

GALION 150 Series

Hydraulic Mobile Crane

SPECIFICATIONS



30,000 lb (13 608kg) Capacity
121 HP (90.3kW)

Galion 150 Series Crane



ENGINE

Make and Model: Komatsu S6D102E-1
 Type: direct injection, 4-cycle diesel turbocharged
 Flywheel horsepower: 121 Net. HP (90.3 kW)
 Governed rpm: 2500
 Max. torque @ 1200 rpm: 368 lb ft (499 N-m)
 Bore and stroke: 4.02" x 4.72" (102 x 120mm)
 No. of cylinders: 6
 Displacement: 359 in³ (5.88 litre)
 Electrical system: 12V
 AMA HP U.S. tax purposes: 38.8
 Net flywheel power output of standard engine as installed in this vehicle (per SAE J1349) complete with fan, air cleaner, alternator, water pump, lubricating oil pump and fuel pump. Engine will maintain specified flywheel power up to 10 000' (3048m) altitude.



TRANSMISSION

Six speed dual range power shift Torque Converter with full forward and reverse speeds

Forward and reverse (approx.): 0 to 26.5 mph
 (0-42.6 km/h)



GENERAL DIMENSIONS (four section boom)

Weight with outriggers (approx.): 41800 lb (18980 kg)
 Length, overall (4 Section boom): 29'6" (8983mm)
 Width, overall: 8' (2438mm)
 Turning radius: 18'1" (5512mm)



CHASSIS

Frame
 Length, overall: 15'6½" (4737 mm)
 Box section, center: 22½" x 5" (572 x 127 mm)
 Box section, overaxles: 15"x5"(381 x127mm)
 Ground Clearance
 Axle: 16" (406 mm)
 Outriggers: 15" (381 mm)



AXLES

Front: NoSPIN®
 Rear axle disconnect
 Front and rear—Steering Type, planetary
 Mounting
 Front: Rigid to frame
 Rear (no locks needed): Elastomeric suspension
 Wheels: Integral disc and rim



STEERING (flow regulated from main system)

Front: Hydrostatic
 Rear: Hydraulic



BRAKES

Service: Hydraulic Power, 4-Wheel—17" x 4" (432 x 102mm)
 Parking: Mechanical on front axle drive—12" x 3" (305 x 76mm)



HYDRAULICS

Controls: Hydraulic
 Tandem Hydraulic Pumps 50 GPM (189 lit/min)
 and 30 GPM (114 lit/min)



BOOM

	3 Section	4 Section
Reach, horizontal, minimum	18'2" (5334mm)	20' (6096mm)
Reach, horizontal, maximum	37'6" (11430mm)	60' (18288mm)
Swing, rotation continuous	360°	360°
Elevation, maximum	70°	70°
Tail Swing, maximum	8'8" (2356mm)	8'8" (2642mm)
Hook height, boom horizontal	6'6¾" (2000mm)	6'6¾" (2000mm)



CRANE PERFORMANCE

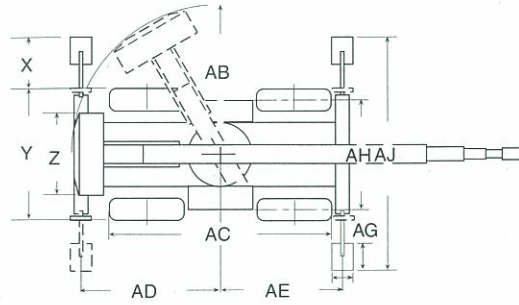
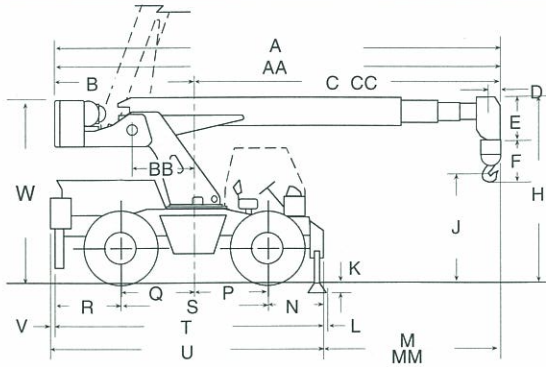
Boom topping speed: 18.9 sec.
 Boom lowering speed: 17.8 sec.
 Swing speed, rpm: 4.4
 Outrigger speed
 Down: 3.9 sec.
 Up: 3.3 sec.
 Crowd speed (approx.)
 Extending, fpm: 50 (15.2 m/min)
 Retracting, fpm: 60 (18.3 m/min)
 Average line speed
 Low, fpm: 125 (38.1 m/min)
 Intermediate, fpm: 225 (68.6 m/min)
 High, fpm: 350 (106.7 m/min)
 Standard rigging:
 5-part line
 Maximum hook speed with 5-part line, fpm: 70 (21.3m/min)
 Capacity: See load charts



HOIST PERFORMANCE

Single part line pull, maximum, bare drum: 7500lb (3402 kg)
 Single part line pull, rated: 6200 lb (2812 kg)
 Hoist Drum Capacity: 450 ft. ¼" cable
 (137.2 m 14.3 mm)
 Wire rope: 8 x 19 Seale, rotation resistant ¼" diameter
 IWRC. Minimum breaking strength: 15 tons (30,000 lbs.)

DIMENSIONS & RATINGS MODEL 150FA



Load Ratings**

Model 150F Series A hydraulic mobile crane. Based on 85% Tipping (75% without outriggers)—Crane on firm level surface.

3-Section power boom load in lbs.

Working Radius in feet	360° Rotation		Off Front
	Without Outriggers	With Outriggers	Without Outriggers
10	18400	30000	30000
12	13200	28500	19900
14	10200	25000	15750
16	8250	21875	12750
18	6850	18950	10550
20	5800	15750	9000
22	5000	13340	7700
24	4300	11580	6750
26	3750	10240	6000
28	3350	9180	5250
30	3000	8240	4800
32	2600	7480	4300
34	2350	6800	3850
36	2100	6200	3500

4-Section power boom load in lbs.

Working Radius in feet	360° Rotation		Off Front
	Without Outriggers	With Outriggers	Without Outriggers
10	17600	30000	30000
12	13600	28500	21750
14	10950	25000	16250
15	9900	23300	14600
16	9050	21850	13300
18	7500	18490	11250
20	6150	16020	9500
22	5050	14020	8000
24	4250	12320	6800
25	3900	11560	6300
30	2600	8620	4100
35	1750	6370	3200
40	1200	4970	2450
45	900	4330	1950
50	-	3400	1500
55	-	2760	1200
60	-	2080	900

Dimensions

Ft./inches (mm)		Ft./inches (mm)	
A	27' 2" (8280) [3-Section]	Q	4' 9" (1448)
AA	29' 6" (8992) [4-Section]	R	3' 10 1/2" (1181)
B	8' 8" (2642)	S	9' 0" (2743)
BB	3' 10" (1168)	T	16' 3 1/2" (2426)
C	18' 2" (5537) [3-Section]	U	16' 10 1/2" (5144)
CC	20' 6" (6248) [4-Section]	V	3 1/2" (89)
D	7" (178)	W	11' 2 1/2" (3416)
E	2' 3 1/2" (699)	X	3' 0 1/4" (920)
F	2' 5 1/2" (749)	Y	8' 0" (2438)
G	6' 4" (1930)	Z	4' 11 1/2" (1511)
H	11' 1" (3378)	AB	8' 8" (2642)
J	6' 6 3/4" (2000)	AC	13' 5" (4089)
K	6 1/2" (165)	AD	8' 3" (2514)
L	3 1/2" (89)	AE	7' 3 1/2" (2223)
M	10' 3 1/2" (3137) [3-Section]	AF	16" (406)
MM	13' 7 1/2" (4153) [4-Section]	AG	20" (508)
N	3' 9" (1143)	AH	6' 9" (2057)
P	4' 3" (1295)	AJ	14' 2 1/2" (4331)

20' Jib capacities—load in lbs.

Jib Angle	Boom Angle					Parts of Line	Rated Load lbs.
	70°	60°	50°	40°	30°		
0°	6000	5300	3900	3000	2500	1	6000
15°	4500	3400	2700	2350	2000	2	12000
30°	3000	2500	2150	1850	1500	3	18000
						4	24000
						5	30000

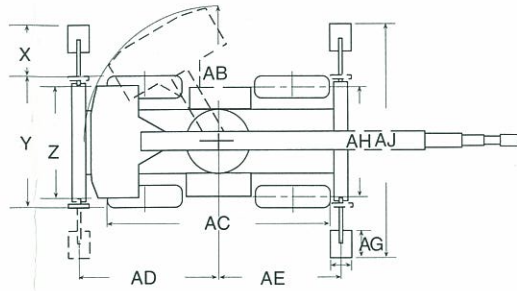
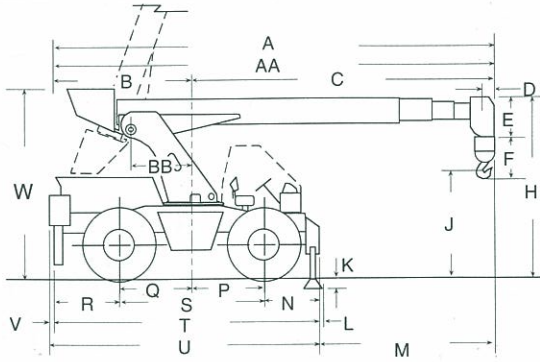
The loads given on the jib capacity chart are the maximum allowable loads due to structural limitations of the jib and boom. The loads on the rated load chart are to be reduced when lifting with the main boom hook block as follows: 1200 lbs with the jib in a working position, 800 lbs with the jib stowed.



Note: Avoid serious bodily injury or death. Refer to Operator Manual and CIMA Crane Safety Manual. The user shall operate at reduced rated loads to allow for adverse job conditions, such as soft uneven ground, out of level conditions, high winds, side loads, pendulum action, jerking or stopping of loads, hazardous conditions, experience of personnel, traveling with loads, electric wires, etc. Side pull on boom or jib is hazardous. • Before lifting a load, be sure that: the weight of the load is known, the proper parts of line are used, the load is secured and rigged properly, the hook has a functioning safety latch, the wire rope is in both good condition and has sufficient number of wraps on the winch drum, and all personnel are clear. • Rated loads, without outriggers, depends on tire capacity and condition of tires. Ratings are based on 14:00 x 24—16 ply tires at 80 psi static and creep, and 17.5 x 25—14 ply tires at 65 psi static and creep. • For four section power booms, rated loads are based on extending

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DIMENSIONS & RATINGS MODEL 150A



Dimensions

Ft./inches (mm)		Ft./inches (mm)	
A	27' 2" (8280) [3-Section]	Q	4' 9" (1448)
AA	29' 6" (8992) [4-Section]	R	3' 10 1/2" (1181)
B	7' 9" (2362)	S	9' 0" (2743)
BB	3' 10" (1168)	T	16' 3 1/2" (2426)
C	18' 2" (5537) [3-Section]	U	16' 10 1/2" (5144)
CC	20' 6" (6248) [4-Section]	V	3-1/2" (89)
D	7" (178)	W	11' 2 1/2" (3416)
E	2' 3 1/2" (699)	X	3' 0 1/4" (920)
F	2' 5 1/2" (749)	Y	6' 6" (1981)
G	6' 4" (1930)	Z	4' 11 1/2" (1511)
H	11' 1" (3378)	AB	7' 9" (2362)
J	6' 6 3/4" (2000)	AC	13' 5" (4089)
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L	3 1/2" (89)	AE	7' 3 1/2" (2223)
M	10' 3 1/2" (3137) [3-Section]	AF	16" (406)
MM	13' 7 1/2" (4153) [4-Section]	AG	20" (508)
N	3' 9" (1143)	AH	6' 9" (2057)
P	4' 3" (1295)	AJ	14' 2 1/2" (4331)

20' Jib capacities—load in lbs.

Jib Angle	Boom Angle					Parts of Line	Rated Load lbs.
	70°	60°	50°	40°	30°		
0°	6000	5300	3900	3000	2500	1	6000
15°	4500	3400	2700	2350	2000	2	12000
30°	3000	2500	2150	1850	1500	3	18000
						4	24000
						5	30000

Continued from previous page

the smallest boom extensions first. The first and second extensions are hydraulically sequenced to extend and retract equally. Boom length should be as short as possible to make a lift. If positioning a load by crowding, repositioning with the lower crowd is recommended. • Rated loads shall include the weight of hook block, slings and auxiliary lifting devices. Their weights shall be subtracted from the listed rated load to obtain the net load to be lifted. • Single line weighted hook block weighs 125 lbs. Do not two-block. • Multiple line hook block weighs 375 lbs. Do not two-block. • Working radius is the horizontal distance from a projection of the axis of rotation with respect to the supporting surface, before loading, to the center of the vertical hoist line or tackle with load applied. • Do not operate at radii or boom angles where capacities are not listed. For tipping limitations, do not exceed the crane load rating chart. • **Rated loads above the heavy line are based on the machine's hydraulic or structural competence and not on the machine's stability. • Rated loads are based on freely suspended loads. Do not two-block. • Jib movement and pinning must be controlled during erection and stowage.

Load Ratings**

Model 150 Series A hydraulic mobile crane. Based on 85% Tipping (75% without outriggers)—Crane on firm level surface.

3-Section power boom load in lbs.

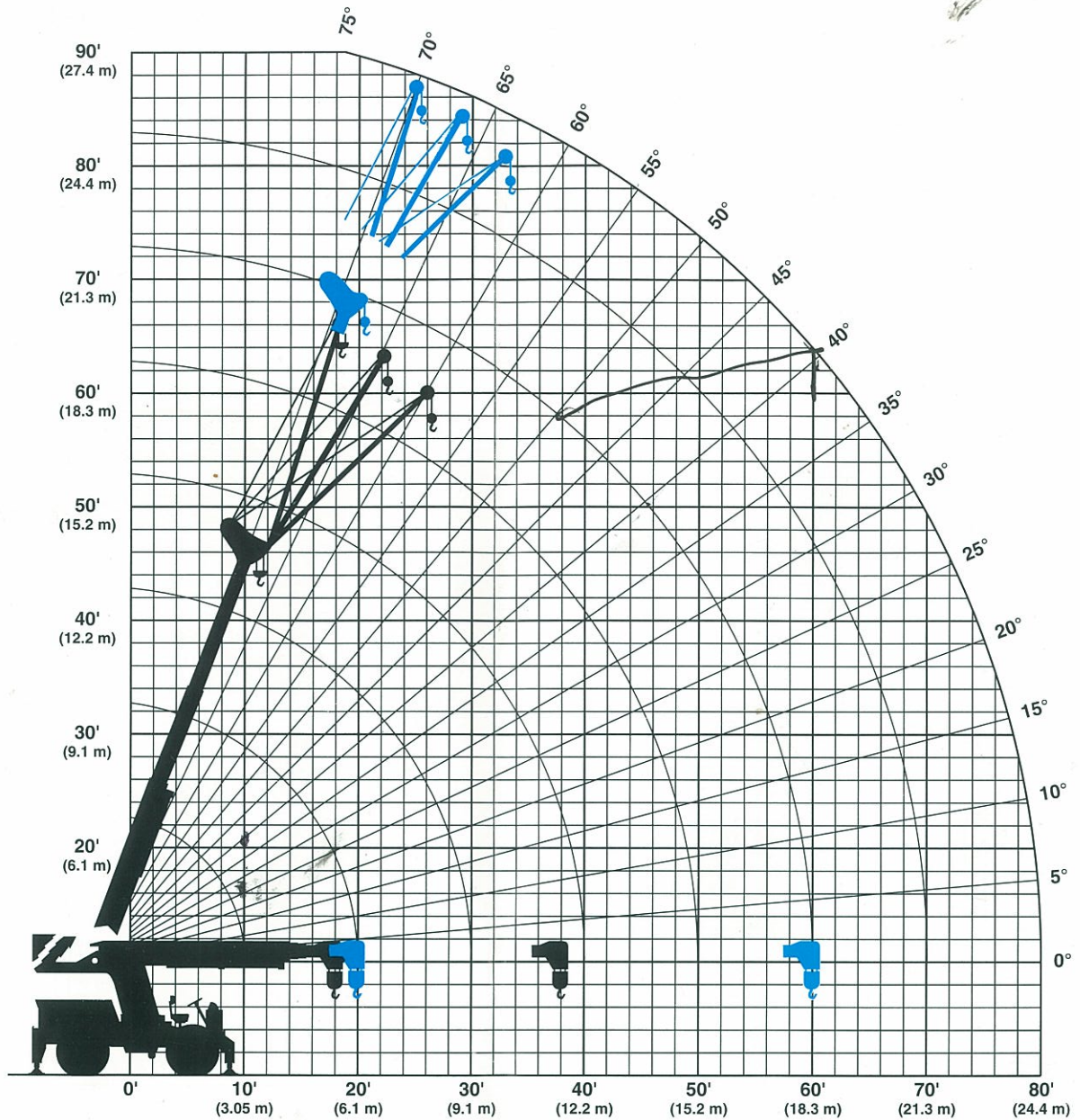
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	Without Outriggers	With Outriggers	Without Outriggers
10	18400	30000	30000
12	13200	28500	19900
14	10200	25000	15750
16	8250	21875	12750
18	6850	18950	10550
20	5800	15750	9000
22	5000	13340	7700
24	4300	11580	6750
26	3750	10240	6000
28	3350	9180	5250
30	3000	8240	4800
32	2600	7480	4300
34	2350	6800	3850
36	2100	6200	3500

4-Section power boom load in lbs.

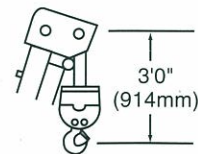
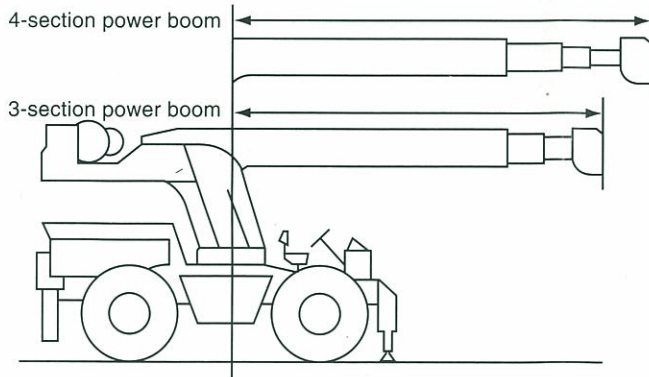
Working Radius in feet	360° Rotation		Off Front
	Without Outriggers	With Outriggers	Without Outriggers
10	18500	30000	30000
12	13500	28500	20600
14	10650	25000	15800
15	9450	23300	14600
16	8650	21850	12550
18	7000	18250	10500
20	5500	15500	8600
22	4500	13150	7250
24	3700	11250	6300
25	3350	10400	5800
30	2150	7350	3800
35	1500	5700	2800
40	1100	4600	2250
45	750	3750	1800
50	-	3100	1500
55	-	2550	1100
60	-	2100	850

Working Ranges

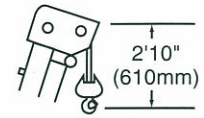
Range of 3-section boom shown in black, 4-section boom shown in color.



Retractable Travel Lengths



Standard Hook Block



Optional Hook Block

Horizontal Boom Range

4-section power boom 20'6" (6248mm) to 60' (18 288mm)
 3-section power boom 18'2" (5537mm) to 37'6" (11 430mm)



Boom Section Nomenclature

Galion 150 Series Crane

Standard Equipment

- Alternator, 62 amp
- Antifreeze to -30°F (-34° C)
- Two block damage protection (30,000 lb [13600kg] capacity)
- Audible backup alarm
- Automatic hoist and swing brake
- Battery, dual heavy duty
- Boom, choice of: 3 section, or 4 section self-proportioning full power hydraulic with 60 ft. reach
- Boom angle indicator
- Boom elevation, 70° maximum
- Boom point with 3 sheaves
- Bubble level indicator
- Cross line relief protection for hoist and swing circuits

- Drum, grooved
- Dual swing control
- Electric gauges, fuel, converter temperature, voltage, water temperature & transmission pressure
- Electrical system, 12 volt
- Engine air cleaner, dual stage dry with service indicator & safety element
- Engine hood sides
- Four wheel drive with axle disconnect
- Four wheel power brakes
- Four wheel steering
- Hoist, 3 speeds
- Hook block, 5 part line
- Hook latch
- Horn

- Hourmeter
- Hydraulic outriggers with pilot check valves
- Master electrical disconnect
- Muffler
- NoSPIN® front axle
- Over center check valves for crowd and boom lift cylinders
- Powershift transmission
- Rear steer indicator
- Rotation, 360° continuous
- Seat, adjustable "bucket type"
- Tandem hydraulic pumps 30 and 50 GPM (114 and 189 lit/min)
- Tires, directional, 14:00 x 24-16 P.R.
- Torque converter

Optional Equipment

- Alarm, engine (high water temperature, low oil pressure)
- Auxiliary sheave (boom point)
- Auxiliary hoist with cable
- Cab, deluxe enclosed with front wiper, 12000 BTU heater, defroster fan, two outside mirrors and seat belt
- Electric tire pump with hose and gauge
- Hook and weight for single part line

- Jib and gantry, 20' (6096 mm)
- Lights, directional signals
- Lights, flood, chassis mounted
- Lights, flood, pedestal mounted
- Lights, front headlights with combination stop/tail on rear
- Open cab
- Paint, blue accent
- Paint, special (one color)

- Pintle hook
- Rear view mirrors, outside mounted
- Starting aid, ether injection
- Sound suppression kit
- Tires, 14:00 x 24, 20 P.R. non directional type
- Tires, 17.5 x 25, 14 P.R directional, tubeless.
- Winch, mounted on front outrigger frame

Your authorized distributor is _____



Specifications subject to change without notice. Illustrations may include optional equipment and accessories, and may not include all standard equipment.
FORM NO. AD-70252-SS2 (HP5M) 2/97 Lithographed in U.S.A.

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