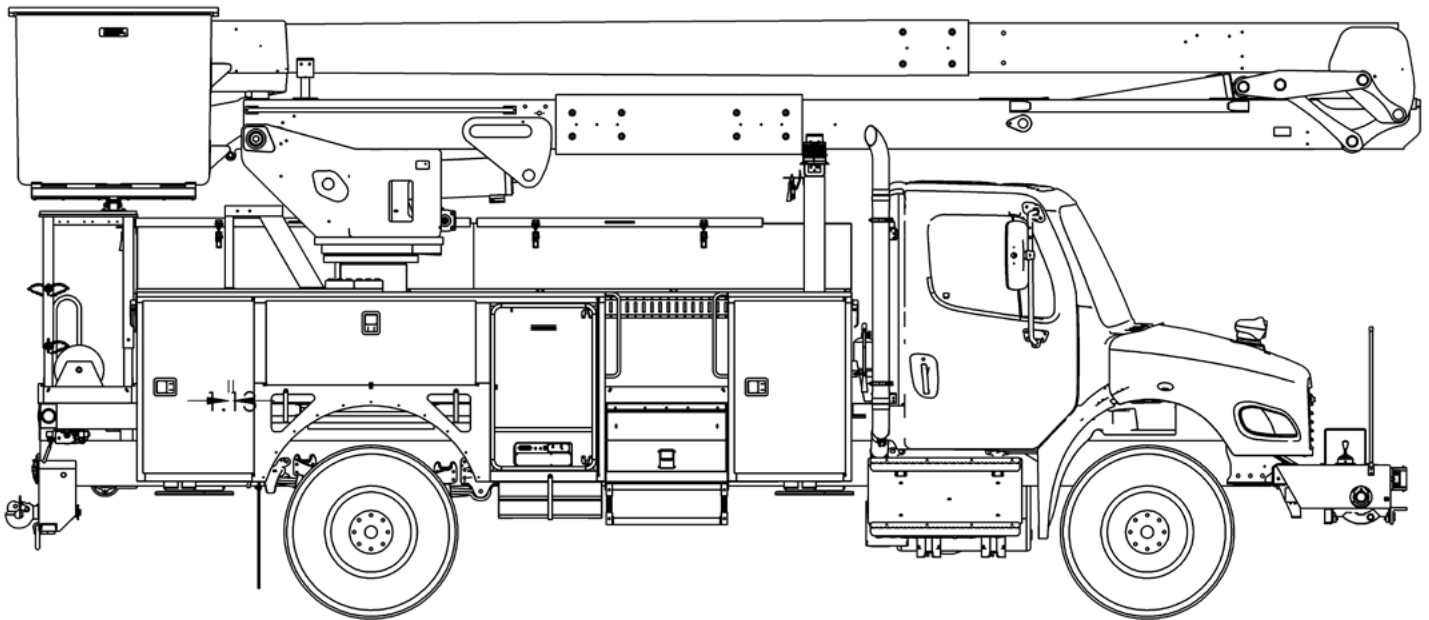




TECH TIPS

AERIAL LOAD CHARTS P/N 623142

No. 180



GENERAL KNOWLEDGE
AERIAL LOAD CHARTS



MODEL(S):
AERIAL UNITS USING LOAD
CHART 623142



TOOLS NEEDED:
NONE

TEREX UTILITIES TECHNICAL SUPPORT TEAM

PHONE: 1-844-TEREX4U (1-844-837-3948) | EMAIL: UTILITIES.SERVICE@TEREX.COM



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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INTRODUCTION

An operator will move a transformer from the ground and position it on a pole. Using the information in the following steps, determine if the lift plan can be achieved while remaining within the limits of the load chart.



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

The transformer has a known weight of 285 lbs. Performing a dry run, the operator determined the boom angles required to move and place the transformer.

TEREX UTILITIES					
OPTIMA TC55 JIB CAPACITIES					
Upper Boom Angle	JIB CAPACITY AT LOAD RADIUS SHOWN				
	Zone A			Zone B	
	Lower Boom to 110 deg			LB Over 110 deg	
	0-2'	2-4'	4-6'	0-2'	2'+
-60	1380	750	500	870	500
-30	580	560	500	140	140
0	560	540	500	0	0
15	570	550	500	0	0
30	750	700	500	230	200
45	1150	750	500	530	500
60	1500	750	500	1140	500
65	1500	750	500	1400	500
70	1500	750	500	1500	500

1) Capacities are in pounds
 2) Load radius is the horizontal distance from basket shaft to winch line
 3) See lower boom angle indicator for correct zone
 4) If upper is between angles shown, use lower jib capacity
 5) Platform capacity is 700. Jib capacities are independent of platform load

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Load Radius	2 feet, 3 inches	Liner	80 lbs.
Operator	230 lbs.	Tools	80 lbs.
Transformer	285 lbs.	Lower Boom Angle	112 degrees
Upper Boom Angle	35 degrees		

STEP 2

Determine if the load in the platform is within capacity.

Using the load chart, the platform capacity is 700 lbs.

The weight of the Operator + Liner + Tools = 230 + 80 + 80 = 390 lbs.

The total weight is less than the platform capacity.

Load Radius	2 feet, 3 inches	Liner	80 lbs.
Operator	230 lbs.	Tools	80 lbs.
Transformer	285 lbs.	Lower Boom Angle	112 degrees
Upper Boom Angle	35 degrees		

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STEP 3

An indicator light on top of the lower controls will be ON when the lower boom is greater than 110 degrees – indicating Zone B must be used.

Figure 3

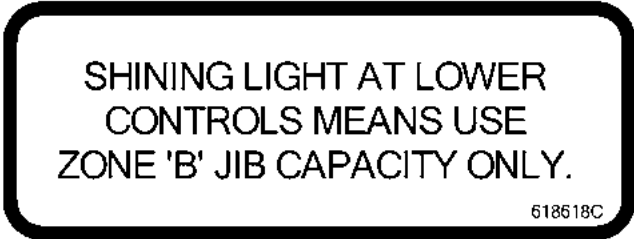


FIGURE 3

According to the table, the lower boom is at 112 degrees. This means we'll be using Zone B of the load chart. **Figure 4**

Load Radius	2 feet, 3 inches	Transformer	285 lbs.
Lower Boom Angle	112 degrees	Upper Boom Angle	35 degrees

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FIGURE 4

STEP 4

The load radius is 2 feet, 3 inches.

Based on this load radius, we'll be using the right column in Zone B.

Load Radius	2 feet, 3 inches	Transformer	285 lbs.
Lower Boom Angle	112 degrees	Upper Boom Angle	35 degrees

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STEP 5

Use the angle indicator located at the upper boom tip to determine the angle of the upper boom. The upper boom angle is listed in the table at 35 degrees. Since 35 is between 30 and 45, the lower jib capacity must be used. The max load that can be lifted in this position is 200 lbs. The 285 lb. transformer cannot be placed. **Figure 7**

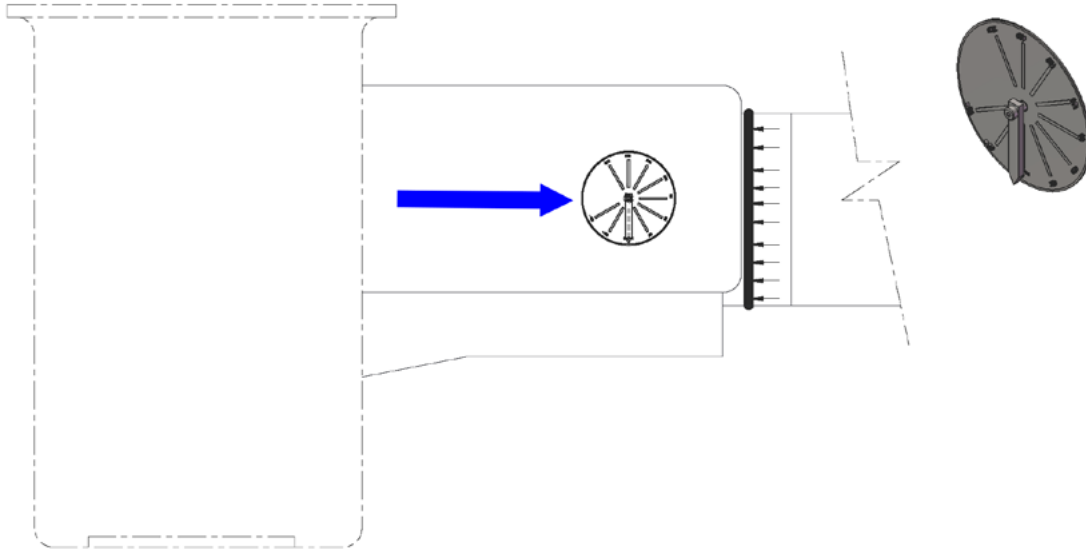


FIGURE 6

TEREX UTILITIES					
OPTIMA TC55 JIB CAPACITIES					
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FIGURE 7

STEP 6

If the unit is repositioned to allow the transformer to be placed at 110 degrees or less, it would have sufficient capacity to perform the lift.

Another option would be to raise the upper boom to 45 degrees and winch the transformer up from the ground.

Whichever configuration is used, the weight of the load must be within capacity from the pick-up point, through the complete path, to the drop-off point.

Load Radius	2 feet, 3 inches	Transformer	285 lbs.
Lower Boom Angle	108 degrees	Upper Boom Angle	35 degrees

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