

After loading the excavator, lower the bucket to the trailer bed. Stop the engine and remove the key.

Secure the excavator to the trailer bed by:

- Blocking the front and rear of the tracks.
- Fastening holddown chains to the front corners of the blade and to the tiedown loop at the rear of the track frame.
- Using chain binders to tighten the chains and then secure the chain binder handles.

To drive off the trailer, block the wheels of the tow vehicle. . . and remove the tie down chains. Enter the excavator. . . fasten your seat belt. . . lock the control console in the operating position. . . start the engine. . . unlock the house. . . raise the boom until the bucket is about 12 inches or 300 mm off the deck. . . and rotate the house 180 degrees. Now raise the blade.

Pull the steering levers slowly toward you to begin driving off the ramp – remember, you will be traveling in reverse because the blade is facing in the opposite direction. When the center of the length of the tracks extends over the edge of the trailer bed, the excavator will drop down. When you have cleared the trailer, reposition the house so the boom is over the blade.

When towing, always observe any motor vehicle laws and use a transport and towing vehicle of adequate length and capacity.

## Operating Safely

Operating from a hard level surface provides good stability and makes it easier to dig a level hole. Use the blade to level your work area, and lower the blade into the ground to help stabilize the excavator.

Never start moving the boom or house until you are sure that no one is in your path. Look behind, to the sides, and to the front so that you know where everyone is. Use your horn to alert bystanders before you move the excavator. Never lift, swing or move a load over anyone. Material could fall from the bucket causing serious injury or death to a bystander.

When loading spoil into a truck, make sure you know where everyone in the loading area is located. Do not begin loading until the driver is clear of truck and a safe distance from loading area.

To load, fill the bucket and begin raising the boom and extending the dipper as you rotate toward the bed of the truck. Load the truck from front center to rear center to avoid overloading the rear axles.

Never move the house or boom without looking in all directions first. As the operator, it is your responsibility to be aware of any persons or objects that might be in the path of the boom, bucket, and various pinch points.

## GROUP EXERCISE TWO Worksheet 2 (continued)

5. It is safe to stand up and lean out the front or leave a compact excavator with the engine running.

True or False

6. It is safe to stand on the ground or outside the cab and operate the excavator's controls.

True or False

7. When we talk about house "slew," we are referring to the fact that the boom can swing independent of the house.

True or False

8. When excavating, should you keep the spoil as close to the excavation as possible?

*If YES, Why? If NO, Why Not?*

9. Sometimes it is O.K. to drive the excavator with the seatbelt unfastened; for instance, when you are driving onto a trailer because you will only be in the cab a few minutes.

True or False

10. If you rotate the house 180° so the blade is behind you and push the steering levers forward, the excavator will travel in the direction of the blade?

True or False



## GROUP EXERCISE TWO Worksheet 3

### WARNING

**OVERLOAD CAN TIP THE EXCAVATOR AND CAUSE INJURY OR DEATH**

- Do not lift or hold any load that exceeds three ratings at their specified load radii and height.
- Total rated loads shown. The weight of all lifting devices must be deducted to determine the net load that can be lifted.

Where applicable, specifications conform to ISO Standards. Specifications are subject to change without notice. Lift Point is bucket hinge point with standard bucket attached and bucket cylinder fully extended.

### MELROE MODEL 325 EXCAVATOR

**BOOM LENGTH 2000 mm (78.7 in.)**  
**ARM LENGTH 1050 mm (41.3 in.)**  
**COUNTERWEIGHT 815 kg (180 lbs.)**  
**STANDARD BUCKET 500 mm (19.7 in.)**  
**615 kg (135 lbs.)**

**CIRCUIT PRESSURE**  
**WORKING- 16.5 bar (240 psi)**  
**HOLDING- 20.3 bar (295 psi)**

LIFT POINT HEIGHT mm (in.)	RATED LIFT CAPACITY OVER END BLADE DOWN - kg (lb.)						RATED LIFT CAPACITY OVER END BLADE UP - kg (lb.)						RATED LIFT CAPACITY OVER SIDE BLADE UP - kg (lb.)					
	1600 (62.1)	2000 (78.7)	2500 (98.4)	3000 (118.1)	3500 (137.8)	Max.	1600 (62.1)	2000 (78.7)	2500 (98.4)	3000 (118.1)	3500 (137.8)	Max.	1600 (62.1)	2000 (78.7)	2500 (98.4)	3000 (118.1)	3500 (137.8)	Max.
	LIFT RADIUS - mm (in.)						LIFT RADIUS - mm (in.)						LIFT RADIUS - mm (in.)					
2500 (98.4)				254* (100)		304* (120)				250* (98)		300* (118)				292* (115)		305* (110)
2000 (78.7)				312* (123)	305* (120)	305* (110)				304* (120)	304* (118)	300* (110)				305* (110)		305* (110)
1600 (62.1)		664* (261)	406* (159)	362* (142)	327* (128)	327* (128)	648* (255)	416* (163)	361* (130)	320* (126)	325* (128)	660* (259)	416* (163)	327* (128)	325* (118)	320* (115)	320* (115)	
1000 (39.4)		797* (313)	652* (256)	413* (162)	347* (136)	327* (128)	706* (276)	617* (243)	466* (168)	339* (125)	327* (122)	799* (313)	613* (239)	399* (145)	346* (124)	327* (118)	327* (118)	
500 (19.7)		900* (354)	624* (246)	462* (181)	367* (144)	348* (127)	830* (312)	620* (244)	464* (169)	360* (130)	345* (125)	867* (312)	650* (247)	442* (164)	363* (131)	348* (125)	348* (125)	
GRD		900* (354)	651* (256)	466* (182)	367* (144)	350* (130)	830* (312)	624* (245)	466* (169)	360* (130)	350* (130)	819* (302)	650* (247)	442* (164)	374* (135)		359* (129)	
-500 (-19.7)		856* (336)	612* (241)	463* (181)		406* (146)	830* (312)	612* (241)	464* (169)		357* (128)	866* (312)	650* (247)	437* (158)	442* (164)		367* (132)	
-1000 (-39.4)		777* (304)	667* (262)	357* (136)		337* (121)	736* (267)	660* (239)	357* (128)		410* (161)	814* (295)	705* (254)	641* (230)			337* (121)	
-1600 (-62.1)			379* (148)			379* (148)			379* (148)		379* (148)	759* (273)	660* (239)				337* (121)	

\* Rated Hydraulic Lift Capacity GN 94 655 9144

### Problem

Use the chart to determine the rated lift capacity of the excavator with the following conditions:

- radius equals 98.4 in. or 2500 mm
- lift point height is 39.4 in. or 1000 mm
- blade is down
- load was lifted with the front of the house facing the same direction as the blade.