

Musculoskeletal disorder (MSD)

Arriva Trains Wales

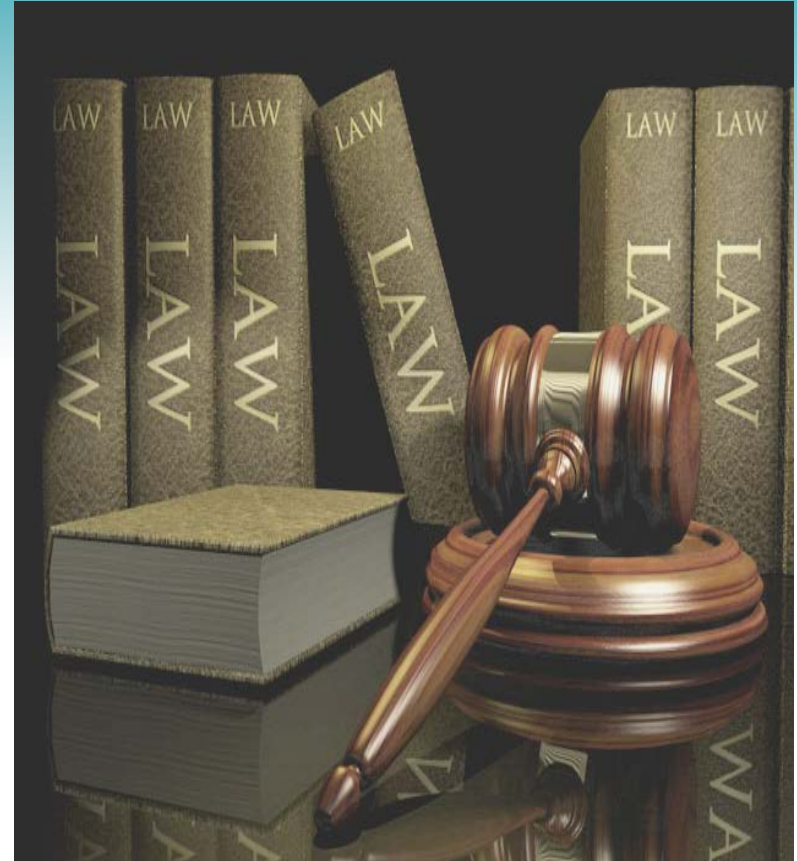
Purpose



- Background to the Arriva cases judgment to carpal tunnel
- Where we are
- Who is involved
- Approach taken using the MAT Tool
- Lessons learned/ issues / feedback on the process

Background to the Arriva cases Judgement

- In 2009 4 drivers from Carmarthen depot reported suffering pain in their wrists and arms.
- The pain was caused by poor posture and frequency of movement of power brake handles.
- Case was taken to magistrates court and ATW lost the case resulting in damages.
- ATW failed to undertake a suitable and sufficient risk assessment of the driving tasks/cabs.
- The issue of driver risk assessments was raised at ATOC safety forum.
- RSSB was asked by the industry to develop an risk assessment process for the industry T940.



Proud to have you on board

Where are we now



- We have measured all cabs
- Appointed anthropometric specialist to evaluate the fit between the driver and the cab
- Through our Cab Environment Group we have engaged with ASLEF union explaining our approach to MSD Assessment for individuals
- To date 4 individual drivers have been assessed using the MAT Tool
- We are undertaking a generic risk assessment for train driving

Who is involved

- ALSEF & TSSA unions
- Human Resources
- Ergonomic consultant
- Health and Safety Reps
- Occupational Health
- Train Driver Function
- Safety Function
- Fleet
- Cab Environment Group



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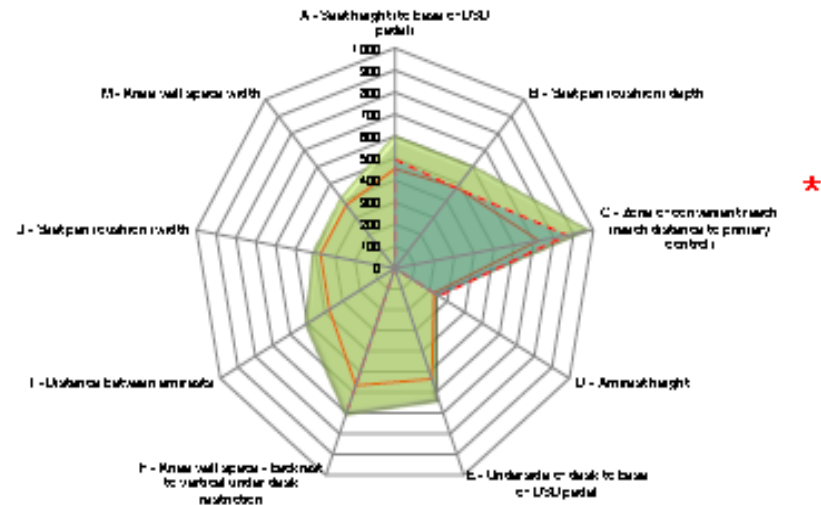
Approach taken using the MAT Tool

- We identified those drivers who complained they were suffering ULD. These drivers were: -
 - reviewed by Occupational Health
 - Anthropometrically Measured
 - Individual assessed in cab when train driving using MAT Tool
 - Filmed drivers during MSD Assessment
 - Produced MSD Assessment report
- The MAT Tool has been used: -
 - to assist in the design of new cab driving seats (Class 150)
 - for re-positioning primary controls (such as Warning Horn and AWS)

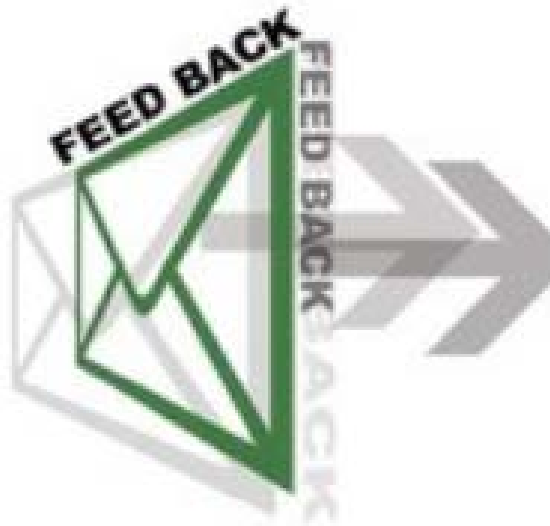
Lesson from Individual assessments

- Individual driver assessment - time consuming
- Results page was difficult to analyse because cabs are suboptimal and drivers are unlikely to have a best fit!
- Drivers believed 'red' means some action is required.
- Using MAT Tool for cab alterations had some success, particularly in new seat design
- The MAT Tool enabled us to identify where aids such as back supports could be used, but this could create other risks!
- The MAT Tool has benefits and provides a structured assessment. However, experience from using the tool probably requires further work to improve ease of use and analysis.

	Holding check out:				Comparison with the anthropometric data of a measured individual									
	Dimensional (mm)		Percentage range covered		Female				Male					
	Min	Max	Female lo	Male	mm	%ile	F47	match	mm	%ile	F47	match		
A - Seat height	494	to	884	>99%	to	>99%			417	93%	No	-117	-217	
B - Seat pan depth (1000)	475	to	800	99%	to	>99%			479	97%	Yes	-	-20	
C - Zone of convenient reach (reach distance to primary control)	387	to	920	>99%	to	>99%			387	92%	No	-142	-205	
D - Armrest height	259	to	259	99%	to	91%			224	97%	No	-29	-29	
E - Underside of desk to footplate	0	to	845	>99%	to	>99%			500	99%	Yes	25	25	
F - Knee wall space - backward to vertical under desk restriction	875	to	110	>99%	to	>99%			875	110	9%	Yes	103	149
I - Distance between armrests	0	to	510	>99%	to	>99%			510	97%	Yes	125	125	
J - Seat pan width	0	to	411	>99%	to	99%			411	97%	Yes	26	26	
M - Knee wall space width	0	to	415	>99%	to	99%			415	97%	Yes	40	40	



Feed Back on Process



- One day training provided on use of MAT Tool
- Further guidance on the tool was initially provided, however RSSB project team moved onto other initiatives
- There was no scope within the project to further evaluate the effectiveness of the MAT tool when used in anger.
- A review process/lessons learnt should be built into a large majority of projects undertaken by RSSB

Any Questions

