TC-950 & TC-950-WPA

TYRE CHANGER

USER MANUAL
WARNING

This instruction manual is the important part of the product. Please read it carefully and keep it properly in order to use it when maintain and examine the machine.

This machine is only applied to mount, demount and inflate the tire in the specified scope and not for any other purpose.

The manufacturer will not be responsible for the damage or injury caused for the operation not properly and out of the range.

NOTE: This machine should be operated by the special trained qualified personnel. When operating, the unauthorized person will be kept far away from the machine.

Please note the safety label stuck on the machine.

Operators should wear safety protective facilities such as working suit, protective glasses, and earplug and safety shoes. Keep your hands and body from the movable parts as possible as you can. Necklace, bracelet and loosen clothing may cause dangerous to the operators.

Tire changer should be installed and fixed on the flat and solid floor. The more than 0.5m of distance from the rear and lateral side of the machine to the wall can guarantee the perfect air flow and enough operation space.

Do not place the machine in the site of high temperature, high humidity, and dust and with flammable and corrosion gas.

Without the permission from the manufacturer, any change on the machine parts will cause injury/damage to the machine/operator.

Pay attention that the tire changer should be operated under the specified voltage and air pressure.

If you want to move the tire changer, you should under the guidance of the professional service personnel.
SAFETY LABEL INSTRUCTIONS

CAUTION LABELS

Electrical Shock!

Do not place any part of your body under the demount tool.

When breaking tire bead, the bead breaking blade will quickly move to the left.

Note: When pressing the tire to the rim, the opened clamp cylinder may cause injury to the hand of the operator. Ensure not touch the sidewall of the tire during pressing operation.

When clamping the rim, do not place hand or other parts of the body in between the clamp & the rim.
SAFETY LABEL POSITION DIAGRAM

Pay attention to keep the safety labels complete. When it is not clear of missing, you should change the new label(s).

Operators should always note the safety labels to clearly understand the meaning of each label.
CONTENTS

CHAPTER 1 - BRIEF INTRODUCTION
  1.1 INTRODUCTION
  1.2 TECHNICAL PARAMETER
  1.3 APPLICATION SCOPE
  1.4 ENVIRONMENT REQUIREMENT

CHAPTER 2 - CONFIGURATION AND OPERATION

CHAPTER 3 - INSTALLATION AND CALIBRATION
  3.1 OPEN PACKAGE CARTON
  3.2 INSTALLATION OF THE COLUMN
  3.3 AIR SOURCE INSTALLATION

CHAPTER 4 - DEMOUNT AND MOUNT TIRE
  4.1 DEMOUNT TIRE
  4.2 MOUNT TIRE
  4.3 INFLATION
  4.4 RAPID INFLATION

CHAPTER 5 - MAINTENANCE AND REPAIR

CHAPTER 6 - INSTALLATION & OPERATION OF THE ASSISTANT ARM (OPTIONAL)
  6.1 LEFT ASSISTANT INSTALLATION
  6.2 RIGHT ASSISTANT INSTALLATION

CHAPTER 7 - TRANSPORTATION

CHAPTER 8 - ELECTRICAL AND PNEUMATIC DRAWINGS

CHAPTER 9 - GENERAL TROUBLESHOOTING

ADDITIONAL INFORMATION: MACHINE OIL SAFETY DATA SHEET

LIMITED WARRANTY
CHAPTER 1 - BRIEF INTRODUCTION

1.1 BRIEF INTRODUCTION

This series of equipment is the tire changer with fixed column and rocker arm tire changer. It is suitable to mount, demount and inflate all types of motorcycle tire with tube & tubeless. The operation is easy, convenient, safety and reliable. It is the necessary equipment for the auto service shop and tire shop.

1.2 TECHNICAL PARAMETER

- Operation Pressure: 8-10 bar (115 - 145 PSI)
- Motor: 110VAC-1PH, 60Hz
- Turntable Speed: 6 RPM
- Noise Level: <70dB (A)

1.3 APPLICATION SCOPE

<table>
<thead>
<tr>
<th>Model #</th>
<th>Max. Wheel Diameter</th>
<th>Max. Wheel Width</th>
<th>Rim Diameter (Outer Clamping)</th>
<th>Rim Diameter (Inner Clamp)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TC-950</td>
<td>1250mm (47&quot;)</td>
<td>400mm (15.74&quot;)</td>
<td>12-23&quot;</td>
<td>10-20&quot;</td>
</tr>
</tbody>
</table>

1.4 ENVIRONMENT REQUIREMENT

- Ambient temperature 0℃~45℃ (32F - 113F)
- Relative humidity 30~95%
  - Without dust and flammable / explosive gases
- The operation space around the machine will not smaller than the indicated in Fig.1

Fig. 1

If the tire changer is installed outdoors, you **must have** a protective type shed or cover to protect from rain and sun. It is prohibited to use near flammable gases!
CHAPTER 2 - CONFIGURATION AND OPERATION

1. Vertical Shaft Spring
2. Lock Handle
3. Hexagon Shaft
4. Demount Head
5. Claw
6. Turntable
7. Operation Label
8. Turntable Pedal
9. Clamp Pedal
10. Bead Breaker Pedal
11. Limit Handle
12. Lock Handle
13. Column
14. Inflation Nozzle
15. Clamp Cylinder
16. Blade Handle
17. Air Filter, Regulator & Lubrication Unit
18. Bead Breaking Cylinder
19. Bead Breaker Arm
20. Bead Breaking Blade
21. Crowbar Tire Tool
22. Air Tank
23. Inflation Gauge Box
CHAPTER 3 - INSTALLATION AND CALIBRATION

Before installation, carefully read the manual. Any unauthorized modifications and/or changes to any parts and/or components of the tire machine, may cause damage to the machine.

Installation and assembly personnel should have the specific electrical knowledge.

Operators must be trained and authorized to operate the machine.

Before installation, carefully read the equipment list. If there are any questions, please contact the dealer or representative.

To ensure the success of the installation, please have the following common tools:
Adjustable Wrenches, Socket Wrenches, Hex Keys, Pliers, Screw Driver & Hammer & multi-purpose Meter.

3.1 UNPACKING
3.1.1 According to the de-package instructions on the package box, detach the box and remove the package material to check for machine damage and if all spare parts are included.

3.1.2 Keep the package material far away from the working site and dispose of properly.

3.2 INSTALLATION
3.2.1 After un-packaging the package carton, take out Accessory Boxes (Fig. 4-1), Bead Breaking Arm (Fig 4-5) and Column Assembly (Fig. 4-2). Ensure to position the machine according to the information noted in Chapter 1.4.ENVIRONMENT REQUIREMENT. Remove mounting bolts, lock washers & flat washers from Column Base (Fig. 4-4) in preparation to install Column to Base (Fig. 5).

3.2.2 Place the Column on Base with the direction of the warning label facing forward. Align the Column holes to the Base holes and mount with bolts, lock washers & flat washers, noted in the previous Chapter.
3.2.1 Using a Torque Wrench, tighten bolts to 52 ft.-lbs. (Fig. 5.) to secure Column to Base.
3.2.3 Use the wrench to remove the screw (Fig 6-3) Hexangular Shaft (Fig. 6-1) and take off the vertical Shaft Cap (Fig. 6-2).

⚠️ When removing the screw on the vertical shaft cap, you need use the lock handle to lock the hexangular shaft to avoid sliding off to damage the machine or cause injury to personnel!

Install the vertical Shaft Spring (Fig. 7-1) on the vertical shaft. Mount the vertical shaft cap and mount the removed screw and assemble the hand wheel into the nut bushing of the rocker arm (Fig. 7-2).

3.2.4 Remove the Lock nut at the front end of the bead breaking / cylinder piston rod (Fig. 8-1) and use the wrench to remove the nut on the bead breaking arm bolt (Fig. 8-4). Remove the bolt (Fig. 8-3) and hang the spring (Fig. 8-2).

3.2.5 Position the bead breaking Arm Shaft Bushing into the bead breaking Support Plate on the body (Fig. 9-1) to align the hole and install the bead breaking bolt (Fig. 9-2) and assemble the nut to lock (Fig. 8-4). Insert the piston rod (Fig.10-2) through the hole of the bead breaking slide bushing (Fig. 10-1). The surface of the slide bushing should be facing outwards (Fig. 10). Assemble the removed nut (Fig. 8-1) into the front end of the piston rod. The distance from the edge of the bead breaking blade to the bead breaker rubber pad is 1-3/16″to 1-1/2″(30-40mm) as shown in Fig.11. Install the return spring (Fig. 9-3)

Note: If the machine is the one with the quick inflation feature; please open the side panel and insert 2 pieces of Ø12 hose to the inlet of the quick inflation valve and to the Ø12 nozzle. Reinstall the side panel.
3.2.6 If being equipped with the tool box, you must fix firmly and the column completely installed.

3.3 AFRL - AIR FILTER, REGULATOR & LUBRICATOR INSTALLATION:

Note: The AFRL has been detached and placed in the accessory box. The AFRL assembly will be installed at the customer’s location during installation. This is done to prevent damages during shipment.

3.3.1 Remove the AFRL and mounting screw from the accessory box. Remove any oil or dust. Use the screw to mount the AFRL to the right side of the body (Fig. 12).

3.3.2 To connect air hose: Detach the adapter on the ø8 hose on the side wall of the body and insert it into the elbow fitting (Figs. 13 & 14). The adapter is to keep the hose from sliding into the body.

3.3.3 To connect the inflation gun or inflation gauge box: Inlay the adapter of the inflation gun or inflation gauge box into the groove (Fig. 15) on the open nut of the air regulator fitting. Tighten nut to connect the air regulator.
3.3.4 The AFRL has been pre-adjusted at the factory. If it needs adjusted: **Pressure:** Lift up on the pressure adjustable knob (Fig. 16-1) and turn clockwise to increase air pressure. Meanwhile, if turned counter-clockwise, the air pressure will decrease. **Oil Feed:** Use a screwdriver to turn the screw to adjust flow rate (Fig. 16-2). If turned clockwise, the oil flow speed will be reduced. If turned counter-clockwise, the oil flow will be increased.

![Fig. 16](image)

CHAPTER 4 - DEMOUNT AND MOUNT TIRE

4.1 DEMOUNT TIRE

4.1.1 Deflate the tire completely by pulling out the valve stem and/or core. Use a special tool (Wheel Balancer Hammer) to remove balance weights from the rim (Fig. 17).

![Fig. 17](image)

4.1.2 Place the tire between the bead breaking blade and rubber contact pad (Fig. 18). Then step down on the Bead Breaker Pedal (Figs. 2-10 or 3-10) to detach the rim from the tire. Repeat the same operation on the other sections of the tire to fully detach from the rim. Place the wheel with the tire detached from the rim on the turntable and step on the Clamp Pedal (Figs. 2-9 or 3-9) to clamp the rim. **Note:** You can select either the outer clamping or inner clamping to properly clamp the wheel according to different rim types.
To detach the lip smoothly, you can use the brush to spread the lubricant or thick soap liquid between the lip and rim.

4.1.3 Position the Hexangular Shaft (Fig 2-3) to the working position to situate the demount tool to be close to the rim of the wheel, along with using the Limit Handle knob (Fig. 3-11) to position and secure Hex Shaft to rim. Once properly positioned, secure using the Lock Handle (Fig. 2-12).

**Note:** The demount tool will automatically provide a small 2mm gap to the rim (Fig. 19).

The angle of the demount tool has been calibrated according to the standard rim of 13”. If handling the extra-big or extra-small rim, you can reposition.

![Fig. 19](image1)

![Fig. 20](image2)

4.1.4 Use the included Crowbar Tire Tool to detach tire from rim as shown in Fig 20, using the Hex Shaft as a pivot point. Once the Crowbar is positioned, then step on the Turntable Pedal (Fig. 2-8) to rotate the turntable clockwise until the entire tire lip is completely detached from rim.

**Note:** If handling a tubed tire, try to avoid the damage to the tube, as the operator should keep the valve stem 40(10cm) from the right side of the demount tool when demounting tires.

If the demounting of the tire gets jammed, please stop the machine immediately and then lift up the pedal to let the turntable rotate counterclockwise to remove the resistance!

4.1.5 When handling the tubed tire, Take out the tube and then move the lower lip upwards to the upper edge of the rim and then repeat the above steps to detach the other lip.

In the process of demounting tire, you should keep your hands and the other parts of your body from the movable parts. Any necklaces, bracelets and/or loose clothing can cause injury to personnel!

**4.2 MOUNT TIRE:**

Before mounting a tire, ensure to check if the tire and rim are of the same dimension!
4.2.1 Clean the dirt and rust from the rim and position on the turntable. Secure rim to turntable using the clamps.

4.2.2 Spread the lubrication liquid or soap liquid around the lip of tire. Tilt the tire against the rim, keeping the front end upwards. Press down on the hexangular shaft to move the demount tool arm to contact with the rim and lock. The left lip above the tail of the demount tool and the right lip will be positioned under the front end of the demount tool (Fig. 21). Then rotate the turntable clockwise to guide the bottom lip into the tire detaching slot.

![Fig. 21](image1.png)

4.2.3 If there is tube, place it in the tire and plug the core and assemble the lip according to the above mentioned step (Fig. 22).

![Fig. 22](image2.png)

4.3 INFLATION:
When inflating the tire, please be careful and follow the operational process. Ensure to check the air routing to see if the air connection is ok. Note: the tire changer is equipped with an inflation pressure gauge to monitoring the inflation of the tire and the tire’s pressure (Fig. 23).

![Fig. 23](image3.png)
1. Loosen the tire from the turntable.

2. Connect the inflation hose with the tire’s preinstalled valve stem (Fig. 23).

3. In the process of inflation, you should stop the inflation periodically to confirm the pressure indicated on the pressure gauge so not to exceed the tire’s pressure as specified by the manufacturer. The pressure decrease valve equipped in the machine will make the air pressure to not exceed 3.5bar or 51psi. The customer can obtain different inflation pressures by adjusting the regulator’s pressure according to the requirement.

4. If the inflation pressures too high, you can press down on the deflation button on the inflation device to reach the required air pressure.

4.4 Rapid Inflation

If the tubeless tire does not fit securely to the rim, you can first apply rapid inflation by using the bead seating Inflation Jets integrated into the clamps and then use common inflation method:

1. Clamp the wheel and connect the inflation hose.

2. Step down the Inflation Pedal to the lowest position (2) and quickly release the pedal when the tire is full to the upper position (1) as shown above in Fig 24.

3. Repeat stepping on the Inflation Pedal multiple times to confirm the pressure indicated on the pressure gauge does not exceeds the pressure specified by the manufacturer.

During this process, you should always ensure the wheel has been tightly clamped!

Explosive Warning!

When inflating, please follow the following instructions:
- Carefully check that the tire and the rim are of the same dimension.
- Check the wear condition of the tire to confirm the tire isn’t damaged before inflation!

When inflating the tire, please be carefully. Keep your hands and body away from the tire.
CHAPTER 5 - MAINTENANCE & REPAIR

Only a qualified technician can execute the maintenance on the tire changer. Before any maintenance is performed, shut off power. Meanwhile, shut off the air supply and push the air supply switch to the off position and completely deflate the residual air in the machine. To correctly use the tire changer and prolong its working life, it is necessary to periodically provide maintenance and repairs according to the instruction manual. If maintenance and/or repairs are not made, there is a possibility the operation and reliability of the machine may be affected, along with possible injury to the operator.

Monthly Maintenance:

- Keep tire changer and working area clean.
- Clean hexangular shaft (Fig. 25). Use machine oil to lubricate shaft.
- Clean turntable, clamps and demount head. Use lithium based oil to lubricate (Fig 26).
- Check the oil level on the AFRL. If the oil level is low, add SAE-30 lubrication oil to fill line as required (Fig 27).
- Check the oil water separator trap and drain water, as required.
- Periodically check and adjust the tension of the drive belt. Properly adjust, by adjusting the nut in A and B to proper tension (Fig. 28).
- Check all connection parts and tighten as required.

Fig. 25

Fig. 26

Fig. 27

Fig. 28
Hexangular Shaft & Lock Plate Gap Adjustment:

When pressing downward on the lock handle, the hexangular shaft will easily slide up & down vertically due to the weight of the hexangular shaft and the return spring. When the lock handle is rotated clockwise about 100 degrees, the cam connected to the handle will push up on the lock plate to lock the hexangular shaft into position. The gap distance can be increased or decreased by adjusting the adjustment nut (Fig. 29).
TC-950-WPA
Left Side Press Arm Assist
Installation and Operation
(Left Side Press Arm Assembly)

TYRE CHANGER

USER MANUAL

TC-950 & TC-950-WPA
July 2017
CHAPTER 6 - INSTALLATION & OPERATION - LEFT SIDE PRESS ARM

6.1 INSTALLATION - LEFT SIDE PRESS ARM

6.1.1 The Left Side Press Arm assistant can be equipped on the tire changer which can handle a tire with the rim diameter of 20\(\text{in}^{\text{}}\) to assist in the operation of demounting stiff and/or low profile tires. The Left Side Press Arm provides assistance for single operator capability.

⚠️ Before installation, the power and air supply must be shut off!

6.1.1 The left and right side of the base plate of body of the tire changer can handle a tire with a diameter of more than 20\(\text{in}^{\text{}}\) all have the installation hole for the left assistant prepared. Before installation, you can remove the side panel and take off the installation rubber plug. If there is a tool box, you should detach the tool box and set aside.

6.1.2 Unpack the Side Press Arm package and ensure all parts & components are included according to the packing list. After confirmation, takeout the base assembly and install using the hex socket screw and washer (Fig. 30).

![Fig. 30](image)

![Fig. 31](image)

6.1.3 Position the platform of the base plate, for the base assembly into the body through base plate on the left-back side of the body. Align the threaded holes to the reinforced holes on the body’s base and connect using hex bolts and washers (Fig 31).

6.1.4 Install the body bracket (Fig.32-1) on the base assembly. Align holes and connect to base using the screws that were removed. Do not fully tighten at this time.

![Fig. 32-1](image)
6.1.5 Use the fixed supporting bracket (Fig. 33) to connect the body bracket and the body. Insert the screw to connect.

6.1.6 Connect the air source hose (Fig. 34-2) using the Φ Tee fitting to connect the outlet hose and the other end to connect with the inlet of the assistant pressure adjusting valve (Fig. 34-1).

6.1.7 According to the (Fig. 35), fit the bracket on the body that secures the tool box on the fixed bracket and then use the lock nut to tighten.

6.1.8 Loosen the nut below the base and turn the screw clockwise until it is against the ground and is tight (Fig. 36). Re-install the side panel and tool box that was removed section 6.1.1.

The installation of the Left Side Press Arm assembly is now complete.
6.2 USING THE LEFT SIDE PRESS ARM

6.2.1 After detaching the tire from the rim according to the instruction of the Chapter 5, you can execute the following operations.

6.2.2 First, position the claws according to the dimension of the tire and then clamp the rim by the claws and position the tire press cone roller at the center of the rim (Fig. 37). Push down on the manual valve to press the rim down until the rim is lower than the surface of the claws. At this moment, you can immediately lock the rim. Lift up the support arm and place it at the working position and take off the press cone roller and place it on the support.

![Fig. 37](image_url)

![Fig. 38](image_url)

6.2.3 Use the press (Fig. 38-1) to press down the tire by sections of the rim that is detached from the tire and use the brush to spread the lubricant on edge of the lip. Position the demount tool (FIG 40-2) in the demount position. Place the press beside the demount tool to press down the lip and insert the crowbar below the demount tool in between the rim and lip (Fig. 39). Then lift up the press and move it to the position opposite to the demount tool and press the lip into the tire detach groove and then rotate the crowbar to lift the lip onto the demount tool (Fig. 40). Rotate the turntable to detach the upper lip.

![Fig. 39](image_url)

![Fig. 40](image_url)
6.2.4 DETACH THE LOWER LIP: Use the disk to lift up the bottom section of the tire from the bottom of the mouth (Fig. 41) and detach the lower lip (Fig. 42).

6.2.5 MOUNT TIRE: First, according to the steps in section (4.2.1 thru 4.2.3), install the lower lip and use the press tool to press the lower lip as shown in Fig. 43. Rotate the turntable by about 90° then clamp and apply the demount tool (Fig. 44) while continually rotating the turntable until the operation is complete, as noted in section 6.2.5

CHAPTER 7 - TRANSPORTATION

It is highly recommended that the Tire Changer crate is transported by the forklift, once delivered. When transporting an unopened Tire Changer machine, ensure to place forks according to the markings on the outside of the crate packaging to reduce the possibility of damages.
110V OR 220V SINGLE PHASE ELECTRICAL DRAWING

220V 1.1KW 1400rpm

110V OR 220V, 1.1KW, 1400 RPM

TIRE CHANGER 1-PHASE MOTOR (110V OR 220V) WIRING DRAWING (UNIVERSAL)
# CHAPTER 9 - GENERAL TROUBLESHOOTING

<table>
<thead>
<tr>
<th>CHAPTER</th>
<th>REASON</th>
<th>TROUBLESHOOTING</th>
</tr>
</thead>
<tbody>
<tr>
<td>Turntable does not rotate.</td>
<td>Belt damage</td>
<td>Change belt.</td>
</tr>
<tr>
<td></td>
<td>Belt too loose</td>
<td>Adjust the tension of the belt.</td>
</tr>
<tr>
<td></td>
<td>Motor or power source have problems</td>
<td>Check motor, power source and power cord.</td>
</tr>
<tr>
<td></td>
<td>Universal switch contact damage</td>
<td>Change motor if motor burned</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Change Universal switch</td>
</tr>
<tr>
<td>Turntable cannot clamp the rim normally.</td>
<td>Clamp claw worn</td>
<td>Change claws</td>
</tr>
<tr>
<td></td>
<td>Clamp cylinder air leakage</td>
<td>Change and/or seal parts that leak air.</td>
</tr>
<tr>
<td>Hexangular shaft will not lock</td>
<td>Lock plate not in position</td>
<td>Refer to Chapter 5</td>
</tr>
<tr>
<td>Operation pedals will not return to normal position.</td>
<td>Pedal return spring damage</td>
<td>Change torsion spring</td>
</tr>
<tr>
<td>Motor will not rotate or the output torque not sufficient.</td>
<td>Drive system jam</td>
<td>Remove the jam</td>
</tr>
<tr>
<td></td>
<td>Capacitor failure</td>
<td>Change capacitor</td>
</tr>
<tr>
<td></td>
<td>Voltage not sufficient</td>
<td>Wait for the restore of the voltage</td>
</tr>
<tr>
<td></td>
<td>Short-circuit internal defect</td>
<td>Remove &amp; replace</td>
</tr>
<tr>
<td>Cylinder output force not enough.</td>
<td>Air leakage</td>
<td>Change sealing parts</td>
</tr>
<tr>
<td></td>
<td>Air pressure too low</td>
<td>Adjust the air pressure to meet the requirement</td>
</tr>
<tr>
<td>Air Leakage.</td>
<td>Air hose broken</td>
<td>Change broken parts</td>
</tr>
<tr>
<td></td>
<td>Pipe fitting broken</td>
<td>Apply sealant as required</td>
</tr>
<tr>
<td></td>
<td>Defective pneumatic component</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Lack of sealant</td>
<td></td>
</tr>
</tbody>
</table>
## ADDITIONAL INFORMATION: MACHINE OIL SAFETY DATA SHEET

### MACHINE OIL SAFETY DATA SHEET  
**MOBIL XHP 222**

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUALITY STANDARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetration rate 25°C mm/10</td>
<td>280</td>
</tr>
<tr>
<td>Dropping point °C</td>
<td>280</td>
</tr>
<tr>
<td>Anti-corrosion</td>
<td>passed</td>
</tr>
<tr>
<td>Basic oil viscosity</td>
<td>220</td>
</tr>
<tr>
<td>Oxidize stability 100h pressure-drop Kpa</td>
<td>35</td>
</tr>
<tr>
<td>Water lose percentage 79%</td>
<td>5</td>
</tr>
<tr>
<td>Copper Corrosion</td>
<td>1A</td>
</tr>
</tbody>
</table>

### SAE30# LUBRICATION OIL

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUALITY STANDARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>density 15°C</td>
<td>0.893</td>
</tr>
<tr>
<td>Flash point</td>
<td>224</td>
</tr>
<tr>
<td>Pour point °C</td>
<td>-18</td>
</tr>
<tr>
<td>viscosity 40°C</td>
<td>100</td>
</tr>
<tr>
<td>viscosity 100°C</td>
<td>11.2</td>
</tr>
<tr>
<td>Viscosity index</td>
<td>97</td>
</tr>
</tbody>
</table>

### 2# LITHIUM BASE GREASE

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUALITY STANDARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Penetration rate mm/10</td>
<td>278</td>
</tr>
<tr>
<td>dropping point °C</td>
<td>187</td>
</tr>
<tr>
<td>copper corrosion 100°C 24 h</td>
<td>No change</td>
</tr>
<tr>
<td>oxidize stability (99°C 100 h)</td>
<td>0.2</td>
</tr>
<tr>
<td>anticorrosion (52°C 48 h)</td>
<td>1 level</td>
</tr>
<tr>
<td>similarity viscosity (-15°C 10 S⁻¹) / (Pa*S)</td>
<td>800</td>
</tr>
<tr>
<td>water lose(35°C 1h) %</td>
<td>8</td>
</tr>
</tbody>
</table>

### CKC460 INDUSTRIAL GEAR OIL

<table>
<thead>
<tr>
<th>ITEM</th>
<th>QUALITY STANDARD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Viscosity 40°C</td>
<td>461</td>
</tr>
<tr>
<td>Viscosity index</td>
<td>92</td>
</tr>
<tr>
<td>Flash point °C</td>
<td>212</td>
</tr>
<tr>
<td>Freezing point °C</td>
<td>-26</td>
</tr>
<tr>
<td>copper corrosion100°C 3 h</td>
<td>1A</td>
</tr>
<tr>
<td>mechanical impurity</td>
<td>0.007</td>
</tr>
<tr>
<td>Pour point</td>
<td>-10</td>
</tr>
</tbody>
</table>
LIMITED WARRANTY

Structural Warranty:
The following parts and structural components carry a five year warranty:

<table>
<thead>
<tr>
<th>Parts</th>
</tr>
</thead>
<tbody>
<tr>
<td>Columns</td>
</tr>
<tr>
<td>Arms</td>
</tr>
<tr>
<td>Uprights</td>
</tr>
<tr>
<td>Swivel Pins</td>
</tr>
<tr>
<td>Legs</td>
</tr>
<tr>
<td>Carriages</td>
</tr>
<tr>
<td>Overhead Beam</td>
</tr>
<tr>
<td>Tracks</td>
</tr>
<tr>
<td>Cross Rails</td>
</tr>
<tr>
<td>Top Rail Beam</td>
</tr>
</tbody>
</table>

Limited One-Year Warranty:
Tuxedo Distributors, LLC (Tuxedo) offers a limited one-year warranty to the original purchaser of Lifts and Wheel Service equipment in the United States and Canada. Tuxedo will replace, without charge, any part found defective in materials or workmanship under normal use, for a period of one year after purchase. The purchaser is responsible for all shipping charges. This warranty does not apply to equipment that has been improperly installed or altered or that has not been operated or maintained according to specifications.

Other Limitations:
This warranty does not cover:

1. Parts needed for normal maintenance
2. Wear parts, including but not limited to cables, slider blocks, chains, rubber pads and pulleys
3. Replacement of lift and tire changer cylinders after the first 30 days. A seal kit and installation instructions will be sent for repairs thereafter.
4. On-site labor

Upon receipt, the customer must visually inspect the equipment for any potential freight damage before signing clear on the shipping receipt. Freight damage is not considered a warranty issue and therefore must be noted for any potential recovery with the shipping company.

The customer is required to notify Tuxedo of any missing parts within 72 hours. Timely notification must be received to be covered under warranty.

Tuxedo will replace any defective part under warranty at no charge as soon as such parts become available from the manufacturer. No guarantee is given as to the immediate availability of replacement parts.

Tuxedo reserves the right to make improvements and/or design changes to its lifts without any obligation to previously sold, assembled or fabricated equipment.

There is no other express warranty on the Tuxedo lifts and this warranty is exclusive of and in lieu of all other warranties, expressed or implied, including all warranties of merchantability and fitness for a particular purpose.

To the fullest extent allowed by law, Tuxedo shall not be liable for loss of use, cost of cover, lost profits, inconvenience, lost time, commercial loss or other incidental or consequential damages.

This Limited Warranty is granted to the original purchaser only and is not transferable or assignable.

Some states do not allow exclusion or limitation of consequential damages or how long an implied warranty lasts, so the above limitations and exclusions may not apply. This warranty gives you specific legal rights and you may have other rights, which may vary from state to state.

8320 E Hwy 67, Alvarado, TX 76009
Ph. 817-558-9337 / Fax 817-558-9740

26
TC-950 & TC-950-WPA
July 2017