



TW SMK

Motor Crane

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Installation, Operation and Parts Manual



Read this entire manual carefully before installation or operation of the Motor Crane. Follow the instructions strictly.

Twin Busch GmbH | Amperestraße 1 | D-64625 Bensheim
Tel.: +49 (0) 6251-70585-0 | Fax: +49 (0) 6251-70585-29 | info@twinbusch.de

Instruction Manual

IMPORTANT

PLEASE READ THESE INSTRUCTIONS CAREFULLY. NOTE THE SAFETY INSTRUCTIONS AND WARNINGS. USE THE PRODUCT CORRECTLY AND WITH CARE FOR THE PURPOSE FOR WHICH IT IS INTENDED. FAILURE TO DO SO MAY CAUSE DAMAGE TO PROPERTY AND/OR SERIOUS PERSONAL INJURY. PLEASE KEEP THIS INSTRUCTION MANUAL SAFE FOR FUTURE USE.

1. SAFETY INSTRUCTIONS AND WARNINGS

- 1.1 Use a qualified person to keep the crane in good condition. Keep it clean for best and safest performance.
- 1.2 The maximum load is 0.5-2 tons at each specified boom position. **DO NOT** exceed the relative rated capacity at each boom position.
- 1.3 Use this crane for the purpose for which it is intended. **DO NOT** use it for any other purpose it is not designed to perform.
- 1.4 Keep children and unauthorized persons away from the work area.
- 1.5 Remove ill fitting clothing. Remove ties, watches, rings and other loose jewelry, and contain long hair.
- 1.6 Wear ANSI approved impact safety goggles when operating the crane.
- 1.7 Keep proper balance and footing, do not overreach and wear nonskid footwear.
- 1.8 Only use this crane on a surface that is stable, level, dry and not slippery, and capable of sustaining the load. Keep the surface clean, tidy and free from unrelated materials and ensure that there is adequate lighting.
- 1.9 Inspect the crane before each use. **DO NOT** use if bent, broken, cracked, leaking or otherwise damaged, any suspect parts are noted or it has been subjected to a shock load.
- 1.10 Check to ensure that all applicable bolts and nuts are firmly tightened.
- 1.11 Keep hands and feet away from moving parts at all times.
 - 1.11.1 If necessary to move the crane, move the crane **SLOWLY** and **CAREFULLY**.
- 1.12 The lifted load should immediately be transferred to an appropriate support device such as an engine stand.
- 1.13 **DO NOT** work under the lifted load.
- 1.14 **DO NOT** operate the crane when you are tired or under the influence of alcohol, drugs or any intoxicating medication.
- 1.15 **DO NOT** allow untrained persons to operate the crane.
- 1.16 **DO NOT** make any modifications to the crane.
- 1.17 **DO NOT** use brake fluid or any other improper fluid and avoid mixing different types of oil when adding hydraulic oil. Only a good quality hydraulic jack oil can be used.
- 1.18 **DO NOT** expose the crane to rain or any other kind of bad weather.
- 1.19 If the crane need repairing and/or there are any parts that need to be replaced, have it repaired by authorized technicians and only use the replacement parts supplied by the manufacturer.

WARNING: The warnings, cautions and instructions discussed in this instruction manual cannot cover all possible conditions and situations that may occur. It must be understood by the operator that common sense and caution are factors which cannot be built into this product, but must be supplied by the operator.

2. SPECIFICATIONS

Boom Length	Lifting Range	Rated Capacity
920 mm (36-7/32")	360-1660 mm (14-3/16"~65-11/32")	2 Ton
1090 mm (42-29/32")	220-1750 mm (8-21/32"~68-29/32")	1.5 Ton
1260 mm (49-19/32")	60-1830 mm (2-3/8"~72-1/32")	1 Ton
1430 mm (56-5/16")	0-1920 mm (0~75-19/32")	0.5 Ton

3. ASSEMBLY

For safety and ease of assembly, use 2 people to assemble the shop crane. Use the exploded drawing as your guide to assemble. Lay all parts and assemblies out in front of you before beginning.

The following procedure is recommended:

- 3.1 Fit two castors (06) to extension legs (12) using bolts (05), washers (04), lock washers (03) and nuts(02).
- 3.2 Attach two extension legs (12) to base frame (01) using pins (08) and R-pins (09).
- 3.3 Assemble the pulling handle (23) to the post (19) using bolts (05), lock washers (03) and washers (04).
- 3.4 Attach the post (19) to the base frame (01) using bolts (15), washers (14) and nuts (13).
- 3.5 Fit two supports (20) to the base frame (01) and post(19) using bolts (21), washers(16) and nuts(17).
- 3.6 Attach boom (24) to the post (19) using bolt (22), washer (16) and nut (17).
- 3.7 Fit the base of air jack (30) to post using bolt (18), washer (16) and nut (17), then fit the top of air jack to boom using bolt (25), washer (16) and nut (17).
- 3.8 Insert boom extension (26) into boom and secure it using bolt (15), washer (14) and nut (13).

4. BEFORE FIRST USE

- 4.1 Before first use of this product, pour a teaspoon of good quality, air tool lubricant into the supply inlet of the lift control valve, connect to air supply and operate for 3 seconds to evenly distribute lubricant.
- 4.2 Purge away air from the hydraulic system:
Manual operating system: open the release valve by turning it counterclockwise but not more than 1-1/2 turns and remove the oil filler plug (29), pump the pumping handle several times, then replace the air filler plug.
- 4.3 Test and inspect the crane, if there is any parts broken, stop using it, and contact your supplier immediately.

5. OPERATING INSTRUCTIONS

WARNING! Ensure that you read, understand and apply the safety instructions and warnings before use.

Note: An appropriate support device such as an engine stand should always be placed near the shop crane before working.

- 5.1 Adjust the boom extension to a weight limit position that exceeds the weight you will be lifting.
- 5.2 Move the crane so that the hook (29) is directly above the item to be lifted.
- 5.3 Securely attach the hook (29) to the item.
- 5.4 Use the pumping handle (32) to close the release valve firmly by turning it clockwise.
- 5.5 When the item being lifted has been lifted to the desired height, stop pumping.
- 5.6 If necessary to move the crane, lower the load to the lowest practical position and ensure the load is prevented from swing and inadvertently shifting. Move the crane **SLOWLY** and **CAREFULLY**.

Note: Lower the boom **SLOWLY** and **CAREFULLY** by turning the release valve counterclockwise in extremely small increments but never more than 1-1/2 turn.

WARNING! Avoid rolling the loaded shop crane. Move only on smooth, level and seamless surfaces.

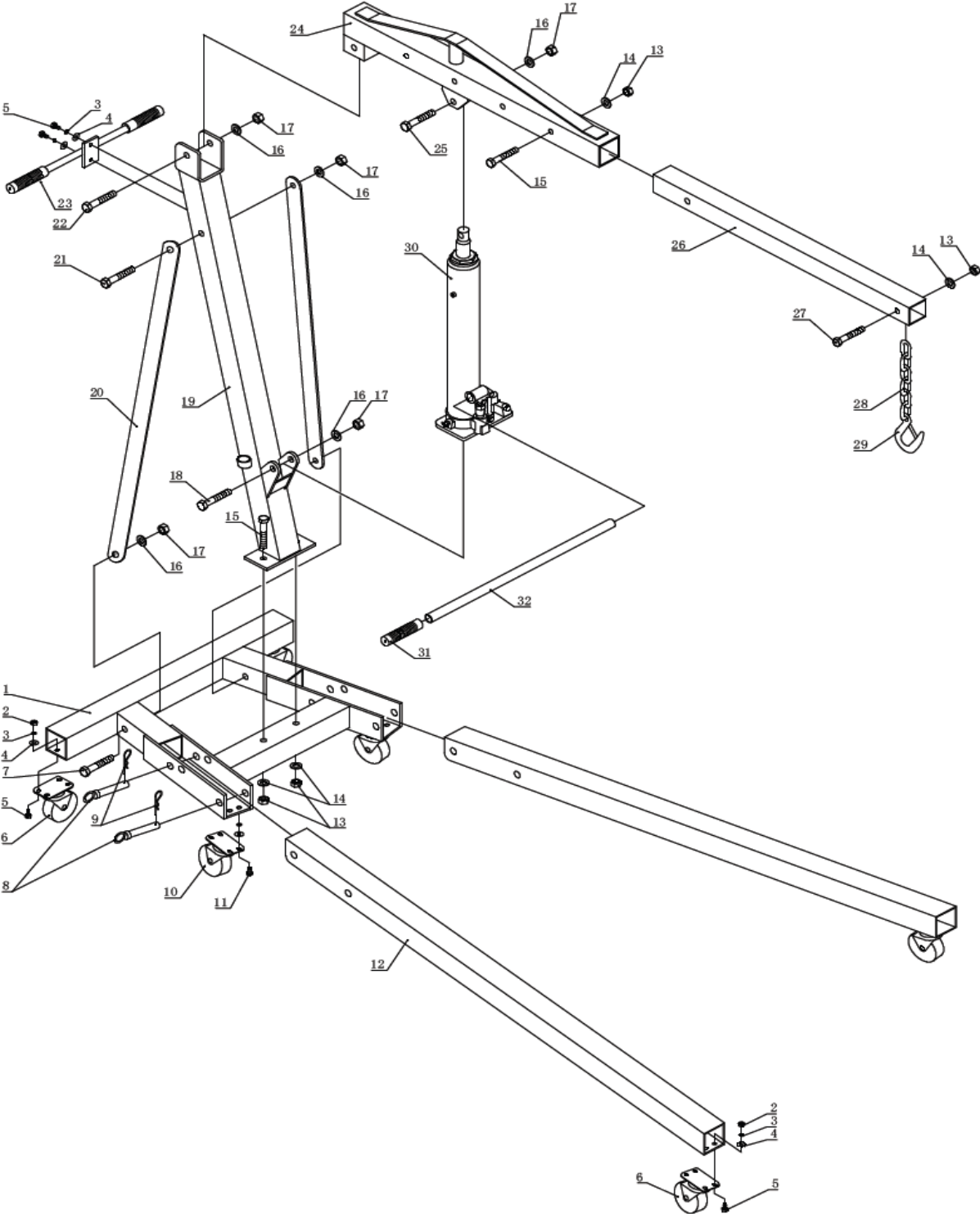
- 5.7 Transfer the lifted load immediately to the appropriate support device such as an engine stand.
- 5.8 When work is done, disconnect the air inlet fitting from the air source.

6. MAINTENANCE

- 6.1 Clean the outside of the crane with dry, clean and soft cloth and periodically lubricate the joints and all moving parts with a light oil as needed.
- 6.2 When not in use, store the crane in a dry location with ram and piston fully retracted.
- 6.3 When crane efficiency drops, purge the hydraulic system to eliminate any air in the system as described in section 4.2.
- 6.4 Check the hydraulic oil: remove the oil filler plug on the air jack, if it is not adequate, fill with high quality hydraulic jack oil to the lower rim of the fill hole, purge away air from the hydraulic system as described in 4.2, top off with more hydraulic oil, then replace the oil filler plug.
- 6.5 For best performance and longest life, replace the complete oil at least once a year: With the air jack fully lowered, carefully remove it from crane, remove the oil filler plug and drain the oil into a suitable container, then set the jack in an upright position, fill with high quality hydraulic oil to the lower rim of the fill hole, purge away air from the hydraulic system as described in 4.2, top off with more hydraulic oil, then replace the oil filler plug. Re-assemble the air jack to the crane as described in 3.7.

Note: Dispose of hydraulic oil in accordance with local regulations.

7. EXPLODED DRAWING AND PARTS LIST



Part No.	Description	Q'ty	Part No.	Description	Q'ty
1	Base Frame	1	17	Nut	6
2	Nut	16	18	Bolt	1
3	Lock Washer	26	19	Post	1
4	Washer	26	20	Support	2
5	Bolt	16	21	Bolt	1
6	Caster	4	22	Bolt	1
7	Bolt	2	23	Pulling Handle	1
8	Pin	4	24	Boom	1
9	R-pin	4	25	Bolt	1
10	Caster	2	26	Boom Extension	1
11	Bolt	8	27	Bolt	1
12	Extension Leg	2	28	Chain	1
13	Nut	4	29	Hook	1
14	Washer	4	30	Air Jack	1
15	Bolt	3	31	Handle Grip	1
16	Washer	6	32	Handle	1



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