

GB Instruction for use
DK Brugsanvisning

POWERTEX



Hydraulic Toe Jack PTJ-S1

User Manual



POWERTEX Hydraulic Toe Jack PTJ-S1

Instruction for use (GB) (Original instructions)



Read through these user instructions carefully before using the jack. Improper selection or operation may lead to hazardous situations!

Product description

This hydraulic jack is intended to lift objects temporarily and not for long term hold. It is intended to perform lifting operation using the top plate or the lifting toe.

Standard applied: EN 1494

Proof load testing: Each jack has been tested 1 x WLL at the factory prior delivery.

Temperature range: -20°C up to +50°C.

Data

| Model | WLL ton | Lifting height mm | Min./max. height toe mm | Min./max. height top mm | Max. force on handle N | Weight (kg) |
|----------------|------------|----------------------|----------------------------|----------------------------|---------------------------|----------------|
| PTJ-S1/5000KG | 5 | 205 | 25/230 | 368/573 | 380 | 25 |
| PTJ-S1/10000KG | 10 | 230 | 30/260 | 420/650 | 400 | 35 |
| PTJ-S1/25000KG | 25 | 215 | 58/273 | 505/720 | 400 | 102 |

Assembly

The only assembly needed is to insert the operating handle (02) into the socket (04) and screw it tightly in clockwise direction.

General instructions for safe work with PTJ jack

Before operation, the operator should check and confirm that the jack is in good state.

The object to be lifted needs to be secured by jack stands as soon as the object reached the desired lifting height. When using this jack, it shall be placed on a fixed and solid surface, such as reinforced concrete floor. Padding could be used under the jack's base to spread the load to a larger area. For the PTJ jack to descend completely the lifting toe must be oriented so that it fit the opening of the base (Fig. 1).

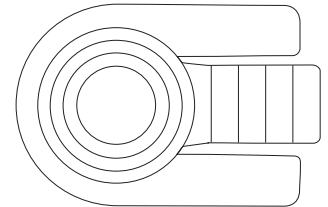


Fig. 1

- Lifting is a dangerous operation, so the appointed operators should be trained and experienced.
- To avoid accidents, extra weight must not be added to the lifted load.
- Never exceed the maximum capacity of the jack.
- Never adjust the safety valve (18), it has been set at the factory to prevent overloading. Components 10, 11, 18, 19, 20, 21 are all part of the overload protection.
- Keep a safe distance to the lifted load.
- Never use the jack if any defects, malfunction, or modifications can be detected.
- Make sure that the supporting ground is solid and stable.
- Lifting operation is allowed on plane surfaces only.
- Make sure that the lifted load is stable during the whole lifting process to avoid over turnings and accidents.
- Never allow people to stand on the lifted load.
- No one should be allowed under the lifted load until it has been secured with stable jack stands.
- When lifting with the toe the load shall be on the full toe area and as close to the cylinder as possible.
- Never lift on the edge of jack's head (Fig. 2). The load shall always be centered to the jack's centerline.
- Operators should be careful when using multiple jacks to lift a heavy load and such operations should be carefully planned and supervised by an experienced lifting engineer. One need to pay attention to the shifting of center of gravity during lifting or lowering the load. There is also risk that one or several jacks become overloaded while another become unloaded. The total lifting capacity of all jacks must be larger than the weight of the lifted load.

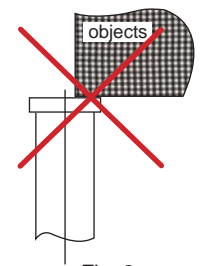


Fig. 2

Lifting

Place the jack so that the load will be close to the toe plate or the top plate.

Rotate the unload handle (16) tightly in clockwise direction before lifting to close the valve.

Then operate the pump handle (02) repeatedly to pump up the pressure needed to lift the load. The lifting movement will stop immediately when the pump operation is halted.

Lowering

Rotate the unload handle (16) slowly in anti-clockwise direction to descend the load. If tightening the unload handle again, the descend movement will be stopped. When the jack is in unloaded condition, the top should be pressed down by hand to retract the jack completely. The only part allowed to be removed after use is the pump handle (2).

Maintenance

Daily inspection

Before each operation, inspect and confirm that:

All the stoppers and screws are tightened and no parts or labels are missing.

There is no oil leaking from the jack.

There is no cracks, damages, or deformation on the pump body, toe plate or base.

The pump should operate normally when tested without load.

Thorough inspection

At least once per year a thorough inspection should be made and registered and these additional points checked:

All the jack stoppers, screws, and nuts should be checked and tightened if necessary.

All labels are legible.

Carefully check all of the exterior parts of the jack, no deformation, cracks or other damages allowed.

Pump up the jack completely until the safety release valve opens. There should be no oil leak.

Release the pressure of the pump and check the pillar to confirm the pillar is straight and without damages. The down movement shall be smooth and without scraping.

When the jack is lowered the movement shall be stable and the jack must not be jammed. Slight vibrations are normal during the descend.

Add hydraulic oil

If the jack cannot be pumped up all the way, you may have to add hydraulic oil into the oil tank. The hydraulic fluid to be used must be in accordance with ISO VG22 or equivalent. Mixing of different fluids is prohibited!

Storage and transportation

Storage

Store the completely descended jack in a dry place, protected from corrosion and mechanical impacts.

Transportation

The operating handle (02) is only for operating the jack, not to carry the jack. When transporting the jack, it must not be dropped or thrown around because it may cause damage to the jack. Therefore, the jack should be fixed before transporting to avoid shocks/impacts with other objects.

End of use/Disposal



Toe jacks shall be sorted/scrapped as general steel scrap, after the hydraulic oil has been removed.

Your POWERTEX distributor will assist you with the disposal, if required.

Disclaimer

We reserve the right to modify product design, materials, specifications or instructions without prior notice and without obligation to others.

If the product is modified in any way, or if it is combined with a non-compatible product/component, we take no responsibility for the consequences in regard to the safety of the product.

EC Declaration of conformity

SCM Citra OY

Asessorinkatu 3-7

20780 Kaarina, Finland

www.powertex-products.com

hereby declares that the POWERTEX product as described above is in compliance with EC Machinery Directive 2006/42/EC & EN 1494.

UK Declaration of conformity

SCM Citra OY

Asessorinkatu 3-7

20780 Kaarina, Finland

www.powertex-products.com

hereby declares that the POWERTEX product as described above is in compliance with the Supply of Machinery (Safety) Regulations 2008 & BS EN 1494.

Troubleshooting guide

| Items | Symptom | Possible cause | Aliments |
|-------|--------------------------------------------------|------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | The pressure cannot be pumped up | 1. The release valve is not closed properly. 2. Air inside the pump | 1. Screw in the unload handle (16) tightly in clockwise direction. 2. Loosen screw (37) for 5T and 10T models, (39) for 25T model to release the air from the pump, then screw it tightly again |
| 2 | The jack cannot descend from elevated position | The release valve is not opened enough | Rotate the unload handle (16) in counter - clockwise direction |
| 3 | The jack cannot be pumped up to its max position | Oil level is too low | Remove screw (10) and add hydraulic oil |
| 4 | Oil has leaked around the pump plunger | Seals are damaged or worn | Replace seals with new seals (8) (9) for 5T and 10 T models, (7) (8) for 25 T model. Spare seals delivered with the jack |

POWERTEX Hydraulisk donkraft PTJ-S1

Brugsanvisning (DK)



Læs denne brugsanvisning før ibrugtagning af donkraften. Manglende overholdelse af disse instruktioner kan resultere i personskade og/eller skade på ejendom. Opbevar denne brugsanvisning i hele produktets levetid!

Produkt beskrivelse

Denne hydrauliske donkraft er beregnet til midlertidig løft af genstande, og ikke for langvarig løft af byrder. Den er beregnet til løfteoperation ved hjælp af topladen eller løftetåen.

Standard: EN 1494

Prøvebelastning: Hver donkraft er testet med 1 x WLL på fabrikken før levering.

Arbejdsstemperatur: -20°C op til +50°C.

Data

| Model | WLL ton | Løftehøjde mm | Min./maks. højde løftetå mm | Min./maks. højde toplade mm | Maks. kraft på håndtag N | Vægt (kg) |
|----------------|------------|------------------|--------------------------------|--------------------------------|-----------------------------|--------------|
| PTJ-S1/5000KG | 5 | 205 | 25/230 | 368/573 | 380 | 25 |
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Montage

Den eneste nødvendige montage er isættelse af betjeningshåndtaget (02) i holderen (04). Skru godt til med uret.

Generelle instruktioner til sikkert arbejde med PTJ-donkraft

Før betjening skal operatøren kontrollere og sikre, at donkraften er i god stand.

Emnet der skal løftes, skal sikres med støttebukke, så snart emnet har nået den ønskede løftehøjde. Når donkraften anvendes, skal den placeres på en fast og solid flade, såsom armeret betongulv. Støtteplade kan bruges under donkraftens fodplade for at fordele belastningen over et større område. For at PTJ-donkraften skal kunne gå helt ned, skal løftetåen være i retning så den passer ned i åbningen på fodpladen (Fig. 1).

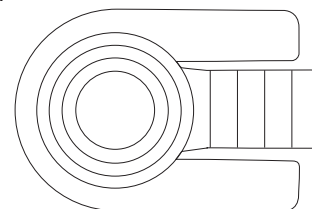


Fig. 1

- Løft er en farlig operation, så de operatører der skal bruge udstyret skal være uddannet og erfarne.
- For at undgå ulykker må der ikke lægges ekstra vægt på den løftede byrde.
- Overskrid aldrig donkraftens maksimale kapacitet.
- Juster aldrig sikkerhedsventilen (18), den er indstillet fra producenten af for at forhindre overbelastning. Komponenterne 10, 11, 18, 19, 20, 21 er alle en del af overlastsikringen.
- Hold en sikker afstand til den løftede byrde.
- Brug aldrig donkraften, hvis der opdages fejl, funktionsfejl eller deformationer.
- Sørg for, at underlaget er solidt og stabilt.
- Løft er kun tilladt på plant underlag.
- Sørg for, at den løftede byrde er stabil under hele løfteprocessen for at undgå svingning og ulykker.
- Lad aldrig folk stå på den løftede byrde.
- Ingen må have adgang til den løftede byrde, før den er sikret med stabile støttebukke.
- Ved løft med tåen skal belastningen være på hele tåområdet og så tæt på cylinderen som muligt.
- Løft aldrig på kanten af donkraftens toplade (fig. 2). Belastningen skal altid være centreret på donkraftens midterlinie.
- Man skal være forsigtig når der bruges flere donkræfter til løft af en tung byrde, og sådanne operationer skal planlægges nøje og overvåges af en erfaren løfteingeniør. Man skal være opmærksom på forskydningen af tyngdepunktet under løft eller ved sænkning af byrden. Der er en risiko for ujævn lastfordeling og overbelastning, da én donkraft kan tage al belastning, mens andre aflastes. Den samlede løftekapacitet for donkraften skal være større end vægten af den løftede byrde.

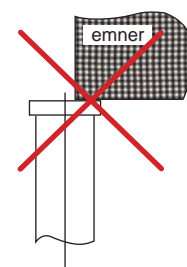


Fig. 2

Løft

Anbring donkraften, så belastningen er så tæt på tåpladen eller topladen som muligt.

Stram ventilskruen (16) med uret, inden du løfter for at lukke ventilen.

Betjen derefter pumpehåndtaget (02) gentagne gange for at pumpe det nødvendige tryk op for at løfte byrden. Løftebevægelsen stopper straks, når pumpedriften stoppes.

Sænkning

Drej ventilskruen (16) langsomt mod uret for at sænke byrden. Hvis ventilskruen strammes igen, stoppes den nedadgående bevægelse. Når donkraften er i ubelastet tilstand, skal toppen trykkes ned med hånden for at trykke donkraften helt sammen. Den eneste del, der må fjernes efter brug, er pumpehåndtaget (2).

Vedligeholdelse

Daglig inspektion

Inden hver operation skal du kontrollere og sikre, at:

- alle propper og skruer er strammet, og at ingen dele eller labels mangler.
- der ikke lækker olie fra donkraften.
- der ikke forekommer revner, skader eller deformationer på pumpehuset, tåpladen eller bundpladen.
- pumpen fungerer normalt, når den testes uden belastning.

Grundig inspektion

Mindst en gang om året bør der foretages et grundigt eftersyn som registreres, og disse punkter skal desuden kontrolleres:

Alle donkraftpropper, skruer og møtrikker skal kontrolleres og strammes, hvis det er nødvendigt.

Alle labels er læselige.

Kontroller omhyggeligt alle de udvendige dele af donkraften, ingen deformation, revner eller andre skader er tilladt.

Pump donkraften helt op, indtil sikkerhedsventilen åbner. Der bør ikke forekomme olielækage.

Slip pumpens tryk, og kontroller cylinderen for at bekræfte, at denne er lige og uden skader. Aflastningsbevægelsen skal være jævn og uden skrabning.

Når donkraften sænkes, skal bevægelsen være stabil, og donkraften må ikke sidde fast. Mindre vibrationer er normale under nedsækning.

Tilfør hydraulikolie

Hvis donkraften ikke kan pumpes helt op, skal der muligvis tilføjes hydraulikolie i oliebeholderen. Den hydrauliske væske, der skal bruges, skal være i overensstemmelse med ISO VG22 eller tilsvarende. Blanding af forskellige væsker er forbudt!

Opbevaring og transport

Opbevaring

Opbevar den helt nedsænkede donkraft et tørt sted beskyttet mod korrosion og mekaniske påvirkninger.

Transport

Betjeningshåndtaget (02) er kun beregnet til betjening af donkraften, ikke til at bære donkraften med. Når du transporterer donkraften, må den ikke tabes eller kastes rundt, da dette kan beskadige donkraften. Derfor skal donkraften fastgøres inden transport for at undgå stød/stødpåvirkninger fra andre genstande.

Skrotning/Bortskaffelse



Hydrauliske donkræfte skal altid sorteres/skrottes som almindeligt stålskrot, efter hydraulikolien er fjernet.

Din POWERTEX-distributør hjælper dig med bortskaffelse, hvis det kræves.

Ansvarsfraskrivelse

Vi forbeholder os retten til at modificere produktdesign, materialer, specifikationer eller anvisninger uden forudgående varsel og uden forpligtelse over for andre.

Hvis produktet modificeres på nogen måde, eller hvis det kombineres med et ikke-kompatibelt produkt/komponent, påtager vi os intet ansvar for konsekvenserne hvad angår produktets sikkerhed.

Overensstemmelseserklæring

SCM Citra OY

Asessorinkatu 3-7

FI-20780 Kaarina

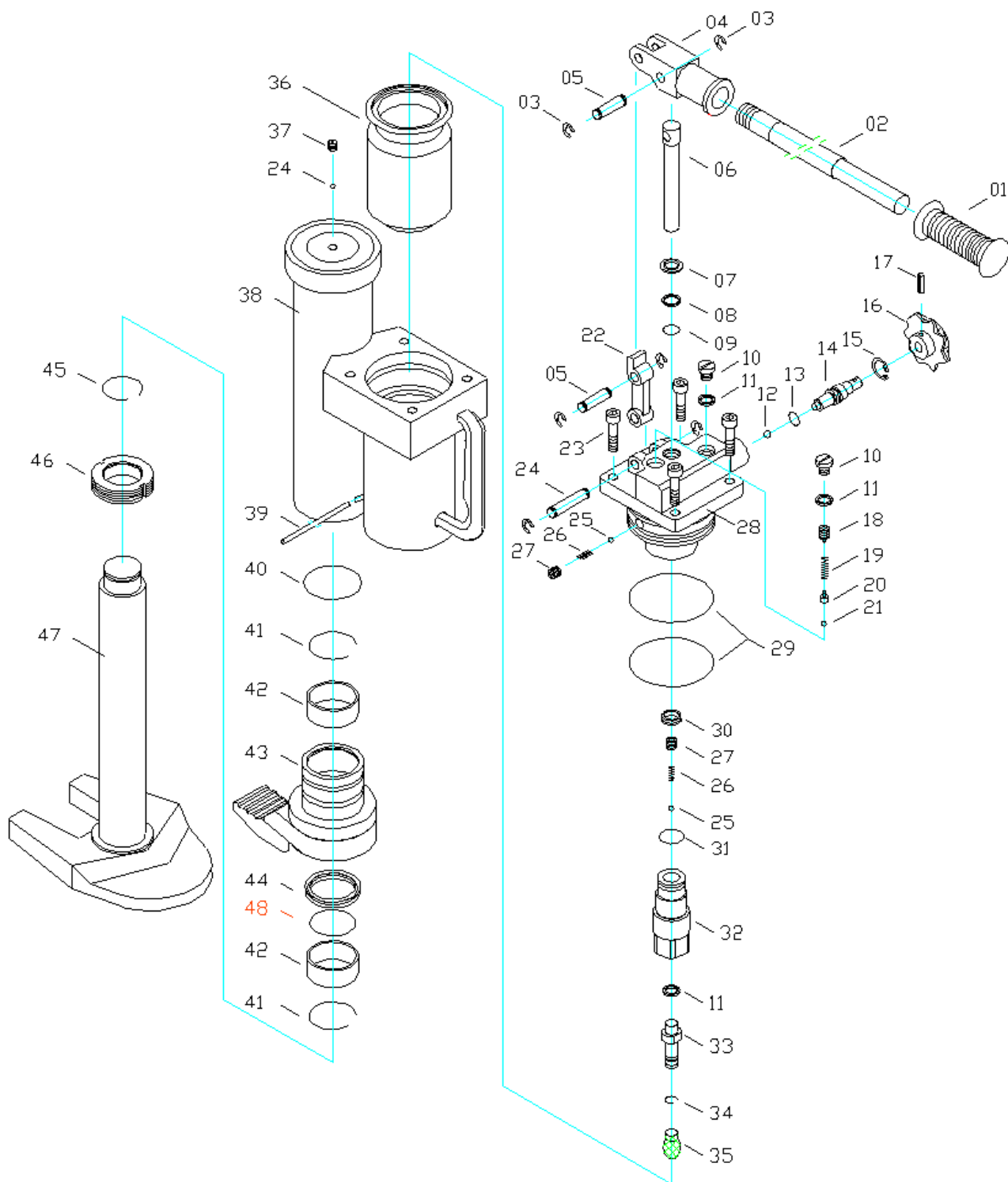
Finland

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erklærer hermed, at POWERTEX-produktet som beskrevet ovenfor er i overensstemmelse med EC Maskindirektivet 2006/42/EF og EN 1494.

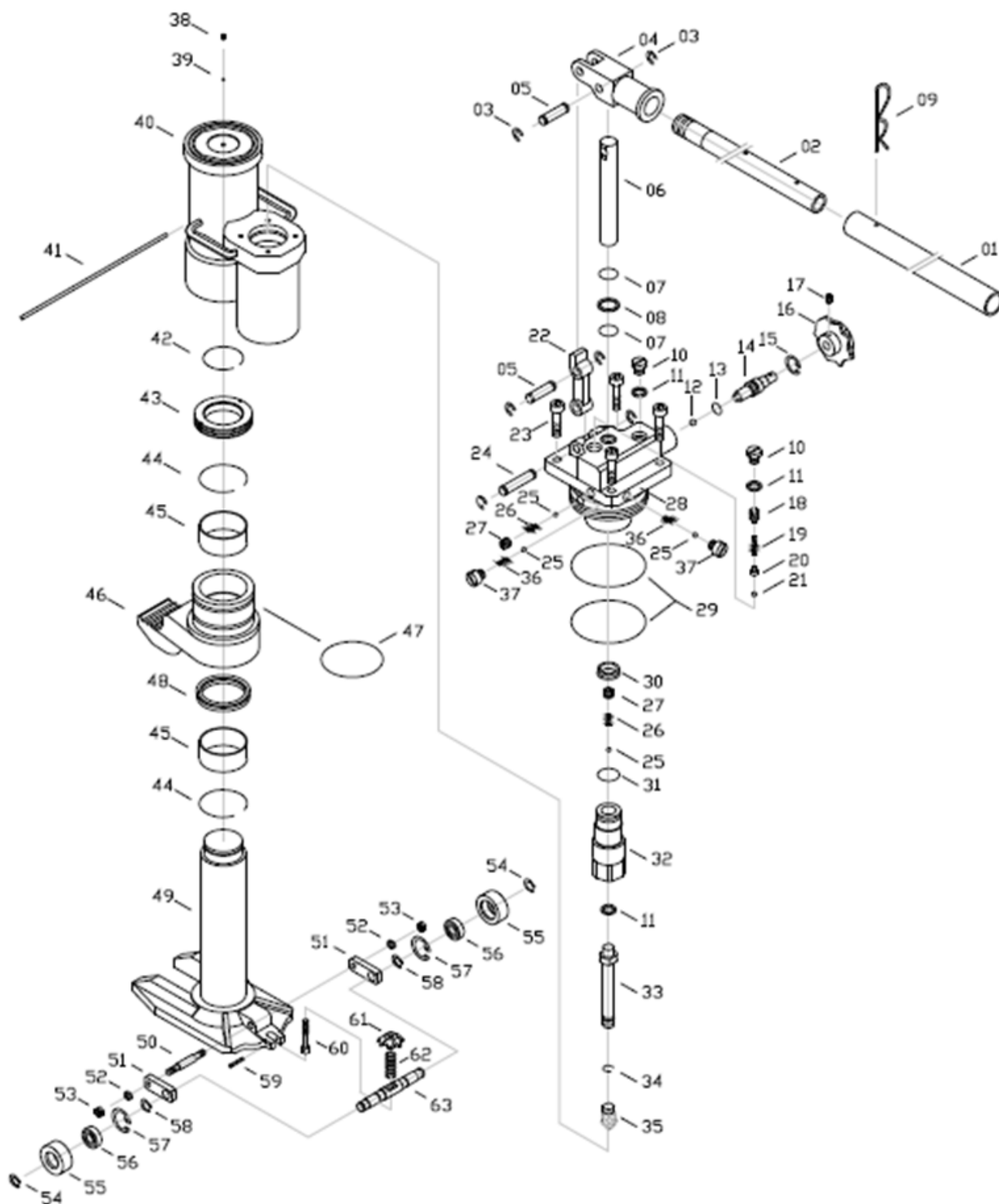
Fejlfindingsguide

| Emne | Symptom | Mulig fejl | Løsning |
|------|-------------------------------------------------------|---------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1 | Trykket kan ikke pumpes op | 1. Ventilskruen er ikke lukket ordentligt. 2. Luft inde i pumpen | 1. Skru ventilskruen (16) fast i urets retning. 2. Løsn skruen (37) til modellerne 5T og 10T, (39) til modellen 25T for at frigøre luften fra pumpen, og skru den derefter fast igen |
| 2 | Donkraften kan ikke komme ned fra hævet position | Ventilen er ikke åbnet tilstrækkeligt | Drej ventilskruen (16) mod urets retning |
| 3 | Donkraften kan ikke pumpes op til dens maks. position | Oliestanden er for lav | Fjern skruen (10), og fyld hydraulikolie på |
| 4 | Der er lækker olie omkring pumpestemplet | Pakninger er beskadigede eller slidte | Udskift pakninger med nye pakninger (8) (9) for 5T og 10 T modellerne, (7) (8) for 25 T model. Ekstra pakninger er leveret sammen med donkraften. |



Parts list 5 t and 10 t

| No | Name | Code of parts | | Num | No | Name | Code of parts | | Num |
|----|------------------------------------------------------------------|---------------|------|-----|----|----------------------|---------------|------|-----|
| | | 5 t | 10 t | | | | 5 t | 10 t | |
| 1 | Handle grip | 501 | 501 | 1 | 25 | Ball | 525 | 525 | 3 |
| 2 | Handle | 502 | 502 | 1 | 26 | Spring | 526 | 526 | 2 |
| 3 | Snap ring | 503 | 503 | 6 | 27 | Screw | 527 | 527 | 2 |
| 4 | Socket | 504 | 504 | 1 | 28 | Pump body | 528 | 528 | 1 |
| 5 | Pin | 505 | 505 | 2 | 29 | O-ring | 529 | 529 | 2 |
| 6 | Plunger | 506 | 506 | 1 | 30 | Y-ring | 530 | 530 | 1 |
| 7 | Wiper | 507 | 507 | 1 | 31 | O-ring | 531 | 531 | 1 |
| 8 | Back-up ring | 508 | 508 | 2 | 32 | Valve stem bush | 532 | 532 | 1 |
| 9 | O-ring | 509 | 509 | 2 | 33 | Oil Pipe | 533 | 533 | 1 |
| 10 | Screw | 510 | 510 | 1 | 34 | Retaining ring | 534 | 534 | 1 |
| 11 | Gasket | 511 | 511 | 3 | 35 | Filter | 535 | 535 | 1 |
| 12 | Ball | 512 | 512 | 1 | 36 | Flexible bag | 536 | 1036 | 1 |
| 13 | O-ring | 513 | 513 | 1 | 37 | Screw | 537 | 537 | 1 |
| 14 | Release rod | 514 | 514 | 1 | 38 | Assemble of cylinder | 538 | 1038 | 1 |
| 15 | Snap ring | 515 | 515 | 1 | 39 | Steel wire | 539 | 1039 | 1 |
| 16 | Unload handle | 516 | 516 | 1 | 40 | O-ring | 540 | 1040 | 1 |
| 17 | Pin | 517 | 517 | 1 | 41 | Retaining ring | 541 | 1041 | 2 |
| 18 | Safety valve adjustment screw | 518 | 518 | 1 | 42 | Bush | 542 | 1042 | 2 |
| 19 | Spring | 519 | 519 | 1 | 43 | Forked mounting | 543 | 1043 | 1 |
| 20 | Ball seat | 520 | 520 | 1 | 44 | Y-ring | 544 | 1044 | 1 |
| 21 | Ball | 521 | 521 | 1 | 45 | Snap ring | 545 | 1045 | 1 |
| 22 | Linkage | 522 | 522 | 1 | 46 | Limit block | 546 | 1046 | 1 |
| 23 | Screw | 523 | 523 | 4 | 47 | Pillar | 547 | 1047 | 1 |
| 24 | Pin | 524 | 524 | 1 | 48 | O-ring | | | |
| * | Seal kits: 07#, 08#, 09#, 11#, 13#, 29#, 30#, 31#, 40#, 44#, 48# | | | | | | | | 1 |



Parts list 25 t

| No | Name | Code of parts | Num | No | Name | Code of part | 2Num |
|----|------------------------------------------------------------------|---------------|-----|----|-----------------|--------------|------|
| 1 | Upper handle | 2501 | 1 | 33 | Oil pipe | 2533 | 1 |
| 2 | Lower handle | 2502 | 1 | 34 | Retaining ring | 534 | 1 |
| 3 | Snap ring | 503 | 6 | 35 | Filter | 535 | 1 |
| 4 | Socket | 504 | 1 | 36 | Spring | 2536 | 2 |
| 5 | Pin | 505 | 2 | 37 | Screw | 2537 | 2 |
| 6 | Plunger | 506 | 1 | 38 | Screw | 537 | 1 |
| 7 | O-ring | 507 | 1 | 39 | Ball | 525 | 1 |
| 8 | Back-up ring | 508 | 2 | 40 | Cylinder | 2540 | 1 |
| 9 | Pin | 509 | 2 | 41 | Steel wire | 2541 | 1 |
| 10 | Screw | 510 | 1 | 42 | Retaining ring | 2542 | 1 |
| 11 | Gasket | 511 | 3 | 43 | Limit block | 2543 | 1 |
| 12 | Ball | 512 | 1 | 44 | Retaining ring | 2544 | 2 |
| 13 | O-ring | 513 | 1 | 45 | Bush | 2545 | 2 |
| 14 | Release rod | 514 | 1 | 46 | Forked mounting | 2546 | 1 |
| 15 | Snap ring | 515 | 1 | 47 | O-ring | 2547 | 1 |
| 16 | Unload Handle | 516 | 1 | 48 | Y-ring | 2548 | 1 |
| 17 | Screw | 517 | 1 | 49 | Pillar | 2549 | 1 |
| 18 | Safety valve adjustment screw | 518 | 1 | 50 | Axle | 2550 | 2 |
| 19 | Spring | 519 | 1 | 51 | Plate | 2551 | 2 |
| 20 | Ball seat | 520 | 1 | 52 | Spring wash | 2552 | 2 |
| 21 | Ball | 521 | 1 | 53 | Nut | 2553 | 1 |
| 22 | Linkage | 522 | 1 | 54 | Retaining ring | 2554 | 2 |
| 23 | Screw M8x30 | 523 | 4 | 55 | Wheel | 2555 | 2 |
| 24 | Pin | 524 | 1 | 56 | Bearing | 2556 | 2 |
| 25 | Ball | 525 | 3 | 57 | Snap ring | 2557 | 2 |
| 26 | Spring | 526 | 2 | 58 | Snap ring | 2558 | 2 |
| 27 | Screw | 527 | 2 | 59 | Spring pin | 2559 | 1 |
| 28 | Pump body | 2528 | 1 | 60 | Pin | 2560 | 1 |
| 29 | O-ring | 529 | 2 | 61 | Knob | 2561 | 1 |
| 30 | Y-ring | 2530 | 1 | 62 | Spring | 2562 | 1 |
| 31 | O-ring | 531 | 1 | 63 | Axle | 2563 | 1 |
| 32 | Valve stern bush | 2532 | 1 | | | | |
| * | Seal kits: 07#, 08#, 09#, 11#, 13#, 29#, 30#, 31#, 40#, 44#, 48# | | | | | | 1 |

CertMax+

The CertMax+ system is a unique leading edge certification management system which is ideal for managing a single asset or large equipment portfolio across multiple sites. Designed by the Lifting Solutions Group, to deliver optimum asset integrity, quality assurance and traceability, the system also improves safety and risk management levels.



Marking

The POWERTEX Hydraulic Toe Jack is equipped with a RFID (Radio-Frequency IDentification) tag, which is a small electronic device, that consist of a small chip and an antenna. It provides a unique identifier for the block.

The POWERTEX Hydraulic Toe Jacks are **CE** and **UKCA** marked in accordance with Machine Directive 2006/42/EC.

Standard: EN 1494.



User Manuals

You can always find the valid and updated User Manuals on the web. The manual is updated continuously and valid only in the latest version.

NB! The English version is the Original instruction.

The manual is available as a download under the following link:
www.powertex-products.com/manuals



Product compliance and conformity

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POWERTEX

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