Fatal and non-fatal accidents in harbor transportation service in Japan in 1999-2021

harbor transportation service industry Code No.0502

Type of accidents in harbor transportation service 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	123	131	141	124	122	110	137	112	118	111	87	82	82	88	67	85	85	66	86	83	97	96	84	2,317	fall from height
falling to same level	61	51	54	54	45	46	54	50	47	30	33	39	47	45	40	47	25	35	43	43	45	35	54	1,023	falling to same
crash	36	44	47	50	40	33	41	36	23	36	25	33	24	25	25	22	24	17	29	27	31	21	34	723	crash
struck by flying or falling object	76	59	70	57	54	58	47	37	45	43	30	28	23	24	29	40	27	35	19	34	33	23	31	922	struck by flying or falling object
collapse	23	22	27	17	15	20	17	22	15	19	8	15	14	9	16	14	13	7	7	10	9	13	9	341	collapse
crashed by	61	62	47	59	56	49	39	51	42	39	28	33	32	34	32	24	22	27	22	31	16	29	29	864	crashed by
caught in/between	115	125	124	115	130	125	94	77	88	79	52	73	87	65	56	67	50	53	68	59	63	56	56	1,877	caught in/between
cut	10	12	19	10	14	9	8	14	10	12	11	6	4	6	6	3	5	5	5	4	12	9	7	201	cut
injury to the sole of the foot	1		2	1	2			2	1					2			3	2				2	3	21	injury to the sole
drown	1	1		5	1	2	2			1	1		8				1	2	2				1	28	drown
contact to high/low- temperature	6	7	4	4	2	4	1	2	4	8		7	6	5	2	6	2	9	6	5	3	2	3	98	contact to high/low- temperature

contact to harmful																									contact to
substance	3	2	2	3	1		3	1	4	3			1	2			2	1		1				29	harmful
																									substance
electric shock							1					1						1	1					4	electric shock
explosion												1											1	2	explosion
burst				1																				1	burst
fire	1							1			1							1						4	fire
traffic accident (public	11	9	7	7	7	6	10	5	15	3	4	8	5	4	1	7	4	6	14	8	23	9	8	181	traffic accident
road)						6		٥		3	4	6		4	1		4		14	0	23	9	0	101	(public road)
traffic accident		1	2			1	1		2		1		1	1	1		1				1		1	14	traffic accident
(others)		ľ				ľ	'		_		'		•		'								ľ	17	(others)
reaction to																									reaction to
motion/improper	43	45	41	43	54	44	32	32	38	35	25	25	36	32	21	32	19	18	29	23	36	28	37	768	motion/improper
motion																									motion
others	3	2	3	1	2	2	1	2		2		1	3	2		2	1	1		2	4	7	24	65	others
unclassifiable					1		1	1		1	1	1									3			9	unclassifiable
total	574	573	590	551	546	509	489	445	452	422	307	353	373	344	296	349	284	286	331	330	376	330	382	9,492	total

Causal agents (large) of fatal and non-fatal accidents in harbor transportation service 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)
Causar (L) agents		2000	2001	2002	2003	2004	2003	2000	2007	2000	2003	2010	2011	2012	2013	2014	2013	2010	2017	2010	2017	2020	2021	I I	agents
machine	8	15	17	13	16	21	14	17	10	20	11	8	15	12	8	8	6	13	15	13	13	11	20	304	machine
crane, conveying																									crane,

machine	191	225	186	189	184	183	155	154	167	157	104	108	116	117	103	105	103	81	121	109	118	101	132	3,209	conveying
																									machine
other equipment	101	71	121	88	94	85	91	77	72	72	44	53	59	59	54	67	51	63	58	55	68	65	52	1,620	other
other equipment		'	121	00	24	65	91		/ 2						54	07		05			08		52		equipment
tomporary buildings																									temporary
temporary buildings, establishments	46	73	71	74	74	62	69	62	66	59	50	74	66	53	43	58	42	42	52	55	58	58	68	1,375	buildings,
establishments																									establishments
substance, material	80	68	58	68	64	50	72	44	64	52	32	36	39	22	34	45	27	32	28	25	45	25	24	1,034	substance,
substance, material	80	00	56	08	04	30	/ 2	44	04)2 	32	30	39		34	43		32	20	23	43		24		material
load	106	99	117	98	88	81	68	73	60	48	57	55	42	54	41	41	44	33	37	48	46	45	37	1,418	load
environment	8	5	5	8	6	8	9	3	5	6	3	7	16	9	3	6	5	14	9	8	6	5	11	165	environment
others	34	17	15	13	20	19	11	15	8	8	6	12	20	18	10	19	6	8	11	17	22	20	38	367	others
total	574	573	590	551	546	509	489	445	452	422	307	353	373	344	296	349	284	286	331	330	376	330	382	9,492	total

Causal agents (middle) of fatal and non-fatal accidents in harbor transportation service 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		1								2	1			1										5	engine
power transmission mechanism		4			1	3	2						2	1					1	2	1			17	power transmission mechanism
woodworking machine	3	6	8	5	4	6	5	6	2	9	4	1	6			2	2	1	2	2	5	1	2	82	woodworking machine

construction machine	2	2	6	7	6	10	4	6	3	9	3	6	5	5	5	5	3	6	9	5	4	6	13	130	construction machine
metal manufacturing machine	1	2	2		1		1	2	3		2				1				2						metal manufacturing machine
general machine	2		1	1	4	2	2	3	2		1	1	2	5	2	1	1	5	1	3	3	4	5	51	general machine
mobile silviculture machine																		1		1				2	mobile silviculture machine
crane	48	65	50	43	43	52	32	32	37	34	18	25	30	22	21	28	21	23	26	10	20	19	19	718	crane
conveying machine	110	131	105	115	114	98	98	92	88	94	67	58	65	74	63	58	63	47	69	74	56	58	86	1,883	conveying machine
vehicle	33	29	31	31	27	33	25	30	42	29	19	25	21	21	19	19	19	11	26	25	42	24	27	608	vehicle
pressure vessel																					1			1	pressure vessel
chemical facilities					1																			1	chemical facilities
welding equipment				1			1			1				1							1			5	welding equipment
kiln, caldron																				1				1	kiln, caldron
electric equipment		1		1			1					1	1						1				1	7	electric equipment
human power machine,	15	14	14	7	13	13	9	10	11	10	10	11	8	9	3	6	2	5	4	7	14	13	15	223	human power

tools	80	48	97	70	74	69	70	59	53	53	33	36	46	38	45	53	39	48	44	39	46	41	34	1,215	tools
other equipments,	6	8	10	9	6	3	10	8	8	8	1	5	4	11	6	8	10	10	9	8	6	11	2	167	other equipments, facilities
temporary buildings, establishments	46	73	71	74	74	62	69	62	66	59	50	74	66	53	43	58	42	42	52	55	58	58	68	1,375	temporary buildings, establishments
hazards, harmful substances	4	2	3	3			2	2	5	4	1		2	1		3	1	1		1				35	hazards, harmful substances
materials	76	66	55	65	64	50	70	42	59	48	31	36	37	21	34	42	26	31	28	24	45	25	24	999	materials
load	106	99	117	98	88	81	68	73	60	48	57	55	42	54	41	41	44	33	37	48	46	45	37	1,418	load
natural environment	8	5	5	8	6	8	9	3	5	6	3	7	16	9	3	6	5	14	9	8	6	5	11	165	natural environment
other causal agent	24	11	4	4	5	5	2	7	1	4	2	1	2	3	2	4	2	1	2	6	4	4	23	123	other causal agent
no causal agent	9	6	11	9	13	14	8	7	5	4	4	10	18	14	8	14	4	7	9	11	15	16	15	231	no causal agent
unclassifiable	1				2		1	1	2			1		1		1					3			13	unclassifiable
total	574	573	590	551	546	509	489	445	452	422	307	353	373	344	296	349	284	286	331	330	376	330	382	9,492	total

Causal agents (small) of fatal and non-fatal accidents in harbor transportation service 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							2	1			1										4	engine
power transmission mechanism			1	2						2	1					1	2	1			10	power transmission mechanism
circular sawing machine		3	3	2	3		3	1		4			2		1	1		4		2	29	circular sawing machine
band sawing machine																						band sawing machine
wood planer machine																						wood planer machine
hollow chisel mortiser, wood borer					1																1	hollow chisel mortiser, wood borer
chamfering machine, router, woodworking milling machine																						chamfering machine, router, woodworking milling machine
chain saw		3	1	3	2	1	4	2	1	1				2			2	1			23	chain saw
other woodworking machines		2				1	2	1		1						1			1		9	other woodworking machines
leveling, transporting or loading machine		2	2	4	3	2	6	2	4	1	2	3	1	3	3	6	3	1	4	8	60	leveling, transporting or loading machine
excavating machine		3	2		2	1	3	1	2	4	2	1	4		2	2	2	3	2	4	40	excavating machine
foundation work																						foundation work

hardening machine																		hardening machine
demolition machine													1				1	demolition machine
vehicle for high lift work		1	1														2	vehicle for high lift work
other construction machines			1		1				1	1		1				1	6	other construction machines
lathe																		lathe
drill press, milling machine													1				1	drill press, milling machine
grinding machine, buffing machine		2	1		1	2	1			1							8	grinding machine, buffing machine
power press																		power press
forging pressure																		forging pressure
shearing machine																		shearing machine
other metal manufacturing machines				1	1	1	1						1				5	other metal manufacturing machines
centrifugal machine																		centrifugal machine
mixer, grinder						1								1			2	mixer, grinder
roll machine (except printingroll machine)											1						1	roll machine (except printingroll machine)
injection molding																		injection molding

machine																						machine
food manufacturing					1																1	food manufacturing
printing machine																						printing machine
industrial robot																						industrial robot
other general power machines		1	4	2	2	1		1	1	2	5	2		1	5	1	2	3	4	5	42	other general power machines
felling machine																						felling machine
mobile logging machine																						mobile logging machine
skyline yarding machine															1						1	skyline yarding machine
other mobile																	1				1	other mobile silviculture machine
crane		21	18	14	18	19	20	12	13	14	18	10	17	9	12	10	3	9	10	12	259	crane
mobile crane		17	17	11	6	10	9	3	4	10	3	3	3	9	4	10	3	7	5	3	137	mobile crane
derrick crane		3			1	1			1	1											7	derrick crane
elevator, lift		1	1			1	1	1	1	1				1		1		1	1		11	elevator, lift
cargo lifting appliance		6	6	5	6	6	3	1	5	3	1	6	5	1	6	4	3	2	3	2	74	cargo lifting appliance
gondola														1							1	gondola
lumberyard equipment, logging cableway																		1			1	lumberyard equipment, logging cableway

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simple skyline yarding equipment																							simple skyline yarding equipment
other powered crane		2	1		2	1		1	1	1	1		2	3		1	1	1			2	20	other powered crane
truck		35	41		42	34	36	37	29	23	24	27	18	21	28	12	29	33	25	20	31	545	truck
forklift		59	60		44	43	42	42	29	27	29	37	40	25	29	27	31	33	24	29	44	694	forklift
railway equipment					1							1										2	railway equipment
conveyor		2	6		5	6	4	4	5	4	3	4	3	4	5	3	5	4	5		5	77	conveyor
loader		1	2		2	2	1	2	1		2	2		1	1	2	1			5	2	27	loader
straddle carrier			3					5		1	2	1	1	3		2		2	1		1	22	straddle carrier
rough terrain hauler																				1		1	rough terrain hauler
other powered conveying machines		8	2		4	7	5	4	3	3	5	2	1	4		1	3	2	1	3	3	61	other powered conveying machines
cars, bus, motorcycle		10	11		8	9	18	7		10	4	7	5	7	6	7	10	7	25	12	8	171	cars, bus, motorcycle
railway vehicle																							railway vehicle
other vehicles		21	16		17	21	24	22	19	15	17	14	14	12	13	4	16	18	17	12	19	311	other vehicles
boiler																							boiler
pressure vessel																			1			1	pressure vessel
other pressure vessels																							other pressure vessels
chemical facilities			1																			1	chemical facilities
gas welding					1			1				1							1			4	gas welding

equipment																						equipment
arc welding																						arc welding
equipment																					_	equipment
other welding																						other welding
equipment																						equipment
kiln, caldron																						kiln, caldron
industrial dryer																	1				1	industrial dryer
other kiln, caldron																						other kiln, caldron
transmission										1						1					2	transmission
electric power																						electric power
facilities				1					1											1	3	facilities
other electrical																						other electrical
equipment																						equipment
human power																						human power
cranes		1							2	l I		1								1	8	cranes
human power			_			_		5		1					1						20	human power
hauling equipment		I	5	2	3	2	4	5	3		2		2				2	3	3		39	hauling equipment
human power																				1		human power
machine			I	2	3													I			8	machine
hand tool		12	7	5	4	9	5	5	6	6	6	2	4	2	4	4	5	10	10	13	119	hand tool
ladder		30	22	23	12	12	12	9	13	12	13	12	16	10	12	13	16	13	12	14	276	ladder
slinging tool		19	18	11	15	14	12	13	8	9	5	10	8	9	9	9	7	7	7	8	198	slinging tool
other tools		48	34	36	32	27	29	11	15	25	20	23	29	20	27	22	16	26	22	12	474	other tools
other equipment,																						other equipment,

facilities	10		6	10	8	8	8	1	5	4	11	6	8	10	10	9	8	6	11	2	141	facilities
scaffolding	2		3	2		3	1		1				1				1	1	1	1	17	scaffolding
timbering							1														1	timbering
stairs, landing stage	12	2	11	14	12	11	6	5	15	14	7	10	10	6	8	10	8	9	16	7	191	stairs, landing stage
opening	2		5	4		2	5	6	5	3	4	2	3	2	2	1	10	4	4	2	66	opening
roof, beam, haze, crossbeam, principal rafter	1		1						2		1	1	1	1							8	roof, beam, haze, crossbeam, principal rafter
working platform, boot board	21		11	7	14	9	14	12	13	17	12	8	8	8	8	10	8	12	5	10	207	working platform, boot board
passage	19		25	21	21	24	12	15	16	17	13	14	13	17	13	22	20	16	18	28	344	passage
building, establishment	6		12	13	11	9	13	5	14	9	9	5	11	4	5	5	7	12	8	10	168	building, establishment
other temporary buildings, establishments	8		6	8	4	8	7	7	8	6	7	3	11	4	6	4	1	4	6	10	118	other temporary buildings, establishments
explosive substance	1				1																2	explosive substance
inflammable substance					1			1					1								3	inflammable substance
inflammable gas										1											1	inflammable gas
harmful substance	2					4	3			1	1		1				1				13	harmful substance
radiation																						radiation
other hazards,				2		1	1						1	1	1						7	other hazards, harmful substances

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metal material		28		39	42	26	37	28	19	22	26	15	21	26	18	20	19	16	31	14	15	462	metal material
lumber, bamboo		20		21	23	10	15	12	9	11	7	5	11	8	6	10	7	7	8	7	6	203	lumber, bamboo
stone, sand, substance		2				3		1	2					2			1	1	2		1	15	stone, sand, substance
other materials		5		4	5	3	7	7	1	3	4	1	2	6	2	1	1		4	4	2	62	other materials
load		11	1	87	68	72	59	47	51	53	41	52	39	40	43	31	37	47	45	44	37	1,004	load
machine/equipment as load		6		1		1	1	1	6	2	1	2	2	1	1	2		1	1	1		30	machine/equipment as load
natural ground, rock					1	1			1			1									1	5	natural ground, rock
standing tree		1					1															2	standing tree
water					1						8					2	1		1		1	14	water
abnormal environment					1	1			1						1	1						5	abnormal environment
high/cold temperature environment		1		2	1		1	2		6	3	3		3	2	8	4	5	2	2	3	48	high/cold temperature environment
other environments		3		4	5	1	3	4	1	1	5	5	3	3	2	3	4	3	3	3	6	62	other environments
other causal agent		4		5	2	7	1	4	2	1	2	3	2	4	2	1	2	6	4	4	23	79	other causal agent
no causal agent		11		13	8	7	5	4	4	10	18	14	8	14	4	7	9	11	15	16	15	193	no causal agent
unclassifiable				2	1	1	2			1		1		1					3			12	unclassifiable
total		59	0	546	489	445	452	422	307	353	373	344	296	349	284	286	331	330	376	330	382	7,285	total

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	4	6	9	3	10	7	5	10	11	8	8	6		6	3	7	5	15	9	9	9	6	6	162	19 years old or less
20-29	103	98	92	91	94	85	59	90	64	64	38	46	54	69	47	49	53	40	39	57	54	38	62	1,486	20-29
30-39	109	110	111	122	135	113	110	81	122	115	66	79	95	65	72	73	59	59	55	63	82	81	81	2,058	30-39
40-49	102	104	110	104	91	91	110	75	88	74	79	92	97	83	74	96	81	75	94	85	96	72	99	2,072	40-49
50-59	211	207	217	177	165	149	140	128	108	98	65	81	73	70	65	76	50	58	83	75	81	76	92	2,545	50-59
60 years old or	45	48	51	54	51	64	65	61	59	63	51	49	54	51	35	48	36	39	51	41	54	57	42	1,169	60 years old or
more	-5	-0					05			05			J-T			10					J-1		72	'	more
total	574	573	590	551	546	509	489	445	452	422	307	353	373	344	296	349	284	286	331	330	376	330	382	9,492	total

Workers' number of workplace of fatal and non-fatal accidents in harbor transportation service 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	56	77	62	68	60	65	53	60	48	49	34	30	37	32	28	39	30	30	34	33	32	28	33	1,018	9 workers or less
10-29	135	137	147	156	155	113	116	135	134	110	82	97	82	98	83	91	70	89	79	79	100	84	72	2,444	10-29
30-49	69	71	105	83	98	91	78	66	68	81	60	86	66	67	52	57	54	53	71	76	86	77	81	1,696	30-49
50-99	147	139	142	125	136	118	121	90	92	73	75	68	82	63	58	69	57	55	66	57	78	73	97	2,081	50-99
100-299	137	119	118	96	81	104	110	86	96	97	49	61	93	75	67	86	62	54	72	79	74	63	94	1,973	100-299
300 workers or	30	30	16	23	16	18	11	8	14	12	7	11	13	9	8	7	11	5	9	6	6	5	5	280	300 workers or
more										12														200	more
total	574	573	590	551	546	509	489	445	452	422	307	353	373	344	296	349	284	286	331	330	376	330	382	9,492	total

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	44	50	53	45	35	40	35	33	32	36	33	27	29	26	15	33	28	23	24	27	38	33	28	767	January
February	57	55	44	45	31	51	38	36	29	43	20	28	30	25	28	26	20	25	33	26	37	33	28	788	February
March	57	58	51	40	53	46	46	34	47	31	27	28	43	35	33	32	34	24	26	25	30	24	26	850	March
April	40	60	54	51	47	51	34	40	31	37	29	30	27	25	27	32	27	16	21	21	33	28	31	792	April
May	41	53	41	51	57	36	49	38	43	40	21	36	34	36	28	23	33	20	33	28	34	25	32	832	May
June	40	42	58	38	43	47	57	44	38	34	13	32	31	32	17	31	19	23	21	26	33	31	25	775	June
July	52	35	55	59	53	48	32	34	41	40	33	25	34	32	20	29	19	28	37	34	28	25	41	834	July
August	42	47	52	48	40	32	35	42	36	30	22	28	15	27	34	28	18	24	24	33	30	32	40	759	August
September	48	40	45	43	41	37	32	37	46	28	24	27	37	26	24	26	20	25	23	26	42	27	36	760	September
October	55	47	54	56	49	39	33	40	55	33	33	26	30	29	27	31	24	34	33	32	19	27	37	843	October
November	49	38	41	41	41	39	46	35	27	38	27	33	27	17	19	31	19	23	27	24	32	21	25	720	November
December	49	48	42	34	56	43	52	32	27	32	25	33	36	34	24	27	23	21	29	28	20	24	33	772	December
total	574	573	590	551	546	509	489	445	452	422	307	353	373	344	296	349	284	286	331	330	376	330	382	9,492	total

Prefecture of fatal and non-fatal accidents in harbor transportation service 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	23	23	24		31		18	21	24	23	23	15	23	25	16	21	12	9	8	13	17	18	21	408	Hokkaido
Aomori	7	1	3		2		5	3	4	5	2	2		4	1	2	3	2	2	2	3	4	2	59	Aomori
lwate	3	2	3		2		2		1		1	1	1		1	1	1		1				1	21	lwate

Miyagi	6	5	11	12	9	8	4	9	4	12	16	11	1	6	1		7	11	10	4	8	155	Miyagi
Akita	3	2	2	1	2			3	1	2	1			1	3	1	1		1	1	1	26	Akita
Yamagata								1	1			1			1			1				5	Yamagata
Fukushima	2		1	1	4	2	2	2	1	6	2	5			2	2	3	3	3	2	6	49	Fukushima
Ibaraki	2	5	5	8	4	8	2	3	2	7	6	5	1	3	5	5	4	7	2	2	7	93	Ibaraki
Tochigi																							Tochigi
Gunma																							Gunma
Saitama											1	1										2	Saitama
Chiba	15	18	25	12	16	19	19	16	9	11	12	9	6	15	4	9	14	9	9	10	15	272	Chiba
Tokyo	39	29	36	23	22	18	11	31	19	24	22	17	22	23	20	18	21	20	30	20	32	497	Tokyo
Kanagawa	80	63	80	59	64	61	69	71	39	49	47	35	29	44	34	26	36	33	36	39	29	1,023	Kanagawa
Niigata	3	9	2	4	3	5	5	2	2	3	2	2	6	12	5	2	4	7	7	4	5	94	Niigata
Toyama		2	2	3	2		1	1		1	3	5	1	1	1	1	2	2			1	29	Toyama
Ishikawa		3	5	4	1	2	1	2		2		2	3	4			2	1	2	2	1	37	Ishikawa
Fukui	3	2	4	3	3	2	1		2		1	1	1	1		3	5	2	1	1	3	39	Fukui
Yamanashi																							Yamanashi
Nagano																							Nagano
Gifu									1			1										2	Gifu
Shizuoka	14	14	15	10	17	18	14	10	6	12	10	11	5	6	6	6	10	6	10	10	5	215	Shizuoka
Aichi	57	77	52	57	37	40	47	31	17	35	32	31	34	44	28	24	25	33	45	40	39	825	Aichi
Mie	3	7	5	6	9	2	9	2	7	2	4	5	2	3	4	2	8	5	3	5	4	97	Mie
Shiga	1																					1	Shiga
Kyoto	1	4	3		2	2			1		1		2	1	1	1	1		2	1		23	Kyoto

Osaka	118	125	102	130	96	78	72	83	61	54	55	55	56	49	37	43	40	33	28	36	49	1,400	Osaka
Hyogo	50	45	60	45	50	34	49	40	31	16	30	33	34	26	26	32	29	25	32	21	26	734	Hyogo
Nara																1						1	Nara
Wakayama	5	4	9	3	3	1	5	1	4		4	1	2	1	2		1		2	3	2	53	Wakayama
Tottori	2			1		5	2		1	2	4	1		2			1	1	2	1	2	27	Tottori
Shimane				1	1		1	1	1	1			1			1						8	Shimane
Okayama	10	6	13	7	8	8	4	2	2	8	4	3	1	3	1	3	3	6	3	4	3	102	Okayama
Hiroshima	26	20	24	12	18	17	26	12	15	13	12	9	12	13	13	18	7	21	16	20	8	332	Hiroshima
Yamaguchi	11	7	9	5	8	9	4	6	1	2	4	2	1	5	2	4	5	2	4	5	5	101	Yamaguchi
Tokushima	2	3	1	4	5	5	3	1	4	2	2	1	1	2	1		2	1		2	5	47	Tokushima
Kagawa	8	11	9	6	11	12	7	12	4	8	8	7	8	7	11	11	9	9	12	7	9	186	Kagawa
Ehime	7	13	16	14	6	10	9	6	6	4	9	10	4	7	10	4	7	3	8	7	8	168	Ehime
Kochi	6	3	4	4	1			2		2	1		1	1	2			2	1	1		31	Kochi
Fukuoka	23	35	25	40	28	20	26	20	20	25	22	29	21	21	24	31	26	34	33	28	38	569	Fukuoka
Saga	2	2	1	3	1	3	1	1		1		1	1	3		1	2	4	1	2	1	31	Saga
Nagasaki	7	3	7	4	7	4	1	6	5	6	4	3	6	5	4	5	8	11	13	7	10	126	Nagasaki
Kumamoto	5	1	3	2		3	1	2			2		1		2	3	3	4		3	3	38	Kumamoto
Oita	3	5	2	3	3	1	1				3	1	1	2		2	3		3	3	3	39	Oita
Miyazaki	1	3	4			1	1		1								1	2	2		2	18	Miyazaki
Kagoshima	16	14	15	13	11	13	13	12	10	13	17	13	8	9	10	12	22	12	26	10	14	283	Kagoshima
Okinawa	10	7	8	11	12	10	12	3	3	12	8	4	6	5	8	4	8	5	9	7	14	166	Okinawa
total	574	573	590	546	489	445	452	422	307	353	373	344	296	349	284	286	331	330	376	330	382	8,432	total

Fatal and non-fatal accidents mean fatal and non-fatal injuries and occupational diseases with work absence of 4 days and more. Data of 2011 year include fatal and non-fatal accidents caused by Great East Japan Earthquake in 2011.

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

Fatal accidents in harbor transportation service in Japan in 1999-2021

harbor transportation service industry Code No.0502

Type of fatal accidents in harbor transportation service 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	3	1	6	3	1	2	1	1	3	2	5	1	3			2		1	1	1		1		38	fall from height
falling to same level			1																	1	1			3	falling to same
crash		1					1																	2	crash
struck by flying or falling object	3	2	1	1	2	2	1	4	2	1						1		1	1	1				23	struck by flying or falling object
collapse	1	2	3	1	3			1	1	1		1	1		1							1	1	18	collapse
crashed by	1	1	4	2	3	1	2	5	1	1		1	1	1		1		2	1		2		1	31	crashed by
caught in/between		2	3	2	2	3	1	3	2	2	4	2	3	3	3		5	3	3	1	2	1	1	51	caught in/between
cut																									cut

injury to the sole of																									injury to the sole
drown	1	1		5	1	2	2			1	1		8				1	2	2				1	28	drown
contact to high/low- temperature				1											1	1								3	contact to high/low- temperature
contact to harmful substance		1					1										1	1						4	contact to harmful substance
electric shock																									electric shock
explosion																									explosion
burst																									burst
fire																									fire
traffic accident (public road)	1						1			1			1								2	1		7	traffic accident (public road)
traffic accident (others)															1									1	traffic accident (others)
reaction to motion/improper motion																									reaction to motion/improper motion
others													1				1							2	others
unclassifiable							1							1										2	unclassifiable
total	10	11	18	15	12	10	11	14	9	9	10	5	18	5	6	5	8	10	8	4	7	4	4	213	total

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)
machine							1		1			1					2		1		1			7	machine
crane, conveying machine	8	4	7	7	4	6	6	10	3	5	5	3	6	4	4	2	4	5	5	3	6	2	1	110	crane, conveying machine
other equipment	1		2	1	3	1		1		2					1	1							1	14	other equipment
temporary buildings, establishments		1	3	1	3		1		2		2		2					2	1			1	1		temporary buildings, establishments
substance, material			1			1		1	1															4	substance, material
load	1	5	5	4	1	2		2	2	2	2	1	1		1	1				1		1		32	load
environment		1		2	1		2				1		8			1	1	3	1				1	22	environment
others							1						1	1			1							4	others
total	10	11	18	15	12	10	11	14	9	9	10	5	18	5	6	5	8	10	8	4	7	4	4	213	total

Causal agents (middle) of fatal accidents in harbor transportation service in 1999-2021

Causal (M) agents	1000	2000	2001	2002	2003	2004	2005	2006	2007	2008	2000	2010	2011	2012	2013	2014	2015	2016	2017	2018	2010	2020	2021	total	Causal (M)
ausai (M) ageilts	1999	2000	2001	2002	2003	2004	2003	2000	2007	2008	2009	2010	2011	2012	2013	2014	2013	2010	2017	2010	2019	2020	2021	totai	agents

engine																									engine
power transmission mechanism																									power transmission mechanism
woodworking machine																									woodworking machine
construction machine							1		1			1					2		1		1			7	construction machine
metal manufacturing machine																									metal manufacturing machine
general machine																									general machine
mobile silviculture machine																									mobile silviculture machine
crane	4	1	2	1	1	2	2	4	1	1	1	2		2	2	1	1	2	1		2	1		34	crane
conveying machine	2	2	3	2	2	2	2	6	1	3	3	1	4	2	1		2	3	3	2	3	1	1	51	conveying machine
vehicle	2	1	2	4	1	2	2		1	1	1		2		1	1	1		1	1	1			25	vehicle
pressure vessel						İ																			pressure vessel
chemical facilities																									chemical facilities
welding equipment																									welding equipment

	_	_	4	<u> </u>	<u> </u>		4	<u> </u>		_	_	<u> </u>	<u> </u>	<u> </u>			<u> </u>	<u> </u>			<u> </u>	<u> </u>	_		-
kiln, caldron																									kiln, caldron
electric equipment																									electric
erecure equipment																									equipment
human power machine,																									human power
tools																									machine, tools
tools	1		2	1	3	1		1		1					1	1							1	13	tools
other equipments,																									other
facilities										1														1	equipments,
- Control of the cont																									facilities
temporary buildings,																									temporary
establishments		1	3	1	3		1		2		2		2					2	1			1	1	20	buildings,
																									establishments
hazards, harmful																									hazards,
substances																									harmful
Substances																									substances
materials			1			1		1	1															4	materials
load	1	5	5	4	1	2		2	2	2	2	1	1		1	1				1		1		32	load
natural environment		1		2	1		2				1		8			1	1	3	1				1	22	natural
natural environment					ľ		2						0			1		3						22	environment
other causal agent																									other causal
other causar agent																									agent
no causal agent													1				1							2	no causal
nio causai agent																									agent
unclassifiable							1							1										2	unclassifiable

total	10	11	18	15	12	10	11	14	9	9	10	5	18	5	6	5	8	10	8	4	7	4	4	213	total	
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Causal agents (small) of fatal accidents in harbor transportation service 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																									power transmission
mechanism																									mechanism
circular sawing																									circular sawing
machine																									machine
band sawing																									band sawing
machine																									machine
wood planer																									wood planer
machine																									machine
hollow chisel																									hollow chisel
mortiser, wood																									mortiser, wood
borer																									borer
chamfering																									chamfering
machine, router,																									machine, router,
woodworking																									woodworking
milling machine																									milling machine
chain saw																									chain saw
other woodworking																									other woodworking
machines																									machines

leveling,															leveling,
transporting or				1			1			2	1	1		6	transporting or
loading machine															loading machine
excavating machine					1									1	excavating machine
foundation work															foundation work
machine															machine
hardening machine															hardening machine
demolition machine															demolition machine
vehicle for high lift															vehicle for high lift
work															work
other construction															other construction
machines															machines
lathe															lathe
drill press, milling															drill press, milling
machine															machine
grinding machine,															grinding machine,
buffing machine															buffing machine
power press															power press
forging pressure															forging pressure
hammer															hammer
shearing machine															shearing machine
other metal															other metal
manufacturing															manufacturing
machines															machines

centrifugal machine																			centrifugal machine
mixer, grinder																			mixer, grinder
roll machine (except printingroll machine)																			roll machine (except printingroll machine)
injection molding machine																			injection molding
food manufacturing																			food manufacturing machine
printing machine																			printing machine
industrial robot																			industrial robot
other general power machines																			other general power machines
felling machine																			felling machine
mobile logging																			mobile logging
skyline yarding machine																			skyline yarding machine
other mobile silviculture machine																			other mobile silviculture machine
crane	2		1			1		2	1	1		1			1	1		11	crane
mobile crane	2	1		1	1		2							1		1		9	mobile crane
derrick crane																			derrick crane
elevator, lift																			elevator, lift

cargo lifting			1			 1		2		1		2		1	2	1		2				1		14	cargo lifting
appliance																									appliance
gondola																									gondola
lumberyard																									lumberyard
equipment, logging																									equipment, logging
cableway																									cableway
simple skyline																									simple skyline
yarding equipment																									yarding equipment
other powered																									other powered
crane																									crane
truck	1	1			1		2			1	1		1								2	1		11	truck
forklift	1	1	3	2	1	2		5	1	1	1		1	1	1		2	1	2				1	27	forklift
railway equipment																									railway equipment
conveyor											1		1	1				1	1	1				6	conveyor
loader													1											1	loader
straddle carrier										1		1						1		1	1			5	straddle carrier
rough terrain hauler																									rough terrain hauler
other powered								,																	other powered
conveying machines																								I	conveying machines
cars, bus,	1																				1				cars, bus,
motorcycle	l L			ľ	1																1			6	motorcycle
railway vehicle																									railway vehicle
other vehicles	1	1	2	3		2	1		1	1	1		2		1	1	1		1					19	other vehicles
boiler																									boiler

		 	 	 ==	 ==	 							
pressure vessel													pressure vessel
other pressure													other pressure
vessels													vessels
chemical facilities													chemical facilities
gas welding													gas welding
equipment													equipment
arc welding													arc welding
equipment													equipment
other welding													other welding
equipment													equipment
kiln, caldron													kiln, caldron
industrial dryer													industrial dryer
other kiln, caldron													other kiln, caldron
transmission													transmission
electric power													electric power
facilities													facilities
other electrical													other electrical
equipment													equipment
human power													human power
cranes													cranes
human power													human power
hauling equipment													hauling equipment
human power													human power
machine													machine

hand tool																					hand tool
ladder				1										1						2	ladder
slinging tool			1					1												2	slinging tool
other tools	1		1		3	1				1			1						1	9	other tools
other equipment,										1										1	other equipment,
scaffolding																					scaffolding
timbering																					timbering
stairs, landing stage															1	1				2	stairs, landing stage
opening			1								1									2	opening
roof, beam, haze, crossbeam, principal rafter			1		1															2	roof, beam, haze, crossbeam, principal rafter
working platform, boot board		1	1				1					1								4	working platform, boot board
passage									2											2	passage
building, establishment					1						1	1								3	building, establishment
other temporary buildings, establishments				1	1										1			1	1	5	other temporary buildings, establishments
explosive substance																					explosive substance
inflammable substance																					inflammable substance

														 						 			4
inflammable gas																							inflammable gas
harmful substance																							harmful substance
radiation																							radiation
other hazards,																							other hazards,
harmful substances																							harmful substances
metal material						1		1	1													3	metal material
lumber, bamboo																							lumber, bamboo
stone, sand,																							stone, sand,
substance																							substance
other materials			1																			1	other materials
load	1	5	5	4	1	2		2	2	2	2	1	1	1	1				1	1		32	load
machine/equipment																							machine/equipment
as load																							as load
natural ground,																							natural ground,
rock																							rock
standing tree																							standing tree
water				1			1				1		7				2	1			1	14	water
abnormal		1					1									1	1						abnormal
environment		I					I										ı					4	environment
high/cold																							high/cold
temperature				1											1							2	temperature
environment																							environment
other environments					1								1									2	other environments
other causal agent																							other causal agent

							\Box	\Box																	
no causal agent													1				1							2	no causal agent
unclassifiable							1							1										2	unclassifiable
total	10	11	18	15	12	10	11	14	9	9	10	5	18	5	6	5	8	10	8	4	7	4	4	213	total

Workers age of fatal accidents in harbor transportation service 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								1	1		1							2						5	19 years old or less
20-29			3	2	1	1		2		1			1	1			1	1		1	2	3		20	20-29
30-39	4		3	1	4	1	1	3	3	1	3		6	1	1		6	2	2	1	1			44	30-39
40-49		1	2	2	1	1	2		1		2	2	2	1	3	3		1	4	1	3			32	40-49
50-59	3	9	5	9	5	1	6	4	2	4	1	2	6	2	2	1	1	1	2	1	1		2	70	50-59
60 years old or more	3	1	5	1	1	6	2	4	2	3	3	1	3			1		3				1	2	42	60 years old or more
total	10	11	18	15	12	10	11	14	9	9	10	5	18	5	6	5	8	10	8	4	7	4	4	213	total

Workers' number of workplace of fatal accidents in harbor transportation service 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	2	1	5	2	3	1	1			2	1	1	1			1	1	2	2				2	28	9 workers or less
10-29	3	5	2	6	4	4	3	4	4	2	3	1	2	1		2	2	4	2	2	1		2	59	10-29
30-49		3	3	3	3		2	4	1	2	2		4	1	3		1	1	4		2	2		41	30-49
50-99	3	1	4	2	1	4	2	2		1	2	3	6	1	2		1	3		1	1	1		41	50-99
										$\overline{}$		$\overline{}$	$\overline{}$												

100-299		1	3	2		1	3	4	4	2	1		5		1	2	3			1	3	1		37	100-299
300 workers or	2		1		1						1			2										7	300 workers or
more			ļ .		ļ .						1														more
total	10	11	18	15	12	10	11	14	9	9	10	5	18	5	6	5	8	10	8	4	7	4	4	213	total

Month of fatal accidents in harbor transportation service 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	3	1	2	1	2	1		3				1				2	1	2		3			24	January
February		2	2	1	2			1						1						1		1		11	February
March			3		2	2	1	2	2			1	9	2	2	1								27	March
April	2	2	1	1	2			1		1	1		1		2	1	1	1						17	April
May			1	2		1	1	1			1	2	2	1			1	2	1				1	17	May
June		1	1	1	2	1	3	1						1			1		1	2	1	1		17	June
July			2	2		1		2	1	2	2		1			2	1	2	1	1				20	July
August	2	1	2	2	1				1	2	1	1			2			1	1		2	1		20	August
September	1		3	2				2		2		1				1			1					13	September
October			1	1	1	1	1	1		1	3		3				1	3				1	1	19	October
November	1	2	1	1		1	1	2	1												1		2	13	November
December	2				1	1	3	1	1	1	2		1				1		1					15	December
total	10	11	18	15	12	10	11	14	9	9	10	5	18	5	6	5	8	10	8	4	7	4	4	213	total

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	1		2	4	1	1	1				1	1	1	1	1		1							16	Hokkaido
Aomori			1									1									1			3	Aomori
lwate																									lwate
Miyagi					1								8											9	Miyagi
Akita																									Akita
Yamagata																									Yamagata
Fukushima									1										1					2	Fukushim
Ibaraki					1			1								1	1			1				5	Ibaraki
Tochigi																									Tochigi
Gunma																									Gunma
Saitama																									Saitama
Chiba		1	2	1		1		2	2					1		2		1					2	15	Chiba
Tokyo	2	3		1	3	1					1		2		1				1					15	Tokyo
Kanagawa	4	3	5	2		2	4	3		3	3	1	2				2	1		1	1			37	Kanagawa
Niigata									1															1	Niigata
Toyama																									Toyama
Ishikawa																									Ishikawa
Fukui																									Fukui
Yamanashi																									Yamanasl
Nagano																									Nagano
Gifu																									Gifu

Shizuoka						1	1																	2	Shizuoka
Aichi		1		3	3	1		3	1	1					1		1	2			1	2		20	Aichi
Mie			2													1		1						4	Mie
Shiga																									Shiga
Kyoto																									Kyoto
Osaka			2	1		1		1	2	2	2	1			1		2		1					16	Osaka
Hyogo			1	1		2		1		1	2	1	1		1		1	2	1		1	1		17	Hyogo
Nara																									Nara
Wakayama											1													1	Wakayama
Tottori													1	1										2	Tottori
Shimane															1									1	Shimane
Okayama			1				1						2											4	Okayama
Hiroshima	1	1							2				1	1				1						7	Hiroshima
Yamaguchi	1						1														1			3	Yamaguchi
Tokushima																							1	1	Tokushima
Kagawa																		1						1	Kagawa
Ehime								2													1			3	Ehime
Kochi																									Kochi
Fukuoka		2			1		1			1										2	1			8	Fukuoka
Saga																			1					1	Saga
Nagasaki							1												1					2	Nagasaki
Kumamoto				1															1					2	Kumamoto
Oita							1											1				1		3	Oita

Miyazaki																									Miyazaki
Kagoshima	1				1			1		1				1		1			1					7	Kagoshima
Okinawa			2	1	1																		1	5	Okinawa
total	10	11	18	15	12	10	11	14	9	9	10	5	18	5	6	5	8	10	8	4	7	4	4	213	total

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

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