

Fatal and non-fatal accidents in steel frame/reinforced concrete house construction work in Japan in 1999-2021

steel frame/reinforced concrete house construction work industry Code No.030201

Type of accidents in steel frame/reinforced concrete house construction work 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	1,743	1,843	1,736	1,729	1,520	1,574	1,522	1,575	1,490	1,282	895	789	922	1,032	1,018	1,095	948	895	902	881	866	707	730	27,694	fall from height
falling to same level	383	356	378	376	336	362	359	411	402	360	215	230	282	260	294	333	247	240	238	284	238	240	259	7,083	falling to same level
crash	237	224	199	201	171	190	187	210	215	144	109	105	123	116	155	146	118	112	116	110	118	96	94	3,496	crash
struck by flying or falling object	541	550	574	504	496	503	458	463	416	387	264	256	294	301	356	284	274	234	254	238	232	202	178	8,259	struck by flying or falling object
collapse	157	170	187	208	145	167	130	165	152	127	94	88	117	107	110	117	93	106	86	79	88	83	69	2,845	collapse
crashed by	173	184	205	205	181	163	178	174	161	149	93	89	109	120	115	108	119	116	99	111	111	91	96	3,150	crashed by
caught in/between	406	431	472	455	382	376	384	394	361	303	240	209	266	274	292	310	256	250	251	272	268	244	226	7,322	caught in/between
cut	410	412	370	422	362	355	334	295	265	229	180	177	217	195	207	201	182	192	168	151	153	143	153	5,773	cut
injury to the sole of the foot	30	29	45	27	30	32	37	39	27	17	9	12	23	23	20	27	13	14	19	22	18	13	16	542	injury to the sole of the foot
drown	1	1			1						1		5											9	drown
contact to high/low-temperature	31	27	49	35	43	60	41	38	39	44	19	45	46	39	44	59	49	36	50	55	31	52	23	955	contact to high/low-temperature
contact to harmful	3	16	11	11	22	11	12	29	16	9	6	7	6	11	11	11	13	13	13	15	8	8	16	278	contact to harmful

substance																										substance
electric shock	7	12	8	14	10	11	7	9	8	7	3	10	5	10	1	9	7	3	2	3	6	3	3	158	electric shock	
explosion	6	3	9	1		5		1	5	1		5				1	2				1	1	1	42	explosion	
burst	2	1		1	3	2	1	1	1	1	1	1	1	2	2	3	1		1		1	1		27	burst	
fire	7	2	8	9	5	1		1	3	2	1	2		3	4	2	2	1		17	3	1		74	fire	
traffic accident (public road)	133	150	110	150	119	110	119	149	96	101	77	61	103	97	96	146	82	103	91	91	80	73	59	2,396	traffic accident (public road)	
traffic accident (others)	3	1	1	1	1		1	1	4	1	1					1							1	17	traffic accident (others)	
reaction to motion/improper motion	168	157	171	164	146	127	149	134	171	150	109	86	121	110	116	132	105	107	124	116	118	102	106	2,989	reaction to motion/improper motion	
others	15	13	18	12	14	17	13	12	20	21	4	7	14	16	9	8	14	6	12	16	8	48	256	573	others	
unclassifiable	6	11	5	6	3	3	5	5	6	3	1			4	4	3	1	3	1	2	2	2	3	79	unclassifiable	
total	4,462	4,593	4,556	4,531	3,990	4,069	3,937	4,106	3,858	3,338	2,322	2,179	2,654	2,720	2,854	2,996	2,526	2,431	2,427	2,463	2,351	2,110	2,288	73,761	total	

Causal agents (large) of fatal and non-fatal accidents in steel frame/reinforced concrete house construction work 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	607	642	616	619	554	553	520	520	448	397	325	325	380	333	351	387	326	330	301	286	307	273	286	9,686	machine
crane, conveying machine	476	501	484	484	443	393	412	466	380	345	251	229	322	315	345	343	261	288	316	287	274	258	221	8,094	crane, conveying machine
other equipment	702	700	711	736	652	647	643	683	672	585	393	353	442	514	493	545	427	424	410	454	437	350	379	12,352	other

																										equipment
temporary buildings, establishments	1,723	1,803	1,770	1,708	1,465	1,622	1,499	1,599	1,535	1,287	867	809	953	956	1,046	1,074	951	902	867	923	864	709	724	27,656	temporary buildings, establishments	
substance, material	704	696	706	709	658	629	621	603	574	501	331	304	372	428	420	434	370	345	357	319	297	313	272	10,963	substance, material	
load	100	92	108	116	90	70	100	81	98	72	69	42	52	49	66	61	46	45	39	42	56	43	35	1,572	load	
environment	73	90	98	74	62	98	79	103	81	81	43	70	90	72	90	99	86	57	65	87	60	80	65	1,803	environment	
others	77	69	63	85	66	57	63	51	70	70	43	47	43	53	43	53	59	40	72	65	56	84	306	1,635	others	
total	4,462	4,593	4,556	4,531	3,990	4,069	3,937	4,106	3,858	3,338	2,322	2,179	2,654	2,720	2,854	2,996	2,526	2,431	2,427	2,463	2,351	2,110	2,288	73,761	total	

Causal agents (middle) of fatal and non-fatal accidents in steel frame/reinforced concrete house construction work 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	3	1			1	1		1			1	1			3			1	3	18	engine
power transmission mechanism	2		2	2		2		2	3	1	1	1		1		1	3	1	1	2	1	2	2	30	power transmission mechanism
woodworking machine	241	253	233	248	222	213	177	164	146	127	87	102	116	90	99	101	82	79	81	66	71	59	68	3,125	woodworking machine
construction machine	172	194	178	193	170	164	186	200	153	145	120	123	141	133	123	163	133	135	126	124	138	118	112	3,444	construction machine
metal manufacturing machine	131	127	122	121	109	111	110	94	89	76	78	63	85	80	83	75	59	69	60	54	59	55	59	1,969	metal manufacturing machine

general machine	61	68	80	54	50	62	47	60	56	47	39	35	38	29	45	46	48	45	30	40	38	38	42	1,098	general machine	
mobile silviculture machine																	1	1							2	mobile silviculture machine
crane	168	155	158	175	146	118	145	148	120	103	75	63	96	103	106	88	79	76	98	83	80	85	78	2,546	crane	
conveying machine	182	224	225	201	192	175	160	200	165	167	116	116	150	127	162	125	109	132	131	138	125	112	99	3,533	conveying machine	
vehicle	126	122	101	108	105	100	107	118	95	75	60	50	76	85	77	130	73	80	87	66	69	61	44	2,015	vehicle	
pressure vessel	5	5	2	3	2	4	1		2	4	2		3	4	2		1	2	1			2	1	46	pressure vessel	
chemical facilities	1			1			1	1	3		1			2		1	1			1				13	chemical facilities	
welding equipment	12	6	18	16	10	8	7	2	15	7	4	4	4	5	9	9	10	5	6	21	4	1	3	186	welding equipment	
kiln, caldron	1	2		1	1	2	1			1		1				2				1		1		14	kiln, caldron	
electric equipment	8	13	11	9	13	8	13	9	12	7	6	9	6	10	3	9	8	5	10	8	8	8	6	199	electric equipment	
human power machine, tools	140	163	145	148	143	124	124	120	100	99	68	62	85	79	88	89	64	78	60	76	76	49	64	2,244	human power machine, tools	
tools	505	476	504	519	451	462	475	529	511	428	293	259	328	386	366	410	318	316	314	318	323	267	283	9,041	tools	
other equipments, facilities	30	35	31	39	32	39	21	22	29	39	19	18	16	28	25	25	25	18	19	29	26	22	22	609	other equipments, facilities	
temporary buildings, establishments	1,723	1,803	1,770	1,708	1,465	1,622	1,499	1,599	1,535	1,287	867	809	953	956	1,046	1,074	951	902	867	923	864	709	724	27,656	temporary buildings, establishments	

hazards, harmful substances	14	23	23	17	22	14	12	30	27	15	6	15	8	12	15	13	16	14	18	13	10	11	17	365	hazards, harmful substances
materials	690	673	683	692	636	615	609	573	547	486	325	289	364	416	405	421	354	331	339	306	287	302	255	10,598	materials
load	100	92	108	116	90	70	100	81	98	72	69	42	52	49	66	61	46	45	39	42	56	43	35	1,572	load
natural environment	73	90	98	74	62	98	79	103	81	81	43	70	90	72	90	99	86	57	65	87	60	80	65	1,803	natural environment
other causal agent	24	25	20	19	19	13	17	18	20	17	7	12	9	13	10	5	15	10	23	15	13	45	255	624	other causal agent
no causal agent	47	36	33	62	44	41	41	27	42	44	35	31	34	37	30	43	42	29	48	49	41	39	48	923	no causal agent
unclassifiable	6	8	10	4	3	3	5	6	8	9	1	4		3	3	5	2	1	1	1	2		3	88	unclassifiable
total	4,462	4,593	4,556	4,531	3,990	4,069	3,937	4,106	3,858	3,338	2,322	2,179	2,654	2,720	2,854	2,996	2,526	2,431	2,427	2,463	2,351	2,110	2,288	73,761	total

Causal agents (small) of fatal and non-fatal accidents in steel frame/reinforced concrete house construction work 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		3				1	1		1			1	1			3			1	3	16	engine
power transmission mechanism			2					2	3	1	1	1		1		1	3	1	1	2	1	2	2	24	power transmission mechanism
circular sawing machine			169		169		131	126	125	98	62	69	83	60	77	78	58	59	60	48	54	41	44	1,611	circular sawing machine
band sawing machine			2		2			1	1	1	1		1	1		4	1	1						16	band sawing machine
wood planer machine			19		12		10	9	4	4	8	6	6	7	2	2	2	3	2	5	1	5	1	108	wood planer machine





machine																									machine
other mobile silviculture machine																									other mobile silviculture machine
crane		44	38	32	42	40	30	18	15	30	29	24	24	17	20	28	21	20	24	20	516	crane			
mobile crane		85	80	89	79	65	51	45	40	48	55	62	53	46	42	54	53	50	54	45	1,096	mobile crane			
derrick crane									1												1	derrick crane			
elevator, lift		17	14	7	12	10	12	8	2	8	8	6	10	8	6	7	4	6	6	6	157	elevator, lift			
cargo lifting appliance			1																		1	cargo lifting appliance			
gondola		3	1	1	1	1	1	1	1	2	1	2				3				1	19	gondola			
lumberyard equipment, logging cableway																								lumberyard equipment, logging cableway	
simple skyline yarding equipment																								simple skyline yarding equipment	
other powered crane		9	12	16	14	4	9	3	4	8	10	12	1	8	8	6	5	4	1	6	140	other powered crane			
truck		193	174	148	174	139	147	104	105	132	109	144	115	92	125	113	122	110	102	89	2,437	truck			
forklift		18	11	6	16	15	12	7	5	5	11	12	5	12	5	12	9	10	7	6	184	forklift			
railway equipment						1				5		1						1			8	railway equipment			
conveyor		5	2		4	2	1		1	1	2		1		1	1		1		1	23	conveyor			
loader			1				1		1			1	1					1			6	loader			
straddle carrier																								straddle carrier	
rough terrain hauler		3			1			1		1	1		1				2		1		11	rough terrain hauler			
other powered		6	4	6	5	8	6	4	4	6	4	4	2	5	1	5	5	2	2	3	82	other powered			



conveying machines																								conveying machines	
cars, bus, motorcycle			99		104		106	116	91	72	57	48	74	84	77	130	73	80	85	66	68	61	44	1,535	cars, bus, motorcycle
railway vehicle						1	1			1		1												4	railway vehicle
other vehicles			2		1		1	4	3	2	2	1	1					2		1				20	other vehicles
boiler																									boiler
pressure vessel												1	1			1								3	pressure vessel
other pressure vessels			2		2		1		2	4	2		2	3	2			2	1			2	1	26	other pressure vessels
chemical facilities						1	1	3		1			2		1	1			1					11	chemical facilities
gas welding equipment			8		5		6	2	8	3	2	1	4	3	4	3	4	3	3	18	4	1		82	gas welding equipment
arc welding equipment			8		5		1		5	3	1	3		1	4	6	6	1	2	3			2	51	arc welding equipment
other welding equipment			2						2	1	1			1	1			1	1				1	11	other welding equipment
kiln, caldron					1		1			1		1				1				1		1		7	kiln, caldron
industrial dryer																									industrial dryer
other kiln, caldron																1								1	other kiln, caldron
transmission			5		9		4	5	7	5	1	4	4	8	1	6	3	3	8	7	6	5	4	95	transmission
electric power facilities			4		1		3	3	3		2	3	1	2		1	3	1	2		1	1	1	32	electric power facilities
other electrical equipment			2		3		6	1	2	2	3	2	1		2	2	2	1		1	1	2	1	34	other electrical equipment
human power			8		5		4	3	3	3	2	1	7	3	1	1	2	1	2	2	3	4		55	human power

cranes																									cranes
human power hauling equipment			19		20		16	20	25	28	14	10	17	16	22	28	14	13	7	17	18	5	6	315	human power hauling equipment
human power machine			5		1		8	5	5	1	1	2	2	2	4		2	2	1	2		2	1	46	human power machine
hand tool			113		117		96	92	67	67	51	49	59	58	61	60	46	62	50	55	55	38	57	1,253	hand tool
ladder			398		365		376	422	400	344	232	207	254	319	289	348	258	246	237	233	262	215	232	5,637	ladder
slinging tool			42		34		52	43	40	38	20	22	23	28	26	20	20	27	27	36	19	20	20	557	slinging tool
other tools			64		52		47	64	71	46	41	30	51	39	51	42	40	43	50	49	42	32	31	885	other tools
other equipment, facilities			31		32		21	22	29	39	19	18	16	28	25	25	25	18	19	29	26	22	22	466	other equipment, facilities
scaffolding			602		510		507	476	517	414	277	215	285	269	319	312	278	256	242	223	243	190	174	6,309	scaffolding
timbering			75		53		52	95	83	48	32	40	47	40	46	41	35	40	18	29	23	17	30	844	timbering
stairs, landing stage			91		88		93	97	106	85	48	52	54	74	72	82	65	73	65	79	68	60	76	1,428	stairs, landing stage
opening			101		69		87	89	83	71	51	41	48	64	60	59	51	60	41	60	54	53	51	1,193	opening
roof, beam, haze, crossbeam, principal rafter			235		219		216	195	156	165	103	114	107	121	127	121	126	112	124	123	114	94	76	2,648	roof, beam, haze, crossbeam, principal rafter
working platform, boot board			151		133		120	164	148	116	88	72	107	87	86	93	73	66	88	79	79	43	77	1,870	working platform, boot board
passage			128		112		122	128	140	123	76	86	95	82	100	110	83	86	92	109	96	104	88	1,960	passage
building, establishment			295		200		218	271	235	195	141	156	163	161	161	179	169	146	140	143	124	96	104	3,297	building, establishment
other temporary buildings, establishments			92		81		84	84	67	70	51	33	47	58	75	77	71	63	57	78	63	52	48	1,251	other temporary buildings, establishments

explosive substance			1				3														1	5	explosive substance		
inflammable substance			8		7		4	6	4	2	4			2	1	3	4	4		1	1	1	52	inflammable substance	
inflammable gas			5		2		2		2	3		6	2	1	2	1	3		1	2	3	1		36	inflammable gas
harmful substance			2		6		6	20	12	1	2	3	4	7	9	2	7	5	10	5	3	2	6	112	harmful substance
radiation										1													1	radiation	
other hazards, harmful substances			7		7		4	3	7	6	2	2	2	4	2	9	3	5	3	6	3	7	9	91	other hazards, harmful substances
metal material			464		397		401	370	356	317	230	190	239	261	266	275	236	203	237	204	181	197	161	5,185	metal material
lumber, bamboo			102		119		99	94	91	72	41	42	55	80	66	61	50	57	52	43	55	44	38	1,261	lumber, bamboo
stone, sand, substance			45		40		36	31	26	27	16	15	22	19	13	21	16	20	13	17	16	11	20	424	stone, sand, substance
other materials			72		80		73	78	74	70	38	42	48	56	60	64	52	51	37	42	35	50	36	1,058	other materials
load			92		72		85	68	86	62	65	35	44	42	55	54	40	36	31	38	53	37	30	1,025	load
machine/equipment as load			16		18		15	13	12	10	4	7	8	7	11	7	6	9	8	4	3	6	5	169	machine/equipment as load
natural ground, rock			37		22		31	46	29	34	17	19	24	18	22	25	26	18	15	21	19	16	27	466	natural ground, rock
standing tree			5		1		6	3	4	3	4	3	6	2	9	2	4	2	1	2	2	2	2	63	standing tree
water					1		2			1	1	2	7			2	1			1	2			20	water
abnormal environment					5		1	1		1		2	3	4			2		1	1	1			22	abnormal environment
high/cold temperature environment			30		23		22	30	33	28	13	36	32	32	36	46	31	25	33	50	23	46	19	588	high/cold temperature environment

other environments			26		10		19	21	15	14	8	8	18	16	23	24	22	12	15	12	13	16	17	309	other environments
other causal agent			20		19		17	18	20	17	7	12	9	13	10	5	15	10	23	15	13	45	255	543	other causal agent
no causal agent			33		44		41	27	42	44	35	31	34	37	30	43	42	29	48	49	41	39	48	737	no causal agent
unclassifiable			10		3		5	6	8	9	1	4		3	3	5	2	1	1	1	2		3	67	unclassifiable
total			4,556		3,990		3,937	4,106	3,858	3,338	2,322	2,179	2,654	2,720	2,854	2,996	2,526	2,431	2,427	2,463	2,351	2,110	2,288	56,106	total

Workers age of fatal and non-fatal accidents in steel frame/reinforced concrete house construction work 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	162	203	169	170	143	125	133	119	132	118	63	60	81	99	136	104	103	87	90	69	72	50	67	2,555	19 years old or less
20-29	954	1,000	1,008	1,029	857	765	793	792	678	563	416	370	433	437	474	495	432	397	431	460	417	434	469	14,104	20-29
30-39	713	748	790	792	769	844	828	881	851	687	537	460	608	595	540	584	448	437	419	411	357	315	361	13,975	30-39
40-49	841	817	762	702	620	662	643	632	610	564	386	407	508	576	595	636	533	576	506	502	520	455	474	13,527	40-49
50-59	1,080	1,157	1,138	1,195	1,019	1,060	961	1,037	956	784	522	459	577	537	537	518	465	408	433	448	430	392	439	16,552	50-59
60 years old or more	712	668	689	643	582	613	579	645	631	622	398	423	447	476	572	659	545	526	548	573	555	464	478	13,048	60 years old or more
total	4,462	4,593	4,556	4,531	3,990	4,069	3,937	4,106	3,858	3,338	2,322	2,179	2,654	2,720	2,854	2,996	2,526	2,431	2,427	2,463	2,351	2,110	2,288	73,761	total

Workers' number of workplace of fatal and non-fatal accidents in steel frame/reinforced concrete house construction work 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	2,430	2,411	2,403	2,414	2,043	2,215	2,155	2,214	2,174	1,816	1,310	1,203	1,472	1,461	1,507	1,649	1,402	1,357	1,374	1,348	1,297	1,110	1,193	39,958	9 workers or less
10-29	1,332	1,388	1,407	1,374	1,266	1,194	1,137	1,227	1,109	977	678	670	768	857	912	894	725	711	676	728	682	666	677	22,055	10-29
30-49	399	463	392	420	377	381	355	349	314	323	173	175	236	224	254	261	227	201	217	216	208	201	172	6,538	30-49













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	11	6	7	10	8	10	9	7	4	7	6	3	3	2	5	7	3	6	3	4	4	1	3	129	machine
crane, conveying machine	20	34	18	13	15	12	14	18	13	8	9	10	17	6	14	12	8	8	11	8	6	8	7	289	crane, conveying machine
other equipment	8	8	7	10	5	5	4	7	3	4	2	3	2	1	5	3	3	3	6	4	4	2	5	104	other equipment
temporary buildings, establishments	57	63	64	43	55	45	35	42	39	32	23	25	22	24	18	33	19	20	24	26	16	15	19	759	temporary buildings, establishments
substance, material	3	2	1	4	1	5	1	5	2	4	2	1		1	1		1	1	3			4	3	45	substance, material
load	1			1	1	2	1	1	1	1		1			2					2	2			16	load
environment	6	7	5	6	4	7	6	9	7	1	3	4	9	3	1	2	4	3	3	1	2	3	9	105	environment
others				1	1		1			1	1	1		2		2	3		1	1	1	1	2	19	others
total	106	120	102	88	90	86	71	89	69	58	46	48	53	39	46	59	41	41	51	46	35	34	48	1,466	total

Causal agents (middle) of fatal accidents in steel frame/reinforced concrete house construction work 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	engine	
power transmission mechanism																										power transmission mechanism
woodworking machine						1				1														2	woodworking machine	
construction machine	10	6	7	10	6	9	9	7	4	7	5	2	3	2	4	7	3	6	3	4	4	1	3	122	construction machine	

metal manufacturing machine					1								1												2	metal manufacturing machine
general machine	1													1											2	general machine
mobile silviculture machine																										mobile silviculture machine
crane	8	6	9	2	5	3	1	4	6	3	2	1	6	3	5	1		3	3	2	4	2	2	81	crane	
conveying machine	4	6	6	6	5	5	5	7	4	2	4	3	7	1	4	4	3	2	5	3	2	3	3	94	conveying machine	
vehicle	8	22	3	5	5	4	8	7	3	3	3	6	4	2	5	7	5	3	3	3		3	2	114	vehicle	
pressure vessel		1																						1	pressure vessel	
chemical facilities																									chemical facilities	
welding equipment			1	1	1	1						1				1	1		1			1		9	welding equipment	
kiln, caldron																									kiln, caldron	
electric equipment		2	3			1	1	1	1	1	1		1	1										13	electric equipment	
human power machine, tools																	1							1	human power machine, tools	
tools	7	4	3	9	4	3	3	5	2	3	1	2	1		5	2	1	3	5	4	3	1	5	76	tools	
other equipments, facilities	1	1						1													1			4	other equipments, facilities	
temporary buildings, establishments	57	63	64	43	55	45	35	42	39	32	23	25	22	24	18	33	19	20	24	26	16	15	19	759	temporary buildings, establishments	
hazards, harmful substances	1					1		1	1	1							1	1				1	1	9	hazards, harmful substances	





shearing machine																							shearing machine		
other metal manufacturing machines																							other metal manufacturing machines		
centrifugal machine																							centrifugal machine		
mixer, grinder	1												1									2	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	2	1			1	1		1	2		1		4		2			1			1		2	19	crane



other vehicles									1														1	other vehicles
boiler																								boiler
pressure vessel																								pressure vessel
other pressure vessels		1																					1	other pressure vessels
chemical facilities																								chemical facilities
gas welding equipment																					1		1	gas welding equipment
arc welding equipment			1	1	1	1					1				1	1		1					8	arc welding equipment
other welding equipment																								other welding equipment
kiln, caldron																								kiln, caldron
industrial dryer																								industrial dryer
other kiln, caldron																								other kiln, caldron
transmission		2				1	1	1	1	1	1		1	1									10	transmission
electric power facilities			2																				2	electric power facilities
other electrical equipment			1																				1	other electrical equipment
human power cranes																							1	human power cranes
human power hauling equipment																								human power hauling equipment
human power machine																								human power machine



hand tool																									hand tool
ladder	5	2	2	5	4	2	2	3	2	1		1			3	2	1	2	3	2	2	1	3	48	ladder
slinging tool	2	2	1	3		1	1	1		2	1	1			1			1	2	2			2	23	slinging tool
other tools				1				1						1	1						1			5	other tools
other equipment, facilities	1	1						1														1		4	other equipment, facilities
scaffolding	24	17	25	10	22	15	12	8	14	15	9	9	6	6	6	14	7	4	7	2	7	8	3	250	scaffolding
timbering			2	1		1					1					1							1	7	timbering
stairs, landing stage	1	1		1	1	1			1						1	2				2	1			12	stairs, landing stage
opening	4		6	1	3	3	2	9	5	4		2	2	3	1	2	4	3	2	4	2	1	5	68	opening
roof, beam, haze, crossbeam, principal rafter	11	19	11	11	12	13	9	8	9	6	4	4	6	6	4	6	6	4	7	12	3	3	3	177	roof, beam, haze, crossbeam, principal rafter
working platform, boot board	2	4	2	3	4	2	2	3	2	3	1	1	1		1	1		1	2				1	36	working platform, boot board
passage		1				2		2				2		2		1				1			1	12	passage
building, establishment	15	18	17	13	10	5	8	9	7	3	6	7	5	5	5	4	2	5	1	4	2	2	5	158	building, establishment
other temporary buildings, establishments		3	1	3	3	3	2	3	1	1	2		2	2		2		3	5	1	1	1		39	other temporary buildings, establishments
explosive substance																									explosive substance
inflammable substance								1																1	inflammable substance
inflammable gas	1																1						1	3	inflammable gas

harmful substance						1			1	1											1	5	harmful substance		
radiation																								radiation	
other hazards, harmful substances																								other hazards, harmful substances	
metal material	1	1	1	2		2	1	2	1	3	2			1	1				2		2	2	24	metal material	
lumber, bamboo	1			1		1		2															5	lumber, bamboo	
stone, sand, substance					1	1												1					3	stone, sand, substance	
other materials		1		1								1								1			4	other materials	
load				1	1	2	1	1	1	1		1		2					2	2			15	load	
machine/equipment as load	1																						1	machine/equipment as load	
natural ground, rock	1		2	3		3		3	2	1	1		2	1		1	2			1	1	3	27	natural ground, rock	
standing tree								1									1						2	standing tree	
water				1									6								1		8	water	
abnormal environment		2			1														1			3	7	abnormal environment	
high/cold temperature environment	4	4	3	2	3	3	6	3	5		2	4	1	2		1	2	2	3	1		1	3	55	high/cold temperature environment
other environments	1	1				1		2							1								6	other environments	
other causal agent					1		1										1					2	5	other causal agent	
no causal agent										1				2		1	2			1	1	1	9	no causal agent	
unclassifiable				1							1	1				1			1				5	unclassifiable	

total	106	120	102	88	90	86	71	89	69	58	46	48	53	39	46	59	41	41	51	46	35	34	48	1,466	total
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Workers age of fatal accidents in steel frame/reinforced concrete house construction work 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	2	4	3	1	2	2	3		3		2	1	1	2	2	2	2	2	1	1		1	1	38	19 years old or less
20-29	22	23	17	21	20	10	13	13	10	9	10	4	9	3	3	8	3	4	2	7	6	6	8	231	20-29
30-39	8	17	20	15	10	14	8	14	9	9	12	7	7	7	9	10	8	9	9	9	2	5	6	224	30-39
40-49	19	26	17	8	11	9	12	13	12	13	3	7	12	7	11	7	7	7	14	8	6	6	8	243	40-49
50-59	29	26	30	24	24	23	23	26	18	13	10	15	10	11	9	11	8	7	11	5	10	9	13	365	50-59
60 years old or more	26	24	15	19	23	28	12	23	17	14	9	14	14	9	12	21	13	12	14	16	11	7	12	365	60 years old or more
total	106	120	102	88	90	86	71	89	69	58	46	48	53	39	46	59	41	41	51	46	35	34	48	1,466	total

Workers' number of workplace of fatal accidents in steel frame/reinforced concrete house construction work 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	54	62	35	49	46	46	33	52	41	29	24	24	33	18	24	26	18	21	32	26	17	20	24	754	9 workers or less
10-29	30	38	41	24	25	28	23	20	18	19	14	19	10	18	16	20	15	10	18	12	11	10	14	453	10-29
30-49	14	7	16	9	13	8	6	9	5	5	5	5	8	2	2	5	6	7	1	1	5	4	6	149	30-49
50-99	5	6	7	2	4	1	7	4	3	2	2		1	1	2	5	1	1		5	1		2	62	50-99
100-299	3	6	3	2	2	2	1	3	2	2	1		1		1	3	1	2		2			2	39	100-299
300 workers or more		1		2		1	1	1		1					1						1			9	300 workers or more
total	106	120	102	88	90	86	71	89	69	58	46	48	53	39	46	59	41	41	51	46	35	34	48	1,466	total

Month of fatal accidents in steel frame/reinforced concrete house construction work 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	13	5	7	6	9	3	7	6	3	3	2	5	1	5	4	1	4	2	1	5	2	4	1	99	January
February	12	9	8	10	4	7	9	6	4	5	5	3	6	6	3	2	5	1	5	2	4	2	2	120	February
March	8	10	7	7	9	6	5	6	6	2	2	3	8	4	3	5	2	6	2	3	2	4	4	114	March
April	8	9	5	8	3	4	6	7	2	4	3	2	1	2	1	4	3	2	7	2	2	2	4	91	April
May	7	6	13	5	12	2	2	6	2	2	3	1	4	1	3	5	1	2	3	6	3		4	93	May
June	7	11	5	4	3	4	6	7	8	2	5	2	2	6	6	5	2	4	2	3	2	1	3	100	June
July	6	16	8	8	9	14	9	13	5	8	5	3	4	6	5	6	5	3	8	6	5	4	9	165	July
August	9	17	13	9	12	12	7	8	12	4	6	10	3	4	3	6	5	4	9	5	4	5	4	171	August
September	6	8	6	3	7	11	1	6	6	8	4	4	6	3	3	8	7	2	3	6	5	7	5	125	September
October	13	8	14	7	10	10	6	10	7	9	2	1	7	1	3	7	5	8	4	3	2	2	4	143	October
November	6	8	6	7	5	5	6	10	7	7	5	7	3		6	6	1	5	4	2	3	1	5	115	November
December	11	13	10	14	7	8	7	4	7	4	4	7	8	1	6	4	1	2	3	3	1	2	3	130	December
total	106	120	102	88	90	86	71	89	69	58	46	48	53	39	46	59	41	41	51	46	35	34	48	1,466	total

Prefecture of fatal accidents in steel frame/reinforced concrete house construction work 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	8	9	3	3	4	2	3	4	2	5	2	5	1	2	3	3		3		2	2	3	2	71	Hokkaido
Aomori		1												1				1	1		1			5	Aomori
Iwate	1		1	2	2	1							1		1	1		2	1	1			2	16	Iwate
Miyagi	1	4	2	1	3		1	3		2	1		8	1	2		1	1	2	2	1	2	1	39	Miyagi
Akita	3				1	1		1	1		1				2	1	1		1					13	Akita
Yamagata	3		1				1					3			2			1		1		1		13	Yamagata

Fukushima	3				1	3	1		1	2				1	1	1		1	2	2		1	2	22	Fukushima
Ibaraki	2	1	2	5	1	3		1	1	1		3	2		1	2	1		1	2		1	1	31	Ibaraki
Tochigi	1		3	1				1	1	2	1				1	1				1				13	Tochigi
Gunma			1					1		2			1		1	1	1			1			1	10	Gunma
Saitama	2	8	6	4	7	4	4	5	2	4	1	2	3	5	1	3	1	1	3	1	1		1	69	Saitama
Chiba	3	6	8	8	6	4	2	2	4	2		3	2	2	3	2	3			1	1	1	1	64	Chiba
Tokyo	10	12	21	13	9	8	9	10	9	4	7	4	7	9	11	8	6	4	10	7	6	4	12	200	Tokyo
Kanagawa	8	10	13	2	8	9	8	9	3	1	5	3	5	1	2	1	2	2	2		2	4	5	105	Kanagawa
Niigata		1		2		1		3	1	1	2				3					1				15	Niigata
Toyama	1	2	3	2				2					1			2								13	Toyama
Ishikawa			1		1	4			2	1	1	1		1		1	1			1				15	Ishikawa
Fukui	1	3		1	1	2		2		1			1						1		1			14	Fukui
Yamanashi		2			1			1																4	Yamanashi
Nagano	3	1	1	3	1	1		2	1	1		1							1					16	Nagano
Gifu	2	9	1	1	2	3	1		1					1		1	1	2		1				26	Gifu
Shizuoka	5	2	1	3	4	5		2	2	4	2	2	4	2			1	1	1	4		1	3	49	Shizuoka
Aichi	3	4	3	1	5	7	6	5	7	6	1	2	1		2	5	5	3	5	1	2	2	4	80	Aichi
Mie	1	1	1	1	1	3	3	1	1		1	2				2	1			1	2		1	23	Mie
Shiga	1	2		1	1	1	2	1			3			1			1	2						16	Shiga
Kyoto	2	1		4	1		1		2	2	4		1			1	2		3	1	4			29	Kyoto
Osaka	5	6	12	6	6	8	6	12	5	2	2	4	4	1	5	6	2	4	2	5	1	1	4	109	Osaka
Hyogo	8	5	2	2	8	2	3	3	2	1	3	3	1	1	1	1	1	2	3	2	1	3	2	60	Hyogo
Nara	1	2		1	1	1	1			1		1			1	2				1	1			14	Nara
Wakayama		2	1	1			1		2		2						1	1	1		1			13	Wakayama

Tottori	1			2											1								1	5	Tottori
Shimane		1					1					1			1		1		1				1	7	Shimane
Okayama	3	1		2	2		1	1	1	1	1		3	2		1				1				20	Okayama
Hiroshima	4	3	2	2		4	3	1	2	1		1			1	1	1	2		1				29	Hiroshima
Yamaguchi	3		1	1	2			1						1		1	2	1		1				14	Yamaguchi
Tokushima	1				2	1								1									1	6	Tokushima
Kagawa	4			3		1	1	2	2					1				1	1				1	17	Kagawa
Ehime	1	2		3		1	1	1	2	1			1								3	1	1	18	Ehime
Kochi	1	1					1		1	1					2		1							8	Kochi
Fukuoka	3	7	5	4	4	1	4		6	3	3	5	2	2	1	4	2	3	1	1	1	2		64	Fukuoka
Saga		1					2		1										1					5	Saga
Nagasaki		1	2	1	1	1		2		1						1								10	Nagasaki
Kumamoto	3	6		1	1		2			1							1	1	3			2		21	Kumamoto
Oita			1		1	1		2						1										6	Oita
Miyazaki	3		1		1			2			1		1										1	10	Miyazaki
Kagoshima	1	2	1			2		2		3	1	2		2		1	1		1	1	1			21	Kagoshima
Okinawa		1	2	1	1	1	1	4	3	2	2	1	2		1	1	2		4	1	3	3	2	38	Okinawa
total	106	120	102	88	90	86	71	89	69	58	46	48	53	39	46	59	41	41	51	46	35	34	48	1,466	total

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

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