



**CAGS25T**

**CAGS25TH**

HANDLEIDING - MODE D'EMPLOI - MANUAL

**CAGS25T** (754751227)  
**CAGS25TH** (754751225)

# **Garagestands Chandelles Jack stands Caballete gato**

- NL** P.02 Gelieve te lezen en voor later gebruik bewaren
- FR** P.03 Veuillez lire et conserver pour usage ultérieur
- EN** P.04 Please read and keep for future reference
- ES** P.05 Leer y guardar para posteriores consultas

## 1 Technische gegevens

Model	Capaciteit	Min. hoogte	Max. hoogte	Afmetingen basis
CAGS25T	25 t	415 mm	640 mm	330 x 330 mm
CAGS25TH	25 t	675 mm	1050 mm	330 x 330 mm

## 2 Veiligheid

Lees deze veiligheidsvoorschriften aandachtig voor het gebruik van de garagestands.

### **⚠ WAARSCHUWING!**

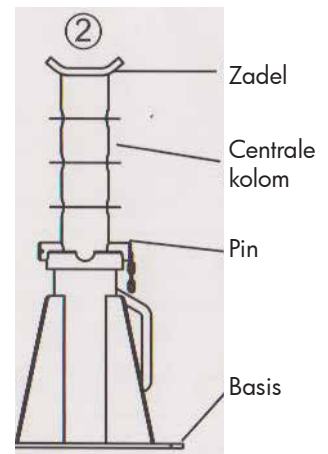
Het niet naleven van de veiligheidsvoorschriften kan het verlies van de lading veroorzaken, alsook schade aan de garagestands en/of het falen ervan, wat tot materiële of lichamelijke schade kan leiden.

### **⚠ WAARSCHUWINGEN!**

- Overschrijd in geen enkel geval de nominale capaciteit van de garagestands.
- Een overbelasting van de garagestands kan zware schade veroorzaken.
- Plaats de lading in het centrum van de zadel.
- Gebruik steeds de garagestands per paar, op een effen en harde oppervlak met een voldoende draagkracht.
- Het gebruik van de garagestands op een ongepaste grond kan deze onstabiel maken en de val van de lading veroorzaken.

## 3 Gebruik

1. Raadpleeg de handleiding van uw voertuig voor het opheffen ervan.
2. Zet de stands onder het voertuig, in de door de fabrikant voorziene plaatsen.
3. De garagestands instellen:
  - 1) Verwijder de pin en stel de stand op de gewenste hoogte in.
  - 2) Vergreiner de positie door de pin in te zetten.
4. Breng de lading voorzichtig op de garagestands.



## 4 Onderhoud en inspectie

1. Voer een zichtcontrole voor ieder gebruik van de garagestands, op eventuele scheuren, gebasten lasnaden, ontbrekende of defecte onderdelen. Een defecte stand moet onmiddellijk buiten gebruik gezet worden.
2. Veranderingen aan het product zijn strengst verboden, om ongelukken te voorkomen.

## 1 Données techniques

Modèle	Capacité	Hauteur min.	Hauteur max.	Dimensions base
CAGS25T	25 t	415 mm	640 mm	330 x 330 mm
CAGS25TH	25 t	675 mm	1050 mm	330 x 330 mm

## 2 Sécurité

Lisez attentivement ces consignes de sécurité avant utilisation.

### AVERTISSEMENT !

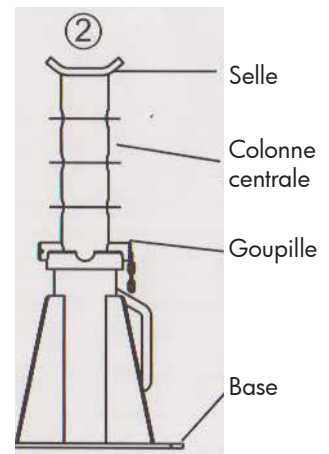
Le non respect des consignes de sécurité peut entraîner la chute de la charge, des dommages aux chandelles et/ou une défaillance de celle-ci, pouvant provoquer des dommages matériels ou corporels.

### AVERTISSEMENTS!

- Ne surchargez jamais les chandelles au-delà de leur capacité nominale.
- Une surcharge peut causer des dommages importants.
- Placez la charge bien au centre de la selle.
- Utilisez toujours les chandelles par paire, sur une surface plane et dure avec une capacité de charge suffisante.
- L'utilisation des chandelles sur un sol inadapté peut les rendre instables et provoquer la chute de la charge.

## 3 Utilisation

1. Consultez le manuel d'utilisation de votre véhicule pour le levage de celui-ci.
2. Placez les supports aux endroits prévus à cet effet sous votre véhicule et mentionnés par le fabricant.
3. Pour régler les chandelles:
  - 1) Enlevez la goupille et réglez les chandelles à la hauteur requise.
  - 2) Insérez la goupille pour bloquer la position.
4. Abaissez prudemment la charge sur les chandelles.



## 4 Entretien et inspection

1. Effectuez une inspection visuelle avant chaque utilisation des chandelles, pour contrôler s'il n'y pas de fêlures, de soudures fissurées, de pièces manquantes ou endommagées. Une chandelle défectueuse doit être immédiatement mise hors d'usage.
2. Pour éviter tout accident, il est strictement interdit d'apporter des modifications au produit.

## 1 Technical specifications

Model	Capacity	Min. height	Max. height	Base dimensions
CAGS25T	25 t	415 mm	640 mm	330 x 330 mm
CAGS25TH	25 t	675 mm	1050 mm	330 x 330 mm

## 2 Security

Read these safety warnings before operation.

### **WARNING !**

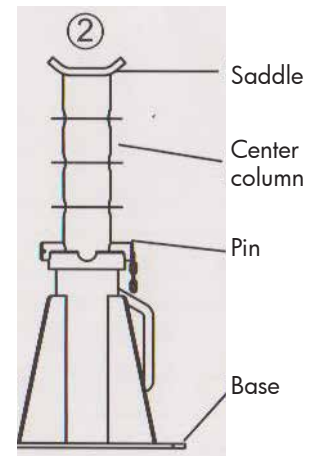
Failure to heed these warnings may result in loss of load, damage to jack stands, and/or jack stand failure resulting in personal injury or property damage.

### **WARNINGS !**

- Don't overload jack stands beyond rated capacity.
- Overloading can cause damage to or failure of the jack stands.
- Position load on center of saddle only.
- Always use stands in pairs on hard level surface capable of sustaining the load.
- Use of stands on other than hard level surfaces can result in stand instability and possible loss of load.

## 3 Operation

1. Refer to your vehicle owner's manual for proper jacking procedures.
2. Position stands under vehicle at points specified by vehicle manufacturer as proper load support points.
3. To adjust stands:
  - 1) Remove the pin and set the jack stand at the required height.
  - 2) Insert the pin to lock the position.
4. Carefully lower the load onto stands.



## 4 Maintenance and inspection

1. Visual inspection shall be made before each use of the stands, checking for cracks, cracked welds and missing and/or damaged parts. Any stand that appears to be damaged in any way shall be removed from service immediately.
2. Because of the potential hazards associated with the misuse of equipment of this type, no modifications shall be made to the product.

## 1 Especificaciones técnicas

Modelo	Capacidad	Altura mín.	Altura máx.	Dimensiones base
CAGS25T	25 t	415 mm	640 mm	330 x 330 mm
CAGS25TH	25 t	675 mm	1050 mm	330 x 330 mm

## 2 Seguridad

Lea las advertencias de seguridad del manual antes de su uso.

### ADVERTENCIA !

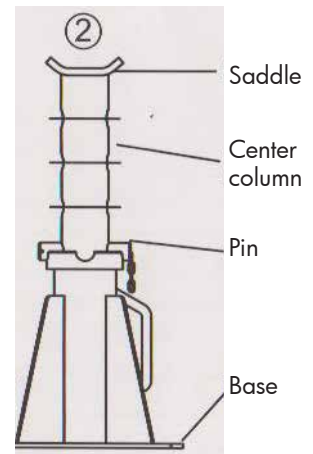
El incumplimiento de las advertencias puede dar lugar a la pérdida de la carga, dañar los soportes del gato y/o la insuficiencia del soporte puede causar daños personales o materiales.

### ADVERTENCIA !

- No sobrecargar el gato por encima de la capacidad nominal.
- La sobrecarga puede causar daños o fallos en el soporte del gato.
- Utilice siempre soportes pares en superficie dura capaz de soportar la carga.
- El uso de soportes en distinto nivel de superficies duras puede producir inestabilidad y posible pérdida de la carga.

## 3 Uso

1. Consulte el manual del propietario del vehículo para los procedimientos de apoyo adecuados para el gato
2. Coloque los soportes debajo del vehículo en los puntos especificados por el fabricante del vehículo como puntos apropiados de apoyo de carga
3. Para ajustar soportes:
  - 1) Quitar el pasador y ajustar el gato a la altura deseada.
  - 2) Inserte el pasador para fijar la posición.
4. Baje la carga cuidadosamente.



## 4 Mantenimiento e inspección

1. Se realizará una inspección visual antes de cada uso. Se comprobará que no hay fisuras, soldaduras agrietadas o desaparecidas y/o piezas dañadas. Cualquier soporte que parezca estar dañado, se retirará inmediatamente del servicio.
2. Debido a los riesgos potenciales asociados con el uso indebido, no se harán modificaciones al producto.

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迈吉国际贸易有限公司

**MAGILOAD INTERNATIONAL CORPORATION**

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200023 SHANGHAI, CHINA.

TEL: 021.53020599 FAX: 021.63014212

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## CERTIFICATE OF CORRESPONDENCE

IT'S HEREBY TO CERTIFY THAT THE BELOW VEHICLE SUPPORT STANDS WE  
SUPPLY WITH ASLAK ARE CORRESPONDENT TO THE MODELS ON THE  
CERTIFICATE:

CAGS25T = TZ250001

CAGS25TH = TZ250002

Yours faithfully  
MAGILOAD INT'L CORP.

*For and on behalf of*  
MAGILOAD INTERNATIONAL CORPORATION



.....  
*Authorized Signature(s)*

Zhou jian  
Managing director

23-NOV.-2016



QA-AC-2244/16

**QA TECHNICAL – ATTESTATION OF CONFORMITY**  
**2006/42/EC MACHINERY DIRECTIVE**

Changshu Tongrun Auto Accessory Co., Ltd.  
Changshu Economic Development Zone New Longteng Industrial Park,  
Changshu City, Jiangsu Prov.

Product (s) : Heavy-Duty Vehicle Support Stand

Product Type(s) / Model (s) : TZ100001, TZ100002, TZ150001, TZ150002, TZ200011,  
TZ200012, TZ250001, TZ250002, TRK60001

Applicable EC Directive (s) : 2006/42/EC

Standard (s) : EN 1494: 2000+A1: 2008; EN ISO 12100:2010

Test Report(s) and Date(s) : QA Testing Technology Co., Ltd.  
2016040502MD; 05.04.2016

*The Present certificate is valid just for the analysed product design. The certificate shall lose its validity in case of any changes in the product.*

*The CE mark as shown below can be used, under the responsibility of the manufacturer or the importer, after completion of an EC Declaration of Conformity and compliance with all relevant EC Directives.*

**CE**

**Certificate Issue Date:** 22.04.2016  
**Certificate Expiry Date:**22.04.2021

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BARBAROS MAH. AK ZAMBAK SOK.  
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Tel : 0216 572 49 10-11-12  
Fax : 0216 572 49 14  
[www.qatechnic.com](http://www.qatechnic.com)



**Begüm ADAKAN**  
Overseas Operation Manager



QA Testing Technology Co., Ltd

# TEST REPORT



**Technical files according to Machinery  
Directive 2006/42/EC**

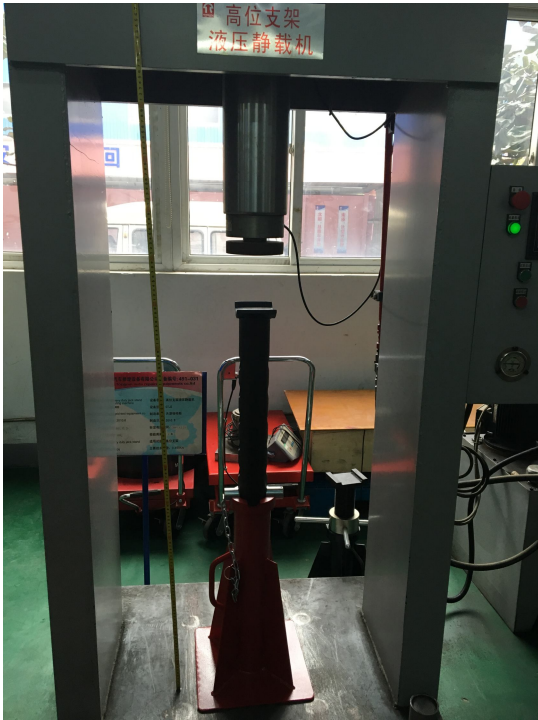
**Heavy-Duty Vehicle Support Stand**

**Type(s):** TZ100001\TZ100002\TZ150001\TZ150002\TZ200011\TZ200012\  
TZ250001\TZ250002\TRK60001

CHANGSHU TONGRUN AUTO ACCESSORY CO., LTD.  
NEW LONG TENG INDUSTRIAL PARK, CHANGSHU ECONOMIC DEVELOPMENT ZONE,  
CHANGSHU, JIANGSU, CHINA



# Photos of Hydraulic Jack









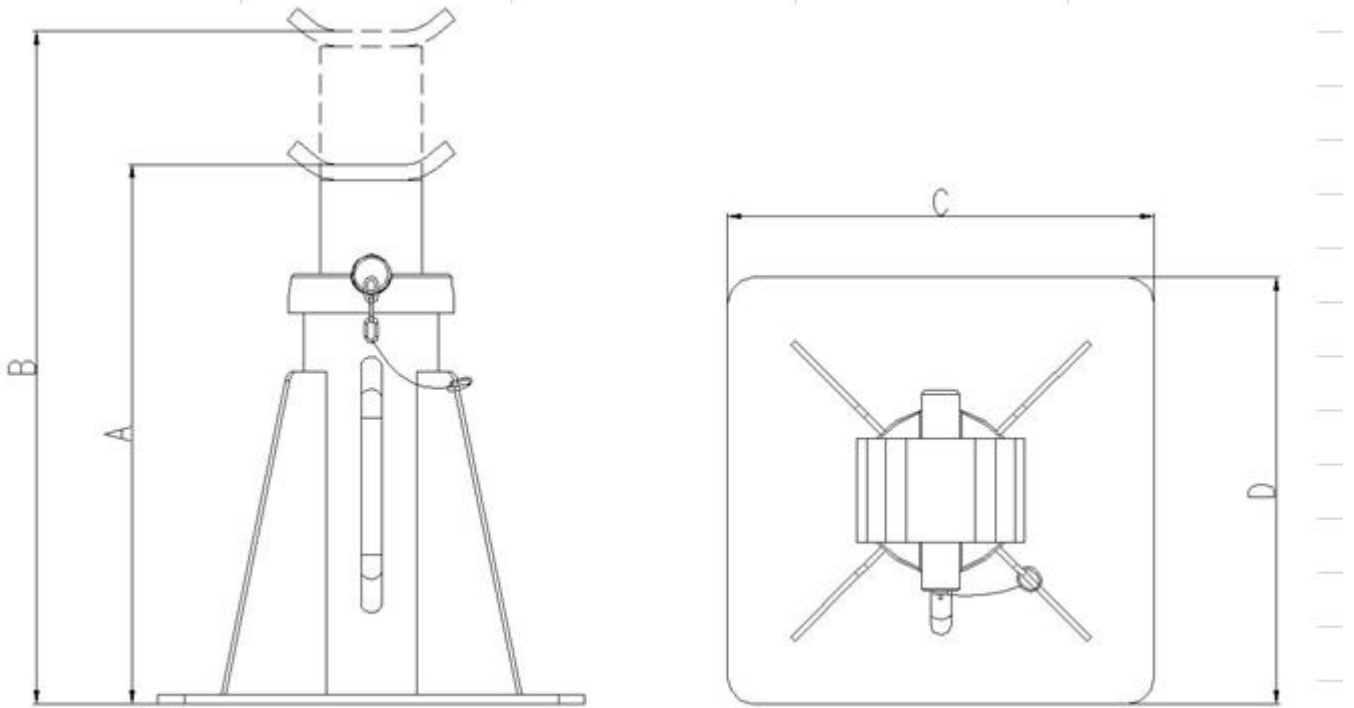
TRK60001



CHANGSHU TONGRUN AUTO ACCESSORY CO., LTD.

## PARAMETER

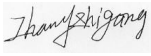

Model	Capacity	Minimum (A)	Highest (B)	C×D
TZ100001	10t	450	750	330×330
TZ100002	10t	650	1100	330×330
TZ150001	15t	450	750	330×330
TZ150002	15t	650	1100	330×330
TZ200011	20t	470	680	330×330
TZ200012	20t	680	1170	330×330
TZ250001	25t	415	640	330×330
TZ250002	25t	675	1050	330×330



## TEST REPORT

**EN1494: 2000+A1: 2008**

**Mobile or movable jacks and associated lifting equipment**

Report Reference No. ....: 2016040502MD  
Compiled by (+ signature).....:  2016.04.05  
Approved by (+ signature).....:  2016.04.05  
Date of issue .....: 2016-04-05

**Testing Laboratory name** .....: CARTER Testing Technology Co., Ltd  
Address .....: Room A05, 8F World Trade Center Building, NO.35  
Dongdu Road, Ningbo City, Zhejiang Province, China

**Client** .....: CHANGSHU TONGRUN AUTO ACCESSORY CO., LTD.  
Address .....: Changshu Economic Development Zone New Longteng  
Industrial Park, Changshu City, Jiangsu Prov.

### Test specification:

Standard .....: EN 1494: 2000+A1: 2008 ISO EN12100  
Test procedure .....: CE-MD  
Non-standard test methods..: N/A

**Test Report Form No.**.....: EN1494  
TRF Originator.....: CERTER  
Master TRF .....: Dated 2013-03  
**Test item description** .....: Hydraulic Jack

Trade Mark .....: /  
Model and/or type reference .....:  
TZ100001、TZ100002、TZ150001、TZ150002、Z200011、  
TZ200012、TZ250001、TZ250002、TRK60001  
Manufacturer .....: CHANGSHU TONGRUN AUTO ACCESSORY CO., LTD.

### Possible test case verdicts:

- test case does not apply to the test object .....: N/A  
- test object does meet the requirement .....: P(Pass)  
- test object does not meet the requirement.....: F(Fail)

**Testing** .....:  
Date of receipt of test item .....: 2016-03-22  
Date (s) of performance of tests .....:2016-03-22-2016-04-05

**General remarks:**

The test results presented in this report relate only to the object tested.  
This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory.  
"(see Enclosure #)" refers to additional information appended to the report.  
"(see appended table)" refers to a table appended to the report.  
Throughout this report a comma (point) is used as the decimal separator.

**Summary of testing:**

The summary of testing is according to EN1494: 2000+A1: 2008.

EN 1494: 2000+A1: 2008			
Clause	Requirement - Test	Result	Verdict
4	List of hazards		P
	<p>The list of hazards at table 1 are applicable in the situation described and could involve risk to persons if not reduced or eliminated.</p> <p>The corresponding requirements are designed to limit the risk or reduce these hazards in each situation.</p>	<p>Refer to the risk analysis report.</p> <p>file No.: JXHP-JACK-RISK</p>	P
5	Safety requirements		P
5.1	Braking device		P
5.1.1	<p>General</p> <p>Jacks shall be designed or equipped in a way that the load can be restrained and held. Unintentional descent shall be prevented.</p> <p>This requirement may be fulfilled e.g. by</p> <p>a) self-blocking drives for manual driven jacks and self-braking drives-for power driven jacks;</p> <p>b) automatic brakes;</p> <p>c) a load pressure brake in conjunction with a blocking device, e. g. automatically engaging pawls;</p> <p>d) non-return valves at the supporting cylinder.</p>		N/A
5.1.2	Dimensioning		N/A
	Braking mechanisms shall be constructed in a way that the forces generated during braking can be safely restrained by the jack in any position of the load carrying device.		N/A
5.1.3	Interruption of the power flow		P
	There shall be no device between the load carrying device and the braking device which the can interrupt the power flow.	Function checked.	P
5.1.4	Automatic operation		N/A
	Braking mechanisms shall operate automatically after the control device has returned to the „Off“ position or when the drive power is interrupted or when the mechanisms described in 5.4 and 5.5.2.2 have responded.		N/A
5.1.5	Alterations		N/A
	Braking mechanisms shall be designed in a way that the operator cannot alter their constructionally defined effect without the aid of tools.		N/A
5.2	Security against dropping		



EN 1494: 2000+A1: 2008			
Clause	Requirement - Test	Result	Verdict
	On manual driven hydraulic and pneumatic jacks it shall be possible for the operator to regulate the lowering speed or stop the lowering at any load up to the rated load.		N/A
5.3	Speeds		P
	The maximum admissible average speed of descend for a jack, loaded with the rated load, is 0,15 m/s.	Measured speed of descend: 0.12m/s.	P
5.4	Security against overloading		P
	Hydraulic and pneumatic jacks with a rated load of more than 100 kg and power driven mechanical jacks with a rated load of 1 000 kg at least shall be fitted with security devices against overloading. This requirement can be fulfilled e. g. by a) torque limiters; b) pressure relief valves; c) limitation of driving energy.		N/A
5.5	Transmission systems		P
5.5.1	Security of guides		—
	Jacks shall be so equipped that rackstrips, spindles or pistons cannot unintentionally loosen from their guides. This requirement shall be fulfilled in the case of cylinders if the piston is mechanically prevented from coming out of the cylinder.		N/A
5.5.2	End stops		P
5.5.2.1	Limitation of end positions		P
	Each end position of jacks shall be limited mechanically or hydraulically. The forces generated when reaching the end positions shall be absorbed safely by the jacks. It shall not be possible to put these end-stop mechanisms unintentionally out of action.	Function checked.	P
5.5.2.2	End-stop mechanism		P
	If power-driven jacks are provided with an automatic end-stop mechanism to limit the upwards and downwards travel the movement in the opposite direction shall still be possible when the automatic mechanism has responded. Such end-stop mechanisms may be e. g. a) end-stop switches fulfilling the requirements of chapter 3 of EN 60947-5-1:1997 which are fitted in such a way that overshoot is taken into account, or b) slip-clutches which are fitted to limit the working travel safely, or c) pressure relief valves which are fitted in hydraulic or pneumatic systems to limit the working travel.		N/A
5.5.2.3	Height adaption spindle		P

EN 1494: 2000+A1: 2008			
Clause	Requirement - Test	Result	Verdict
	Load carrying devices fitted with a height adaption spindle shall be provided with an automatic operating spindle travel stop which prevents turning out.	Without height adaption spindle.	N/A
5.5.3	Additional requirements for hydraulic jacks		N/A
5.5.3.1	Dimensioning		N/A
	Cylinders, pipes and their connections which can be exposed to the maximum pressure limited by the pressure relief valve shall resist at least 2 times this pressure without showing permanent deformations. Hoses and their connections shall be dimensioned to resist a bursting pressure that is at least 3 times the set pressure of the pressure relief valve.		N/A
5.5.3.2	Pressure relief valve		N/A
	A pressure relief valve shall be fitted between the pump and the non return valve. The adjustment of the pressure relief valve only shall be possible by means of tools and it shall be secured against unauthorized adjustment. The allowed tolerance of the adjustment is between 100 % and 125 % of the rated load. The pressure relief valve shall be adjusted to the lowest possible value.		N/A
5.5.3.3	Bleeding the hydraulic system		N/A
	In the hydraulic system means shall be provided to remove entrapped air.		N/A
5.5.3.4	Cleanliness of system medium		—
	Every refillable hydraulic system shall have adequate means (e.g. filters) to aid the proper and continued working of the safety devices.		N/A
5.5.3.5	Refilling hydraulic fluid		N/A
	Hydraulic jacks shall be provided with refilling openings to enable refilling without the spillage of hydraulic fluid.		N/A
5.5.3.6	Fluid tank		N/A
	To prevent gas cushion in the hydraulic cylinders the fluid tank shall contain the maximum displaced volume necessary to operate the cylinder at its full stroke, + 10 % at least.		P
5.5.3.7	Protection against escaping hydraulic fluid		N/A
	Apertures in jacks, e. g. those serving to limit the piston movement, and from which hydraulic fluid can escape during operation, shall be secured in such a way that persons cannot be injured by escaping hydraulic fluid.	Construction checked.	N/A
5.5.3.8	Allocation of hoses and pipes		N/A
	All connecting parts the failure of which can endanger persons by escaping hydraulic fluid shall be adequately covered.	No external connecting equipped.	N/A
5.5.4	Additional requirements for pneumatic jacks	Not pneumatic jacks.	N/A

EN 1494: 2000+A1: 2008			
Clause	Requirement - Test	Result	Verdict
5.6	Control devices		N/A
5.6.1	Hold to run control		N/A
	Control devices for setting power driven jacks in motion shall be of the hold-to-run type.	Not power driven jacks.	N/A
5.6.2	Unintentional operation		N/A
	Control devices for power driven jacks shall be protected against unintentional operation.	Not power driven jacks.	N/A
5.6.3	Identification		P
	The direction of movement caused by the control device shall be identified in a durable, unambiguous and easily recognisable manner. The direction of motion can be identified by symbols or words. The identification can be attached to the control device itself or immediately alongside it.	Yes.	P
5.6.4	Obviousness		N/A
	For power driven jacks and - wherever possible for manual driven jacks - the direction of operation of the controls and of the movements they cause shall be arranged in an obvious relationship to one another.	The direction is easy identification by the operator.	N/A
5.6.5	Visibility		P
	The operator's position shall give the operator a clear view of the hazardous parts of the jack and its load at all times through its vertical movement. If the operator's position is not determined by the manufacturer.	Yes.	P
5.6.6	Control devices of manually operated jacks		P
	Control devices of manually operated jacks shall be equipped in such a way that a) winding handles, levers, or wheels cannot turn back under load more than 15 cm, measured at the greatest radius of the control (reversal security). Reversal security shall not be necessary for hand-wheels if these take the form of complete smooth disc wheels shut and without any other handles; b) the direction of rotation of winding handles remains the same regardless of gearing, and c) removable winding handles, levers, and hand-wheels shall be secured against slipping and unintentional removal from the drive shaft. Requirement c) may be fulfilled e.g. – if securing mechanisms such as snap-in latches or locking springs are fitted or – for winding handles or levers up to a length of 250 mm if they can be pushed into their shafts at least to one-fifth of their own lengths	Method c) is used.	P
5.6.7	External power supply		N/A
	If an external power supply is used there shall be means to disconnect the power and to secure them against unallowed re-connection.	No external power supply.	N/A

EN 1494: 2000+A1: 2008			
Clause	Requirement - Test	Result	Verdict
5.7	Combined manual and power-operated jacks	Not such jacks.	N/A
5.8	Requirements for safety mechanisms		P
5.8.1	Adjustments		P
	The braking device mentioned in 5.1, the security device against overloading mentioned in 5.4 and the reversal security device mentioned in 5.6.6 shall be designed and constructed in such a way that adjustment is impossible without the aid of tools.	Removable winding handles is used.	P
5.8.2	Materials		N/A
	Ratchet pawls, fixing wheels, and similar locking mechanisms shall be so constructed that neither a breakage after a period of time or through brittleness need be feared nor plastic deformations occur by reason of the toughness of the material used.		N/A
5.8.3	Effects of weather and dirt		P
	The safety devices on jacks shall be constructed and fitted in such a way that they cannot be put out of action by the effects of the weather or by dirt when used as intended by the manufacturer. This requirement may be fulfilled e. g. by a) encapsulating; b) choice of material; c) design.	Use endurance materials and painted on the out surface of the jacks.	P
5.8.4	Breakage of springs		N/A
	Failure of a spring shall not make safety devices inoperative.	No springs equipped.	N/A
5.9	Lift pad		P
	The lift pad shall have a rough surface or be designed in such a way to counteract any tendency of the load to slip off. By design the projection of the lift pad shall always be within the tipping lines of the jack. This requirement does not apply to claws at the side of the jack.		P
5.10	Structural design		P
	All manual operated mechanical jacks defined within the scope of this standard shall be designed to withstand at least 150 % of the rated load in all critical modes at ambient temperature without showing permanent deformation of any part. For all other jacks the same requirement is valid with the exception that 150 % of the maximum possible load shall be taken into consideration.	150 % of the rated load applied to each jacks, no deformation of any part found.	P
5.11	Climatic conditions		P
	The jacks shall be designed to work at rated load in a temperature range of -20 °C to +50 °C.	All jacks can operated under - 20 °C to +50 °C.	P
5.12	Hot surfaces		

EN 1494: 2000+A1: 2008			
Clause	Requirement - Test	Result	Verdict
	If any parts of the driving system (e. g. hydraulic tanks, motors etc.) are designed to operate at a high temperature of above 55 °C, these parts shall be protected or positioned to avoid contact of persons.	No surface temperature will above 55°C when in operation.	N/A
5.13	Forces		N/A
	Maximum admissible forces for operating and translating the jack and methods to measure it see Annex C.	Manual operated jacks.	N/A
5.14	Protection against pinching and shearing		N/A
	Generally pinching and shearing shall be avoided by minimum gaps according to EN 349 and EN 811 between moving parts and between moving and fixed parts. As an alternative to these minimum gaps other safety measures can be taken to avoid the operator or any other persons being endangered, e. g. screens, barriers, deflectors, non-mechanically actuated trip devices complying with EN 61496-1:1997, mechanically actuated trip systems complying with category 1 of EN 954-1:1996, multiple controls requiring simultaneous operation. Some of these examples will not be sufficient by themselves in particular cases.	Manual operated jacks.	N/A
5.15	Electricity		N/A
	If an electrical power supply is used it shall conform to EN 60204-32.	No electric circuit.	N/A
5.16	Transport and installation equipment		P
	Movable jacks shall be so equipped that they can be transported and set up or fixed safely. The requirement that jacks can be transported safely shall be met if such devices with a weight of 10 kilos or more are provided with handles, carrying hooks, attachment loops or other means of attachment. The requirement shall also be met if the design of the jacks inherently guarantees safe handling and transport.		N/A
5.17	Provisions for maintenance		P
5.17.1	Accessibility		P
	All bearing parts and all moving parts that require regular inspection shall be easily accessible.		P
5.17.2	Adjustment		P
	All screws, pins, bolts and similar parts shall have means for preventing self loosening. They shall allow adjustment if necessary.		P
5.18	Special requirements for hydraulic transmission jacks	Not such jacks.	N/A
5.19	Special requirements for trolley jacks		N/A
5.19.1	Guidance of the lift pad		N/A

EN 1494: 2000+A1: 2008			
Clause	Requirement - Test	Result	Verdict
	The lift pad shall remain horizontal throughout the travel of the lifting beam (see figure 4) and be free to rotate through 360° about a vertical axis.	Yes.	P
5.19.2	Lowering of the load		P
	The lift pad shall return to its lowest position with no load and with no form of activation other than the control device.	Yes.	P
5.20	Special requirements of pit jacks	Not such jacks.	N/A
5.21	Special requirements of jacks without integrated pump	Not such jacks.	N/A
6	Verification	See the Quality inspection report (file No.: 09-S-0005)	P
7	Information for use	See the manual instruction.	P
Annex A	Noise For most machinery dealt with in this standard noise is not considered to be a significant hazard. This does however not absolve manufacturers of machines of the responsibility to provide information about the noise emission in the information for use of the machine.	Meet the requirements	P
	The A-weighted, time averaged emission sound pressure level at the work station shall be measured according to EN ISO 11201 throughout one complete cycle (lifting from ground position to maximum height and then lowering to ground position) with the jack loaded with rated load. The position of the work station shall be defined in accordance with 11.5 of EN ISO 11201:1995. If this value does not exceed 70 dB(A) this fact shall be stated in the manual. If this value exceeds 70 dB(A), the value declared in accordance with EN ISO 4871, using the dual-number format, shall be specified in the manual.	Meet the requirements	P
Annex B	Test procedures		--
B.1	Practical tests for Type Testing Procedure		---
B.1.1	<b>General</b>		---
a	Check the correct operation of the controls;		P
b	Check that the safety devices are functioning as intended		P
c	Operate the unloaded jack through one complete cycle;	Meet the requirements	P
d	Place the rated load distributed as specified by the manufacturer on the jack and operate it through one complete cycle. Record the maximum operating pressure in steady state for hydraulic and pneumatic drives;	Meet the requirements	P
e	Record the time taken to fully lower the jack while carrying the rated load. The average speed shall not exceed 0,15 m/s;		P
f	Leave the jack, still carrying the rated load, fully raised for 10 min. Measure and record the vertical descend of the jack in this time. Generally this descend shall not exceed 2 mm. On hydraulic jacks using mechanical linkages (e.g. trolley jacks) a maximum descend of 5 mm	Meet the requirements	P

	is admissible;		
g	<p>static overload</p> <p>Lift the lift pad without the load to half stroke position. Expose the jack positioned vertically to a vertical load of</p> <ul style="list-style-type: none"> <li>  150 % of the rated load in case of manual operated mechanical jacks</li> <li>  150 % of the maximum possible load in all other cases.</li> </ul> <p>Under this condition (height adaptation spindle turned to the highest position) it shall be possible to carry the load, to sustain it for a period of 15 minutes and to lower it.</p> <p>After this test the tested jack shall be dismantled to prove that no permanent deformation has occurred in any part.</p>	Meet the requirements	P
h	<p>dynamic overload</p> <p>For the following test the pressure relief valve of hydraulic and pneumatic jacks shall be neutralized.</p> <p>Position the jack vertically and apply a vertical load of</p> <ul style="list-style-type: none"> <li>  125 % of the rated load in case of manual operated mechanical jacks</li> <li>  125 % of the maximum possible load in all other cases.</li> </ul> <p>The jack shall then be capable of lifting and lowering this load through its entire stroke as for intended use.</p> <p>After this test the tested jack shall be dismantled to prove that no permanent Deformation has occurred in any part.</p>	Meet the requirements	P
i	<p>Manual forces;</p> <p>Manual forces shall be measured according to Annex C.</p>	Meet the requirements	P
j	<p>Over travel device;</p> <p>Operate the jack without load 10 times to the upper position until the over travel device is operating. No permanent deformation of any part is permissible.</p>	Meet the requirements	P
k	<p>Test the load limiting device;</p>		P
l	<p>Check satisfactory operation of braking or holding devices according to the design, where fitted.</p>	Meet the requirements	P
B.1.2	<p><b>Additional tests for hydraulic jacks</b></p>		---
	<p>All types of hydraulic jacks can exist in principle also as pneumatic jack. For the pneumatic jacks the same additional tests as stated in B.1.2 shall be performed.</p>	Meet the requirements	P
a	<p>Stati test</p> <p>Store the jack at an ambient temperature of + (23 + 5) °C for at least 12 hours. Then expose it to its maximum possible load at nominal full stroke specified by the manufacturer, for at least 30 minutes.</p> <p>Within that time, generally a maximum lift pad lowering movement of 2 mm is admissible. On hydraulic jacks using mechanical linkages (e.g. trolley jacks) a maximum descend of 5 mm is admissible. The measurement is to start 5 minutes after applying the load.</p> <p>If an auxiliary load point is fitted then the jack or cylinder shall be subjected additionally to the</p>	Meet the requirements	P

	above tests using the auxiliary load point to apply the load. Any lower maximum possible load of the auxiliary load point shall be used instead of the maximum maximum possible load to which it is attached.		
b	<p>Pressure relief valve</p> <p>Expose the jack to a load according to the set pressure of the pressure relief valve plus 5 %. Then the jack shall not be capable to lift this load but shall be able to sustain it. Then, pump the jack up to its full stroke without the load until the pressure relief valve operates. This pressure shall be recorded and shall not exceed 125 % of the rated load. This test shall be performed 10 times in a row. No failure of the pressure relief valve is admissible.</p> <p>On devices with hydraulic limitation of the end position the test shall be performed at 2/3 of the full stroke. At this test the piston shall be blocked by application of an external force. On devices with telescopic cylinder the stage with the smallest diameter shall be partially extended.</p>	Meet the requirements	P
c	<p>Safety device against pipe damage</p> <p>On jacks a breaking of the connection between cylinder and pump (hose, pipe) shall be simulated. The non-return valve on the jack shall respond. The load shall not come down more than 100 mm. It shall not be possible to reoperate the jack by the normal controls until proper measures are taken.</p>	Meet the requirements	P
B.1.3	<b>Additional tests for hydraulic jacks for road vehicles</b>		---
	In addition to the tests according to B.1.1 and B.1.2 the following tests shall be performed:	Meet the requirements	P
a	<p>Behaviour at temperatures</p> <p>Store the jack at + (50 + 5) °C for a min. period of 12 h. No visible leakage is admissible during this test.</p> <p>Then store the jack at - (20 + 2) °C for a min. period of 12 h. No visible leakage is admissible during this test.</p> <p>The jack shall be placed in its operating position on the test rig immediately after each of the above conditioning and shall be able to lift the rated load at each of the above temperatures through the full stroke specified by the manufacturer.</p> <p>Use the test rig as shown in figure B.1. Lever A is intended to simulate the travel of the axle to be lifted. Dimension h shall be adjusted in the way that lever A is horizontal when the jack is in the middle of its stroke.</p> <p>The area on lever A where the head of the jack is applied shall have a hardness of at least 285 HB and a surface roughness of Ra 6,3 µm, to avoid slipping off.</p>	Meet the requirements	P
b	<p>Strength test</p> <p>The jack shall be capable to lift, to stop and to lower the rated load 50 times over the full stroke at a temperature of (23 + 5) °C, with the height adaptation spindle turned to the lowest position. Between each lift, there shall be a pause of 5 minutes.</p> <p>Lubrication after 10 strokes is allowed.</p>	Meet the requirements	P



	After maintaining the rated load for 2 minutes, the height shall be checked after the last lift. This height shall be such that it proves that the nominal stroke quoted by the manufacturer is achieved with an acceptable tolerance of -2 mm.		
c	<p>Stability test</p> <p>Hydraulic jacks shall be placed on a 6° plate as figure B.2 and a load equivalent to 125 % of its rated load applied in the middle of the lift pad at 80 % of its maximum stroke, spindle not extended, for a period of 5 minutes. The jack shall show no permanent deformation and no failure of any part.</p> <p>Further it shall be verified by calculation that the vertically projected area of the lift pad is within the tipping lines when the jack is inclined by 6° in the worst condition.</p>	Meet the requirements	P
B.1.4	<b>Additional tests for trolley jacks</b>		---
	In addition to the tests according to B.1.1 and B.1.2 and instead of the tests according to B.1.3 the following tests shall be performed:	Meet the requirements	P
1	<p>Test:</p> <p>Operate the unloaded jack through one cycle. The lift pad shall remain horizontal over the whole stroke. It shall return to its lowest position without load by operating the normal controls for lowering.</p>		P
2	<p>Test:</p> <p>Point-load outside the centre of the lift pad with the load displaced in transverse direction of the jack</p> <p>Lift the load from the lowest to the highest position. The test shall be performed twice while changing the load from one side to the other.</p>	Meet the requirements	P
3	<p>Test:</p> <p>Centric applied load on the trolley jack which is located with one front wheel on a 15 mm high sheet.</p> <p>Lift the load from the lowest to the highest position. The test shall be performed twice while the sheet is once located below the right and once below the left front wheel.</p> <p>Load: <math>F = 0,75 \times \text{rated load}</math></p> <p>Check under load that the trolley jack functions without restrictions.</p> <p>Check after removing the load that no permanent deformations are existing.</p>	Comply with the requirements	P
4	<p>Test:</p> <p>Centric applied load on the trolley jack which is on one side located with one front wheel and one rear wheel on a 15 mm high sheet</p> <p>Lift the load from the lowest to the highest position. The test shall be performed twice while the sheet is once located below the right and once below the left side of the jack.</p> <p>Load: <math>F = 0,75 \times \text{rated load}</math></p> <p>Check under load that the trolley jack functions without restrictions.</p> <p>Check after removing the load that no permanent deformations are existing.</p>	Comply with the requirements	P
5	<p>Test:</p> <p>Point-load outside the centre of the lift pad with the load displaced in longitudinal direction of the jack</p>		P

	<p>The load is lifted from the lowest to the highest position. The test shall be performed twice while changing the load from the front side to the rear side.</p> <p>Load: F = rated load</p> <p>Check under load in lowest, highest and mid-position of the lift pad that</p> <ul style="list-style-type: none"> <li>  the trolley jack functions without restrictions</li> <li>  declination of the lift pad <math>\leq 6^\circ</math></li> </ul> <p>Check after removing the load that no permanent deformations are existing.</p>		
6	<p>Test:</p> <p>Centric applied load on the trolley jack</p> <p>Lift the load from the lowest to the highest position and then lower it to the lowest position. The test shall be performed 50 times.</p> <p>Lubrication during the tests is admissible.</p> <p>Load: F = rated load</p> <p>Check under load</p> <ul style="list-style-type: none"> <li>  that the trolley jack functions without restrictions</li> <li>  10 minutes after the last lifting the stroke shall not be less than the nominal stroke given by the manufacturer minus 5 mm.</li> </ul> <p>Check after removing the load that no permanent deformations are existing.</p>	Comply with the requirements	P
B.2	<b>Practical tests for fitness for purpose test when the jack has been type tested</b>		---
a	Check the correct operation of the controls;	Comply with the requirements	P
b	Check that the emergency stop and other safety devices (if fitted) are correctly functioning;		P
c	Operate the unloaded jack through at least one complete cycle;		P
d	Load the jack with 10 % more than the rated load and operate it through one complete cycle;	Comply with the requirements	P
e	Test the load limiting device.		P
<b>Annex C</b>	<b>Manual forces and manual force measurement methods</b>		---
C.1	<b>Maximum allowed forces</b>		---
	<p>The maximum manual forces required for jack operations (unloaded respectively loaded with rated load) shall not exceed the following figures:</p> <p>To start moving an unloaded movable or mobile jack: 300 N</p> <p>To maintain the movement of the unloaded jack: 200 N</p> <p>To start moving a loaded mobile jack: 400 N</p> <p>To maintain the movement of the loaded mobile jack: 300 N</p>	Comply with the requirements	P
	<p>To raise the loaded jack using the lever of a hand pump: 400 N</p> <p>To raise the loaded jack using a foot pump: 400 N</p> <p>To raise the loaded jack with a rated load <math>\leq 5</math> t using a crank: 250 N</p> <p>To raise the loaded jack with a rated load <math>&gt; 5</math> t using a crank: 400 N.</p> <p>If the generated efforts exceed these values, the efforts shall be lowered by additional persons.</p>	Comply with the requirements	P
C.2	<b>Conditions for test</b>		---

	The tests shall be carried out with a new jack on a smooth, dry, level, trowelled finish concrete floor in good condition. The tests shall be carried out in an ambient temperature of between 15 °C and 28 °C. The measuring instrument used shall have a range of error of +3 %. The forces required are measured in accordance with the methods described below. Two tests in both the forward and reverse directions shall be carried out and the average result recorded.	Comply with the requirements	P
C.3	<b>Measurement of starting force and rolling force</b>		---
	With the unloaded jack in starting position and stationary, the wheels are positioned in the direction that they naturally take when moving the jack in the test direction. The force shall be applied horizontally along the jack's axis, on the handle or bar in the test direction.	Comply with the requirements	P
C.4	<b>Starting force</b>		---
	The maximum value necessary to start the jack moving shall be recorded.	Comply with the requirements	P
C.5	<b>Rolling force</b>		---
	The maximum value necessary to maintain the jack at a stabilised speed of 0,5 m/s shall be recorded.	Be recorded	P
C.6	<b>Average forces</b>		---
	The maximum starting force or the maximum rolling force is the average of the maximum values recorded in each direction of travel, forward and reverse, during two successive tests.	Comply with the requirements	P
C.7	<b>Hand or foot forces</b>		---
	Actuate the handle or foot pedal as many times as necessary raise the fully loaded jack to its maximum height. The maximum force value is measured perpendicularly to the handle or pedal during each pumping cycle. The maximum force value is the average of the maximum values recorded at each handle or pedal cycle during one complete lifting.	Comply with the requirements	P
<b>Annex ZA</b>	<b>Relationship between this European Standard and the Essential Requirements of EU Directive 98/37/EC</b>		---

	This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 98/37/EC, amended by 98/79/CE on machinery.	Comply with the standards	P
	Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that	Comply with the standards	P

	Directive and associated EFTA regulations.		
	<b>WARNING</b> — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard	Comply with the requirements	P
<b>Annex ZB</b>	<b>Relationship between this European Standard and the Essential Requirements of EU Directive 2006/42/EC</b>		---
	This European Standard has been prepared under a mandate given to CEN by the European Commission and the European Free Trade Association to provide a means of conforming to Essential Requirements of the New Approach Directive 2006/42/EC.	Comply with the requirements	P
	Once this standard is cited in the Official Journal of the European Communities under that Directive and has been implemented as a national standard in at least one Member State, compliance with the normative clauses of this standard confers, within the limits of the scope of this standard, a presumption of conformity with the relevant Essential Requirements of that Directive and associated EFTA regulations.	Comply with the requirements	P
	<b>WARNING</b> — Other requirements and other EU Directives may be applicable to the product(s) falling within the scope of this standard.	Comply with the requirements	P

===== End of Test Report =====

## EC DECLARATION OF CONFORMITY



-According to the following EC Directives

**Machinery Directive: 2006/42/EC**

The undersigned, Ping Li, representing **CHANGSHU TONGRUN AUTO ACCESSORY CO., LTD.**

Changshu Economic Development Zone New Longteng Industrial Park, Changshu City, Jiangsu Prov, China

### **Hydraulic Jack**

**Model:** TZ100001、TZ100002、TZ150001、TZ150002、TZ200011、TZ200012、TZ250001、TZ250002、TRK60001

Provided that it is used and maintained in accordance with the general accepted codes of good practice and the recommendations of the instructions manual, meet the essential safety and health requirements of the Machinery Directive. For the most specific risks of this machine, safety and compliance with the essential requirements of the Directive has been based on elements of :

EN 1494: 2000+A1: 2008 Mobile or movable jacks and associated lifting equipment

EN ISO 12100: 2010 Safety of machinery — General principles for design — Risk assessment and risk reduction

**EU Notified body No. 2138: ALBERK QA TECHNIC LTD**

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