N	Question	Answer	
1	Page 7: 5.6 Fifth wheel by visual and buzzer signals. When the king pin is properly locked a light will show up. In addition you want a buzzer alarm. Please explain how long the alarm should beep, 2 sec, 5 sec etc.	<ul> <li>Description of monitoring of opening /closing of kingpin lock</li> <li>There are possible four combination of opening /closing the fifth wheel: <ul> <li>a. There is no kingpin in the slot and the interlock is open. The LED light is OFF and the buzzer is silent, i.e. no information about it on the dashboard</li> <li>b. There is no kingpin in the slot and the interlock is CLOSED. The RED LED lamp is ON, buzzer is also ON until the change of status of kingpin and/or interlock</li> <li>c. The kingpin is located correctly in the slot and the interlock is open. The RED LED lamp is ON, buzzer is also ON until the change of status.</li> <li>d. The kingpin is located correctly in the slot and the interlock is CLOSED. The RED LED lamp is ON, and the buzzer is OFF (silent).</li> </ul> </li> </ul>	
2	Page 8: 5.10 Operator's cabin - hydraulic drive of cabin lifting Do you mean electrically tilting of the cabin instead of manual pumping by steelbar?	manually driven hydraulic lifting of the cabin	
3	Page 10: 6.4.1 Switches -ignition -engine switch (Engine starter?) In our opinion you do need a key for the ignition. Then you can have a button for the engine start. Please explain if this is what you want. However, in order to understand this request, please explain the idea behind it.	We require key driven ignition switch.	
4	Page 11: 7 Data Recording and Reporting Please provide more technical details how this should work resp. what kind of equipment should be installed.	Sending data with IMV number, current working hours and distance (millage) in kilometres, when tractor is refuelled, to the "PETROPOINT FLEET+" delivered by HECTRONIC and installed on existing fuel station. The vehicle must be equipped with individual Vehicle Tag (token) and Vehicle transmitter to transfer the amount of traveled kilometers and Hectronic MTH.	



Picture of the system overview\*)

## Vehicle tag\*)

Cable-free passive transponder for installation on the vehicle tank inlet in conjunction with the PetroPoint nozzle unit (ATEX approval). Vehicle tag

## Vehicle transmitter metal housing\*)

433MHz 12 / 24V - PetroPoint vehicle transmitter for the transfer of vehicle identification, driver identification, nozzle identification an kilometer reading. Transmission frequency 433 MHz Range approx. 20 m Operating voltage 9-16V DC or 18-32V DC Power consumption max. 200 mA during

		transmission Temperature range -25°C to +70°C Operating hours integrated
		*)Source: 'Petropoint. The Analyst.' by HECTRONIC; D-79848 Bonndorf
5	Page 16: A. Recording and Reporting (RR) Unit This is a very comprehensive request which actually needs to be discussed. Please let us know if you have such a system already installed on your Terminal. If yes, please send us more detailed information. Such systems have to be adapted not only for the different vehicles but also with the control center.	We do not have such a system at the terminal but the system should work as described below. EAM system will be fed with data gathered from PLC's of equipment. Preferably the interface would base on web services, but any type of flat file or XML document as much universal as possible is also acceptable. Apart from feeding IBM Maximo, the Maintenance system there must be a possibility of live view of the equipment status.
		STIST STIST

				The RR U GPS posit all critical of few see new alart registered be furthe System. T front of the alarms re- of data see Preferably equipmer Ethernet. Data regis Curre dash All al engin equip digita	INIT should be installed on each tractor. In the ion every second or few seconds (adjustable data from tractor PLC. RR sends all other conds or few hours (fluently adjustable by m was recorded, via Wi-Fi 802.11 b/g/r d data base in readable form (CSV, XML or in the transmitted to Engineering Asset Ma The RR should be double direction unit an the computer e.g. located in the workshop of motely and activate or deactivate some real and and activate or deactivate some real ending. The wifi 802.11 b/g/n network would be the to "control center". All other connections The existing network is based on Cisco equi- stered and send by the RR, as a minimum: ent GPS position ent working hours (current value which board) ent distance -kilometers (current value board) larms from engine, transmission like low o me and in the transmission, low fuel level in pment fixed on the tractor and able to ist al code and description.	It shall measure, read current ole by terminal engineers) and required data with frequency the user) and each time after in info to the DCT computer mprint in data base) what will nagement and Maintenance d also an engineer seating in offices must be able to cancel idings as well adjust frequency the medium of connecting the scan be copper/fiber ipment. h is displayed also on the which is displayed on the il pressure or low level in the the tank or other alarms from sue such information with its
6	DCT	Question –	Acceptation – Ye	s/NO T	urning radius (maximum):	8m minimum 35 Top
	Requirement	possibilities		• 5i	th wheel height from the ground level:	1200mm with tolerance
	Turning radius:	1 option -		+,	-10mm	
	maximum 10m	Turning circle				
		13.5 meter per				
		3300mm				
		2 option - 13.0				

		meter per 3100mm		
	5th wheel capacity : minimum 35 Ton	34 ton		
	Lowest 5th wheel	1145mm @ 34 +		
	height from the	36 Tons		
	mm			
7	The axle must be able to withstand the maximum load of the fifth wheel at	Rear axle load 38Tons at 20 km/h		The axle must be able to withstand the maximum load of the fifth wheel at 20 km/h of no less than 32 tons.
	30 km/h of no less			
0	than 35 tons.	· · · · // · · · · · /		
8	I ne steering ne	eignt/length	I NIS IS	an option now.
	have a knob and co	olumn is not		
	be adjustable in av	vailable		
	both in / out			
	and up / down			
	direction.			
9	There must be two	One form seat cover.	Yes, m	ust be two separate covers for the seat and seatback as well as headrest.
	separate covers for	The seats are already		
	the seat and	upholstered by the		
	seatback as well as	seat manufacturer		
	neadrest.			
	turn indicators	automatically turn	we do	n't require it anymore.
		on lights indicator is		
	switch OFF during	there is not		
	steering wheel in	automatic centre		
	steering wheel III			

	the opposite direction	position of steering wheel as in road cars.			
	door security lock opened with ignition key, described further	Cabin door is opened with a secondary key. Not with the ignition key.	V	We cor	firm it.
10	LED turn indicators, re beacon. Can be classic	ear lights, internal light, extern	nal warning N	Must b	e LED
11	The tractor should be equipped with diagnostic tools	software required for all diagnostic work can be done by the user itself.	V	We dor	i't understand the question
12	4.0 Does the inclination of 15% occur on the terminal? For these kind or inclinations we recommend 4x4 drive for better traction.				We don't need 4x4 drive.
13	5.10 Does the indicator light for signaling the fastening of the 2 point seat belt needs to be installed inside the cabin or outside?				Outside, on the roof of the cabin only.
14	5.10 Please specify what IT equipment will needs to be installed and what power supply they need.		nstalled and		There will be installed a mobile computer – Honeywell Thor VM1 – on a standard RAM mounting (part number VM1008BRKTKIT). It needs 12V 12A DC.
15	5.10 There is room for a communication radio underneath the cabin roof. Does this comply?				It's ok. There should be a power supply of 12V 10A DC available in that place.

16	5.10 In the cabin roof there are mounting holes present for the installation of speakers. (close to the comm radio slot)	Yes – we accept.
17	5.10 The requested flat steel shelve 20x10. Where will this be used for?	It will be used for installing the mobile computer mentioned above. It should be close to the driver's dashboard, as high as the steering wheel.
18	6.1 Please specify "ignition key fully compatible with Type 014603" we will provide their own standard ignition keys.	014603 was firstly delivered to DCT and is widely used : http://www.kramp.com/shop-nl/en/59062/530681/82837/Ignition+key
19	7.0 Please provide information on the Hectronic system	Look at answer to point No.4
20	11.0 What is the total amount of mechanics and drivers that will need training	Must be 5 courses with 15-20 in each course
21	II.00 Mentioned parts in this Spare Parts List must be inside offer ? Alternatively we can make you a recommended spare parts list for the complete fleet of 33 units.	List of spare parts is included in the specifications and can not be changed.
22	Options for IMV – please for Your decision Foldable co driver seat Actia Fleet	we don't understand your question
23	5.10 Operator's cabin Request: Turn indicators must automatically switch OFF during	We don't require it anymore.

	rotation of the steering wheel in the opposite direction	
	Answer: Unfortunately this is from a technical point of view not possible. Reason: As we are using an orbitrol for steering it is technically not possible to fulfil this point. When using an orbitrol you can keep on steering in both directions without going on block. So there is no possibility to set a "stopper" in order for the indicator to switch back automatically as we have not setting point.	
24	8 Diagnostic Tools	We require only possibility of typical maintenance calibration or adjustment.
	Answer: Calibration of the engine can only be done by the	
	engine manufacturer.	
25	We found out that you request under the point Engine (Technical Specification Page 5) a power of 165-235 kW. Our latest engine with AdBlue according to exhaust emission TIER IV has a capacity of 160 kW. The requested torque can be achieved without problem. Please note that the modern engines nowadays have less power and less displacement but still reach the same or even higher torque values. In addition they also need less fuel.	Please follow our specification. We do not accept your proposal
	Therefore please change the specification as follows:	
	Power at 2000-2400 rpm: 160 – 235 kW Displacement: 5,0 to 7,9 l	