



Replacement Parts

How to develop a purchasing policy

Peter Hart & Brian Thomas



Replacement Parts

Developing a Company Policy

Brian Thomas
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Developing a Company Policy

THE RISKS INVOLVED

- Chain of Responsibility means more and more emphasis on the operator
- Understanding the importance of ADR Compliance is a given. Ignorance is no excuse.



- Heavy vehicle operators are a soft target in both the public and political domain
- We will need to be more vigilant than ever
- The fact is Australia lags the rest of the developed world with legislation.



- It seems ironic that stability control and ABS is mandated on passenger cars but not the majority of heavy goods vehicles
- It will happen. In the meantime operators will be in the firing line whenever there is an accident involving Heavy Goods Vehicles



Consumer Check List

The following questions should be put to spare parts suppliers

- Does the part have a clearly visible part number and manufacturers identification
- Does the batch the part came from have a batch number
- Are written installation and safety instructions provided



Customer Check List

- If the part could have a particular grading or performance level is this stated in documentation
- Was the part manufactured to an engineering drawing
- Does the replacement part have an ADR registration number.
If not, does it comply with the ADR
- Are quality assurance checks conducted on some parts from each batch



Customer Check List

- Are batch records kept that allow the manufacturing date to be determined
- Does the part have a unique serial number
- Has the part been tested against a technical standard and if so what standard and who did the test



Customer Check List

- Does your current part supplier meet this criteria
- Do you keep records of parts consumption



Customer check list

- Are you being supplied with the same brand of part. Beware of the distributor that is constantly changing
- Do you have a planned scheduled replacement of critical parts



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A Hazard & Risk Approach

The fundamental question is:

- Reasonably, what could go wrong ?



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- Reasonably, what could go wrong ?
- Risks should be assessed and managed.
- This approach could be applied to purchasing policy decisions.



A Hazard & Risk Approach

Replacement parts purchasing decisions have to balance three main considerations:



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- Will the vehicle be safe / legal ?



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This is a very grey area !



A Hazard & Risk Approach

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- Will the vehicle be safe / legal ?
- Are there maintenance advantages to be got ?



A Hazard & Risk Approach

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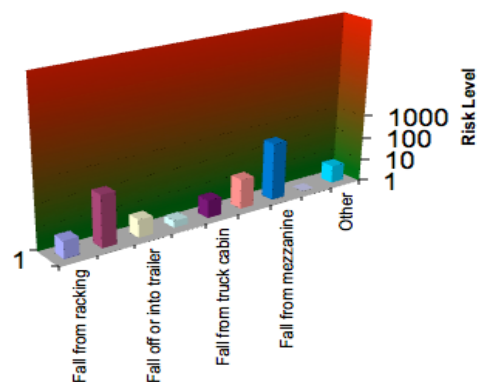
- Will the vehicle be safe / legal ?
- Are there maintenance advantages to be got ?
- Is the price benefit significant ?



Nature of the Hazard	Specific Hazard	Severity. How serious? 1/10	Frequency How often? 1/10	Vulnerability. How poor are the protections? 1/10	Risk Value	Risk Assessment
		0 - Negligible	5 Moderate	10 Very high		
		0 - Negligible 5 - Lost time incident 10 - Probably fatal	0 - Never likely Once per week affecting many workers. 10 - continuous affecting all workers	0 - Protections are completely reliable 5 - Dual protections but may not be reliable 10 - Unreliable single protection		Aim to reduce all risks to Very Low
People Fall From Height						
	Fail from racking	1	2	3.0	6	Very Low
	Fail off forklift	5	6	6.0	180	High
	Fail off or into trailer	3	2	1.0	6	Very Low
	Fail off stairs	7	5	2.0	70	Moderate
	Fail from truck cabin	3	2	1.0	6	Very Low
	Fail from roof of building	4	5	1.0	20	Very Low
	Fail from mezzanine	8	7	6.0	336	High
	Poor rails on mezzanine	0	0	0.0	0	Very Low
	Other	1	2	3.0	6	Very Low
		Enter assessments into yellow cells			Program calculates values in mouve cells	

Hazard Category: People Fall from Height

Risk Assessment	
> 500	Extreme
150 - 500	High
51 - 150	Moderate
21 - 50	Low
< 21	Very Low



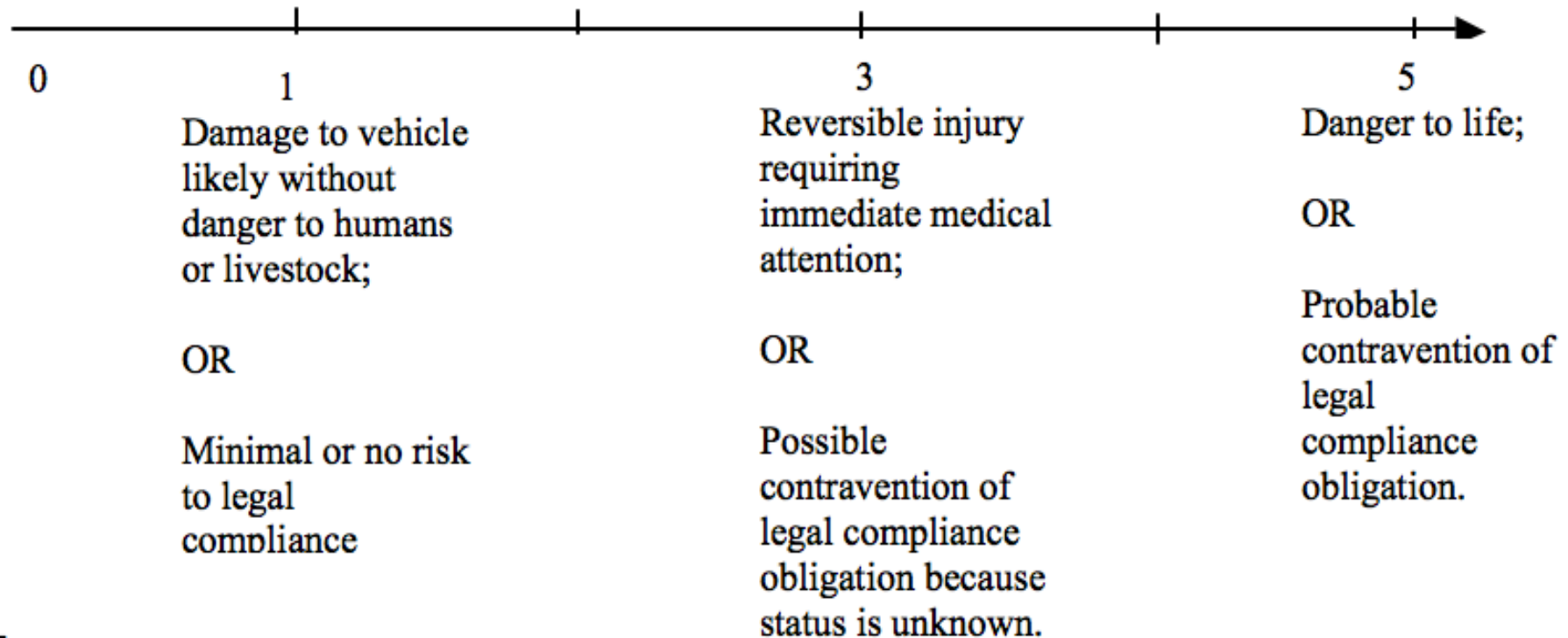
Categories

- Level 1** Safety-Critical or Certification-Critical Parts.
- Level 2** Moderate Safety or Certification Importance.
- Level 3** Minor Safety or Certification Implications.



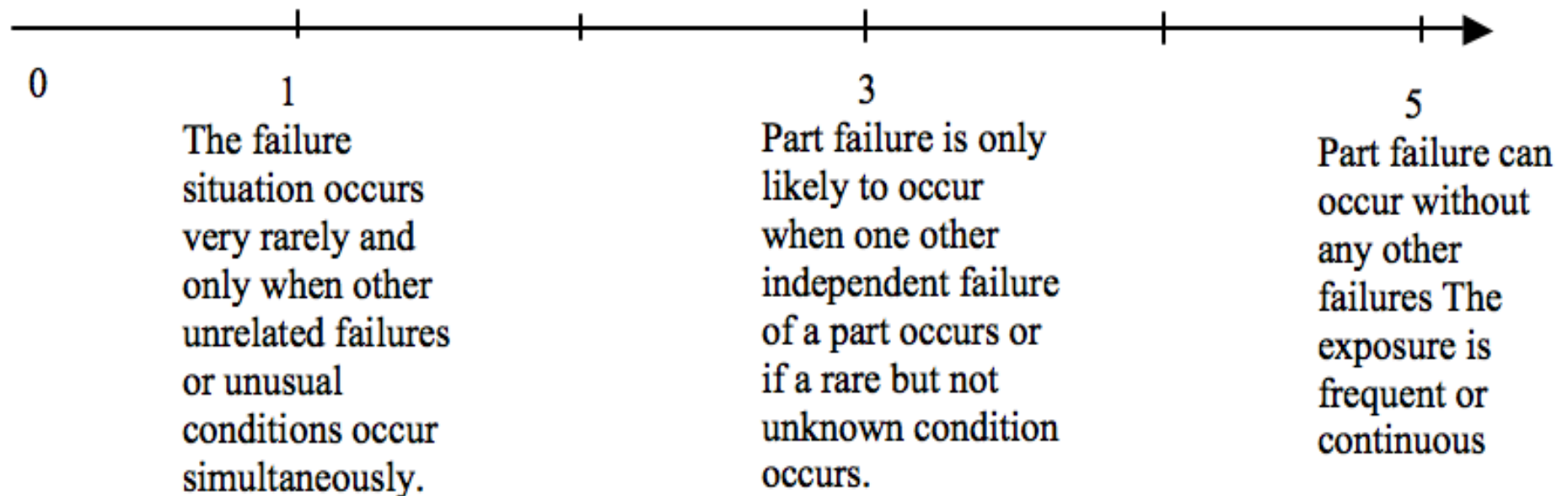
Outcome:

Level of severity that could reasonably occur.



Exposure:

Extent to which the failure could occur at any time or is consequential on other factors occurring independently.



Risk for Parts = Outcome x Exposure



Risk for Parts = Outcome x Exposure

Risk is ≤ 3

—————▶ **Level 3**

Risk is > 3 and ≤ 5

—————▶ **Level 2**

Risk > 5

—————▶ **Level 1**



Level 1 Safety-Critical or Certification-Critical Parts.

Steering arms, linkages, boxes...

Steer tyres

Brake linings



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Should use OEM parts or parts that maintain the same level of safety / certification



Level 2 Moderate Safety or Certification Importance.

Fuel tank, fuel hoses,..

Brake valves

Side marker lights

Engine Oil



Level 2 Moderate Safety or Certification Importance.

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Brake valves

Side marker lights

Should use a part that meets some industry standard or is used on new approved vehicles.



Policy Considerations



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- 1 A written policy is needed.
- 2 A classification list of parts is needed: Level 1, Level 2, Level 3.
- 3 Responsibilities need to be assigned. Who decides what purchasing changes can be made ?
- 4 A clear statement of the rules is needed. Eg:

Eg. What suppliers can be used for Levels 1 & 2.



Policy Considerations

- 5 Continuous improvement / feedback needs to be included.



Policy Considerations

5 Continuous improvement / feedback needs to be included.

What replacement cycle is being achieved ?

What cost benefits occurred ?

Any installation problems ?

Responsive supplier ?

Aside for level considerations, was the experience good ?



Policy Considerations

- 6 Replacement parts purchasing must never to 'ad-hoc'



Policy Considerations

6 Replacement parts purchasing must never to 'ad-hoc'

A policy that has clear rules and responsibilities will reduce everyone stress levels.



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