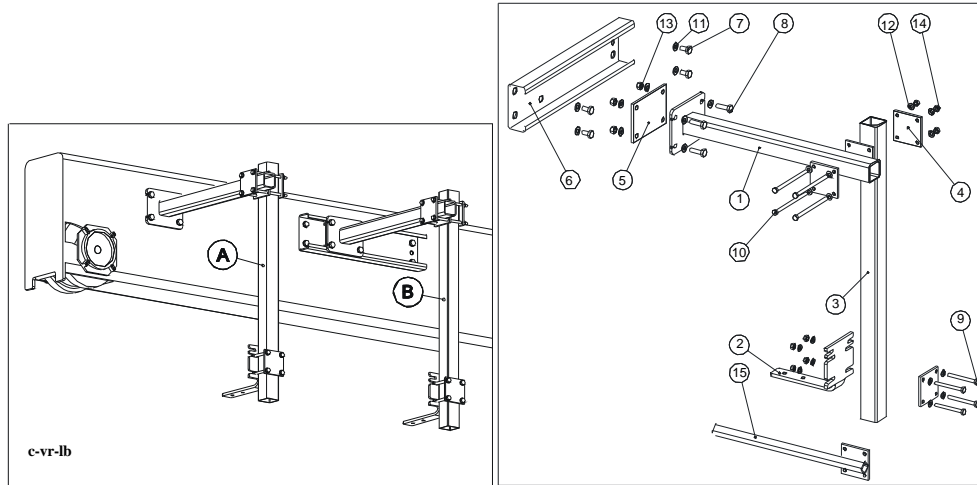




R&M Materials Handling, Inc.
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4 Crane towing arm assembly

4.1 Crane Towing Arm



Pos.	Name	Specification	Fixing variation	Amount
1	Towing arm	CQW-L558	A & B	1
2	Towing arm	CQP-L195W120H135	A & B	1
3	Tube	CQ-L1500W50H50T2	A & B	1
4	Fixing Plate	CQP-L80W80H6	A & B	4
5	Fixing Plate (option)	CQP-L150W105H6	B	1
6	C-Profile (option)	CQP-L500W50H120	B	1
7	Screw	DIN933-M10x20-8.8-A3G	A & B	4
8	Screw	DIN933-M10x35-8.8-A3G	B	4
9	Screw	DIN931-M8x80-8.8-A3G	A & B	4
10	Screw	DIN931-M8x140-8.8-A3G	A & B	4
11	Washer	DIN125-A10-A3G	A / B	4 / 12
12	Washer	DIN125-A8-A3G	A & B	16
13	Nut	DIN985-M10-8-A3G	B	4
14	Nut	DIN985-M8-8-A3G	A & B	8
15	Towing arm (option)*	CQP-L440W41H80	A & B	1

A) Fixing variation with direct connection to end carriage. When conductor rail power supply type is used either part number 2 or its fixing parts won't be needed. It will not matter to the place of the end carriage where the towing arm is attached if the power supply is flat cable- or the conductor rail type. The cranes towing arm is fixed by the part number 7 to the end carriage.

B) Variation with the optional fixing part (part number 6).

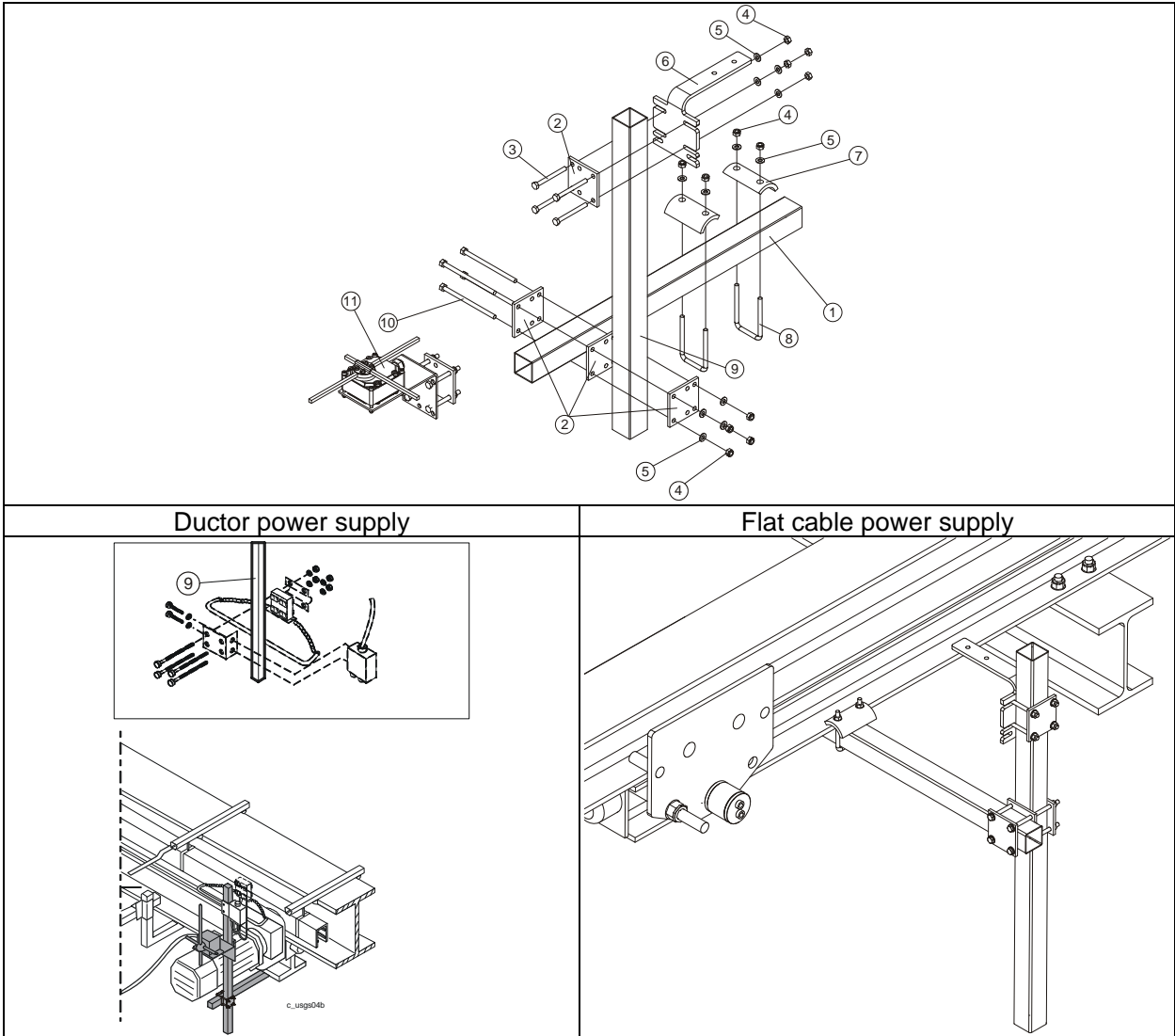
- If necessary cut off excess length of square tubes.
- There will be several attaching possibilities in the end carriage for the towing arm. Choose the best suited for the case.
- Notice the differences between variations in the part list.

* For assembly use either Towing arm part no 2 or 15 (alternative parts).



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4.2 Crane Towing Arm, 8 wheels end carriage and I-beam frame



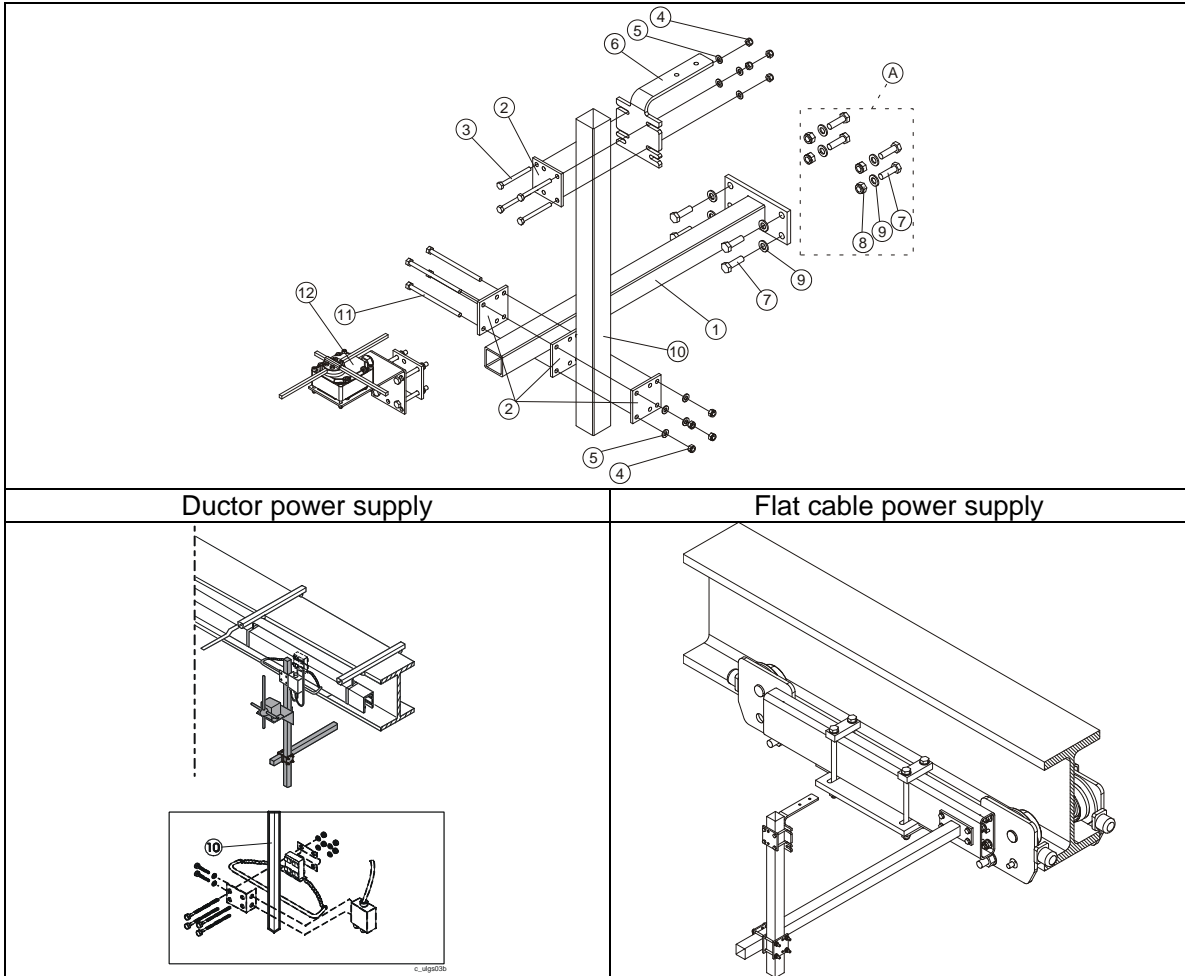
Pos.	Name	Specification	Fixing variation	Amount
1	Bar	CQ-L1200		1
2	Fixing plate	CQP-L80W80H6		4
3	Screw	DIN931-M8X80-8.8-A3G		4
4	Nut	DIN985-M8-8-A3G		12
5	Washer	DIN125-A8-A3G		20
6	Towing arm	CQP-L195W120H135		1
7	Girder clamp	CQ-W58H100T8		2
8	U-bolt	CQ-L280D8		2
9	Tube	CQ-L1500W50H50T2		1
10	Screw	DIN931-M8X140-8.8-A3G		4
11	Limit switch (option)			1

- If necessary cut off excess length of square tubes.



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4.3 Crane Towing Arm, 4 wheels end carriage and 8 wheels end carriage with Hat-profile



A. Alternative assembly

Pos.	Name	Specification	Fixing variation	Amount
1	Bar	CQ-L1200		1
2	Fixing plate	CQP-L80W80H6		4
3	Screw	DIN931-M8X80-8.8-A3G		4
4	Nut	DIN985-M8-8-A3G		8
5	Washer	DIN125-A8-A3G		16
6	Towing arm	CQP-L195W120H135		1
7	Screw	DIN931-M12X40-8.8-A3G		4
8	Nut	DIN985-M12-8-A3G		4
9	Washer	DIN126-A12-A3G		4
10	Tube	CQ-L1500W50H50T2		1
11	Screw	DIN931-M8X140-8.8-A3G		4
12	Limit switch (option)			1

- If necessary cut off excess length of square tubes.