XIX EXPORAIL 2020

AAR Mechanical Inspection Department Reporte, 2019

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Field Inspector

Cancun, MX.

ASSOCIATION OF AMERICAN RAILROADS

MID

Mision del MID

- ***Apoyar a la Industria Ferroviaria en proveer transportación segura a través de Inspecciones Técnicas, Aseguramiento de la Calidad y Capacitación para asegurar que los clientes cumplen las especificaciones de la Industria, Códigos Regulatorios Federales (CFR) y Requerimientos de Intercambio de la AAR***

MID - Beneficios

- Intercambio de equipo seguro y eficiente
- Aumento de la utilizacion de los activos fijos y material rodante
- Auto-regulacion de la industria
- Apoyo de un equipo de inspeccion/auditoria experimentado, con una tradicion de 88 años de tradicion sirviendo a la Industria Ferroviaria

ASSOCIATION OF AMERICAN RAILROADS

MID

Organigrama

TTCI Assistant Vice President - Chief, Technical Standards & AAR Director of Rules and Standards

Chief Inspector - MID

Senior Inspectors - MID

Field Inspectors - MID

MID Ubicaciones

MID Inspecciones

AAR Inspection Report

D.	Scrap Inspection			Maj	Mod	Min	Rule Violation
	Scrap Material Inspections						Interchange Rules 83, 120
	a. Component Materials	# Inspected					
		Condemn	Non-Condemn				
	1 Air hoses						
	2 Adapters						
	3 Brake shoes						
	4 Truck bolsters						
	5 Brake beams						
	6 Coupler knuckles						
	7 Coupler bodies						
	8 Coupler yokes						
	9 Coupler component						
	10 Draft gears						
	11 Truck side frames						
	12 Truck springs						
	13 Other?						
E.	Repair Practices						
1.	Air Brake a. Air Brake Test Information verified for cars on repair track? b. Single Car Air Brake Tests performed for cause and reported as required? c. Single Car Test device, Brake cylinder pressure gage and 28mm test coupling in-date? d. Brake Cylinder measurement tap applied? e. Daily Test of SCABT device properly demonstrated? f. Single Car Air Brake Test properly demonstrated? g. Hand Brake inspected & lubricated as required? h. Proper piston travel and Decals/Stickers as required? i. Air hose clearance and trolley arrangements proper? j. Model 3050, 3050-A, 3200 & 3200-A Sloan angle cocks removed at time of SCABT? k. Is set & release done in compliance with Field Manual? l. Are they checking & cleaning the reflective material properly? m. Other?						Interchange Rules 2 - 13
2.	Coupler/Draft Gear a. Draft systems inspected for defective conditions? b. Use of coupler gages adequately demonstrated? c. Coupler and draft components being removed for condemnable defects? d. With coupler removed is the facility using the cushion unit yoke/endcap wear gage? e. Other?						Interchange Rules 16-22

GUIDE FOR CERTIFICATION AND INSPECTION OF WHEEL SHOPS

Routine ☒ Special ☐ Shop Certification ☐ Follow up Inspection ☐

M-1003 Approved ☒ ISO Approved ☐

SR = See Report Attachments Y/N N/A NI = Not Inspected

#	MOUNTED WHEELS	Maj	Mod	Min
1	Equipment and Practices (Mounted Sets Checked for Bent Condition, 0.001 for each 1" separation from roller to dial indicator. Minimum of 5.5" apart) Two dial indicators required if checked between centers. Checked for Tread Defects, Axle body nicks & gouges removed (*MAXIMUM 25 EA.), 1/8" depth limit. (Repairs made using a 2-in. radius or larger) MPI repaired areas and journal fillets by wet method. All axles with surface defects 1/8 in. deep or deeper must be scrapped or repaired using the full-body machining technique according to paragraph **Rule 1.1.2 or 1.1.12.3.**			
2	Spacing & Mounted Pairs (Back-to-Back - 52-15/16" to 53-3/16", & Tape Sizes-Same Size, etc.) within 1 tape for turns sets, the same tape size for new mounts **Rule 1.4.6**			
3	Total number of Mounted Wheel Sets Inspected: _____			
4	* IF ROLLER BEARINGS NOT INSTALLED AND WHEELS STORED, HAS RUST PRVENTATIVE BEEN APPLIED **Rule 1.7.4**			
5	* COMPLETED WHEEL SETS POSITIONED PROPERLY AND NO METAL TO METAL CONTACT DURING HANDLING. **Rule 1.7.6.2**			

#	WHEEL LATHES	Maj	Mod	Min
6	Machine Tolerances (Plane 0.045" & Radial 0.030", Flanges thickness should not exceed 2/16" from one flange to the other **Rule 1.5.4**			
7	Equipment and Practices (Within One Tape Size, Witness Grooves –3/64" Max., etc.) NARROW /WIDE FLANGE BACK TO BACK CORRECT? **Rule 1.5.3**			
8	Flange Contours (AAR 1-B Profile Verified with 1/32" Gage, Excessive Feed Marks – 1/8" Limit, etc.) **Rule 1.4.7.2.5**			
9	Tape Sizes (Tape Sizes Verified With Tape Gage, One tape difference max, etc.) 1 tape difference maximum. **Rule 1.5.4**			
10	Are refinished treads being UT per Ultrasonic section of this form			
11	Total number of Wheel Lathes:_____ Total number of newly machined wheelsets:			

#	ULTRASONIC INSPECTION PROCEDURES & EQUIPMENT	Maj	Mod	Min
12	Equipment and Practices (5 MHz Transducer, Automatic Flaw Alarm, Detect flaws Between ½" & 2", Suitable Couplant, After final machining, Reference Standard simulating defects, Using DAC, Written Approved Procedure by Level III, etc.) TYPE MASTER USED (WHEEL, etc.)			
13	Recalibration (Damage to system, change in transducers, cables etc., Loss of power, every 8 hours, etc.) **Rule 2.10.4.1**			
14	Operators SNT-TC-1A Certified (Equipment Set-Up requires Level II SNT-TC-1A Qualified, Level III available, Proof of Certification, etc.) **Rule 2.10.8.1**			
15	Total number of inspection equipment:_____ Total number of Wheel sets Checked: _____			

MD03-CL-REV 01-16-19

Association of American Railroads
S-477 Manual of Standards and Recommended Practices MD02

APPENDIX A
A GUIDE FOR SHOP CERTIFICATION INSPECTORS FOR APPROVED CONTROL VALVES

Name of Company: **Company Name**

Location of Air Brake Shop: **City, State**

Company Initials: **Company Initials**

Shop Code Letters: **Shop Code Letters**

Date of Inspection: **Month, Day, & Year**

Type of Air Brake Valves Reconditioned: **List type of valves**

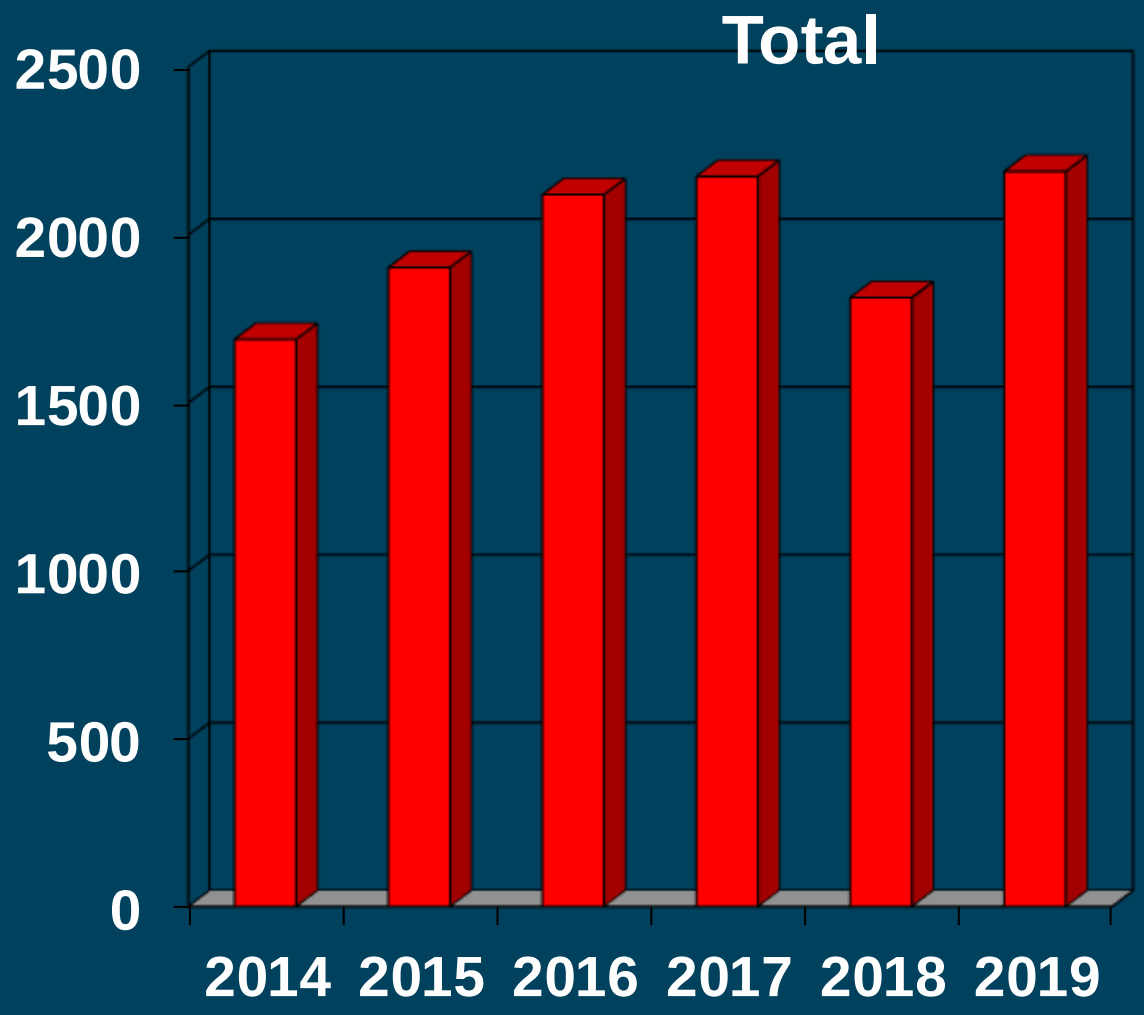
Type of Inspection: **List Type of Inspection**
Shop Approved ☐ M-1003 Certified ☐ Shop Disapproval ☐ Recommend Follow-up Inspection ☐

Company Representative(s): **Name & Title** **Name & Title**

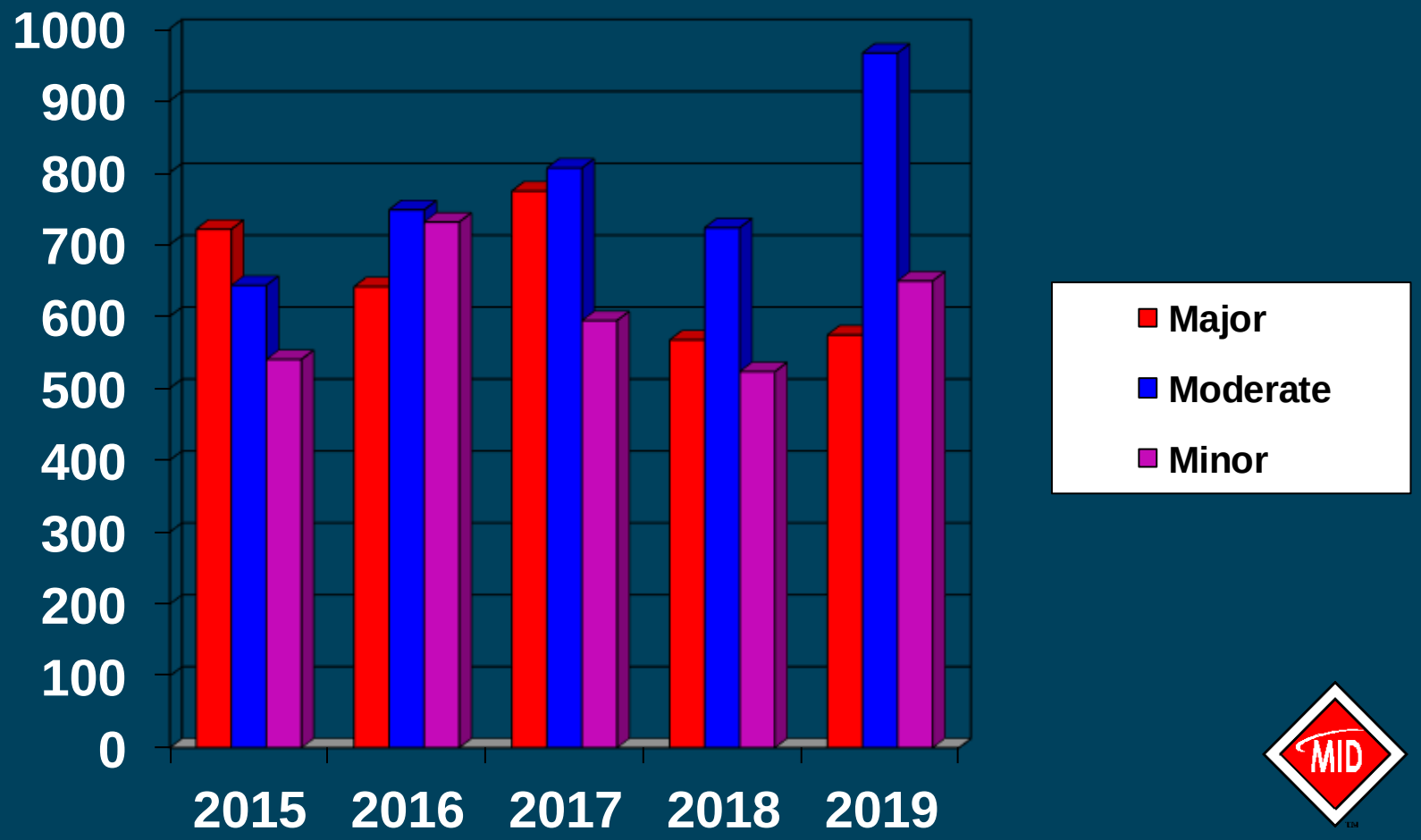
Inspector: **Inspectors Name & Title**

The following items constitute general guidance for a shop inspector. The inspector must also ensure that control valve procedures are in compliance with the applicable shop maintenance manual.	YES	NO
1. Copy of Maintenance Instruction, latest revision is available and work is being performed in accordance with instructions? 2391, Sup. 3 & 4 **3/07**; NYR-429 **3/30/18 Rev. 11**; NYR-332 **7/23/18 Rev. 17**		
2. Copy of Test Instruction, latest revision is available at test rack and is being used? 5039-19, Sup. 1 **9/94** & 2 **6/17**; **C Test Codes are used at all facilities except NYAB facilities.** NYT-1199-C **8/30/18 Rev. 8**; NYT-1200-C **5/28/14 Rev. 6**; **S Test Codes are only used at NYAB facilities.** NYT-1199-S **7/16/2018 Rev. 25;** NYT-1200-S **5/23/14 Rev. 19**		
3. Copy of Gauge Instruction, latest revision is available as required, condemning gauges are available at appropriate locations and work is being performed in accordance with instructions? 2391, Sup.3 **3/07**; 2356-3, Sup. 1 **5/96**		
4. All cleaning and re-lubrication of valve portions is done at a suitable bench in a clean well-lighted location? 2391 Sup. 3 & 4; NYR-332; NYR-429		
5. Valve portions and parts are being adequately cleaned? 2391, Sup. 3 & 4; NYR-332; NYR-429		
6. Removable chokes are being removed for cleaning, new felt filters are being applied, and threads are lubricated for reapplication. 2391 Sup. 3; NYR-332; NYR-429		
7. Approved lubricants are being used? 2391 Sup. 3 & 4; NYR-332; NYR-429		
8. Approved thread sealant is being used? 2391 Sup. 3 & 4; NYR-332; NYR-429		
9. Modifications to control valves are being made in accordance with the maintenance instructions in Paragraph 2.2 above? 2391, Sup. 3 & 4; NYR-332; NYR-429		
10. Test racks are being properly tested in accordance with test specifications in Paragraph 2.3 above, and dates being tagged or stenciled on the rack? 5039-19, Sup. 1 & 2.		
11. An occasional retest and examination of valve portions is made to determine if portions have been properly tested and repaired. 5039-19, Sup. 1 & 2, Rule 7.3.5; NYT-1199-C; NYT-1200-C; NYT-1199-S; & NYT-1200-S.		
12. Is new rubber material being used? Are shelf life and storage requirements being met? **Are rubber parts manufactured by an M-1003 certified facility?** 2391, Sup. 3 & 4; NYR-429; NYR-332; FM 4.B.4		
13. Shop air supply is clean, dry and adequate?		
14. Observe that special tools being used are not damaging parts? 2391 Sup. 3 & 4; NYR-429; NYR-332		
15. Approved shipping covers being used? 2391, Sup. 3 & 4; NYR-429; NYR-332		

2014 – 2019 Excepciones Totales



2015 – 2019 Excepciones

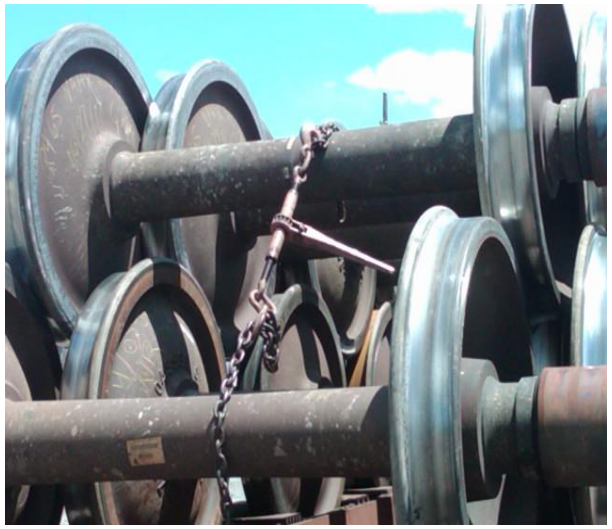


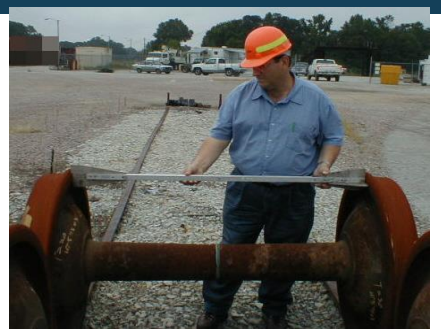
2019 – Areas con mayores excepciones

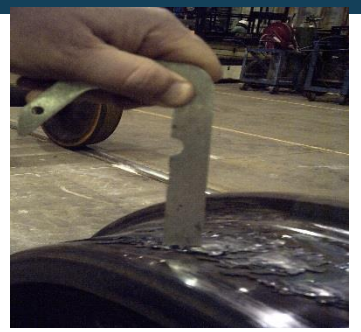
- Almacenamiento de Material 478 = 21.8 %
- Inspeccion de Salida 460 = 21.0 %
- Mancuernas 229 = 10.5 %
- Prueba de Frenos o Aparato 185 = 8.5 %
- Publicaciones 131 = 6.0 %

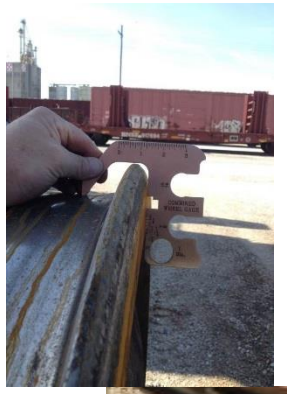
NOTE: Facturacion 108 excepciones = 4.9 %
Escantillones (faltantes y uso) 115 exceptions = 5.3 %


RIDE CONTROL







Ejemplos de hallazgos de 2019

Welding
Welder qualification records were incorrect or missing
There was no way of telling the rod oven temperature
Welder was Not qualified
Welding procedures were not available
boxes of low hydrogen electrodes left opened on the storage shelf
Rod oven unplugged
Welding wire not properly stored
INBOUND
Inspection Record listed EOC defective. Original Record of Repair sheet did not show repair/replacement or inspection
previously inspected car had running board/safety appliance support brackets broken
Other
repairman stated when ask that he was not aware of the requirement for cleaning the sheeting when a single car airbrake test was performed
wheels were being handled with a device that did not have any protective item to prevent metal to metal contact with the forks and the axle.
The facility **did not** have a known correctly programmed test tag for the daily functionality test for the hand their held reader.
Facility **is not** properly performing a daily functionality test on the hand held AEI tag reader

Out Bound
AEI Tag was found with case broken
Car found without the proper number of handbrake chain links painted
Tank Car had a slack adjuster that **was not** a Group R
Y47 pin not installed on two-flange trainline support bracket
body side bearing securements are **loose**
hand brake wheel is **incorrect**
side ladder stile securement is **loose**
By pass repairs were improper or improper repairs made
brake beam pin strut hole **elongated** more than 3/16”
uncoupling lever bracket fillers **missing.**
Side platform **bent**
Car found with a missing train line wedge/clamp which was allowing contact of the train line pipe to the Bolster web
Handbrake horizontal chain **was not connected** after repairs were made
Car received SCABT, but cut-out cock handle extension was not painted orange
end hose extension couplings need to be removed. More than 4 inches below the center of the coupler
loose safety appliance
low air hose
condemnable wheel set
side bearing clearance is **out of tolerance**
bottom rod was **fouling** against the brake beam
reflective sheeting was **improperly** applied. Both sides had reflective sheeting going both vertical and horizontal
Cracked / broken coupler
end air hose is **incorrect** length of hose
side sill weld to bottom cover plate is **broken** 8 inches
end knuckle pin was **non-metallic**
worn brake beam

Air Brake
The repairman **failed** to use a bar to determine that all brake shoes applied by the hand brake are firmly set against the wheels and verify that associated linkage does not bind or foul.
At the end of the single car air brake test and when disconnecting the single car test device the repairman failed to drain the car reservoirs.
Repairman failed to remove, clean out the cut out cock dirt collector cup and replace gasket after replacing a defective valve portion
SCABT device hose longer than 8 foot
Repairman **failed** to properly lubricate hand brake
Repairman could/did not properly perform the SCABT
Repairman **failed** to inspect brake rigging before commencing the single car air brake test
Repairman failed to properly demonstrate the daily test
Device in use failed the daily test
Single Car Air Brake Test Device, Test Coupling and Brake Cylinder Pressure Tap Gauge **did not** have a sticker or tag indicating the calibration date or calibration due date
Improper oil to lubricate handbrake
Daily test was not done
repairman **did not** measure the piston travel correctly
Wheels
Removed for Why Made Code 91,50, 51, 52 the bearing cup **was not** legibly marked on roller bearing cup with paint pen with the car initial/number/axle location, date, and why made code.
Wheel marked with incorrect why made code
Removed wheelsets missing required information
Non-condemnable wheel set changed
Wheels marked in soapstone

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Regla 1 Escantillones

- Cuatro mancuernas en el area de almacenamiento de ruedas condenables fueron removidas por clave motive de reparacion 60 (Ceja Delgada). Dos mancuernas de la unidad ABCD 5380 y una de la unidad XYZ 62229 no condenaban cuando el Supervisor del Taller midio las ruedas con el gage.
- La supervision uso dos gages diferentes para cehcar las ruedas.
- Se le pidio al empleado que puso el mal orden en las ruedas, que usara el escantillon que le proporciono la compañía para que midiera las ruedas. El escantillón del empleado condeno la rueda cuando el aplico el gage.
- Despues de una investigacion, se determino que el gage del empleado estaba vencido. (15 pares de ruedas fueron cambiadas en los ultimos 3 meses por clave motive de reparacion 60)

En Resumen

- Reparaciones correctas en carros de salida*
- Almacenamiento de Material
- Ruedas*
- Componentes de Frenos de Aire *
- Formas y Publicaciones

Entrenamiento en Mexico (2020)

2020 AAR M-1003 Quality Assurance Training Schedule		
Course	**Date**	**Location**
AAR Quality Auditor and Industry Conference	January 28-30, 2020	Fort Worth, TX
Basic Auditor Training Class	February 11-13	Virginia Beach, VA
	April 7-9	New Orleans, LA
	June 16-18	San Diego, CA
	August 25-27	Colorado Springs, CO
	September 22-24	Nashville, TN
	September 22-24	Guadalajara, MX
Advanced Auditor Training Class	March 3-5	Saginaw, TX
	April 28-30	Greenville, SC
	May 26-28	Sahagun, Hgo. MX
	July 21-23	Colton, CA
	Sept. 29-Oct. 1	Jacksonville, FL
Root Cause & Corrective Action Class	TBD	TBD
	TBD	TBD
AAR Quality Auditor and Industry Conference	January 26-28, 2021	Fort Worth, TX


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