CSX

Equipment Handling

Updated through August 1, 2024

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Chronological List of Rule Changes

Rule ID	Effective Date
4467.2	08-01-2024
4452.1	05-01-2024
4400.1	03-01-2024
4151.5	06-01-2023
4305.3	06-01-2023
4466.2	01-01-2023

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Chapter 1 - General Rules

4001 - Reserved

4002 - Handling Machinery That Has a Boom Attached

4002.1 When handling machinery that has a boom attached, make certain that all booms are in the trailing position, except when:

a. Moving in work trains or wreck trains over short distances, such as to and from the work location, or

b. The Engineering Department employee-in-charge confirms that the lading is tied down properly and that any booms are properly secured, or

c. The machinery is a military tank with its gun barrel attached.

4003 - Reserved

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Chapter 2 - Car Inspection

4050 - Reserved

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4053 - Inspecting Re-Railed Cars

4053.1 Unless inspected by the Mechanical Department, inspect re-railed cars and do not move if any of the following conditions exist:

a. Cracked or broken wheels, or

b. Bent axles, or

c. Car body not properly positioned on the trucks, or

d. Improperly positioned brake shoes, or

e. Displaced or missing bearing adapter on cars with roller bearings.

4053.2 Re-railed cars must be inspected by Mechanical Department personnel at the first location the inspection can be performed.

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Chapter 3 - Hot Bearings

4100 - Receiving a Report of a Hot Bearing or a Hot Wheel

4100.1 Make an immediate inspection of all bearings or wheels reported hot and report the results of the inspection to the train dispatcher.

4101 - Inspecting a Roller Bearing Reported Hot

4101.1 When testing a bearing for excessive heat, make a visible mark at least three (3) inches long with a Tempilstik. Make the mark at the location indicated in the following chart:

If the bearing is on a	Then apply the mark
Passenger car	Directly on the bearing housing (not on the bearing end cap)
Freight car with trucks having more than one axle	On the outside of the bearing cup (not on the bearing end cap)
Car equipped with single-axle trucks	On the face of the adapter either to the right or left of the bearing
Locomotive	On the side of the bearing, or on the bearing end cap if the side of the bearing cannot be accessed

4101.2 When a Tempilstik is not available, carefully pass your hand near the bearing without touching it. If the bearing radiates more heat than other bearings, it is overheated.

4101.3 After inspecting a roller bearing reported hot, attach a completed Hot Box Tag to the equipment near the bearing, even if the bearing is not overheated.

4101.4 Set out the car if the:

a. Tempilstik mark melts when applied, or

b. Bearing is overheated, or

c. Equipment, other than a passenger car, has a hot box tag attached, indicating that the bearing has been previously inspected or reported hot.

4102 - Setting Out a Car with Hot Bearing

4102.1 When setting out a car with a hot bearing:

1. Do not use fire extinguishers, liquids, or snow to cool hot bearings;
2. Carefully inspect the equipment prior to movement;
3. Cut out the air brakes;
4. Do not exceed 4 MPH; and
5. Place it where it will not endanger flammable commodities.

4103 - Inspecting a Wheel Reported Hot

4103.1 Inspect the equipment to determine the cause of the hot wheel but do not touch the wheel. If the wheel is determined to be hot, correct the cause of the hot wheel by:

a. Releasing the hand brake(s), or

b. Cutting out the air brakes, or

c. Restoring the retainer valve to the EX (direct exhaust) position.

4103.2 Inspect all wheels on both sides of the equipment for tread build up or flat spots and contact the mechanical desk if tread build up is discovered.

4104 - Setting Out a Car with a Hot Wheel

4104.1 Set out the car if the:

a. Equipment has one or more wheels with flat spots or tread build up, or

b. Cause of the hot wheel cannot be corrected, or

c. Brakes do not release, even when the air brakes are cut out and air is bled off.

4104.2 When setting out a car with a hot wheel:

1. Carefully inspect the equipment prior to movement,
2. Cut out the air brakes, and
3. Do not exceed 10 MPH.

Chapter 4 - Flat Spots

4150 - Inspecting for Flat Spots

4150.1 If a flat spot develops on a wheel of a locomotive or other equipment, a member of the crew must perform an inspection of the equipment.

4151 - Wheel Impact Detectors

4151.1 Maintain the maximum speed permitted for the train when passing over a wheel impact detector.

4151.2 After passing a wheel impact detector:

1. Listen for an inspection results message concerning the inspection of the train, and
2. Communicate the contents of the message with other crew members.

4151.3 If the wheel impact detector results message indicates high impacts:

1. Stop and inspect the car(s) provided in the results message for the cause of the high impacts, and
2. Report the results of the inspection to the dispatcher.

4151.4 If the results message indicated an axle number instead of a car number and the cause of the impact is not found at the reported location, inspect 20 axles before and after the reported axle on both sides of the equipment.

4151.5 If the wheel impact detector results message was not clearly received, or the detector is inoperable or out of service, contact the train dispatcher for instructions.

4152 - Reporting Flat Spots

4152.1 Report flat spots exceeding two (2) inches in length to the mechanical desk and train dispatcher.

4152.2 On locomotives, record flat spots exceeding two (2) inches in length on the locomotive work report.

4153 - Flat Spots Meeting a Non-Complying Condition for a Locomotive

4153.1 A non-complying condition exists when:

a. One or more flats spots are 2 1/2 inches long or longer, or

b. Flat spots of at least 2 inches or more are within 1 1/2 inches of each other.

4153.2 When flat spot(s) meeting the non-complying condition requirements are discovered during the first movement of the locomotive after performing a calendar day inspection, the non-complying condition will be considered as having been discovered during the calendar day inspection.

4154 - Handling Equipment That Has Flat Spots

4154.1 When handling equipment that has flat spots, comply with the requirements of the chart below, unless further restricted by the train dispatcher.

Instructions Concerning Flat Wheels			
Length of Single Flat Spot	**Length of the smallest flat spot when two flat spots are within 1/2 inches of each other**	**Maximum Speed**	**Other Restrictions**
Locomotives			
2” or less	1” or less	Normal Speed	None
2” to 2 1/4”	1” to 1 1/2”	40 MPH	None
2 1/4” to 2 1/2”	1 1/2” to 2”	25 MPH	None
2 1/2” or more	2” or more	10 MPH	Set out equipment
Equipment other than a Locomotive			
2 1/4” or less	1 1/2” or less	Normal Speed	None
2 1/4” to 2 1/2”	1 1/2” to 2”	50 MPH	None
2 1/2” or more	2” or more	10 MPH	Set out equipment

4154.2 When required to set out equipment that has flat spots:

1. Inspect equipment to ensure it is safe to move, and
2. Do not exceed 10 mph.

Chapter 5 - Observation of Trains

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Chapter 6 - Defect Detectors and Clearance Detectors

4300 - General Requirements

4300.1 Investigate reported defects or excessive dimensions through a walking inspection of the train. Do not use train documentation to locate defects.

4300.2 When a train is equipped with an on-board defect detector system, comply with the instructions for that system.

4300.3 Record and report the following information to the train dispatcher:

1. Results of inspections made of reported defects or excessive dimensions, and
2. Evidence that a detector is not working properly (examples: An axle count malfunction, a hot bearing detector malfunction, or not working message, etc.)

4301 - Reserved

4302 - Passing Over a Defect Detector or by a Clearance Detector

4302.1 As a train passes over a defect detector or by a clearance detector:

1. Listen for an alarm, which will sound if a defect is detected, and
2. Maintain the maximum speed permitted.

4302.2 If an alarm sounds, immediately reduce the train’s speed to a level that will permit the train to be stopped promptly after passing over the defect detector.

4303 - Hot Box and/or Dragging Equipment Defect Detector Results Messages

4303.1 After passing over a defect detector, crewmembers must:

1. Listen for the inspection results message, and
2. Confirm their mutual understanding of the contents of the inspection results message.

4303.2 If all crewmembers are unable to agree on the contents of the inspection results message, the message must be treated as not received.

4303.3 A walking inspection of the entire train is required when the train:

a. Is not inspected by two consecutive defect detectors including defect detectors out of service, or

b. Passes over two consecutive defect detectors at less than 8 mph.

4303.4 Use the chart below to determine the action(s) required for defect detector results messages.

If the Defect Detector Indicates:	Then:
No Defects	Proceed
One (1) or two (2) defects	1. Stop and inspect for the reported defect(s), and 2. Promptly report inspection results to the train dispatcher.
Three (3) or more defects	1. Stop. Contact the train dispatcher and provide the following information: 1. Defect detector milepost location and name, 2. Track number, in multiple track territory, 3. Total number of axles in the train, including the locomotive consist, and 4. Location of the defects reported by the defect detector. 2. Inspect the reported defects, 3. If: a. The train dispatcher states that there are no additional defects then the train crew is not required to perform additional inspections, or b. The train dispatcher provides the location of additional defects then the train crew must inspect the additional defects, or c. The train dispatcher states that no information is available then the train crew must inspect each axle behind the last defect reported by the defect detector. 4. Promptly report inspection results to the train dispatcher.
No results message is received or the message is not clearly received or not understood	1. Immediately reduce train speed to thirty (30) MPH 2. Contact the train dispatcher and provide the following information: 1. Defect detector milepost location and name, 2. Track number, in multiple track territory, 3. Total number of axles in the train, including the locomotive consist, and 4. No results message was received or the message was not clearly received or not understood 3. If:

If the Defect Detector Indicates:	Then:
	1. The train dispatcher states that there are no defects reported then the train may proceed, or 2. The train dispatcher provides the location of reported defects then the train crew must inspect the reported defects, or 3. The train dispatcher states that no information is available then the train crew must proceed at thirty (30) MPH until the next defect detector or a roll by inspection is completed by a qualified employee on the ground and no defects were observed. 4. Promptly report inspection results to the train dispatcher.
No alarm tone is received when passing over the defect detector and results message indicates: a. Integrity failures, or b. It is not working, or c. It has malfunctioned, or d. An axle count malfunction.	1. Immediately reduce speed to thirty (30) MPH, 2. Report the occurrence to the train dispatcher, and 3. Do not exceed thirty (30) MPH until: a. Passing over another defect detector that inspects for hot bearings and/or dragging equipment, or b. A roll by inspection is completed by a qualified employee on the ground and no defects were observed.
Alarm tone is received when passing over the defect detector and the results message indicates: a. Integrity failures, or b. It is not working, or c. It has malfunctioned, or d. An axle count malfunction, or	1. Stop. Contact the train dispatcher and report the occurrence, 2. Inspect the entire train for defects, and 3. Promptly report inspection results to the train dispatcher.

If the Defect Detector Indicates:	Then:
e. A defect at an axle location that exceeds the known number of axles for the train.	

4304 - Inspecting the Train for Reported Defects

4304.1 When a defect is reported by a defect detector, promptly stop the train.

4304.2 Use the chart below to determine the action(s) required when inspecting the train:

Condition	Freight Trains	Passenger Trains
A defect is not found at the location identified and the train's speed was 8 MPH or more.	Inspect 20 axles before and after the reported defect on both sides.	Inspect remaining axles on the both sides of the car and two cars ahead of and behind the suspected car.
A defect is not found at the location identified and the train's speed was less than 8 MPH.	Make a walking inspection of the entire train.	Make a walking inspection of the entire train.
No defect is found during the required inspection.	Proceed at authorized speed.	Proceed at authorized speed.
A "Hot Bearing" is found.	Comply with procedures for inspecting hot bearings.	Comply with procedures for inspecting hot bearings.
A "Hot Bearing" is indicated at a bearing previously tagged with a "Hot Box" tag.	Set the equipment out even if there is no evidence of overheating.	1. Proceed not exceeding thirty (30) MPH for five (5) miles, 2. After five (5) miles, inspect all bearings on the car that actuated the defect detector and the bearings on the two (2) cars ahead of and behind it, 3. If no defect is found, the train may operate at authorized speed to the next authorized passenger equipment repair point where the car can be set out, and, 4. The car with the suspected hot bearing must be examined every 100 miles until the set out location is reached.

4305 - Clearance Detector Results Messages

4305.1 After passing a clearance detector, crewmembers must:

1. Listen for the inspection results message, and
2. Confirm the mutual understanding of the contents of the inspection results message.

4305.2 If all crewmembers are unable to agree on the contents of the inspection results message, the message must be treated as not received.

4305.3 Stop and inspect the entire train for excessive dimensions before passing a clearance restricted location when the results message from a clearance detector:

a. Is not received or not clearly received,
b. The detector is inoperable or out of service, or
c. Indicates an excessive dimension at a location that is known to be inaccurate.

4306 - Inspecting the Train for Reported Excessive Dimensions

4306.1 When an excessive dimension is reported by a clearance detector, promptly stop the train.

4306.2 If the location of the excessive dimension is identified, inspect the reported car and two cars or platforms before and after the reported location.

4306.3 If the location of the excessive dimension is not identified, inspect the entire train.

4307 - Comparing Axle Count Information

4307.1 When a detector provides an axle count, compare the axle count provided to the number of axles known to be in the train.

4307.2 When the axle count provided is at least two (2) axles less than the number of axles known to be in the train, report the discrepancy to the train dispatcher and proceed. The train dispatcher must notify the Customer Service Center.

4307.3 When the axle count provided is at least two (2) axles more than the number of axles known to be in the train, report the discrepancy to the train dispatcher. The cars must be identified as follows:

a. The train dispatcher will notify the Customer Service Center and the Customer Service Center will attempt to identify the cars, or
b. If the Customer Service Center is unable to identify the cars:
    1. Stop and inspect the train for extra cars, and
    2. Report the car initial and number of each extra car found to the train dispatcher.

4307.4 If extra cars discovered in the train require hazardous material documentation, the train dispatcher will:

a. Notify crew members to obtain new train documentation within 5 miles of the point of inspection, or
b. Issue a radio waybill for those cars containing hazardous materials.

    NOTE: A radio waybill may be transmitted to a moving train, but it must not be copied or repeated by an employee operating the controls of a moving locomotive.

Chapter 7 - Locomotive Rules

4350 - Locomotive Speed Restrictions

4350.1 Trains must not exceed:

a. 30 MPH with a single-unit locomotive consist without cars attached, or

b. 70 MPH with a locomotive consist containing a road freight locomotive, or

c. Freight train speed when handling a multiple-unit locomotive consist without cars attached, or

d. The speed authorized by the passenger railroad or agency when handling an Amtrak and/or a commuter railroad locomotive.

4351 - Locomotive Operational Restrictions

4351.1 Do not operate a locomotive consist:

a. On the live rails of any scale that is equipped with dead rails, or

b. With more locomotives than are permitted in the following chart:

Maximum Locomotives	Conditions
15	When moving without cars or with only a shoving platform.
12	When moving cars or cars and a shoving platform.
8	When moving on industrial spurs or industrial tracks.

4352 - High/Low Horsepower Combination

4352.1 When high/low horsepower (HP) locomotives are mixed in a train consist:

1. All 4 axle locomotives must be isolated when placed in a consist with any AC locomotive, and

2. All MP or SW locomotives must be isolated when placed in any locomotive consist in road service.

4353 - Handling Dead Locomotives Not Part of the Locomotive Consist

4353.1 When handling one or more dead locomotives that are not part of your locomotive consist:

1. Make certain that the movement is authorized by the Clearance Bureau,
2. Inspect the locomotives for the presence of alignment control couplers or coupler limiting blocks, and
3. Do not operate with more than five dead in tow locomotives.

4354 - Operating a Locomotive Not Equipped with an Event Recorder

4354.1 When operating the following locomotives as a controlling locomotive, do not exceed 30 MPH:

Initials	Numbers
CSXT	1021 through 1241, 2400, 2426, 2450 through 2467, and 8972

4355 - Handling Short Wheel-Base Locomotives

4355.1 Do not operate locomotives CSXT 1100 through 1128 over a railroad crossing at grade, unless it is coupled to another locomotive or a car.

4356 - Handling Locomotives Not Equipped with Alignment Control

4356.1 When handling locomotives that are not equipped with alignment control couplers or coupler limiting blocks, make certain that:

1. The locomotives are not coupled to a car with a length of more than 55 feet or less than 40 feet, and
2. The trailing tonnage behind the most forward non-alignment control locomotive does not exceed 5,000 tons.

4356.2 When the locomotive consist contains locomotives that are not equipped with alignment control couplers or coupler limiting blocks:

1. Do not use dynamic braking,
2. Limit locomotive brake cylinder pressure to 25 PSI, and
3. Make certain that each locomotive that is not equipped with alignment control is separated by an alignment control equipped locomotive.

4356.3 When moving locomotives that are not equipped with alignment control couplers or coupler limiting blocks as part of the train:

1. Make certain that the locomotives are within twenty (20) cars from the head end or within the rear twenty (20) cars,
2. Make certain that a car separates each locomotive,
3. If one or more of the locomotives are within the first twenty (20) cars:
    1. Do not use dynamic braking, and
    2. Limit locomotive brake cylinder pressure to 25 PSI.
4. If one or more of the locomotives are within the rear twenty (20) cars of the train, do not permit a helper to assist from the rear of the train.

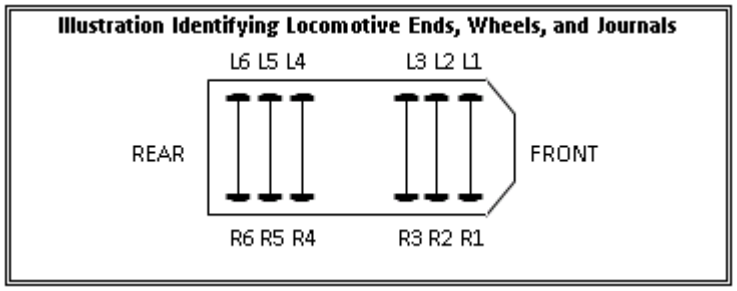
4357 - Identifying the Ends of Locomotives

4357.1 Determine the front of a locomotive by locating an "F" stenciled on the side of the locomotive frame at the steps. The opposite end is the rear.

4358 - Identifying Wheels and Journals on Locomotives

4358.1 Identify the wheels and journals on a locomotive by:

1. Determining the side of the locomotive by facing the same direction as the locomotive. The left side "L" of the locomotive corresponds to the left and the right side "R" of the locomotive corresponds to the right, and
2. Counting the axles from the front of the locomotive to the subject axle. Axles are numbered beginning with one at the front "F" end.



4359 - Locomotive Clearance Through Rotary Dumps

4359.1 CSXT and foreign line locomotives in the following classes must not pass through a rotary dump:

Class
ET44AH
ET44AC
ST70AH
SD70AH
SD70ACT4

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Chapter 8 - Train Rules

4400 - Train Speed

4400.1 Do not exceed the speeds listed for the type of train or equipment listed. Speeds listed in this chart may be further restricted by Timetable or other Special Instruction,

Type of Train/Equipment	Maximum Allowed Speed	Remarks
Passenger/Commuter	79 MPH	Does not include trains handling auto-racks or auto frame equipment
Trains handling one or more loaded PIH/TIH cars	50 MPH	There is no restriction on empty PIH/TIH Cars
Trains handling one or more phosphate cars CSXT 640000 - 640473	50 MPH	None
Trains handling cars with initials CWP	45 MPH	Only applies when restriction is listed on train documentation
Trains handling gondolas with initials NYC, CR, or PRC	40 MPH	Only applies when restriction is listed on train documentation
Trains handling cars with initials DRGW	50 MPH loaded 40 MPH empty	Only applies when restrictions is listed on train documentation
Locomotives or cars being shoved	30 MPH	Does not apply to helper operations or Distributed Power Operations
Trains handling one or more cars loaded with engineering equipment	50 MPH	Specific types of engineering equipment may be further restricted
Trains handling Camp Cars	40 MPH	Including Univan Camp Cars
Trains handling snow plows or ditcher spreaders	25 MPH	None
Trains handling ice breaker cars	10 MPH	Applies only when being used to break ice or moving through tunnels
Amtrak trains handling auto racks or auto frame equipment	70 MPH	None
Trains handling air dump cars	See Remarks	45 MPH - Maintenance of way air side dump cars 60 MPH - All other air dump cars

Type of Train/Equipment	Maximum Allowed Speed	Remarks
Trains handling welded or continuously jointed rail ONLY	40 MPH (See Remarks)	20 MPH - When operating through turnouts and crossovers that permit a speed of 30 MPH or greater, or 10 MPH - When operating through turnouts and crossovers that restrict speed to less than 30 MPH and/or thru truss bridges or tunnels.
Trains handling wreck cranes or derricks	35 MPH (See Remarks)	20 MPH - Shoving
Trains handling SF1A, SF1B, SF2A flangers	See Remarks	5 MPH - Flanging passing station platforms, highway-rail crossing at grade, or equipment on adjacent tracks or when flanging shoving 30 MPH - Flanging pulling 50 MPH - Secured for movement in a train
Trains handling CSXT and CR track geometry cars	See Remarks	60 MPH - Testing 70 MPH - Not testing with freight locomotive consist 79 MPH - Not testing with passenger locomotive consist
Trains handling NS track geometry and research cars	60 MPH	None
Trains handling BDS ballast spreaders CSXT 905050 - 905079	50 MPH	None
CSXT 994302 (TGC2)	See Remarks	60 MPH - Testing 60 MPH - Not testing with freight locomotive consist 79 MPH - Not testing with passenger locomotive consist
CSXT 944366 (TGC3)	See Remarks	70 MPH - Testing/not testing with freight locomotive consist 79 MPH - Testing/not testing with passenger locomotive consist
Empty Unit Trains	60 MPH	

Type of Train/Equipment	Maximum Allowed Speed	Remarks
Trains consisting entirely of intermodal cars, auto racks, or TPIX/CRYX equipment	70 MPH	None
Loaded Unit Trains	50 MPH	Overloaded cars on unit trains may be restricted to 40 MPH on train documentation
Mixed Freight trains	60 MPH	None
Trains handling TOW (Trailer on Wheels) equipment	60 MPH	None
Trains handling empty bulk head flat cars, or empty center beam flat cars	60 MPH	None
Trains handling gondolas loaded with stump wood	50 MPH	None
Trains handling loaded or empty log rack cars	50 MPH	Excludes Gondolas
Circus trains and solid military trains	50 MPH	

4401 - Handling Circus Trains or Carnival Trains

4401.1 CSXT Operations Planning must authorize and issue instructions prior to movement of Circus or Carnival Trains.

4402 - Reserved

4403 - Intermodal Train Placement Requirements

4403.1 Before operating an intermodal train with head end power only or behind mid-train DP or Helper consist, make certain that the following cars do not have more than 6,000 trailing tons:

a. COFC/TOFC cars, or

b. Empty spine cars, or

c. Empty double stack cars.

4403.2 When operating an intermodal train on other than the water level route and the train is more than 9,000 feet long and exceeds 7,500 tons, the first ten (10) platforms or wells behind any locomotive consist in the train must be loaded with at least one trailer or container.

4403.3 When combining an Intermodal train with a mixed freight train, the intermodal train must be placed to the rear of the combined train.

4404 - Reserved

4405 - Reserved

4406 - Handling a Coal or Ballast Train Equipped with an Air Dump System

4406.1 When handling a coal or ballast train that is equipped with an air dump system, make certain that:

1. The air dump system is not charged, except when preparing to unload,
2. All cars and air hoses are coupled and the associated angle cocks are properly positioned, and
3. The charging hose remains with the train when the train's power is changed, except for cars with SMEX initials.

4407 - Handling Passenger Trains

4407.1 A passenger train may consist of a combination of all types of passenger equipment if the cars are cleared to operate at passenger train speeds.

4407.2 Do not operate a passenger train, other than an Auto Train®, that contains more than thirty (30) cars.

4407.3 Do not operate an Auto-Train that contains more than fifty-six (56) cars.

4408 - Handling Trailers-on-Wheels

4408.1 Unless the following TOW equipment is equipped with a blue, 3-inch diameter, round sticker located on the nose of the trailer immediately above the vehicle identification number, do not operate the equipment on CSXT.

1. AMTZ 460000 - 460253 series cars,
2. AMTZ 462000 - 462039 series cars,
3. AMTZ 462997 - 462999 series cars,
4. ECOZ 533000 - 533199 series cars,
5. SWFZ 465001 - 465100 series cars,
6. All cars with initials TCSZ, except those moving on Norfolk Southern trains NS251, NS261, NS262, NS263, or NS264, and
7. All TOW equipment owned by Schneider.

4408.2 Do not operate TOW equipment with other freight cars, except intermodal trains.

4408.3 When handling TOW equipment in intermodal trains, make certain that the TOW equipment is on the rear of the train and the train's total tonnage is 5,000 tons or less.

4408.4 When handling TOW equipment in passenger trains, make certain that the TOW equipment is on the rear of the train.

4408.5 When handling TOW equipment:

1. Do not operate a TOW train that has more than 125 trailers or exceeds 5,000 tons,
2. Do not hump the equipment,
3. Do not couple with or to TOW equipment at more than two (2) MPH,
4. Do not leave a single TOW trailer on a track in signaled territory, unless the train dispatcher is notified and provides protection,
5. Do not exceed 10 MPH when shoving TOW equipment, and
6. Do not exceed 9 powered axles when shoving TOW train equipment and limit the locomotive's output to the minimum required to move the equipment.

4408.6 Employees riding TOW Train equipment must only ride a coupler mate bogie designed to be ridden.

4408.7 When performing a brake test on TOW equipment, make certain that the piston travel is between 1-1/4 and 3-1/2 inches.

4408.8 When leaving TOW equipment on a grade of 1% or more, inspect at least 50 percent, but not less than 10 units, of the equipment's brakes to ensure that they are applied.

4408.9 When detaching locomotives from or separating TOW equipment:

1. Do not detach the locomotive from TOW equipment, unless under the direction of the Mechanical Department,
2. Leave at least one locomotive, with its hand brake fully applied, coupled to unattended TOW equipment,
3. Before making a cut on TOW equipment, make certain that the landing gear of the trailer behind the cut is down to ensure the nose of the trailer is fully supported,
4. Before detaching from TOW equipment, place the automatic brake in the EMERGENCY position to reduce the brake pipe pressure to zero, and
5. After cutting away from the equipment, leave the angle cock in the open position.

4408.10 When mechanical problems are encountered:

1. If a run-around hose is applied to any TOW equipment, set out the equipment at the next forward terminal where the TOW equipment can be repaired,
2. If a bogie spring brake is disabled, set the equipment out at the first available location, and
3. If the highway wheels are on the rail and the condition cannot be corrected, set out the TOW equipment.

Chapter 9 - Car Rules

4450 - Rail Car Doors

4450.1 The following car doors must be closed and latched before departing a customer facility or adding the cars to a train:

1. Box car doors, and
2. Doors and bottom discharge outlets of hopper cars.

4450.2 The following car doors must be closed and latched before the car is moved:

1. Plug doors, and
2. End doors of auto racks.

4451 - Handling Overweight Cars

4451.1 Do not move any car that is flagged as being overweight on train documentation, unless the Customer Service Center or the Clearance Bureau authorizes the movement.

4451.2 Do not move cars with a gross weight exceeding 220,000 pounds on track scales with a capacity of less than 200 tons.

4452 - Handling "No Hump" and "Adjust Load" Cars

4452.1 When handling, or coupling to, one or more cars identified by train or yard documents as "Do Not Hump" or "Adjust Load", do not:

a. Hump or kick the cars, or
b. Switch with the cars, or
c. Switch into the cars, or
d. Couple into the cars with more force than is necessary to complete the coupling.

4453 - Handling Cars that are Prone to Rocking

4453.1 When handling one or more Plate F box cars, high-sided gondolas, open top hoppers, or covered hoppers with a capacity of at least 4,000 cubic feet that are loaded with more than 95 tons and identified by tonnage graph, comply with the following:

1. Observe these cars for excessive rocking,
2. Take immediate action to reduce speed if you see excessive rocking motion, and
3. Avoid operation between 14 and 21 MPH in locations designated by special instructions. If the train’s speed cannot be maintained at or above 22 MPH, the speed of the train must be reduced to below 14 MPH.

4454 - Handling Heavy Bad Order Cars

4454.1 When handling one or more heavy bad ordered cars, comply with Mechanical Department instructions.

4455 - Identifying the Ends of Cars

4455.1 Identify the ends of a car as follows:

a. If the car has only one hand brake, the B-end of the car is the end with the hand brake. The other end is the A-end, or

b. If the car has more than one hand brake, the letters "A" and "B" are stenciled on the appropriate ends of the car.

4456 - Identifying Wheels and Journals on Cars

4456.1 Identify the wheels and journals on a car by:

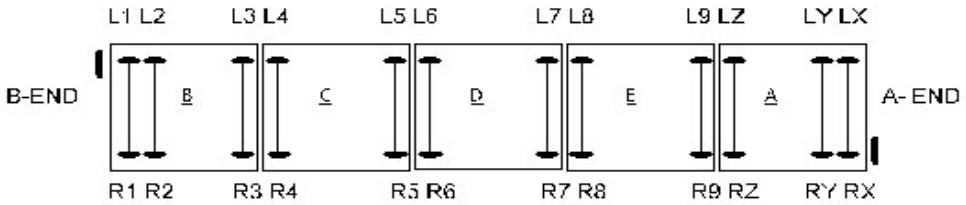
1. Determining the side of the car by facing the car from the B-end. The left side “L” of the car corresponds to your left and the right side “R” of the car corresponds to your right, and
2. Counting the axles from the B-end of the car to the subject axle. Axles are numbered one through nine beginning at the B-end. After nine, the axles are lettered beginning with “Z” and continuing toward “A” until the last axle on the A-unit.

4457 - Identifying Units on Articulated Cars

4457.1 Identify the units of an articulated car as follows:

1. The B-unit of the car is the unit that is stenciled "B end",
2. The A-unit is the end unit opposite the B-unit and stenciled "A end", and
3. Intermediate units are stenciled consecutively and alphabetically beginning with “C” from the B-unit toward the A-unit.

Illustration Identifying Car Ends, Wheels, Axles, and Units on Articulated Cars



4458 - Moving Defective or Damaged Cars

4458.1 Before moving a defective or damaged car:

1. Obtain instructions from the Mechanical and Transportation Departments, and
2. Inform the train dispatcher of the movement.

4459 - Reporting Defective, Damaged, or Improperly Loaded Cars at an Interchange Location Where There is No Car Inspector On-Duty

4459.1 When a defective, damaged, or improperly loaded car is offered for delivery to CSXT, inform the train dispatcher of the following items:

1. The car's initials and number,
2. The nature of the defect(s),
3. The identification of the contents, and
4. The destination of the car, if known.

4460 - Spotting TOFC or COFC Cars for Drive-On Loading or Unloading

4460.1 When spotting TOFC or COFC cars for drive-on loading or unloading, make certain that:

1. All the cars are coupled,
2. The slack is adjusted to permit the proper positioning of bridge plates, and
3. The hand brake is applied on each car.

4461 - Spotting Auto Rack Cars for Loading or Unloading

4461.1 When spotting autorack cars for loading or unloading, make certain that:

1. All the cars are coupled,
2. The slack is not bunched so as to permit proper placement of portable bridge plates, and
3. The hand brake is applied on the first, last, and every fourth car in the group of cars.

4462 - Handling Loaded Auto Rack Cars

4462.1 Do not place loaded autorack cars directly behind an open top car loaded with sand, gravel, coal, or similar commodity.

4462.2 Do not place loaded autorack cars directly in front of or behind flat cars or open top cars loaded with a shiftable commodity that protrudes or may protrude beyond the car ends.

4462.3 Blocks of 40 or more loaded or empty auto racks must be placed at the rear of the train when operating as a mixed freight train.

4463 - Handling Double-Stack Cars other than EPIX, MERX, or MHFX Cars

4463.1 Make certain that the double-stack cars are not:

a. Humped, or

b. Cut off in motion with the intent of coupling into another car, or

c. Struck by any car moving under its own momentum, or

d. Coupled into with more force than is necessary to complete the coupling.

4463.2 When handled in a mixed freight train with 6,000 tons or more, make certain that the double-stack cars with containers on them (loaded or empty) are placed ahead of cars without containers on them.

4463.3 When handled in a unit train, make certain that the double-stack cars with containers on them (loaded or empty) are placed ahead of cars without containers on them.

4464 - Handling Single-Axle Cars - (TTOX and TTFX)

4464.1 When handling one or more single axle cars, make certain that the maximum tonnage behind these cars does not exceed:

1. 3,000 tons, if the cars are empty,
2. 5,000 tons, if the cars are empty and operating on the Water Level Route, and
3. 6,000 tons, when the cars are loaded.

4464.2 When handling one or more single-axle cars make certain that:

1. The dynamic brake axle value is 18 axles or less,
2. None of the cars are the rear car of the train,
3. The single-axle cars are at least five (5) cars or platforms ahead of a helper that is on the rear of the train, and
4. If it is necessary to cut a helper into the train and the single-axle cars are ahead of the helper, the single-axle cars are at least five (5) cars or platforms ahead of the helper.

4464.3 When a train handling one or more TTOX or TTFX single-axle cars requires a helper locomotive on the rear, limit the helper as follows:

1. When using an AC locomotive:
    1. Use only one (1) locomotive,
    2. Limit the locomotive's output to 100 Kilopounds, and
    3. Isolate and, weather permitting, shutdown all other locomotives in the helper locomotive consist.
2. When using one or more DC locomotives:
    1. Limit horsepower to 6,000,
    2. Limit the number of powered axles to twelve (12),
    3. Isolate and, weather permitting, shutdown all other locomotives in the helper locomotive consist, and
    4. Limit tractive effort as follows:
        1. 1,000 amps, when the helper has less than 4,000 total horsepower,
        2. 900 amps, when the helper has between 4,000 and 5,000 total horsepower, and
        3. 800 amps, when the helper has over 5,000 horsepower.

4465 - Handling Blocks of 30 or more "Heavy" Loads

4465.1 Blocks of thirty (30) or more heavy loaded cars, or cars weighing 139 gross tons or more, must be placed either on the head end of the train directly behind the locomotive consist or directly behind any remote DP consist.

4466 - Placing Empty Cars in Trains

4466.1 For the purposes of these rules, the following 80 feet or longer cars must be considered empty:

a. Cars weighing less than 50 tons gross weight, or

b. Flat cars with a single loaded trailer/container, or

c. Flat cars with only empty trailers/containers, or

d. Multi-platform cars with either end or any adjoining platforms unoccupied.

4466.2 When placing empty cars in mixed freight trains:

1. When trailing tonnage exceeds 6,000 tons behind any locomotive consist, do not place one or more empty flat cars 80 feet or longer, including Auto Racks, TOFC/COFC or multi-platform cars within the first 10 cars behind any locomotive consist,
2. Do not place solid blocks of six or more loaded cars directly behind solid blocks of 30 or more empty cars, and
3. When empty flat cars 80 feet or longer are located within the rear 10 cars of a train, any helper or DP unit(s) must be cut in ahead of such cars.

4466.3 If operating in mixed freight service, empty flat cars of type F126 or F226 with initials GTTX, NKCR, TILX, TINX, FTTX or TTXX must be placed on the rear of the train. Any helper or DP unit(s) must be cut in ahead of such cars.

4466.4 If operating in unit train service, empty 80 feet or longer cars that are not boxcars must be placed on the rear of the train. Any helper or DP unit(s) must be cut in ahead of such cars.

4467 - Train Tonnage & Length Restrictions

4467.1 Trains operating with head end power only and exceeding 8,000 tons, must not operate with more than 33% of the train's total weight in the rear 25% of the train.

Note: Train length percentages are determined by length, not car count. Example; An 8,000 foot train weighing 9,000 tons must not have more than 3,000 tons placed between 6,000 feet and the end of train.

4467.2 Trains must not exceed limits in the following chart. Once a train has departed origin, if it is discovered that the train has exceeded limits outlined in the table below, the General Superintendent of Operations (GSO) may give approval to operate up to 500 feet and/or tons above the limits:

Train Type	**Non-DP**	**DP**
Mixed Freight	10k feet/14k tons	12k feet/20k tons
Intermodal	14k feet/14k tons	14k feet/16k tons
Bulk Load or Empty	12k feet/20k tons	12k feet/24k tons
Solid Auto Trains, Loaded or Empty	10k feet/10k tons	14k feet/14k tons

The following exceptions are based upon route-specific criteria. Trains must not operate outside of the limits as prescribed below:

Requirement	**Route**
Bulk trains with DP may operate up to 13k feet and 32k tons on the following corridors:	Walbridge-Columbus-Russell-Hinton-Clifton Forge-Richmond-Newport News
	Shelby/Martin - Russell
	Keyser-Cumberland-Baltimore
	Buffalo-Selkirk-Oak Island (must not exceed 28K tons)
	Temerson-Montgomery-Mobile
	Waycross-Tampa/Mulberry
	Toledo/Walbridge-Detroit
	Cumberland - Fulton, VA
	Richmond, VA ? Rocky Mount ? Florence ? Savannah ? Jacksonville, FL

Mixed Freight Trains may operate 14k feet and 20k tons:	CN transfer Lang - Walbridge (regardless of DP status)
M701/M702 Trains may operate up to 11,300 feet and 16k tons as Non-DP:	Selkirk - Oak Point, via Hudson
Solid Auto Trains (loaded or empty) may operate up to 12k feet and 12k tons as Non-DP:	Water Level Route (as defined in Glossary)
	Toledo - Detroit
	Buffalo - Louisville
	ANJ 908.7 (Bama Jct.) - Boyles Terminal, including route on S&NA South from 000 410.7 - 000 404.2
Empty Auto Trains may operatye up to 12k feet as non-DP:	Lordstown - Louisville

4468 - Reserved

4469 - Reserved

4470 - Handling Wood Rack and Bulk Head Flat Cars

4470.1 Except for switching, do not handle a partly loaded wood rack car, unless the movement is:

a. In a work train, or

b. Authorized by a supervisor.

4471 - Handling Cars Loaded with a Shiftable Commodity

4471.1 When handling one or more flat cars or open top cars loaded with a shiftable commodity that protrudes beyond the car ends or extends above the car ends and is liable to protrude beyond the car ends, make certain that the cars are not positioned next to a:

a. Hazardous material shipment, as defined in United States Hazardous Materials Instruction for Rail, or

b. Loaded auto-rack car, or

c. Locomotive, or

d. Caboose/shoving platform.

4472 - Handling Heavy Duty Flat, Schnabel, and Span-Bolstered Cars

4472.1 When handling any loaded heavy duty flat cars, schnabel cars, and span-bolstered cars listed in the table below:

1. Obtain authorization from Clearance Bureau prior to moving the shipment, and

2. Place the cars at or near the head end of the train.

4472.2 When handling any empty heavy duty flat cars, schnabel cars, and span-bolstered cars listed in the table below:

1. Do not exceed 40 MPH, and
2. Place the cars at or near the end of the train.
3. During switching operations, must not be handled while attached to other railcars, regardless of load/empty status.

Note: Clearance Bureau instructions may supersede rules around the movement of such equipment.

Car Number	Axles	Car Number	Axles	Car Number	Axles
BBCX 001000	20	KRL 164002	16	KWUX 000010	16
CCRX 040010	20	KRL 164003	16	KWUX 000101	20
GEGX 021154	16	KRL 164004	16	KWUX 000102	22
GEGX 021155	16	KRL 164005	16	KWUX 000200	20
GEX 080000	16	KRL 164006	16	KWUX 000301	22
GEX 080002	16	KRL 16800	16	MAMX 001001	18
HEPX 000200	20	KRL 16801	16	PTDX 000202	20
HLIX 0002018	20	KRL 204000	20	RRTX 000000101	20
KRL 003601	36	KRL 204040	20	TEXX 0000900	20
KRL 164000	16	KRL 204041	20	TEXX 0001135	20
KRL 164001	16	--	--	--	--

4473 - Handling Cabooses, Shoving Platforms, Push Cars or Remote Control Platform Cars (RCPC)

4473.1 When handling a caboose, shoving platform, or push cars:

1. Place the cars at the rear of the train,
2. Place the cars behind helper service locomotives, and
3. During switching operations, must not be placed within the first 10 cars if trailing tonnage exceeds 2000 tons.

4474 - Handling Rapid Transit Cars

4474.1 When handling rapid transit cars on their own wheels, move the cars in:

a. Special train service, or

b. Dimensional train service, or

c. Local freight train service.

4474.2 When rapid transit cars move in local freight train service, make certain that the train's length does not exceed 1,200 feet.

4475 - Handling Passenger Equipment

4475.1 When handling passenger equipment in a freight train:

1. Place the equipment on the rear of the train, unless otherwise authorized by CSX Clearance Bureau, and
2. Do not shove the train when passenger equipment is placed on the rear of the train.

4475.2 When switching passenger equipment:

1. Do not hump or flat switch the equipment with the locomotive detached,
2. Do not couple the equipment to any car with a top shelf-type coupler, and
3. Handle the equipment separately when it is being switched and/or spotted in yards.

4475.3 When handling commuter cars, make certain that the cars have appropriate couplers and/or heavy duty knuckle adapters.

4476 - Reserved

4477 - Reserved

4478 - Reserved

4479 - Slowing or Stopping TTEX Solid Draw Bar Cars

4479.1 When slowing or stopping one or more TTEX solid draw bar cars in turnouts and crossovers in a terminal, keep the train's slack stretched.

4480 - Handling Scale Test Cars

4480.1 Do not hump scale test cars.

4480.2 Place scale test cars at the rear of the train, ahead of one car with operative air brakes.

4480.3 When a helper or distributed power is required, the helper locomotive or distributed power must be positioned ahead of scale test cars.

4480.4 Obtain authority from the Clearance Bureau prior to adding a foreign railroad or private industry scale test car to a train.

4480.5 Single axle scale test cars, listed in the chart below are restricted to 30 MPH.

Initials	Car Number
BO	914220 - 914227
CO	914201
CR	80004, 80012, 80015, and 80070
CSXT	914203, 914228, 914229, and 214240
NYC	80062, 80063, and 80067

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Chapter 10 - Clearance Implicated Shipment Rules

4500 - Ensuring Authorization to Move Shipment

4500.1 Except in yards and terminals, movement of any clearance implicated shipment must be authorized by the Clearance Bureau.

4500.2 Any train that is detoured or has its route extended must have new train documents issued for the new territory prior to departure.

4500.3 Reserved for future use

4501 - Moving Clearance-Implicated Shipments in Yards or Terminals

4501.1 Do not move a clearance-implicated shipment within a yard or terminal without Clearance Bureau authorization, unless the shipment is being placed for measurement.

4501.2 When moving a clearance-implicated shipment for measurement make certain that it is:

1. Protected by the train dispatcher or supervisor controlling the movement,
2. Positioned so that the crew can observe it, and
3. Placed in a track with sufficient clearance for the shipment.

4502 - Picking Up or Setting Off on Line-Of-Road

4502.1 Before picking up a clearance-implicated shipment on the line-of-road, make certain that instructions are received from the Clearance Bureau.

4502.2 When handling a train containing a dimensional or valuable clearance-implicated shipment, obtain permission from the appropriate Transportation Department supervisor before making any pick-up or set-off.

4503 - Verifying Inspection

4503.1 Before moving a clearance-implicated shipment from its point of origination or an interchange point, make certain that the shipment has been inspected by Mechanical Department personnel.

4504 - Notifying Necessary Personnel about Clearance-Implicated Shipments

4504.1 Superintendents, or their designee must notify the:

1. Mechanical Department supervisor on-duty when tendering a clearance-implicated shipment requiring inspection at origin or interchange,
2. Chief train dispatcher for authority to add the shipment to a particular train after the Clearance Bureau has authorized and protected a clearance-implicated shipment, and
3. Appropriate representative of the foreign line whenever one or more clearance-implicated shipments are being interchanged with that railroad.

4504.2 After authorizing the movement of a clearance-implicated shipment, chief train dispatchers must issue a qualifier number to the crew handling the shipment, advising them to have the proper clearance protect message in their possession.

4505 - Confirming Written Instructions

4505.1 When handling a train containing one or more clearance-implicated shipments, make certain that Clearance Bureau instructions are a part of the CSXT train documentation for each shipment that has not been authorized verbally.

4506 - Placing Clearance-Implicated Shipments in a Train

4506.1 When a clearance-implicated shipment is placed in a train at its originating terminal, either a supervisor or train dispatcher must make certain that the shipment is placed:

1. On a train moving over the correct route as outlined in the Clearance Bureau’s authorization, and
2. Properly within the train.

4507 Handling Dimensional or Valuable Clearance-Implicated Shipments

4507.1 When handling dimensional or valuable clearance-implicated shipments, do not:

a. Hump or flat switch the shipment, or

b. Flat switch with or against the equipment, or

c. Move in a train if it will be necessary to switch against the equipment.

4508 - Controlling the Safe Movement of Clearance-Implicated Shipments

4508.1 The chief train dispatcher must:

1. Control the safe movement of clearance-implicated shipment(s) over main tracks, sidings, or other segments of track under his or her jurisdiction, and
2. Notify other chief train dispatchers along the route of the movement to protect trains handling clearance-implicated shipments over adjoining territories.

4509 - Notifying Yardmaster of Clearance-Implicated Shipments

4509.1 When handling one or more clearance-implicated shipments in a train, do not enter a yard or terminal where a yardmaster is on-duty until the yardmaster is informed of the shipment.

4510 - Securing Permission Before Loading a Clearance-Implicated Shipment

4510.1 Before loading a clearance-implicated shipment onto a car on a track adjacent to a main track, obtain permission from the chief train dispatcher.

4510.2 Before loading a clearance-implicated shipment onto a car on a track in a yard or terminal, obtain permission from a Transportation Department supervisor.

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Chapter 11 - Engineering Department Work Equipment Rules

4550 - Requirements of the Employee-in-Charge

4550.1 The employee-in-charge is responsible for movements of Engineering Department work equipment that is:

a. Loaded in or on cars, or

b. Moving under its own power, or

c. Being moved in a train on its own wheels.

4550.2 The employee-in-charge must determine whether the shipment is clearance-implicated, based on the:

1. Type of equipment being moved,
2. Type of train service, and
3. Lading dimensions.

4550.3 The employee-in-charge must give the appropriate Transportation Department employee or Customer Service Center shipping instructions and lading information.

4551 - Moving Large Engineering Equipment

4551.1 When moving large engineering equipment, comply with the following:

1. Unless being moved in work train service or to or from the work location and the move does not require a crew change, consider the equipment a clearance-implicated shipment,
2. Do not exceed 25 MPH, unless specifically cleared for a higher speed,
3. Unless being moved in work train service, place the equipment on the head end of the train with no more than 3,500 tons trailing the equipment or at the rear of the train immediately ahead of an occupied caboose/shoving platform,
4. If the equipment has a counter balance, make certain that the counter balance end is positioned toward the leading end of the train,
5. Do not hump or flat switch the equipment, and
6. Do not permit the equipment to be shoved from the rear.

4552 - Handling Rail Cars Loaded with Engineering Equipment

4552.1 The Engineering Department employee-in-charge must make certain that the lading and any booms are properly secured.

4552.2 A qualified Engineering Department or Mechanical Department employee must inspect the car to confirm that the dimensions are within Plate C. If not within Plate C, handle the car as a clearance-implicated shipment.

4552.3 When placing the equipment in regular freight service, make certain that railcars loaded with engineering equipment are placed within five (5) cars of the locomotive or within five (5) cars of an occupied caboose/shoving platform.

4553 - Handling Material Handlers

4553.1 The employee-in-charge must determine if a material handler is loaded on a “home” car.

4553.2 If a material handler is not loaded on a “home” car, the employee-in-charge must inform the Transportation Department and the Clearance Bureau to handle the shipment as a clearance-implicated shipment.

4553.3 When handling CSXT 999130, make certain that it is handled as a clearance-implicated shipment.

4554 - Handling Welded Rail Equipment

4554.1 When handling a train containing welded rail equipment, make certain that there is a means of preventing any rail movement beyond the end of the equipment by:

a. Bulkhead doors, which must be closed and locked before movement, or

b. Designated buffer cars, or

c. Loaded hopper cars.

4554.2 Reserved for future use.

4554.3 When moving more than 2 loaded continuous welded rail equipment cars in a freight train, ensure:

1. Loaded welded rail equipment is placed at the head end of the train next to the locomotive consist,
2. Total train length does not exceed 6,400 feet in length and 6,000 tons, and
3. Train speed does not exceed:
    a. 30 MPH on main tracks, or
    b. 20 MPH when operating through turnouts and crossovers that permit a speed of 30 MPH or greater, or
    c. 10 MPH when operating through turnouts and crossovers that restrict speed to less than 30 MPH, and/or thru truss bridges or tunnels.

4554.4 When empty welded rail equipment is moved in freight service, it must be placed on the rear of the train. Any helper or DP unit(s) must be placed ahead of the empty welded rail equipment.

4554.5 Do not handle more than two rail trains in the same train. When one train is loaded and one is empty, make certain that the empty train is on the rear.

4555 - Handling Equipment with Air Activated Systems

4555.1 Before moving equipment with air activated systems (such as air dump cars, spreaders, etc,) in a train other than a work train, make certain that:

1. All moveable components are secured,
2. The dumping line hoses on each end of the car are disconnected, and
3. The cut-off valves in the dumping line are closed.

4555.2 Before charging the equipment's dump reservoir system, make certain that both dump valve handles (one on each side of the car) are in the OFF position.

4556 - Reserved

4557 - Handling Camp Cars (including Univan Camp Car)

4557.1 When handling camp cars:

1. Make certain that the cars are placed at the rear of the train only trailed by a caboose/shoving platform, unless authorized by the superintendent, and
2. Make certain helper locomotives are placed ahead of the camp cars.

4558 - Handling Type SFIA, SFIB, and/or SF2A Flangers

4558.1 When handling Type SFIA, SFIB, or SF2A flangers in a train, make certain that the flanger is secured for movement.

4559 - Moving Engineering Department Specialized Equipment

4559.1 When operating other than GRMS equipment, a representative of the Engineering Department must inform the chief train dispatcher how the equipment will be operated, either as on-track equipment or as a train.

4559.2 When called to pilot the movement of this equipment, the pilot must monitor the equipment operator and ensure compliance with speeds, signals indications, operating rules, and special instructions.

4560 - Handling Research/Test Cars

4560.1 Railroad research/test cars may move in freight trains positioned as follows:

a. When not testing place the research/test car on the head end of the train, or
b. When testing, the equipment may be placed anywhere in the train.

4560.2 When handling railroad research/test cars:

1. Do not exceed 20 powered axles on the head end of train,
2. Do not hump or flat switch the equipment with the locomotive detached,
3. Do not couple the equipment to any car with a top shelf coupler,
4. CSXT-designated riders are permitted to occupy these cars when the cars are in a freight train, and
5. Handle the equipment separately when it is being switched and/or spotted in yards.

4561 - Handling Measurement Cars

4561.1 When handling GMS equipment in:

a. Other than cab signal territory:
    a. If a locomotive operator is available, operate the equipment as a train, or
    b. If a locomotive operator is not available, operate as on track equipment, or
b. Cab signal territory, operate the equipment as on-track equipment.

4562 - Requirements of Moving Specialized Equipment

4562.1 When moving Specialized Equipment, comply with the following table:

Equipment	Activity	Speed	Pilot
GMS in non-cab signal territory	Working or traveling as a train	35	Locomotive Operator
GMS in non-cab signal territory (Locomotive Operator not available)	Working or traveling as on-track equipment	35	MofW
GMS in cab signal territory	Working or traveling as on-track equipment	35	MofW
Sperry Car	Working	40	MofW
	Traveling as:		
	A Train	35	Locomotive Operator
	On-track Equipment	40	MofW
Rail Grinders	Working	30	MofW
	Traveling as:		
	A Train	50	Locomotive Operator
	On-track Equipment	30	MofW
Undercutter	Working	30	MofW
	Traveling as:		
	A Train	40	Locomotive Operator
	On-track Equipment	30	MofW
Ballast Cleaner	Working	30	MofW
	Traveling as:		
	A Train	50	Locomotive Operator
	On-track Equipment	30	MofW
Ditch Cleaner	Working	30	MofW
	Traveling as:		
	A Train	40	Locomotive Operator
	On-track Equipment	30	MofW

4563 - Handling Autonomous Geometry Cars

4563.1 The autonomous geometry cars listed in the below table must:

1. Not be humped,
2. Not exceed 70 MPH, and
3. Be the first car behind the locomotive consist.

Initial	Number
CSXT	994370
CSXT	994371
CSXT	994372
CSXT	994373
CSXT	994374
CSXT	994375
CSXT	994376
CSXT	994377

4564 - Handling BDS Ballast Spreader Equipment

4564.1 The BDS ballast spreader must be handled on the rear of trains when moved in regular freight service. A dry-box containing brake test instructions including the location of the brake cylinders will be placed on the end of the equipment.

4564.2 When handling the BDS ballast spreader equipment listed below, employees must:

1. Ensure equipment remains coupled together, and
2. Place the equipment at the rear of the train when handled in regular freight service. Any helper or DP unit(s) must be placed ahead of the equipment.

Car Number	Equipment Type
CSXT 905050 - 905059 Series	Ballast Spreader
CSXT 905060 - 905069 Series	Ballast Spreader
CSXT 905070 - 905079 Series	Ballast Hopper/Conveyor

Chapter 12 - Surveillance Service

4600 - Handling Shipments Requiring Rail Inspection Service

4600.1 When handling one or more cars requiring Rail Inspection Service, notify the train dispatcher:

1. When taking charge of the train,
2. When the cars are picked up,
3. When stopped between terminals, and
4. Every thirty (30) minutes while stopped.

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Glossary

Terms

Notes - These definitions are in addition to those found in the Safety Rules, Operating Rules, Air Brake and Train Handling Rules, and Hazardous Material Rules. Where the definitions differ, the definition in the individual books apply.

Articulated Car - A multi-car bodied car whose adjacent car bodies share a common truck.

Bogie - A freight car truck equipped with an adapter to accommodate TOW equipment on top of the bolster/adapter plate with holes in sides to permit trailer locking. A brake control valve mounted on the bogie brake cylinder incorporates a spring brake that automatically applies when no brake pipe pressure is present.

Caging - A means of mechanically releasing the spring parking brake on a bogie. The caging tool compresses the parking brake spring and releases the brake.

Car Type - A code used on CSX train documents that can be used to identify the type of rail car. The first character of the car type is a letter and is used to indicate the type of car as follows.

A or B = Box car
C = Covered hopper
D = Locomotive
E, G, or J = Gondola
F = Flat car
H or K = Hopper
L = Specialty
M = Maintenance of way, scale, passenger, caboose, or EOT
P or Q = Intermodal
R = Refrigerated box
S = Intermodal stack
T = Tank
U = Container
V = Vehicular flat car (auto rack)
Z = Trailer or chassis

Circus or Carnival Train - A train consisting entirely of cars belonging to a circus or carnival.

COFC - This is an acronym for a Container On a Flat Car.

Composite - A non-self-propelled car with either two (2) or four (4) axles and a wheelbase of seven (7) feet or less used to test scale accuracy.

Coupler Mate Bogie - A freight car truck that permits the locomotive to couple to the head end of a TOW train. The coupler mate freight car truck has a coupler/socket on one end to connect to a trailer and a railroad coupler on other end to connect to a locomotive. Each coupler mate bogie shall be equipped with a tool box containing appropriate instructions, job aids, and the necessary tools and equipment required to address problems that may be encountered en route.

CSX Train Documentation - A computer-generated document consisting of some or all of the following:

- Tonnage Graph
- Restricted and Special Handling List
- CT-168 Report
- Clearance Bureau Instructions
- Train Listing and Hazardous Material Descriptions
- Hazardous Special Handling Instructions
- Hazardous Materials Radio Waybill Form

Double Stack Car (DS) - A car designed to carry a trailer or container(s). When carrying containers, one container may be placed on top of another.

Engineering Department Specialized Equipment - Sperry Cars, geometry measurement system (GMS) cars, rail grinders, undercutters, ballast cleaners, and/or ditchers.

Track geometry cars include:

- CSXT 999302 (TGC2)
- CSXT 994366 (TGC3)
- CR 21 and CR 22.
- NS 31, NS 33, and NS 34.

Research cars include:

- CSXT 994501.
- CR 19.
- NS 32 and NS 49
- GECX 90
- BNSF 82 and BNSF 83.

GMS/TSAV equipment includes:

- GMS 1
- GMS 2

Flanger - A piece of equipment used to clear flangeways of snow.

Heavy Duty Flat Car - A flat car with eight or more axles.

Heavy Load - Cars weighing 139 or more gross tons or car loads containing the following commodities are considered “heavy” loads:

- Coal,
- Coke,
- Grain,
- Ore,
- Phosphates,
- Limerock,
- Sand,
- Salt,
- Minerals,
- Aggregates, or
- Steel or lead ingots

Hump - A method of switching cars by pushing them over a hill and letting gravity propel them into classification tracks.

Intermodal (Trailer Van – TV) Train - A train consisting entirely of equipment designed to carry trailers, containers, motor vehicles, automotive frames, or TPIX/CRYX series cars.

Large Engineering Equipment - Burro cranes, undercutters, ditchers, Jordan spreaders, and snow plows.

Light empty flat car - A flat car weighing less than 50 tons, gross weight,

- A flat car with a single loaded trailer or container,
- A flat car, loaded with empty trailers or containers, or
- TOFC or COFC cars without any lading, trailers, or containers.

Locomotive Consist - A locomotive or combination of locomotives properly coupled for multiple-unit operation and operated from a single control.

Military Train - A train consisting entirely of military equipment, vehicles, or supplies being transported for the United States Military.

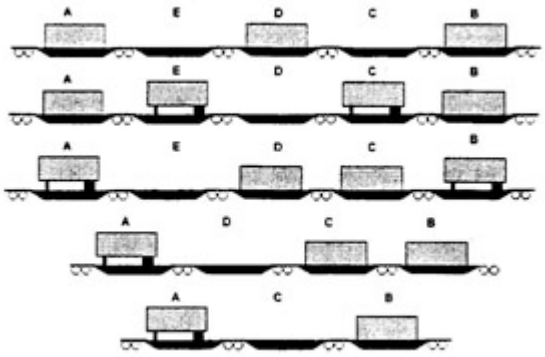
Mixed Freight Train - A train containing a mixture of rail equipment and rail car types that does not meet the definition of an intermodal train.

Multi-Platform Car - A double-stack or spine car with three or more platforms.

Loaded – each end platform is occupied and no two adjoining platforms are unoccupied.
Empty – either end or any adjoining platforms unoccupied.

Examples of Loaded Multi-Platform Stack/Spine Car Configurations

Shown below are examples of container/trailer loading configurations that would be considered a loaded car. This applies to both stack and spine cars, and to both articulated (shown below) and solid drawbar connected equipment. The containers/trailers can be loaded or empty. (The configurations shown below are in addition to all platforms being loaded.)



Non-Composite - A self-propelled car with either two (2) or four (4) axles and truck centers not exceeding fifty (50) feet used to test scale accuracy.

Passenger Equipment - Passenger equipment includes:

- Amtrak-owned or operated passenger and m/express cars,
- Trailer-On-Wheels (TOW) equipment mounted on Amtrak bogies and coupler mates,
- Office cars, and
- Commuter cars

Rail Train - A freight train consisting of more than 12 cars designed to transport, load, or unload welded or continuously jointed rail.

Scale Test Car - A compact car equipped with weights for the testing of track scales.

Schnabel Car - A car having two separable interlocking units that form a car body. Units may be separated and load interposed between and locked in place to form a complete unit.

Shiftable commodity - A commodity with a tendency to shift such as pipe, lumber, logs, or poles.

Short Car - A single car that is 40 feet or shorter over the pulling faces of the couplers.

Span Bolster - A beam-like structure with each end resting on a conventional truck bolster and arranged to support a car body through a center plate at or near its mid-point. Span bolsters can also be used with two six-wheel trucks to provide 24-wheel (12-axle) support under extremely heavy cars.

Spine Car - A car with only a center sill structure designed to carry containers or trailers. When a spine car has multiple platforms, see definition for Multi-Platform car. (VTTX 30XXXX series cars are not considered spine cars).

Thru-Truss Bridge - A bridge span in which the steel framework extends above and over the top of rail.

TOFC - This is an acronym for a Trailer on a Flat Car.

Trailer-on-Wheels (TOW) Train - A freight train consisting entirely of highway trailers/ container on chassis equipped with railroad wheels, such as RoadRailer® and similar type equipment.

Unit Train - A train consisting entirely of cars designed to carry grain, aggregates, minerals, crude oil, ethanol, coal or coke. A train that is comprised of ethanol or crude oil cars and the only other equipment in the train are buffer cars, the train is defined as a Unit Train.

Water Level Route - A section of CSXT trackage extending between:

- Chicago, IL and Greenwich, OH,
- Greenwich and Buffalo, NY, and
- Buffalo and North Bergen, NJ

Work Train - A freight train handling maintenance-of-way work equipment and working on the roadway.

Wreck Crane - A locomotive derrick used primarily in clearing train accidents.