Division of The Manitowoc Company, Inc. Manitowoc, Wisconsin 54220



TRAVEL CONDITIONS 4600 Series-4, RINGER® Series-3 No. 65 Boom with Boom Travel Support Assembly

## GENERAL

This folio describes the travel conditions (counterweight and boom angle requirements) for those No. 65 boom lengths that can be traveled when the Boom Travel Support Assembly is installed (see Table A).

Use of the boom travel support assembly permits traveling with longer boom lengths than when the boom travel support assembly is not used. See Folio 1132 in the **RINGER Service Manual for travel conditions when the** boom travel support assembly is not installed.

NOTE Drawings 66013 and 184509 for the boom travel support assembly are attached following this folio.

## PREPARING MACHINE FOR TRAVEL

1. Perform "Machine Preparation" steps IIA through IIC on drawing 184509.

2. Install the boom travel support assembly as shown on drawing 66013.

3. Perform "Machine Preparation" steps IID through IIF on drawing 184509.

NOTE 263,500 pounds of auxiliary counterweight is required to tension the boom travel support pendants.

\*4. If boom travel support will be kept in tension for operation after traveling, adjust the counterweight and backhitch pendants before proceeding (see Assembly Guide for RINGER Attachment).

5. Perform "Tensioning Boom Travel Support Pendants" steps IIIA through IIIC on drawing 184509.

After tensioning the boom travel support pendants. reduce auxiliary counterweight to the value given in Table A that corresponds to the boom length and load block configuration.

NOTE Auxiliary counterweight must be centered on counterweight carrier.

**IMPORTANT** Remove auxiliary counterweight boxes one at a time alternating from side to side, or structural damage to ring can result.

7. If the load block will be carried on a transport vehicle. the load block must be carried directly below the boom point.

8. If the load block will be carried freely suspended, keep the load block as close to the ground as possible.

9. Engage the swing lock and apply the swing brake before traveling.

10. If side-to-side clearance is required, remove the ring side segments and the side beams. Assemble the front ring stops to the ring segment under the front roller carrier; assemble the rear stub segments to the ring segment below the counterweight carrier.

11. Lubricate the crawlers before and during travel operation as described in the RINGER Lubrication Guide found in the LUBRICATION Section of the RINGER Service Manual.

## **TRAVEL CONDITIONS**

1. Plan the travel route, it must be free of ground and overhead obstructions.

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Grade conditions that follow shall be adhered to when traveling!

-Travel route must be firm, smooth and uniformly supporting.

-Grade must not exceed 5 percent front to rear and 2 percent side to side; no turning allowed on grade.

Warn all personnel to stand clear of the travel route. DO NOT travel without a signalman.

3. Travel in a forward direction with the drive chains to the rear.

CAUTION

Do not swing while traveling! Structural damage to ring can result, possibly allowing boom and mast to collapse.

4. For straight-line travel, position the boom at the "recommended boom angle" given in Table A.

For cutting (steering), ground conditions will dictate which boom angle provides best cutting. Boom up or down to the boom angle between "maximum and minimum" that makes cutting the easiest.

CAUTION Do not lower boom below "minimum boom angle" given in Table A while traveling or anytime ring is not supported below boom carrier; structural damage to ring can result, possibly allowing boom and mast to collapse.

NOTE Travel hydraulic system can "stall" while cutting if boom is raised above "maximum boom angle" given in Table A.

5. If cutting (steering) is difficult due to ground build-up next to the crawlers, steel plates placed below the crawler which is locked will make steering easier and help prevent ground build-up next to the crawler.

**IMPORTANT** Avoid damage to crawlers from digging into travel surface and accumulating excessive piles of dirt at crawler drive chain and front roller ends of . crawlers.

Cut a few degrees. Then slowly travel forward a short distance so dirt falls away from crawler drive chain, idlers and front end roller. Continue this procedure until desired turn has been made.

**IMPORTANT** Avoid shock loading boom, mast, or rigging! Perform travel functions — starting, stopping, and cutting --- slowly and smoothly.

## **RETURNING MACHINE TO** NORMAL OPERATION

1. After the machine has been traveled to the desired location, support and level the ring per the conditions given in the Capacity Chart to be used (see RINGER Assembly Folio in the Service Manual for ring supporting and leveling instructions).

2. Add the required amount of auxiliary counterweight to the counterweight carrier per the conditions given in the Capacity Chart to be used.

\*NOTE It is not necessary to untension or remove the boom travel support assembly when returning the machine to normal operation. If removal of the boom travel support assembly is desired, perform step IV on drawing 184509 and check counterweight and backhitch pendants for proper adjustment (see Assembly Guide for RINGER Attachment).

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BOOM LENGTH (feet)	B	OOM ANGLE (degree RECOMMENDED	es) MAXIMUM	AUXILIARY COUNTERWEIGHT (pounds)	AUXILIARY CTWT. BOXES
Load Block Carried on Transport Vehicle					
180	20	68	74	0	0
200	37	72	74	0	0
220	47	74	74	0	0
240	44	74	74	40,000	1
260	48	72	74	84,700	2
280	47	74	74	84,700	2
300	56	73	74	129,400	3
320	62	72	74	174,100	4
340	66	74	74	174,100	4
360	68	74	74	174,100	4
	600 Ton	Load Block Hanging	<b>Freely Susper</b>	nded Below Boom Point	
180	44	71	74	40,000	1
200	52	71	74	84,700	2
220	56	70	74	129,400	3
240	61	73	74	129,400	3
260	63	72	74	174,100	4
280	66	71	74	218,800	5
300	69	73	74	218,800	5
750 Ton Load Block Hanging Freely Suspended Below Boom Point					
180	49	69	、74	84,700	2
200	55	72	74	84,700	2

TABLE A

\*Table A is a consolidation of the travel conditions given on drawings 6665-B through 6665-G. The auxiliary counterweight given in Table A is the **minimum** counterweight that can be traveled with a given boom length.

\*\*Bottom center auxiliary counterweight weighs 40,000 pounds; each remaining auxiliary counterweight weighs 44,700 pounds.

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