

Fatal and non-fatal accidents in railway vehicle products in Japan in 1999-2021

railway vehicle products industry Code No.011503

Type of accidents in railway vehicle products in 1999-2021

| Type of accidents | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | total | Type of accidents | |
|------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------------------------------------|---------------------------------|
| fall from height | 7 | 14 | 6 | 12 | 12 | 7 | 13 | 5 | 9 | 11 | 14 | 4 | 4 | 7 | 7 | 8 | 7 | 10 | 2 | 4 | 9 | 7 | 8 | 187 | fall from height | |
| falling to same level | 6 | 4 | 8 | 11 | 3 | 5 | 6 | 5 | 8 | 3 | 9 | 5 | 6 | 6 | 5 | 9 | 4 | 8 | 6 | 6 | 4 | 10 | 9 | 146 | falling to same level | |
| crash | 1 | 3 | 3 | 3 | 1 | 5 | 1 | 2 | 5 | 2 | 4 | 1 | 2 | 1 | 2 | 2 | 1 | 4 | 1 | 1 | 5 | 2 | 7 | 59 | crash | |
| struck by flying or falling object | 11 | 5 | 7 | 8 | 10 | 3 | 3 | 4 | 8 | 7 | 5 | 3 | 1 | 3 | 3 | 3 | 3 | 7 | 7 | 4 | 4 | 2 | 2 | 113 | struck by flying or falling object | |
| collapse | 2 | 2 | 2 | 1 | 2 | 1 | 4 | | 2 | 1 | 2 | | | | 1 | | 2 | 2 | 1 | | | 1 | | 26 | collapse | |
| crashed by | 2 | 1 | 3 | 2 | | 2 | 4 | 3 | 3 | 7 | 3 | | 1 | 3 | | 2 | 1 | 2 | | 1 | 1 | 2 | 1 | 44 | crashed by | |
| caught in/between | 14 | 13 | 11 | 13 | 20 | 20 | 10 | 14 | 13 | 10 | 8 | 13 | 6 | 6 | 7 | 7 | 9 | 9 | 9 | 7 | 10 | 12 | 4 | 245 | caught in/between | |
| cut | 7 | 5 | 4 | 1 | 2 | 2 | | 4 | 4 | 3 | 4 | 1 | 3 | 1 | 4 | 2 | 4 | 5 | 3 | 2 | 4 | 2 | 4 | 71 | cut | |
| injury to the sole of the foot | | | | | | | | | | | | | | | | | | | | 1 | | | | 1 | injury to the sole of the foot | |
| drown | | | | | | | | | | | | | | | | | | | | | | | | | drown | |
| contact to high/low-temperature | 1 | 1 | 2 | | 1 | 1 | 2 | | | | | 1 | | | 1 | 1 | | | | 1 | 3 | 1 | 3 | 1 | 20 | contact to high/low-temperature |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------------------------|--|--|---|--|---|--|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|--|----|-----------------------------------|
| machine | | | | | | | | | | | | | | | | | | | | | | | | | | machine |
| food manufacturing machine | | | | | | | | | | | | | | | | | | | | | | | | | | food manufacturing machine |
| printing machine | | | | | | | | | | | | | | | | | | | | | | | | | | printing machine |
| industrial robot | | | | | | | | | | | | | | | 1 | | | | | | | | | | 1 | industrial robot |
| other general power machines | | | 2 | | 2 | | 3 | 4 | 1 | 2 | 1 | 2 | | 1 | 1 | 1 | 3 | 2 | 1 | 2 | 1 | 3 | 1 | | 33 | other general power machines |
| felling machine | | | | | | | | | | | | | | | | | | | | | | | | | | felling machine |
| mobile logging machine | | | | | | | | | | | | | | | | | | | | | | | | | | mobile logging machine |
| skyline yarding machine | | | | | | | | | | | | | | | | | | | | | | | | | | skyline yarding machine |
| other mobile silviculture machine | | | | | | | | | | | | | | | | | | | | | | | | | | other mobile silviculture machine |
| crane | | | 1 | | 2 | | 1 | 3 | | 3 | 3 | 1 | 1 | 1 | 4 | 1 | | | 4 | 1 | 1 | | 1 | | 28 | crane |
| mobile crane | | | | | | | | | | | | | | | | | | | | | | | | | | mobile crane |
| derrick crane | | | | | | | | | | | | | | | | | | | | | | | | | | derrick crane |
| elevator, lift | | | | | | | | | | | | | 1 | | | | | | | | 1 | | | | 2 | elevator, lift |
| cargo lifting appliance | | | | | | | | | | | | | | | | | | | | | | | | | | cargo lifting appliance |
| gondola | | | | | | | | | | | | | | | | | | | | | | | | | | gondola |
| lumberyard equipment, logging | | | | | | | | | | | | | | | | | | | | | | | | | | lumberyard equipment, logging |

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| gas welding equipment | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | gas welding equipment | | | | |
| arc welding equipment | | | 1 | | | | 1 | | | | | | | | 2 | | | | | 1 | | | | 5 | arc welding equipment | | | |
| other welding equipment | | | | | | | | | 2 | | | 1 | | | | | | | | | | 1 | | 4 | other welding equipment | | | |
| kiln, caldron | | | | | | | | | | | | | | | | | | | | | | | | | kiln, caldron | | | |
| industrial dryer | | | | | | | | | | | | | | | | | | | | | | | | | industrial dryer | | | |
| other kiln, caldron | | | | | | | | | | | | | | | | | | | | | | | | | other kiln, caldron | | | |
| transmission | | | | | | | | | | | | | | | | | | | | | | 1 | | 2 | transmission | | | |
| electric power facilities | | | | | | | | | | | | | | | | | | | | | | | 1 | | 2 | electric power facilities | | |
| other electrical equipment | | | | | | | | | | | | | | | | | | | | | | | 2 | | 2 | other electrical equipment | | |
| human power cranes | | | | | | | | | | | | | | | | | | | | | | | 1 | | 1 | 1 | 3 | human power cranes |
| human power hauling equipment | | | | | | | | | | | | | | | | | | | | | | | | | | 2 | 12 | human power hauling equipment |
| human power machine | | | | | | | | | | | | | | | | | | | | | | | | | | | human power machine | |
| hand tool | | | 2 | | 1 | | | 1 | 3 | 1 | | | 1 | 1 | 1 | 3 | | 5 | 1 | 4 | 4 | 3 | 2 | | 33 | hand tool | | |
| ladder | | | 1 | | 6 | | 1 | 2 | 5 | 4 | 3 | | 1 | 2 | | 2 | 1 | 4 | 2 | 2 | 3 | 2 | 3 | | 44 | ladder | | |
| slinging tool | | | 1 | | 1 | | | 1 | 2 | 2 | | 1 | | | | | 1 | | 1 | | 2 | 2 | | | 14 | slinging tool | | |
| other tools | | | 2 | | 3 | | 1 | 2 | 2 | 2 | 3 | | | 2 | | | 3 | 5 | 2 | 4 | 2 | 1 | 2 | | 36 | other tools | | |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|---|--|--|----|--|----|--|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-----|---|
| harmful substances | | | | | | | | | | | | | | | | | | | | | 1 | 1 | 1 | 4 | harmful substances |
| metal material | | | 5 | | 9 | | 7 | 6 | 5 | 8 | 6 | 2 | 4 | 3 | 3 | 2 | 4 | 3 | 3 | | 5 | 4 | 4 | 83 | metal material |
| lumber, bamboo | | | | | | | | | | | | | | | | | | | | | | | | | lumber, bamboo |
| stone, sand, substance | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | stone, sand, substance |
| other materials | | | | | 1 | | | | | | | | | | | | 1 | | | | | | | 2 | other materials |
| load | | | 2 | | 4 | | 3 | 2 | 1 | 1 | 2 | | | | | | 1 | | 4 | 1 | | 1 | | 22 | load |
| machine/equipment as load | | | 2 | | | | 1 | | 1 | 2 | 1 | | | | | | 1 | | | | | 2 | 1 | 11 | machine/equipment as load |
| natural ground, rock | | | | | | | | | | | | | | | | | | | | | | | | | natural ground, rock |
| standing tree | | | | | | | | | | | | | | | | | | | | | | | | | standing tree |
| water | | | | | | | | | | | | | | | | | | | | | | | | | water |
| abnormal environment | | | | | | | | | | | | | | | | | | | | | | | | | abnormal environment |
| high/cold temperature environment | | | | | | | | | | | | 1 | | | | | | | 1 | 2 | 1 | 3 | | 8 | high/cold temperature environment |
| other environments | | | | | | | | | 1 | | | | 1 | 1 | | 1 | | | | 2 | | | | 6 | other environments |
| other causal agent | | | | | | | 2 | 2 | | | 1 | | | | | | | | | 1 | | | 9 | 15 | other causal agent |
| no causal agent | | | 1 | | 5 | | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 2 | 1 | 2 | 1 | 2 | 3 | 3 | 6 | 6 | 2 | 52 | no causal agent |
| unclassifiable | | | | | 1 | | | 1 | | | | | | | | | | | | | | | | 2 | unclassifiable |
| total | | | 49 | | 64 | | 48 | 45 | 56 | 50 | 59 | 32 | 27 | 29 | 34 | 38 | 36 | 54 | 41 | 40 | 50 | 51 | 55 | 858 | total |

Workers age of fatal and non-fatal accidents in railway vehicle products in 1999-2021

| Age | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | total | Age |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|----------------------|
| 19 years old or less | 5 | 3 | | | 1 | 3 | 1 | 1 | 5 | | 5 | 2 | 1 | 1 | 1 | 2 | | 3 | 1 | 2 | 3 | 1 | | 41 | 19 years old or less |
| 20-29 | 16 | 9 | 10 | 8 | 10 | 6 | 7 | 8 | 8 | 11 | 10 | 3 | | 3 | 4 | 4 | 2 | 9 | 11 | 4 | 12 | 8 | 12 | 175 | 20-29 |
| 30-39 | 5 | 7 | 7 | 6 | 13 | 7 | 10 | 10 | 12 | 8 | 9 | 4 | 7 | 4 | 7 | 8 | 6 | 10 | 8 | 9 | 11 | 8 | 7 | 183 | 30-39 |
| 40-49 | 11 | 8 | 9 | 11 | 14 | 14 | 7 | 8 | 15 | 6 | 8 | 9 | 4 | 6 | 6 | 8 | 8 | 11 | 6 | 8 | 10 | 16 | 6 | 209 | 40-49 |
| 50-59 | 15 | 21 | 18 | 23 | 17 | 16 | 12 | 14 | 6 | 12 | 17 | 9 | 11 | 12 | 8 | 13 | 11 | 14 | 7 | 7 | 4 | 9 | 18 | 294 | 50-59 |
| 60 years old or more | 8 | 8 | 5 | 8 | 9 | 12 | 11 | 4 | 10 | 13 | 10 | 5 | 4 | 3 | 8 | 3 | 9 | 7 | 8 | 10 | 10 | 9 | 12 | 186 | 60 years old or more |
| total | 60 | 56 | 49 | 56 | 64 | 58 | 48 | 45 | 56 | 50 | 59 | 32 | 27 | 29 | 34 | 38 | 36 | 54 | 41 | 40 | 50 | 51 | 55 | 1,088 | total |

Workers' number of workplace of fatal and non-fatal accidents in railway vehicle products in 1999-2021

| Workers scale | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | total | Workers scale |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|---------------------|
| 9 workers or less | 12 | 8 | 5 | 7 | 14 | 9 | 6 | 7 | 6 | 6 | 7 | 6 | 3 | 4 | 6 | 3 | 3 | 1 | 5 | 6 | 4 | 2 | 2 | 132 | 9 workers or less |
| 10-29 | 12 | 6 | 15 | 8 | 15 | 10 | 7 | 7 | 7 | 10 | 9 | 4 | 1 | 2 | 8 | 1 | 7 | 9 | 7 | 7 | 12 | 15 | 6 | 185 | 10-29 |
| 30-49 | 7 | 9 | 2 | 4 | 6 | 7 | 9 | 4 | 6 | 8 | 4 | 7 | 4 | 6 | 4 | 6 | 7 | 9 | 6 | 5 | 3 | 5 | 7 | 135 | 30-49 |
| 50-99 | 5 | 9 | 13 | 9 | 3 | 8 | 8 | 7 | 9 | 8 | 6 | 6 | 2 | 4 | 4 | 6 | 5 | 7 | 9 | 6 | 10 | 13 | 10 | 167 | 50-99 |
| 100-299 | 7 | 7 | 7 | 8 | 13 | 10 | 10 | 12 | 15 | 8 | 13 | 7 | 11 | 8 | 7 | 11 | 8 | 14 | 6 | 12 | 11 | 4 | 12 | 221 | 100-299 |
| 300 workers or more | 17 | 17 | 7 | 20 | 13 | 14 | 8 | 8 | 13 | 10 | 20 | 2 | 6 | 5 | 5 | 11 | 6 | 14 | 8 | 4 | 10 | 12 | 18 | 248 | 300 workers or more |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|-------|
| total | 60 | 56 | 49 | 56 | 64 | 58 | 48 | 45 | 56 | 50 | 59 | 32 | 27 | 29 | 34 | 38 | 36 | 54 | 41 | 40 | 50 | 51 | 55 | 1,088 | total |
|-------|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|----|-------|-------|

Month of fatal and non-fatal accidents in railway vehicle products in 1999-2021

| Month | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | total | Month |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-----------|
| January | 2 | 5 | 6 | 6 | 4 | 5 | 5 | 3 | 3 | 5 | 5 | 2 | 7 | 2 | 6 | 6 | 1 | 5 | 5 | 4 | 4 | 4 | 5 | 100 | January |
| February | 6 | 4 | 5 | 10 | 5 | 6 | 4 | 5 | 7 | 6 | 3 | 2 | 2 | 5 | 3 | 2 | 1 | 4 | 2 | 3 | 4 | | 6 | 95 | February |
| March | 8 | 5 | 6 | 2 | 4 | 3 | 7 | 3 | 2 | 2 | 3 | 2 | 1 | 3 | 4 | 4 | | 4 | 3 | 2 | 3 | 3 | 5 | 79 | March |
| April | 7 | 2 | 1 | 7 | 5 | 6 | 3 | 4 | 5 | | 8 | 1 | 1 | 3 | 1 | 2 | 3 | 2 | 1 | 3 | 5 | 5 | 12 | 87 | April |
| May | 5 | 4 | 3 | 2 | 7 | 5 | 3 | 6 | 7 | 3 | 5 | 3 | 1 | 1 | 1 | 4 | 4 | 3 | 2 | 2 | 4 | 3 | 2 | 80 | May |
| June | 6 | 4 | 4 | 1 | 5 | 4 | 3 | 6 | 3 | 3 | 11 | 2 | 3 | 4 | 5 | | 4 | 4 | 3 | 5 | 5 | 6 | 4 | 95 | June |
| July | 4 | 6 | | 7 | 5 | 2 | 3 | 5 | 4 | 7 | 5 | | 2 | 2 | 2 | 5 | 4 | 3 | 6 | 4 | 3 | 6 | 6 | 91 | July |
| August | 5 | 7 | 2 | 8 | 6 | 3 | 7 | 3 | 6 | 5 | 3 | 4 | 2 | 4 | 1 | 3 | 2 | 9 | 4 | 3 | 2 | 9 | 3 | 101 | August |
| September | 4 | 7 | 5 | 3 | 1 | 6 | 4 | | 6 | 4 | 1 | 5 | 1 | 1 | 3 | 2 | 3 | 6 | 2 | 1 | 6 | 4 | 1 | 76 | September |
| October | 4 | 6 | 7 | 2 | 10 | 6 | 1 | 4 | 3 | 4 | 5 | 5 | 2 | 2 | 3 | 2 | 3 | 7 | 4 | 4 | 7 | 5 | 3 | 99 | October |
| November | 7 | 1 | 1 | 5 | 11 | 7 | 4 | 4 | 6 | 7 | 5 | 3 | 4 | | 3 | | 7 | 3 | 1 | 5 | 5 | 1 | 4 | 94 | November |
| December | 2 | 5 | 9 | 3 | 1 | 5 | 4 | 2 | 4 | 4 | 5 | 3 | 1 | 2 | 2 | 8 | 4 | 4 | 8 | 4 | 2 | 5 | 4 | 91 | December |
| total | 60 | 56 | 49 | 56 | 64 | 58 | 48 | 45 | 56 | 50 | 59 | 32 | 27 | 29 | 34 | 38 | 36 | 54 | 41 | 40 | 50 | 51 | 55 | 1,088 | total |

Prefecture of fatal and non-fatal accidents in railway vehicle products in 1999-2021

| Prefecture | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | total | Prefecture |
|------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|------------|
| Hokkaido | 2 | 4 | 1 | | 2 | | | | | 1 | | 3 | | 2 | 2 | | 2 | 2 | | | 5 | 2 | 3 | 31 | Hokkaido |

| | | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|---|---|--|---|--|----|----|---|---|----|---|---|---|---|---|---|---|---|---|---|---|---|--------|-----------|-----------|
| Aomori | | | | | 1 | | | | | | | | | | | | | | | | | | 1 | Aomori | | |
| Iwate | | | | | | | | | | | | | | | | 1 | | | | | | | | 1 | Iwate | |
| Miyagi | 3 | | | | | | 2 | 1 | 2 | 2 | | | | 1 | 1 | | | | 1 | | 1 | | | 14 | Miyagi | |
| Akita | | | 2 | | 1 | | 2 | 1 | 1 | 1 | | | | | | 1 | | 1 | 1 | 1 | | | 2 | 14 | Akita | |
| Yamagata | | | | | | | | | | | | | | | | | | | | | | | | | Yamagata | |
| Fukushima | 2 | 2 | | | 1 | | | | 3 | | | | 2 | | | 2 | | | 1 | 2 | 1 | 1 | | 17 | Fukushima | |
| Ibaraki | | 2 | 1 | | | | 1 | | | | 1 | 2 | | 1 | 2 | | | | | | 2 | 1 | 1 | | 14 | Ibaraki |
| Tochigi | | | | | | | | | | | | | | | | | | | | | | | | 1 | 1 | Tochigi |
| Gunma | 1 | | | | | | | | | | 1 | | | | 1 | | 1 | 2 | | 1 | | | 2 | 9 | Gunma | |
| Saitama | | 2 | 4 | | 5 | | 4 | | 3 | 3 | 3 | 2 | 1 | 1 | 2 | 3 | 1 | 2 | 1 | 1 | 4 | 7 | 1 | 50 | Saitama | |
| Chiba | | | | | | | | | 2 | | | | | | | 1 | | | | | | 1 | | 4 | Chiba | |
| Tokyo | 3 | 5 | 2 | | 5 | | 4 | | 4 | 1 | 1 | 2 | 1 | 2 | 3 | 1 | 4 | 1 | | 2 | 4 | | 6 | 51 | Tokyo | |
| Kanagawa | 8 | 9 | 6 | | 7 | | 11 | 14 | 5 | 4 | 2 | 4 | 1 | | 3 | 5 | 2 | 7 | 7 | 7 | 8 | 1 | 6 | 117 | Kanagawa | |
| Niigata | | 2 | 2 | | 1 | | 3 | 2 | 3 | 2 | | 2 | | | | 2 | 5 | 1 | 5 | 1 | 2 | 3 | 1 | 37 | Niigata | |
| Toyama | | | | | 1 | | | | | 1 | | | | | | | | | | | | | | | 2 | Toyama |
| Ishikawa | 2 | | | | 1 | | | | | 1 | | | 1 | | | | 1 | | | | | | | | 6 | Ishikawa |
| Fukui | | | | | | | | | | | | | | | | | | | | | | | | | | Fukui |
| Yamanashi | | | | | | | | | | | | | | 1 | | 1 | | | | | | | 1 | | 3 | Yamanashi |
| Nagano | 2 | | | | | | | | | 1 | | | 2 | 1 | | | 1 | 1 | 1 | | | | | | 9 | Nagano |
| Gifu | 2 | 1 | 3 | | | | | | | 2 | | | | | | | | 1 | | | | | | | 9 | Gifu |
| Shizuoka | | | 2 | | 1 | | 1 | 1 | | | 1 | | | | | 2 | 2 | 3 | | 1 | | 1 | 1 | | 16 | Shizuoka |
| Aichi | 3 | 6 | 6 | | 4 | | 3 | 3 | 5 | 5 | 10 | 2 | 3 | 3 | 4 | 1 | 3 | 5 | | 2 | 1 | 4 | 2 | | 75 | Aichi |
| Mie | 1 | | 2 | | | | | 1 | | 1 | | | | | | | | 1 | | | | 1 | | | 7 | Mie |

| | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |
|----------------|---|---|--|---|--|---|---|---|--|---|--|--|--|---|---|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|--|----------------|-------|
| unclassifiable | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | unclassifiable | |
| total | 1 | 1 | | 1 | | 1 | 1 | 1 | | 1 | | | | 1 | 1 | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | 11 | total |

Causal agents (large) of fatal accidents in railway vehicle products in 1999-2021

| Causal (L) agents | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | total | Causal (L) agents | | |
|-------------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------------------|-------------------------------------|-------------|
| machine | | | | | | | 1 | | | 1 | | | | | | | | 1 | | | | | | | 3 | machine | |
| crane, conveying machine | | | | 1 | | | | 1 | | | | | 1 | | | | 1 | | | | | | | | 4 | crane, conveying machine | |
| other equipment | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | other equipment | |
| temporary buildings, establishments | 1 | | | | | 1 | | | | | | | | | | | | | | | | | | | 2 | temporary buildings, establishments | |
| substance, material | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | substance, material | |
| load | | | | | | | | | | | | | | | | | | | | | | | | | | | load |
| environment | | | | | | | | | | | | | | | | | | | | | | | | | | | environment |
| others | | | | | | | | | | | | | | | | | | | | | | | | | | | others |
| total | 1 | 1 | | 1 | | 1 | 1 | 1 | | 1 | | | 1 | 1 | | | 1 | 1 | | | | | | | 11 | total | |

Causal agents (middle) of fatal accidents in railway vehicle products in 1999-2021

| Causal (M) agents | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | total | Causal (M) agents | |
|------------------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-----------------------------|------------------------------|
| engine | | | | | | | | | | | | | | | | | | | | | | | | | engine | |
| power transmission mechanism | | | | | | | | | | | | | | | | | | | | | | | | | | power transmission mechanism |
| woodworking machine | | | | | | | | | | | | | | | | | | | | | | | | | | woodworking machine |
| construction machine | | | | | | | | | | | | | | | | | | | | | | | | | | construction machine |
| metal manufacturing machine | | | | | | | 1 | | | 1 | | | | | | | | | | | | | | 2 | metal manufacturing machine | |
| general machine | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | general machine | |
| mobile silviculture machine | | | | | | | | | | | | | | | | | | | | | | | | | | mobile silviculture machine |
| crane | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | crane | |
| conveying machine | | | | 1 | | | | 1 | | | | | | | | | | | | | | | | 2 | conveying machine | |
| vehicle | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | vehicle | |
| pressure vessel | | | | | | | | | | | | | | | | | | | | | | | | | | pressure vessel |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------------|---|---|--|---|--|---|---|---|--|---|--|--|---|---|--|--|---|---|--|--|--|--|--|----|-----------------|
| | | | | | | | | | | | | | | | | | | | | | | | | | agent |
| no causal agent | | | | | | | | | | | | | | | | | | | | | | | | | no causal agent |
| unclassifiable | | | | | | | | | | | | | | | | | | | | | | | | | unclassifiable |
| total | 1 | 1 | | 1 | | 1 | 1 | 1 | | 1 | | | 1 | 1 | | | 1 | 1 | | | | | | 11 | total |

Causal agents (small) of fatal accidents in railway vehicle products in 1999-2021

| Causal (S) agents | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | total | Causal (S) agents | |
|---|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------------------|---|
| engine | | | | | | | | | | | | | | | | | | | | | | | | | | engine |
| power transmission mechanism | | | | | | | | | | | | | | | | | | | | | | | | | | power transmission mechanism |
| circular sawing machine | | | | | | | | | | | | | | | | | | | | | | | | | | circular sawing machine |
| band sawing machine | | | | | | | | | | | | | | | | | | | | | | | | | | band sawing machine |
| wood planer machine | | | | | | | | | | | | | | | | | | | | | | | | | | wood planer machine |
| hollow chisel mortiser, wood borer | | | | | | | | | | | | | | | | | | | | | | | | | | hollow chisel mortiser, wood borer |
| chamfering machine, router, woodworking | | | | | | | | | | | | | | | | | | | | | | | | | | chamfering machine, router, woodworking |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|--|--|--|--|--|--|--|---|--|--|--|--|--|--|--|--|--|---|--|--|--|--|--|------------------|--|------------------------------|
| shearing machine | | | | | | | | | | | | | | | | | | | | | | | shearing machine | | |
| other metal manufacturing machines | | | | | | | 1 | | | | | | | | | | | | | | | | 1 | other metal manufacturing machines | |
| centrifugal machine | | | | | | | | | | | | | | | | | | | | | | | | centrifugal machine | |
| mixer, grinder | | | | | | | | | | | | | | | | | | | | | | | | mixer, grinder | |
| roll machine (except printingroll machine) | | | | | | | | | | | | | | | | | | | | | | | | roll machine (except printingroll machine) | |
| injection molding machine | | | | | | | | | | | | | | | | | | | | | | | | injection molding machine | |
| food manufacturing machine | | | | | | | | | | | | | | | | | | | | | | | | food manufacturing machine | |
| printing machine | | | | | | | | | | | | | | | | | | | | | | | | printing machine | |
| industrial robot | | | | | | | | | | | | | | | | | | | | | | | | industrial robot | |
| other general power machines | | | | | | | | | | | | | | | | | 1 | | | | | | | 1 | other general power machines |
| felling machine | | | | | | | | | | | | | | | | | | | | | | | | felling machine | |
| mobile logging machine | | | | | | | | | | | | | | | | | | | | | | | | mobile logging machine | |
| skyline yarding machine | | | | | | | | | | | | | | | | | | | | | | | | skyline yarding machine | |
| other mobile silviculture machine | | | | | | | | | | | | | | | | | | | | | | | | other mobile silviculture machine | |

| Workers scale | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | total | Workers scale | |
|---------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|---------------|---------------------|
| 9 workers or less | | | | | | | | | | | | | | | | | | | | | | | | | | 9 workers or less |
| 10-29 | 1 | | | | | | | | | 1 | | | | | | | | | | | | | | | 2 | 10-29 |
| 30-49 | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | 30-49 |
| 50-99 | | | | | | | | | | | | | | 1 | | | | | | | | | | | 1 | 50-99 |
| 100-299 | | | | | | | 1 | 1 | | | | | 1 | | | | | | | | | | | | 3 | 100-299 |
| 300 workers or more | | | | 1 | | 1 | | | | | | | | | | | | 1 | 1 | | | | | | 4 | 300 workers or more |
| total | 1 | 1 | | 1 | | 1 | 1 | 1 | | 1 | | | 1 | 1 | | | 1 | 1 | | | | | | | 11 | total |

Month of fatal accidents in railway vehicle products in 1999-2021

| Month | 1999 | 2000 | 2001 | 2002 | 2003 | 2004 | 2005 | 2006 | 2007 | 2008 | 2009 | 2010 | 2011 | 2012 | 2013 | 2014 | 2015 | 2016 | 2017 | 2018 | 2019 | 2020 | 2021 | total | Month | |
|-----------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|-------|-------|-----------|
| January | | | | | | | | | | | | | | | | | | | | | | | | | | January |
| February | | | | | | 1 | | | | | | | | | | | | | | | | | | | 1 | February |
| March | | | | | | | | | | | | | | | | | | | | | | | | | | March |
| April | | | | | | | 1 | | | | | | 1 | 1 | | | | 1 | | | | | | | 4 | April |
| May | | | | | | | | | | 1 | | | | | | | | | | | | | | | 1 | May |
| June | 1 | | | | | | | | | | | | | | | | | | | | | | | | 1 | June |
| July | | 1 | | | | | | | | | | | | | | | | | | | | | | | 1 | July |
| August | | | | | | | | 1 | | | | | | | | | | | | | | | | | 1 | August |
| September | | | | | | | | | | | | | | | | | | | | | | | | | | September |
| October | | | | | | | | | | | | | | | | | | | | | | | | | | October |

| | | | | | | | | | | | | | | | | | | | | | | | | | |
|-----------|---|---|--|---|--|---|---|---|--|---|--|---|---|--|--|---|---|--|--|--|--|--|--|---------|-----------|
| Fukuoka | | | | | | | | | | | | | | | | | | | | | | | | Fukuoka | |
| Saga | | | | | | | | | | | | | | | | | | | | | | | | | Saga |
| Nagasaki | | | | | | | | | | | | | | | | | | | | | | | | | Nagasaki |
| Kumamoto | | | | | | | | | | | | | | | | | | | | | | | | | Kumamoto |
| Oita | | | | | | | | | | | | | | | | | | | | | | | | | Oita |
| Miyazaki | | | | | | | | | | | | | | | | | | | | | | | | | Miyazaki |
| Kagoshima | | | | | | | | | | | | | | | | | | | | | | | | | Kagoshima |
| Okinawa | | | | | | | | | | | | | | | | | | | | | | | | | Okinawa |
| total | 1 | 1 | | 1 | | 1 | 1 | 1 | | 1 | | 1 | 1 | | | 1 | 1 | | | | | | | 11 | total |

Data sources: <https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.htm> (MHLW, Japan)

Return to https://www.jisha.or.jp/english/statistics/2021e_industry.html