

Implementation of Cefic/ECTA best practice for unloading polymers in bulk

Brussel, 21/11/2019





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Den Hartogh worked at implementation since the publication of the 2014 Guidelines

- The 2014 Guidelines provided a reference for equipment safety
- The 2016 guidance extended the focus to the responsibilities of the receivers



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2014 to 2016

Some features where added to the standard design of tipping trailers, such as:

- Spirit level
- twist lock indicators.

Note: the 'Dead man switch' was already a standard feature of our trailers.



The main challenge we faced was related to the design and installation of an interlock system for the safety guard of the rotary valve.

2016: a prototype was designed and tested.

2017: all trailers were upgraded. The work was carried out by our Technical Engineers.

2018 to date: all new trailers are factory fitted with the interlock system.



INTERLOCK PROTOTYPE

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Air pressure control valves have been added to act as circuit breakers on the Rotary Valve. The air pressure conduit runs over the flow control valve, and connects to two points (one on each side) of rotary valve.

Both air pressure control valves must be fitted to complete the 'circuit' allowing the rotary valve to be energised. (Also see image below)



In order for the driver to energise the rotary valve for cleaning the safety grid must be in place with <u>both</u> air pressure control valves connected to complete the circuit.

With only one air pressure control valve connected the circuit is not complete, and so the rotary valve cannot be energised.







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A fraction of the trailers deployed on Den Hartogh business are owned by our trucking subcontractors.

Assuring 100% compliance of third party equipment is a significant challenge.

2017 to date

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- Minimum safety requirements for tipping trailers are included in our Terms and Conditions that subcontractors must accept.
- Key trailers safety features are routinely verified via spot checks and SHEQ audits
- Any shortcoming must be addressed via SMART actions.

See DEN HARTOGH				EQUIPMENT SPOT CHECK							Revision N. 12 Page 2/2 24/10/19	
	HECK			Tra	iler	No:						
R.P.M. during discharge				Pre	Pressure Gauge working Yes							
Hours run			Pre	essure during discharg			harge					
Air Temp during disc	charge			Am	bient	t Temp	during	g discharge				
Nea	r side Tyres							Off si	le Tyres			
Tyre number	Tread	Pressure	Pressure		ту	yre number		Tr	Tread		Pressure	
				Front								
				Centre				_				
Are wheel nut indicators correctly fi		ly fitted?		Real		YES				NO		
Are wheel hut mut	ators correct	y nueu :					.0			110		
					1	OK	NO		Com	ment		
Rotary Valve Guard Fitted with Interlocks												
Presence of Stabilisi	ng legs <u>OR</u> Sa	fety Side	Beam	15								
Lights/Reflectors/LV Mudwings & Elans	Plate				_							
Bolster					-							
Twistlocks												
Engine Blower Assy	& Mountings											
Rotary Valve Assy	hung Marrie											
Hydraulic Pipes & Va Twist Locks Indicato	alves - Visual				_							
Hydraulic Lift Control	Valve with Ser	viceable D)ead (Man's Swit	ch							
Condition & Cleanlin	ess of Hoses &	& Hose Ca	rriers	5								
Equipment Box & Co	ontents as per	Driver's H	and E	Book	_							
Condition & Cleanlin General Conditions	ess of Equipm	ent Box &	Cont	lents	-							
Are Oil Spill Sheets	Present?	Ves		No	_							
Is Vehicle Fire Extinguisher present? Yes			No	-	Inspection Date:							
Overall Trailer Cleanliness Good				Poo	r							
Max 1m Noise level	- dB(A)											
Discharge Hose Ser	ial No.											
VERALL FINDI	IGS:											
				P	ю		Satisfactory		Good	i Ex	cellent	
Container/tank condition												
Documentation												
Procedure complia	ince			_		+				_		
Trailer condition	ION			-		-				_		
Trailer condition												
ACTION REQUIR	ED:											
Any issues will be lo	ogged as Nor	Conforn	nanc	es								
Action Details								Ac	tion Party	Actio	n Date	

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2017 to date

There are elements of safety at receivers sites that are outside the control of the carrier. These relate to lay-out, ground conditions, housekeeping, site arrangements, etc., etc.

Den Hartogh began a continuous campaign to promote the reporting of near misses.

We encourage drivers to report all potentially dangerous situations that they see at third party sites so that we can liaise at appropriate levels to address issues.

Safety clearance in all direction is rarely achieved by receivers, due to pre-existing site layout.



Danger zone for 30' container



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