

DAIRY UK CODE OF PRACTICE ON MILK TANKER DESIGN
VACUUM LOADING PRESSURE DISCHARGE RIGID MILK COLLECTION TANKER

ALL TANKS MUST CONFIRM TO CURRENT LEGISLATION FOR BUILD AND FOOD HYGIENE
SPECIFICATION FOR TANKS FOR THE TRANSPORT OF MILK AND MILK PRODUCTS. BS 3441 (1995)

FOOD HYGIENE REGULATION (EC) No. 852/2004, No. 853/2004

DAIRY UK DTAS (DAIRY TRANSPORT ASSURANCE SCHEME)

FOREWORD

This Code of Practice sets down the guide lines and the minimum requirements for the design and build of any Milk Tanker that will be used under the Dairy Transport Assurance Scheme (DTAS).

This document is to be used in conjunction with the above legislative documents and is in no way a replacement or substitute on its own.

The purpose of this document is to highlight the "Minimum Allowable Standard" agreed between the major Milk Companies, Tank Manufacturers and Operators in the UK and is endorsed by the UK Trade body for the Dairy Industry namely "Dairy UK".

It is agreed that this COP does not and should not restrict any future design or improvements. However any changes out with the COP standard must be approved by Dairy UK , before they are included into any build programme. All due consideration will be given to any proposed design changes with an agreement that they will not be unreasonably refused.

It is the responsibility of all concerned in the design change to seek approval from Dairy UK as failure to do so could result in a breach of the DTAS document.

		Code of Practice Standard	Minimum Allowable Standard	Customer Options/Preference
1 Capacity		• As per customers requirement +/- 1% ullage.	X	
2 General Dimensions		• To operate at customers requirement.	X	X
	Length	• Length as per current Road use Regulations.	X	X
	Height.	• Height as per Customer Requirement but must be within current Road use Regulations.	X	X
	Slope to rear	• Slope to Rear 1.5°.	X	X
3 Test Pressure			X	
	Working Pressure	• Must be less than 0.5 bar if 0.5 or more PED and PSSR apply.	X	
	Test Pressure	• 0.75 bar.	X	
	Working Vacuum	• 460mm Hg.	X	
	Test Vacuum.	• 510mm Hg.	X	
4 Barrel	Full Material description	• 304 stainless steel Minimum or other Food Grade steel of comparable strength.	X	
	Thickness	• 3mm Minimum.	X	X
	Barrel type	• Straight cylindrical single compartment.	X	X
	Internal finish	• Welds ground and polished to 2B surface finish as per BS3441.	X	
5 Baffle	Full material description	• 304 stainless steel or other food grade steel of comparatable strength.	X	
	Thickness	• 3mm Minimum.	X	X
	No of baffles	• 1 No. (Preferred).	X	X
	Baffle features	• Adequate cut out for access to both compartments.	X	X
		• Top cut out for venting. Bottom cut out for drainage.	X	X
	Side Drain Holes	• Yes @ 3 & 9 o'clock	X	X
	Cleaning Rings	• 3mm 304L stainless steel or other food grade steel of comparatable strength may be used with top and bottom 3/4" test sockets, PVC bottom catch tube.	X	X
			X	X
6 Dished Ends	Full material description	• 304 stainless steel or other suitable food grade materials of comparatable strength may be used.	X	
	Thickness	• 4mm	X	X
7 Suffening Rings	Full material description	• 304L stainless steel or equivalent in other material of similar strength	X	
	Total No. of rings	• Sufficient to comply with tank design.	X	X
	Cradle Supports	• 304 stainless steel .	X	X
8 Pipe Work and Connections.	Full material description	• 304 stainless steel	X	X
		• All Fittings to be RJT. Size as per design / customer requirement.	X	X
		• All external pipework connections to have the ability to have security tags fitted.	X	X

9 Spill Box	Security	• If there is an access ladder on the tanker, there is a requirement for the spill box to be sealed. The method of sealing needs to be visible from ground level.	X	
	Full material description	• 304L Stainless steel.		X
	Size of box	• Size to suit.	X	X
	Lids	• One Lid or Two split lids hinged and lockable dependant on the size of manway with the ability to have security tag fitted from ground level.	X	X
	Drains	• 2 No. 1" with plastic extension below chassis level.	X	X
			Minimum Allowable Standard	Customer Options/Preference
10 Top Man-way				X
	Security	If there is an access ladder on the tanker, there is a requirement for top man-way to be sealed. Unless incorporated with a spill-box, the method of sealing needs to be visible from ground level.	X	
	Full material description	• 304L Stainless steel non-pressure	X	X
	Neck-ring	• Profiled positioned @ centre top.	X	X
	Size of Man-way	• 300mm or 500mm Round.	X	X
	Position	• Must allow for maximum visibility and access of internal areas of the tank.	X	X
	Seal	• Hygienic Food Grade Seal. Easy clean.(sweet white rubber).	X	X
	No of fasteners	• Dependent on type of lid fitted.	X	
11 Rear Cabinet				X
	Full material description	• As per customers requirement.		X
	Finish	• As per customers requirement.		X
	Type	• As per customers requirement but must have rear doors with the ability to have security tag fitted from the ground.	X	X
	Special features	• Switchable interior lamp provided. Ability to house sample box as per customer requirements.	X	X
12 Side Cabinet				X
	Full material description	• As per customers requirement.		X
	Finish	• As per customers requirement.		X
	Type	• As per customers requirement but must have rear doors with the ability to have security tag fitting.	X	X
	Special features	• Switchable interior lamp provided.	X	X
13 Low level Man-way				X
	Full material description	• 304L Stainless Steel .	X	X
	No of fasteners	• Dependent on type of lid fitted. Oval or 500mm Round.	X	X
	Size of Man-way	• 20" x 16".Oval or 500mm Round.	X	X
	Position	• Must allow for maximum visibility and access of internal areas of the tank.	X	X

	Sample valve - anti-tamper	<ul style="list-style-type: none"> Constructed of stainless steel, manually or pneumatically operated fitted with access to the main vessel via manway that must be able to provide a full representative load sample and has appropriate means of security, including hygienic CIP flow or other routine cleaning process. Sample point has appropriate means of security. 	X	X
		<ul style="list-style-type: none"> Jumper hose provided to CIP line for cleaning. 	X	X
		<ul style="list-style-type: none"> Must be designed with no water traps in the pipe work to ensure complete drainage of pipe work and sample valve. 	X	X
		<ul style="list-style-type: none"> Must allow for proper cleaning during CIP process. 	X	
	Seal	<ul style="list-style-type: none"> Hygienic Food Grade Seal. Easy clean.(EPDM seal) not sweet white wrap round seal. 	X	X
	Security	<ul style="list-style-type: none"> All Man-way's to have means of security tag fitting from the ground. 	X	X
14 Low level Man-way				
				X
<i>Rear Fitting Only</i>	Full material description	<ul style="list-style-type: none"> 304L Stainless Steel . Rear Dome. 	X	X
<i>Note: this configuration significantly reduces the</i>	No of fasteners	<ul style="list-style-type: none"> Dependent on type of lid fitted. Oval or 500mm Round. 	X	X
	Size of Man-way	<ul style="list-style-type: none"> 20" x 16".Oval or 500mm Round. 	X	X
		<ul style="list-style-type: none"> Constructed of stainless steel, manually or pneumatically operated fitted with access to the main vessel via manway that must be able to provide a full representative load sample and has appropriate means of security including hygienic CIP flow or other routine cleaning process. Sample point has appropriate means of security. 	X	X
<i>ability to carry out any visual inspection of the</i>	Sample valve	<ul style="list-style-type: none"> Jumper hose provided to CIP line for cleaning. 	X	X
		<ul style="list-style-type: none"> Must be designed with no water traps in the pipe work to ensure complete drainage of pipe work and sample valve. 	X	X
<i>front compartment.</i>	Position	<ul style="list-style-type: none"> Must allow for maximum visibility and access of internal areas of the tank. 	X	X
	Seal	<ul style="list-style-type: none"> Hygienic Food Grade Seal. Easy clean. (EDPM seal) not sweet white wrap round seal 	X	X
	Security	<ul style="list-style-type: none"> All Man-way's to have means of security tag fitting from the ground. 		

			Minimum Allowable Standard	Customer Options/Preference
15 Breather Line.				
			X	
	Full material description	<ul style="list-style-type: none"> 304L Stainless Steel . 	X	X
	Diameter	<ul style="list-style-type: none"> Suitable size to suit pumped flow rates including unload. 	X	X
	Number of Valves.	<ul style="list-style-type: none"> None. Breather line fitted with 2" RJT blank cap on the inside of Manway lid. 	X	X
	Type	<ul style="list-style-type: none"> 2" pneumatic operated from the ground. 	X	X
	Pipe work.	<ul style="list-style-type: none"> Size to suit the flow rate from flash vacuum pad neck, taken down and terminating at bearer level, pointing downwards with an open end . 	X	X
	Foot and Mouth Filter.	<ul style="list-style-type: none"> Provision to be provided for future fitting of Foot and Mouth Filter. 	X	
16 Mounings				
			X	
	Full material description	<ul style="list-style-type: none"> As per customer requirements. 	X	X

	Type	• As per customer requirements.	X	X
	Securing Points.	• To suit manufacturers requirements.	X	X
	Finish	• Descaled.	X	X
17 Vacuum Line				
	Full material description	• 304L Stainless Steel .	X	X
	Diameter	• 1.5" minimum requirement.	X	X
	No of Valves.	• 2	X	X
	Type of Valve	• 1 No. 1.5" pneumatically actuated butterfly valve at low level adjacent to exhauster isolating valve when over spill occurs and on CIP.	X	X
	Wash Connection.	• 20mm ball valve and 20mm hose tail adjacent to the exhauster isolating valve on exhauster side.	X	
	Pipework.	• 2" pipework taken down near side from manway of tank into AEV top valve. All pipework connection to have the ability to have security tag fitting.	X	
	AEV Pipework	• T connection off vacuum horizontal line fitted with 2" pipework and connected to probe chamber, out let side of probe chamber taken to D140 via exhauster isolation valve.	X	
		• Two over spill probes fitted, one in vertical vacuum line at high level and one in probe chamber both interconnected to control box in cab.	X	

18 CIP				
	Full material description	• 304L Stainless Steel .	X	
	No of spray balls/spinners.	• Suitable number of spray balls or spinners to provide a suitable CIP.	X	X
	Manifold.	• Each transpray manifold with 2" pipework to customer specifications.	X	X
	No of Valves.	• 1.	X	X
	Valve Description.	• 2" pneumatically actuated butterfly valve.	X	X
	Security	• All pipework connections to have the ability to have security tag fitting.	X	X

			Minimum Allowable Standard	Customer Options/Preference
19 Outlet pipe				
	Full material description	• 304L Stainless Steel .	X	X
	Diameter	• 3" connection.	X	X
	No of Connections.	• 1	X	X
	Type of Connections.	• Slipper type.	X	X
	Position.	• Bottom rear of tank into rear cabinet.2	X	X
	Fast Dump	• 3" fitted between outlet and sump box.	X	X
20 Side access ladder				
		• If required.		X
	Full material description	• Stainless Steel or Aluminium above nearside side-guard fixed to spill box. Signage stating " No Access - Authorised personnel only." to be placed at foot of ladders.	X	X

	Quantity	• 1No	X	X
	Finish	• Polished or powder coated.	X	X
21 Manway Access Platform.				
	Full material description	• Aluminium grating profiled to front dome and supported on stainless steel brackets.304L Stainless steel	X	X
	Handrail.	• Aluminium tubular covering two sides of the platform, open for access from the ladder.	X	X
	Position.	• On front dome.	X	X
22 Ladder.				
	Full material description	• Aluminium tube.	X	X
	Position.	• Nearside or Offside of platform determined by position of manlid and chassis / cab equipment.	X	X
23 Hose Storage				
	Security	The hose needs to be fully enclosed with any inspection hatches sealable.	X	
	Full material description	• 304 stainless steel,aluminium or material of comparatable strength.	X	X
		• 1 no	X	X
		• Size as per Tank Manufactures design.	X	X
		• Position as per requirement to tank design.	X	X
24 Hose				
	Make	• Food grade.	X	X
		• Length as per customers requirement.	X	X
		• Hose End Filter and Blanking Cap. Size as per customer requirements.	X	X
25 Sample Cabinet				
	Full material description	• 304L Stainless Steel .	X	X
	Type	• Stainless steel cabinet with lift up door, mounted at rear off side large enough to accept sample box with means of security tag fitting.	X	X

			Minimum Allowable Standard	Customer Options/Preference
26 Compressor / Exhauster				
	Compressor / Exhauster.	• As per customers requirement. Suggested D140.	X	X
	Foot and Mouth point.	• Provision to be made for the fitting of Foot and Mouth Filter.	X	
27 Hydraulic Drive				
	Hydraulic Drive	• As per customers requirement. Suggested suitable drive system with solenoid stop / start control fitted with Handbrake interlock.	X	X
28 Certification				
	Hydraulic Test & Certification	• As Per customers requirement.	X	
29 Cladding Stainless Steel.				
	Full material description	• 0.7mm 304 stainless steel	X	X

	External finish	• As per customers requirement.		X
		• Sheets overlapped, bands at front & rear dome.		X
	Special features	• Panel behind ladder relieved to give 200mm Toe -clearance minimum.	X	X
30 Cladding GRP			X	X
	Full material description	• Glass Reinforced Plastic		X
	External finish	• White impregnated or coloured to suit customers requirement		X
		• Sheets overlapped and sealed.	X	X
	Special features	• Panel behind ladder relieved to give 200mm Toe -clearance minimum.		X
31 Type of insulation			X	
	Full material description	• Polystyrene on tank, fibreglass on domes.	X	X
	Thickness of insulation	• Sufficient to ensure temperature does not increase any more than half a degree in 24hrs as per BS 3441 (1995).	X	
32 GRP Domes		• White impregnated or coloured to suit customer requirements.	X	X
33 Sealing Points.		• All lid and door locking points to incorporate holes to accept appropriate sealing tags that can be carried out at ground level.	X	X
34 Side-guards			X	
	Full material description	• Sufficient to Whole Vehicle Type approval.	X	X
	No of Rails	• Sufficient to comply with Whole Vehicle Type approval.	X	X
35 Mudguards		• Spray suppression .	X	X
36 Lighting		• All lighting to conform to Whole Vehicle Type approval.	X	
37 Rear Bumper		• Must conform to Whole Vehicle Type approval.	X	X

			Minimum Allowable Standard	Customer Options/Preference
38 Thermometer		• Customer Requirement.		X
39 Hub odometer.		• Customer Requirement.		X
40 Reverse Alarm.		• Audible Reverse alarm fitted	X	X
41 Lubrication.		• Auto-lube fitted to steer axle and lift axle grease points if fitted.		X
42 Shipping Hooks		• Stainless steel / Mild Steel.		X
43 Painting Mild steel parts			X	
	Paint make	• Customer option.		X
	Grade	• Customer option.		X
	Colours	• Your fleet colour .		X
44 Extras		• Spanners supplied should be suitable for the pipework fitted.	X	X
		• CIP Document Holder	X	X
45 Data Capture	Type	• As Per customers requirement and design.	X	X

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ATMOSPHERIC PUMP LOADING / DISCHARGE RIGID / ARTICULATED MILK COLLECTION TANKER

ALL TANKS MUST CONFIRM TO CURRENT LEGISLATION FOR BUILD AND FOOD HYGIENE

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		Code of Practice Standard	Minimum Allowable Standard	Customer Options/Preference
1 Capacity		• As per customers requirement +/- 1% ullage.	X	
2 Test Pressure		• Minimum 5psi Hydraulic test pressure.	X	X
		• Working pressure Atmospheric.	X	
3 General Dimensions		• To operate at customers requirement.	X	X
		• Length as per current Road use Regulations.	X	X
		• Height as per Customer Requirement but must be within current Road Use Regulations.	X	X
		• Slope to Rear 1.5°.	X	X
4 Barrel			X	
	Full Material description	• 304 stainless steel or other Food Grade steel of comparable strength.	X	
	Thickness	• 3mm Minimum.	X	X
	Barrel type	• As per customers requirement.	X	X
	Internal finish	• Welds ground and polished to 2B surface finish as per BS3441..	X	
5 Baffle	Full material description	• 304 stainless steel or other Food Grade steel of comparable strength.	X	
	Thickness	• 3mm minimum.	X	X
	No of baffles	• 1 No. (Preferred).	X	X
	Baffle features	• Adequate cut out for access to both compartments.	X	X
		• Bottom cut out for drainage.	X	X
	Side Drain Holes	• Yes @ 3 & 9 o'clock	X	X
	Cleaning Rings	• 3mm 304L stainless steel or other Food Grade steel of comparable strength with top and bottom 3/4" test sockets, PVC bottom catch tube	X	X
6 Dished Ends	Full material description	• 304 stainless steel or other Food Grade steel of comparable strength.	X	
	Thickness	• 3mm	X	X
7 Pipe Work and Connections.	Full material description	• 304 stainless steel	X	X
		• All Fittings to be RJT. Size as per design / customer requirement. All external pipework connections to have the ability to have security tags fitted.	X	X
8 Milk Pump.			X	
	Full material description	• 304 stainless steel	X	X
	Type	• As per customers requirement.	X	X
9 Pressure / Vacuum Relief			X	
	No. of relief valves	• 1 No. Flash-Vacuum vent valve.	X	X
		• 1 x 2.5" pressure relief valve fitted to Man Lid.	X	X

			Minimum Allowable Standard	Customer Options/Preference
10 Spill Box	Security	• If there is an access ladder on the tanker, there is a requirement for the spill box to be sealed. The method of sealing needs to be visible from ground level.	X	
	Full material description	• 304L Stainless steel.		X
	Size of box	• Suitable size to gain access.	X	X
	Lids	• One Lid or Two split lids hinged and dependant on the size of manway with the ability to have security tag fitting from ground level.	X	X
11 Top Man-way				X
	Security	If there is an access ladder on the tanker, there is a requirement for the top man-way to be sealed. Unless incorporated with a spill-box, the method of sealing needs to be visible from ground level.	X	
	Full material description	• 304L Stainless steel non-pressure	X	X
	Neck-ring	• Profiled positioned @ centre top.	X	X
	Size of Man-way	• 300mm or 500mm Round.	X	X
	Position	• Must allow for maximum visibility and access of internal areas of the tank.	X	X
	Seal	• Hygienic Food Grade Seal. Easy clean.(sweet white rubber).Not wrap round type.	X	X
	No of fasteners	• Dependent on type of lid fitted.	X	X
	Top vent	• 2" pneumatic activated vent operated from ground level.	X	X
12 Rear Cabinet				X
	Full material description	• As per customers requirement.		X
	Finish	• As per customers requirement.		X
	Type	• As per customers requirement but must have rear doors with means of security tag fitting from the ground.	X	X
	Special features	• Switchable interior lamp provided.	X	X
13 Side Cabinet				X
	Full material description	• As per customers requirement.		X
	Finish	• As per customers requirement.		X
	Type	• As per customers requirement but must have rear doors with means of security tag fitting from the ground.	X	X
	Special features	• Switchable interior lamp provided.	X	X
14 Low level Man-way				X
	Full material description	• 304L Stainless Steel .	X	X
	No of fasteners	• Dependent on type of lid fitted. Oval or 500mm Round.	X	X
	Size of Man-way	• 20" x 16". Oval or 500mm Round.	X	X
	Position	• Must allow for maximum visibility and access of internal areas of the tank.	X	X
	Sample valve - anti tamper	• Constructed of stainless steel, manually or pneumatically operated fitted with access to the main vessel via manway that must be able to provide a full representative load sample and has appropriate means of security including hygienic CIP flow or other routine cleaning process. Sample point has appropriate means of security.	X	X

		• Jumper hose provided to CIP line for cleaning.	X	X
		• Must be designed with no water traps in the pipe work to ensure drainage of pipe work and sample valve.	X	
		• Must allow for proper cleaning during CIP process.	X	
	Seal	• Hygienic Food Grade Seal. Easy clean.(EPDM seal). Not sweet white wrap round seal.	X	X
	Top vent	• 2" Pneumatically operated valve to top neck, sprung-open, closes with roller switch to rear door .	X	X
	Security	• All Man-way's to have means of security tag fitting from the ground.	X	X

			Minimum Allowable Standard	Customer Options/Preference
15 Low level Man-way				X
Rear Fitting Only	Full material description	• 304L Stainless Steel . Rear Dome.	X	X
Note: this configuration significantly reduces the	No of fasteners	• Dependent on type of lid fitted. Oval or 500mm Round.	X	X
	Size of Man-way	• 20" x 16".Oval or 500mm Round.	X	X
ability to carryout any visual inspection of the	Sample valve - anti tamper	• Constructed of stainless steel, manually or pneumatically operated fitted with access to the main vessel via manway that must be able to provide a full representative load sample and has appropriate means of security including hygienic CIP flow or other routine cleaning process. Sample point has appropriate means of security.	X	X
		• Jumper hose provided to CIP line for cleaning.	X	X
		• Must be designed with no water traps in the pipe work to ensure drainage of pipe work and sample valve.		
front compartment.	Position	• Must allow for maximum visibility and access of internal areas of the tank.	X	X
	Seal	• Hygienic Food Grade Seal. Easy clean. (EPDM seal) Not sweet white wrap	X	X
	Top vent	• 2" Pneumatically operated valve to top neck, sprung-open, closes with roller switch to rear door .	X	X
	Rear Cabinet	• S/Steel or GRP cabinet containing low man-lid, outlet and CIP inlet, lockable.	X	X
16 Low level Man-way Pressure / Vacuum Relief Valve.	Fitted with 14 & 15 above.	-1x 150mm diameter flash vacuum vent set to 1"hg. Positioned in raised-pad on centre line tank top at mid position and 2 1/2" twin act relief valve incorporated into neck.-	X	X
17 Breather Line.	Fitted with 14 & 15 above.		X	
	Full material description	• Stainless steel.	X	
	Diameter	• 2".	X	X
	Number of Valves.	• 1.	X	X
	Type	• 2" Pneumatically operated from the ground.	X	X
	Pipe work.	• Size to suit the flow rate from flash vacuum pad neck, taken down and terminating at bearer level, pointing downwards with an open end .	X	X
	Foot and Mouth Filter.	• Provision to be provided for future fitting of Foot and Mouth Filter.	X	
18 Mountings	Full material description	• As per customer requirements.	X	X
	Type	• As per customer requirements.	X	X
	Securing Points.	• To suit manufacturers requirements.	X	X

	Finish	• Descaled.	X	X
19 Stiffening Rings	Full material description	• 304L stainless steel or equivalent in other material of similar strength.	X	
	Total No. of rings	• Sufficient to comply with tank design.	X	X
	Cradle Supports	• 304 stainless steel .	X	X
20 CIP		• Yes	X	
	Full material description	• 304 stainless steel	X	X
	Type	• Permanently fixed spray balls (removable by "C" clips) or spinners.	X	X
	No. of spray balls/spinners	• Suitable number of spray balls or spinners to provide a suitable CIP.	X	X
	Diameter	• 2" pipe reduced to 1½" @ spray-balls.	X	X
	Fitting	• 2 x 2" RJT male connections fitted centrally to top of tank. All pipework connections to have the ability to have security tag fitting.	X	X
	Inlet location	• In rear cabinet. Valve is 2" manual RJT male/male thread with blank cap and chain.	X	X
	CIP Flow Rate & Required Pressure.	• Flow Rate and required pressure to be indicated next to CIP inlet connection.	X	
			Minimum Allowable Standard	Customer Options/Preference
21 Side access ladder		• If required.		X
	Full material description	• Stainless Steel or Aluminium above nearside side-guard fixed to spill box. Signage stating " No Access - Authorised personnel only." to be placed at foot of ladders.	X	X
	Quantity	• 1No	X	X
	Finish	• Polished or powder coated.	X	X
22 AEV Breather Line	Full material description	• 304L Stainless steel		X
	Position.	• On top of AEV as per manufactures design.	X	X
23 Hose Storage	Security	The hose needs to be fully enclosed with any inspection hatches sealable.	X	
	Full material description	• If required.		X
		• 304 stainless steel or aluminium.	X	X
		• 1No	X	X
		• Size as per Tank Manufactures design.	X	X
		• Position as per requirement to tank design.	X	X
24 Hose	Make	• Food grade.	X	X
		• Length as per customers requirement.	X	X
		• Hose End Filter and Blanking Cap. Size as per customer requirements.	X	X
25 Cladding Stainless Steel.			X	X
	Full material description	• 0.7mm 304 stainless steel		X
	External finish	• As per customers requirement.		X
		• Sheets overlapped, bands at front & rear dome.		X
	Special features	• Panel behind ladder relieved to give 200mm Toe -clearance minimum.	X	X
26 Cladding GRP			X	X
	Full material description	• Glass Reinforced Plastic		X

	External finish	• White impregnated or coloured to suit customers requirement		X
		• Sheets overlapped and sealed.	X	X
	Special features	• Panel behind ladder relieved to give 200mm Toe -clearance minimum.		X
27 Type of insulation			X	
	Full material description	• Polystyrene on tank, fibreglass on domes.	X	X
	Thickness of insulation	• Sufficient to ensure temperature does not increase any more than half a degree in 24hrs as per BS 3441 (1995).	X	
28 GKP Domes		• White impregnated or coloured to suit customer requirements.	X	X
29 Sealing Points.		• All lid and door locking points to incorporate holes to accept appropriate sealing tags that can be carried out at ground level.	X	X

			Minimum Allowable Standard	Customer Options/Preference
30 Side-guards			X	
	Full material description	• As per customers requirement.	X	X
	No of Rails	• Sufficient to comply with current Whole Vehicle Type approval.	X	X
31 Mudguards		• Spray suppression to comply with current legislation.	X	X
32 Lighting		• All lighting to comply with current Whole Vehicle Type Approval .	X	
33 Rear Bumper		• Must conform to comply with current Whole Vehicle Type Approval.	X	X
34 Thermometer		• Customer Requirement.		X
35 Hub odometer.		• Customer Requirement.		X
36 Reverse Alarm.		• Audible Reverse alarm fitted	X	X
37 Lubrication.		• Auto-lube fitted to steer axle and lift axle grease points if fitted.		X
38 Shipping Hooks		• Stainless steel / Mild Steel.		X
39 Painting Mild steel parts			X	
	Paint make	• Customer option.		X
	Grade	• Customer option.		X
	Colours	• Your fleet colour .		X
40 Extras		• Spanners supplied should be suitable for the pipework fitted.	X	X
		• CIP Document Holder	X	X
41 Data Capture System.	Type	• As Per customers requirement and design.	X	X
42 Sample Box Cabinet.		• Provision to be made to include a Sample Box storage shelf or Cabinet to hold the standard size sample box and have the ability to security tag fitted.	X	X
	Position.	• Customer option.		X

DAIRY UK CODE OF PRACTICE ON MILK TANKER DESIGN

APPROVED RELOAD / BULK TANKER

ALL TANKS MUST CONFIRM TO CURRENT LEGISLATION FOR BUILD AND FOOD HYGIENE

SPECIFICATION FOR TANKS FOR THE TRANSPORT OF MILK AND MILK PRODUCTS. BS 3441 (1995)

FOOD HYGIENE REGULATION (EC) No. 852/2004, No. 853/2004

DAIRY UK DTAS (DAIRY TRANSPORT ASSURANCE SCHEME)

FOREWORD

This Code of Practice sets down the guide lines and the minimum requirements for the design and build of any Milk Tanker that will be used under the Dairy Transport Assurance Scheme (DTAS).

This document is to be used in conjunction with the above legislative documents and is in no way a replacement or substitute on its own.

The purpose of this document is to highlight the "Minimum Allowable Standard" agreed between the major Milk Companies, Tank Manufacturers and Operators in the UK

and is endorsed by the UK Trade body for the Dairy Industry namely "Dairy UK".

It is agreed that this COP does not and should not restrict any future design or improvements.

However any changes out with the COP standard must be approved by Dairy UK , before they are included into any build programme. All due consideration will be given to any proposed design changes with an agreement that they will not be unreasonably refused.

It is the responsibility of all concerned in the design change to seek approval from Dairy UK as failure to do so could result in a breach of the DTAS document.

		Code of Practice Standard	Minimum Allowable Standard	Customer Options/Preference
1 Capacity		• 30,000-litres +/- 1% ullage. Removed 38,000	X	X
		• Capable of operating at 44 tonne GVW.	X	
2 Test Pressure		• Minimum 5psi Hydraulic test pressure.	X	X
		• Working pressure Atmospheric.	X	
3 Tare Weight		• Target Weight of 5.8 tonnes.	X	X
		• Length as per current Road use Regulations.	X	X
		• Height as per Customer Requirement but must be within current Road use Regulations.	X	X
4 Barrel	Full Material description	• 304 stainless steel Minimum or other Food Grade steel of comparable strength.	X	
	Thickness	• 2.5mm Minimum.	X	X
	Barrel type	• Preferred Straight cylindrical	X	X
	Internal finish	• Welds ground and polished to 2B surface finish as per BS3441..	X	
5 Baffle	Full material description	• 304 stainless steel or other Food Grade steel of comparable strength.	X	
	Thickness	• 3mm	X	X
	No of baffles	• 1 No. (Preferred).	X	X
	Baffle features	• Adequate cut out for access to both compartments.	X	X
		• Bottom cut out for drainage.	X	X
	Side Drain Holes	• Yes @ 3 & 9 o'clock	X	X
	Cleaning Rings	• 3mm 304L stainless steel or other Food Grade steel of comparable strength with top and bottom 3/4" test sockets, PVC bottom catch tube	X	X
6 Dished Ends	Full material description	• 304 stainless steel or other Food Grade steel of comparable strength.	X	
	Thickness	• 3mm	X	X
7 Top Man-way				X
	Security	If there is an access ladder on the tanker, there is a requirement for the top man-way to be sealed. Unless incorporated with a spill-box, the method of sealing needs to be visible from ground level.	X	
	Full material description	• 304L Stainless steel non-pressure	X	X
	Neck-ring	• Profiled positioned @ centre top.	X	
	Size of Man-way	• 300mm or 500mm Round.	X	X
	Pressure Relief Valve	• 3mm stainless steel pressure relief valve	X	X
	Position	• Must allow for maximum visibility and access of internal areas of the tank.	X	X
	Seal	• Hygienic Food Grade Seal. Easy clean.(sweet white rubber).	X	X
	No of fasteners	• Dependent on type of lid fitted.	X	X
8 Pressure / Vacuum Relief			X	
	No. of relief valves	-1 No. Flash-Vacuum vent valve.	X	X
		-1 x 2.5" pressure relief valve fitted to Man Lid.	X	X

			Minimum Allowable Standard	Customer Options/Preference
9 Low level Man-way			X	X
	Full material description	• 304L Stainless Steel .	X	X
	No of fasteners	• Dependent on type of lid fitted. Oval or 500mm Round.	X	X
	Size of Man-way	• 20" x 16".Oval or 500mm Round.	X	X
	Position	• Must allow for maximum visibility and access of internal areas of the tank.	X	X
	Sample valve - anti-tamper	• Constructed of stainless steel, manually or pneumatically operated fitted with access to the main vessel via manway that must be able to provide a full representative load sample and has appropriate means of security including hygienic CIP flow or other routine cleaning process. Sample point has appropriate means of security	X	
		• Must be designed with no water traps in the pipe work to ensure complete drainage of pipe work and sample valve.	X	
		• Must allow for proper cleaning during CIP process.	X	
	Seal	• Hygienic Food Grade Seal. Easy clean.(EDPM seal).	X	X
	Top vent	• 2" Manually operated valve to top neck, operated from ground level.	X	X
	Security	• All Man-way's to have means of security tag fitting from the ground.	X	X
10 Low level Man-way				
Rear Fitting Only	Full material description	• 304L Stainless Steel . Rear Dome.	X	X
Note: this configuration significantly reduces the	No of fasteners	• Dependent on type of lid fitted. Oval or 500mm Round.	X	X
	Size of Man-way	• 20" x 16".Oval or 500mm Round.	X	X
	Sample valve - anti tamper	• Constructed of stainless steel, manually or pneumatically operated fitted with access to the main vessel via manway that must be able to provide a full representative load sample direct from the barrel and has appropriate means of security including hygienic CIP flow or other routine cleaning process. Sample point has appropriate means of security.	X	X
ability to carryout any visual inspection of the front compartment.		• Jumper hose provided to CIP line for cleaning.	X	X
	Position	• Must allow for maximum visibility and access of internal areas of the tank.	X	X
	Seal	• Hygienic Food Grade Seal. Easy clean. (EPDM seal). Not sweet white wrap round.	X	X
	Top vent	• 2" Manually operated valve to top neck, sprung-open, closes with roller switch to rear door .	X	X
	Rear Cabinet	• S/Steel or GRP cabinet containing low man-lid, outlet and CIP inlet, lockable	X	X
12 Low level Man-way Pressure / Vacuum Relief Valve.	Fitted with 10 & 11 above.	-1x 150mm diameter flash vacuum vent set to 1"hg. Positioned in raised-pad on centre line tank top at mid position and 2 1/2" twin act relief valve incorporated into neck.	X	X
12 Breather Line.	Fitted with 10 & 11 above.		X	

	Full material description	• Stainless steel.	X	
	Diameter	• 2".	X	X
	Number of Valves.	• 1.	X	X
	Type	• 2" Pneumatically operated from the ground.	X	X
	Pipe work.	• 2" from flash vacuum pad neck, taken down and terminating at bearer level, pointing downwards with an open end .	X	X
	Foot and Mouth Filter.	• Provision to be provided for future fitting of Foot and Mouth Filter.	X	

			Minimum Allowable Standard	Customer Options/Preference
13 Spill Box	Security	• If there is an access ladder on the tanker, there is a requirement for the spill box to be sealed. The method of sealing needs to be visible from ground level.	X	
	Full material description	• 304L Stainless steel.	X	X
	Size of box	• Sized to accept Flash Vacuum Valve vent pad, breather line valve and pressure relief valve.	X	X
	Rain Drain.	• Single 2" rain drain.	X	X
	Lids	• Two split lids hinged and the ability to fit a security tag from the ground.	X	X
14 Stiffening Rings	Full material description	• 304L stainless steel or other Food Grade steel of comparable strength.	X	
	Total No. of rings	• Sufficient to comply with tank design.	X	X
	Cradle Supports	• 304 stainless steel .	X	X
15 CIP		• Yes	X	
	Full material description	• 304 stainless steel	X	X
	Type	• Permanently fixed spray balls or spinners (removable by "C" clip fixing).	X	X
	No. of spray balls/spinners	• Suitable number of spray balls or spinners to provide a suitable CIP.	X	X
	Diameter	• 2" pipe reduced to 1½" @ spray-balls.	X	X
	Fitting	• 2 x 2" RJT male connections fitted centrally to top of tank. All pipework connections to have the ability to have security tag fitting.	X	X
	Inlet location	• In rear cabinet. Valve is 2" manual RJT male/male thread with blank cap and chain.	X	X
	CIP Flow Rate & Required Pressure.	• Flow Rate and required pressure to be indicated next to CIP inlet connection.	X	
16 External Foot Valve	Full material description	• 304L Stainless steel	X	X
	Diameter	• 3"	X	X
	No of valves	• One	X	
	Make	• 3"RJT	X	X
	Model	• 3" butterfly c/w locking handle	X	X
	Special features	• Operating handle extended to rear or side cabinet.	X	X
	Method of operation	• Manual	X	X
	Outlet Pipe work.	• 3" outlet pipe taken from foot valve and terminated in rear cabinet with external outlet valve.	X	X
17 External valves	Full material description	• 304L Stainless steel.	X	
	No of valves	• One	X	X

	Model	• 3" butterfly	X	X
	Special features	• Terminate inside cabinet.	X	X
	Method of operation	• Manual	X	X
	Diameter	• 3" RJT male thread and 3" Blanking Cap.	X	X
	Reducer	• Fitted with a 3"/2.5" or 3"/2" adaptor and terminating in a 2.5" or 2" blank cap c/w s/s chain as per customer requirement.	X	X

			Minimum Allowable Standard	Customer Options/Preference
18 Trestle support	Full material description	• Optional Customer preference.		X
19 Rims			X	
	Material	• Optional		X
	Size	• Optional		X
	Finish	• Optional		X
	Dish	• Optional		X
20 Tyres	Size	• Optional	X	X
	Make	• Optional		X
	Model	• Optional		X
21 Running Gear			X	
	Make	• Optional	X	X
	Model	• Air suspension	X	
	No of axles	• Three	X	
	Lift options	• Optional	X	X
	Steer options	• Optional	X	X
	Type of brakes	• Optional	X	X
	ABS	• Yes	X	
	Type	• Optional	X	X
	Load sensing	• Yes	X	X
22 Running gear sub frame			X	
	Full material description	• As per customer requirement and tank design.	X	X
23 Ladder Bar	Full material description	• Stainless steel 304 Polished finish	X	X
	Type	• Ladder fixing point on nearside of top spill box.	X	
24 Side access ladder		• If required.		X
	Full material description	• Stainless Steel or Aluminium of equal strength. above nearside side-guard. Signage stating "No Access - Authorised personnel only" to be placed in front of ladder.		X
	Quantity	• 1No		X
	Finish	• Polished or powder coated.		X

25 Hose Storage		• If required. If in use it must be enclosed and secured with any inspection hatches sealable.		X
26a Cladding Stainless Steel.			X	
	Full material description	• 0.7mm 304 stainless steel		X
	External finish	• Optional.		X
		• Sheets overlapped, bands at front & rear dome.		X
	Special features	• Panel behind ladder relieved to give 200mm Toe -clearance minimum.	X	X
26b Cladding GRP.	Full material description	• Glass Reinforced Plastic		X
	External finish	• White impregnated or coloured to suit customers requirement		X
		• Sheets overlapped and sealed.	X	X
	Special features	• Panel behind ladder relieved to give 200mm Toe -clearance minimum.		X

			Minimum Allowable Standard	Customer Options/Preference
27 Type of insulation			X	
	Full material description	• Polystyrene on tank, fibreglass on domes.	X	X
	Thickness of insulation	• Sufficient to ensure temperature does not increase any more than half a degree in 24hrs as per BS 3441 (1995).	X	
28 GRP Domes		• White impregnated or coloured to suit customer requirements.	X	X
29 Sealing Points.		• All lid and door locking points to incorporate holes to accept appropriate sealing tags which can be fitted from the ground.	X	X
30 Side-guards			X	
	Full material description	• As per customers requirement.	X	X
	No of Rails	• Sufficient to comply with Whole Vehicle Type approval.	X	X
31 Landing legs			X	
	Full material description	• Mild steel	X	X
	Speed	• Two speed	X	X
	Type of landing leg	• Customers specification.	X	X
	Feet type	• Customers specification.	X	X
32 Rubbing Plate			X	
	Full material description	• Heavy duty mild steel	X	
	King pin	• Customers specification.	X	X
	Weld or bolt in	• Customers specification.	X	X
	Make	• Customers specification.	X	X
	Diameter	• 2" Kingpin	X	
33 Mudguards		• Spray suppression to meet current legislation.	X	X
34 Lighting			X	
		• All lighting to conform to current Whole Vehicle Type approval.	X	
35 Rear Bumper		• Must conform to current Whole Vehicle Type Approval.	X	X
36 Thermometer		• Customer Requirement.		X

37 Hub odometer.		• Customer Requirement.		X
38 External Brake.		• To meet Whole Vehicle Type Approval.	X	X
39 Reverse Alarm.		• Audible Reverse alarm to meet Whole Vehicle Type Approval.	X	X
40 Lubrication.		• Auto-lube fitted to steer axle and lift axle grease points if fitted.	X	X
41 Shipping Hooks		• Stainless steel / Mild Steel.		X

			Minimum Allowable Standard	Customer Options/Preference
43 Painting Mild steel parts			X	
	Paint make	• Customer option.		X
	Grade	• Customer option.		X
	Colours	• Customer specified.		X
44 Extras		• Spanners supplied to suit pipework fitted.	X	X
		• CIP Document Holder	X	X

