

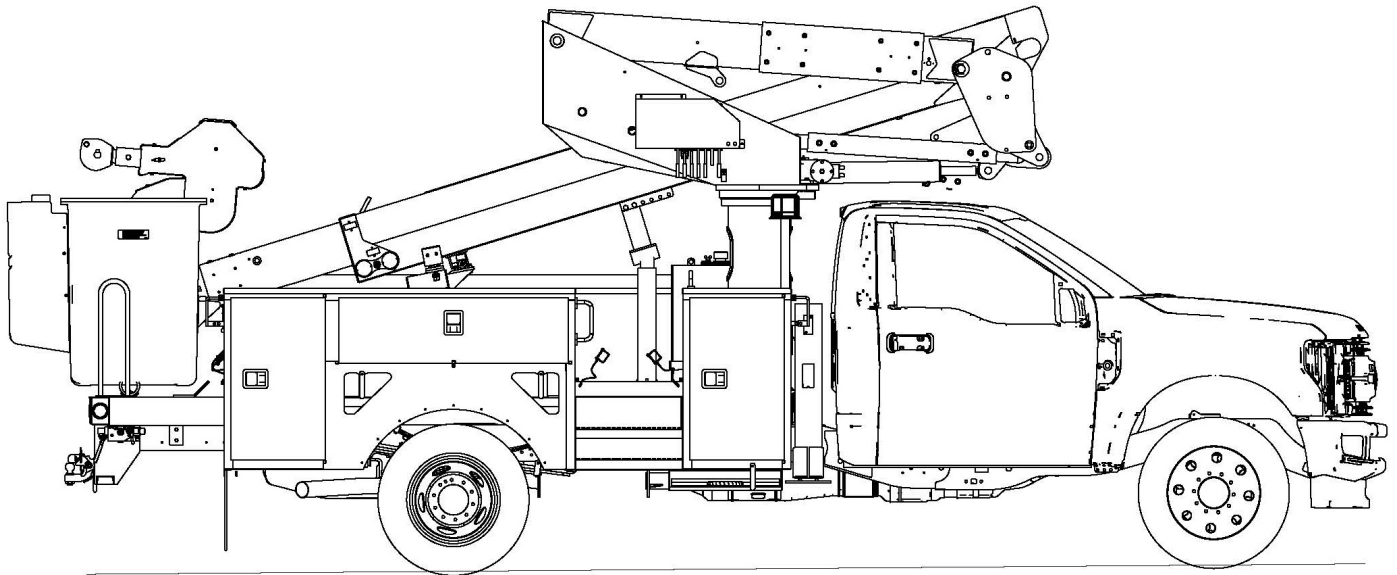


**TEREX®**

# TECH TIPS

**AERIAL LOAD CHARTS P/N 613722**

**NO. 220**



**GENERAL KNOWLEDGE**  
**AERIAL LOAD CHARTS**



**MODEL(S):**  
**AERIAL UNITS USING LOAD**  
**CHART 613722**



**TOOLS NEEDED:**  
**NONE**

**TEREX UTILITIES TECHNICAL SUPPORT TEAM**

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## **DANGER**

Failure to obey the instructions and safety rules in the appropriate Operator's Manual and Service Manual for your machine will result in death or serious injury.

Many of the hazards identified in the Operator's Manual are also safety hazards when maintenance and repair procedures are performed.

## **DO NOT PERFORM MAINTENANCE UNLESS:**

- ✓ You are trained and qualified to perform maintenance on this machine.
- ✓ You read, understand and obey:
  - manufacturer's instructions and safety rules
  - employer's safety rules and worksite regulations
  - applicable governmental regulations
- ✓ You have the appropriate tools, lifting equipment and a suitable workshop.

The information contained in this Tech Tip is a supplement to the Service Manual. Consult the appropriate Service Manual of your machine for safety rules and hazards.



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## TECH TIP#220

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# INTRODUCTION

An operator will move a transformer from the ground and position it on a pole. Using the information in the following steps, determine the maximum jib capacity for the lift plan.



This tech-tip demonstrates how to use a load chart. Always use the unit specific load chart to determine capacities and to plan the path of the load.

## STEP 1

Using the information provided in the table, determine the maximum jib capacity.

| TEREX UTILITIES  |                            |         |         |
|--|----------------------------|---------|---------|
| TL41/ 45 JIB LIFTING CAPACITIES  |                            |         |         |
| Upper Boom Angle   | BASKET SHAFT TO WINCH LINE |         |         |
|  | 0 - 2'                     | 2' - 3' | OVER 3' |
| 75°  | 1000                       | 800     | 550     |
| 60°  | 1000                       | 1000    | 1000    |
| 45°  | 850                        | 800     | 700     |
| 30°  | 450                        | 400     | 400     |
| 15°  | 225                        | 225     | 200     |
| 0°   | 150                        | 150     | 125     |
| -15°   | 200                        | 175     | 175     |
| -30°   | 375                        | 375     | 350     |
| -40°   | 600                        | 600     | 550     |
| MAX  | 1000                       | 1000    | 1000    |
| 1) END MOUNT BOOM TIP WITH COBRA JIB<br>2) 600 LB. PLATFORM CAPACITY<br>3) CAPACITIES ARE IN LB.<br>4) ADD 100 LBS TO JIB CAPACITY IF NO PLATFORM LIFTER. NOT TO EXCEED MAX. |                            |         |         |
| PN 613722C   |                            |         |         |

|                  |                  |                 |               |
|------------------|------------------|-----------------|---------------|
| Load Radius      | 4 feet           | Liner           | 50 lbs.       |
| Operators        | 500 lbs          | Tools           | 30 lbs.       |
| Upper Boom Angle | 25 to 60 degrees | Platform Lifter | Not Installed |

## STEP 2

Determine if the load in the platform is within capacity. Using the load chart, the platform capacity is 600 lbs. The weight of the Operators + Liner + Tools = 500 + 50 + 30 = 580 lbs. The total weight is within the platform capacity.

|                  |                  |                 |               |
|------------------|------------------|-----------------|---------------|
| Load Radius      | 4 feet           | Liner           | 50 lbs.       |
| Operators        | 500 lbs          | Tools           | 30 lbs.       |
| Upper Boom Angle | 25 to 60 degrees | Platform Lifter | Not Installed |

| TEREX UTILITIES  |                            |         |         |
|--|----------------------------|---------|---------|
| TL41/45 JIB LIFTING CAPACITIES   |                            |         |         |
| Upper Boom Angle   | BASKET SHAFT TO WINCH LINE |         |         |
|  | 0 - 2'                     | 2' - 3' | OVER 3' |
| 75°  | 1000                       | 800     | 550     |
| 60°  | 1000                       | 1000    | 1000    |
| 45°  | 850                        | 800     | 700     |
| 30°  | 450                        | 400     | 400     |
| 15°  | 225                        | 225     | 200     |
| 0°   | 150                        | 150     | 125     |
| -15°   | 200                        | 175     | 175     |
| -30°   | 375                        | 375     | 350     |
| -40°   | 600                        | 600     | 550     |
| MAX  | 1000                       | 1000    | 1000    |
| 1) END MOUNT BOOM TIP WITH COBRA JIB<br>2) 600 LB. PLATFORM CAPACITY<br>3) CAPACITIES ARE IN LB.<br>4) ADD 100 LBS TO JIB CAPACITY IF NO PLATFORM LIFTER. NOT TO EXCEED MAX. |                            |         |         |
| PN 613722C   |                            |         |         |

### STEP 3

The load radius is 4 feet. Based on this load radius, we will be using the 3rd column in the loadchart for a radius of over 3'.

|                  |                  |                 |               |
|------------------|------------------|-----------------|---------------|
| Load Radius      | 4 feet           |                 |               |
| Upper Boom Angle | 25 to 60 degrees | Platform Lifter | Not Installed |

| TEREX UTILITIES  |                            |         |         |
|--|----------------------------|---------|---------|
| TL41/45 JIB LIFTING CAPACITIES   |                            |         |         |
| Upper Boom Angle   | BASKET SHAFT TO WINCH LINE |         |         |
|  | 0 - 2'                     | 2' - 3' | OVER 3' |
| 75°  | 1000                       | 800     | 550     |
| 60°  | 1000                       | 1000    | 1000    |
| 45°  | 850                        | 800     | 700     |
| 30°  | 450                        | 400     | 400     |
| 15°  | 225                        | 225     | 200     |
| 0°   | 150                        | 150     | 125     |
| -15°   | 200                        | 175     | 175     |
| -30°   | 375                        | 375     | 350     |
| -40°   | 600                        | 600     | 550     |
| MAX  | 1000                       | 1000    | 1000    |
| 1) END MOUNT BOOM TIP WITH COBRA JIB<br>2) 600 LB. PLATFORM CAPACITY<br>3) CAPACITIES ARE IN LB.<br>4) ADD 100 LBS TO JIB CAPACITY IF NO PLATFORM LIFTER. NOT TO EXCEED MAX. |                            |         |         |
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FIGURE 3

## STEP 4

Using the range of upper boom angles, the lowest capacity throughout the entire range must be used. The jib capacity in this situation is 200 lbs.

According to the load chart, if a platform lifter is not installed then 100 lbs can be added to the jib capacities. Since a platform lifter is not installed, 100 lbs is added to the capacity. The max jib capacity for this lift plan is 300 lbs.

**Note:** Added capacity cannot exceed the maximum capacity allowed.

Upper Boom Angle      25 to 60 degrees      Platform Lifter      Not Installed

| TEREX UTILITIES  |                            |         |         |
|--|----------------------------|---------|---------|
| TL41/45 JIB LIFTING CAPACITIES   |                            |         |         |
| Upper Boom Angle   | BASKET SHAFT TO WINCH LINE |         |         |
|  | 0 - 2'                     | 2' - 3' | OVER 3' |
| 75°  | 1000                       | 800     | 550     |
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| 30°  | 450                        | 400     | 400     |
| 15°  | 225                        | 225     | 200     |
| 0°   | 150                        | 150     | 125     |
| -15°   | 200                        | 175     | 175     |
| -30°   | 375                        | 375     | 350     |
| -40°   | 600                        | 600     | 550     |
| MAX  | 1000                       | 1000    | 1000    |
| 1) END MOUNT BOOM TIP WITH COBRA JIB<br>2) 600 LB. PLATFORM CAPACITY<br>3) CAPACITIES ARE IN LB.<br>4) ADD 100 LBS TO JIB CAPACITY IF NO PLATFORM LIFTER. NOT TO EXCEED MAX. |                            |         |         |
| PN 613722C   |                            |         |         |

FIGURE 4



FOR FURTHER ASSISTANCE,  
CONTACT THE TEREX UTILITIES TECHNICAL SUPPORT TEAM  
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