

1. ROAD TRAVELING

As this machine can run at the maximum speed of 40 km/h (24.9 mph), it is not necessary to transport the machine on trailer in a short distance.

But the transportation by the trailer is convenient in a long distance.

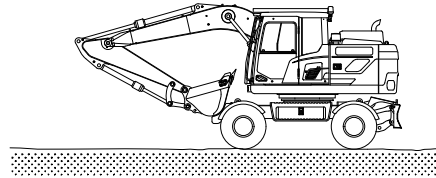
If it is necessary to travel on a road, observe the followings.

- 1) Comply with regulations regarding this machine for the sake of safety.
- 2) Perform daily inspection before starting the machine.
- 3) Cross the bridge after checking that it will safely support the machine weight. If the bridge can not support, a detour must be prepared or the bridge must be reinforced.
- 4) When traveling for a long distance, stop every hour to allow tires and other components to cool down and check any abnormality.
- 5) Drive with the bucket empty.

※ Posing method for 2-piece boom

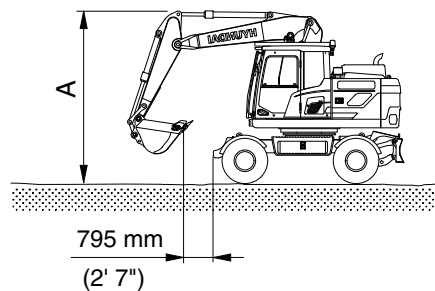
- (1) The 1st boom is maximum up, the 2nd boom is maximum in, and the bucket is maximum in position, then adjust the arm so that the distance between the bucket and the grapple rest is about 795 mm (2' 7").
- (2) Maximum height (A) must not exceed 4 m (13' 1").

Mono boom



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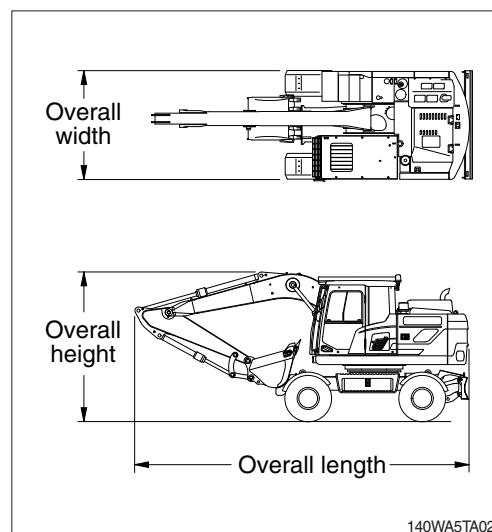
2-piece boom



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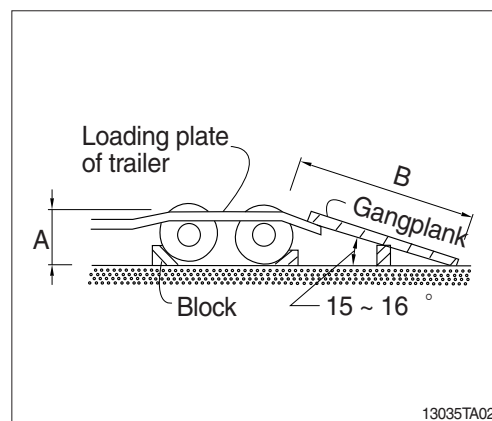
2. PREPARATION FOR TRANSPORTATION

- 1) When transporting the machine, observe the various road rules, road transportation vehicle laws and vehicle limit ordinances, etc.
- 2) Select proper trailer after confirming the weight and dimension from the chapter 7, specification.
- 3) Check the whole route such as the road width, the height of bridge and limit of weight etc, which will be passed.
- 4) Get permission from the related authority if necessary.
- 5) Prepare suitable capacity of trailer to support the machine.



- 6) Prepare gangplank for safe loading referring to the below table and illustration.

A	B
1.0	3.65 ~ 3.85
1.1	4.00 ~ 4.25
1.2	4.35 ~ 4.60
1.3	4.75 ~ 5.00
1.4	5.10 ~ 5.40
1.5	5.50 ~ 5.75



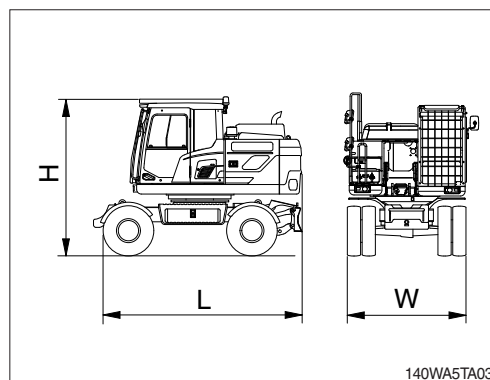
3. DIMENSION AND WEIGHT

1) HW140A

(1) Base machine

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	4305 (14' 1")
H	Height	mm (ft-in)	3475 (11' 5")
W	Width	mm (ft-in)	2530 (8' 4")
Wt	Weight	kg (lb)	12230 (26960)

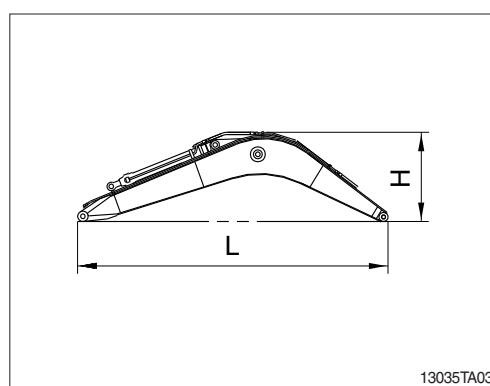
※ 1700 kg (3750 lb) counterweight.



(2) Boom assembly

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	4760 (15' 7")
H	Height	mm (ft-in)	1300 (4' 3")
W	Width	mm (ft-in)	550 (1' 10")
Wt	Weight	kg (lb)	1115 (2460)

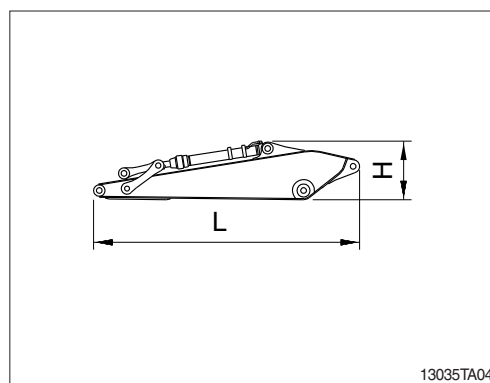
※ 4.6 m (15' 1") boom with arm cylinder (Including piping and pins).



(3) Arm assembly

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	3181 (10' 5")
H	Height	mm (ft-in)	725 (2' 5")
W	Width	mm (ft-in)	310 (1' 0")
Wt	Weight	kg (lb)	722 (1590)

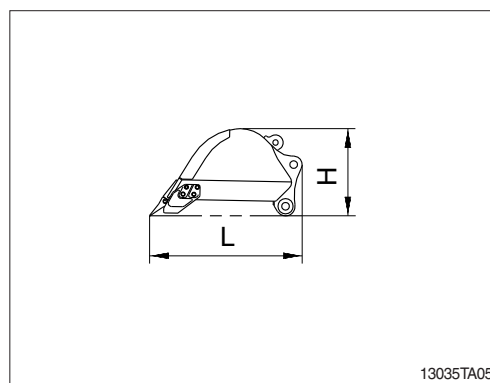
※ 2.45 m (8' 0") arm with bucket cylinder (Including linkage and pins).



(4) Bucket assembly

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	1386 (4' 7")
H	Height	mm (ft-in)	884 (2' 11")
W	Width	mm (ft-in)	1108 (3' 8")
Wt	Weight	kg (lb)	484 (1070)

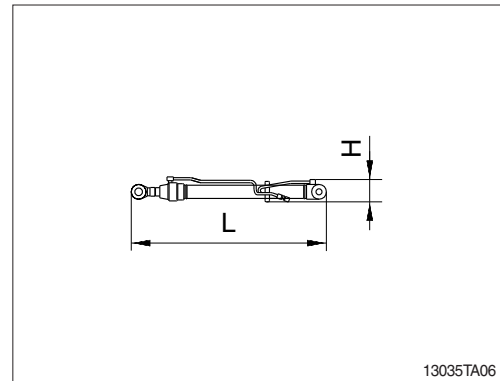
※ 0.58 m³ (0.76 yd³) SAE heaped bucket (Including tooth and side cutters).



(5) Boom cylinder (2 EA)

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	1715 (5' 8")
H	Height	mm (ft-in)	222 (0' 9")
W	Width	mm (ft-in)	145 (0' 6")
Wt	Weight	kg (lb)	119 (262)

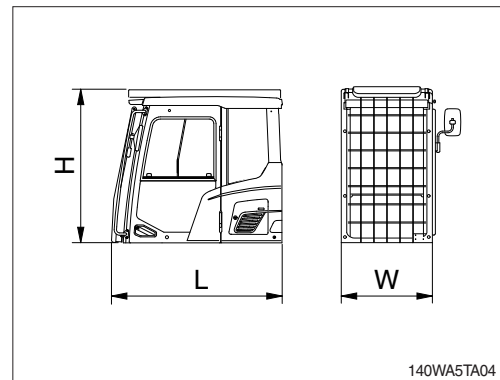
※ Including piping.



(6) Cab assembly

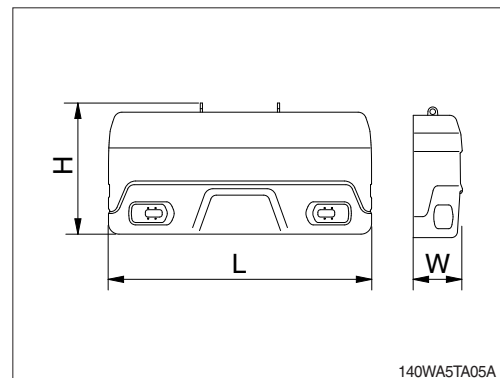
Mark	Description	Unit	Specification
L	Length	mm (ft-in)	1950 (6' 5") [2070 (6' 10")]
H	Height	mm (ft-in)	1780 (5' 10") [1822 (6')]
W	Width	mm (ft-in)	1104 (3' 7") [1126 (3' 8")]
Wt	Weight	kg (lb)	495 (1092) [650 (1433)]

[] : with FOG GUARD



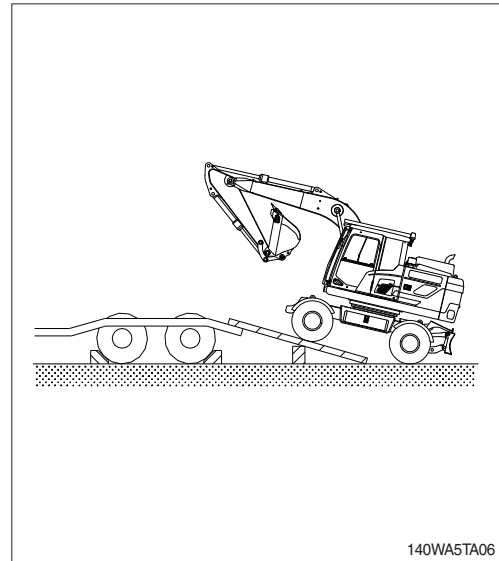
(7) Counterweight

Mark	Description	Unit	Specification
L	Length	mm (ft-in)	2485 (8' 2")
H	Height	mm (ft-in)	1246 (4' 1")
W	Width	mm (ft-in)	460 (1' 6")
Wt	Weight	kg (lb)	1704 (3760)

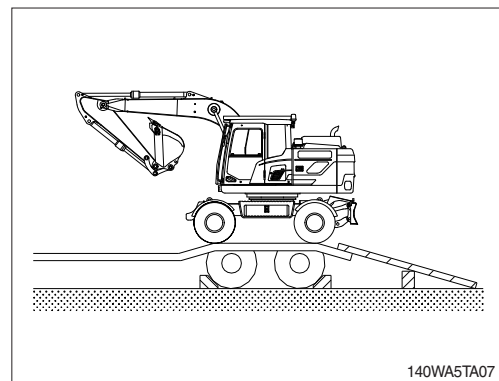


4. LOADING THE MACHINE

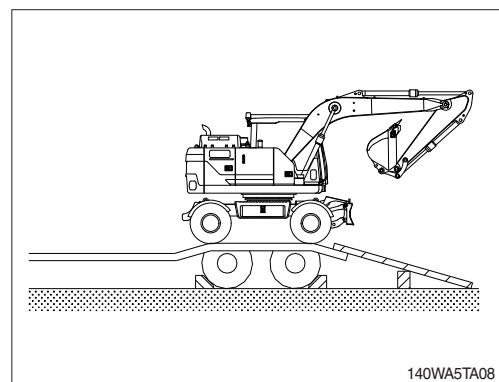
- 1) Load and unload the machine on flat ground.
- 2) Use the gangplank with sufficient length, width, thickness and gradient.
- 3) Place block tires of the truck and the trailer not to move the trailer.
- 4) Place the swing lock switch to the **LOCK** position before fixing the machine at the bed of trailer and confirm if the machine is parallel to the bed of trailer.
- 5) Drive straight and depress the acceleration pedal slowly on the gangplank with the two speed switch positioned as low speed.



- 6) Do the following after loading the machine to the trailer.
 - (1) Stop loading when the machine is located horizontally with the rear wheel of trailer.



- (2) Place the swing lock switch to the **LOCK** position after the swing the machine 180°.



(3) Lower the working equipment gently after the location is determined.

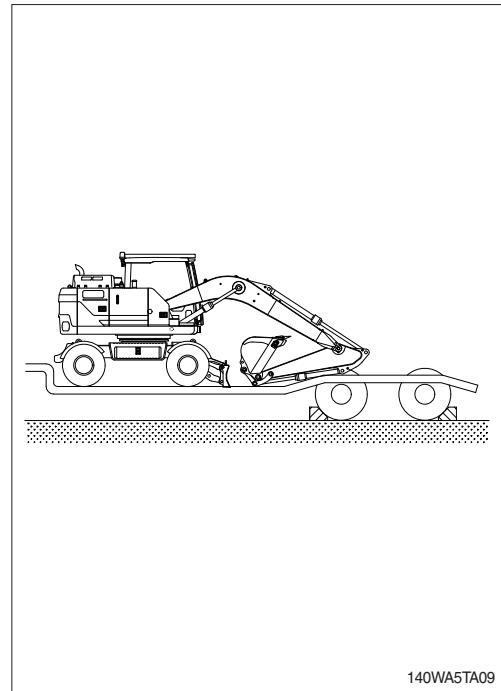
※ **Place rectangular timber under the bucket cylinder to prevent the damage of it during transportation.**

▲ **Be sure to keep the travel speed switch on the low speed while loading and unloading the machine.**

▲ **Avoid using the working equipment for loading and unloading as it will be very dangerous.**

▲ **Do not operate any other device when loading.**

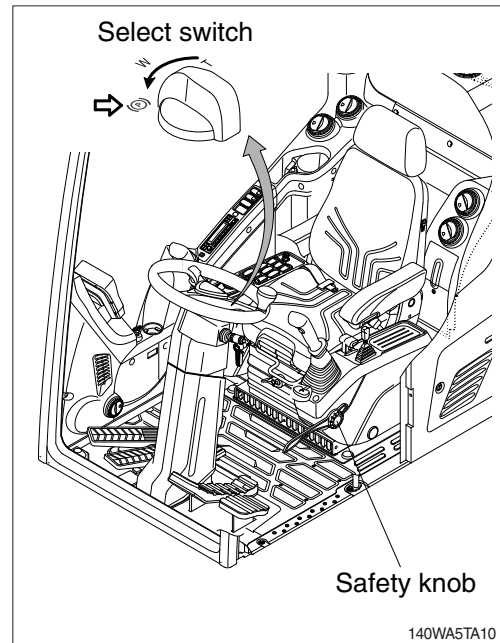
▲ **Be careful as to the boundaries of loading plate or trailer as the balance of machine will abruptly change.**



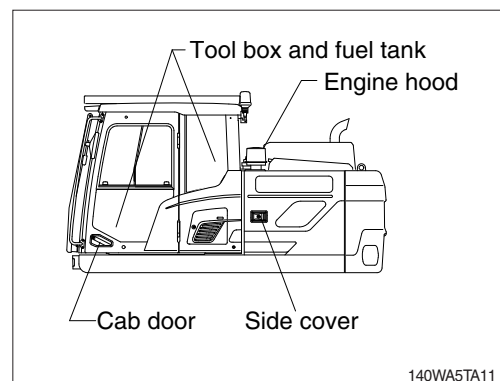
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5. FIXING THE MACHINE

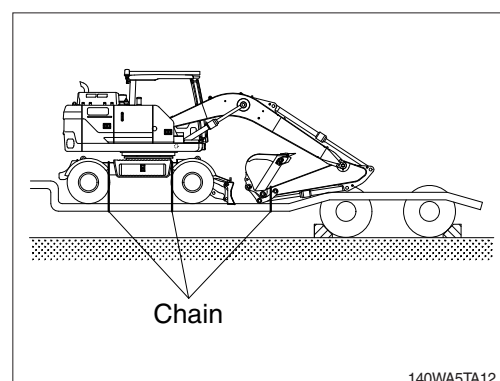
- 1) Place the swing lock switch to the LOCK position.
- 2) Place the select switch to the parking position.
- 3) Keep the safety knob in the LOCK position.
- 4) Turn OFF all the switches and remove the key.



- 5) Secure all locks.



- 6) Place timbers behind the tires, secure the machine to trailer with chains or straps which are in good condition and approved for the weight which they will be securing, to prevent the machine from moving in any direction.



6. LOADING AND UNLOADING BY CRANE

⚠ The wrong hoisting method or installation of lifting device can cause serious injury, death, or damage to the machine.

- 1) Check the weight, length, width and height of the machine referring to the chapter 7. Specification when you are going to hoist the machine.
- 2) Use approved lifting device and ensure distance between lifting device and machine to avoid contact between the two.
- 3) Place rubber plates at lifting points to avoid any damage to the machine.
- 4) Place crane in the proper place.
- 5) After the boom is raised to the maximum high, install approved lifting device as shown in the illustration.

⚠ Make sure wire rope is proper size.

⚠ Place the safety knob to LOCK position to prevent the machine from moving when hoisting the machine.

⚠ Do not load abruptly.

⚠ Keep area clear of any and all personnel.

⚠ Recommend to manufacture the stays separately as per lifting conditions.

⚠ Do not use the counterweight lug or hole of the lower working attachment for lifting purpose.

