

Thrall Europa

#03 TSB D010.01

14 October 1998

Ms. Louise Shaw
Project Manager
English Welsh and Scottish Railway
Toton TMD, Toton Sidings
Long Eaton, Nottingham NG10 1HA
United Kingdom

Dear Louise,

This submission applies to Wagon #3's couplers. The following Group Standards regarding coupler strength; GM/TTQ401 (4, 5) and GM/RT2102 (4.1, 4.2, 4.3, 6); are closed by this submission.

X || Wagon #3 will be supplied in pairs. The outer end of a two-car unit will have wagon #1's combination coupler. The coupling between the two-car unit will be a SBE68CE standard AAR coupler.

Scrutiny submissions for Wagon #1 demonstrated that the combination coupler is in compliance with group standards. Strength requirement acceptance was demonstrated in submissions #1 D010.03 and #1 D010.06. Therefore scrutiny of the combination coupler strength is closed for wagon #3.

The SBE68CE AAR standard coupler meets AAR strength requirements. These requirements (4.2.2 - AAR Manual Section B) exceed that required in Group Standards (GM/RT2102). The minimum (knuckle component) proof test load on an AAR coupler, grade E material, is 1780kN (1450kN - Group Standards). Ultimate test load as required by the AAR also well exceeds that provided in GM/RT2102, 2890kN to 2360kN. Therefore Wagon #3 inter-car coupling will meet Group Standards requirements regarding strength. Therefore scrutiny of the AAR coupler strength is closed for wagon #3.

Do not hesitate to telephone Peter Jones or me with any questions or concerns.

Sincerely,



Karl E. Serbousek
Product Development

enc

cc: Peter Jones, Shaun Richmond, Dan Schuller, Randy Thomure

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be required to re-establish the base ten (10) successful tests before going to the reduced frequency of testing.

4.2.2 Proof Tests

4.2.2.1

Coupler bodies and knuckles must meet permanent set and ultimate strength requirements shown in Paragraph 4.2.2.1.3. The dimensions shown in Figure 9 shall be used for determining permanent set and results shall be recorded. Special test knuckles for testing coupler bodies shall have a load capacity in excess of 900,000 pounds.

4.2.2.1.1

When testing coupler bodies, if test knuckle breaks before required loading is attained, the test shall be terminated and the load recorded as "maximum applied load."

4.2.2.1.2

Test machines shall have a minimum capacity to meet specified loads and be calibrated to ASTM standards.

4.2.2.1.3

Static Tension Test Requirements:

		Maximum Permanent Set-Inches Grade C Steel		Minimum Ultimate
		at 300,000 lbs.	at 450,000 lbs.	
*Knuckle Body	—	.03	—	550,000 lbs. 725,000 lbs.
		Grade E Steel		
		400,000 lbs.	700,000 lbs.	Minimum Ultimate
*Knuckle Body	—	.03	.03	650,000 lbs. 900,000 lbs.

*Based on testing with dummy knuckle fixture.

4.2.2.2 Yokes

Test values for coupler yokes, Specification M-205, latest revision shall apply.

4.2.3 Internal Solidity

4.2.3.1

Capability of meeting internal solidity requirements shall be established at the beginning of production and every six (6) months thereafter by sectioning three (3) specimens from each design group listed in Paragraph 4.1.1. Each specimen shall be from a different heat. However, if any design group production is less than 1,000 during this frequency period, no test is required. In any case, at least one (1) test is required per year for each design group. After two (2) years of successful sectioning results, the manufacturer may reduce the frequency of sectioning to one (1) casting each year per design group. Castings will also be sectioned whenever significant changes are made in foundry practices. If a test fails, the manufacturer will be required to re-establish the base of two (2) years of successful tests before going to the reduced frequency of testing.

4.2.3.2

Castings are to be sectioned in accordance with Figure 10 or Figure 10A.

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AAR STANDARD BOTTOM SHELF

E COUPLERS

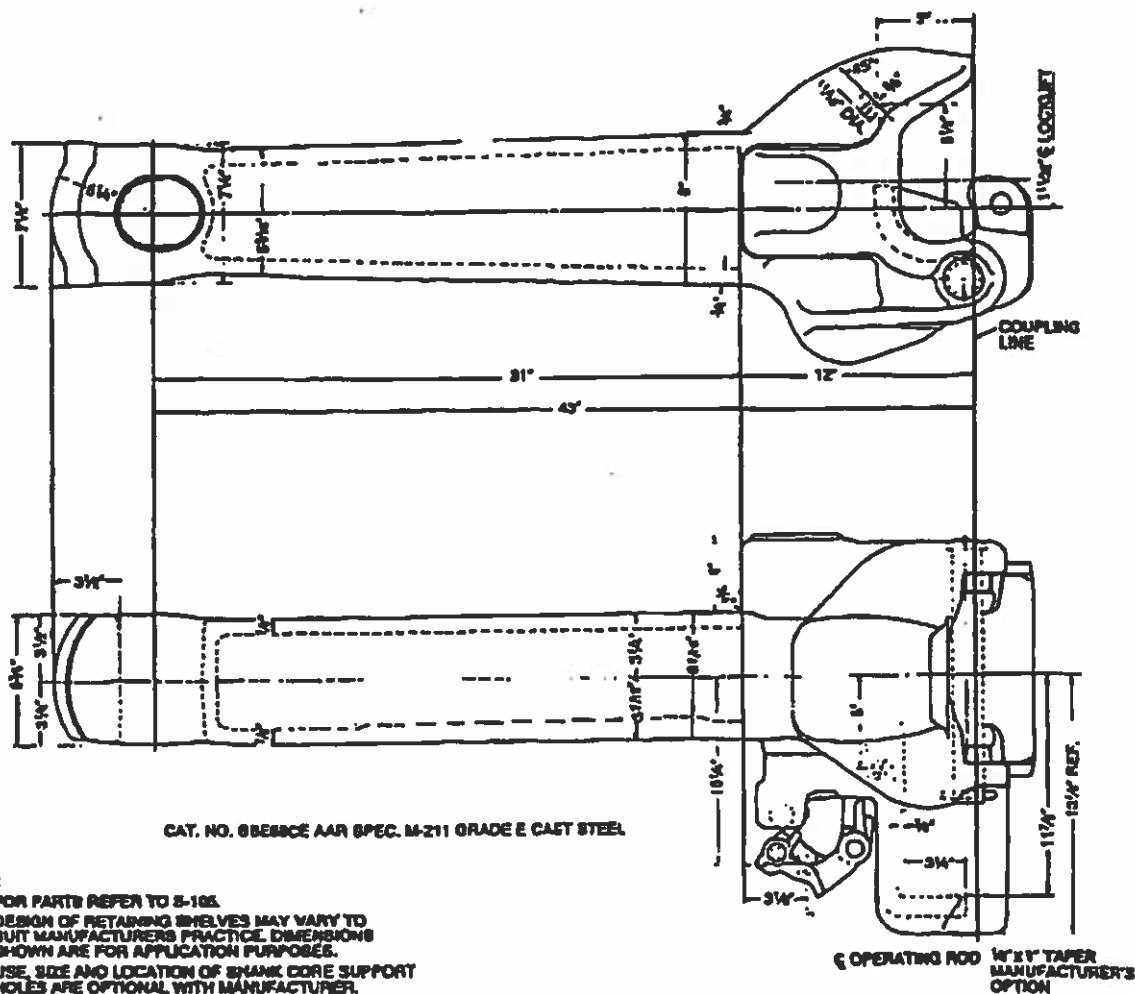
CATALOG NO. SBE68CE

Standard

S-165-83

Adopted: 1980

Revised: 1983, 1988, 1994, 1995



NOTES:

1. FOR PARTS REFER TO S-165.
2. DESIGN OF RETAINING SHELVES MAY VARY TO SUIT MANUFACTURERS PRACTICE. DIMENSIONS SHOWN ARE FOR APPLICATION PURPOSES.
3. USE, SIZE AND LOCATION OF SHANK CORE SUPPORT HOLES ARE OPTIONAL WITH MANUFACTURER.
4. DOUBLE ROTARY OPERATION (FITTED WITH E25B) IS NOT FURNISHED AS AAR STANDARD.

COUPLER COMPLETE

PARTS	SBE68CE ROTARY OPERATION
BODY	SBE68CE
KNUCKLE	E40AE
LOCK	E24AE
THROWER TYPE	E26
KNUCKLE PIN & COTTER	C10 & C11
SINGLE LOCKLIFT	E24B