

# Train Accidents Cause Codes

(Appendix C of the FRA Guide for Preparing Accident/Incident Reports)

## MECHANICAL AND ELECTRICAL FAILURES

Select one of these codes and enter in Form F6180.54, 38 & 39. Causes Numeric Listing

| Brakes      |  |             |   |
|-------------|--|-------------|---|
| Code        | Causes   | Code        | Causes  |
| <b>E00C</b> | Air hose uncoupled or burst  | <b>E06C</b> | Brake valve malfunction (stuck brake, etc.)                                   |
| <b>E00L</b> | Air hose uncoupled or burst (LOCOMOTIVE)                                   | <b>E06L</b> | Brake valve malfunction (stuck brake, etc.) (LOCOMOTIVE)                      |
| <b>E01C</b> | Hydraulic hose uncoupled or burst  | <b>E07C</b> | Rigging down or dragging  |
| <b>E01L</b> | Hydraulic hose uncoupled or burst (LOCOMOTIVE)                             | <b>E07L</b> | Rigging down or dragging (LOCOMOTIVE)   |
| <b>E02C</b> | Broken brake pipe or connections   | <b>E08C</b> | Hand brake (including gear) broken or defective                               |
| <b>E02L</b> | Broken brake pipe or connections (LOCOMOTIVE)                              | <b>E08L</b> | Hand brake (including gear) broken or defective (LOCOMOTIVE)                  |
| <b>E03C</b> | Obstructed brake pipe (closed angle cock, ice, etc.)                       | <b>E09C</b> | Other brake defects, cars (Provide detailed description in narrative)         |
| <b>E03L</b> | Obstructed brake pipe (closed angle cock, ice, etc.) (LOCOMOTIVE)          | <b>E09L</b> | Other brake defects, (Provide detailed description in narrative) (LOCOMOTIVE) |
| <b>E04C</b> | Other brake components damaged, worn, broken, or disconnected              | <b>E0HC</b> | Hand brake linkage and/or connections broken or defective                     |
| <b>E04L</b> | Other brake components damaged, worn, broken, or disconnected (LOCOMOTIVE) | <b>E0HL</b> | Hand brake linkage/Connections broken/defective (LOCOMOTIVE)                  |
| <b>E05C</b> | Brake valve malfunction (undesired emergency)                              | <b>E10L</b> | Computer controlled brake communication failure (LOCOMOTIVE)                  |
| <b>E05L</b> | Brake valve malfunction (undesired emergency) (LOCOMOTIVE)                 |             |   |

| Trailer Or Container On Flatcar |  |             |  |
|---------------------------------|--|-------------|--|
| Code                            | Causes                                 | Code        | Causes   |
| <b>E11C</b>                     | Broken or defective tie down equipment | <b>E13C</b> | Broken or defective trailer  |
| <b>E12C</b>                     | Broken or defective container          | <b>E19C</b> | Other trailer or container on flat car defects (Provide detailed description in narrative) |

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| Body        |   |             |  |
|-------------|---|-------------|--|
| Code        | Causes  | Code        | Causes   |
| <b>E20C</b> | Body bolster broken or defective                    | <b>E24L</b> | Center plate disengaged from truck unit/off center (LOCOMOTIVE)              |
| <b>E20L</b> | Body bolster broken or defective (LOCOMOTIVE)       | <b>E25C</b> | Center pin broken or missing   |
| <b>E21C</b> | Center sill broken or bent                          | <b>E25L</b> | Center pin broken or missing (LOCOMOTIVE)                                    |
| <b>E21L</b> | Center sill broken or bent (LOCOMOTIVE)             | <b>E26C</b> | Center plate attachment defective  |
| <b>E22C</b> | Draft sill broken or bent                           | <b>E26L</b> | Center plate attachment defective (LOCOMOTIVE)                               |
| <b>E22L</b> | Draft sill broken or bent (LOCOMOTIVE)              | <b>E27C</b> | Side sill broken   |
| <b>E23C</b> | Center plate broken or defective                    | <b>E27L</b> | Side sill broken (LOCOMOTIVE)  |
| <b>E23L</b> | Center plate broken or defective (LOCOMOTIVE)       | <b>E29C</b> | Other body defects, (CAR) (Provide detailed description in narrative)        |
| <b>E24C</b> | Center plate disengaged from truck (car off center) | <b>E29L</b> | Other body defects, (LOCOMOTIVE) (Provide detailed description in narrative) |

| Coupler and Draft System |   |             |  |
|--------------------------|---|-------------|--|
| Code                     | Causes  | Code        | Causes   |
| <b>E30C</b>              | Knuckle broken or defective                               | <b>E34L</b> | Draft gear/mechanism broken/defective (including yoke) (LOCOMOTIVE)                                      |
| <b>E30L</b>              | Knuckle broken or defective                               | <b>E35C</b> | Coupler carrier broken or defective  |
| <b>E31C</b>              | Coupler mismatch, high/low                                | <b>E35L</b> | Coupler carrier broken or defective (LOCOMOTIVE)   |
| <b>E31L</b>              | Coupler mismatch, high/low (LOCOMOTIVE)                   | <b>E36C</b> | Coupler shank broken or defective (includes defective alignment control)                                 |
| <b>E32C</b>              | Couple draw head broken or defective                      | <b>E36L</b> | Coupler shank broken or defective (includes defective includes defective alignment control) (LOCOMOTIVE) |
| <b>E32L</b>              | Couple draw head broken or defective (locomotive)         | <b>E37C</b> | Failure of articulated connectors  |
| <b>E33C</b>              | Coupler retainer pin/cross key missing                    | <b>E37L</b> | Failure of articulated connectors (LOCOMOTIVE)   |
| <b>E33L</b>              | Coupler retainer pin/cross key missing (LOCOMOTIVE)       | <b>E39C</b> | Other coupler and draft system defects, (CAR) (Provide detailed description in narrative)                |
| <b>E34C</b>              | Draft gear/mechanism broken or defective (including yoke) | <b>E39L</b> | Other coupler and draft system defects, (LOCOMOTIVE) (Provide detailed description in narrative)         |

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| Truck Components |  |             |   |
|------------------|--|-------------|---|
| Code             | Causes   | Code        | Causes  |
| <b>E40C</b>      | Side bearing clearance insufficient              | <b>E46C</b> | Truck bolster stiff, improper swiveling   |
| <b>E40L</b>      | Side bearing clearance insufficient (LOCOMOTIVE) | <b>E46L</b> | Truck bolster stiff, improper lateral or improper swiveling(LOCOMOTIVE)   |
| <b>E41C</b>      | Side bearing clearance excessive                 | <b>E47C</b> | Defective snubbing (including friction and hydraulic)   |
| <b>E41L</b>      | Side bearing clearance excessive (LOCOMOTIVE)    | <b>E47L</b> | Defective snubbing (LOCOMOTIVE)   |
| <b>E42C</b>      | Side bearing(s) broken                           | <b>E48C</b> | Broken, missing, or otherwise defective springs (including incorrect repair and/or installation)                  |
| <b>E42L</b>      | Side bearing(s) broken (LOCOMOTIVE)              | <b>E48L</b> | Broken, missing, or otherwise defective springs (LOCOMOTIVE)  |
| <b>E43C</b>      | Side bearing(s) missing                          | <b>E49C</b> | Other truck component defects, including mismatched side frames (CAR) (Provide detailed description in narrative) |
| <b>E43L</b>      | Side bearing(s) missing (LOCOMOTIVE)             | <b>E49L</b> | Other truck component defects, (LOCOMOTIVE) (Provide detailed description in narrative)                           |
| <b>E44C</b>      | Truck bolster broken                             | <b>E4AC</b> | Gib Clearance (lateral motion excessive)  |
| <b>E44L</b>      | Truck bolster broken (LOCOMOTIVE)                | <b>E4BC</b> | Truck bolster stiff (failure to slew)   |
| <b>E45C</b>      | Side frame broken                                | <b>E4TC</b> | Truck hunting   |
| <b>E45L</b>      | Side frame broken (LOCOMOTIVE)                   | <b>E4TL</b> | Truck hunting (LOCOMOTIVE)  |

| Axles and Journal Bearings |   |             |   |
|----------------------------|---|-------------|---|
| Code                       | Causes  | Code        | Causes  |
| <b>E51C</b>                | Broken or bent axle between wheel seats                       | <b>E54C</b> | Journal fractured, new cold break   |
| <b>E51L</b>                | Broken or bent axle between wheel seats (LOCOMOTIVE)          | <b>E54L</b> | Journal fractured, new cold break (LOCOMOTIVE)  |
| <b>E52C</b>                | Journal (plain) failure from overheating                      | <b>E55C</b> | Journal fractured, cold break, previously overheated  |
| <b>E52L</b>                | Journal (plain) failure from overheating (LOCOMOTIVE)         | <b>E55L</b> | Journal fractured, cold break, previously overheated (LOCOMOTIVE)                               |
| <b>E53C</b>                | Journal (roller bearing) failure from overheating             | <b>E59C</b> | Other axle and journal bearing defects (CAR) (Provide detailed description in narrative)        |
| <b>E53L</b>                | Journal (roller bearing) failure from overheating- LOCOMOTIVE | <b>E59L</b> | Other axle and journal bearing defects (LOCOMOTIVE) (Provide detailed description in narrative) |

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| Wheels      |                            |             |   |
|-------------|----------------------------|-------------|---|
| Code        | Causes                     | Code        | Causes  |
| <b>E60C</b> | Broken flange              | <b>E65L</b> | Worn tread (LOCOMOTIVE)   |
| <b>E60L</b> | Broken flange (LOCOMOTIVE) | <b>E66C</b> | Damaged flange or tread (flat)  |
| <b>E61C</b> | Broken rim                 | <b>E66L</b> | Damaged flange or tread (flat)<br>(LOCOMOTIVE)                                  |
| <b>E61L</b> | Broken rim (LOCOMOTIVE)    | <b>E67C</b> | Damaged flange or tread (build up)  |
| <b>E62C</b> | Broken plate               | <b>E67L</b> | Damaged flange or tread (build up)<br>(LOCOMOTIVE)                              |
| <b>E62L</b> | Broken plate (LOCOMOTIVE)  | <b>E68C</b> | Loose wheel   |
| <b>E63C</b> | Broken hub                 | <b>E68L</b> | Loose wheel (LOCOMOTIVE)  |
| <b>E63L</b> | Broken hub (LOCOMOTIVE)    | <b>E69C</b> | Other wheel defects (CAR) (Provide detailed<br>description in narrative)        |
| <b>E64C</b> | Worn flange                | <b>E69L</b> | Other wheel defects (LOCOMOTIVE)<br>(Provide detailed description in narrative) |
| <b>E64L</b> | Worn flange (LOCOMOTIVE)   | <b>E6AC</b> | Thermal crack, flange or tread  |
| <b>E65C</b> | Worn tread                 | <b>E6AL</b> | Thermal crack, flange or tread<br>(LOCOMOTIVE)                                  |

| Locomotives |   |             |   |
|-------------|---|-------------|---|
| Code        | Causes  | Code        | Causes  |
| <b>E70L</b> | Running gear failure (LOCOMOTIVE)               | <b>E76L</b> | Remote control equipment inoperative<br>(LOCOMOTIVE)                  |
| <b>E71L</b> | Traction motor failure (LOCOMOTIVE)             | <b>E77L</b> | Broken or defective swing hanger or spring<br>plank (LOCOMOTIVE)      |
| <b>E72L</b> | Crank case or air box explosion<br>(LOCOMOTIVE) | <b>E78L</b> | Pantograph defect (LOCOMOTIVE)  |
| <b>E73L</b> | Oil or fuel fire (LOCOMOTIVE)                   | <b>E79L</b> | Other locomotive defects (Provide detail<br>description in narrative) |
| <b>E74L</b> | Electrically caused fire (LOCOMOTIVE)           | <b>E7AL</b> | On-board computer - failure to respond<br>(LOCOMOTIVE)                |
| <b>E75L</b> | Current collector system<br>(LOCOMOTIVE)        | <b>E7BL</b> | Third rail shoe or shoe beam (LOCOMOTIVE)                             |

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| Doors       |   |             |  |
|-------------|---|-------------|--|
| Code        | Causes  | Code        | Causes   |
| <b>E80C</b> | Box car plug door open                        | <b>E84C</b> | Box car door, other than plug, attachment defective              |
| <b>E81C</b> | Box car plug door, attachment defective       | <b>E85C</b> | Bottom outlet car door open                                      |
| <b>E82C</b> | Box car plug door, locking lever not in place | <b>E86C</b> | Bottom outlet car door attachment defective                      |
| <b>E83C</b> | Box car door, other than plug, open           | <b>E89C</b> | Other car door defects (Provide detail description in narrative) |

| General Mechanical Electrical Failures |   |             |  |
|--|---|-------------|--|
| Code                                   | Causes  | Code        | Causes   |
| <b>E99C</b>                            | Other mechanical and electrical failures, (CAR) (Provide detailed description in narrative) | <b>E99L</b> | Other mechanical and electrical failures, (LOCOMOTIVE) (Provide detailed description in narrative) |