

**CONRAIL'S
ASHTABULA, OHIO
COAL DOCK**

**CONRAIL COAL DOCK
ASHTABULA, OHIO**

DATA SHEET

LOCATION: Ashtabula, Ohio -- Lake Erie

OWNER: Conrail

COMMODITY / FUNCTION: Anthracite & Bituminous Coal:
Rail - to - water or ground storage - to - water

AVERAGE LOADING RATE: 4,000 Net Tons Per Hour
Annual Capacity 7 Million Net Tons

EQUIPMENT:

Shiploader:
Capacity -- 8,000 Tons Per Hour
short intervals
4,000 - 5,000 net tons
per hour continuous

Rotary Dumper:
Capacity -- 2,500 -- 3,000 Tons Per Hour

Track Mounted Stacker/Reclaimer:
Capacity -- 3,000 net Tons Per Hour in
stack mode OR 5,000 net Tons
per Hour in Reclaim mode

Pre-Load Silos: (3)
Capacity -- 4,000 net tons Each

WATER DEPTH: 27 - 28 feet, depending on the Lake Erie water level

VESSELS: All Lake Vessels

THAWING FACILITIES: Electric infrared thawing 8 car capacity

WINTER OPERATION: Car dumping to ground storage

SAMPLING: Continuous Cross-Belt sampling system

GROUND STORAGE CAPACITY: 1.2 Million Net Tons

CONRAIL COAL DOCK

ASHTABULA, OHIO

Conrail's coal dock at Ashtabula, Ohio is a modern coal transshipping facility serving coal markets throughout the Great Lakes. It directly competes with similar facilities at Toledo, Sandusky, and Conneaut, Ohio. The present configuration of the dock is an amalgam of facilities of the companies making up the former Penn Central Railroad. The present facility was constructed in 1968 and has handled in excess of 100 Million Net Tons since that time.

Bituminous coals from Ohio, Pennsylvania and West Virginia origins arrive at Ashtabula in unit trains where it is then dumped from the rail cars and either stored on the ground or loaded directly into self-unloading vessels for further shipment to Canadian and domestic destinations. Principal customers are electric generating utilities and cement producers in Canada and within the Great Lakes Basin.

The dock has a ground storage capacity of 1.2 Million Net Tons; thus, permitting entire year dumping. Year round dumping enables customers and producers to continue to produce and ship coal during the winter months when the lakes are closed and the shipping season has ceased for the winter. This storage assures adequate tonnage's being readily available at the start of the Navigation and shipping season. Winter operations provide both the coal producer and shipper to enjoy the economic advantages long term purchasing and shipping agreements.

Coal at the Ashtabula facility is unloaded by highly automatic bulk handling systems. A Train & Engine Crew shoves a cut of cars (30 -90 cars) through the thaw shed into the train retarders where the cut of cars is held stationary. The train crew then uncouples from the cut of cars and returns to yard duty. The Train Positioner, AKA the Arm, now takes over moving the loaded rail cars through the rotary car dumping machinery.

This equipment consists of a powerful pivoting arm which travels seventy-three feet on a carriage along a guiding structure that parallels the track. Push-button controlled, the arm is lowered to engage the forward coupler of the train, pulling the train along until the second car can be held at the entrance to the positioner track. The preceding car is then manually uncoupled from the remaining cars, the positioner then couples up with this car and moves it ten feet forward to the single car retarder. The arm then raises, travels backward behind the car in the single car retarder, the arm then lowers and pushes the loaded car onto the dumper platen. As the loaded car is being pushed onto the platen it pushes the empty car, previously dumped, off of the dumper platen.

Retarders stop and center the car on the platen. Hydraulic clamps hold the car on the platen as the dumper is rotated and the contents of the car are dumped and the car is then returned to the upright position. The facility can dump a 100 ton car every 2 1/2 minutes, so that a standard 10,000 ton unit coal train can be unloaded in approximately four hours and thirty minutes. When a car is pushed onto the platen (dumper) it is weighed, dumped and then weighed a second time: the difference between the first weight and the second weight is the weight of the contents. Empty cars leaving the dumper roll, by gravity, to an eight yard track. The proper track is push - button selected and is under automatic retarder control for safe efficient coupling speed.

Beneath the dumper, coal moves from 2 hoppers onto a pair of 1,500 ton per hour feeder belts that discharge onto the first link of a conveyor system that is approximately a mile in length. This conveyor system bridges the Ashtabula River on a section 993 feet long with a five foot belt with a capacity of 3,000 tons per hour. Descending from the 100 foot river clearance height to near ground level the coal moves through a ninety degree transfer point onto a six foot wide yard conveyor. The yard conveyor is threaded through a rail mounted stacker / reclaimer which travels the length of the storage yard. The storage yard extends, on a North / South basis, 2,600 feet, the overall length of the pier.

The stacker / reclaimer operates in only three modes; stacking of coal, the reclaiming of previously stacked coal, and the handling of coal being dumped from cars while simultaneously reclaiming stacked coal. In the stack mode the equipment can stack to a height of sixty-three feet at a rate of

3,000 ton per hour. Of the 1.2 million ton storage capacity, some 800,000 tons can be stored and reclaimed by the stacker / reclaimer in direct operation with the conveyor system. Storage and reclamation beyond the reach of the stacker / reclaimer is handled by large mobile coal moving equipment such as caterpillar dozers. This large mobile equipment is also used to compact coal piles to prevent spontaneous heating and also for cleanup of remaining coal behind the reclaim operation. In reclaiming coal, the bucket wheel returns coal to the yard conveyor at 3,500 -- 4,500 tons per hour normally and at a 6,000 tons per hour for limited times during shiploading.

Come Spring, when coal is to be loaded aboard vessel from the storage piles accumulated during the non-navigation season, it will move first into one of three 4,000 ton surge silos at dockside. These silos, a requisite to high-speed shiploading since they supply larger volume of coal at shipside for faster transfer to ships than can be delivered by the yard conveyor during a given time, contribute to a maximum loading rate of upward of 8,000 tons per hour. Filled from the top by swinging chute, these silos are emptied by two feeder belts under each, with capacities exceeding 2,000 tons per hour. The coal flows to an 8,000 ton per hour dock conveyor which delivers the product to the shiploader. The shiploader travels alongside the dock in a North -South direction a total of 600 feet. An eight-foot wide shuttle conveyor discharges coal into the vessel.

The Dock has an annual throughput capacity of 7 Million Net Tons. Recent capital improvements include a new weighing system which is an integral part of the dumping process. A complete rebuild of the train positioner was completed in May of 1990. The new rail mounted, Krupp designed, stacker / reclaimer began operation in March, 1992.

SPECIAL INSTRUCTIONS:

CLOSE CLEARANCE:

COAL DUMPER COMPLEX (INSIDE BUILDING)
BETWEEN #1 & #2 BRIDGE YARD
BETWEEN #13 & # 14 WEST YARD
BETWEEN #4 & \$5 FRONT (HARBOR N/E)
BETWEEN #3 & #4 FENCE (N / E)

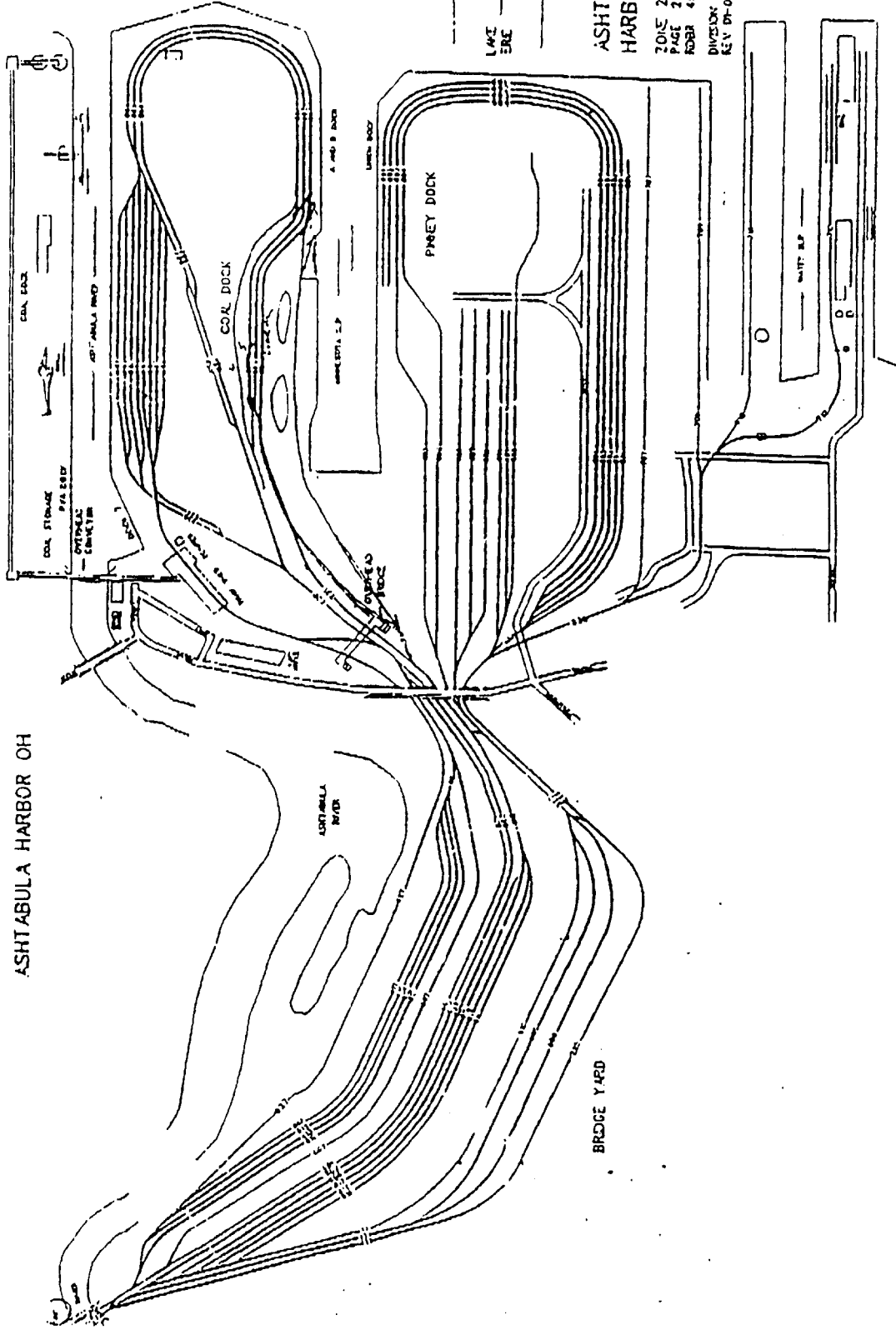
DERAILS ARE LOCATED AT:

NORTH END -- CARSON YARD
#3 MAIN AT THE DEPOT
#8 ASHTABULA (AT THE HARBOR)
#5 EAST SYSTEM (RIP TRACK) HARBOR

HAND BRAKES:

NORTH END OF CARSON YARD -- COAL TRAINS
ASHTABULA SALVAGE
COAL AT DUMPER LEFT UNATTENDED

ASHTABULA HARBOR OH



L.W.C.
E.R.C.

ASHTABULA
HARBOR OH

ZONE 27
PAGE 2
RDBR 40-2485
DIVISION: PITTSBURGH
REV DT-01-92

W.C.

CARSON YARD

C.P. 7

MORGAN RD.

A.T. C.P.P.

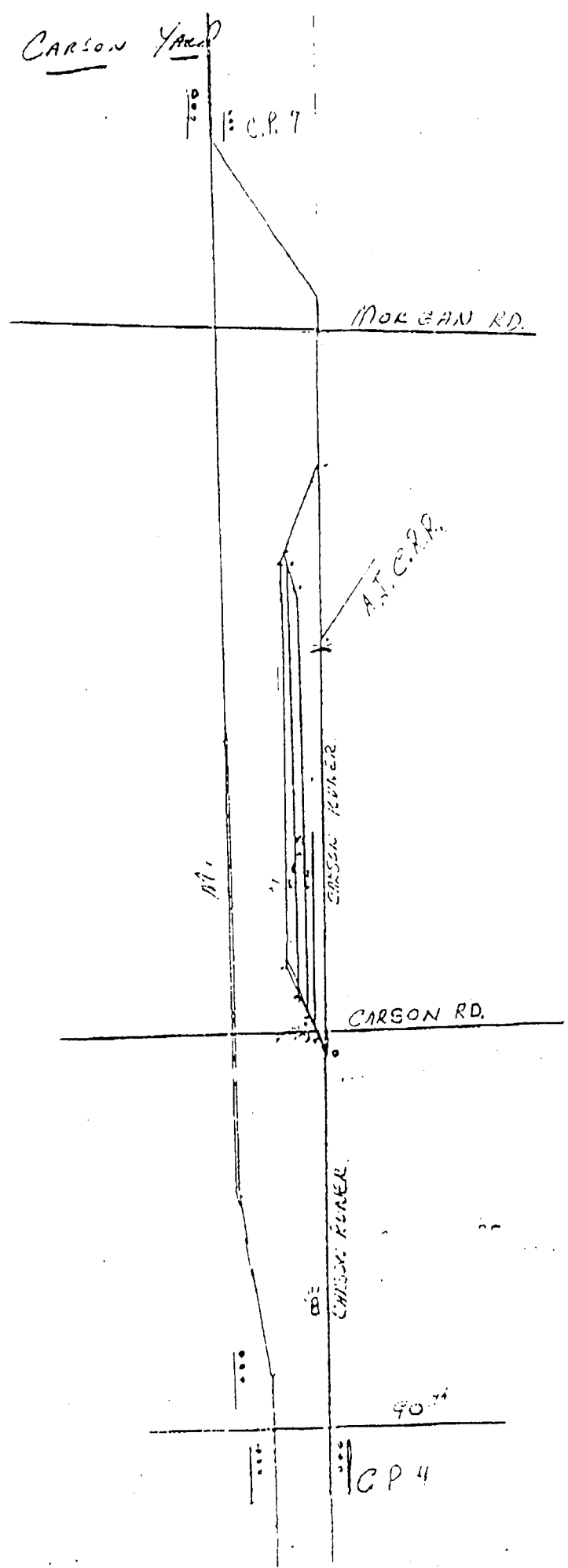
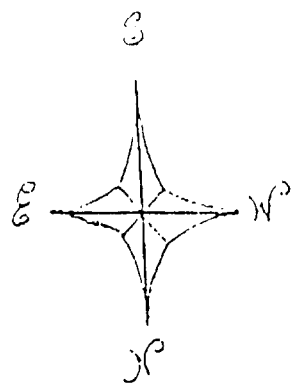
CARSON RIVER

CARSON RD.

CARSON RIVER

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C.P. 4



ASHTABULA OH

TO CP 128
(CONT)
SEE ZONE 84
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ASHTABULA WEST YARD

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DIVISION CLEVELAND
REV 06-01-88

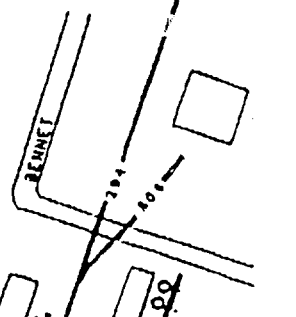
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ASHTABULA
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ASHTABULA OH

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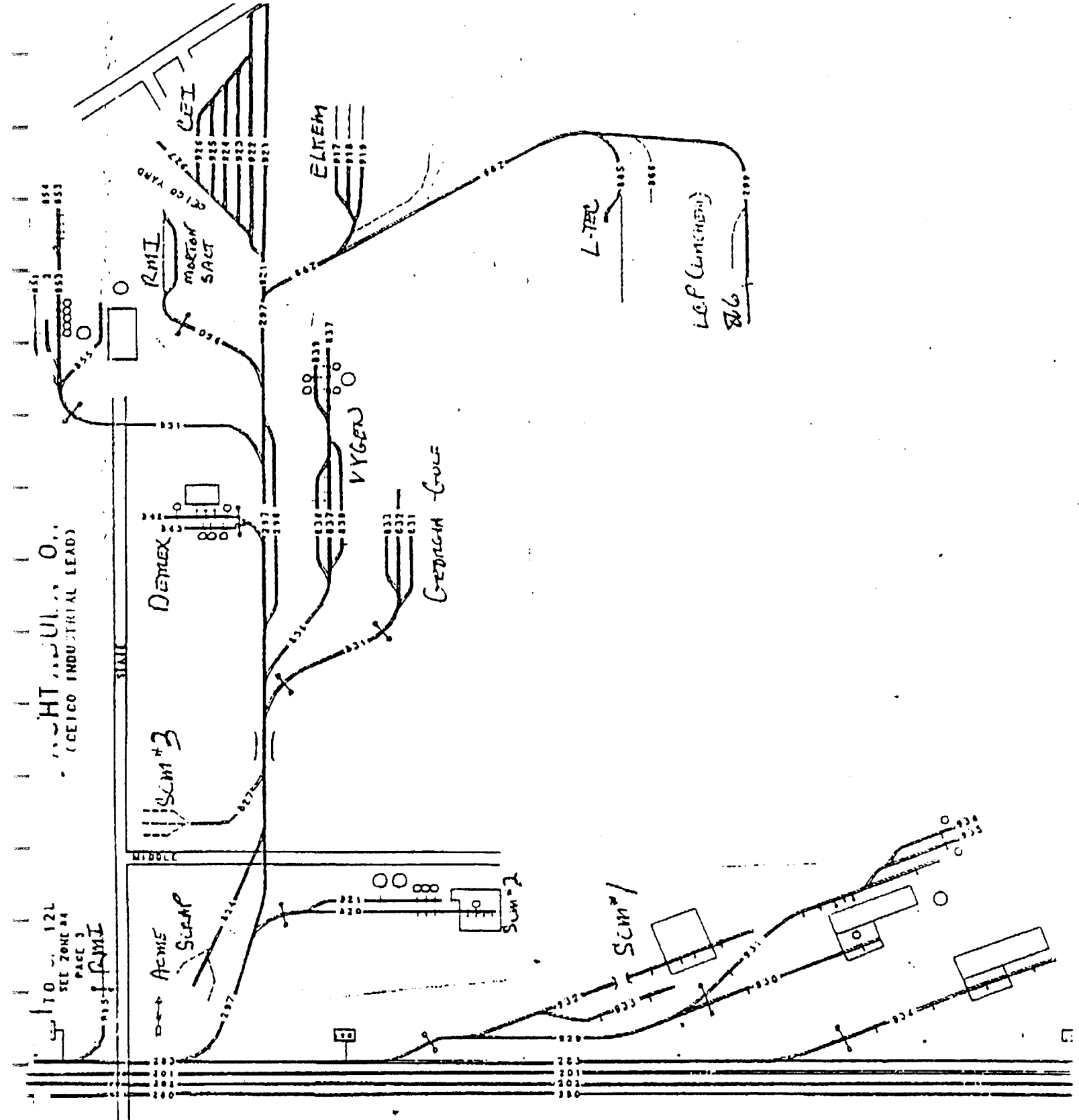
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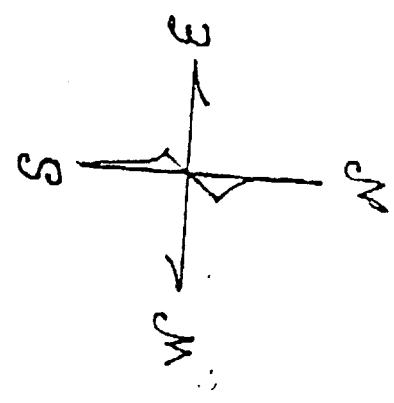
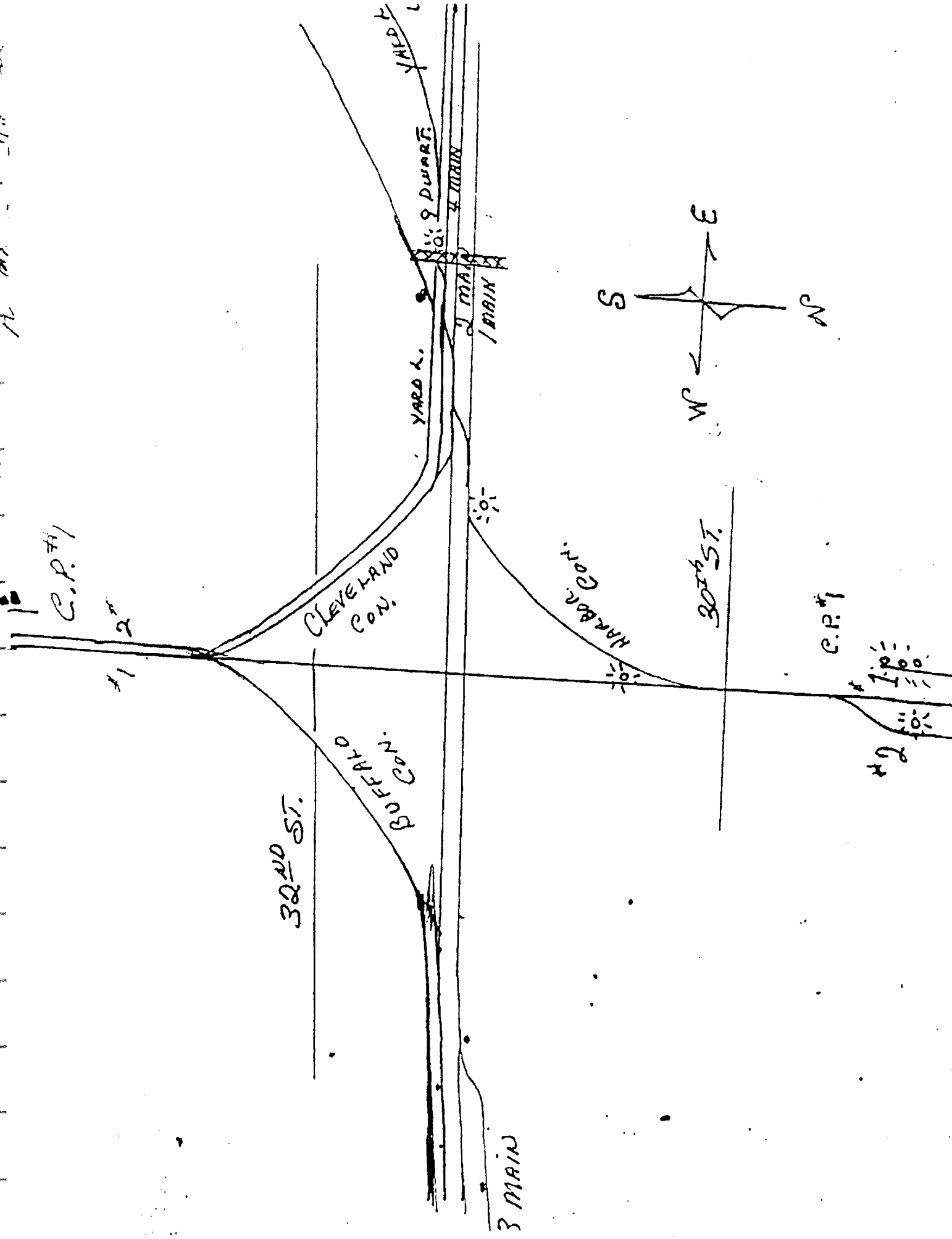


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(CEICO INDUSTRIAL LEAD)

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C.P.R.

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CLEVELAND CON.

BUEHNS CON.

3 MAIN

YARD L.

YARD R.

1 MAIN

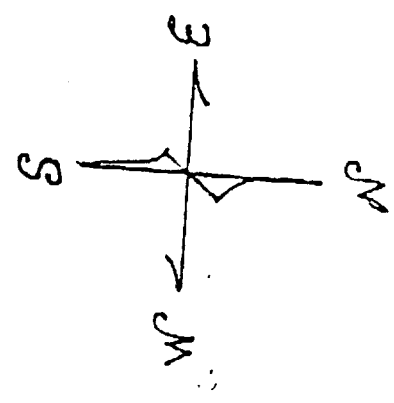
2 MAIN

HARBOUR CON.

30th ST.

C.P.R.

1 2



CONRAIL

**ASHTABULA, OHIO
WEST YARD "AY "**

<u>ZTS</u>	<u>TRACK NAME</u>	<u>CAR CAPACITY</u>
622	#2 AY	190
623	#3 AY	165
624	#4 AY	120
625	#5 AY	70
626	#6 AY	70
628	#8 AY	45
629	#9 AY	45
630	#10 AY	45
633	#13 AY	68
634	#14 AY	66
635	#15 AY	65
636	#16 AY	64
637	#17 AY	63*
638	#18 AY	62*
639	#20 AY	60*
283	#3 MAIN	100**
	#4 MAIN	200

NOTES: CAR CAPACITY IS FOR 100 TON HOPPERS
* WEST END SWITCHES OUT OF SERVICE
** DO NOT BLOCK CEICO LEAD

**CONRAIL
CARSON YARD**

<u>ZTS</u>	<u>TRACK NAME</u>	<u>CAR CAPACITY</u>	<u>NOTES</u>
631	#1 CARSON	100	STUB END SOUTH / END
632	#2 CARSON	100	CAN ENTER OFF RUNNER
633	#3 CARSON	100	CAN ENTER OFF RUNNER
273	RUNNER	220	***
630	ACJR	15	INTERCHANGE

NOTES: CAPACITY IS FOR 100 TON JUMBO HOPPERS
*** WHEN FULL CANNOT SERVICE ACJR.

CONRAIL

RADIO CHANNELS & TELEPHONE NUMBERS

HARBOR YARDMASTER: MONITORS

CHANNELS: 1 - 2 - 4 - 5

#1	YOUNGSTOWN LINE
#2	YARD - HARBOR
#4	YARD - WEST YARD
#5	CEICO

YOUNGSTOWN LINE DISPATCHER:

MONITORS: CHANNEL #1

TELEPHONE: 8 - 444 - 7180

CHICAGO LINE DISPATCHER -- CLEVELAND WEST:

MONITORS: CHANNEL #3

TELEPHONE: 8 - 520 - 5950

CHIEF DISPATCHER TELEPHONE NUMBERS:

ASHTABULA - CONWAY - SHIRE OAKS

8-444 - 7210

CLEVELAND - ASHTABULA - BUFFALO

8 - 520 - 5940

CAB DISPATCHER:

1 - 800 - 377 - 7942

ASST. SUPERINTENDENT PGH.

8-444-7205

ASHTABULA HARBOR

ZTS	TRACK NAME	CAR CAPACITY	ZTS	TRACK NAME	CAR CAPACITY
604	34-BRIDGE YARD	45	658	#11 WEST SYSTEM	29
600	30-BRIDGE YARD	43	659	#12 WEST SYSTEM	35
610	28-BRIDGE YARD	40	664	#4 FRONT	80
616	16-BRIDGE YARD	45	665	#5 FRONT	78
614	14-BRIDGE YARD	44	666	#6 FRONT	85
612	12-BRIDGE YARD	52		#1 EAST SYSTEM	135
606	6- BRIDGE YARD	58		#2 EAST SYSTEM	138
602	2 - BRIDGE YARD	70	686	#5 EAST SYSTEM	40
601	1 - BRIDGE YARD	68	687	#7 EAST SYSTEM	38
607	7 - BRIDGE YARD	60	689	#9 EAST SYSTEM	40
611	11-BRIDGE YARD	56	688	#4 OLD RIP	65
613	13-BRIDGE YARD	50	695	#5 OLD RIP	38
615	15-BRIDGE YARD	50	696	#6 OLD RIP	35
617	17-BRIDGE YARD	42	690	FENCE	50
627	27-BRIDGE YARD	85	691	#1 FENCE	99
			692	#2 FENCE	52
641	#1 COAL YARD	25	693	#3 FENCE	LOOP
642	#2 COAL YARD	25	694	#4 FENCE	LOOP
643	#3 COAL YARD	26	707	GANTRY	10
644	#4 COAL YARD	28	709	EAST - 1	40
645	#5 COAL YARD	26	710	EAST - 2	40
646	#6 COAL YARD	25	712	WEST - 1	40
647	#7 COAL YARD	22	540	#8 ASHTABULA	STUB
648	#8 COAL YARD	20			

NOTE: CAPACITY IS FOR 100 TON JUMBO HOPPERS. NOTE: CAPACITY IS FOR 100 TON JUMBO HOPPERS.

**CONRAIL
CARSON YARD**

<u>ZTS</u>	<u>TRACK NAME</u>	<u>CAR CAPACITY</u>	<u>NOTES</u>
631	#1 CARSON	100	STUB END SOUTH / END
632	#2 CARSON	100	CAN ENTER OFF RUNNER
633	#3 CARSON	100	CAN ENTER OFF RUNNER
273	RUNNER	220	***
630	ACJR	15	INTERCHANGE

NOTES: CAPACITY IS FOR 100 TON JUMBO HOPPERS
*** WHEN FULL CANNOT SERVICE ACJR.

CONRAIL

ASHITABULA TERMINAL: TELEPHONE NUMBERS

PREFIX: AREA CODE: 216
LOCAL : 992
SMART: 8 - 523

ASHITABULA HARBOR:

ASHITABULA: WEST YARD

TRAIN MASTER	2274	GEN. CAR FOREMAN	2224
YARD MASTER	2257	CAR FOREMAN	2225
TRACK SUPV.	2222	M/L TRACK SUPV.	2263
RETARDER BLDG.	2237	RADIO MAINTAINER	2232
JM -- TOWER	2227	C & S SHOP	2267
		B & B FOREMAN	2243

CARSON YARD: NO PHONE AVAILABLE

CONNEAUT, OHIO P & C DOCK (BLE)

CP - I:

YARD MASTER	216-593-1139
CHIEF DISPATCHER	216-588-2267
MAIN GATE SECURITY	216-593-1102

C & S PHONE - 2230

FMC CORPORATION
MHS DIVISION

OPERATION OF CAR DUMPER

FMC SEMI-AUTOMATIC ROTARY RAILROAD CAR CUMPER, per Drawings JK2675-201 and 202 with a 60 ft. long transfer table. Dumper will handle standard gauge open top hopper bottom and gondola cars up to and including those of 100 tons capacity and having a gross weight including car of about 315,000#. The dumper also will handle cars varying in length up to 60'-0" overall, in width from 9'-6" to 11'-0" outside, and in height from 9'-0" to 13'-0" above top of rail.

The maximum angle of rotation of the dumper is 180°. The rotation, however, is to be set for 155° by means of a rotary cam limit switch. The maximum time for a normal dumping cycle of 155° is 40 seconds, not including time for spotting cars in dumper or to remove empty cars from dumper. This time cycle does not include any time for cleaning out cars while on dumper, delays occasioned by "bad order" cars, or any other causes beyond our control.

Ring centers are 54'-0" to permit free discharge of coal from cars, unobstructed by roller rings, trunnion rollers or their supporting piers.

The dumper is made up of two (2) structural steel roller rings each 25 1/2 ft. in diameter, spaced 54 ft. centers, with 171# crane rail tires turning on four (4) corner assemblies, each made up of two 30" diameter supporting rollers. The rollers are of forged steel (rollers at one end of dumper to be straight-face and at the other end to be double-flanged), are fitted with anti-friction spherical roller bearings and turn on pins rigidly secured by lock plates in structural steel equalized supporting frames.

Fixed → 0 6/5 4:45 P