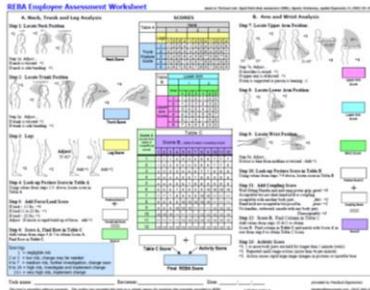


Rapid Entire Body Assessment of Warehouse Task



This order picking task was filmed at a UK Food Warehousing Facility in 2011. The task involves lifting food crates from a pallet. Crates can be lifted from pallet level up to above head height. The crates in this example weigh 10kg. After lifting from the pallet, the crate is then carried 2 metres and lowered into a cage. Crates are lowered into the cage from just above ankle level, up to shoulder level.

This Rapid Entire Body Assessment (REBA) is for the lowering of the crate into the cage, with regards to the video clip at 22 seconds (screenshot above).

The following REBA Worksheet has each step's explanation below.

REBA Employee Assessment Worksheet

Based on Technical note: Rapid Entire Body Assessment (REBA), Hagberg, Møller, Applied Ergonomics 31 (2000) 201-208

A. Neck, Trunk and Leg Analysis

Step 1: Locate Neck Position

Step 1a: Adjust...
If neck is twisted: +1
If neck is side bending: +1

Neck Score: 1

Step 2: Locate Trunk Position

Step 2a: Adjust...
If trunk is twisted: +1
If trunk is side bending: +1

Trunk Score: 3

Step 3: Legs

Adjust: 30-60° +1, 60° +2

Leg Score: 2

Step 4: Look-up Posture Score in Table A
Using values from steps 1-3 above, locate score in Table A

Posture Score A: 4

Step 5: Add Force/Load Score
If load < 11 lbs: +0
If load 11 to 22 lbs: +1
If load > 22 lbs: +2
Adjust: If stock or rapid build up of force: add +1

Force/Load Score: 2

Step 6: Score A, Find Row in Table C
Add values from steps 4 & 5 to obtain Score A. Find Row in Table C.

Score A: 6

Scoring:
1 = negligible risk
2 or 3 = low risk, change may be needed
4 to 7 = medium risk, further investigation, change soon
8 to 10 = high risk, investigate and implement change
11+ = very high risk, implement change

B. Arm and Wrist Analysis

Step 7: Locate Upper Arm Position:

Step 7a: Adjust...
If shoulder is raised: +1
If upper arm is abducted: +1
If arm is supported or person is leaning: -1

Upper Arm Score: 4

Step 8: Locate Lower Arm Position:

Step 8a: Adjust...
If wrist is bent from midline or twisted: Add +1

Lower Arm Score: 2

Step 9: Locate Wrist Position:

Step 9a: Adjust...
If wrist is bent from midline or twisted: Add +1

Wrist Score: 3

Step 10: Look-up Posture Score in Table B
Using values from steps 7-9 above, locate score in Table B

Posture Score B: 7

Step 11: Add Coupling Score
Well fitting handle and mid range power grip: good: +0
Acceptable but not ideal hand hold or coupling acceptable with another body part: fair: +1
Hand hold not acceptable but possible: poor: +2
No handles, awkward, unsafe with any body part: unacceptable: +3

Coupling Score: 1

Step 12: Score B, Find Column in Table C
Add values from steps 10 & 11 to obtain Score B. Find column in Table C and match with Score A in row from step 6 to obtain Table C Score.

Score B: 8

Step 13: Activity Score
+1 1 or more body parts are held for longer than 1 minute (static)
+1 Expected small range actions (more than 4x per minute)
+1 Actions causes rapid large range changes in postures or unstable base

Activity Score: 2

Final REBA Score: 9 + 2 = 11

Neck	1	2	3
Legs	1 2 3 4	1 2 3 4	1 2 3 4
Trunk Posture Score	1 1 2 3 4	1 2 3 4 3 3 5 6	2 2 3 4 5 3 4 5 6 4 5 6 7
Score A	3 2 3 4 5 6 7 5 6 7 8 6 7 8 9	4 4 5 6 7 5 6 7 8 7 8 9 9	5 4 6 7 8 6 7 8 9 7 8 9 9

Wrist	1	2	3
Upper Arm Score	1 1 2 2 1 2 3	2 1 2 3 2 3 4	3 3 4 5 4 5 5
Score B	4 4 5 6 7 5 6 7 8 7 8 9	5 6 7 8 7 8 9 8 9 9 9 9	6 6 7 8 9 10 10 10 11 11 11 11
Score C	7 7 7 8 8 9 9 10 10 11 11 11	8 8 8 9 9 10 10 10 10 11 11 11	9 9 9 10 10 10 11 11 11 12 12 12
Score D	10 10 10 10 11 11 11 11 12 12 12 12	11 11 11 11 12 12 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12 12 12

Score A	1	2	3	4	5	6	7	8	9	10	11	12
Score B	1 1 1 1 1 2 3 3 4 5 6 7 7 7	2 1 2 2 3 4 4 5 5 6 7 7 8	3 2 3 3 3 4 5 6 7 7 8 8 8	4 3 4 4 4 5 6 7 8 8 9 9 9	5 4 4 4 5 5 6 7 8 8 9 9 9	6 6 6 6 7 8 8 9 9 10 10 10 10	7 7 7 7 8 8 9 9 10 10 11 11 11	8 8 8 8 9 10 10 10 10 11 11 11 11	9 9 9 9 10 10 10 11 11 11 12 12 12	10 10 10 10 11 11 11 12 12 12 12 12	11 11 11 11 12 12 12 12 12 12 12 12	12 12 12 12 12 12 12 12 12 12 12 12

A. Neck, Trunk and Leg Analysis

Step 1. Locate Neck Position

Neck Score of 1. There is a minimal forward bending of the neck, between 0-20 degrees. The neck is neither twisted nor side bent.

Step 2. Locate Trunk Position

Trunk Score of 3. There is a forward bending of the trunk, between 20-60 degrees. The trunk is neither twisted nor side bent.

Step 3. Legs

Leg Score of 2. The warehouse operative appears to weight bear more through his right lower extremity (leg) when he lowers the crate. There is no flexion of his knees.

Step 4. Look up Posture Score in Table A

Posture Score A of 4. In the worksheet above the score of 4 is circled.

Step 5. Add Force/ Load Score

Force/ Load Score of 2. The load weight is 10kg. 2 has been scored as the crate weights can be over 10kg.

Step 6. Score A, Find Row in Table C

Posture Score A of 4 + Force/ Load Score of 2

= Score A of 6

B. Arm and Wrist Analysis

Step 7. Locate Upper Arm Position

Upper Arm Score 4. The shoulder joints are flexed between 45-90 degrees. The shoulder (i.e. shoulder blades) is raised.

Step 8. Locate Lower Arm Position

Lower Arm Score of 2.

Step 9. Locate Wrist Position

Wrist Score 3. The wrists are extended and bent from the mid line (they are ulnar deviated).

Step 10. Look up Posture Score in Table B

Posture Score B of 7. In the worksheet above the score of 7 is circled.

Step 11. Add Coupling Score

Coupling Score of 1. It appears the crates have small handles on each side therefore graded as *fair*.

Step 12. Score B, Find Column in Table C

Posture Score B of 7 + Coupling Score of 1

= Score B of 8

Step 13. Activity Score

Activity Score of +2.

+1 Repeated small range actions (more than 4x per minute)

+1 Action causes rapid large range changes in posture or unstable base

In the 34 second video the warehouse operative lifts and lowers 3 crates. Concerning the 2nd +1 score, as the crate is lowered away from the body, this causes an unstable base.

Table C Score

Table C Score of 9. In the worksheet above the score of 9 is circled.

Final REBA Score of 11 = very high risk, implement change

If you want to share your thoughts about the REBA Tool; this worked example; the possible risk reduction solutions i.e. implement change; or you have any other questions feel free to message me on LinkedIn or email me at garethmilner@osteopathicsolutions.co.uk

For comprehensive coverage of Safer Manual Handling Techniques and Practices check out Osteopathic Solutions 'Setting UK Standards' Manual Handling Training DVD on www.osteopathicsolutions-manualhandling.co.uk/manual-handling-training-dvd



Also, check out our Train Manual Handling Instructors USB on www.osteopathicsolutions-manualhandling.co.uk/train-instructors-usb



We hope you have found this Risk Assessment LinkedIn post useful.

Thanks for reading.



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