



An Oshkosh Corporation Company

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# Supplemental Operation & Safety Manual

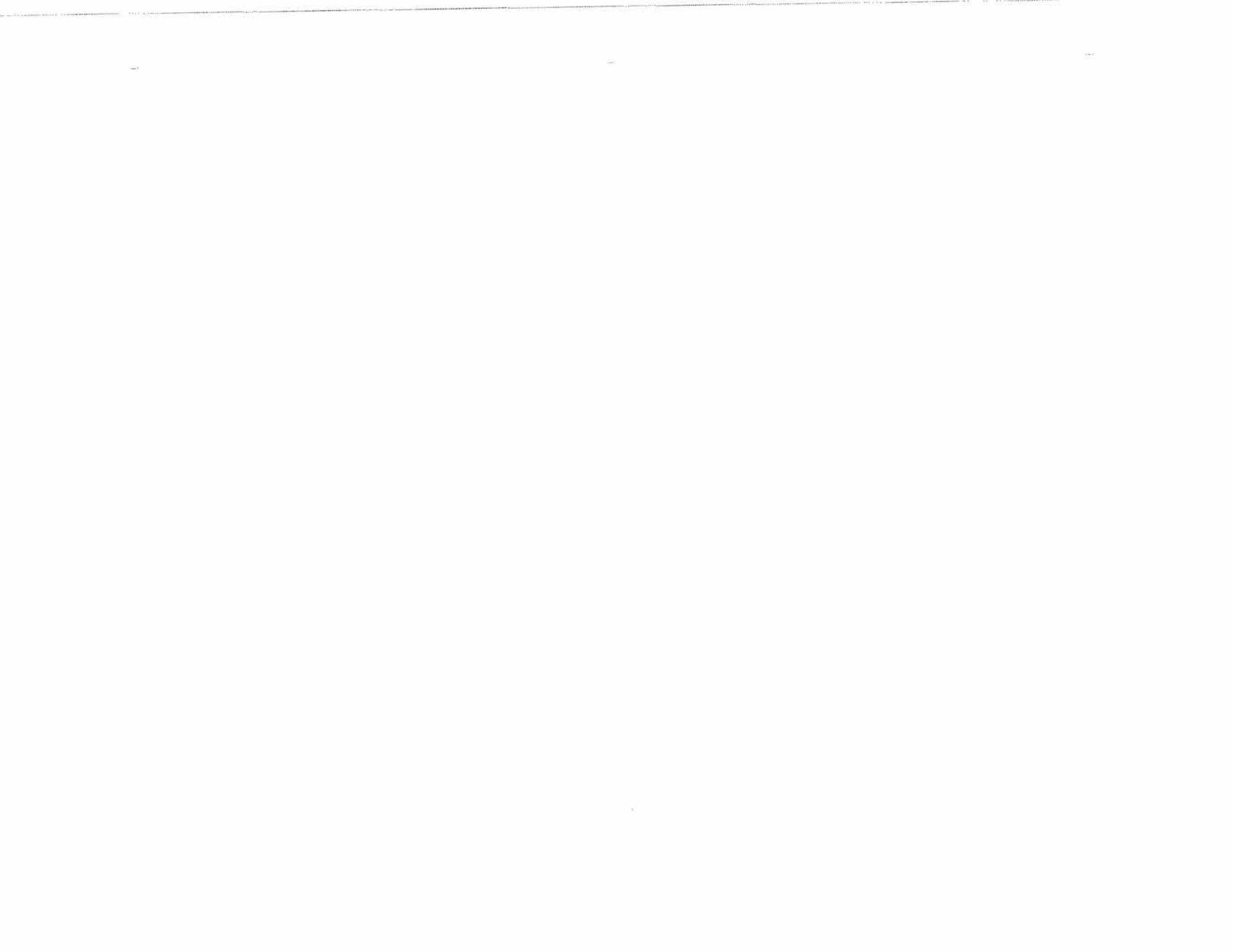
*Supplemental  
Manual  
for  
Authorized &  
Trained Set  
Lighting  
Technicians &  
Studio Grips*

**P/N - 3128151**

March 26, 2018



An Oshkosh Corporation Company



## **FOREWORD**

This manual is a very important tool! Keep it with the machine at all times.

The purpose of this manual is to provide owners, users, operators, lessors, and lessees with the precautions and operating procedures essential for the safe and proper machine operation for its intended purpose.

Due to continuous product improvements, JLG Industries, Inc. reserves the right to make specification changes without prior notification. Contact JLG Industries, Inc. for updated information.

## SAFETY ALERT SYMBOLS AND SAFETY SIGNAL WORDS



This is the Safety Alert Symbol. It is used to alert you to the potential personal injury hazards. Obey all safety messages that follow this symbol to avoid possible injury or death

### **⚠ DANGER**

INDICATES AN IMMINENTLY HAZARDOUS SITUATION. IF NOT AVOIDED, WILL RESULT IN SERIOUS INJURY OR DEATH. THIS DECAL WILL HAVE A RED BACKGROUND.

### **⚠ WARNING**

INDICATES A POTENTIALITY HAZARDOUS SITUATION. IF NOT AVOIDED, COULD RESULT IN SERIOUS INJURY OR DEATH. THIS DECAL WILL HAVE AN ORANGE BACKGROUND.

### **⚠ CAUTION**

INDICATES A POTENTIALITY HAZARDOUS SITUATION. IF NOT AVOIDED, MAY RESULT IN MINOR OR MODERATE INJURY. IT MAY ALSO ALERT AGAINST UNSAFE PRACTICES. THIS DECAL WILL HAVE A YELLOW BACKGROUND.

### **NOTICE**

INDICATES PROCEDURES ESSENTIAL FOR SAFE OPERATION. THIS DECAL WILL HAVE A GREEN BACKGROUND.

**⚠ WARNING**

THIS PRODUCT MUST COMPLY WITH ALL SAFETY RELATED BULLETINS. CONTACT JLG INDUSTRIES, INC. OR THE LOCAL AUTHORIZED JLG REPRESENTATIVE FOR INFORMATION REGARDING SAFETY-RELATED BULLETINS WHICH MAY HAVE BEEN ISSUED FOR THIS PRODUCT.

**NOTICE**

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**NOTICE**

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- Questions Regarding Special Product Applications
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## **REVISION LOG**

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## SECTION 1. SAFETY PRECAUTIONS

### 1.1 GENERAL

This Manual was prepared for Set Lighting Technicians and Studio Grips to provide guidelines for the use of lighting and studio equipment on JLG Aerial Work Platforms. This manual contains requirements that must be followed by trained Set Lighting Technicians and Studio Grips in order to perform these functions.

#### **⚠ WARNING**

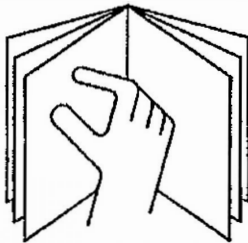
STRICT COMPLIANCE WITH THIS SUPPLEMENTAL MANUAL AS WELL AS THE OPERATORS MANUAL FOR THE SPECIFIC MODEL, ALONG WITH ANY TRAINING REQUIRED BY THE UNION/STUDIO IS NECESSARY FOR THE SAFE OPERATION OF THIS MACHINE.

### 1.2 REQUIREMENTS FOR ATTACHMENT OF SET LIGHTING, CAMERA MOUNTS AND EQUIPMENT, OR LIGHT DIFFUSION FRAMES

#### **NOTICE**

MODIFICATION OF THIS MACHINE THROUGH THE ATTACHMENT OF LIGHTS, CAMERAS, AND LIGHT DIFFUSION FRAMES (AND ASSOCIATED HARDWARE) TO THE PLATFORM RAILS IS AUTHORIZED ONLY IF THE RULES AND REQUIREMENTS LISTED BELOW ARE STRICTLY ADHERED TO.

- Do not operate this machine until complete training is performed by authorized persons.
- Read and understand this manual and the Operators Manual for the specific machine model before operating the machine.



- Be sure that the ground conditions are able to support the maximum load shown on the decals located on the machine.

- Do not raise the platform or drive from an elevated position unless the machine is on firm, level surfaces and evenly supported.
- The attachment of power supply cables to the boom shall not restrict the movement of the aerial lift or endanger the operator or people on the ground.
- Attachment of power supply cables shall be done in a way that does not cause a tip-over hazard due to a side or vertical force that could result in the machine becoming unstable.
- Power supply cables must be attached to the end of each boom section in a way that ensures the cable cannot be damaged by tensioning, pinching, or crushing when the boom is operated. Do not hang cables over platform rails without attaching them.
- When attaching movie production equipment, do not modify the platform rails by drilling, welding, crushing, damaging, or making any other modifications that compromise the strength of the platform rails.
- When attaching movie production equipment, the entrance to the platform, the footswitch, platform control console, lanyard anchorage points, the platform decals and manual storage box must remain accessible.
- The combined weight of lighting or camera equipment, power supply cables, mounting hardware, platform occupant(s), tools, and equipment must in all cases remain less than the maximum rated platform capacity. Use the platform capacity reduction chart found in this supplement to determine the allowable platform load.
- The number and size of attachments must be limited by consideration of the maximum allowable wind speed and surface area of the platform attachments. Use the wind speed chart found in this supplement to determine maximum allowable wind speed.
- Information regarding the attachment of lighting and camera equipment shall be supplied only to trained operators. Operators must be familiar with these supplemental instructions and warnings before they are allowed to operate the aerial work platform.
- Light Diffusion Frames (LDF's) hung from the platform rail must not be rigidly attached in any way that could cause or impose a side or vertical load from wind or contact with adjacent objects.

## SECTION 1 - SAFETY PRECAUTIONS

- Attachment of LDF's and rope to the platform shall be accomplished in a manner that does not cause a tip-over hazard due to a side or vertical force that could result in the machine becoming unstable.
- For models 1200SJP and 1350SJP, all lights, light mounting hardware, light diffusion frames, and camera mounting hardware must be removed prior to performing the Boom Control System Check Procedure as outlined in the specific Operators Manual for those machines.

### 1.3 WIND SPEED CHART

The following chart is to be used to establish the maximum allowable wind speed with relation to the surface area of light diffusion frames.

When attaching movie production equipment such as light diffusion frames or set lighting to a platform, operation in windy conditions is limited by the total surface area of the equipment added. Refer to Table 1-1, Maximum Allowable Wind Speed.

Table 1-1. Maximum Allowable Wind Speed

Area of Attachment	Max. Wind Speed in MPH
4' x 4' (16 sq. ft.)	25
6' x 6' (36 sq. ft.)	25
8' x 8' (64 sq. ft.)	25
12' x 12' (144 sq. ft.)	18
20' x 20' (400 sq. ft.)	11

#### **WARNING**

FOR THE 1200SJP AND 1350SJP, PLATFORM HEIGHT NEEDS TO BE LIMITED TO 80 FEET OR THE SIZE OF THE DIFFUSION FRAME LIMITED TO 8 X 8 FEET.

#### **WARNING**

ELEVATING AN AERIAL WORK PLATFORM IN WIND SPEEDS OR WITH SURFACE AREAS GREATER THAN WHAT IS LISTED IN TABLE 1-1 MAY CAUSE THE BOOM AND/OR AERIAL WORK PLATFORM TO BECOME UNSTABLE AND COULD RESULT IN DEATH OR SERIOUS INJURY.

## SECTION 2. PLATFORM CAPACITY REDUCTION

## 2.1 PLATFORM CAPACITY REDUCTION

**⚠ WARNING**

**TIP OVER HAZARD. EXCEEDING THE RATED CAPACITY OF THE PLATFORM BY ATTACHING MOVIE PRODUCTION EQUIPMENT COULD CAUSE THE PLATFORM TO BECOME UNSTABLE AND COULD RESULT IN DEATH OR SERIOUS INJURY. ALWAYS CALCULATE THE REDUCTION OF PLATFORM CAPACITY CAUSED BY THE ATTACHMENT OF MOVIE PRODUCTION EQUIPMENT.**

Platform capacity is based on an evenly distributed load in the platform basket. When movie production equipment (i.e. light diffusion frames, set lighting, camera mounts and equipment) is attached to the rear of the platform, the platform capacity is reduced by more than the weight of the equipment. The farther the equipment is mounted from the center of the platform, the greater the platform's capacity is affected and must be reduced.

Reduce platform capacity as follows:

1. Attachment of power supply cables to the boom reduces platform capacity. Subtract the total suspended weight of cables and rigging from the rated platform capacity.

2. Subtract the load applied to the platform by the attachment of additional movie production equipment (as shown in the following illustration) by using Table 2-1, Platform Capacity Reduction Chart - 400S, 600S, 800S, 450A, 600A, 800A or Table 2-2, Platform Capacity Reduction Chart - 460SJ, 660SJ, 860SJ, 450AJ, 600AJ, 800AJ, 1200SJP, 1350SJP as applicable. (Refer to Figure 2-1., Figuring Capacity Reduction for attachment details.

**EXAMPLE:** This example will use Table 2-1 and Figure 2-1. Assume the weight of the lighting equipment, cables, and mounting hardware is 83 pounds. The distance from the kickplate to the CG (Center of Gravity) of the equipment (Distance A or Distance B) is 33 inches. The weight of the equipment must be rounded up to the next highest figure in the left column, which is 100 pounds and the distance to the kickplate must be rounded up to the next highest figure at the top of the chart which is 36 inches. Using these figures on the chart, we see that the Rated Load must be reduced by 161 pounds. On a platform with 500 pounds capacity, the new rated capacity would be 500 pounds - 161 pounds = 339 pounds.

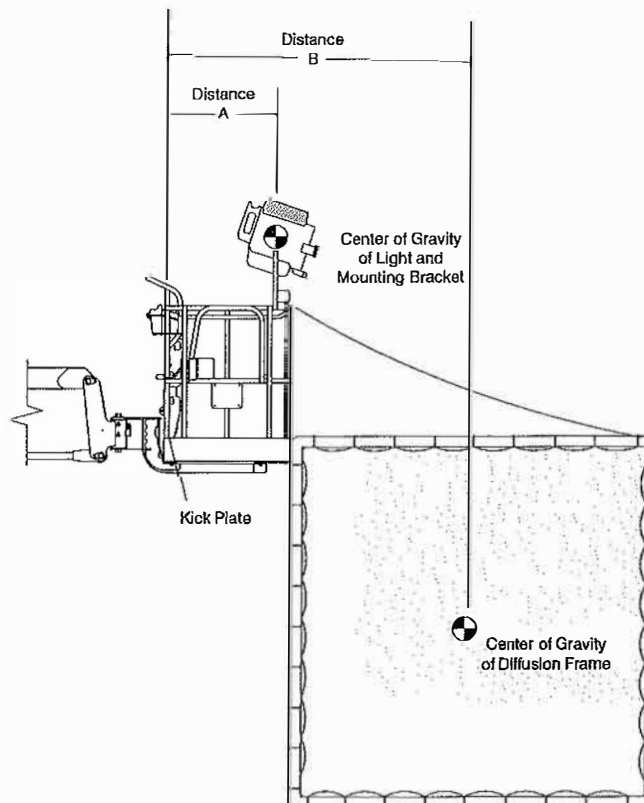


Figure 2-1. Figuring Capacity Reduction

**SECTION 2 - PLATFORM CAPACITY REDUCTION**

**Table 2-1. Platform Capacity Reduction Chart - 400S, 600S, 800S, 450A, 600A, 800A**

Weight of Added Equipment (lbs.)	Distance from kickplate below control box to equipment CG (inches) (Distance A or Distance B)											
	30	36	48	60	72	84	96	108	120	132	144	156
	Number of Pounds to reduce rated Platform Load by											
50	72	80	98	115	132	149	167	184	201	218	236	253
75	108	121	147	172	198	224	250	276	302	328	353	379
100	144	161	195	230	264	299	333	368	402	437	471	506
125	180	201	244	287	330	374	417	460	503	546	589	632
150	216	241	293	345	397	448	500	551	602	653	704	755
175	251	282	342	402	463	523	583	643	703	763	823	883
200	287	322	391	460	530	600	670	740	810	880		
225	323	362	440	520	600	680	760	840	920			
250	359	402	489	580	670	760	850	940				
275	395	443	537	638	738	838	938					
300	431	483	583	690	790	890						
325	467	523	630	740	840							
350	503	565	680	790								
375	539	605	730	840								
400	575	645	780	890								
425	611	685	830	940								
450	647	725	880	990								
475	683	765	930									
500	719	805										
525	755	845										
550	791	885										
575	827	925										
600	863	965										
625	899											
650	935											

**NOTE:** When weighing equipment added, **ALWAYS** round the total weight **UP** to the pounds figure in the left column of this chart. When measuring distance to the kickplate, **ALWAYS** round the distance **UP** to the next highest value at the top of this chart.

**SECTION 2 - PLATFORM CAPACITY REDUCTION**

**Table 2-2. Platform Capacity Reduction Chart - 340AJ, 460SJ, 660SJ, 860SJ, 450AJ, 600AJ, 800AJ, 1200SJP, 1350SJP**

Weight of Added Equipment (lbs.)	Distance from kickplate below control box to equipment CG (inches) (Distance A or Distance B)											
	30	36	48	60	72	84	96	108	120	132	144	156
	Number of Pounds to reduce rated Platform Load by											
50	58	61	67	74	80	86	93	99	105	111	118	124
75	87	92	101	110	120	129	139	148	158	167	177	186
100	116	122	135	147	160	172	185	198	210	223	235	248
125	145	153	168	184	200	216	231	247	263	279	294	310
150	174	183	202	221	240	259	278	296	315	334	353	372
175	203	214	236	258	280	302	324	346	368	390	412	434
200	231	244	269	294	320	345	370	395	420	446	471	496
225	260	275	303	331	360	388	416	445	473	501	530	558
250	289	305	337	368	400	431	463	494	526	557	589	620
275	318	336	370	405	440	474	509	544	578	613	648	682
300	347	366	404	442	480	517	555	593	631	669	707	744
325	376	397	438	479	520	561	602	643	684	725	765	806
350	405	427	471	515	560	604	648	692	736	780	824	868
375	434	458	505	552	600	647	694	741	789	836	883	931
400	463	488	539	589	640	690	740	791	841	892	942	993
425	492	519	572	626	680	733	787	840	894	947		
450	521	549	606	663	719	776	833	890	946			
475	550	580	640	700	759	819	879	939	999			
500	579	610	673	736	799	862	926	989				
525	608	641	707	773	839	906	972					
550	637	671	741	810	879	949						
575	666	702	774	847	919	992						
600	695	732	808	884	959							
625	723	763	842	920	999							
650	752	793	875	957								
675	781	824	909	994								
700	810	854	943									
725	839	885	976									
750	868	915										
775	897	946										
800	926	977										
825	955											
850	984											

**NOTE:** When weighing equipment added, **ALWAYS** round the total weight **UP** to the pounds figure in the left column of this chart.  
When measuring distance to the kickplate, **ALWAYS** round the distance **UP** to the next highest value at the top of this chart.

**SECTION 2 - PLATFORM CAPACITY REDUCTION**

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## SECTION 3. RANGE DIAGRAMS

### 3.1 RANGE OF MOTION

The Range of Motion charts in this section are to be used under the following conditions:

- The Range of Motion charts are for those thoroughly trained in the use of the aerial work platform and the movie production equipment as outlined in Section 1 of this manual.
- Do not exceed the maximum rating for each model as shown on the applicable Range of Motion chart.
- The machine must be positioned on smooth, firm, and level surface capable of supporting the weight of the machine.
- Elevating a work platform in windy conditions must be restricted to the instructions found in this supplement and in the Operator's Manual for the specific machine being used.
- Platform loading must be restricted to the instructions found in this supplement and in the Operator's Manual for the specific machine being used. Capacities shown are for platform operators and materials.

# SECTION 3 - RANGE DIAGRAMS

NOTE: Capacities shown are for Operators and/or materials.

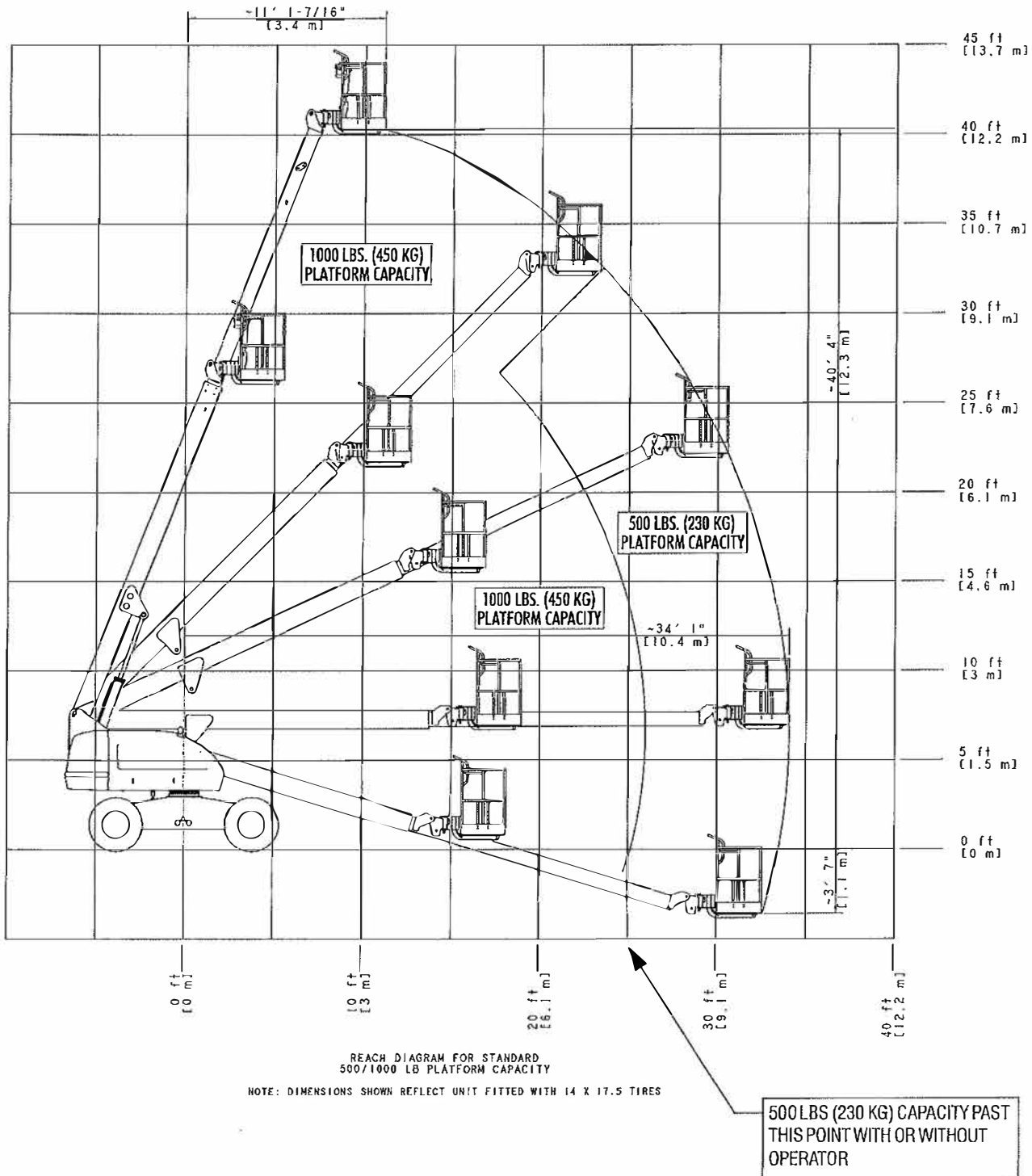
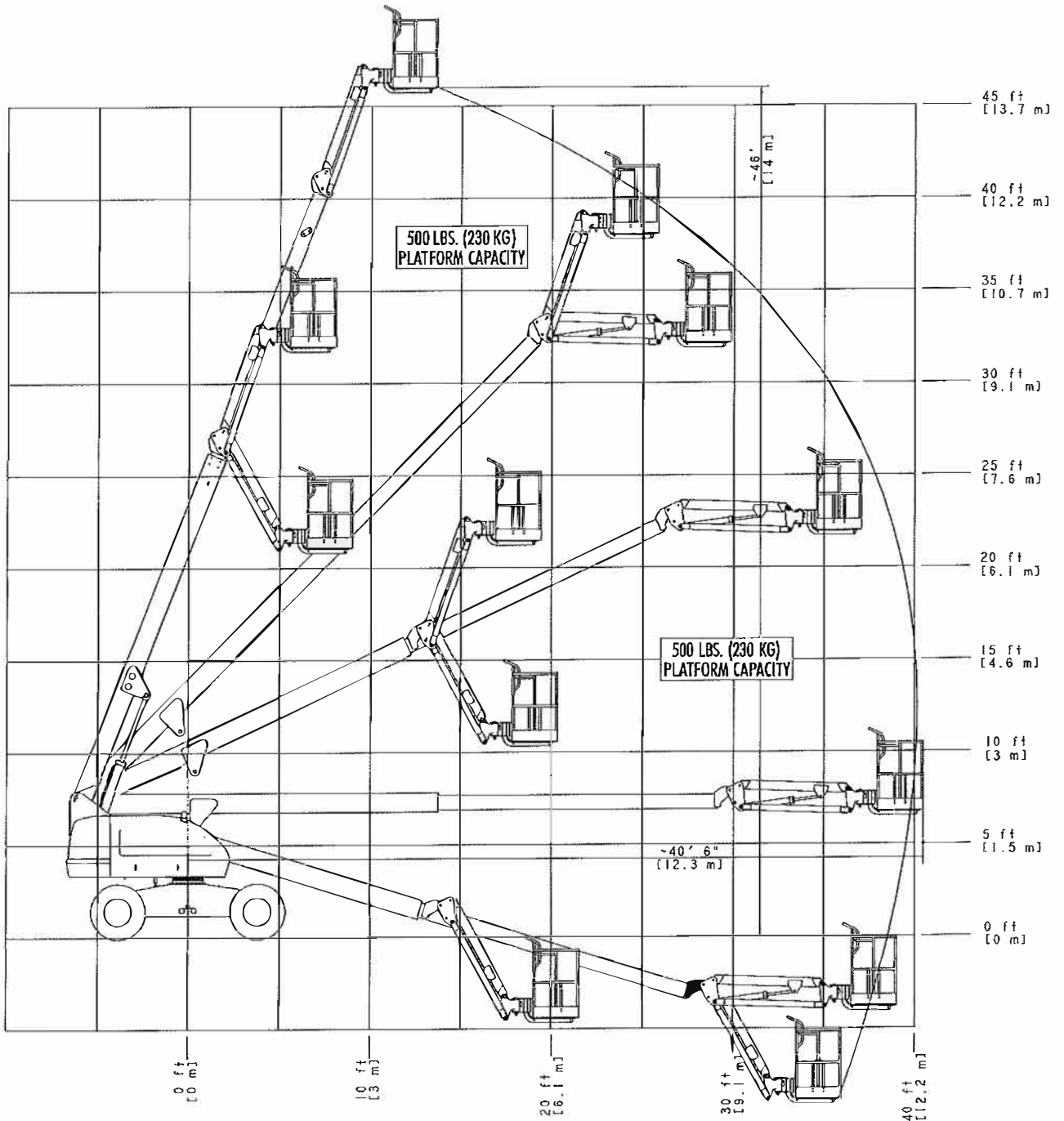


Figure 3-1. 400S Reach Chart

**SECTION 3 - RANGE DIAGRAMS**

NOTE: Capacities shown are for Operators and/or materials.



**Figure 3-2. 400SJ Reach Chart**

**SECTION 3 - RANGE DIAGRAMS**

NOTE: Capacities shown are for Operators and/or materials.

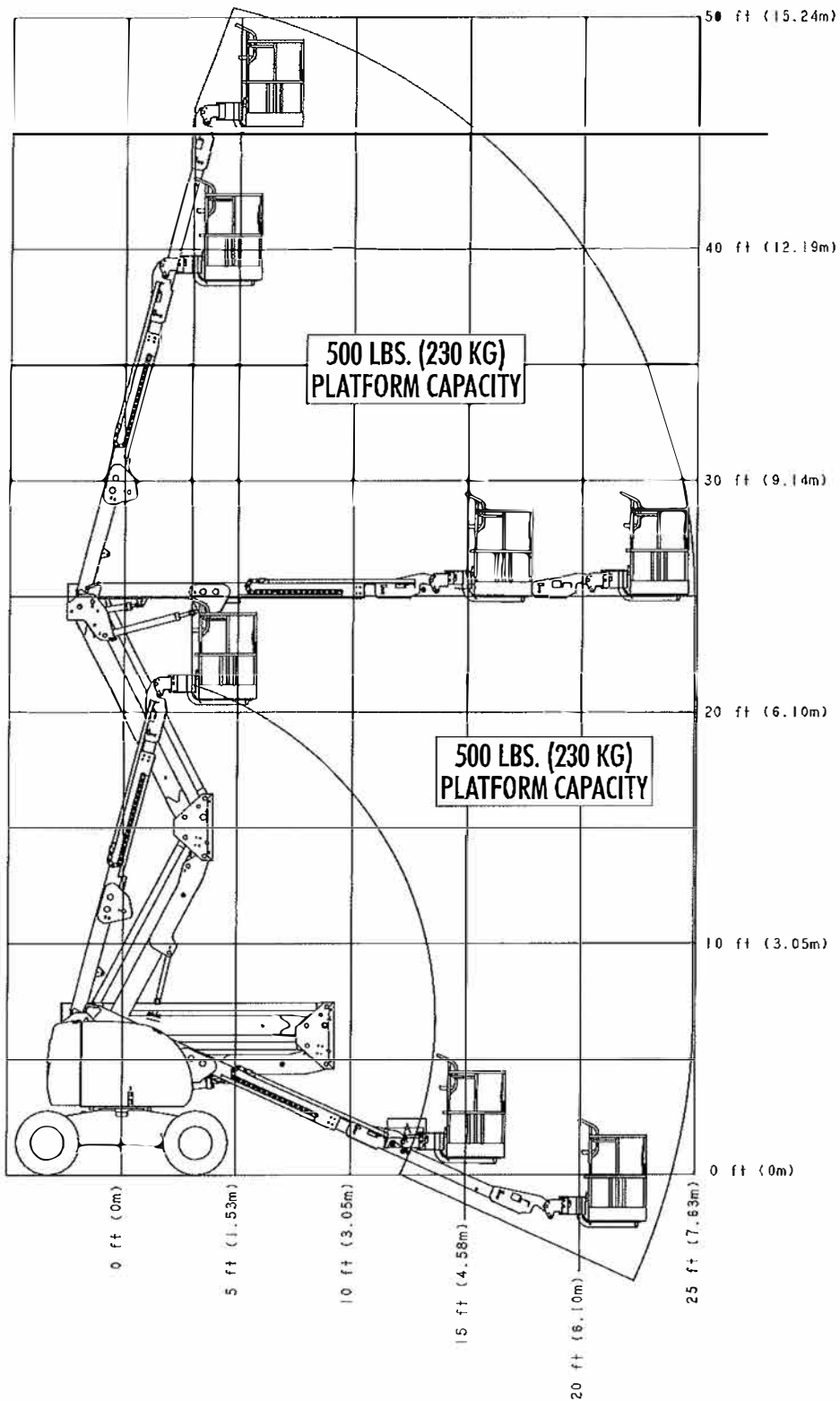


Figure 3-3. 450A Series II Reach Chart

**SECTION 3 - RANGE DIAGRAMS**

NOTE: Capacities shown are for Operators and/or materials.

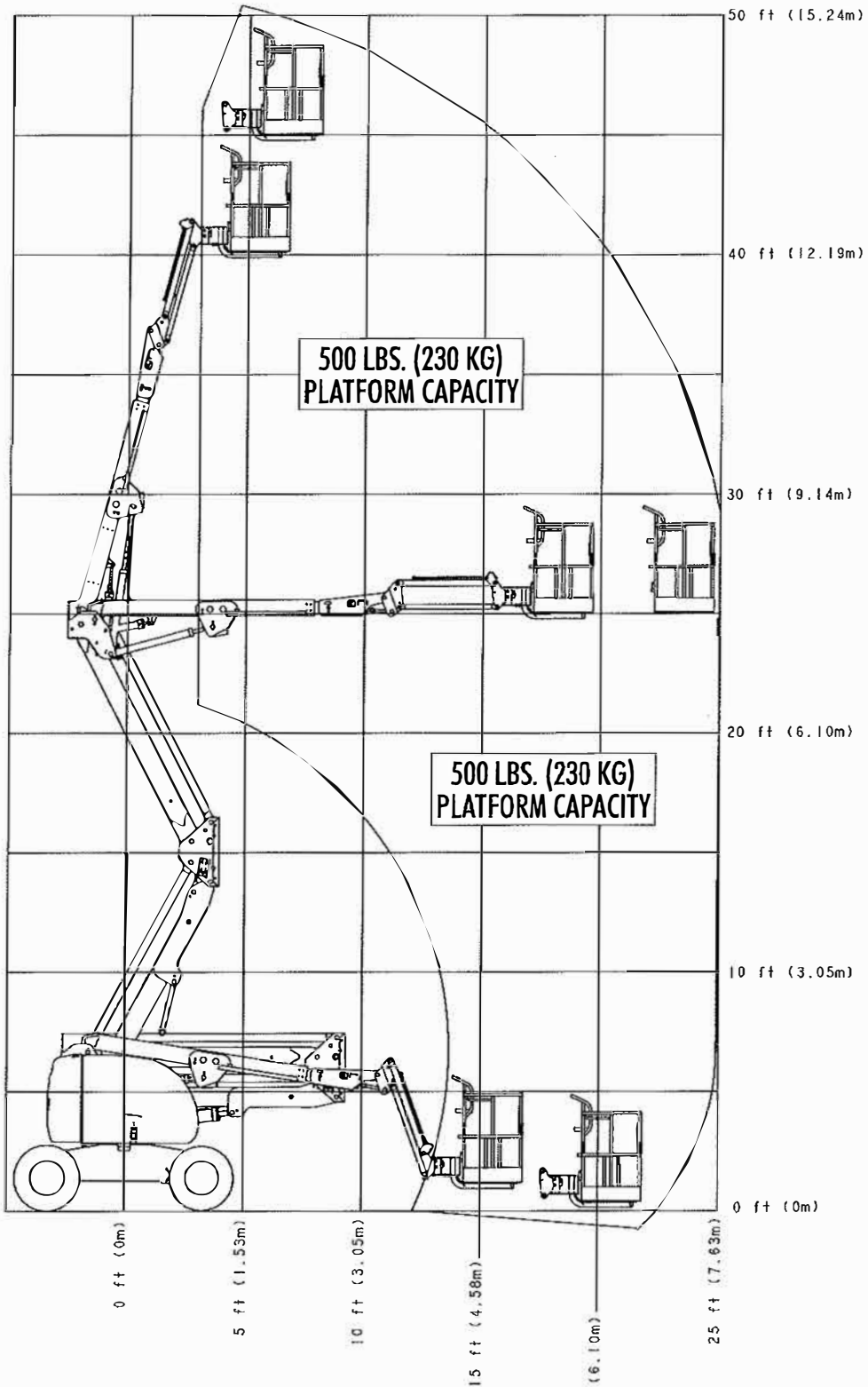


Figure 3-4. 450AJ Series II Reach Chart

**SECTION 3 - RANGE DIAGRAMS**

NOTE: Capacities shown are for Operators and/or materials.

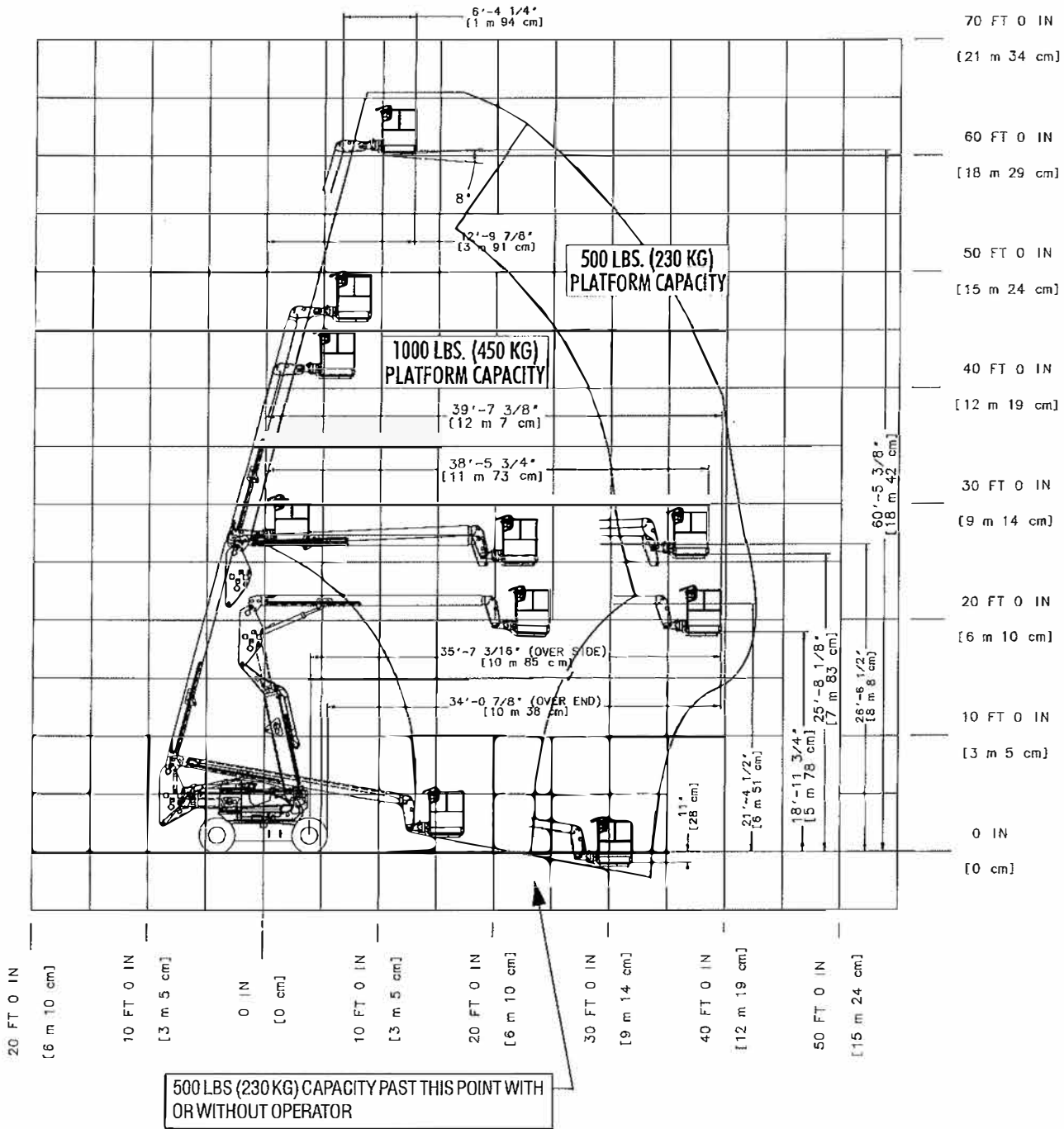


Figure 3-5. 600A Reach Chart

**SECTION 3 - RANGE DIAGRAMS**

NOTE: Capacities shown are for Operators and/or materials.

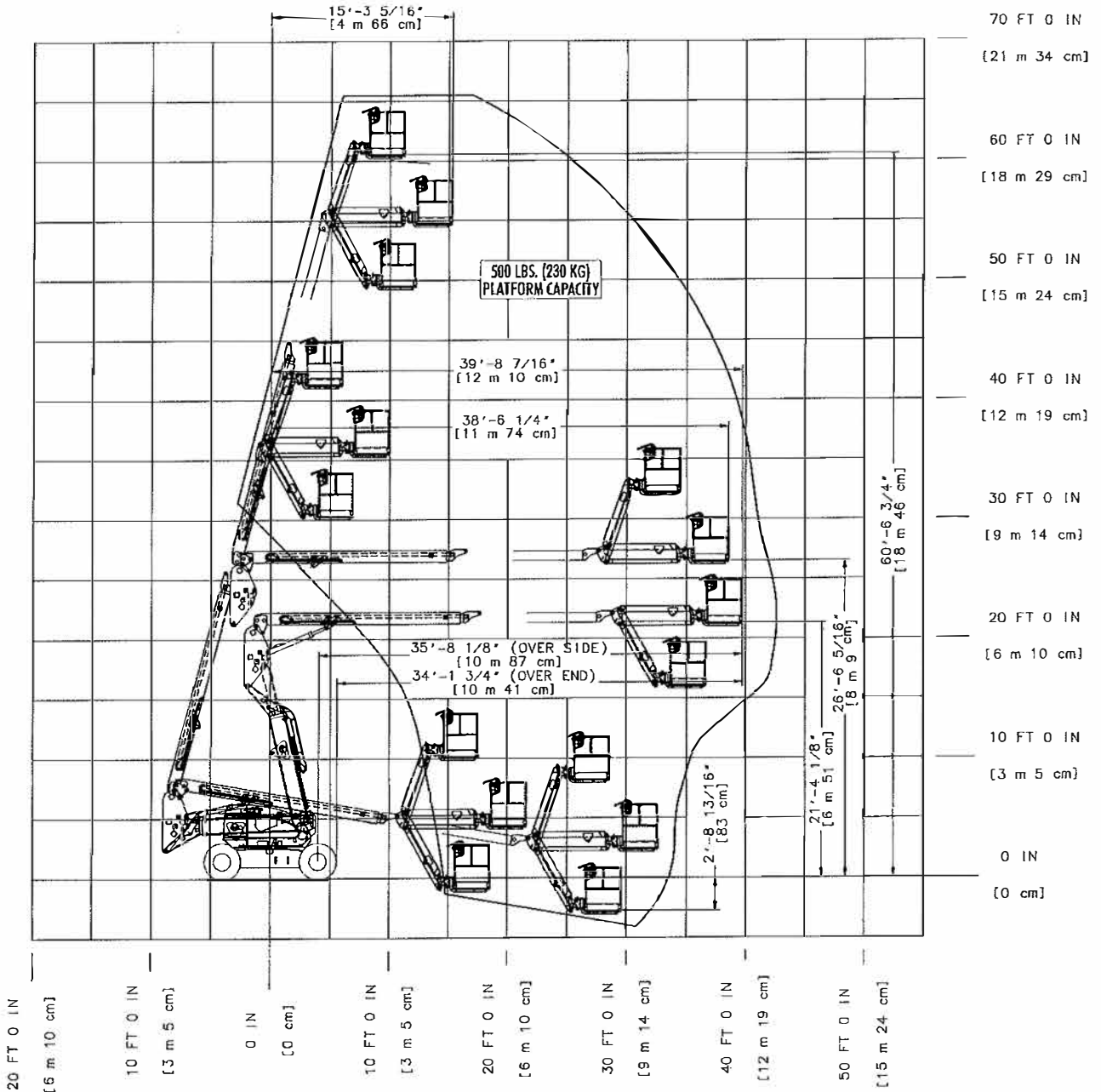


Figure 3-6. 600AJ Reach Chart

# SECTION 3 - RANGE DIAGRAMS

NOTE: Capacities shown are for Operators and/or materials.

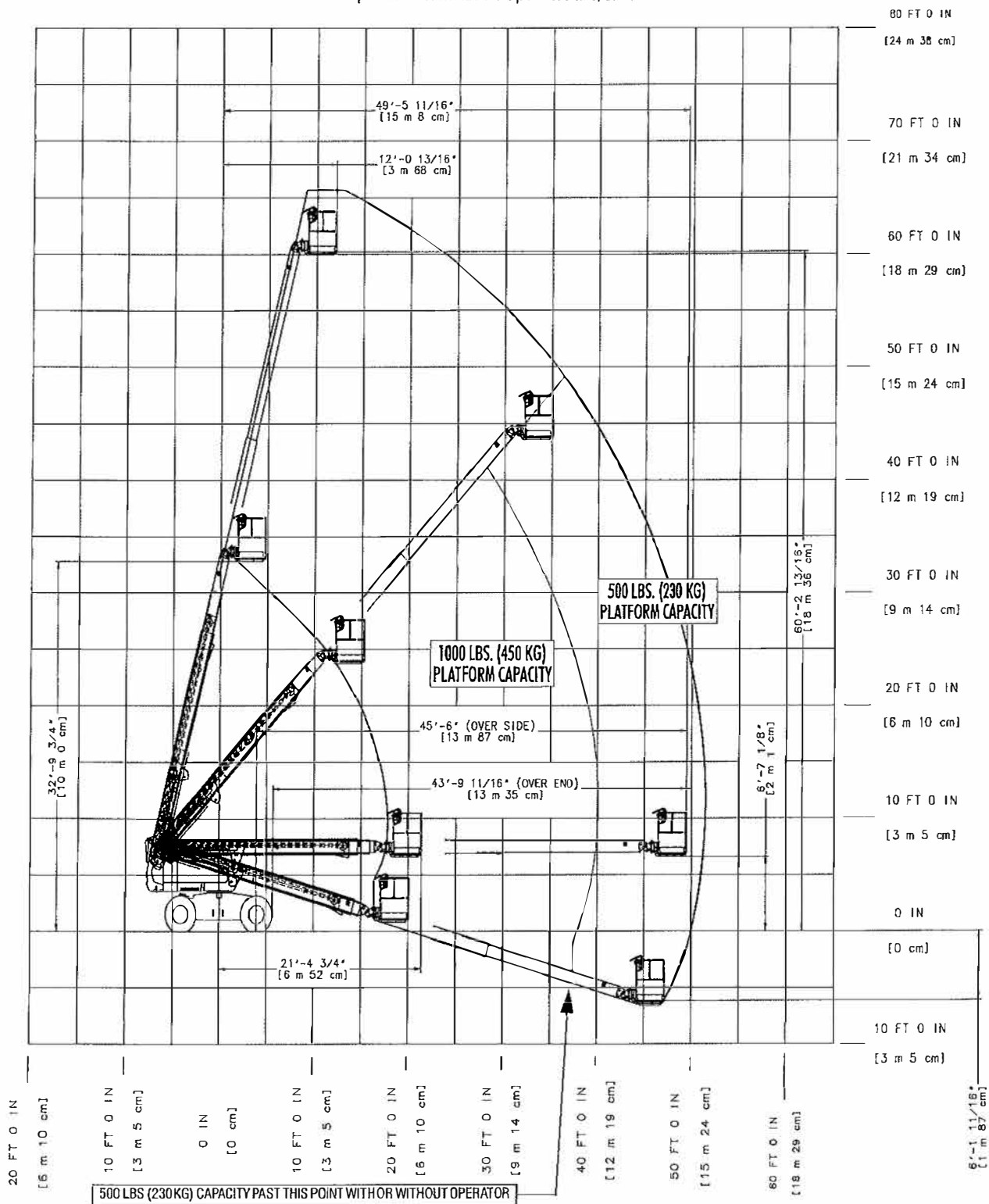


Figure 3-7. 600S Reach Chart

**SECTION 3 - RANGE DIAGRAMS**

NOTE: Capacities shown are for Operators and/or materials.

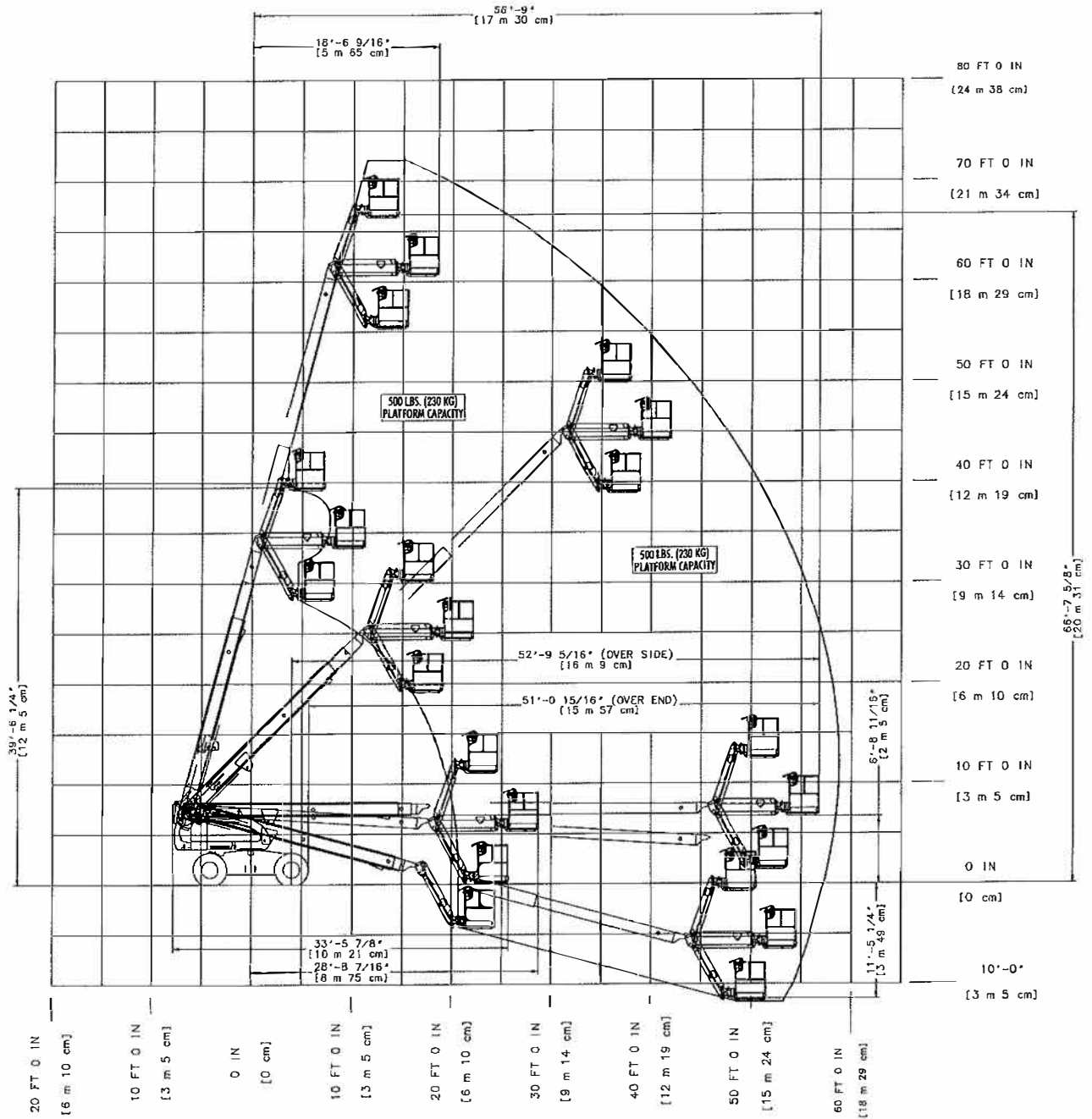


Figure 3-8. 600SJ Reach Chart

# SECTION 3 - RANGE DIAGRAMS

NOTE: Capacities shown are for Operators and/or materials.

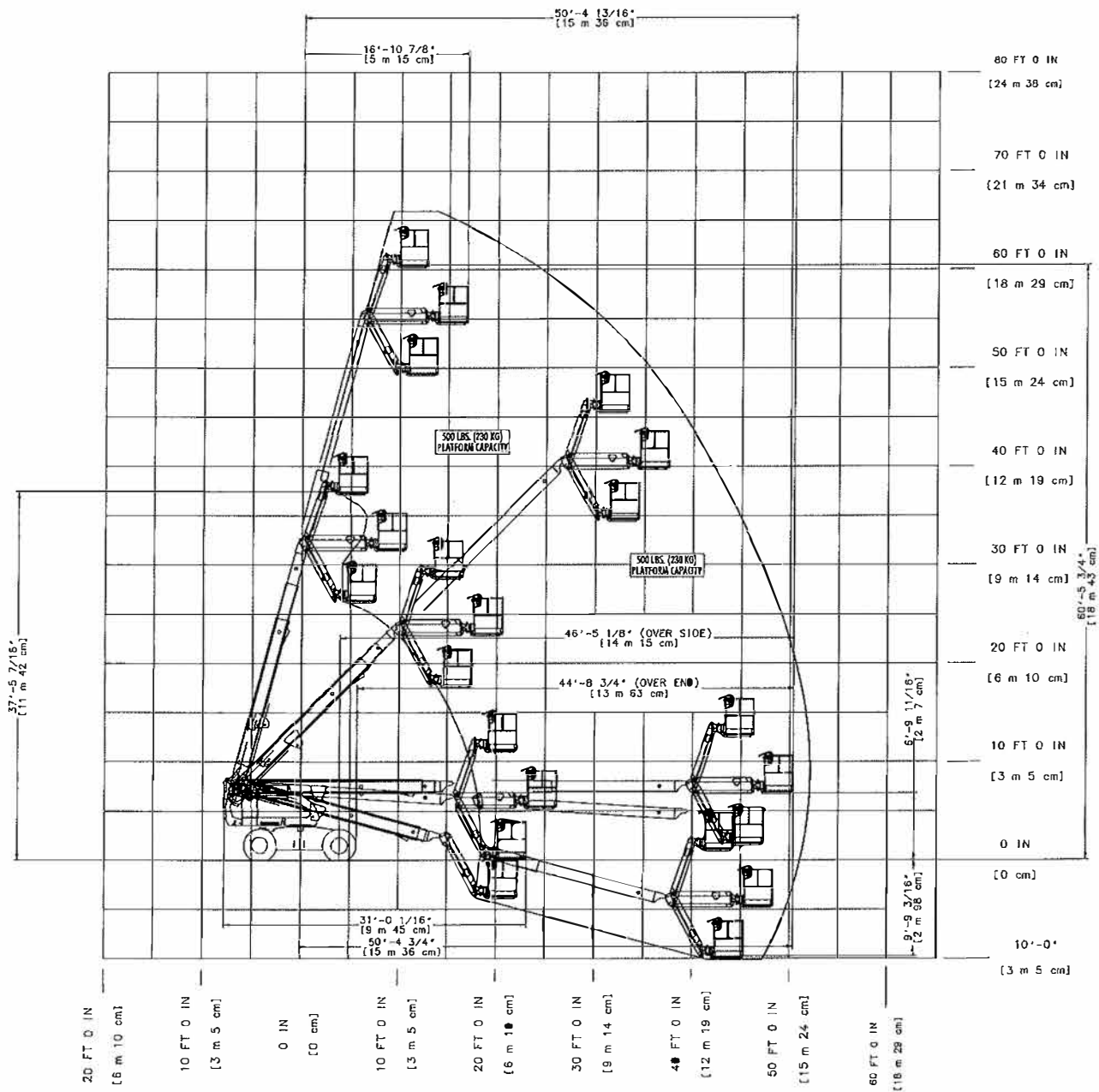
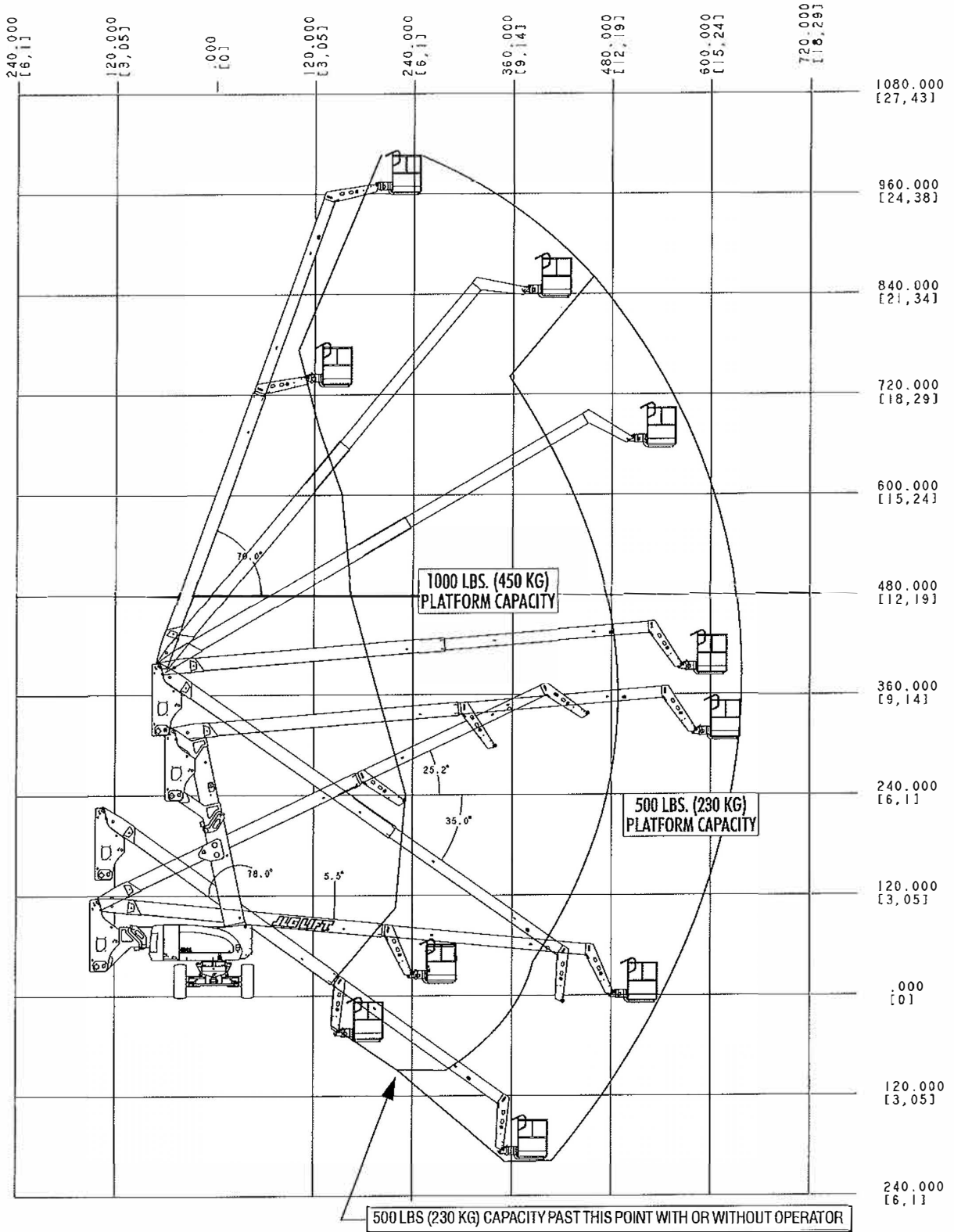


Figure 3-9. 660SJ Reach Chart

**SECTION 3 - RANGE DIAGRAMS**

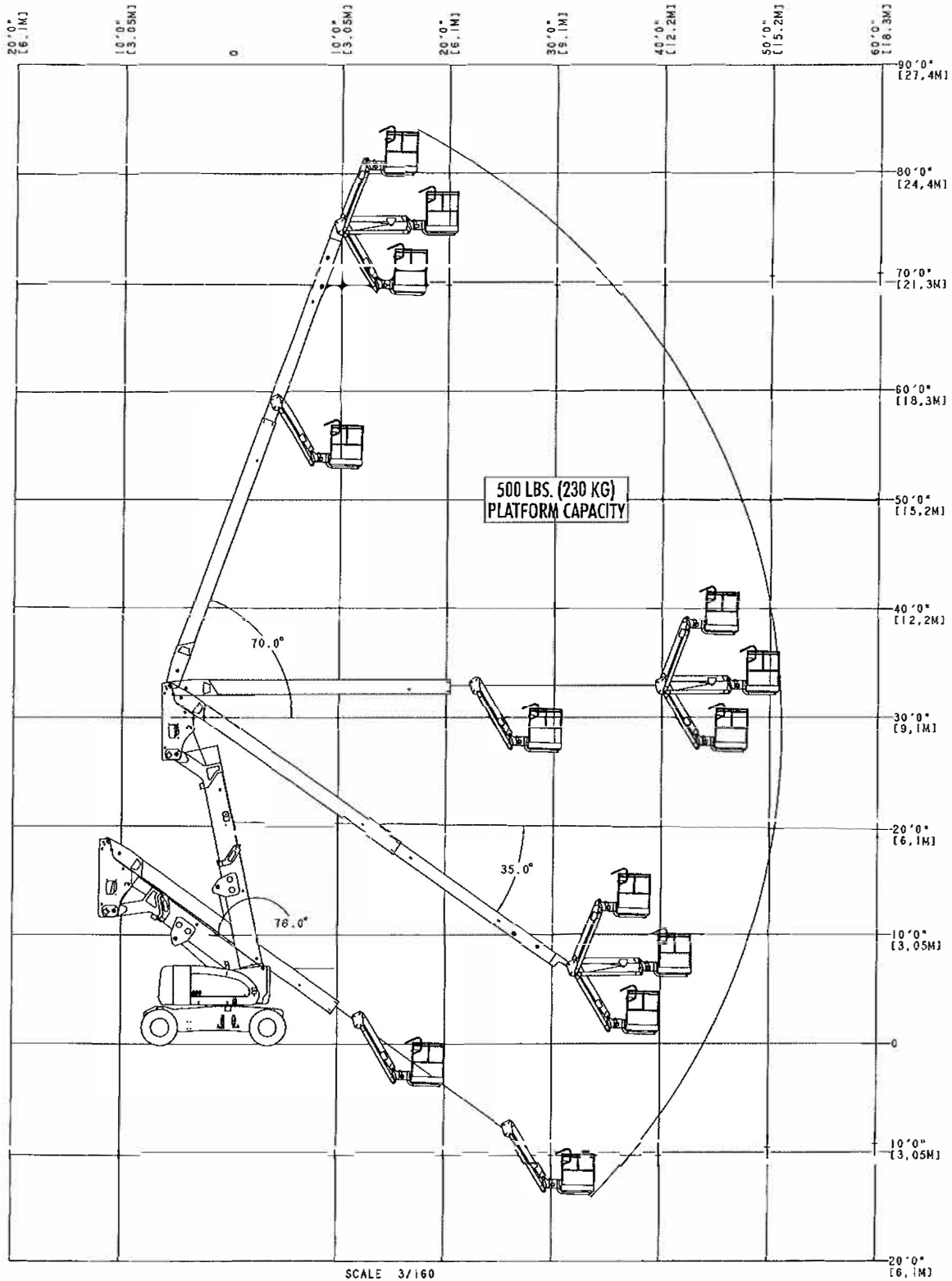
NOTE: Capacities shown are for Operators and/or materials.



**Figure 3-10. 800A Reach Chart**

**SECTION 3 - RANGE DIAGRAMS**

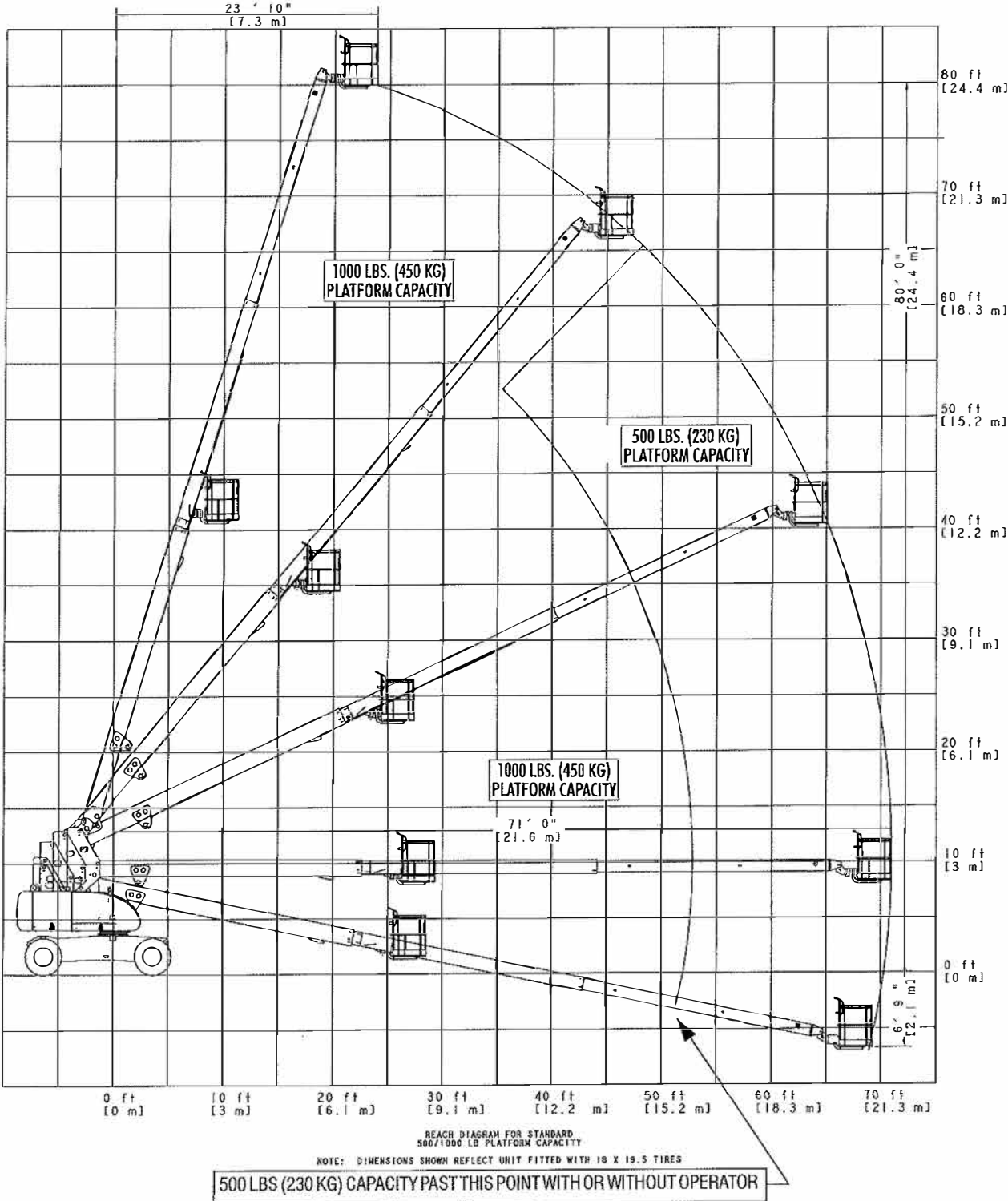
NOTE: Capacities shown are for Operators and/or materials.



SCALE 3/160  
**Figure 3-11. 800AJ Reach Chart**

**SECTION 3 - RANGE DIAGRAMS**

NOTE: Capacities shown are for Operators and/or materials.



**Figure 3-12. 800S Reach Chart**

# SECTION 3 - RANGE DIAGRAMS

NOTE: Capacities shown are for Operators and/or materials.

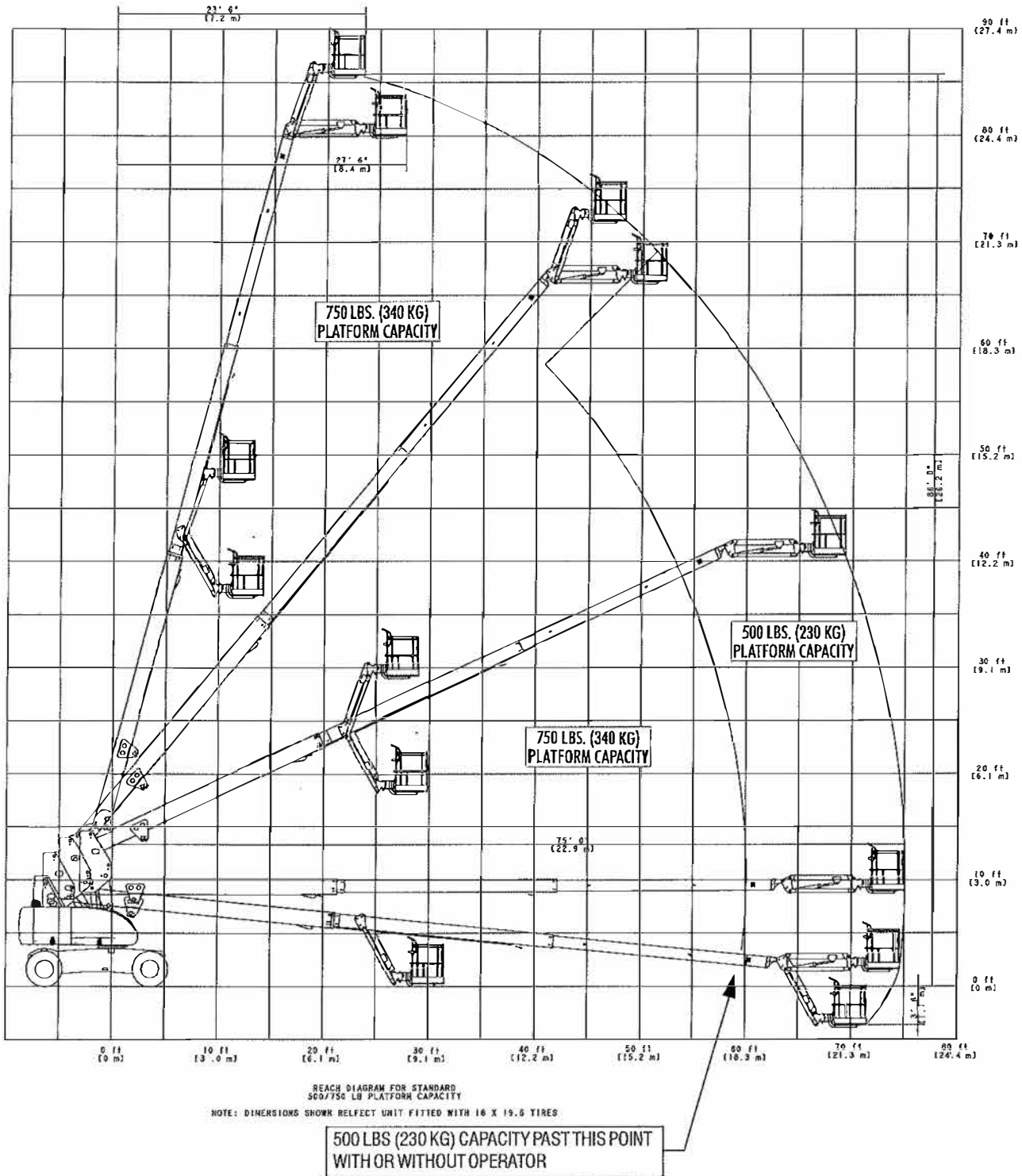
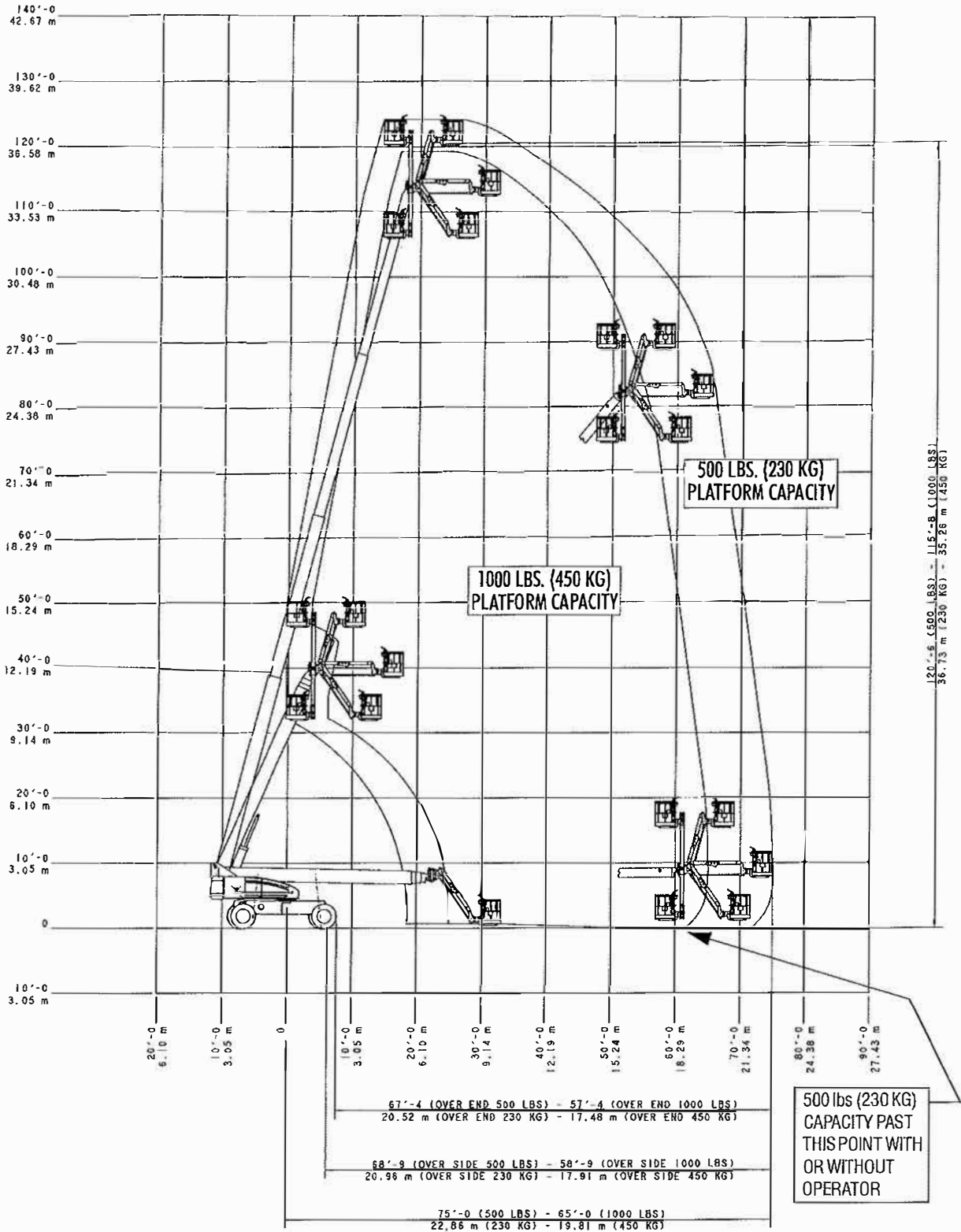


Figure 3-13. 860SJ Reach Chart

**SECTION 3 - RANGE DIAGRAMS**

NOTE: Capacities shown are for Operators and/or materials.



**Figure 3-14. 1200SJP Reach Chart**

# SECTION 3 - RANGE DIAGRAMS

NOTE: Capacities shown are for Operators and/or materials.

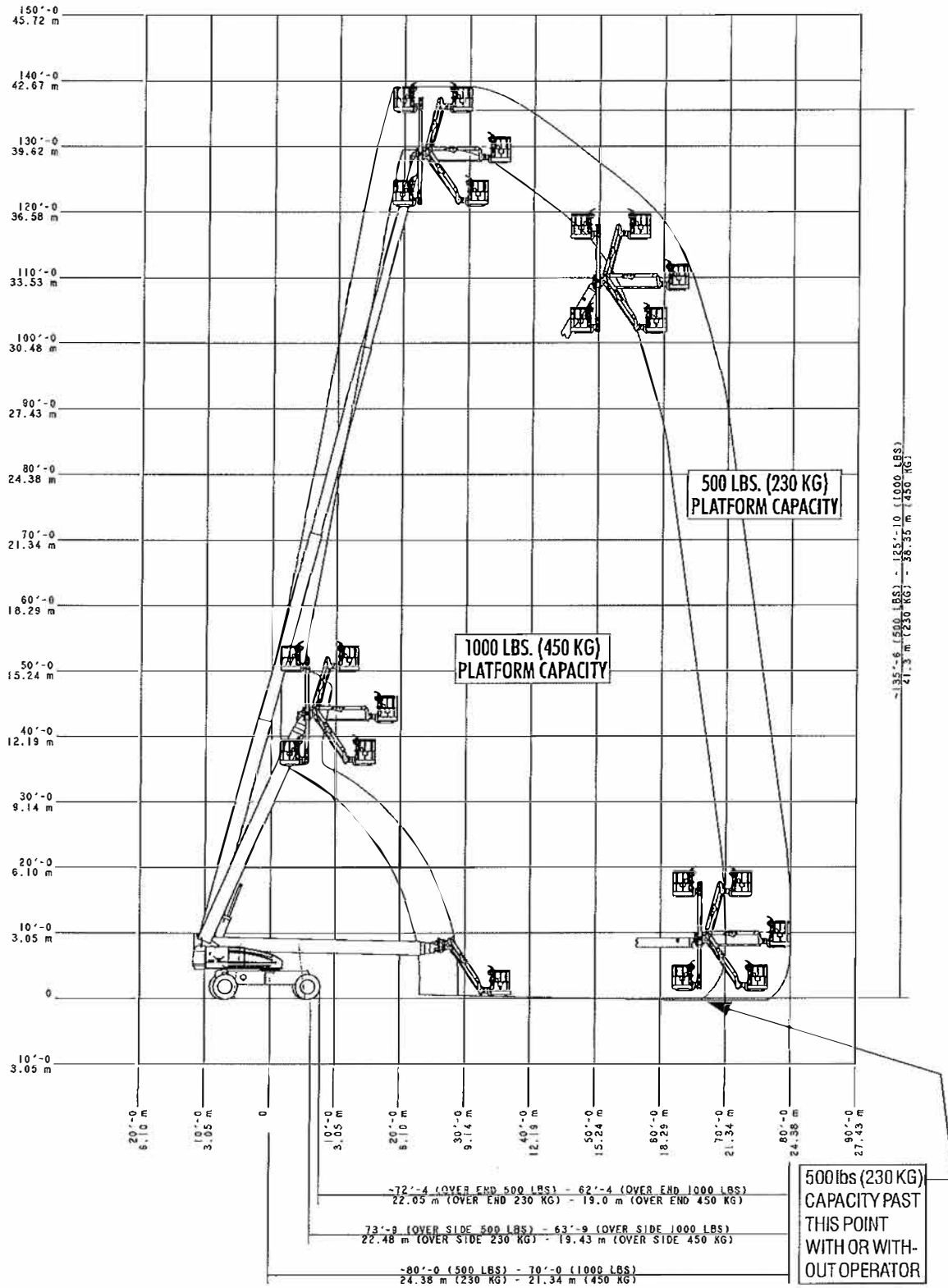
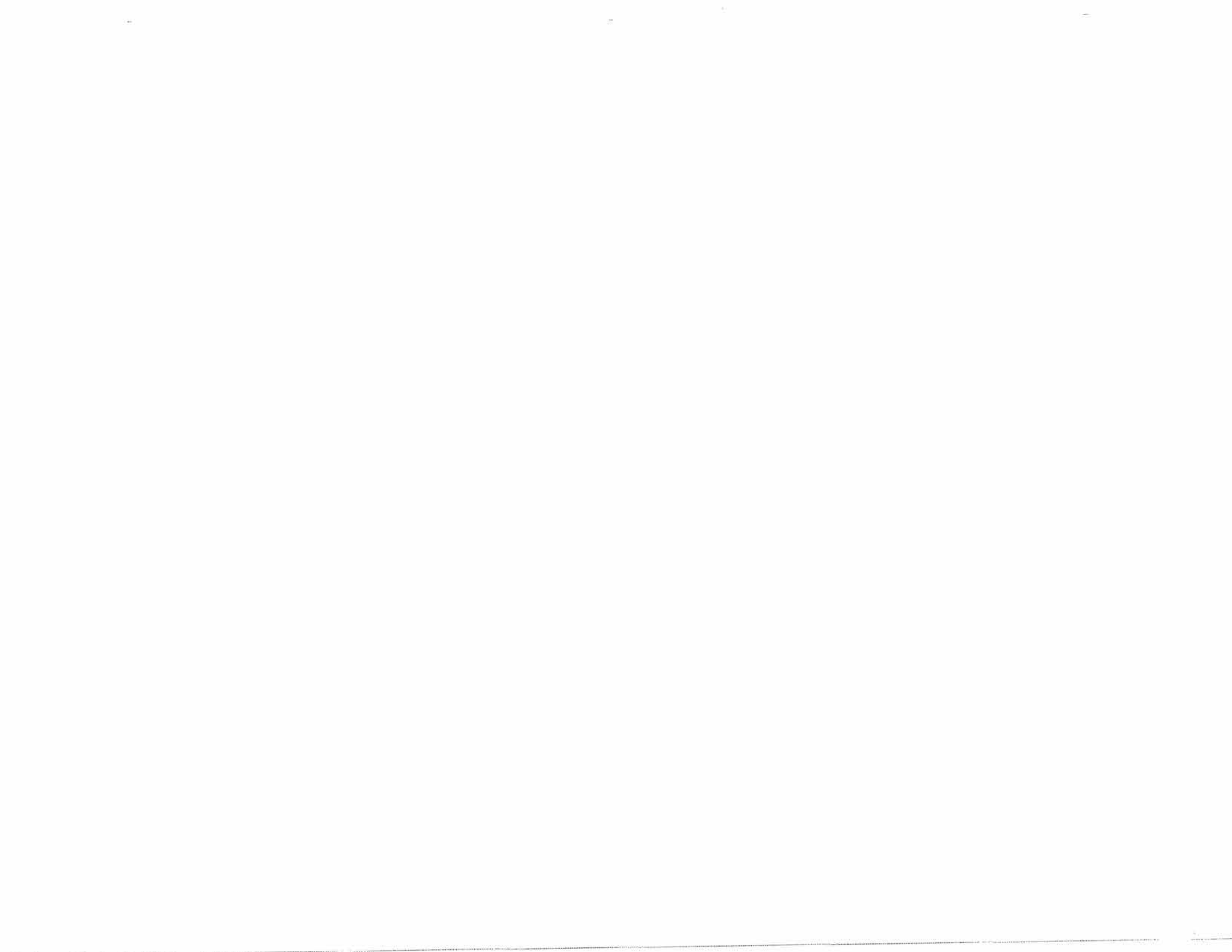


Figure 3-15. 1350SJP Reach Chart





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