

〈ER2 Electric Chain Hoists〉

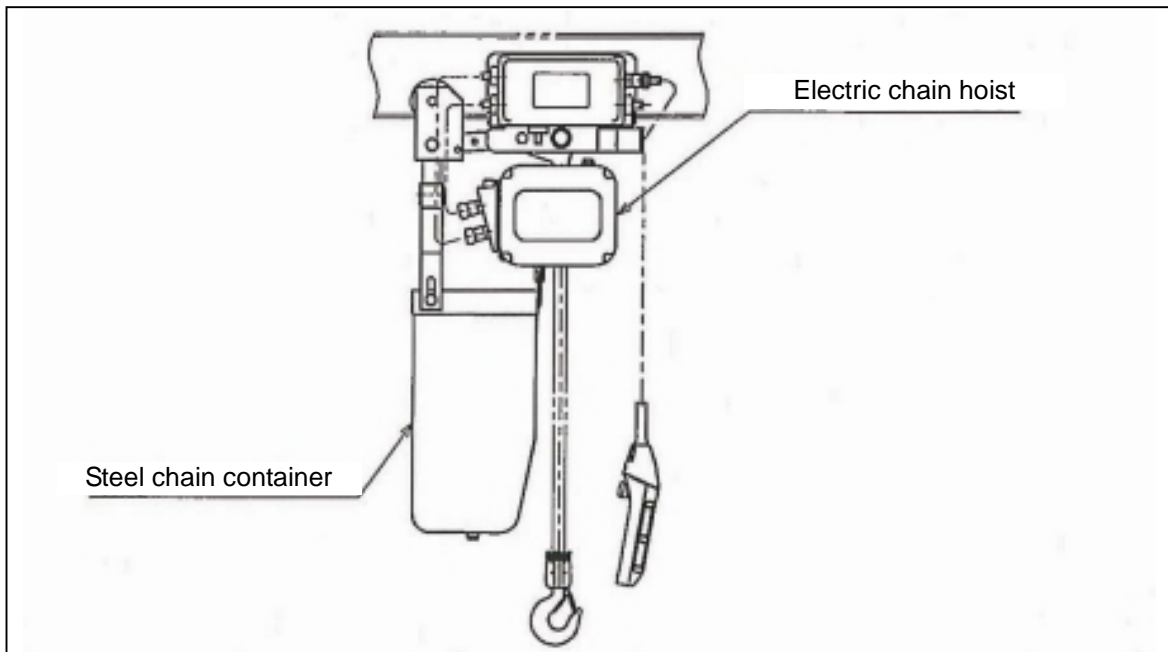
KITO STEEL CHAIN CONTAINER (125kg to 5t)

(For KA, KC, KC Chain Suspension, KD, and KD Chain Suspension Types)

Instruction Manual

⚠ CAUTION	
! COMPULSORY	<p>This instruction manual describes specific instructions related to the Steel Chain Container for ER2 Series large capacity Electric Chain Hoist. Read and comply with the instructions given in this manual and “ER2 Series Electric Chain Hoist Owner’s Manual” (separate document).</p>

1. Product Overview



The electric chain hoist and steel chain container are disassembled before shipment. Read the installation methods starting in Section 3 before installation.

⚠ CAUTION	
! COMPULSORY	<ul style="list-style-type: none"> • Upon unpacking, please check that all the necessary parts are enclosed. • The above illustration shows a typical model of the electric chain hoist with a steel chain container. The configuration or design in detail may differ from the customized model of yours.

⚠ DANGER	
⊘ PROHIBITED	<ul style="list-style-type: none"> • Make sure to use a suitable chain container for suspension type and lift. • When installing the chain container, leave some load chain (50 to 60cm in length) in the chain container (no - load side). After setting the chain container in place, lift the hook to feed the rest of the chain into the container. Note that the chain may twist and kink if stored in the container in disorder. Be careful to place the chain in the container so that it does not twist or kink. <p>Failure to follow these precautions may cause accidents resulting in serious or even fatal injury.</p>

2. Types of Steel Chain Containers and their Installation Methods

- There are several steel chain container installation methods depending on lifting height and type: KA, KB, and KC types, 2-track roller chain hoisting, and hook type chain hoisting.

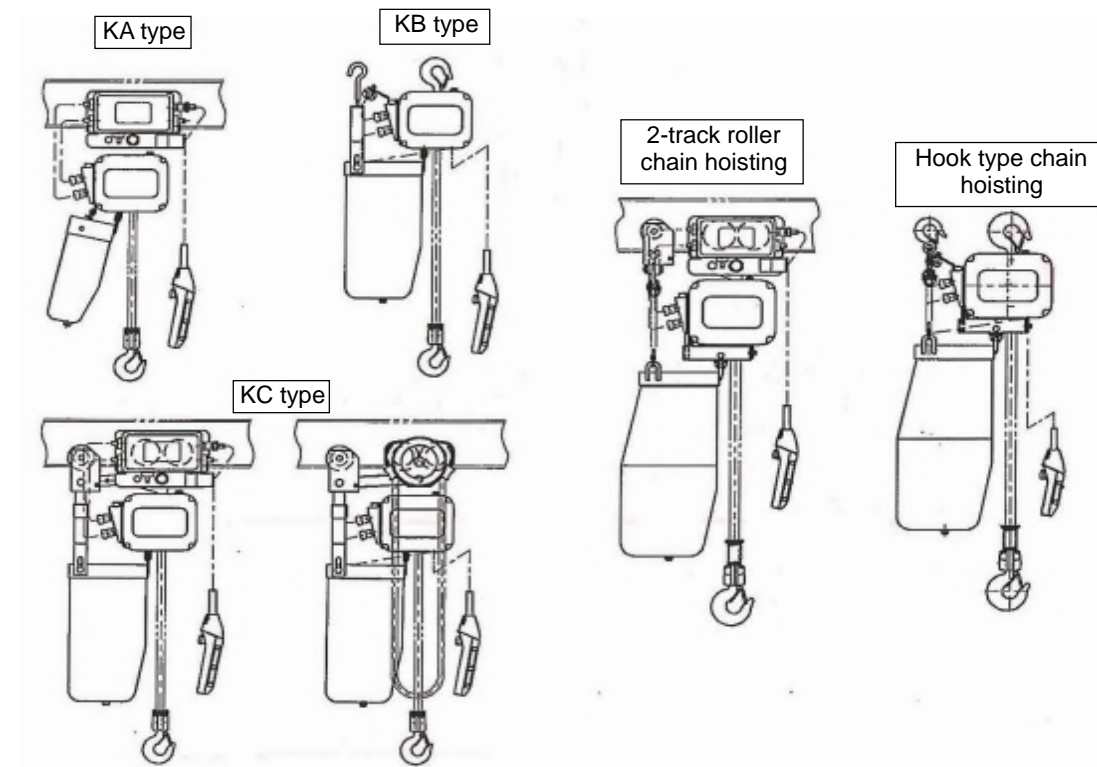
Model	Basic Unit	KA Type for ER2, ER2SP, ER2SG, ER2M	KB Type for ER2	KC Type for ER2SP, ER2SG, ER2M	2-track roller chain hoisting ER2SP, ER2SG, ER2M	Hook type chain hoisting ER2
ER2 003S, IS	ER2-B	15m <	15m <			N/A
ER2 004L, IL		15m <	15m <			N/A
ER2 004IS	ER2-C	15m <	15m <			N/A
ER2 005S, IS		15m <	15m <			N/A
ER2 010L, IL	ER2-D	15m <	15m <			N/A
ER2 010S, IS		15m <	15m <			N/A
ER2 015S, IS	ER2-E	12m <	12m <			38m <
ER2 020L, IL		12m <	12m <			38m <
ER2 020S, IS		12m <	12m <			38m <
ER2 025S, IS	ER2-F	12m <	12m <			32m <
ER2 028S, IS	ER2-E	6m <	6m <			19m <
ER2 030S, IS		6m <	6m <			19m <
ER2 048S, IS	ER2-F	6m <	6m <			16m <
ER2 050S, IS		6m <	6m <			16m <

ER2 : Electric chain hoist

ER2SP : Electric chain hoist with a plain trolley (Trolley: TS series)

ER2SG : Electric chain hoist with a geared trolley (Trolley: TS series)

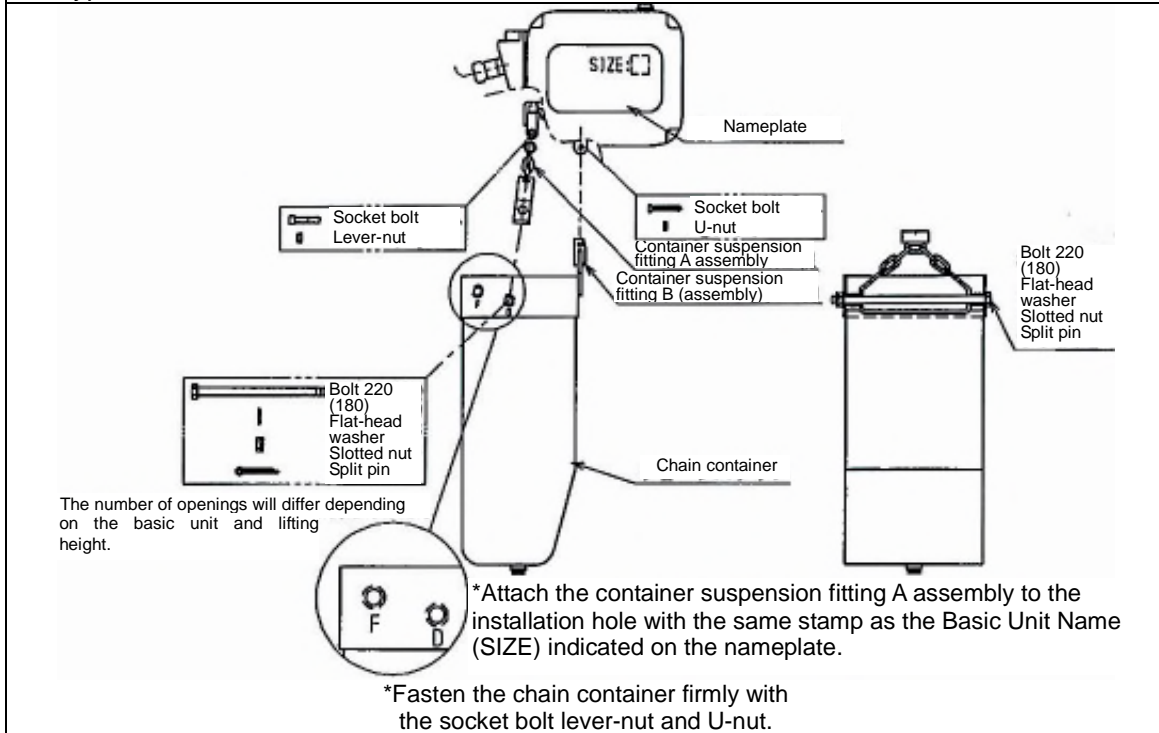
ER2M : Electric chain hoist with a motorized trolley



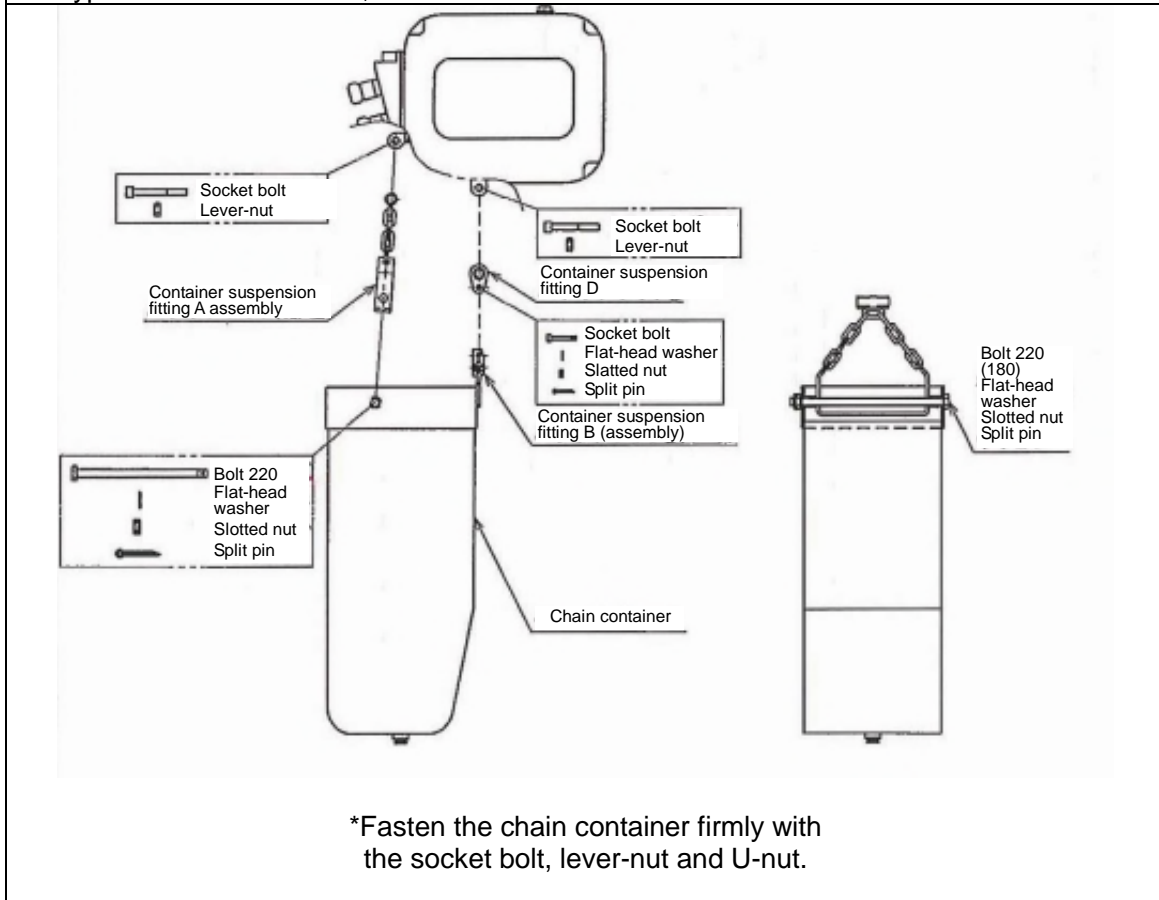
3 Steel Chain Container Installation

Installation methods are described according to type of steel chain container.

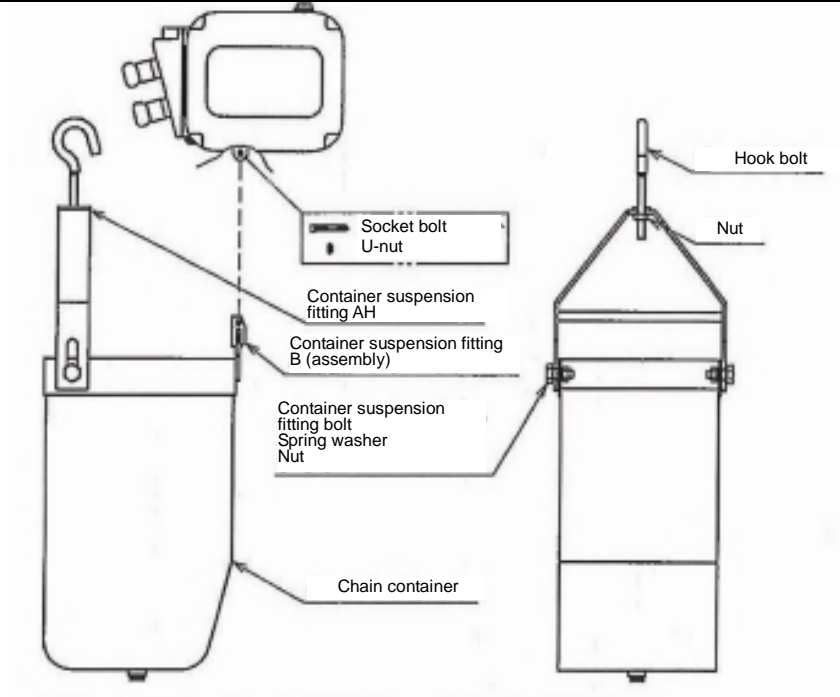
KA type Basic Unit ER2-B,C, or D



KA type Basic Unit ER2-E, F

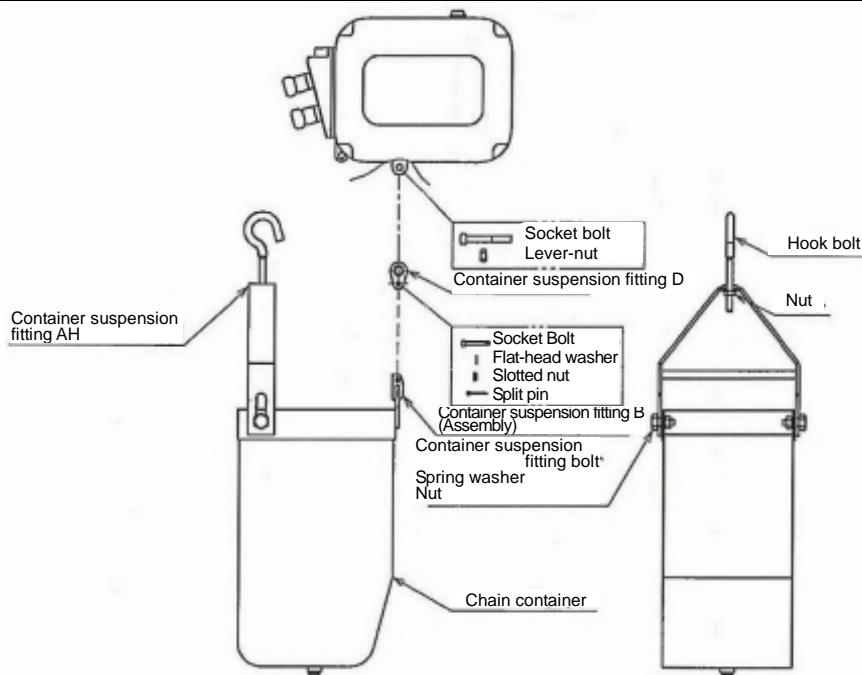


KB type Basic Unit ER2-B, C, or D



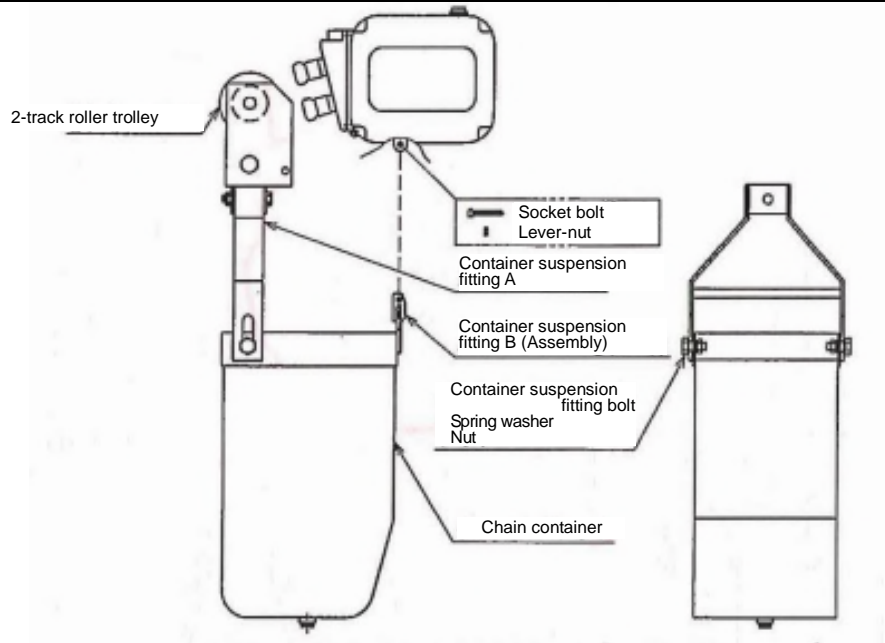
- Fasten the chain container firmly with the socket bolt and U-nut.
- Screw the hook bolt to adjust the chain container not to tilt when loaded.

KB type Basic Unit ER2-E, F



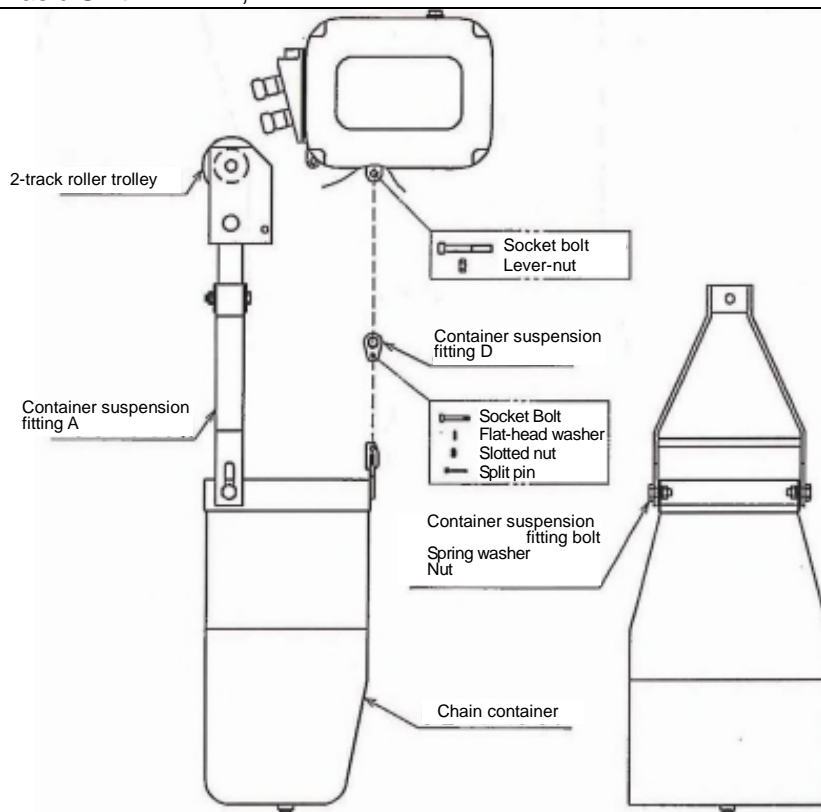
- Fasten the chain container firmly with the socket bolt and U-nut.
- Screw the hook bolt to adjust the drain container not to tilt when loaded.

KC type Basic Unit ER2 - B, C, or D



•Fasten the chain container firmly with the socket bolt and U-nut.

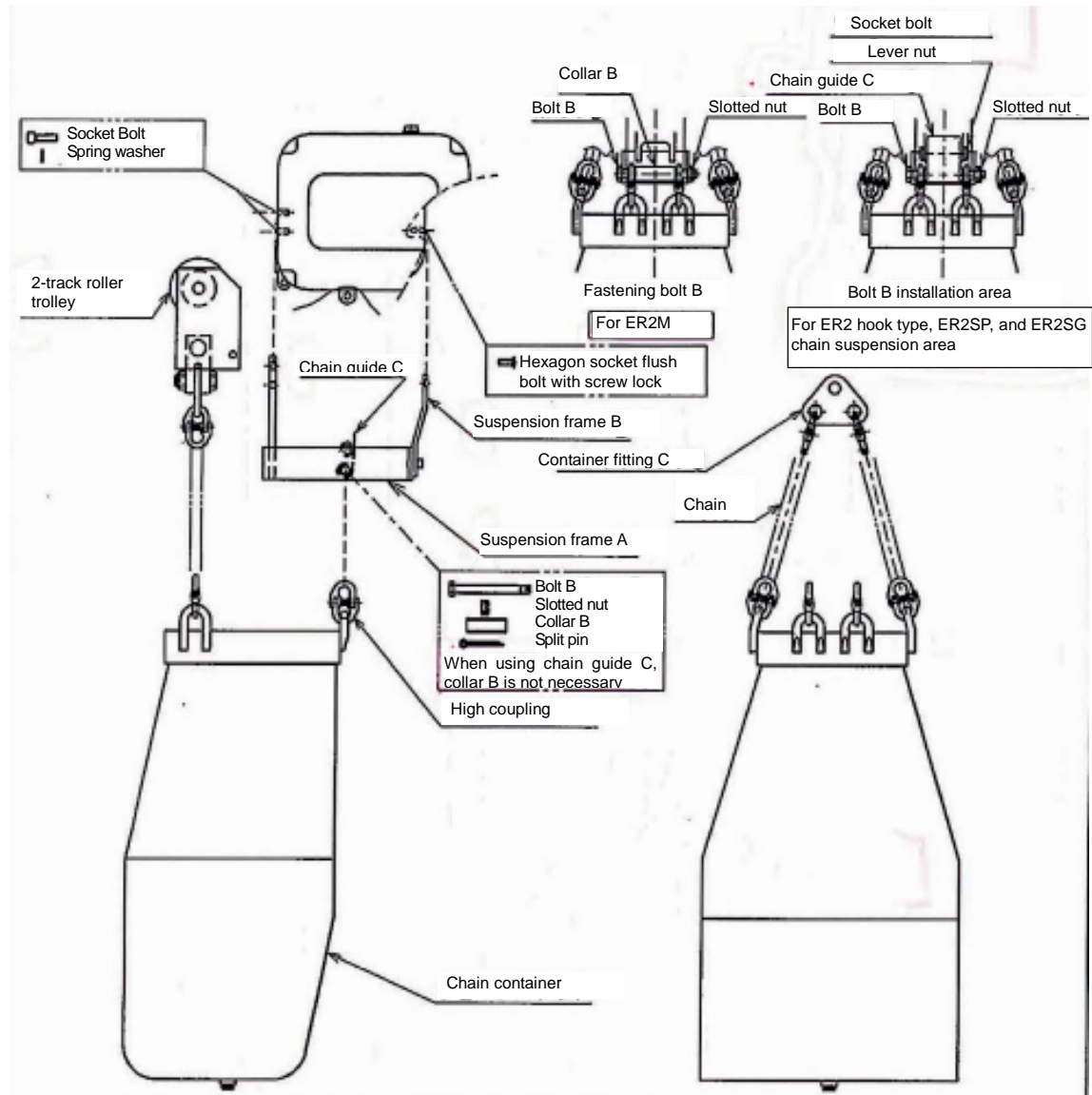
KC type Basic Unit – ER2-E,F



•Fasten the chain container firmly with the socket bolt and U-nut.

2 -Wheel Chain Suspension type Basic Unit ER2-E, F

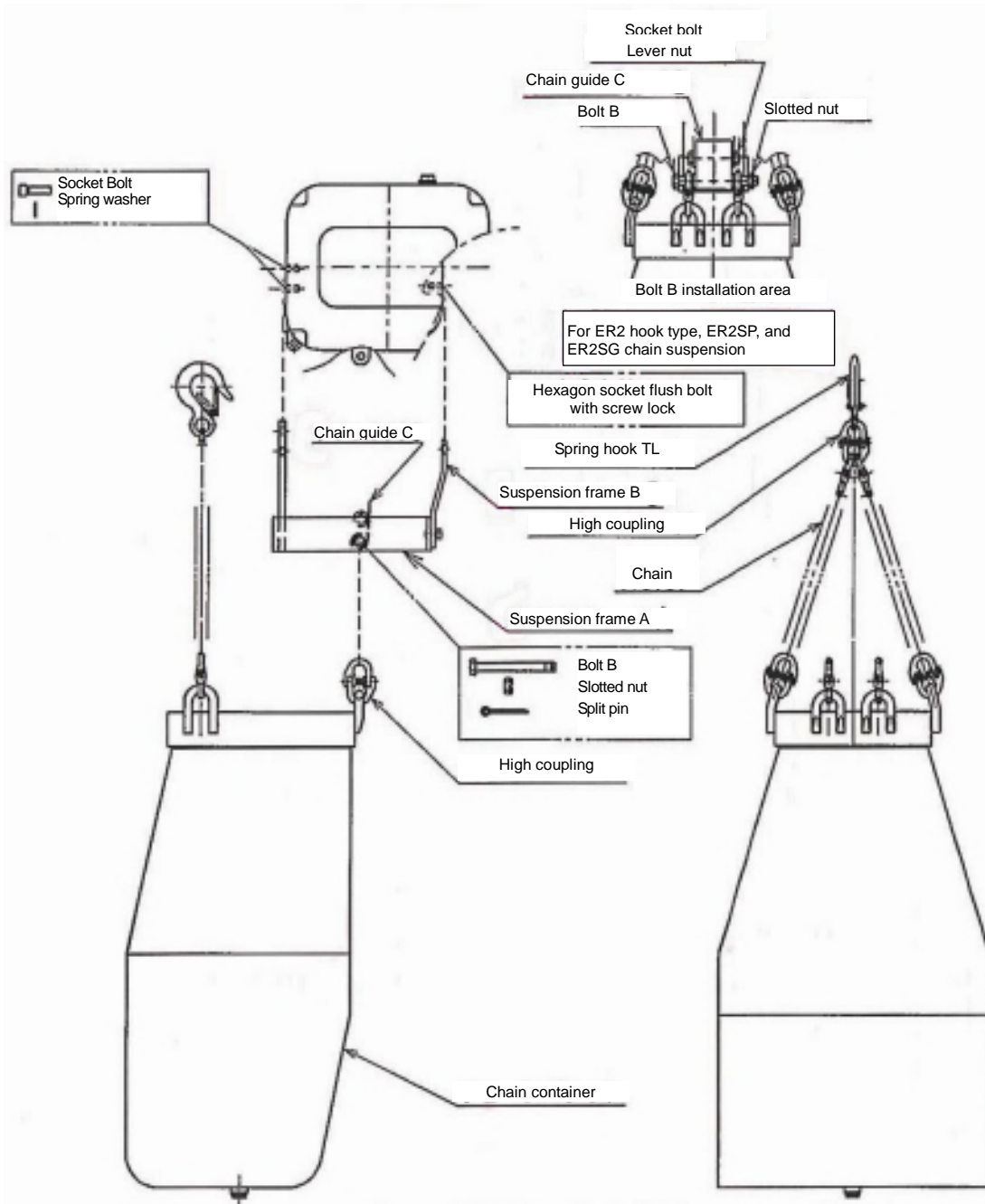
Chain size: $\varnothing 10.2 \times 38.1\text{m}$ or more, $\varnothing 11.2 \times 32.1\text{m}$ or more.



- Fasten the hoist frame firmly with the socket bolt and the hexagon socket flush bolt.
- Fasten the chain container firmly with the bolt B, collar B, slotted nut and split pin.

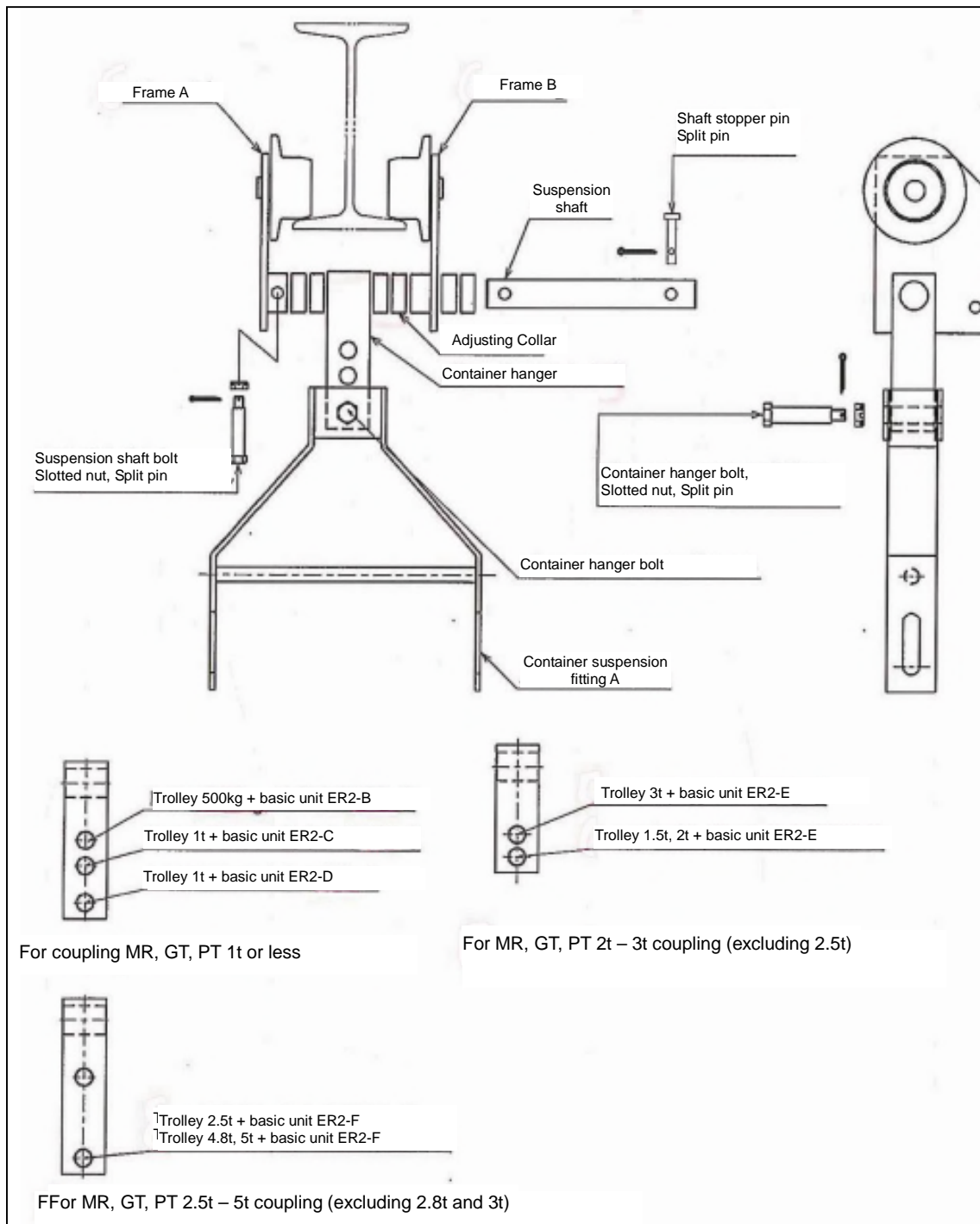
Hook Type Chain Suspension type Basic Unit ER2-E, F

Chain size: $\varnothing 10.2 \times 38.1\text{m}$ or more, $\varnothing 11.2 \times 32.1\text{m}$



- Fasten the suspension frame to the chain hoist firmly with the socket bolt and the hexagon socket flush bolt.
- Fasten the chain container firmly with the bolt B, collar B, slotted nut and split pin.

4. 2-track Roller Trolley Assembly for KC Type and 2-track Roller Chain Hoisting Type



- The bucket hanger has two or three holes for the connection of bucket suspension fittings. Use the appropriate hanger as required for the rated load.
- The suspension shaft is available in three sizes (standard, 200mm and 300mm) depending upon the width of the suspension shaft. Specify it upon ordering.
- Refer to the Table 1 and 2 for the adjustment of the width of the rail.
- Assemble the units correctly in accordance with the arrangement shown above.

Table 1. Adjusting spacers arrangement of 2-wheel chain suspension for KC type with MR or GT or PT

Bam flange width		(in)	Number of Adjusting Sppacer																									
			standard range																	W30 range								
		(mm)	$2\frac{1}{2}$ $2\frac{5}{8}$	$2\frac{1}{2}$ $2\frac{5}{8}$	3	$3\frac{1}{4}$	$3\frac{9}{16}$	$3\frac{7}{8}$	$3\frac{15}{16}$	4	$4\frac{3}{16}$	$4\frac{15}{16}$	$4\frac{7}{16}$	$4\frac{11}{16}$ $4\frac{3}{4}$	$4\frac{15}{16}$	5	$5\frac{3}{16}$	$5\frac{5}{16}$	$5\frac{3}{8}$	$5\frac{5}{8}$	$5\frac{7}{8}$ $5\frac{15}{16}$	6	$6\frac{1}{8}$	$6\frac{5}{16}$	$6\frac{7}{16}$	$6\frac{11}{16}$	$6\frac{7}{8}$	7
Capacity	Parts	(mm)	64 66	73 74	75 76	82	90 91	98	100	102	106	110	113	119 120	125	127	131	135	137	143	149 150	153	155	160	163	170	175	178
MR 1t	Thin spacer	Inner	0+0	1+1	2+2	3+3	0+0	1+1	2+2	2+2	3+3	3+3	0+0	1+1	2+2	2+2	3+3	3+3	0+0	1+1	2+2	2+2	3+3	3+3	0+0	1+1	2+2	2+2
		Outer	7	5	4	2	7	5	4	3	2	1	8	6	4	3	2	1	8	6	4	3	5	4	11	9	7	6
	Thick spacer	Inner	0+0	0+0	0+0	0+0	1+1	1+1	1+1	1+1	1+1	1+1	1+1	2+2	2+2	2+2	2+2	2+2	3+3	3+3	3+3	3+3	3+3	3+3	4+4	4+4	4+4	4+4
		Outer	8	8	8	8	6	6	6	6	6	6	6	4	4	4	4	4	4	2	2	2	2	11	11	9	9	9
MR 1.5t~5t	Thin spacer	Inner	0+0	1+1	2+2	3+3	0+0	1+1	2+2	2+2	3+3	3+3	0+0	1+1	2+2	2+2	3+3	3+3	0+0	1+1	2+2	2+2	3+3	3+3	0+0	1+1	2+2	2+2
		Outer	7	5	4	2	7	5	4	3	2	1	8	6	4	3	2	1	8	6	4	3	2	1	8	6	4	3
	Thick spacer	Inner	0+0	0+0	0+0	0+0	1+1	1+1	1+1	1+1	1+1	1+1	1+1	2+2	2+2	2+2	2+2	2+2	3+3	3+3	3+3	3+3	3+3	3+3	4+4	4+4	4+4	4+4
		Outer	8	8	8	8	6	6	6	6	6	6	6	4	4	4	4	4	4	2	2	2	2	2	2	0	0	0

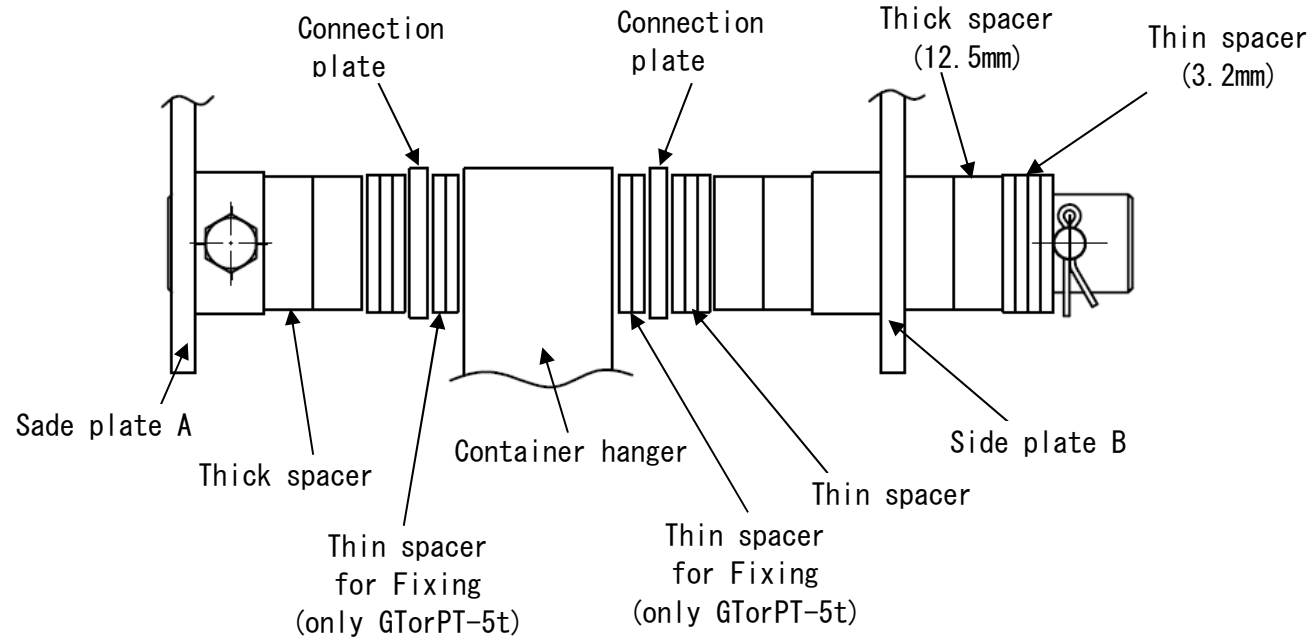
Bam flange width		(in)	Number of Adjusting Sppacer																							
			W30 range																							
		(mm)	$7\frac{1}{16}$ $7\frac{1}{8}$	$7\frac{1}{4}$ $7\frac{5}{16}$	$7\frac{7}{8}$	8	$8\frac{7}{16}$	$8\frac{11}{16}$	9	$9\frac{1}{8}$	$9\frac{7}{8}$	10	$10\frac{1}{8}$	$10\frac{1}{4}$	$10\frac{3}{8}$	$10\frac{1}{2}$	11	$11\frac{1}{8}$	$11\frac{1}{4}$	$11\frac{3}{8}$	$11\frac{5}{8}$	$11\frac{3}{4}$	$11\frac{13}{16}$	$11\frac{7}{8}$	12	
Capacity	Parts	(mm)	180 181	184 185	200	203	215	220	229	232	250	254	257	260	264	267	279	283	286	289	295	298	300	302	305	
MR 1t~5t	Thin spacer	Inner	3+3	4+4	2+2	2+2	4+4	5+5	3+3	3+3	2+2	3+3	3+3	0+0	0+0	5+5	3+3	3+3	4+4	4+4	1+5	2+6	2+6	2+6	3+7	
		Outer	5	3	7	6	2	1	5	4	6	5	4	11	10	1	5	4	3	2	4	3	2	2	1	
	Thick spacer	Inner	4+4	4+4	5+5	5+5	5+5	5+5	6+6	6+6	7+7	7+7	7+7	8+8	8+8	8+8	8+8	8+8	8+8	8+8	8+8	9+8	9+8	9+8	9+8	9+8
		Outer	9	9	7	7	7	7	5	5	3	3	3	1	1	1	1	1	1	1	1	0	0	0	0	0

2) Adjustment of trolley width

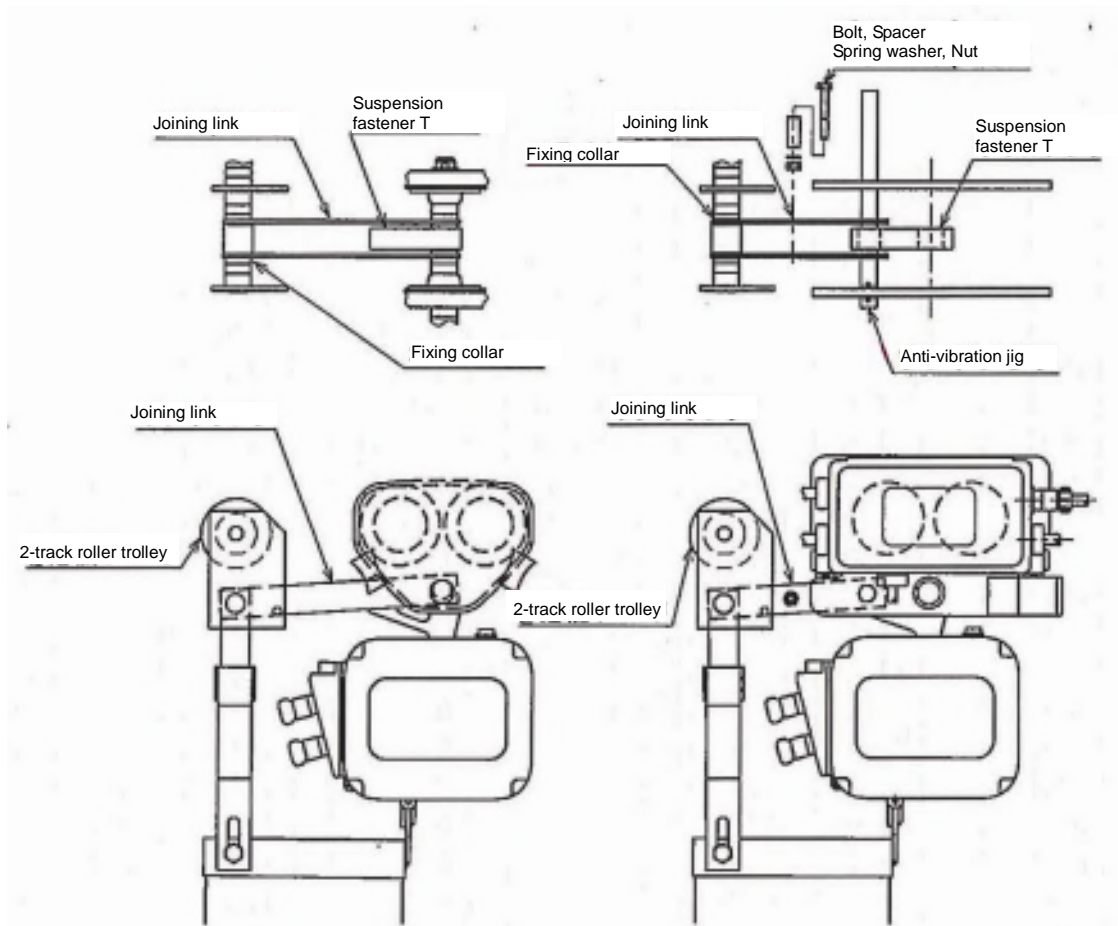
Adjust the dimensions by appropriately increasing or decreasing the number of adjusting spacers shown in the above table.

number of inner or outer adjusting spacers, without strictly adhering to the

3) Example of spacers arrangement.



5. Notes for use of KC type with a trolley



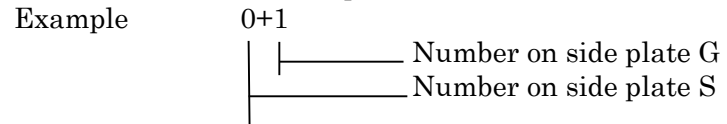
- The joining link, fixing collars, and spacer are enclosed in your package as the standard accessory parts of the steel chain container.
- Assemble KC type hoist in accordance with the drawings above.
- Adjust the width of rail on the basis of the Table 2. However, the width of rail for MR trolley shall be adjusted in accordance with the figures indicated in the standard instruction manual.

Table 2. Adjusting spacers arrangement for KC type with GT or PT

		Number of Adjusting Spacer																										
Bam flange width	(in)	2 ^{1/2} 2 ^{5/8}	2 ^{1/2} 2 ^{5/8}	3	3 ^{1/4}	3 ^{9/16}	3 ^{7/8}	3 ^{15/16}	4	4 ^{3/16}	4 ^{15/16}	4 ^{7/16}	4 ^{11/16} 4 ^{3/4}	4 ^{15/16}	5	5 ^{3/16}	5 ^{5/16}	5 ^{3/8}	5 ^{5/8}	5 ^{7/8} 5 ^{15/16}	6	6 ^{1/8}	6 ^{5/16}	6 ^{7/16}	6 ^{11/16}	6 ^{7/8}	7	
Capacity	Parts	(mm) 64 66	73 74	75 76	82	90 91	98	100	102	106	110	113	119 120	125	127	131	135	137	143	149 150	153	155	160	163	170	175	178	
1t	Thin spacer	Inner	0+0	1+1	2+2	3+3	0+0	1+1	2+2	2+2	3+3	3+3	4+4	1+1	2+2	2+2	3+3	3+3	4+4	5+5	2+2	3+3	3+3	4+4	5+5	2+2	2+2	
		Outer	8	6	5	3	8	6	5	4	3	2	1	7	5	4	7	6	5	3	9	8	7	6	5	3	9	8
	Thick spacer	Inner	0+0	0+0	0+0	0+0	1+1	1+1	1+1	1+1	1+1	1+1	1+1	2+2	2+2	2+2	2+2	2+2	2+2	2+2	3+3	3+3	3+3	3+3	3+3	3+3	4+4	4+4
1.5t~2t	Thin spacer	Inner				1+1	2+2	3+3	0+0	0+0	1+1	1+1	2+2	3+3	0+0	0+0	1+1	1+1	2+2	3+3	0+4	0+4	0+0	1+1	2+2	3+3	0+0	0+0
		Outer				6	4	2	9	8	7	6	5	3	9	8	7	6	5	3	5	4	11	9	8	6	12	11
	Thick spacer	Inner				0+0	0+0	0+0	1+1	1+1	1+1	1+1	1+1	2+2	2+2	2+2	2+2	2+2	2+2	3+2	3+2	3+3	3+3	3+3	3+3	4+4	4+4	
2.5t~3t	Thin spacer	Inner				3+3	4+4	1+1	2+2	2+2	3+3	3+3	4+4	5+5	2+2	2+2	3+3	3+3	4+4	5+5	2+6	2+6	3+3	3+3	4+4	5+5	2+2	2+2
		Outer				7	4	10	9	8	7	6	5	3	9	8	7	6	5	3	5	4	7	6	5	3	9	8
	Thick spacer	Inner				1+1	1+1	2+2	2+2	2+2	2+2	2+2	2+2	3+3	3+3	3+3	3+3	3+3	4+3	4+3	4+4	4+4	4+4	4+4	4+4	5+5	5+5	
5t	Thin spacer	Inner							0+0	1+1	1+1	2+2	3+3	0+0	0+0	1+1	1+1	2+2	3+3	0+0	0+0	1+1	1+1	2+2	3+3	4+4	4+4	
		Outer							7	6	5	4	2	8	7	6	5	4	2	8	7	6	5	4	2	4	3	
	Thick spacer	Inner							0+0	0+0	0+0	0+0	0+0	1+1	1+1	1+1	1+1	1+1	1+1	2+2	2+2	2+2	2+2	2+2	2+2	2+2		
5t	Thin spacer	Inner							5	5	5	5	5	3	3	3	3	3	3	1	1	1	1	1	1	0	0	
		Outer							5	5	5	5	5	3	3	3	3	3	3	1	1	1	1	1	1	0	0	

		Number of Adjusting Spacer																							
Bam flange width	(in)	7 ^{1/16} 7 ^{1/8}	7 ^{1/4} 7 ^{9/16}	7 ^{7/8}	8	8 ^{7/16}	8 ^{11/16}	9	9 ^{1/8}	9 ^{7/8}	10	10 ^{1/8}	10 ^{1/4}	10 ^{3/8}	10 ^{1/2}	11	11 ^{1/8}	11 ^{1/4}	11 ^{3/8}	11 ^{5/8}	11 ^{3/4}	11 ^{13/16}	11 ^{7/8}	12	
Capacity	Parts	(mm) 180 181	184 185	200	203	215	220	229	232	250	254	257	260	264	267	279	283	286	289	295	298	300	302	305	
1t	Thin spacer	Inner	3+3	3+3	6+6	6+6	5+5	5+5	7+7	3+3	2+2	3+3	3+3	4+4	4+4	5+5	7+7	3+3	4+4	4+4	5+5	6+6	6+6	7+7	3+7
		Outer	7	6	1	0	4	3	0	7	9	8	7	6	5	4	0	7	6	5	3	2	1	0	3
	Thick spacer	Inner	4+4	4+4	4+4	4+4	5+5	5+5	5+5	6+6	7+7	7+7	7+7	7+7	7+7	7+7	7+7	8+8	8+8	8+8	8+8	8+8	8+8	8+8	8+8
1.5t~2t	Thin spacer	Inner	1+1	1+1	3+3	4+4	2+2	3+3	4+4	5+5	3+3	4+4	4+4	5+5	5+5	2+2	2+2	1+1	1+1	2+2	2+2	3+3	3+3	4+4	4+4
		Outer	10	9	5	4	7	6	3	2	5	4	3	2	1	8	7	10	9	8	7	6	5	4	3
	Thick spacer	Inner	4+4	4+4	4+4	4+4	5+5	5+5	5+5	5+5	6+6	6+6	6+6	6+6	6+6	7+7	7+7	8+8	8+8	8+8	8+8	8+8	8+8	8+8	8+8
2.5t~3t	Thin spacer	Inner	3+3	3+3	2+2	2+2	4+4	5+5	6+6	3+3	2+2	2+2	3+3	3+3	4+4	4+4	6+6	3+3	3+3	4+4	5+5	5+5	6+6	6+6	3+7
		Outer	7	6	9	8	4	3	0	7	9	8	7	6	5	4	0	7	6	5	3	2	1	0	3
	Thick spacer	Inner	5+5	5+5	6+6	6+6	6+6	6+6	6+6	7+7	8+8	8+8	8+8	8+8	8+8	8+8	8+8	9+9	9+9	9+9	9+9	9+9	9+9	9+9	10+9
5t	Thin spacer	Inner	1+1	1+1	0+0	0+0	2+2	3+3	0+0	1+1	0+0	0+0	1+1	1+1	2+2	2+2	0+0	1+1	1+1	2+2	3+3	3+3	4+4	0+4	1+5
		Outer	6	5	8	7	3	2	7	6	8	7	6	5	4	3	7	6	5	4	2	1	0	3	2
	Thick spacer	Inner	3+3	3+3	4+4	4+4	4+4	4+4	5+5	5+5	6+6	6+6	6+6	6+6	6+6	6+6	7+7	7+7	7+7	7+7	7+7	7+7	7+7	7+7	8+7
5t	Thin spacer	Inner	1+1	1+1	0+0	0+0	2+2	3+3	0+0	1+1	0+0	0+0	1+1	1+1	2+2	2+2	0+0	1+1	1+1	2+2	3+3	3+3	4+4	0+4	1+5
		Outer	6	5	8	7	3	2	7	6	8	7	6	5	4	3	7	6	5	4	2	1	0	3	2
	Thick spacer	Inner	3+3	3+3	4+4	4+4	4+4	4+4	5+5	5+5	6+6	6+6	6+6	6+6	6+6	6+6	7+7	7+7	7+7	7+7	7+7	7+7	7+7	7+7	8+7
5t	Thin spacer	Inner	1+1	1+1	0+0	0+0	2+2	3+3	0+0	1+1	0+0	0+0	1+1	1+1	2+2	2+2	0+0	1+1	1+1	2+2	3+3	3+3	4+4	0+4	1+5
		Outer	6	5	8	7	3	2	7	6	8	7	6	5	4	3	7	6	5	4	2	1	0	3	2
	Thick spacer	Inner	3+3	3+3	4+4	4+4	4+4	4+4	5+5	5+5	6+6	6+6	6+6	6+6	6+6	6+6	7+7	7+7	7+7	7+7	7+7	7+7	7+7	7+7	8+7
5t	Thin spacer	Inner	1+1	1+1	0+0	0+0	2+2	3+3	0+0	1+1	0+0	0+0	1+1	1+1	2+2	2+2	0+0	1+1	1+1	2+2	3+3	3+3	4+4	0+4	1+5
		Outer	6	5	8	7	3	2	7	6	8	7	6	5	4	3	7	6	5	4	2	1	0	3	2
	Thick spacer	Inner	3+3	3+3	4+4	4+4	4+4	4+4	5+5	5+5	6+6	6+6	6+6	6+6	6+6	6+6	7+7	7+7	7+7	7+7	7+7	7+7	7+7	7+7	8+7
5t	Thin spacer	Inner	1+1	1+1	0+0	0+0	2+2	3+3	0+0	1+1	0+0	0+0	1+1	1+1	2+2	2+2	0+0	1+1	1+1	2+2	3+3	3+3	4+4	0+4	1+5
		Outer	6	5	8	7	3	2	7	6	8	7	6	5	4	3	7	6	5	4	2	1	0	3	2
	Thick spacer	Inner	3+3	3+3	4+4	4+4	4+4	4+4	5+5	5+5	6+6	6+6	6+6	6+6	6+6	6+6	7+7	7+7	7+7	7+7	7+7	7+7	7+7	7+7	8+7
5t	Thin spacer	Inner	1+1	1+1	0+0	0+0	2+2	3+3	0+0	1+1	0+0	0+0	1+1	1+1	2+2	2+2	0+0	1+1	1+1	2+2	3+3	3+3	4+4	0+4	1+5
		Outer	6	5	8	7	3	2	7	6	8	7	6	5	4	3	7	6	5	4	2	1	0	3	2
	Thick spacer	Inner	3+3	3+3	4+4	4+4	4+4	4+4	5+5	5+5	6+6	6+6	6+6	6+6	6+6	6+6	7+7	7+7	7+7	7+7	7+7	7+7	7+7	7+7	8+7
5t	Thin spacer	Inner	1+1	1+1	0+0	0+0	2+2	3+3	0+0	1+1	0+0	0+0	1+1	1+1	2+2	2+2	0+0	1+1	1+1	2+2	3+3	3+3	4+4	0+4	1+5
		Outer	6	5	8	7	3	2	7	6	8	7	6	5	4	3	7	6	5	4	2	1	0	3	2
	Thick spacer	Inner	3+3	3+3	4+4	4+4	4+4	4+4	5+5	5+5	6+6	6+6	6+6	6+6	6+6	6+6	7+7	7+7	7+7	7+7	7+7	7+7	7+7	7+7	8+7
5t	Thin spacer	Inner	1+1	1+1	0+0	0+0	2+2	3+3	0+0	1+1	0+0	0+0	1+1	1+1	2+2	2+2	0+0	1+1	1+1	2+2	3+3	3+3	4+4	0+4	1+5
		Outer	6	5	8	7	3	2	7	6	8	7	6	5	4	3	7	6	5	4	2	1	0	3	2
	Thick spacer	Inner	3+3	3+3	4+4	4+4	4+4	4+4	5+5	5+5	6+6	6+6	6+6	6+6	6+6	6+6	7+7	7+7	7+7	7+7	7+7	7+7	7+7	7+7	8+7
5t	Thin spacer	Inner	1+1	1+1	0+0	0+0	2+2	3+3	0+0	1+1	0+0	0+0	1+1	1+1	2+2	2+2	0+0	1+1	1+1	2+2	3+3	3+3	4+4	0+4	1+5
		Outer	6	5	8	7	3	2	7	6	8	7	6	5	4	3	7	6	5	4	2	1	0	3	2
	Thick spacer	Inner	3+3	3+3	4+4	4+4	4+4	4+4	5+5	5															

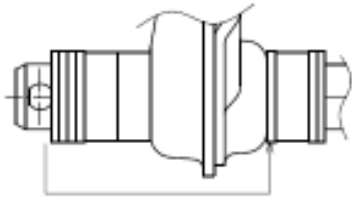
- 1) Take note of the numbers on spacers of inner side as follows.



- 2) Adjustment of trolley width

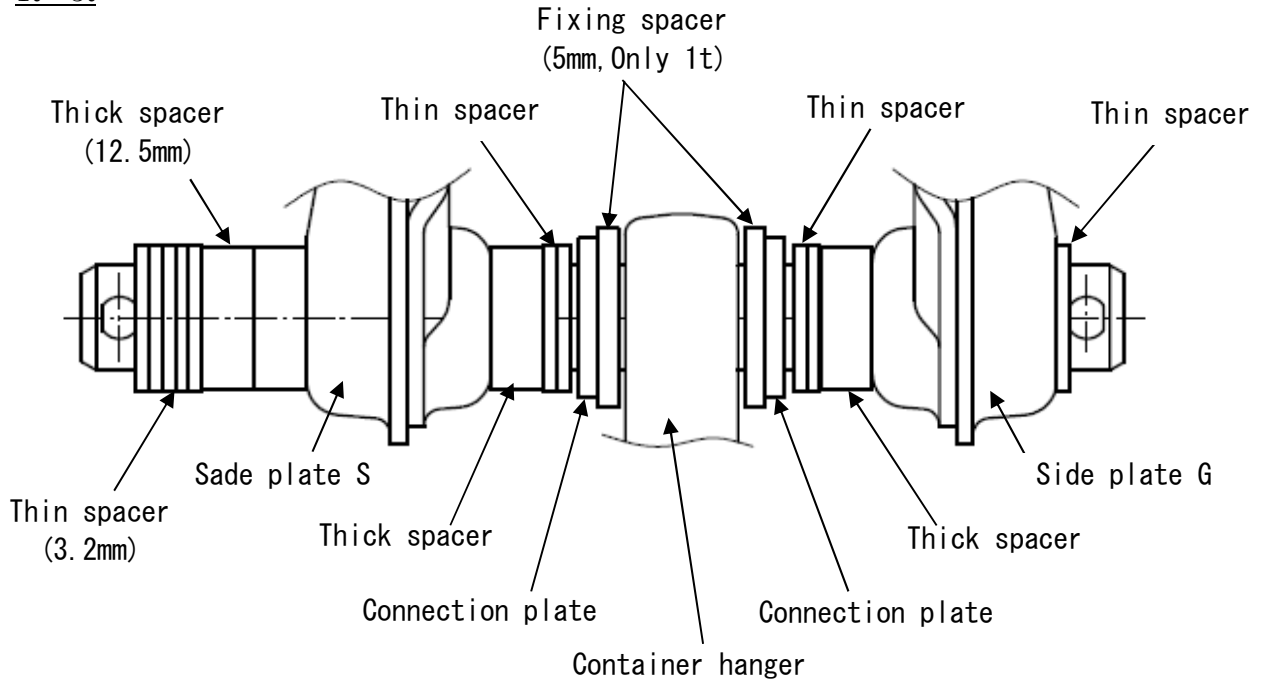
Adjust the dimensions by appropriately increasing or decreasing the number of inner or outer adjusting spacers, without strictly adhering to the number of adjusting spacers shown in the above table.

- 3) When using an I beam, install it on the outside (right edge). When using an H beam, install it on the inside (between frame S and the collar)

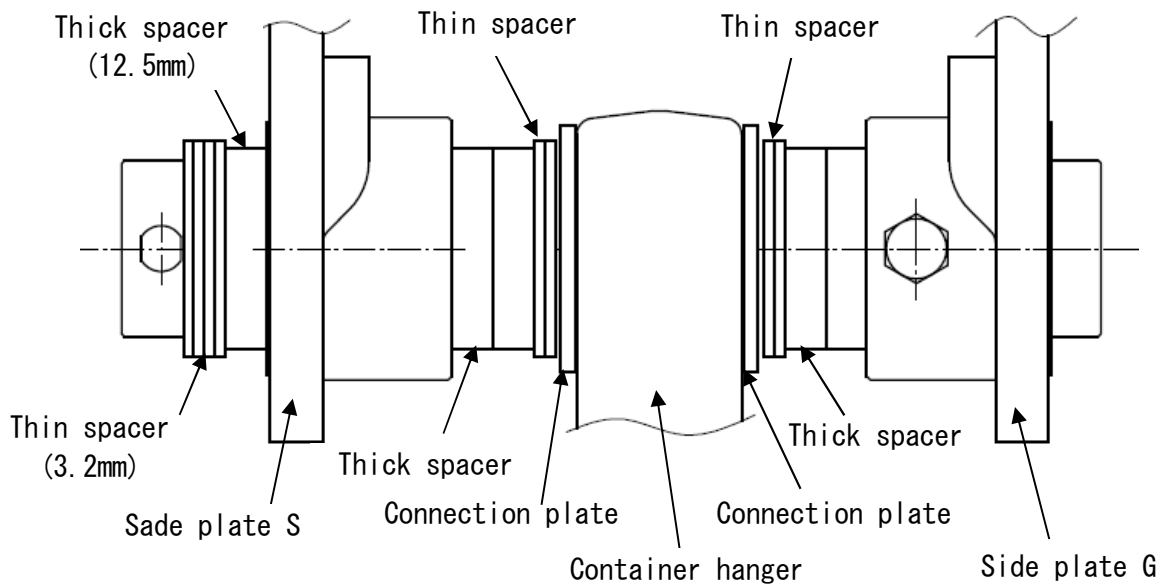


- 4) Example of spacers arrangement.

1t~3t



5t



6. Post-installation Checks



CAUTION

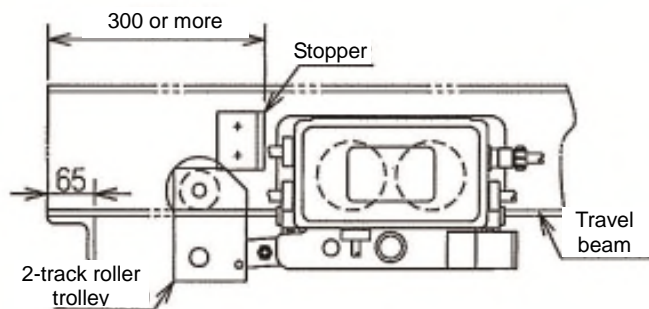
- Check that installation is secure at the installation openings on the container and container suspension fastener. Otherwise, the container may be damaged or the chain may spill from the container.
- Check that the installation of slotted nuts and split pins has not been forgotten.



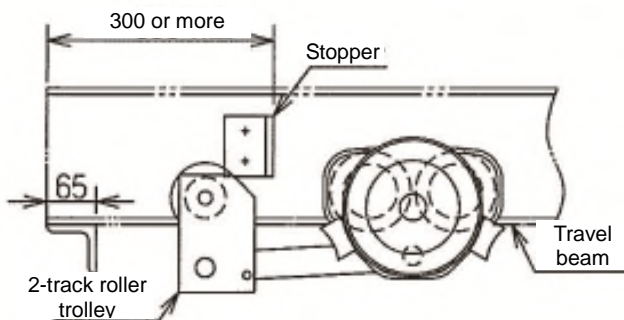
DANGER

- Be sure to use the number of adjustment collars specified in Tables 1, 2, and 3. If the specified number of collars is not used, the trolley could fall or run off the track.

7. Installing a Rail End Stopper



- When using a 2-track roller trolley with a KC type steel chain container, install the stopper in a position as shown in the figure to the left so that it securely receives the trolley car (the trolley frame when using GT or PT) while also not coming into contact with the 2-track roller.



8. Cautionary Information



CAUTION

Errors in handling this equipment could result in serious injury or death.

Pay careful attention to the following points.

- Hoisting at an angle is strictly prohibited. When hoisting loads, be sure to stand directly below the chain hoist.
- When using the equipment outdoors, rainwater may enter the container. Remove the oil plug to drain water as necessary.
- Refer to and carefully read the ER2 Series Electric Chain Hoist Instructions Manual for more information.

