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AUTOMATIC ROUNDFOOT COMPACTOR (RMC-8)



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CHAPTER 1

1.1 INTRODUCING THE RMC-8: RELIANCE ROUNDFOOT AUTOMATIC SOIL COMPACTOR

AUTOMATION

The RMC-8 is fully automatic which makes for ease and simplicity of operation, eliminating extensive operation training.

UNIFORM COMPACTION

The sprocket drive used to rotate the mould in the compactor has been modified in such a way that the mould follows a pattern to give the exact hammer fall configuration described in the SANS method.

AUTOMATIC BLOW COUNTER

The compaction speed is 60/+75 blows per minute. The counter can be set for as many blows needed for any test, once the test is completed, the machine automatically switches off.

The compactor is fully automatic thus eliminating human error so providing for efficient and high productivity.

1.2 NOTES

NOTES:

- Any Electronic Machinery is not recommended for straight generator use. Please insure that when a generator is being use to have a Voltage/Line Stabiliser for protection. Warrantee will be null and void if used with generator.
- Warrantee does not include any wear and tear of electronics and mechanical parts.
- SENSOR: Make sure the sensor is no more than 3mm away from the counting arm.

1.3 DIFFERENT STANDARD

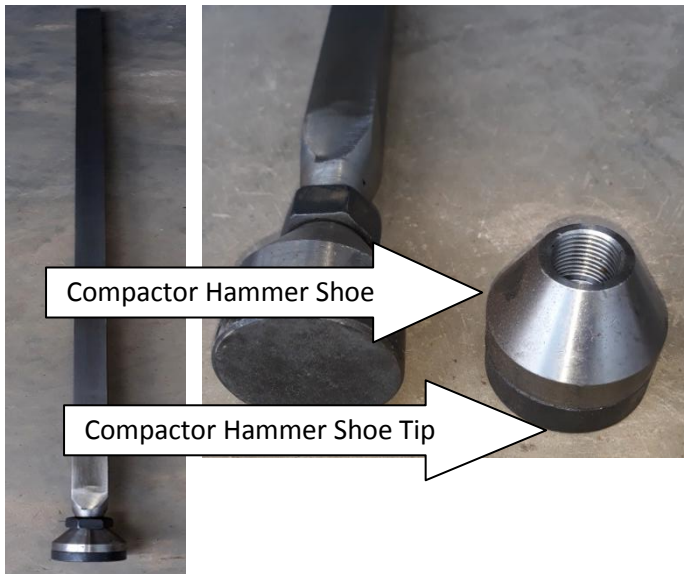
	TMH Method	SANS Method
Hammer Weight	4,536 kg	4.5 kg
Fall Distance of Hammer	457.2mm +- 2mm	460mm +- 2mm
Compaction Speed	+ - 75 Blows p/m	60 Blows p/m

CHAPTER 2

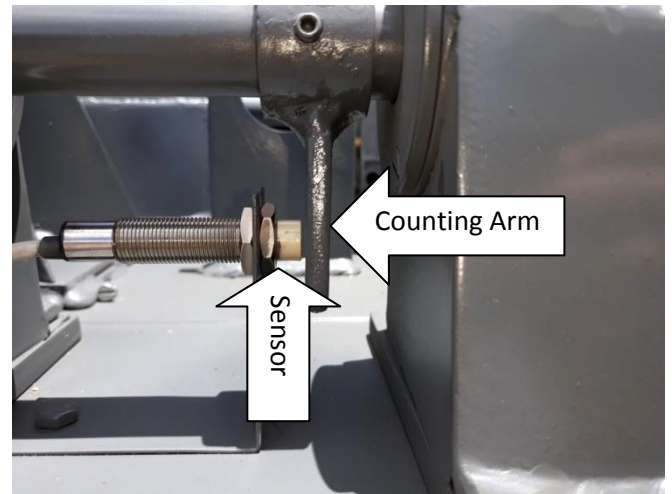
2.1 COMPACTOR AND PARTS



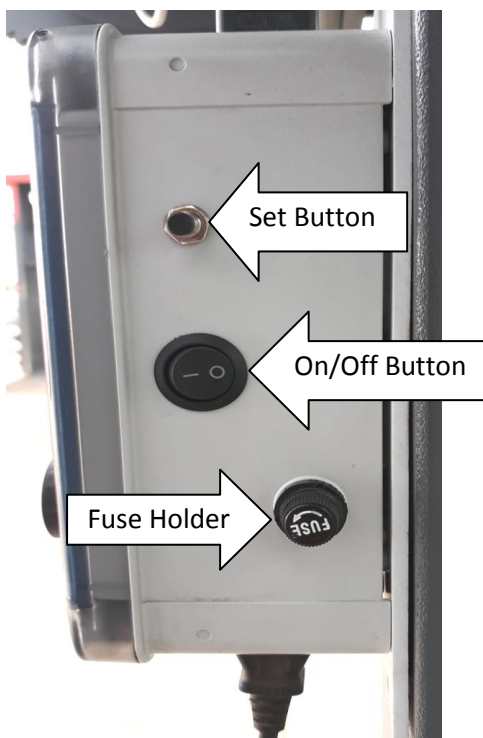
COMPACTION HAMMER



COUNTER PROXY/ARM



2.2 COUNTER



CHAPTER 3

3.1 PREPARING THE RMC-8 FOR OPERATION

1. Place a CBR mould body on the Compaction Base Plate and tighten lugs to secure the mould. The sample can now be poured into the mould.
2. While holding the Rack/Compactor Hammer push in the Resting Bracket and allow the Rack/Compactor Hammer to slowly descend until it's resting on the sample.
3. Press the "Set" Button on the side of the counter, the first digit will begin to flash, push until desired selected number of blows. When selected number of blows have been set the Compactor is ready for use. (The counter is factory set to 55 blows)
4. Press the "Start" (Green) Button on the counter and the Compactor will begin the test.
5. After the test has come to an end the Compactor will automatically stop.
6. Follow steps 3 (three) to 5 (five) to repeat cycle.

3.2 REMOVING THE CBR MOULD BODY

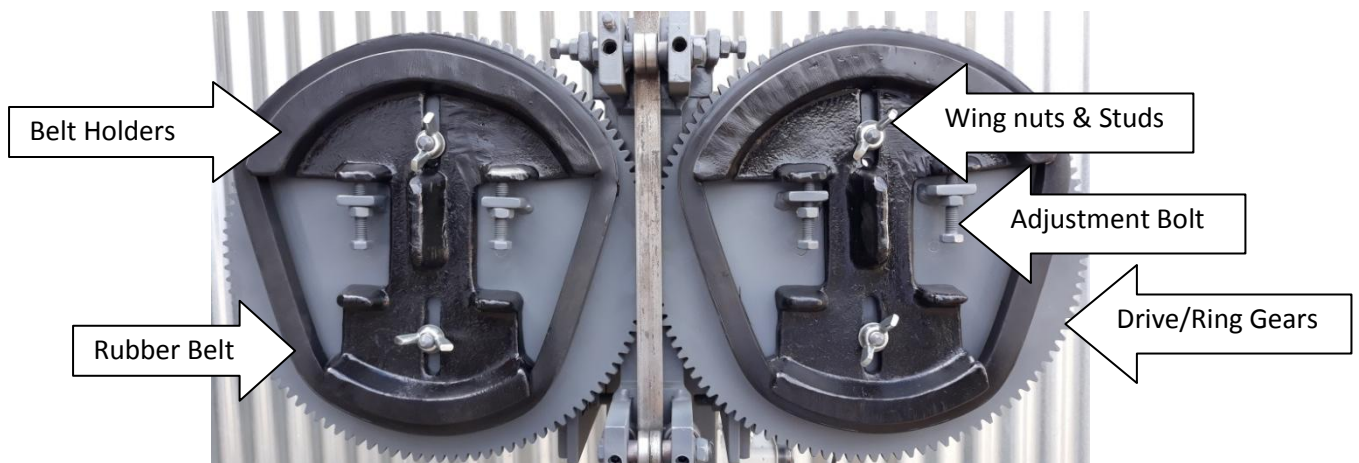
1. Loosen the bolts holding the CBR mould body to the compaction base plate and turn the mould through approximately 45 degrees.
2. Lift CBR mould body vertically off the compaction base plate.
3. If the CBR mould body should jam and will not turn the entire base plate should be removed. Lightly tapping with a hammer (CLUB HAMMER) can then be used to un-jam the mould.

WARNING

- Never use force to remove the CBR mould body or the compaction base plate while these are still attached to the compaction table. Damaged to the drive unit can result from such action.
- When transporting compactor never lift using the compactor table.

3.3 BELT ADJUSTMENT

1. The RMC-8 is set to perform the Modified Test.
2. The belt is supported by a single flange unit which is broad on one side and narrower on the other. The broadside (Modified Test Flange) is used to perform the Modified Test while the narrow side is used for the Proctor Test.
3. The adjustment bolts are used to fine adjust the selected flange ensuring even pressure of the rubber belt against the rack.
4. To change the flange around loosen the wing nuts holding the flange by the flange handle. Rotate the flange through 180 degree and replace the flange on the studs. After find adjustment the RMC-8 is ready for the selected test.



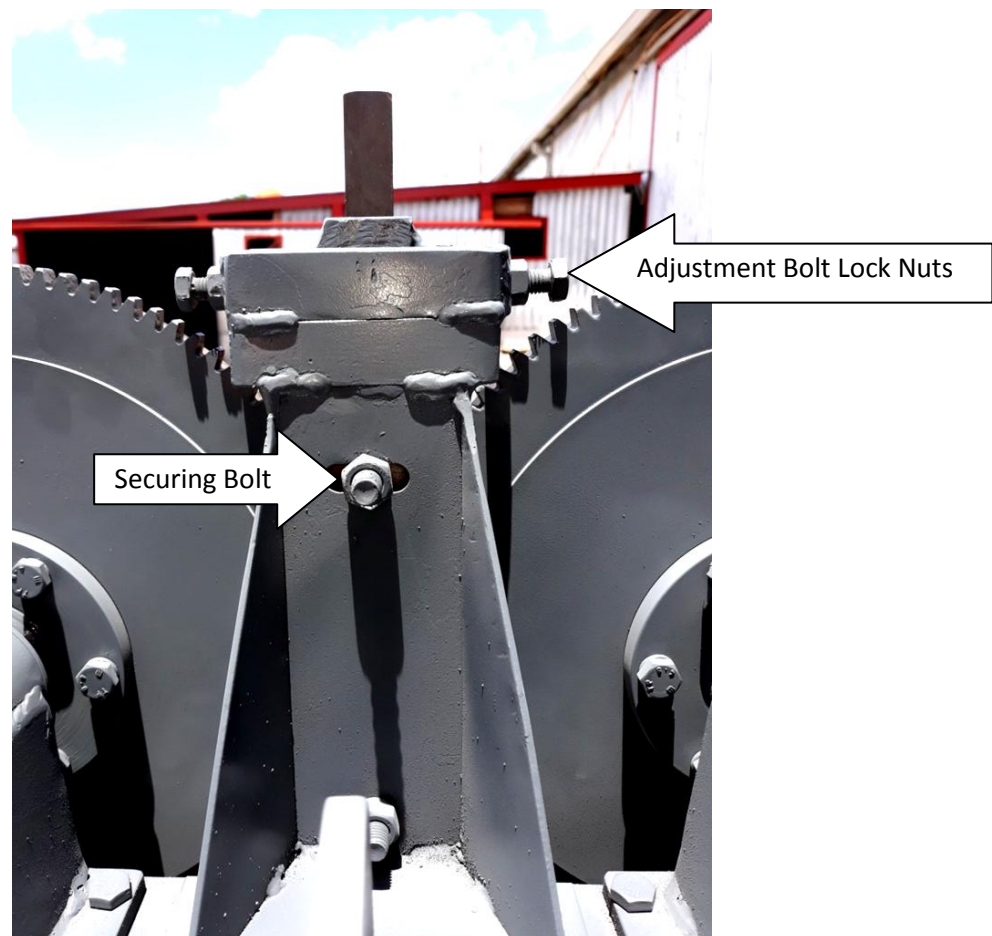
3.4 ADJUSTING THE DROP OF THE HAMMER

SIDE TO SIDE

1. If the Compaction shoe makes contact on one of the sides of the CBR Mould Body adjustment might be necessary. The CBR Mould Body should first be checked to ensure that it is not deformed or oval.
2. Loosen the Securing Bolt.
3. Then loosen the Adjustment Bolt Lock Nut on the side of the desired adjustment
4. The Adjustment Bolt may now be tightened. This procedure will cause the hammer to drop on the same side as the adjustment has been made, i.e. if right hand Adjustment Bolt is adjusted the hammer will fall further to the right hand side.
5. NB: The adjustment need only be slight to provide a variation of a few millimeters (mm).
6. Once the adjustment has been made tighten both Adjustment Bolt Lock Nuts and the Securing Bolt before restarting the Compactor.

FRONT TO BACK

1. To adjust the drop of the hammer from front to back loosen the four bolts securing the platform to the column of the Compactor.
2. An Adjustment Bolt is located to the rear of the Compactor just below the Platform. Loosen the Lock Nut and then adjust as required. Clockwise adjustment moves the hammer to the rear and anticlockwise to the fore.
3. Tighten the Lock Nut and the four securing bolts before restarting the Compactor.

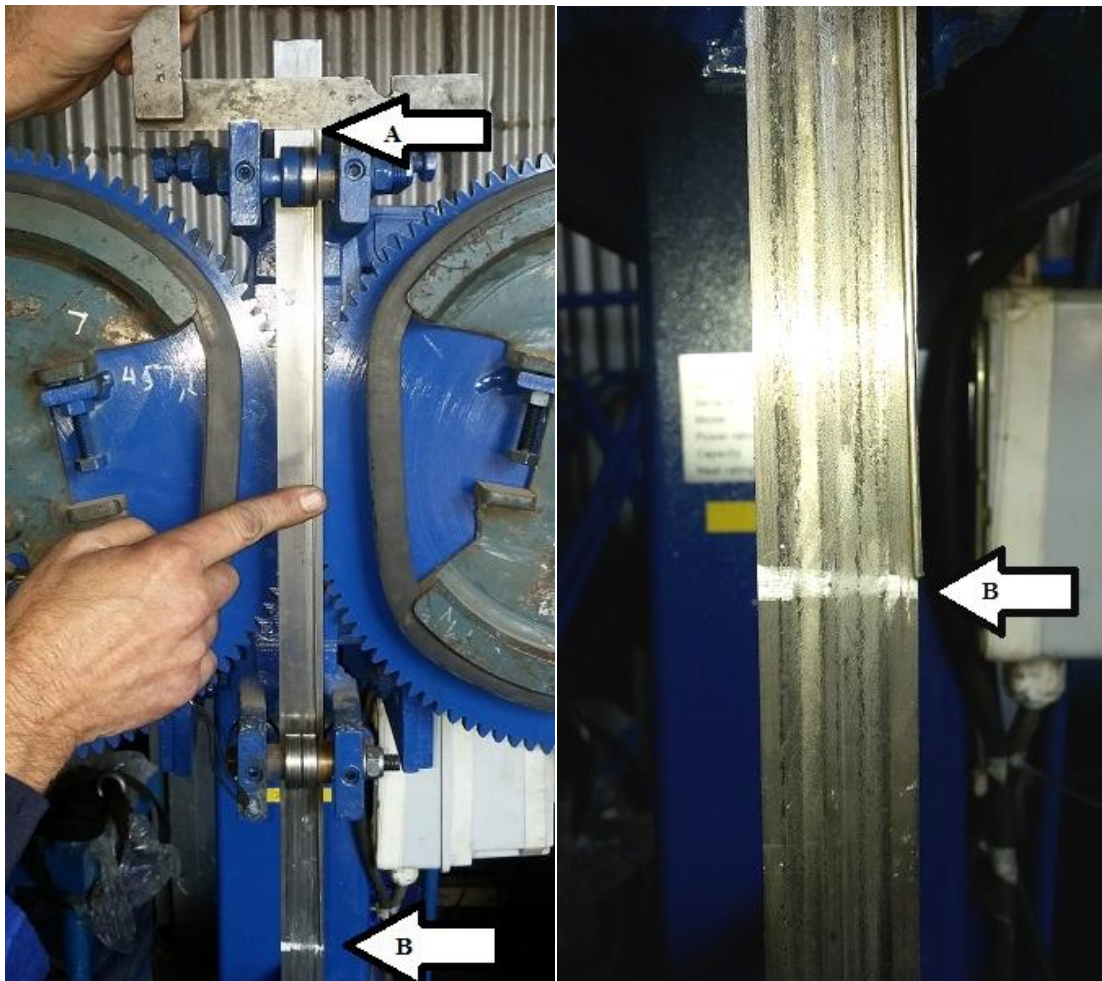


3.5 ADJUSTING THE DROP HEIGHT OF THE HAMMER

1. Make a reference measure for your drop Height.
P.S. – MAKE IT WITH SOMETHING RIGID THAT WILL FIT INTO THE GUIDE.



2. From the top of the hammer guide make a line on the hammer using chalk or a marker (Point A). Using your reference measure from Point A and make a second mark at Point B.
3. Adjust the Belt Holders that Point B reaches Point A at the top of the hammer guide.



CHAPTER 4

4.1 SPARE PARTS

- Compactor Hammer
- Compactor Hammer Shoe
- Compactor Hammer Shoe Tip
- Counter
- Belt Holder
- Rubber Belts
- Compaction Base Plate
- CBR Mould Body
- Tip Drive Chain

For Services and Repairs and/ Quotations, PLEASE send in your Compactor to Reliance.