APPENDIX H
GUIDELINES FOR SHOP CERTIFICATION INSPECTION
RECLAMATION OF COUPLERS, YOKES, AND RELATED PARTS

Description	M-212 Paragraph	Acceptable	Not Acceptable
I. PRELIMINARY INSPECTION AND FURNACE			
1. Are couplers having condemning cracks scrapped?	2.3		
2. Are required gages available?	Appendix H		
3. Are secondhand couplers separated?	2.0		
4. Are E and E/F couplers checked with pulling lug gage?	2.10		
5. Are couplers properly sorted for heat treatment?	5.2.3		
6. Are couplers at proper temperature when straightened?	6.1.4.3		
7. Are furnace controls operable and accurate?	5.2.6		
8. Are yoke catalog numbers acceptable?	Table A.11		
9. Are yokes free of condemning cracks and wear?	3.3.2		
II. WELDING			
10. Are welders certified?	5.1.1		
11. Are gages available for shank length, squareness, and key size?	Table A.9		
12. Are welds of good quality and proper wire used?	5.1.4		
13. Is welding done only in allowable locations?	6.0 & 6.1.5.3		
14. Are couplers at correct temperature when welded?	3.2.1.2.2.1		
15. Are all shank wear plates removed?	3.2.1.2.2		
16. Is trimming and blending proper?	4.1.5		
17. Is heat treatment performed after repair or straightening?	5.1.5		
18. Are welds on shanks, butts, and keyways ground smooth?	5.3.1		
III. HEAT TREATMENT			
19. Has pyrometer been calibrated within 3 months?	5.2.6		
20. Is recorded temperature within range and held for proper time?	5.2.3.2		
21. Is date, quality, grade and manufacturer of coupler recorded on chart for each heat?	5.2.6		
22. Is heat treatment performed before application of shank wear plate?	4.2.1.2.2.3		
23. Are quenching and tempering requirements followed?	5.1.5.3		
24. Are castings separated by grade furnace batches?	5.2.3.1		
25. Are yokes properly heat-treated?	5.2.3.2		
IV. BRINELL TEST			
26. Do they have a detailed procedure for hardness testing?	5.2.4.6		
27. Is record of Brinell test complete?	5.2.4.3		
28. Are the required number of tests completed?	5.2.4.3		
29. Is Brinell test made properly and correct location?	Figure C.5		
V. FINAL ASSEMBLY AND MARKING			
30. Are reclamation marks in place and proper?	Figure C.4		
31. Are shank wear plates properly applied?	4.2.1.2.2		
32. Does assembled coupler properly operate?	Appendix D		
33. Are yokes properly stamped per Figure C.4?	Figure C.4		
34. Are CID Labels applied & entered into Umler correctly?	S-920 Section 16		

COUPLER BODY SECONDHAND ACCEPTANCE					
GAGE	**YES**	**NO**	**GAGE**	**YES**	**NO**
25005-D* E-coupler guard arm distortion FIG. C.24			44250-6 Vertical pin connection, coupler, butt thickness Fig C.71		
25623-1 E coupler, worn contour limit Fig. C.31			44251-1A* F coupler, guard arm distortion Fig C.20		
34101-4 F coupler, vertical height interlocking wing pocket and guard arm, Go Fig. C.23			48496-1* E coupler body, anticreep, NO GO Fig C.29		
34101-5A* F coupler, guard arm distortion Fig C.20			49353* Pin hole minimum thickness requirements Fig C.30		
36527-3 or 36527-2A Assembled F coupler knuckle closure limit Fig C.38 or C.39			49354*Coupler body, distance between pivot lugs Fig C.24		
43062-1A* F coupler, aligning wing recondition Fig C.21			49355* E60 and E67 type couplers, shank length key slot location and length Fig C. 33		
44248-2C* F coupler, minimum length, 22 ½". Normal length Fig C.25			49360 Vertical pin connection coupler, minimum butt height Fig C.35		
44248-3B* F79, E68, and E69 type couplers, minimum shank lengths Fig C.26			49361* Pin hole minimum thickness requirements Fig C.30		
44250-5* F coupler, vertical height of interlocking wing pocket and guard arm, No Go Fig C.36			122158* with insert 122159* Pulling lug gage Fig. C.36		
COUPLER BODY RECONDTIONED ACCEPTANCE					
GAGE	**YES**	**NO**	**GAGE**	**YES**	**NO**
28393 E coupler, recondition contour limit Fig C.42			49775-4 E-60 and E-67- type couplers, key slot location Fig C.43		
44247-1 F coupler, interlocking wing pocket and guard arm aligning surface Fig C.22			49775-5 E-60 and E-67- type couplers, maximum shank height Fig C.44		
44248-1 F coupler, guard arm distortion and coupler contour wear limits Fig C.48			49775-6 Coupler shank height wear plate Fig C.45		
44250-2A Vertical pin connection coupler, butt shank height and restoration Fig C.46			49776-2A Vertical pin connection coupler, shank butt spherical surface Fig C.49		
48496-2 E coupler body, anticreep, GO Fig C.41			50051-1 Vertical pin connection coupler, restored shank butt plate thickness Fig C.70		
49362 Coupler body, pin protector boss, outside contour Fig C.18			50051-2 Vertical pin connection coupler, alignment shoulder restoration Fig C.69		
49775-1 Coupler shank height wear plate Fig C.45			50051-3 Vertical pin connection coupler, butt thickness restoration Fig C.37		
49775-2 Vertical pin connection coupler, butt shank height and restoration Fig C.46			50052-1 Vertical pin connection coupler, butt shank height restoration Fig C. 67		
49775-3 Vertical pin connection coupler with aligning shoulder butt width Fig C.47			50052-2 Vertical pin connection coupler, restored shank butt recess Fig C.68		
KNUCKLE SECONDHAND ACCEPTANCE					
GAGE	**YES**	**NO**	**GAGE**	**YES**	**NO**
24992-1 Knuckle nose wear and stretch limit Fig C.50			49363 Knuckle hub, height, acceptance for secondhand Fig C.52		
44250-3 F knuckle, nose wear stretch limit Fig C.51			49364-B Knuckle, pin hole wear limits Fig C.53		
KNUCKLE PIVOT PIN SECONDHAND ACCEPTANCE					
GAGE	**YES**	**NO**	**GAGE**	**YES**	**NO**
49369 Knuckle pin wear limits Fig C. 56			49556-1		
KNUCKLE LOCK RECONDITIONED ACCEPTANCE					
GAGE	**YES**	**NO**	**GAGE**	**YES**	**NO**
49365 Lock thickness, concavity of knuckle engagement surface Fig C.54			49367 E and F lock acceptance gauges Fig C.55		
49366 Lock thickness, concavity of knuckle engagement surface Fig C.54			49367-1 E and F lock acceptance gauges Fig C.55		

***Indicates that gage is also required for reconditioned acceptance.**

APPENDIX H SUPPLEMENT REQUIRED GAGES (Continued)					
YOKE SECONDHAND ACCEPTANCE					
GAGE	**YES**	**NO**	**GAGE**	**YES**	**NO**
44246-1			49373* Yoke, strap wear limit for secondhand acceptance and reconditioning Fig C.59		
49371* Yoke, rear relief fillet Fig C.57			49373-2* Yoke, strap wear limit for secondhand acceptance and reconditioning Fig C.59		
YOKE RECONDTIONED ACCEPTANCE					
GAGE	**YES**	**NO**	**GAGE**	**YES**	**NO**
34647-5 Vertical pin connection yoke, head width Fig C.64			44246-4 Vertical pin connection yoke, inside contour Fig C.63		
44246-2 Vertical pin connection yoke, head opening Fig C.60			44246-6 Vertical pin connection yoke, head thickness, with bushing Fig C.61		
44246-3 Vertical pin connection yoke, head thickness, without bushing Fig C.62			49372 Yoke, strap wear limit for secondhand acceptance and reconditioning Fig C.58		

DRAFT GEAR FOLLOWER SECONDHAND AND RECONDITIONED ACCEPTANCE					
GAGE	**YES**	**NO**	**GAGE**	**YES**	**NO**
34643-3 Draft gear follower Flatness Fig C.65			49376 Y46 type draft gear follower depth of spherical surface Fig C.66		

*** Indicates that the gauge is also required for reconditioned acceptance.**
Fig C. is in MSRP S, Specification M-212, Appendix C.