water transportation service industry Code No.040102

Type of accidents in water 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	5	6	8	8	4	12	3	4	10	6	3	9	8	6	6	7	6	9	7	10	7	10	7	161	fall from height
falling to same level	4	6	12	8	9	13	12	17	10	13	3	9	14	9	8	10	11	9	9	17	10	12	8	233	falling to same level
crash	4		3	3	2	6	2	6	3	2	2	8	3	3	2	4	2	9	9	1	4	5	6	89	crash
struck by flying or falling object		3	2	2		2	3	1	2	2	3	2	3	1	1	2	2	6	2	2	3	4	3	51	struck by flying or falling object
collapse			1	1			1		2	1	1				1				1					9	collapse
crashed by	4	1	3	2	3	4	7	2	1	2	1	3	2	4	2	1	3	2	5	2	4	7	4	69	crashed by
caught in/between	4	4	11	3	7	7	3	7	7	2	3	7	4	10	11	8	5	7	9	3	11	9	5	147	caught in/between
cut	2	1	1		2		2	1	1	2	1			2	1	3	2	1	2	1	1	2	1	29	cut
injury to the sole of the foot																									injury to the sole of the foot
drown	1	1					1						4	1	1	1	2		2	2			1	17	drown
contact to high/low- temperature	1	1	1	1	1	1		2		2				1	1	2	2	1	2	2		1	1	23	contact to high/low- temperature

contact to harmful substance							2								1								1	4	contact to harmful substance
electric shock																		1						1	electric shock
explosion																									explosion
burst																									burst
fire																									fire
traffic accident (public road)	1	1						1	2	3	1		2	1		1	2			3		1		19	traffic accident (public road)
traffic accident (others)		1	2		1							1							1					6	traffic accident (others)
reaction to motion/improper motion	2	5	2	3	9	5	8	6	5	6	2	8	13	8	7	1	5	9	12	10	9	10	5	150	reaction to motion/improper motion
others						1		1			1	1								1	1			6	others
unclassifiable									1															1	unclassifiable
total	28	30	46	31	38	51	44	48	44	41	21	48	53	46	42	40	42	54	61	54	50	61	42	1,015	total

Causal agents (large) of fatal and non-fatal accidents in water 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)
		2000	2001	2002	2005	2001	2005	2000	2007	2000	2005	2010	2011	2012	2013	2011	2013	2010	2017	2010	2015	2020	2021		agents
machine		1	1		1		1			2	1	1	2	1	2	2	2	1	3	2	1	2	2	28	machine
crane, conveying																									crane,

machine	12	12	19	7	12	14	7	14	11	16	5	10	13	17	14	7	19	18	19	13	15	21	11	306	conveying
machine																									machine
other equipment	3	4	8	8	9	11	12	8	10	10	7	4	12	11	10	14	9	13	12	10	13	17	9	224	other equipment
temporary buildings, establishments	7	10	11	6	11	13	10	17	15	7	7	24	13	9	7	13	8	13	13	14	12	14	11		temporary buildings, establishments
substance, material	2			2		2	4	3	1	2		3	2	1	3	2	2	2	2	1	1	1	2	38	substance, material
load	1		2	1	2	4	1		3	1		2	2	1	2			2	4	2	2	1	1	34	load
environment		1	3	3		4	3	2	2			1	4		3	1		3	4	6	2	1	1	44	environment
others	3	2	2	4	3	3	6	4	2	3	1	3	5	6	1	1	2	2	4	6	4	4	5	76	others
total	28	30	46	31	38	51	44	48	44	41	21	48	53	46	42	40	42	54	61	54	50	61	42	1,015	total

Causal agents (middle) of fatal and non-fatal accidents in water 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							1			1				3	engine
power transmission mechanism												1	1											2	power transmission mechanism
woodworking machine					1								1	1	1				1					5	woodworking machine

construction machine															1	1						1		3	construction machine
metal manufacturing machine			1							1								1	1	1	1	1	1	8	metal manufacturing machine
general machine		1					1				1					1	1		1				1	7	general machine
mobile silviculture machine																									mobile silviculture machine
crane	2		2	1		1	1	2		2	1	1		2	4	1	1	2	1	1	3	4	1	33	crane
conveying machine	3	3	3	2	2		1	1	3			2	2	5			4	2	4	2	1	5	2	47	conveying machine
vehicle	7	9	14	4	10	13	5	11	8	14	4	7	11	10	10	6	14	14	14	10	11	12	8	226	vehicle
pressure vessel																1								1	pressure vessel
chemical facilities																									chemical facilities
welding equipment		1														1			1					3	welding equipment
kiln, caldron																									kiln, caldron
electric equipment																									electric equipment
human power machine, tools		1	1			2	2	1	2	1	1		3	2		3	3	1	1	1	2	4	2	33	human power machine, tools

tools	3	2	6	8	6	9	9	6	8	5	5	3	8	7	10	9	4	11	9	8	9	11	5	161	tools
other equipments, facilities			1		3		1	1		4	1	1	1	2			2	1	1	1	2	2	2	26	other equipments, facilities
temporary buildings, establishments	7	10	11	6	11	13	10	17	15	7	7	24	13	9	7	13	8	13	13	14	12	14	11	265	temporary buildings, establishments
hazards, harmful substances							2	1					1	1	1								1		hazards, harmful substances
materials	2			2		2	2	2	1	2		3	1		2	2	2	2	2	1	1	1	1	31	materials
load	1		2	1	2	4	1		3	1		2	2	1	2			2	4	2	2	1	1	34	load
natural environment		1	3	3		4	3	2	2			1	4		3	1		3	4	6	2	1	1	44	natural environment
other causal agent	1		2	1	1	1			1		1		3	2		1				1				15	other causal agent
no causal agent	2	1		3	2	2	6	4		3		3	2	4	1		1	2	4	5	4	4	5	58	no causal agent
unclassifiable		1							1								1							3	unclassifiable
total	28	30	46	31	38	51	44	48	44	41	21	48	53	46	42	40	42	54	61	54	50	61	42	1,015	total

Causal agents (small) of fatal and non-fatal accidents in water 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						1						1		1		3	engine
power transmission mechanism							1	1								2	power transmission mechanism
circular sawing machine			1										1			2	circular sawing machine
band sawing machine																	band sawing machine
wood planer machine									1							1	wood planer machine
hollow chisel mortiser, wood borer																	hollow chisel mortiser, wood borer
chamfering machine, router, woodworking milling machine																	chamfering machine, router, woodworking milling machine
chain saw								1		1						2	chain saw
other woodworking machines																	other woodworking machines
leveling, transporting or loading machine																	leveling, transporting or loading machine
excavating machine											1					1	excavating machine
foundation work machine																	foundation work machine

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

machine																			machine
food manufacturing machine											1		1					2	food manufacturing machine
printing machine																			printing machine
industrial robot																			industrial robot
other general power machines				1				1									1	3	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						3	1	5	crane
mobile crane		2			1		2			1		1						7	mobile crane
derrick crane																			derrick crane
elevator, lift																			elevator, lift
cargo lifting appliance										1	1				1			3	cargo lifting appliance
gondola																			gondola
lumberyard equipment, logging															1			1	lumberyard equipment, logging
1																			

cableway																					cableway
simple skyline yarding equipment																					simple skyline yarding equipment
other powered crane			1	1			1	1		2	1	1		1	1	1	1	1		13	other powered crane
truck	2	1		1	3				2	2				2	1	2	1	2	2	21	truck
forklift	1	1						2		1			3		2			3		13	forklift
railway equipment																					railway equipment
conveyor										2					1					3	conveyor
loader																					loader
straddle carrier																					straddle carrier
rough terrain hauler																					rough terrain hauler
other powered conveying machines			1										1							2	other powered conveying machines
cars, bus, motorcycle	2				2	3	2		2	2	1	1	2	1		3				21	cars, bus, motorcycle
railway vehicle																					railway vehicle
other vehicles	12	10	5	11	6	11	2	7	9	8	9	5	12	13	14	7	11	12	8	172	other vehicles
boiler																					boiler
pressure vessel																					pressure vessel
other pressure vessels												1								1	other pressure vessels
chemical facilities																					chemical facilities

gas welding																1					1	gas welding
equipment																Ľ					Ŀ	equipment
arc welding													1								1	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										1							1				2	human power
cranes																						cranes
human power				1				1		2	1		2	2		1		1	3		14	human power
hauling equipment										2	ľ		2	2		I						hauling equipment
human power																						human power
machine																						machine
hand tool		1		1	1	2	1				1		1	1	1			1	1	2	14	hand tool
ladder		1		1		2			1	1	1	2	3	2	2		3	2	1	1	23	ladder
slinging tool		1		1			1										1	1		1	6	slinging tool
other tools		4	6	7	6	6	4	5	2	7	6	8	6	2	9	9	4	6	10	3	110	other tools

other equipment,		1	3	1	1		4	1	1	1	2			2	1	1	1	2	2	2	26	other equipment,
facilities																						facilities
scaffolding			1							1			1		1	1					5	scaffolding
timbering																						timbering
stairs, landing stage		2	7	2	3	3	1	2	11	5	2	2	2	2	2	2	7	3	3	3	64	stairs, landing stage
opening		1						1		1			1							1	5	opening
roof, beam, haze,																						roof, beam, haze,
crossbeam,																						crossbeam,
principal rafter																						principal rafter
working platform,		1	1			1		1			1	1	1								19	working platform,
boot board				3	2		3						1				2				19	boot board
passage		2		3	7	7	2	2	8	2	5	4	6	3	6	1	3	1	6	3	71	passage
building,		3	1		4	3		1	3				1		3	4	1	3	4	2	37	building,
establishment		5			4	5		'	5	2					5	4		5	4	Z	57	establishment
other temporary																						other temporary
buildings,		2	1	2	1	1			2	2	1		1	1	1	5	1	5	1	1	28	buildings,
establishments																						establishments
explosive substance																						explosive substance
inflammable																					1	inflammable
substance																						substance
inflammable gas					1																1	inflammable gas
harmful substance				2																	2	harmful substance
radiation																						radiation
other hazards,																						other hazards,

harmful substances											1	1								1	3	harmful substances
metal material				1	1	1			2	1				2	2	1		1	1		13	metal material
lumber, bamboo					1				1			1				1				1	5	lumber, bamboo
stone, sand, substance																						stone, sand, substance
other materials				1			2					1	2				1				7	other materials
load		1	2	1		3			2	2	1	2			2	3	1	2	1	1	24	load
machine/equipment as load		1					1									1	1				4	machine/equipment as load
natural ground, rock				1		2						2	1		2	1					9	natural ground, rock
standing tree																	1				1	standing tree
water		1								4		1				2	1				9	water
abnormal environment																						abnormal environment
high/cold temperature environment		1			1												1		1		4	high/cold temperature environment
other environments		1		2	1				1						1	1	3	2		1	13	other environments
other causal agent		2	1			1		1		3	2		1				1				12	other causal agent
no causal agent			2	6	4		3		3	2	4	1		1	2	4	5	4	4	5	50	no causal agent
unclassifiable						1								1							2	unclassifiable
total		46	38	44	48	44	41	21	48	53	46	42	40	42	54	61	54	50	61	42	875	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	1		2								1			1				2	1	1	1		1	11	19 years old or less
20-29	7	6	10	5	8	14	7	8	10	7	4	4	4	6	7	6	4	10	8	8	4	9	6	162	20-29
30-39	3	2	9	6	7	12	14	11	15	12	3	11	14	8	11	4	3	10	7	6	9	6	5	188	30-39
40-49	5	4	5	6	6	6	7	5	6	6	5	12	9	11	7	10	8	12	12	11	14	13	11	191	40-49
50-59	9	9	13	5	11	6	9	10	4	8	3	12	14	12	9	7	12	7	8	8	5	16	5	202	50-59
60 years old or more	3	9	7	9	6	13	7	14	9	8	5	9	12	8	8	13	15	13	25	20	17	17	14	261	60 years old or more
total	28	30	46	31	38	51	44	48	44	41	21	48	53	46	42	40	42	54	61	54	50	61	42	1,015	total

Workers' number of workplace of fatal and non-fatal accidents in water 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	9	3	12	8	10	14	10	15	8	9	5	13	10	15	13	10	11	6	10	9	4	13	10	227	9 workers or less
10-29	10	11	16	8	8	13	12	13	21	5	7	13	18	18	10	7	12	15	13	18	23	21	11	303	10-29
30-49	6	8	9	10	14	7	8	5	6	10	1	9	9	1	10	8	6	8	12	10	9	8	5	179	30-49
50-99	2	8	6	2	2	4	8	6	4	8	5	9	7	7	4	7	10	10	11	7	3	11	9	150	50-99
100-299	1		3	2	4	13	6	9	4	9	3	4	8	5	5	8	3	15	15	10	10	8	6	151	100-299
300 workers or				1					1				1								1		1	5	300 workers or
more																								5	more

total	28	30	46	31	38	51	44	48	44	41	21	48	53	46	42	40	42	54	61	54	50	61	42	1,015 tota	I
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Month of fatal and non-fatal accidents in water 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	3	4	4	1	5	2	4	5	1	4	3	4	4	4	2	7	6	4	5	6	1	7	2	88	January
February	1	1	3	6	1	4	3	2	6	7	1	4	8	6		4	3	2	4	3		6	6	81	February
March	2	1	3	2	4	3	4	4	2	2	2	3	7	2	2	1	4	7	6	6	7	3	1	78	March
April	4	1	4	1	6	5	3	7	2	2	2	4	4	2	6	4	6	3	3	4	10	6	4	93	April
Мау	1	5	7	4	5	4	4	3	8	3	2	10	4	4	2	3	6	4	9	5	4	5	2	104	May
June	1	2	2	2	1	2	3	1	3	1	1	5	2	2	3	1	3	12	7	5	3	2	2	66	June
July	3	4	4	2	2	6	9	4	3	3	2	2	1	2	4	2	4	6	3	4	6	5	4	85	July
August	2	5	4		3	6	5	6	4	8	2	6	2	6	3	2	2	6	7	5	6	1	6	97	August
September	2	2	2	2	4	2		3	4	1	2	3	4	3	7	8	3	2	4	2	2	3	3	68	September
October	4		3	5	3	4	2	5	2	3	2	3	7	2	2	2	2	5	5	4	2	8	5	80	October
November	3	3	5	1	2	7	2	4	5	2	2	2	2	3	6	3	3	1	4	4	5	9	3	81	November
December	2	2	5	5	2	6	5	4	4	5		2	8	10	5	3		2	4	6	4	6	4	94	December
total	28	30	46	31	38	51	44	48	44	41	21	48	53	46	42	40	42	54	61	54	50	61	42	1,015	total

Prefecture of fatal and non-fatal accidents in water transportation service in 1999-2021

Prefectu	re	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	4	2		4		2	4	2	1	1	2	3	5	5	4		1	5	3	1	3	4	57	Hokkaido

Aomori		2	2			1													1			6	Aomori
lwate			1		1													1		1		4	lwate
Miyagi				1	2		1			1	3		1				1					10	Miyagi
Akita								1														1	Akita
Yamagata		1			1	1							2					3				8	Yamagata
Fukushima																		1			1	2	Fukushima
Ibaraki			1							1		1								1		4	Ibaraki
Tochigi																							Tochigi
Gunma																							Gunma
Saitama																							Saitama
Chiba			2			1	1		1	4	1	2		1		3	1		2	1		20	Chiba
Tokyo	3	3	7	3	8	6	8	9	7	6	6	2	6	8	4	6	5	5	5	3	4	114	Tokyo
Kanagawa	5	3	3	4		3	1	2			1		3	3	6	4	6	6	2	2	2	56	Kanagawa
Niigata	1		2		3	3	2	5	3	2	1	2	1	1	5	3	1	3	2	2	1	43	Niigata
Toyama		1				1									1							3	Toyama
Ishikawa																							Ishikawa
Fukui							1															1	Fukui
Yamanashi												1			1							2	Yamanashi
Nagano				1				1			1					1		2			2	8	Nagano
Gifu				1	1						1					2	2	2	2			11	Gifu
Shizuoka	3	1	2	1		1	1				4	1	1		3	3	3	1	1	5		31	Shizuoka
Aichi			4	6	7	6	1	3	4	3	4	2	5		2	2	5	2	2	2	3	63	Aichi
Mie				2	1	1	2	3	1	1	1	1		1	1			2		2	1	20	Mie

Shiga					·		<u> </u>	1			i	3		i —	1	2	3		1	2	i <u></u>	12	Shiga
												5							<u> -</u>			1	
Kyoto	2		2	1	2	6	6	2	2	3	6	1	4	2	1	7	8	6	5	2	1	69	Kyoto
Osaka	2	1	2		2	2	3	1		4	3		2		1	4	2		4	3	2	38	Osaka
Hyogo		3	3	1		2	5	1		5		3		4	2		4		3	6	1	43	Hyogo
Nara																							Nara
Wakayama			1			1					1	1		3		1	1		5	2		16	Wakayama
Tottori			1									2								2		5	Tottori
Shimane											2	1					1			1	2	7	Shimane
Okayama		4		2	1	4	2	1		1			2	1	3	1	1		1	4	1	29	Okayama
Hiroshima	4		2	3			3	3	1	3	3	3	1	2	2	1	2	2	5	5	1	46	Hiroshima
Yamaguchi		1		1				1		1			1	1		2	1					9	Yamaguchi
Tokushima			1		2								1			1		1	1		1	8	Tokushima
Kagawa	1	1		1	2					3	4	1	1				1	1	1	2	4	23	Kagawa
Ehime	2	1	1	2			2	1		1		2	1	1	2			1	1	1	1	20	Ehime
Kochi												1		1				1				3	Kochi
Fukuoka	2	1	3	2	1	1		2		1	3	2		1	1	7	4	3		3	3	40	Fukuoka
Saga												1						1				2	Saga
Nagasaki	1			2	1	2	1	1		1	2	1	2	1	3		3	4	3	3	2	33	Nagasaki
Kumamoto		3	2		3	1		2		3	1	3	2							2	1	23	Kumamoto
Oita					3	1		1			1	2		2				1				11	Oita
Miyazaki										1	1	2		1				1	1			7	Miyazaki
Kagoshima	1		1		1		1		1						1	3	1	1	1	1	1	14	Kagoshima

Okinawa			1				1			1			1	2	2						3	11	Okinawa
total	28	30	46	38	44	48	44	41	21	48	53	46	42	40	42	54	61	54	50	61	42	933	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: <u>https://anzeninfo.mhlw.go.jp/user/anzen/tok/anst00.htm</u> (MHLW, Japan)

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

water transportation service industry Code No.040102

Type of fatal accidents in water 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									1													1		2	fall from height
falling to same level									1	1		1												3	falling to same level
crash																									crash
struck by flying or falling object																									struck by flying or falling object
collapse																									collapse
crashed by																									crashed by

caught in/between		1			1			1	1				1				5	caught in/between
cut																		cut
injury to the sole of the foot																		injury to the sole of the foot
drown	1			1	1			4	1	1	1	2	2	2		1	17	drown
contact to high/low- temperature																		contact to high/low- temperature
contact to harmful substance																		contact to harmful substance
electric shock																		electric shock
explosion																		explosion
burst																		burst
fire																		fire
traffic accident (public road)																		traffic accident (public road)
traffic accident (others)																		traffic accident (others)
reaction to motion/improper motion																		reaction to motion/improper motion
others																		others

unclassifiable																			unclassifiable
total	1	1		1	2	2	1	1	5	2	1	1	2	3	2	1	1	27	total

Causal agents (large) of fatal accidents in water 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) agents
machine													1											1	machine
crane, conveying machine		1	1					1	1	1		1		2	1	1	2		1	1		1	1	16	crane, conveying machine
other equipment																			1					1	other equipment
temporary buildings, establishments							1		1				1						1						temporary buildings, establishments
substance, material																									substance, material
load																									load
environment								1					3							1				5	environment
others																									others
total		1	1				1	2	2	1		1	5	2	1	1	2		3	2		1	1	27	total

Causal agents (middle) of fatal accidents in water 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																									engine
power transmission mechanism													1											1	power transmission mechanism
woodworking machine																									woodworking machine
construction machine																									construction machine
metal manufacturing machine																									metal manufacturing machine
general machine																									general machine
mobile silviculture machine																									mobile silviculture machine
crane			1							1														2	crane
conveying machine														1			1							2	conveying machine
vehicle		1						1	1			1		1	1	1	1		1	1		1	1	12	vehicle
pressure vessel																									pressure vessel

chemical facilities															chemical facilities
welding equipment															welding equipment
kiln, caldron															kiln, caldron
electric equipment															electric equipment
human power machine, tools															human power machine, tools
tools											1			1	tools
other equipments, facilities															other equipments, facilities
temporary buildings, establishments				1		1		1			1				temporary buildings, establishments
hazards, harmful substances															hazards, harmful substances
materials															materials
load															load
natural environment					1			3				1		5	natural environment
other causal agent															other causal

																			agent
no causal agent																			no causal
no causal agent																			agent
unclassifiable																			unclassifiable
total	1	1		1	2	2	1	1	5	2	1	1	2	3	2	1	1	27	total

Causal agents (small) of fatal accidents in water 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 mechanism													1											1	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

milling machine												milling machine
chain saw												chain saw
other woodworking machines												other woodworking machines
leveling,												leveling,
transporting or												transporting or
loading machine												loading machine
excavating machine												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
athe												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 manufacturing machines	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	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														crane
mobile crane		1				1							2	mobile crane
derrick crane														derrick crane
elevator, lift														elevator, lift
cargo lifting														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														truck
forklift														forklift
railway equipment														railway equipment
conveyor								1					1	conveyor
loader														loader
straddle carrier														straddle carrier
rough terrain hauler														rough terrain hauler
other powered													1	other powered
conveying machines													1	conveying machines
cars, bus,														cars, bus,

motorcycle					1											1	motorcycle
railway vehicle																	railway vehicle
other vehicles	1			1			1	1	1	1	1	1	1	1	1	11	other vehicles
boiler																	boiler
pressure vessel																	pressure vessel
other pressure vessels																	other pressure vessels
chemical facilities																	chemical facilities
gas welding equipment																	gas welding equipment
arc welding equipment																	arc welding equipment
other welding equipment																	other welding equipment
kiln, caldron																	kiln, caldron
industrial dryer																	industrial dryer
other kiln, caldron																	other kiln, caldron
transmission																	transmission
electric power facilities																	electric power facilities
other electrical equipment																	other electrical 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														ladder
slinging tool														slinging tool
other tools										1			1	other tools
other equipment,														other equipment,
facilities														facilities
scaffolding														scaffolding
timbering														timbering
stairs, landing stage														stairs, landing stage
opening														opening
roof, beam, haze,														roof, beam, haze,
crossbeam,														crossbeam,
principal rafter														principal rafter
working platform,														working platform,
boot board														boot board
passage					1								1	passage
building,							1						1	building,
establishment														establishment
other temporary														other temporary

buildings,				1							1			2	buildings,
establishments															establishments
explosive substance															explosive substance
inflammable															inflammable
substance															substance
inflammable gas															inflammable gas
harmful substance															harmful substance
radiation															radiation
other hazards,															other hazards,
harmful substances															harmful substances
metal material															metal material
lumber, bamboo															lumber, bamboo
stone, sand,															stone, sand,
substance															substance
other materials															other materials
load															load
machine/equipment															machine/equipment
as load															as load
natural ground,															natural ground,
rock															rock
standing tree															standing tree
water					1			3				1		5	water
abnormal															abnormal
environment															environment

high/cold																			high/cold
temperature																			temperature
environment																			environment
other environments																			other environments
other causal agent																			other causal agent
no causal agent																			no causal agent
unclassifiable																			unclassifiable
total	1	1		1	2	2	1	1	5	2	1	1	2	3	2	1	1	27	total

Workers age of fatal accidents in water 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																									19 years old or less
20-29																									20-29
30-39													1	1										2	30-39
40-49								1					1											2	40-49
50-59		1	1				1	1	1	1							1							7	50-59
60 years old or									1			1	2	1	1	1	1		2	2		1	1	16	60 years old or
more									•										5						more
total		1	1				1	2	2	1		1	5	2	1	1	2		3	2		1	1	27	total

Workers' number of workplace of fatal accidents in water 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		1	1				1	2				1	1			1	1			1				10	9 workers or less
10-29													4	1	1				2	1			1	10	10-29
30-49									2	1									1			1		5	30-49
50-99														1										1	50-99
100-299																	1							1	100-299
300 workers or																									300 workers or
more																									more
total		1	1				1	2	2	1		1	5	2	1	1	2		3	2		1	1	27	total

Month of fatal accidents in water 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							1							1					1					3	January
February													1											1	February
March		1											3											4	March
April															1					1				2	April
May									1	1		1				1								4	May
June																	1					1		2	June
July																				1				1	July
August																	1		1					2	August
September								1															1	2	September
October			1											1										2	October
																	i								

November						1								1				2	November
December					1				1									2	December
total	1	1		1	2	2	1	1	5	2	1	1	2	3	2	1	1	27	total

Prefecture of fatal accidents in water 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								1							1	1			1					4	Hokkaido
Aomori																									Aomori
lwate																									lwate
Miyagi												1	3											4	Miyagi
Akita																									Akita
Yamagata																									Yamagata
Fukushima																									Fukushima
Ibaraki																									Ibaraki
Tochigi																									Tochigi
Gunma																									Gunma
Saitama																									Saitama
Chiba																			1					1	Chiba
Tokyo		1						1																2	Tokyo
Kanagawa																									Kanagawa
Niigata									1															1	Niigata
Toyama																									Toyama

Ishikawa																Ishikawa
Fukui																Fukui
Yamanashi																Yamanashi
Nagano												1		1	2	Nagano
Gifu																Gifu
Shizuoka																Shizuoka
Aichi												1			1	Aichi
Mie																Mie
Shiga																Shiga
Kyoto										1					1	Kyoto
Osaka																Osaka
Нуодо								1							1	Нуодо
Nara																Nara
Wakayama																Wakayama
Tottori																Tottori
Shimane																Shimane
Okayama																Okayama
Hiroshima							2								2	Hiroshima
Yamaguchi																Yamaguchi
Tokushima																Tokushima
Kagawa				1				1							2	Kagawa
Ehime																Ehime
Kochi																Kochi

Fukuoka							1											1	Fukuoka
Saga																			Saga
Nagasaki																1		1	Nagasaki
Kumamoto		1																1	Kumamoto
Oita																			Oita
Miyazaki																			Miyazaki
Kagoshima														1				1	Kagoshima
Okinawa						1							1					2	Okinawa
total	1	1		1	2	2	1	1	5	2	1	1	2	3	2	1	1	27	total

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

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