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FREIGHT CAR TRUCK DESIGN OPTIMIZATION PROJECT PHASE I - MAGNETIC DATA TAPES

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| Test | Tape | Accession | | Va | ariables | | |
|---------|----------------------|---|---------|--------|------------------|------------|------|
| No. | No. | No. | Gib | s | Si | de Bearing | , s |
| | | | Nominal | Closed | \mathbf{Tight} | Nominal | Open |
| 1-1-3 | 0010 0011 | PB 250 163/AS PB 250 164/AS | х | | | | x |
| 1-1-1 | 0012 0013 0014 | PB 250 165/AS PB 250 166/AS PB 250 167/AS | x | | | . X | |
| 1-1-2 | 0015 0016 0017 | PB 250 168/AS PB 250 169/AS PB 250 170/AS | x | | x | • | |
| 1-1-5 | 0017 0018 | PB 250 170/AS PB 250 171/AS | | x | x | | |
| 1-1-6 | 0019 0020 | РВ 250 172/AS РВ 250 173/AS | | x | | x | |
| 1-1-4 | 0001 0002 | PB 250 160/AS PB 250 161/AS | | x | | | x |
| 1-1-4-C | 0003 | PB 250 162/AS | | х | | | х |
| 1-1-6-C | 0021 | PB 250 174/AS | | х | | х | |
| 1-1-5-C | 0021 0022 | PB 250 174/AS PB 250 175/AS | | x | x | | |
| 1-1-2-C | 0022 | PB 250 175/AS | х | | x | | |
| 1-1-1-C | 0 023 | PB 250 176/AS | х | | | х | |
| 1-1-3-C | 0023 | PB 250 176/AS | х | | | | x |
| 1-3-2 | 0024 0025 | PB 250 177/AS PB 250 178/AS | x | , | | | x |
| 1-3-1 | 0026 0027 | PB 250 179/AS PB 250 180/AS | | x | х | | |
| 1-2-2-C | 0028 | PB 250 181/AS | | х | x | | |
| 1-2-1-C | 0028 0029 | PB 250 181/AS PB 250 182/AS | | x | | x | |
| 1-2-3-C | 0029 | PB 250 182/AS | | х | | | x |
| 1-2-4-C | 0030 | PB 250 183/AS | х | | | | х |
| 1-2-6-C | 0030 0031 | PB 250 183/AS PB 250 184/AS | x | | | x | |
| 1-2-5-C | 0031 | PB 250 184/AS | x | | x | | |
| 1-2-2 | 0032 0033 | PB 250 185/AS PB 250 186/AS | x | | x | | |

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| | | | | | • | |
|---|-----|-------|----------|---------------|---------------|------------|
| | C | ar Lo | ad | J | frack Typ | pe |
| | мт | 1/2 | GRL | H.S. Tang. | M.S. Tang. | Curved |
| | | | x | х | х | |
| | | | | | | • |
| | | | X | х | х | |
| | | | | | | |
| | | | X | x | х | |
| | | | x | x | х | |
| | | | | | | |
| | | , | х | х | X | |
| | | | x | x | x | |
| , | | | x | | | x |
| | | | x | | | x |
| | | | x | | | x |
| | | | x | | | x |
| | | | x | | | x |
| | | | x | | × · | х |
| | | x | | х | x | |
| | | v | | v | v | |
| | | л | | A | л | |
| | х | | e | | | x |
| | х | | | | | х |
| | . x | | | | | x |
| | x | | | | | x . |
| | х | | | | | x |
| | x | | | | | х |
| | х | | | x | x | |
| | | | | | | |

| Test | Tape | Accession | | v | ariables | | |
|-------|------|---------------|---------|--------|----------|------------|------|
| No. | No. | No. | Gib | S | Sie | de Bearing | S |
| | | | Nominal | Closed | Tight | Nominal | Open |
| 1 2 4 | 0033 | PB 250 186/AS | | | | | |
| 1-2-4 | 0034 | PB 250 187/AS | | х | | | х |
| 1 2 2 | 0035 | PB 250 188/AS | v | | | | v |
| 1-2-3 | 0036 | PB 250 189/AS | A . | | | л | |
| | 0036 | PB 250 189/AS | v | | | v | |
| 1-2-1 | 0037 | PB 250 190/AS | Λ | | | A | |
| 124 | 0038 | PB 250 191/AS | | v | | v | |
| 1-2-0 | 0039 | PB 250 192/AS | | A | | А | |
| | 0038 | PB 250 191/AS | | | | | |
| 1-2-5 | 0039 | PB 250 192/AS | | x | х | | |
| | 0040 | PB 250 193/AS | | | | | |

^{*}The equipment combination for these tests consisted of a mechanical refrigerator car (SPFE 459997) with ASF Ride Control 70-ton (63.6-mt) trucks. For further information concerning Series 1 Tests, see <u>Freight</u> <u>Car Truck Design Optimization Introduction And Detailed Test Plans</u> Series 1, 2, and 3 Tests - Phase I, Report No. FRA-OR&D 75-59

| C | Car Load | ad | Track Type | | | | | |
|----|----------|-----|------------|-------|--------|--|--|--|
| | | | H.S. | M.S. | | | | |
| MT | 1/2 | GRL | Tang. | Tang. | Curved | | | |
| x | | | х | x | | | | |
| х | | | x | х | | | | |
| x | | | x | x | | | | |
| x | | | x | x | | | | |
| x | | | x | x | | | | |

| Test No. | Tape No. | Accession No. | CIL | | C : | de Deseine | | |
|------------|----------|---------------|---------|--------|-------|------------|------|-----|
| | | | Nominal | Closed | Tight | Nominal | Open | D-3 |
| | 0041 | DD 250 104/4C | | 010000 | | | open | |
| 2-1-2 | 0041 | PB 250 194/AS | | x | х | | | |
| | 0042 | PB 250 1957A5 | | | | | | |
| | 0042 | PB 250 195/AS | | | | | | |
| 2-1-1 | 0043 | PB 250 196/AS | x | | | | x | |
| | 0044 | PB 250 197/AS | | | | | | |
| 2 2 5 | 0045 | PB 250 198/AS | v | | | | v | |
| 6-6-0 | 0046 | PB 250 199/AS | ~ | | | | ~ | |
| | 0047 | PB 250 200/AS | v | | | | | |
| 2-2-0 | 0048 | PB 250 201/AS | X | | | | х | x |
| | 0048 | PB 250 201/AS | | | | | | |
| 2-2-3 | 0049 | PB 250 202/AS | x | | | | x | |
| | 0051 | PB 250 204/AS | | | | | | |
| 8.61.10 | 0049 | PB 250 202/AS | | | | | | |
| 2-2-4 | 0050 | PB 250 203/AS | | x | x | | | |
| | 0051 | PB 250 204/AS | | | | | | |
| 2-2-3-C | 0052 | PB 250 205/AS | x | | | | x | |
| | 0052 | PB 250 205/AS | | | | | 1000 | |
| 2-3-3-C | 0053 | PB 250 206/AS | х | | | | х | |
| | 0053 | PB 250 206/AS | | | | | 122 | |
| 2-3-3 | 0054 | PB 250 207/AS | X | | | | х | |
| | 0055 | PB 250 208/AS | | 222 | 823 | | | |
| 2-3-6 | 0056 | PB 250 209/AS | | x | х | | | |
| 1.1 | 0057 | PB 250 210/AS | | | | | | |
| 2-3-4 | 0058 | PB 250 211/AS | x | | | | x | |
| | 0059 | PB 250 212/AS | | | | | | |
| Z-3-5 | 0060 | PB 250 213/AS | x | | | | x | х |
| | 0061 | PB 250 214/AS | | | | | | |
| 2-4-1 | 0062 | PB 250 215/AS | х | | | | x | |
| | 0063 | PB 250 216/AS | | | | | | |
| 2-4-2 | 0064 | PB 250 217/AS | | x | х | | | |
| - | 0065 | PB 250 218/AS | | | | | | |
| Z-4-3 | 0066 | PB 250 219/AS | | x | x | | | |
| 1207657559 | 0067 | PB 250 220/AS | | | | | | |
| 2-4-4 | 0068 | PB 250 221/AS | x | | | | x | |

| 3 | Variables | | | | | | Car | Load | 1 | Track Ty | pe |
|-----|-------------|-----|-------------|-----|-------------|------|-----|------|-------|----------|--------|
| | Springs | | Snubbing | | Wheel Profi | le | | | H.S. | M.S. | |
| D-5 | D-5 Reduced | D-7 | 2/3 Nominal | New | 1/2 Worn | Worn | MT | GRL | Tang. | Tang. | Curved |
| х | | | х | | x | | х | | x | х | |
| x | | | х | | x | | x | | x | x | |
| | | х | x | | | х | x | | x | x | |
| | | | x | | | x | x | | x | x | |
| x | | | x | | | x | x | | x | x | |
| x | | | x | | | x | x | | x | x | |
| x | | | x | | | x | x | | | | x |
| x | | | x | | | х | | x | | | x |
| x | | | x | | | x | | x | x | х | |
| x | | | x | | | x | | x | x | x | |
| | | х | x | | | x | | x | x | x | |
| | | | x | | | x | | x | x | x | |
| х | | | x | x | | | | x | x | x | |
| x | | | x | x | | | | х | x | x | |
| x | | | x | x | | | x | | x | x | |
| x | | | x | x | | | x | | x | х | |

| Test No. | Tape No. | Accession No. | | | | | | | | Variables | | | | | | | Ca | r Load | | Frack T | уре |
|-----------|--------------|--------------------------------|---------|--------|-------|------------|------|-----|-----|-------------|-----|-----|---------|-----|------------|------|----|--------|-------|---------|------|
| | | | Gib | s | Si | de Bearing | gs | | | Springs | | S | nubbing | | Wheel Prof | ile | | | H.S. | M.S. | |
| | | | Nominal | Closed | Tight | Nominal | Open | D-3 | D-5 | D-5 Reduced | D-7 | 2/3 | Nominal | New | 1/2 Worn | Worn | MT | GRL | Tang. | Tang. | Curv |
| 2-4-5 | 0069 | PB 250 222/AS PB 250 223/AS | x | | | | x | | | х | | | x | x | | | x | | х | х | |
| 2-4-6 | 0071 0072 | PB 250 224/AS PB 250 225/AS | | х | x | | | | | x | | | x | х | | | х | | x | х | |
| 2-4-7 | 0073 0074 | PB 250 226/AS PB 250 227/AS | | x | x | | | | | x | | | x | x | | | | х | x | x | |
| 2 - 4 - 8 | 0075 | PB 250 228/AS PB 250 229/AS | x | | | | х | | | x | | | x | x | | | | х | х | х | |

*The equipment combination for these tests consisted of a mechanical refrigerator car (SPFE 459997) with ASF Ride Control 70-ton (63.6-mt) trucks. For further information concerning Series 2 Tests, see Freight Car Truck Design Optimization Introduction And Detailed Test Plans Series 1, 2, and 3 Tests - Phase I, Report No. FRA-OR&D 75-59

| Test No. | Tape No. | Accession No. | Equipment Arr.* | New Wheels |
|----------|----------------------|---|-----------------|---------------|
| 3-1-2 | 0077 0078 0079 | PB 250 230/AS PB 250 231/AS PB 250 232/AS | А | x |
| 3-2-2 | 0080 0081 0082 | PB 250 233/AS PB 250 234/AS PB 250 235/AS | В | x |
| 3-2-2-C | 0083 | PB 250 236/AS | В | x |
| 3-1-2-C | 0084 | PB 250 237/AS | A | х |
| 3-1-1-C | 0085 | PB 250 238/AS | Α | х |
| 3-2-1-C | 0086 | PB 250 239/AS | В | х |
| 3-2-1 | 0087 0088 0089 | PB 250 240/AS PB 250 241/AS PB 250 242/AS | В | x |
| 3-1-1 | 0090 0091 | PB 250 243/AS PB 250 244/AS | A | x |
| 3-3-1 | 0102 0103 | PB 250 252/AS PB 250 253/AS | с | x |
| 3-4-1 | 0111 0112 0113 | PB 250 261/AS PB 250 262/AS PB 250 263/AS | D | x |
| 3-4-1-C | 0110 | PB 250 260/AS | D | х |
| 3-3-1-C | 0098 0104 | PB 250 251/AS PB 250 254/AS | С | x |

* A=SP FE Mech. Refer. --Barber S-2-C 70-ton (63.6-mt) trucks
B=SP 60-foot (18.3-m) Box Car-Barber S-2-C 100-ton (90.9-mt) trucks
C=SCL Box Car X5B-Barber S-2-C 70-ton low level trucks
D=LN Covered Hopper Car-ASF Ride Control 100-ton trucks
E=SP 89-foot, 4-inch (27.2-m) Flat Car-ASF Ride Control

70-ton trucks

| Variables Worn | | Car Load | H.S. | Track Type M.S. | e |
|-------------------|----|----------|-------|--------------------|--------|
| Wheels | MT | GRL | Tang. | Tang. | Curved |
| | | x | x | x | |
| | | | | | |
| | х | | x | x | |
| | x | | | | x |
| | | x | | | x |
| | x | | | | x |
| | | x | | | x |
| | | x | x | x | |
| | x | | x | x | |
| | | х | x | x | |
| | | x | x | x | |
| | | | | | X |
| | | х | | | x |
| | | x | | | х |
| | | | | x | |
| | | | | | |
| | | | | | |
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| | | | | | |
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| Test No. | Tape No. | Accession No. | Equipment Arr.* | New |
|-----------|--------------|--------------------------------|-----------------|--------|
| 1.1 | 0007 | DD 250 350 / 45 | | Wheels |
| 3-3-2-C | 0097 | PB 250 650/AS | C | A |
| 3-4-2-C | 0114 | PB 250 264/AS | D | x |
| 3-4-2 | 0115 0116 | PB 250 265/AS PB 250 266/AS | D | x |
| 3-3-2 | 0092 0093 | PB 250 245/AS PB 250 246/AS | С | x |
| 3-5-1 | 0094 0095 | PB 250 247/AS PB 250 248/AS | E | х |
| 3-5-1-C | 0096 | PB 250 249/AS | E | х |
| 3-5-2-C | 0105 | PB 250 255/AS | E | x |
| 3 - 5 - 2 | 0106 0107 | PB 250 256/AS PB 250 257/AS | E | x |
| 3 - 5 - 3 | 0108 0109 | PB 250 258/AS PB 250 259/AS | E | |
| | | | | |

| Variables | | | | Track T | уре |
|-----------|---------|--------|-------|---------|-------------|
| Worn | Ca | r Load | HS. | M.S. | |
| Wheels | MT X | GRL | Tang. | Tang. | Curved X |
| | x | | | | x |
| | x | | x | x | |
| | x | | x | x | |
| | x | | x | x | |
| | x | | | | x |
| | | x | | | x |
| | | x | x | x | |
| x | x | | x | | |
| | | | | ж | |
| | | | | | |
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| | | | | | . × 1 |
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| | | | X | | |
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8 at 1 at 1

| Test | Tape | Accession No. | | | | | Mo | odificatio | ns |
|-----------|----------------------|---|-----|---------|------|-------|----------|------------|-------|
| No. | No. | | | Ctr. P | lt. | | | Elast. | |
| | | | | Frictio | n | Ped. | | Adapt. | Hydr. |
| | | | Lt. | Med. | Hvy. | Shims | Intertie | Pads | Dmpr. |
| 4-1-1 | 0124 | PB 250 267/AS | х | | | | | | |
| 4-1-2 | 0125 | PB 250 268/AS | X | | | х | | | |
| 4-1-3 | 0126 | PB 250 269/AS | | x | | x | | | |
| 4-1-4 | 0127 | PB 250 270/AS | | х | | | | | |
| 4-1-5 | 0129 | PB 250 272/AS | | | x | | | | |
| 4-1-6 | 0128 | PB 250 271/AS | | | x | x | | | |
| 4 - 2 - 1 | 0132 0133 | PB 250 273/AS PB 250 274/AS | х | | | x | x | | |
| 4-2-2 | 0134 0135 | PB 250 275/AS PB 250 276/AS | х | | | | x | | |
| 4-2-3 | 0138 0139 | PB 250 279/AS PB 250 280/AS | x | | | | x | x | |
| 4-2-4 | 0136 0137 | PB 250 277/AS PB 250 278/AS | х | | | x | x | x | |
| 4-3-1 | 0142 0143 | PB 250 283/AS PB 250 284/AS | х | | | x | х | | x |
| 4-3-2 | 0140 0141 | PB 250 281/AS PB 250 282/AS | x | | | | x | | x |
| 4-3-3 | 0146 0147 | PB 250 287/AS PB 250 288/AS | x | | | | | | x |
| 4-3-4 | 0144 0145 | PB 250 285/AS PB 250 286/AS | x | | | х | | | х |
| 4-4-1 | 0150 0152 0153 | PB 250 291/AS PB 250 293/AS PB 250 294/AS | x | | | x | | | |

* The equipment combination for these tests consisted of a mechanical refrigerator car (SPFE 459997) with ASF Ride Control 70-ton (63.6-mt) trucks.

| | | Car | Load | Т | rack Typ | be |
|--------------------------------------|-------------------------|-----|------|---------------|---------------|--------|
| C.C. Side Bear. (psi) 32 64 96 | Opti- mized Comb. | MT | GRL | H.S. Tang. | M.S. Tang. | Curved |
| | | x | | x | | |
| | | x | | x | | |
| | | х | | х | | |
| | | х | | x | | |
| | | х | | x | | |
| | | х | | x | | |
| | | x | | x | x | |
| | | х | | x | x | |
| | | x | | x | x | |
| | | x | | x | x | |
| | | x | | x | х | |
| | | x | | x | x | |
| | | x | | x | x | |
| | | x | | х | x | |
| x | | x | | x | x | |

| Test No. | Tape No. | Accession No | | Ctr. Plt. | | | Mo | dification Elast. | 15 |
|-------------|-------------|---------------|-----|---------------------|-----|---------------|---------|----------------------|----------------|
| | | | Lt. | Friction Med. Hy | vy. | Ped. Shims | Inertie | Adapt. Pads | Hydr. Dmpr. |
| | | | | | | | | | |
| | 0150 | PB 250 291/AS | | | | | | | |
| 4-4-2 | 0151 | PB 250 293/AS | х | | | | | | |
| | 0153 | PB 250 294/AS | | | | | | | |
| | 0151 | PB 250 292/AS | | | | | | | |
| 4-4-3 | 0152 | PB 250 293/AS | x | | | | | | |
| 1-1-5 | 0154 | PB 250 295/AS | | | | | | | |
| 4-4-1-C | 0148 | PB 250 289/AS | х | | | | | | |
| | 0148 | PB 250 289/AS | | | | | | | |
| 4-4-2-C | 0149 | PB 250 290/AS | х | | | | | | |
| 4-4-3-C | 0149 | PB 250 290/AS | х | | | | | | |
| | 0155 | PB 250 296/AS | v | | | | | | |
| 4-4-4-0 | 0156 | PB 250 297/AS | ~ | | | | | | |
| 4-4-5-C | 0156 | PB 250 297/AS | x | | | | | | |
| 4-4-6-C | 0157 | PB 250 298/AS | х | | | | | | |
| | 0159 | PB 250 300/AS | | | | | | | |
| 4-4-6 | 0163 | PB 250 304/AS | x | | | | | | |
| | 0158 | PB 250 299/AS | | | | | | | |
| 4-4-5 | 0160 | PB 250 301/AS | х | | | | | | |
| | 0162 | PB 250 303/AS | | | | | | | |
| | 0158 | PB 250 299/AS | | | | | | | |
| 4-4-4 | 0160 | PB 250 301/AS | х | | | | | | |
| | 0161 | PB 250 302/AS | | | | | | | |
| | 0164 | PB 250 305/AS | | | | | | | |
| 4-5-1 | 0165 | PB 250 306/AS | | | | | | | |
| 4-5-1-C | 0166 | PB 250 307/AS | | | | | | | |
| 4-5-2-C | 0167 | PB 250 308/AS | | | | | | | |
| | 0168 | PB 250 309/AS | | | | | | | |
| 4-5-Z | 0169 | PB 250 310/AS | | | | | | | |
| | | | | | | | | | |

| C | C | Side | Onti- | Car | Load | Т | rack Typ | pe |
|----|-----|-------|-------|-----|------|-------|----------|--------|
| Be | ar. | (psi) | mized | | | H.S. | M.S. | _ |
| 36 | 04 | 96 | Comb. | MT | GRL | Tang. | Tang. | Curved |
| | x | | | x | | x | x | |
| | | x | | x | | x | x | |
| x | | | | x | | | | x |
| | x | | | x | | | | х |
| | | x | | x | | | | х |
| х | | | | | х | | | х |
| | х | | | | x | | | х |
| | | х | | | x | | | х |
| | | х | | | x | x | x | |
| | х | | | | х | x | x | |
| x | | | | | x | x | x | |
| | | | х | | x | x | x | |
| | | | x | | x | | | х |
| | | | х | x | | | | х |
| | | | x | x | | x | х | |
| | | | | | | | | |

| Test | Tape | Accession | Equip. | | | Var | iables | |
|---------|------|----------------|--------|-------|-----------|-----------|---------|--------|
| No. | No. | No. | Arr.* | Cyl. | 1/40 Tpr. | Selec. ** | Spr | ing |
| | | | | Whls. | Whls. | Whls. | Nest Sn | ubbers |
| | | | | | | | Fric. | Hydr. |
| | 0174 | PB 250 315/AS | | | | | | |
| 5-1-1 | 0175 | PB 250 316/AS | A | х | | | | |
| | 0178 | PB 250 319/AS | | | | | | |
| 5-1-1-C | 0177 | PB 250 318/AS | А | х | | | | |
| 5-1-2-C | 0182 | PB 250 323/AS | A | | х | | | |
| | 0179 | PB 250 320/AS | | | | | | |
| 5-1-2 | 0180 | PB 250 321/AS | Α | | х | | | |
| | 0181 | PB 250 322/AS | | | | | | |
| 6 2 1 | 0183 | PB 250 324/AS | • | | v | | | |
| 5-2-1 | 0184 | PB 250 325/AS | A | | x | | | |
| 5-2-1-C | 0185 | PB 250 326/AS | A | | х | | | |
| | 0099 | PB 250 352/AS | | | | | | |
| 5-2-3 | 0100 | PB 250 353/AS | A | Х | | | | |
| 5-2-2-C | 0101 | PB 250 354/AS | А | x | | | | |
| 2.2 | 0117 | PB 250 355/AS | | | | | | |
| 5-2-4 | 0118 | PB 250 356/AS | A | | | x | | |
| 5-2-4-C | 0119 | PB 250 357/AS | A | | | x | | |
| 5-2-5-C | 0120 | PB 250 358/AS | А | | | x | | |
| | 0121 | PB 250 359/AS | | | | | | |
| 5-2-5 | 0122 | PB 250 360/AS | A | | | х | | |
| 5-1-3-C | 0131 | PB 254 326/AS | A | | | x | | |
| | 0123 | DB 254 324/AC | | | | | | |
| 5-1-3 | 0123 | PB 254 324/AS | A | | | х | | |
| | 0150 | I D LJA JLJ/AD | | | | | | |
| 5-1-4 | 0171 | PB 250 312/AS | A | | | x | | |
| | 0172 | PB 250 313/AS | | | | | | |
| 5-1-4-C | 0170 | PB 250 311/AS | Α | | | х | | |
| 5-4-3 | 0173 | PB 250 314/AS | B | | | Y | | |
| 5-1-5 | 0176 | PB 250 317/AS | D | | | A | | |
| 5-4-3-C | 0186 | PB 250 327/AS | в | | | х | | |
| 5-4-4-C | 0187 | PB 250 328/AS | в | | | х | | |
| | 0188 | PB 250 329/49 | | | | | | |
| 5-4-4 | 0189 | PB 250 330/AS | в | | | х | | |
| | | | | | | | | |

| | Car Load | | Tr | ack Type | |
|--------------|----------|-------|-------|----------|------------|
| Spring Comp. | MT GRL | H.S. | M.S. | | Mod. w/ |
| | | Tang. | Tang. | Curved | Low Joints |
| D-3 D-5 D-7 | | | | | |
| x | x | x | x | | x |
| х | x | | | x | |
| x | x | | | x | |
| x | x | x | x | | х |
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| Test | Tane | Accession | Equip. | | | Vari | ables | | | | Car | Load | | Tr | ack Type | |
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| No. | No. | No. | Arr. | Cyl. Whls. | 1/40 Tpr. Whls. | Selec.** Whls. | Spi Nest S Fric. | ring nubbers Hydr. | Sprin D-3 | ng Comp. D-5 D-7 | MT | GRL | H.S. Tang. | M.S. Tang. | Curved | Mod. w/ Low Joints |
| 5-4-5 | 0191 0192 | PB 250 332/AS PB 250 333/AS | В | | | x | | | | x | | x | x | x | | x |
| 5-4-5-C | 0190 | PB 250 331/AS | в | | | x | | | | x | | х | | | x | |
| 5-4-2 | 0193 0194 | PB 250 334/AS PB 250 335/AS | в | | | x | x | | | x | | х | x | x | | x |
| 5-4-1 | 0195 0196 | PB 250 336/AS PB 250 337/AS | в | | | x | | x | | x | | x | x | x | | x |
| 5-3-5 | 0197 0198 | PB 250 338/AS PB 250 339/AS | В | | | x | | x | | x | x | | x | x | | x |
| 5-3-4 | 0199 0200 | PB 250 340/AS PB 250 341/AS | В | | | x | x | | | x | x | | x | x | | x |
| 5-3-1 | 0201 0202 | PB 250 342/AS PB 250 343/AS | в | | | x | | | | x | x | | x | x | | x |
| 5-3-1-C | 0203 | PB 250 344/AS | в | | | x | | | | x | х | | | | х | |
| 5-3-3-C | 0209 0210 | PB 250 349/AS PB 250 350/AS | в | | | x | | | x | | х | | | | x | |
| 5-3-3 | 0208 0211 | PB 250 348/AS PB 250 351/AS | в | | | x | | | x | | х | | x | x | | x |
| 5-3-2 | 0205 0206 | PB 250 346/AS PB 250 347/AS | в | | | x | | | | x | x | | x | x | | x |
| 5-3-2-C | 0204 | PB 250 345/AS | в | | | x | | | | x | х | | | | х | |

- *A = SPFE 70-ton (63.6-mt) mechanical refrigerator car 459997 with ASF Ride Control 70-ton capacity trucks
- B = SP 60-foot (18.3-m), 100-ton (90.9-mt) box car with Barber S-2-C Low-Profile 100-ton capacity trucks
- ** Selected wheels will be chosen from either the 1/40 taper or cylindrical wheels following test 5-2-2-C

| 1. Report No. | 2. Government Acces | ssion No. | 3. Recipient's Catalog N | RA-0880-79.0 |
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| FRA-OR&D-75-74.1 | PB 24415 | 0 | | |
| 4. Title and Subtitle | | | 5. Report Date | 1 |
| RAILROADS AND THE E | CONSUMPTION I | N | Reprint Oct | ober 1975 |
| RAIL TRANSPORTATION | CONSUMPTION I | IN . | 6. Performing Organizati | ion Code |
| Volume I - Analytic | al Model | | 8 Performing Organizati | on Report No |
| 7. Author(s) | | | | |
| John B. Hopkins | | | DOT-TSC-FRA | -/5-16.1 |
| 9. Performing Organization Name and Ad | ldress | | 10. Work Unit No. (TRAI | (\$) |
| Transportation System | s Center | | RK510/ K0302 | |
| Kendall Square | is conter | | 11. Contract or Grant No | |
| Cambridge MA 02142 | | | 13. Type of Report and F | Period Covered |
| 2. Sponsoring Agency Name and Addres | ansportation | | Final Report | t |
| Ederal Pailroad Adm | inistration | | November - C | October |
| Office of Research a | nd Development | t | 1973 1 | 1974 |
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| FRA-OR&D-75-74, II | P.S. 244750 | the stand when the |
| I. Title and Subtitle | | 5. Report Date |
| RAILROADS AND THE ENVIR | ONMENT: | September 1977 |
| ESTIMATION OF FUEL CONS TRANSPORTATION. | UMPTION IN RAIL | 6. Performing Organization Code |
| Vol. II-Freight Service | Measurements | 8. Performing Organization Report No. |
| . Author(s) | | DOT-TSC-FRA-77-11 |
| John B. Hopkins and A. | T. Newfell | |
| 7. Performing Organization Name and Add | dress | 10. Work Unit No. (TRAIS) |
| U.S. Department of Iran | sportation | RR/16/R/311 |
| Kendall Square | center | The Contract of Grant No. |
| Cambridge MA 021/2 | | 13. Type of Report and Period Covered |
| 2. Sponsoring Agency Name and Address | | Final Report |
| U.S. Department of Tran | sportation | October $1974 - May 1977$ |
| Federal Railroad Admini | stration | a second is in they is in |
| Office of Research and | Development | 14. Sponsoring Agency Code |
| Washington, D.C. 20590 | | |
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| DOT-TSC-OST-76-4 | 2. Government Accession No. | J. Reci | prent's curding | |
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| 7. Author's) | | 8. Perfo | orming Organizat | tion Report No. |
| Paul J. Remington and M | ichael J. Rudd | 1. 1. | | |
| 9. Performing Organization Name and A | ddress | 10. Wor 0S60 | k Unit No. 07. RR616/R | 6513 |
| Bolt Beranek and Newman | Inc." | 11 600 | tract or Grant N | 10 |
| 50 Moulton Street | | DOT- | -TSC-1016 | |
| Cambridge MA 02138 | | 13. Typ | e of Report and | Period Covered |
| 2. Sponsoring Agency Name and Addre | as II S Department of Transportation | n Fins | 1 Report | r entro covered |
| Office of the Secretary Office of the Asst. Sec. for Sy | Federal Railroad Administr stems Research and Development | ation June | e-August 1 | .975 |
| Development and Tech. Office of Noise Abatement | | 14. Spor | nsoring Agency | Code |
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| 5. Supplementary Notes | U.S. Department of Transpo | ortation | | a start |
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ERRATA

"Rail Dynamics Laboratory Requirements and Hardware Configurations"

Page 90 first sentence under Fig. 6, Vibration Test Unit should read as follows:

"The vertical excitation modules (each under independent servo control) are designed around a 60,000 lb (27,216 kg) hydraulic actuator, equipped with a 200 gpm (.0126 $m^{3/s}$) high performance servo-valve."

Page 90 first sentence of second major paragraph from bottom starting "The hydraulic flow demands ..." should be changed to read as follows:

"The hydraulic flow demands of the various excitation modules and hydrostatic bearing elements at peak excitation levels can be as high as 1000 gpm (.0631 m³/s) @ 3,000 psi (20,684,271 N/m²). This has been provided for via three 360 gpm (.0227 m³/s) variable volume pumping systems each capable of delivering the rated flow at 3,000 psi (20,684,271 N/m²)."

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Overview of Freight Systems Research and Development, US DOT, FRA, Office of Freight Systems, Office of Research and Development, 1977 -25-Goverment Policy, Planning & Regulations

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