	B-2207	E430739	2

TRACK SWEEPER CARS 498175, 498177.

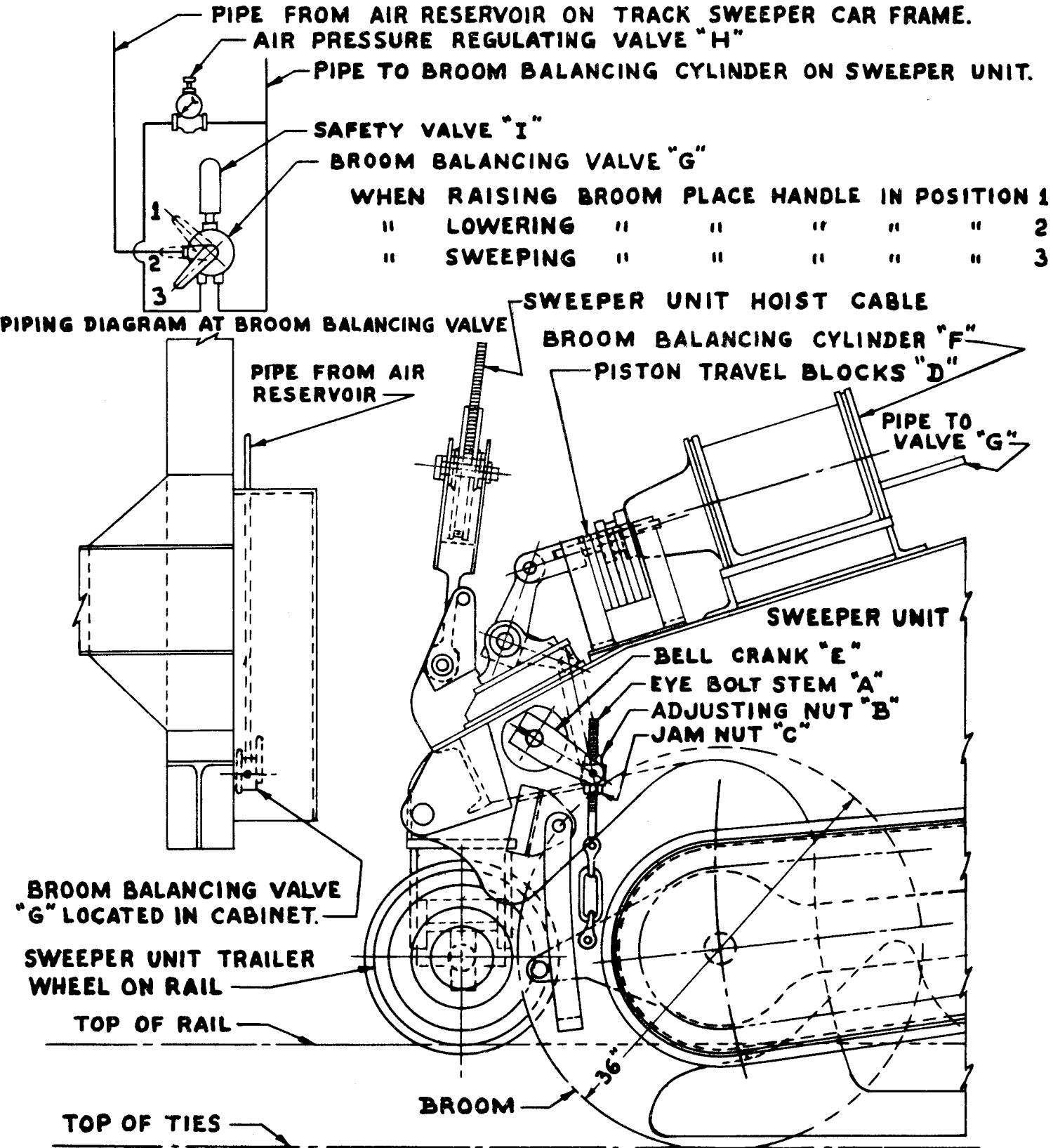
TRACK SWEEPER CAR "C" CONVEYOR-DRIVE ARRGT. SEE C443047.

DRIVE CHAIN SPROCKET- TRACE 443743 DET. NO 4 1GT. 6.407 PD. 1 1/4" PITCH
FOR HEAD SHAFT SEE D443045 DET. NO 1



BEARING AT	SHAFT DIA. (NOM)	LINK BELT NUMBER	SHAFTER NUMBER	P.R.R TRAC. NUMBER	NUMBER REQ'D.
A	2 7/16"	FC-439	ZBR-207	F447270	2
B	2 7/16"	T-439	ZC-207	D422728	2
C	2 7/16"	P2-439	ZA-2207	F447270	2

FOR CONVEYOR CHAIN ARRGT SEE C446603 (4.04" PITCH 2" DIA. ROLLER.
" " " " DETAILS SEE D446600 & D446601.
FOR CONVEYOR FLIGHTS SEE D 443044.
FOR CONVEYOR FLIGHT ASSEMBLY SEE D 443046

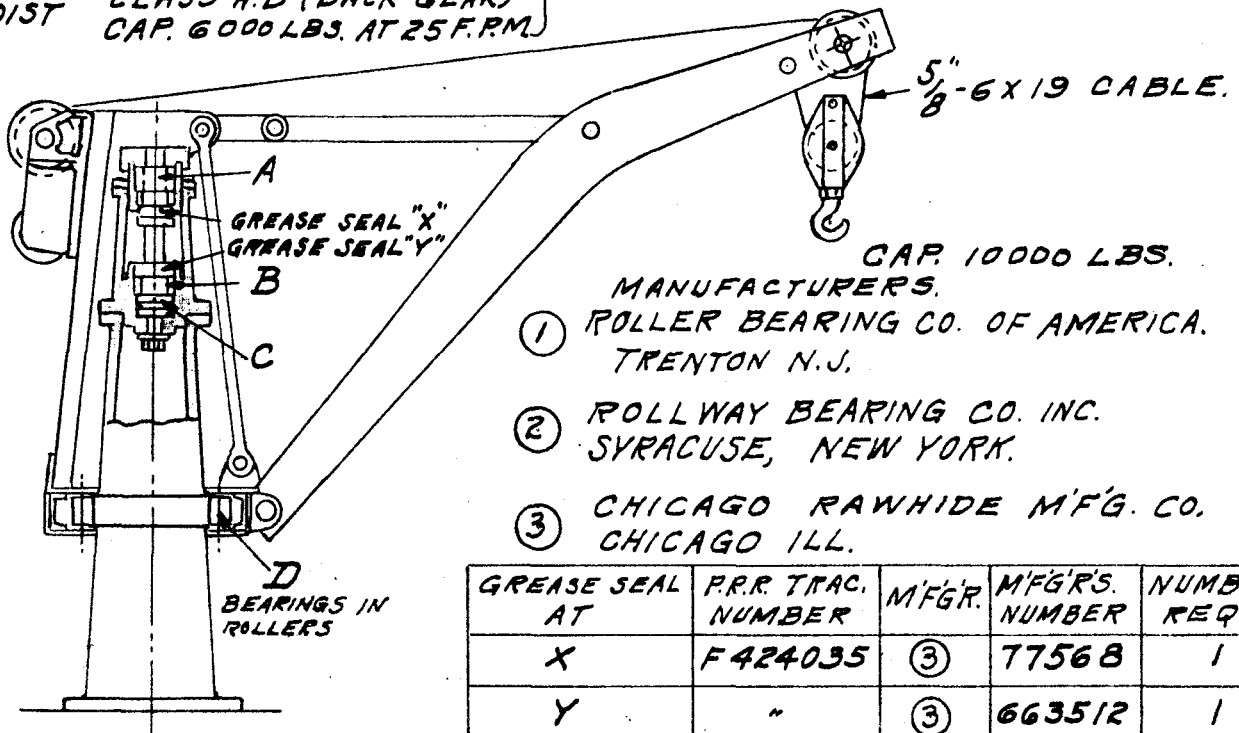


TRACK SWEEPER CARS 498175, 498177.

TRACK SWEEPER CAR - PILLAR CRANE ARR'GT. A 423556.

MOTOR 7½ H.P. AT 1500 R.P.M.
 230 V., D.C.
 HOIST CLASS H.B (BACK GEAR)
 CAP. 6000 LBS. AT 25 F.P.M.

AMERICAN ENGINEERING CO. PHILA. PA.



- ① ROLLER BEARING CO. OF AMERICA. TRENTON N.J.
- ② ROLLWAY BEARING CO. INC. SYRACUSE, NEW YORK.
- ③ CHICAGO RAWHIDE M'FG. CO. CHICAGO ILL.

GREASE SEAL AT	P.R.R. TRAC. NUMBER	M'FG'R.	M'FG'R'S. NUMBER	NUMBER REQ'D.
X	F424035	③	77568	1
Y	"	③	663512	1

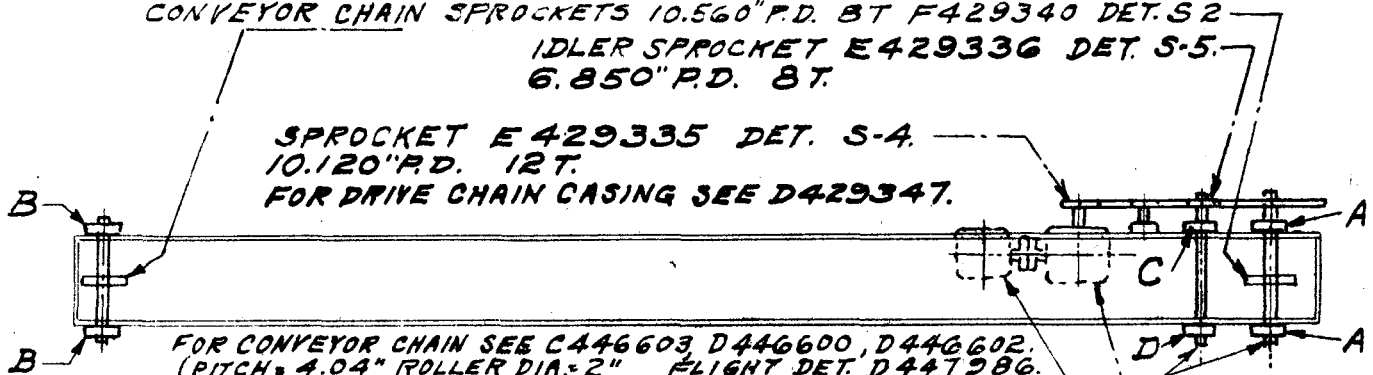
BEARINGS AT	P.R.R. TRACING		M'FG'R.	M'FG'R'S. NUMBER	NUMBER REQ'D.	FOR APPLICATION SEE TRAC. NO.
	NUMBER	DET. NO.				
A	F423566	3	①	E6936	1	D424033
B	"	2	①	E6848	1	"
C	F423565		②	AT-24	1	"
D	F423566	1	①	8406	8	C423558

USED WITH TRACK SWEEPER CARS 498175, 498177.

100 T. DIRT CAR CONVEYOR ARR'GT. ~~SEE A 429350~~ SEE A 435705

CONVEYOR CHAIN SPROCKETS 10.560" P.D. BT F429340 DET. S-2
 IDLER SPROCKET E429336 DET. S-5.
 6.850" P.D. BT.

SPROCKET E429335 DET. S-4.
 10.120" P.D. 12T.
 FOR DRIVE CHAIN CASING SEE D429347.

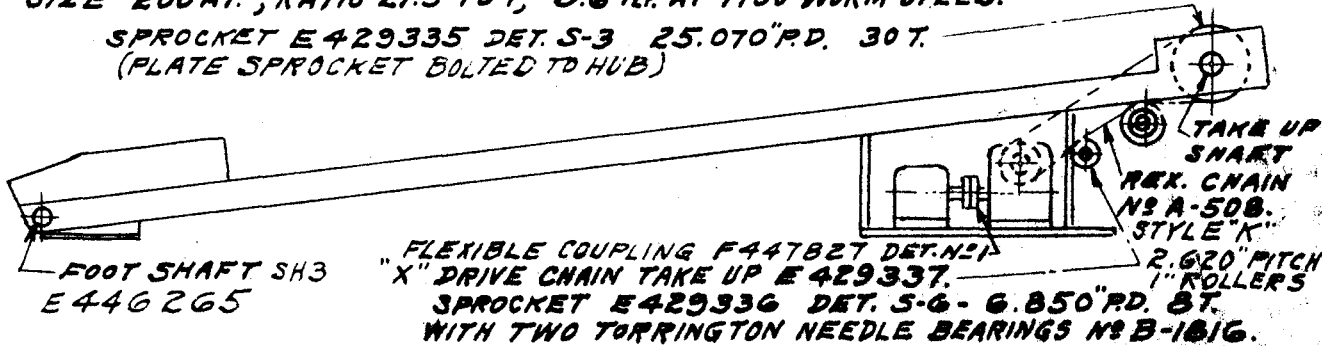


FOR CONVEYOR CHAIN SEE C446603 D446600, D446602.
 (PITCH = 4.04" ROLLER DIA. = 2" FLIGHT DET. D447286.
 MOTOR F429344 10HP 230V. D.C. 1750 R.P.M.

REDUCTION GEAR F429345 CLEVELAND WORM & GEAR CO.
 SIZE 200AT, RATIO 21.5 TO 1, 9.6 HP AT 1750 WORM SPEED.

SPROCKET E429335 DET. S-3 25.070" P.D. 30T.
 (PLATE SPROCKET BOLTED TO HUB)

SHAFTING SH1, SH2
 E429334



FOOT SHAFT SH3
 E446265

FLEXIBLE COUPLING F447827 DET. N-1
 "X" DRIVE CHAIN TAKE UP E429337.
 SPROCKET E429336 DET. S-6 - 6.850" P.D. BT.
 WITH TWO TORRINGTON NEEDLE BEARINGS N3B-1816.

BEARING AT	SHAFT DIA.	LINK BELT NUMBER	SHAFTER NUMBER	P.R.R. TRAC. NUMBER.	NUMBER REQ'D.
A	2 5/16"	FC-447	BR-215	E429343	2
B	2 3/16"	FC-435	BR-203	"	2
C	1 3/16"	F-419-L	B-2103	"	1
D	1 3/16"	FC-419	BR-103	"	1

TRACK SWEEPER CARS 498175, 498177

LIST OF LINK BELT CO. OR SHAFER BEARING CORP. BEARINGS.							
SHAFT. NOM. DIA.	LINK BELT NUMBER	SHAFER NUMBER	SWEEPER CAR			100T. DIRT CAR CONVEYOR.	
			PAGE NUMBER	NUMBER REQ'D.	TOTAL REQ'D.	PAGE NO	NO. REQ'D.
1 3/16"	F-419-L	B-2103				8	1
	FC-419	BR-103				8	1
1 11/16"	F-427	B-2111	4	2	2		
	FC-427	BR-111	4	2	2		
	PR-427	A-2111	4	4	4		
1 15/16"	F-431	B-2115	2	4	4		
2 3/16"	F-435	B-2203	1	2	2		
	FC-435	BR-203				8	2
2 7/16"	F-439	B-2207	1	2	4		
			5	2			
	FC-439	ZBR-207	1	2	4		
			6	2			
	PR-439	ZA-2207	1	2	6		
			3	2			
			6	2			
			5	2	4		
			6	2			
2 1/2"	FC-440	BR-208	2	2	2		
2 15/16"	FC-447	BR-215				8	2

TRACK SWEEPER CARS 498175, 498177

S.K.F. SELF ALIGNING BALL BEARINGS

S.K.F. NO	SHAFT DIA.	LOCATION OF BEARINGS			NUMBER REQ'D.	
		PAGE NO.				
1308	1.5753" 1.5748"	2	AT "C" SWEEPER UNIT. CONVEYOR FOOT SHAFTS (OUTSIDE)		2	
1312	2.750" 2.748"	3	AT "B" SWEEPER UNIT, BROOM DRIVE LOWER COUNTER SHAFT.		2	
1315	2.9536" 2.9530"	3	AT "C" SWEEPER UNIT- BROOM SHAFT		1	2
			AT "D" " " " "		1	

TORRINGTON NEEDLE BEARINGS.

MANUFACTURER'S NUMBER	SHAFT DIA.	LOCATION OF BEARINGS.			NUMBER REQ'D.	
		PAGE NO.				
B-1612	1"	1	SWEEPER UNIT- FLIGHT & LATERAL CONVEYOR DRIVE - IN TAKE UP SPROCKETS "X" & "Y."		4	8
		3	SWEEPER UNIT- BROOM DRIVE IN TAKE UP SPROCKETS "X" & "Y."		4	
B-1816	1.1250" 1.1245"	8	100T. DIRT CAR CONVEYOR IN TAKE UP SPROCKET "X"		2	

TIMKEN ROLLER BEARING

TIMKEN ROLLER BEARING CO. DETAILS				LOCATION OF BEARINGS		NUMBER REQ'D.	
SERIES	BORE	CONE	CUP	PAGE NO.			
755	3.501" 3.500"	759	752	4	SWEEPER UNIT - IN SWEEPER TRAILING WHEELS		4

HOFFMAN ROLLER BEARINGS

HOFFMAN NUMBER	SHAFT DIA.	LOCATION OF BEARINGS.			NUMBER REQ'D.	
		PAGE NO.				
R-135-L	1.378"	5	TRACK SWEEPER CAR - "B" CONVEYOR IN TAKE UP SPROCKET		2	4
		6	TRACK SWEEPER CAR - "C" CONVEYOR IN TAKE UP SPROCKET.		2	

TRACK SWEEPER CARS 498175, 498177

ROLLER BEARING CO. OF AMERICA.

MANUFACTURERS' NO	DIA.	LOCATION OF BEARINGS		NUMBER REQ'D.
		PAGE		
E6848 COMPLETE	4.0002" 4.0010" PINTLE	7	AT "A" - PINTLE AT TOP	1
E6936 COMPLETE	5.5002" 5.5010" "	7	AT "B" " " BOTTOM	1
8406 OMIT INNER RACE.	2.2500" 2.2495" PIN	7	AT "D" IN SLEWING ROLLERS	8

ROLLWAY BEARING CO., INC.

MFG'RS. NO	DIA. OF PINTLE	LOCATION OF BEARINGS		NUMBER REQ'D.
		PAGE		
AT-24	3"	7	PILLAR CRANE THRUST BEARING "C".	1

CHICAGO RAWHIDE MFG., CO., PERFECT OIL SEALS.

MFG'RS. NO	OUTSIDE DIA.	SHAFT DIA.	WIDTH	LOCATION OF SEALS		CONSTRUCTION OF SEAL.	NUMBER REQ'D.	
				PAGE				
3192	3.194"	2"	3/4"	2	BEARING "C."	COMBINATION FELT & LEATHER	2	
77568	7.758"	6 1/4"	3/4"	7	BEARING "A"	COMBINATION FELT & LEATHER	1	
250122	2.506"	1 11/16"	1/2"	5	TAKE UP SPROCKET	STD.	2	6
				6	TAKE UP SPROCKET	STD.	4	
387224	3.881"	2 3/4"	15/32"	3	BEARING "B"	STD.	2	
475320	4.756"	3 5/8"	5/8"	3	BEARING "B"	STD.	2	
525324	5.256"	3 3/4"	15/16"	3	BEARING "C"	COMBINATION FELT & LEATHER	1	2
				3	BEARING "D"		1	
575416	5.756"	4 1/2"	9/16"	3	BEARING "C"	STD.	1	
663512	6.632"	5 3/8"	15/16"	7	BEARING "B"	COMBINATION FELT & LEATHER	1	

TRACK SWEEPER CARS 498175, 498177

LIST OF DRIVE CHAINS USED ON TRACK SWEEPER & DIRT CAR CONV.

TRACK SWEEPER UNIT- FLIGHT & LATERAL CONVEYOR DRIVE- PAGE NO 1

TRACING NUMBER	DET. NO.	LENGTH	CHAIN			USED ON CAR NO
			A.S.A. NO	PITCH	ROLLER DIA.	
A430209	19	5'-5"	100	1 1/4"	3/4"	498175, 498177.
	20	6'-0 1/2"				
	21	5'-2 1/2"				

TRACK SWEEPER UNIT- BROOM DRIVE. ----- PAGE NO 3

TRACING NUMBER	DET. NO.	LENGTH	CHAIN			USED ON CAR NO
			A.S.A. NO	PITCH	ROLLER DIA.	
A430303	17	7'-0"	120	1 1/2"	.875"	498175, 498177.
	18	10'-4 1/2"				
	18A	13'-9"				

TRACK SWEEPER "B" CONVEYOR. ----- PAGE NO 5

TRACING NUMBER	DET. NO.	LENGTH	CHAIN			USED ON CAR NO
			A.S.A. NO	PITCH	ROLLER DIA.	
A436843 (C-422793)		18'-4"	100	1 1/4"	3/4"	498175, 498177.

TRACK SWEEPER "C" CONVEYOR. ----- PAGE NO 6

TRACING NUMBER	DET. NO.	LENGTH	CHAIN			USED ON CAR NO
			A.S.A. NO	PITCH	ROLLER DIA.	
C443047	9	17'-2 1/4"	100	1 1/4"	3/4"	498177, 498175.
	10	11'-1 3/4"				

DIRT CAR CONVEYOR USED WITH TRACK SWEEPERS. ----- PAGE NO 8

TRACING NUMBER	DET. NO.	LENGTH	CHAIN.			
A435705		21'-10"	REX. CHABELCO STEEL CHAIN NO 508 STYLE "K" 2620" PITCH, 1" DIA. ROLLERS BUSHINGS & STYLE "B" PINS.			

A.S.A. CHAINS NO 100 & 120 TO BE PURCHASED FROM
 DIAMOND CHAIN COMPANY INDIANAPOLIS, INDIANA.
 REX. CHAIN NO 508 TO BE PURCHASED FROM CHAIN BELT CO. MILWAUKEE, WISCONSIN. **D**