

Item: T31002  
Capacity: 1 TON

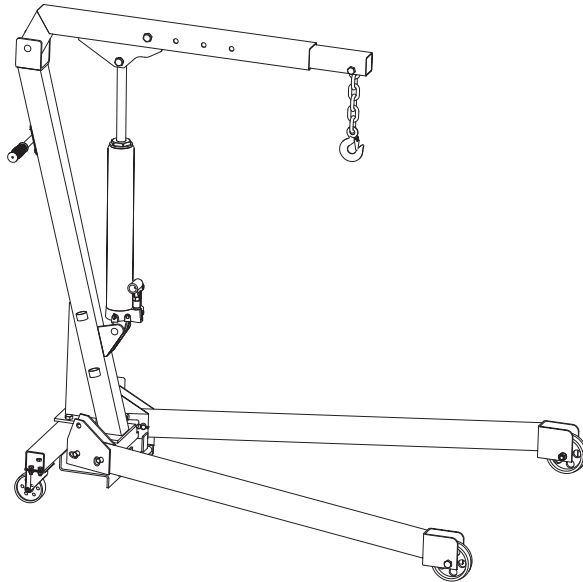
# 1 TON HYDRAULIC ENGINE CRANE

- (FR) GRUE POUR MOTEUR**
- (ES) ELEVADOR DE MOTORES**
- (DE) MOTORKRAN**
- (RU) ПОДЪЕМНИК ДЛЯ ДВИГАТЕЛЯ**

OWNER'S MANUAL



Manual & trouble shooting  
QR code



## **⚠ WARNING!**

Read carefully and understand all ASSEMBLY AND OPERATION INSTRUCTIONS before operating. Failure to follow the safety rules and other basic safety precautions may result in serious personal injury.

## SPECIFICATION

ITEM	CAPACITY	Min. Height(mm)	Max. Height(mm)	N.W.(kgs)
T31002	1 Ton	25	2250	69.5

## SPECIFI ACTION

Always use Engine Crane!

Always follow safety precautions when installing and operating this equipment. Keep all decals on the unit clean and visible.

Before proceeding ensure that you fully understand and comprehend the full contents of this manual. Failure to operate this equipment as directed may cause injury or death. The distributor is not responsible for any damages or injury caused by improper use or neglect.



### WARNING!

**DO NOT CLIMB, HANG OR SWING. MISUSE OF ENGINE CRANE COULD RESULT IN A FALL THAT MAY RESULT I SEVERE INJURY!**



**NO  
CLIMBING**



**KEEP OFF**

## INSPECTION

- Inspect the equipment carefully before each use. Ensure the equipment is not damaged, excessively worn, or missing parts.
- Do not use the equipment unless it is properly lubricated.
- Using equipment that is not in good clean working condition or properly lubricated may cause serious injury.
- Inspect the work area before each use. Make sure it is free and clear of any potential hazards.

**DO NOT OPERATE OR REPAIR THIS EQUIPMENT WITHOUT READING THIS MANUAL.**

To maintain the equipment and user safety, the responsibility of the owner is to read and follow these instructions.

- Inspect the equipment for proper operation and function.
- Keep instructions readily available for equipment operators.
- Make certain all equipment operators are properly trained; understand how to safely and correctly operate the unit.
- Allow unit operation only with all parts in place and operating properly.
- Use only genuine replacement parts.
- Service and maintain the unit only with authorized or approved replacement parts; negligence will make the equipment unsafe for use and void the warranty.
- Carefully inspect the unit on a regular basis and perform all maintenance as required.
- Store these instructions in the handle of your equipment.
- Keep all decals on the unit clean and visible.



### WARNING!

1. Study, understand, and follow all instructions before operating this device.
2. Do not exceed rated capacity.
3. Use only on hard, level surfaces, with less than 3 degrees of slope.
4. Before moving, lower the load to the lowest possible point.
5. Use only slings or chains with a rated capacity greater than the weight of the load being lifted.
6. Do not allow load to swing or drop violently while lowering or moving.
7. Center load prior to lifting.
8. No alterations shall be made to this product.
9. Make sure that boom is fully lowered before adding oil to unit reservoir.
10. Never use on a lawn mower or lawn tractor.
11. Do not rock the vehicle while working on or around equipment.
12. Equipment is design for lifting only, do not move or dolly crane when in use.
13. The following are not recommended for supporting on this equipment: Foundations, Homes, Mobile Homes, Trailers, RV's, Campers, nor Fifth Wheels, etc...
14. Do not use this crane for any use other than the manufacturer specified usage.
15. Failure to heed these markings may result in personal injury and/or property damage.

## ASSEMBLY INSTRUCTIONS

T31002

1. Attach the casters(No.14) to the Base(No.15) with bolts, washers, spring washers and nuts;without tightening the nuts.
  2. Slide the caster(No.14) which is connected to the base(No.15) along with the long holes.
  3. Slide the caster to the position that the holes of the caster is aligned with the holes of the base, then fix the casters(No.14) to the base with bolts, washers, spring washers and nuts, tighten all the four nuts.
  4. Connect another caster(No.14) on the base(No.15) with bolts, washers, spring washers and nuts.tighten all the four nuts.
  5. Slide legs(No.7、8) into front of the base(No.15).
  6. Lock legs(No.7、8) in place using the Ring Pins(No.13).To insert the Ring Pins, lift up on front of Base (No.15) until holes line up. After all four Ring Pins are inserted, insert one R-Pin (No.12) through small hole at end of each Ring Pin until it snaps into place.
  7. Use four Bolts(No.27) and Washers(No.28) to fasten the Handle(No.26) to the Post(No.18).
  8. Use the Bolts(No.16),Washers(No.11),and Nuts(No.6) to secure the bottom of the post(No.18) to the Base(No.15).
  9. Use the Bolt(No.29), Washer(No.19) and Nut(No.20) to attach the Boom(No.30) to the top of the post(No.18).
  - 10.Use a Bolt(No.17),Washer(No.19) and Nut(No.20) to attach lower end of the Jack(No.25) to the post(No.18) and another Bolt(No.31),Washer(No.19) and Nut(No.20) to attach the top of the Jack to the Boom(No.30).
  - 11.Slide the Boom Extension(No.32) into the Boom(No.30) and use the Bolt(No.16), Washer(No.11) and Nut(No.6) to secure at the desired load rating. Use the Bolt(No.33) , Washer(No.11) and Nut(No.6) to attach the Hook and Chain(No.34) to the end of the Boom Extension.
- (The boom has four different load ratings; select desired rating before use.)

## MAINTENANCE

Monthly maintenance is recommended.Lubrication is critical to jacks as they support heavy loads. Any restriction due to dirt, rust,etc.,can cause either slow movement or cause extremely rapid jerks,damaging the internal components.The following steps are designed to keep the jack well lubricated:

1. Lubricate the ram,linkages,saddle and pump mechanism with light oil.Grease wheel bearings and axles.
2. Visually inspect for cracked welds,bent,loose,missing parts or hydraulic oil leaks.
3. If jack is subjected to abnormal load or shock,remove from service and have it examined by a customer service representative prior to use.
4. Clean all surfaces and maintain all labels and warnings.
5. Check and maintain the ram oil level.
6. Check ram every 3 months for any sign of rust or corrosion.Clean as needed and wipe with an oil cloth.

When not in use, always leave the saddle and ram all the way down.  
Always store your jack in the fully lowered position. this will help protect critical areas from excessive corrosion.  
Do not use brake or transmission fluids or regular motor oil as they can damage the seals.Always purchase and use products labeled Hydraulic Jack Oil.

## TROUBLESHOOTING

JACK WILL NOT LIFT LOAD	JACK WILL NOT HOLD LOAD	JACK WILL NOT LOWER	POOR JACK LIFTING	WILL NOT LIFT TO FULL EXTENSION	CAUSES AND SOLUTIONS
<b>X</b>	<b>X</b>		<b>X</b>		Release valve is not completely closed (Turn handle clockwise).
<b>X</b>					Weight Capacity Exceeded.
<b>X</b>			<b>X</b>		Air is in the hydraulics. Purge air from system.
<b>X</b>	<b>X</b>		<b>X</b>	<b>X</b>	Low oil level. Add oil as required.
		<b>X</b>			Oil reservoir is overfilled. Drain excessive oil. Lubricate moving parts.
		<b>X</b>			Jack is binding or foreign obstruction
<b>X</b>	<b>X</b>		<b>X</b>		Power unit malfunctioning. Replace the power unit.

Safe Operating Temperature is between 40°F – 105°F (4°C - 41°C)

## MAINTENANCE INSTRUCTIONS

If you use and maintain your equipment properly, it will give you many years of service. Follow the maintenance instructions carefully to keep your equipment in good working condition. Never perform any maintenance on the equipment while it is under a load.

### Inspection

You should inspect the product for damage, wear, broken or missing parts (e.g.: pins) and that all components function before each use. Follow lubrication and storage instructions for optimum product performance.

### Binding

If the product binds while under a load, use equipment with equal or a larger load capacity to lower the load safely to the ground. After un-binding; clean, lubricate and test that equipment is working properly. Rusty components, dirt, or worn parts can be causes of binding. Clean and lubricate the equipment as indicated in the lubrication section. Test the equipment by lifting without a load. If the binding continues contact Customer Service.

### Cleaning

If the moving parts of the equipment are obstructed, use cleaning solvent or another good degreaser to clean the equipment. Remove any existing rust, with a penetrating lubricant.

### Lubrication

This equipment will not operate safely without proper lubrication. Using the equipment without proper lubrication will result in poor performance and damage to the equipment. Some parts in this equipment are not self-lubricating inspect the equipment before use and lubricate when necessary. After cleaning, lubricate the equipment using light penetrating oil, lubricating spray.

- Use a good lubricant on all moving parts.
- For light duty applications, use lubrication once a month.
- For heavy and constant application, weekly lubrication is recommended.
- NEVER USE SANDPAPER OR ABRASIVE MATERIAL ON THESE SURFACES!

### Rust Prevention:

-Check rams and pump plungers on the power unit assemblies daily for any signs of rust or corrosion.

Without a load, lift the equipment as high as it goes and look under and behind the lifting points. If signs of rust are visible, clean as needed.

### How the Long Ram Operates

With release valve closed, an upward stroke of the long ram handle draws oil from the reservoir tank into the plunger cavity. Hydraulic pressure holds the valve closed, which keeps the oil in the plunger cavity. A downward stroke of the long ram handle releases oil into the cylinder, which forces the ram out. This raises the hydraulic ram. When the ram reaches maximum extension, oil is bypassed back into the reservoir to prevent an over extended ram stroke and possible damage to the long ram. Opening the release valve allows oil to flow back into reservoir. This releases hydraulic pressure on the ram, which results in lowering the hydraulic ram.

### Storing the Crane

1. Lower the Lifting Arm.
2. Place the handle in the upright position.
3. Store in a dry location, recommended indoors.

Note: If the crane is stored outdoors, be sure to lubricate all parts before and after use to ensure the crane stays in good working condition.

## FACTORY PRODUCT

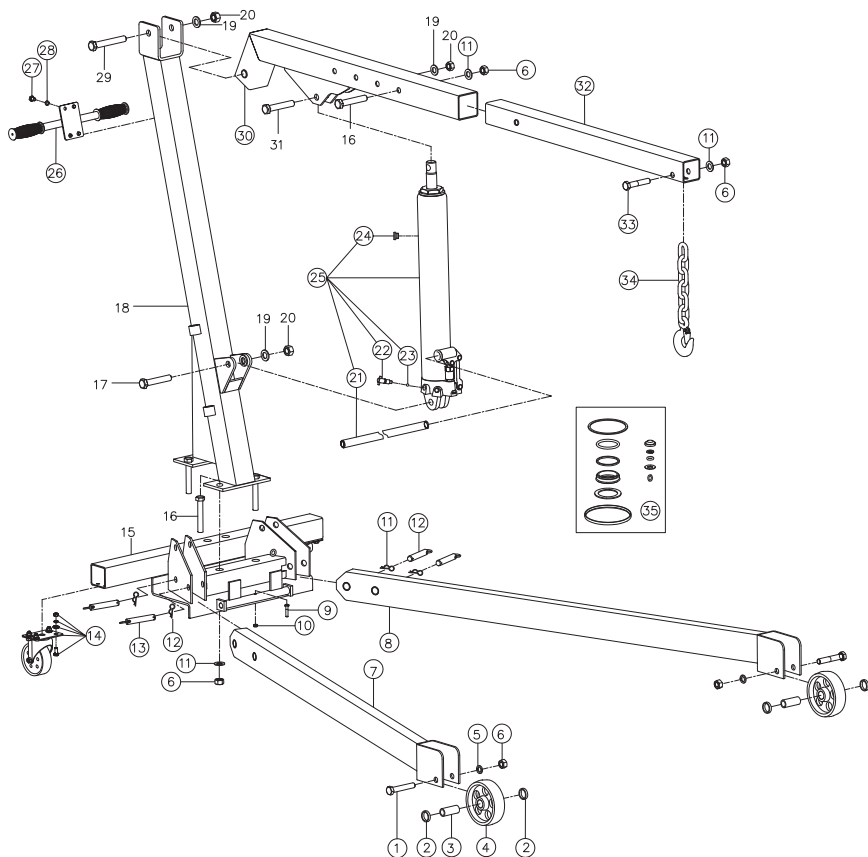
Any hydraulic jack found to be damaged in any way, is found to be worn or operates abnormally, believed to have subjected to an abnormal load, "SHALL BE REMOVED FROM SERVICE UNTIL REPAIRED". Owners and/or operators should be aware that repair of the equipment requires specialized knowledge and facilities.

Only factory authorized parts, labels and decals shall be used on this equipment.

Call customer service department

Annual inspection of the is recommended and should be made by the manufacturer's authorized repair facility to ensure that your jack is in optimum conditions and that the jack has correct decals and safety labels specified by the manufacturer.

# ASSEMBLY DIAGRAM



Ref.	Part#	Description	Qty
1	GB5782-M14X80	Hex head bolt M14X80mm(metric-class 8.8)	2
2	T31002-5	Steel retaining ring	4
3	T31002-4	Sleeve for front wheel	2
4	T31002-3	Front wheel	2
5	GB93-14	Spring washer M14	2
6	GB6170-M14	Nut M14	9
7	T31002.1	Right leg	1
8	T31002.2	Left Leg	1
9	GB5782-M6X30mm	Hex head bolt M6X30mm	1
10	GB6170-M6	Nut M6	1
11	GB95-14	Washer M14	7
12	T43007-3	Reusable cotter pin Ø1.8x36.8mm	4
13	T31002-1(ASM)	Slews pin Ø15x83mm	4
14	T32002.6(ASM)	Swivel caster assembly 3-1/2"	2
15	T31002.3	Frame base assembly	1
16	GB5782-M14x90	Hex head bolt M14x90( metric-class 8.8 )	6
17	GB5782-M16x90	Hex head bolt M16x90 (metric-class 8.8 )	1
18	T31002.4	Main post assembly	1

Ref.	Part#	Description	Qty
19	GB95-16	Washer M16	3
20	GB6170-M16	Nut M16	3
21	QYL3.2-23	Pump handle	1
22	QYL8-25A(ASM)	Release Valve assembly	1
23	GB308-6	Steel ball Ø6mm	1
24	T815016L.3-13(ASM)	Oil plug	1
25	T30306B.0	Power unit assembly	1
26	T32002C.8(ASM)	Pull handle	1
27	GB5781-M8X12	Hex head bolt M8x12mm	4
28	GB93-8	Spring washer M8	4
29	GB5782-M16x110	Hex head bolt M16x110mm(metric- class 8.8)	1
30	T31002.5	Main boom	1
31	GB5782-M16x65	Hex head bolt M16x65mm(metric-class 8.8)	1
32	T31002-2	Extend boom	1
33	GB5782-M14X75	Hex head bolt M14x75mm(metric-class 8.8)	1
34	T32002.5	Chain sling assembly	1
35	T30306B.MF	Seal Kit	1

**EU Declaration of Conformity** (Translation of the original EU Declaration of Conformity)

**We**

Changshu Tongrun Auto Accessory Co., Ltd  
New Longteng Industrial Park  
Changshu Economic Development Zone  
215500 Changshu City, Jiangsu Prov.  
PEOPLE'S REPUBLIC OF CHINA  
Tel: +86-512-52343388  
wangjf@tongrunjacks.com

**Declare under our sole responsibility that the follow product**

Equipment: Engine Crane

Model/type: T31002

**Is in conformity with the**

Machinery Directive (MD) 2006/42/EC

**And the following harmonized standards and technical specifications have been applied:**

EN 1494:2000+A1:2008

EN ISO 12100:2010

EN ISO 13857:2008

EN 349:1993+A1:2008

Changshu 30.03.2018

Manufacturer: Changshu Tongrun Auto Accessory Co., Ltd

*Wang Jingfang*

Jingfang Wang, Engineer (authorized to compile the Technical File)