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LOGISTICS



**Preliminary Bid Proposal
for Troop Contributing Countries [TCC]
to the UNAMID Peace Keeping Operation
Spring 2008**



Office for Strategic
& Political Research
Strategic Services & Consulting

RSA: +27 845 34 35 36
UK: +44 7966 42 44 51
Ug: +256 753 36 38 06
Fax: +44 20 7900 2532

www.osprea.com
logistics@osprea.com

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Introduction

Scope of Proposal

To select, price, supply and deliver a range of vehicles and equipment for the use of the TCC's: Rwanda, Senegal, Ghana, Burkina Fasso and Malawi

Freight and logistics costs are to be offered for both Air and Surface Freight for each country.

Vehicles are to fit within the technical specifications and restrictions outlined in the document "TCC Equipment Support-UN DPKO Mods" as supplied. This document sets out the minimum standards for the vehicles of each type to be deployed and calls for a quotation/supply of six months of spare parts for each vehicle, but DOES NOT specify what level or number of spare parts are to be supplied.

Outline of Proposal

This proposal will be divided into various sections:

- 1.1. Outline of total vehicular and equipment list requested *in toto*, indicating those items on which Osprea Logistics Ltd is bidding.
- 1.2. Pricing of 2.1 broken down into "type of product" sections with options for each item where appropriate and FOB prices. The Freight Logistics element will follow in due course.
- 1.3. Information in 2.2 regrouped country by country
- 1.4. Weights and dimensions of all items grouped by country and then summarised.
- 1.5. Technical Data Sheets for items proposed

Assumptions

Owing to the somewhat sparse nature of the specifications and item descriptions supplied we have assumed not the cheapest product in each case, nor the best irrespective of price, but a selection based on value for money, long term service life and in-field reparability. Furthermore, wherever possible with the vehicles we have for those same reasons, opted for "family advantage"; in other words vehicles to fulfil different roles but which are based on the same essential chassis and drive chains in order to maximise cost effective servicing, ease of maintenance training, and reduction of ongoing spare parts costs.

We have not assumed the provision of Air Conditioning Units, Run Flat Tyres, nor Machine Gun Mounts in the Armoured Vehicles but will provide quotes for those items as optional extras.

While we have been requested to supply Air and Surface freight costs (and will endeavour to do so) we have also assumed from the proposed deployment that sufficient lead-times on all but the first two countries would allow for the more cost effective Surface Option to be preferred.

We have further assumed that Ghana and Burkina Fasso can be treated as one in relation to logistics planning.

We have also assumed, given the number of vehicles required and in the interests of keeping costs down, that Reconditioned vehicles can be supplied for Ambulances, 2.5 and 5 ton utility vehicles, and military pattern mobile workshops and recoveries. All Force Protection Vehicles will be remanufactured.

The Deployment Schedule

Rwanda	April/May 2008
Senegal	May/June 2008
Ghana	Autumn (September/October 2008)
Burkina Fasso	Autumn (September/October 2008)
Malawi	Autumn (September/October 2008)

Outline of Proposal

1.1. List of Vehicles and Equipment Encompassed in the Quote

Force Protection Vehicles	Total	Rwanda	Senegal	Ghana	Burkina	Malawi
APC Wheeled Ambulance	7			4		3
APC Wheeled Command Post	7			4		3
APC Wheeled Infantry Carrier Armed (Class II)	20			16		4
APC Wheeled Recovery	3			2		1
APC for Training	8			4		4
Support Vehicles Military Pattern						
Support Vehicles Military Pattern	Total	Rwanda	Senegal	Ghana	Burkina	Malawi
Ambulance (LandRover 109)	30	15	5	5		5
Jeep 4x4 (Toyota Landcruiser Buffalo Pickup HZJ79)	166	75	25	25		41
Truck Utility/Cargo (1.5-2.4 tons) 4x4	12	8	2	2		
Truck Utility/Cargo (2.5-5 tons) 4x4	180	108	36	36		
Maintenance Truck, Medium (DAF1800) 4x4	30	15	5	5		5
Truck, Recovery (Bedford MJ) 4x4	6	3	1	1		1
Canopies for 7 Ton Trucks (5m long x 6m wide)	36					36
Canopies for LandRovers, short wheel base	29					29
Support Equipment						
Support Equipment	Total	Rwanda	Senegal	Ghana	Burkina	Malawi
Light cargo, single axle (5x8)	60	30	10	10		10
Medium cargo, single axle (5x12)	36	18	6	6		6
Water trailer (2,000 to 7,000 litres) GM Tumpeco 3000L w/Pump	100	48	20	16		16
Fuel trailer (2,000 to 7,000 litres) Model Western Cube w/Pump	60	30	10	10		10
20' Refrigerated Containers	25					25
20' Normal Containers	25			25		
10,000L Static Water Tank	60	45		15		
Camp and Personnel						
Camp and Personnel	Total	Rwanda	Senegal	Ghana	Burkina	Malawi
50 Man Tent (Double framed w/mosquito nets) Tan or White	15				15	
30 Man Tent (Double framed w/mosquito nets) Tan or White	10				10	
10x5 m Tents with Flooring (Tan or White)	70					70
3x3 m Tents with Flooring (Tan or White)	50					50
BPV's Level IV	800				800	

Product Options

Force Protection Vehicles Options

The basic Force Protection [FP] Armoured Vehicle will be the Casspir MkII Mine Protected Vehicle.

This vehicle can be configured as Personnel Carrier, Command Post, Ambulance or Recovery Vehicle.

Ambulance: For use as an Ambulance the **Casspir** will be fully equipped by a specialist company of ambulances fitters with a capacity for two litters per vehicle.

Recovery Vehicle: The **Casspir** configured as a recovery vehicle is excellent at its job of safe extraction of a crippled APC. However, since its hull weight naturally restricts its lifting capacity to a vertical lift of 33% of its own weight or 3 tons and its drag/lift to 10 tons, if the towed vehicle has one axle usable. We would, therefore, recommend the addition of a set of “dolly wheels” onto which the rear end of the stricken vehicle can be loaded for towing purposes if its own wheels cannot be used.

The alternative for a full vehicle lift/drag would be a 6x6 Vehicle with 15 ton capacity— the **Samil 100** which can be supplied with Armoured Cab and Engine Bay, but this is a *much* more expensive option.

We will also quote for the **Samil 50 4x4** Recovery with Armoured Cab and Engine Bay, which has the same lifting capacity as the Casspir but is considerably cheaper.

Options:

In addition to the basic vehicle we will also quote for Air Conditioning Units, Run Flat Tyres and Machine Gun Mounts as optional extras.

Webasto Air-conditioning units — recommended would be 2 units per APC, but one will also suffice leaving room for the roof mounted machine gun mounting

Run Flat Tyres — Available either full run flat tyre or as a run flat system, which gives the vehicle 50km at 50kph following a main tread or side wall puncture. It works by resealing the tyre with a composite epoxy permanently injected into the wheel cavity. We will be opting for a very economical but sound run flat tyre from Brazil

Swivelling Gun Mount — the swivelling gun mount is an inexpensive add-on giving the gunner (sitting normally in the vehicle's passenger seat, the possibility to manipulate the roof-mounted machine gun without exposing himself to enemy fire. The gun swivels in a mount set into the roof and is controlled by a series of interconnecting levels (similar to handle bars) giving him upward, downward and rotating motion. The gun is aimed by means of a sight mounted at eye level which is pre-sighted to align with the weapon. Vision is out the windows and windscreen of the vehicle. For an additional cost a swivelling seat can be included for ease of use.

Support Vehicle Options

Ambulances — The stated Required Vehicle is the LandRover 109 Ambulance. While we understand the wisdom of this choice owing to the vehicle unparalleled reputation for reliability, long service life and proven track record, we have come to the conclusion that it is impractical to be able to find 30 serviceable units in good enough condition (this vehicle ceased manufacture in the 1970's), without having to engage in a major rebuild process which time would not allow for.

As a result we have chosen the Unimog Ambulance which has a long proven track record with the German and Austrian Armies, is readily available and, being a Mercedes Benz Unimog shares many parts with both the 1017 Mercedes Benz 5 ton truck, the Unimog 2.5 ton cargo vehicle and also the Casspir APC the drive chain and engine of which are also Mercedes Benz based.

Jeep 4x4 Toyota Landcruiser HJ79 — These we are quoting for new delivery time permitting. For the shorter delivery time countries we may have to offer proven second hand vehicles.

Truck Utility/Cargo (1.5-2.4 tons) 4x4

Unimog 2.5 ton 4x4 cargo carrier. Compatibility with other MB drive chains reducing running and services costs and providing a world-renowned light 4x4 truck.

Truck Utility/Cargo (2.5-5 tons) 4x4 – We offer two options for this vehicle:

Mercedes Benz 1017 4x4 Cargo vehicle, which is available at relatively short notice and in large numbers from Europe and Africa and which can be fitted as mobile workshop and tanker. Also offers compatibility with other MB chassis and drive chains.

Samil 50 4x4 7.5 ton cargo vehicle. This is an economical vehicle of proven reliability and appropriateness to African conditions.

Maintenance Truck, Medium (DAF1800) 4x4 – DAF is not a recommended option as procuring of spare parts on the African continent is more difficult and expensive than is the case with Mercedes Benz or Samil

Mercedes Benz 1017 base units with load bins/workshops units and tools supplied from South Africa. These workshops units would be “bolt-on” and would be shipped to destination countries to be mounted *in situ*. We believe would provide a significant cost saving in relation to supplying the tools and equipment out of Europe.

Samil 50 4x4 base vehicles, which are cheaper than the MB1017’s and would be compatible with the recovery vehicles (either Armoured Cabs in the Force Protection role) or under the recovery vehicle section.

Truck, Recovery (Bedford MJ) 4x4 – while Bedford has a solid record the service and spare parts infrastructure is poor in Africa

Samil 50 4x4 – this is the ideal recovery for African use. With a lifting capacity of 5 tons and more, it is proven in Africa, has a solid and dependable serviceability and has been the workhorse of the South African Army and African mining and off-haulage industry for many years.

Samil 100 6x6 – as per the Samil 50 but 6 wheel drive and capable of lifting/towing 16 ton vehicles.

Support Equipment

Light cargo, single axle (5x8) – The lack of detailed specifications makes this an extremely difficult item to quote. Ideally we would need to know the load that is expected to be carried by the trailer and the vehicle it would be towed behind as this latter, especially, effects the type and height of the coupling to be used. Usage and terrain of usage is also critical in terms of weight and build quality.

We will therefore offer three different options covering varying degrees of ruggedness and price

Medium cargo, single axle (5x12) – The lack of detailed specifications make this an extremely difficult item to quote. Ideally we would need to know the load that is expected to be carried by the trailer and the vehicle it would be towed behind as this latter, especially, effects the type and height of the coupling to be used. Usage and terrain of usage is also critical in terms of weight and build quality.

We will therefore offer three different options covering varying degrees of ruggedness and price

Water trailer (2,000 to 7,000 litres) GM Tumpeco 3000L w/Pump – a vital element of specifying what would be a minimum of a 3 ton trailer is to know what vehicle will be towing it and therefore the available of air-brake systems, the height and type of tow-hook, and the rim and wheel size. Without this information we will have to quote for a standard trailer (and we will do so in a range of sizes and

configurations) but it MUST be noted that the quote WILL BE ADJUSTED EITHER UP OR DOWN once we are provided the information above.

We will therefore offer different options covering varying degrees of size, ruggedness and price

Fuel trailer (2,000 to 7,000 litres) Model Western Cube w/Pump — as above

Personnel and Camp Equipment

50 Man Tent (Double framed w/mosquito nets) Tan or White — 10m x 36 with mosquito walls, shade cloth as optional extra; pvc flooring as optional extra.

Important Note: It is our considered opinion that this tent is NOT RECOMMENDED. A 10x36m tent has an enormous roof and the entire tent weighs 500kg. It is extremely unwieldy and may require forklift trucks and so forth in order to erect it. It may be better to look at a larger number of smaller tent 5x5m or 5x10m which have interchangeable parts and in combination are in fact cheaper than the 10mx36m Tent. For example, a 5x10m tent will sleep approximately 15-20 men. Hence 3 tents would accommodate 50 men plus. Three 5x10m tents are cheaper than one 50 man tent. Similarly: one 10x5 and one 15x5 would accommodate approximately 50 man and is cheaper than the 3 10x5's.

30 Man Tent (Double framed w/mosquito nets) Tan or White — 5m x 15 with mosquito walls, shade cloth as optional extra; pvc flooring as optional extra

10x5 m Tents with Flooring (Tan or White) — hip tent with mosquito walls including flooring; shade netting as optional extra

3x3 m Tents with Flooring (Tan or White) — standard bell tent with flooring as used by South African military.

We will be offering tents from two different companies and the prices will be shown in the category price lists. However, to quote for all the options of tents for the relevant TCC's will be impractical so we will take the cheapest figures for those tables.

Note: Until such time as we have more detailed information on the usage of the tents and especially how many square metres are allocated for each person (and whether they will be sleeping in single cots or in bunks) it is difficult for us to assess the best configuration of tents for your purposes.

BPV's Level IV — Level III vests with Ceramic Panels to raise to Level IV

Pricing

Force Protection

Item	Item RFQ	Selection	FOB Point	Unit Price FOB	Total RFQ	Line Price FOB
1	APC Wheeled Ambulance	Casspir MKII	RSA	\$190,972	7	\$1,336,806
2	APC Wheeled Command	Casspir MKII	RSA	\$164,236	7	\$1,149,653
3	APC Wheeled Infantry	Casspir MKII	RSA	\$147,000	20	\$2,940,000
4a	APC Wheeled Recovery	Casspir MKII	RSA	\$225,347	3	\$676,042
4b	APC Wheeled Recovery	Samil 50 4x4	RSA	\$155,729	3	\$467,188
4c	APC Wheeled Recovery	Samil 100 6x6	RSA	\$216,424	3	\$649,271
5	APC for Training	Casspir MKII	RSA	\$147,000	8	\$1,176,000
Optional Extras						
d	AirCon: Single Compact 8	Webasto	RSA	\$5,780	1	\$5,780
e	AirCon: Double Compact 8	Webasto	RSA	\$10,382	1	\$10,382
f	RunFlat Tyres (per tyre)	Hutchinson	RSA	\$1,589	1	\$1,589
g	RunFlat Tyres (per tyre)	Brazilian	RSA	\$292	1	\$292
h	KK02 Machine Gun Mount	KK02	RSA	\$6,549	1	\$6,549
MAXIMUM TOTAL¹						\$ 7,275,944
MINIMUM TOTAL²						\$ 7,067,090
MEDIUM TOTAL³						\$ 7,127,785
OPTIONS TOTAL⁴						\$ 478,479

Notes

1. Total Price for this section assuming full quantities of most expensive options
2. Total Price for this section assuming full quantities of least expensive options regardless of availability.
3. Total Price of this section assuming a split of: 2 of item 4b and 1 of item 4c
4. Options comprising: 45 of item d (1 per vehicle); 120 of item "g" (4 per 28 Infantry APC's plus spares); 28 of item "h" (1 per infantry vehicle)

Support Vehicles Military Pattern

Item N°	Item RFQ	Selection	FOB Point	Unit Price FOB	Total RFQ	Line Price FOB
6	Ambulance	Unimog	Germany	\$ 53,820	30	\$ 1,614,600
7a	Jeep 4x4 New	Toyota HJ79	UAE	\$ 33,000	166	\$ 5,478,000
7b	Jeep 4x4 New ¹	Toyota HJ79	UAE	\$ 26,000	166	\$ 4,316,000
8a	Truck Utility(<2.4 tons) 4x4	Unimog Utility	Germany	\$ 64,584	12	\$ 775,008
8b	Truck Utility(<2.4 tons) 4x4	MB 1013	RSA	\$ 55,903	12	\$670,833
9a	Truck Utility(2.5-5 tons) 4x4	MB 1017	Germany	\$ 59,202	180	\$ 10,656,360
9b	Truck Utility(2.5-5 tons) 4x4 ²	Samil 50	RSA	\$55,903	180	\$10,062,500
10a	Maintenance Truck, 4x4	MB 1017	Germany	\$ 69,960	30	\$ 2,691,000
10b	Maintenance Truck, 4x4 ²	Samil 50	RSA	\$ 65,714	30	\$ 1,971,429
10c	Workshop Truck Contents ³	Various	RSA	\$30,866	30	\$925,976
11	Truck, Recovery 4x4	Samil 50	RSA	\$ 128,964	6	\$ 773,786
12	7 Ton Truck Tarps (5m x 6m)	LC	RSA	\$ 746	36	\$ 26,869
13	SWB LandRover Canopies	LC	RSA	\$ 550	29	\$ 15,975
MAXIMUM TOTAL⁴						\$22,344,059
MINIMUM TOTAL⁵						\$20,071,711
MEDIUM TOTAL⁶						\$21,551,759

Notes

1. Second hand vehicle price to allow for speedier delivery to early deployment countries
2. Availability of this number of Samil 50's may be problematical. This figure is based on an averaged price of the various different options for the Samil 50: available options are:
 - a. "runners" – \$37,535 only 3500km of usage on them, but the quote only stands while stocks last.
 - b. "reconditioned" – \$55,903
 - c. "remanufactured" – \$67,882

The base price for the Samil 50 Workshop is taken as per "9b" with the addition of the workshop cabin.
3. For contents see appendices. Contents can be adjusted in consultation with client.
4. Total Price for this section assuming full quantities of most expensive options
5. Total Price for this section assuming full quantities of least expensive options regardless of availability
6. Total Price of this section assuming a split of: 116 of item 7a and 50 of item 7b; 12 of item 8b; 140 of item 9a and 40 of item 9b; 15 of 10a and 15 of 10b

NB: Wherever in subsequent price listings for each TCC a price is given for a Samil 50 within the Utility Vehicle sections, the price is based on average of the Samil 50 prices list in Note 2 above.

Support Equipment

Item	Item RFQ	Selection	FOB	Unit Price FOB	Total RFQ	Line Price FOB
14a	Light cargo, single axle	CL 750kg	RSA	\$ 1,585	60	\$ 47,561
14b	Light cargo, single axle	DW 660Kg Road use	RSA	\$2,252	60	\$135,125
14c	Light cargo, single axle	LF 1500Kg	RSA	\$ 1,889	60	\$ 56,679
15a	Medium cargo, single axle	CL 1600kg	RSA	\$ 3,314	36	\$ 59,662
15b	Medium cargo, single axle	DW 1200Kg Mil Spec	RSA	\$4,792	36	\$172,500
15c	Medium cargo, single axle	LF 2000Kg	RSA	\$ 2,300	36	\$ 41,400
16a	Water trailer 3000L pump	LF 2500L	RSA	\$ 4,764	100	\$ 238,214
16b	Water trailer 3000L pump	LF 5000L	RSA	\$ 6,325	100	\$ 316,250
16c	Water trailer 3000L pump	DW	RSA	TBA	100	TBA
17a	Fuel trailer w/Pump	LF 2500L	RSA	\$ 4,764	60	\$ 142,929
17b	Fuel trailer w/Pump	LF 5000L	RSA	\$ 6,325	60	\$ 189,750
17c	Fuel trailer w/Pump	DW	RSA	TBA	60	TBA
18	20' Refer Containers	N/A	RSA	\$ 9,528	25	\$ 238,214
19	20' Normal Containers	N/A	Ken ya	\$ 2,070	25	\$ 51,750
20	10,000L Static Tank	N/A	RSA	\$ 863	60	\$ 51,809

Notes:

1. The somewhat light specifications provided for this section make it difficult to quote accurately.
2. We have offered above, a variety of options (with more to follow) to cover the more economical end the range up to the full military specification off-raid trailers. However, this latter will follow and will also be heavily dependent upon which vehicles they are intended to be towed behind.

Personnel and Camp Equipment

Item	Item RFQ	Selection	FOB Point	Unit Price FOB	Total RFQ	Line Price FOB
21a	50 Man ¹	15x36 540m ² LC	RSA	\$ 7,877	15	\$ 118,163
21b	50 Man	3, 10 x5: 150m ² LC	RSA	\$ 5,175	15	\$ 77,625
21c	50 Man	10x5m & 15x5: 125m ² LC	RSA	\$ 4,255	15	\$ 63,825
21d	50 Man	ORT M50 125m ²	RSA	\$7,672	15	\$115,084
22a	30 Man Tent	15x5: 60m ² LC	RSA	\$ 2,530	10	\$ 25,300
22b	30 Man Tent	M50 67m ² ORT	RSA	\$4,262	10	\$42,622
23a	10x5 m Tents with Flooring	LC	RSA	\$ 1,929	70	\$ 67,540
23b	10x5 m Tents with Flooring	Samson 4 ORT	RSA	\$1,645	70	\$115,115
24a	3x3 m Tents with Flooring	9m ² LC	RSA	\$ 569	50	\$ 14,231
24b	3.3x3 .7 Tents with Flooring	12.2m ² M4 ORT	RSA	\$789	50	\$39,451
25	BPV's Level IV ²	N/A	RSA	\$ 591	800	\$ 473,143
	Total 1					\$781,247
	Total 2					\$723,655

Notes

Total 1: uses items 21d, 22b, 23b, and 24a: Total 2: uses items 21c, 22a, 23b and 24b
As mentioned the 50 man 15x36m tent is not a practical item. It is expensive and unwieldy. This chart shows the clear cost saving in buying smaller sized tents to house the same number of people as the larger one.

BPV Price: Standard Military General Purpose Vest level IIIA plus Multicurve Ceramic Plates to raise to Level IV

Pricing Grouped By Country in Order of Deployment

Country: RWANDA		Deployment	April/May	
Force Protection Vehicles	Selection	Total RFQ	Unit Price	Total Price
APC Wheeled Ambulance	Casspir	-		
APC Wheeled Command Post	Casspir	-		
APC Wheeled Infantry	Casspir	-		
APC Wheeled Recovery	Casspir	-		
APC for Training	Casspir	-		
Total				
Support Vehicles Military Pattern	Selection	Total RFQ	Unit Price	Total Price
Ambulance	Unimog	15	\$ 53,820	\$ 807,300
Jeep 4x4 (HZJ79) ¹	HJ79	75	\$ 29,266	\$ 2,195,000
Truck /Cargo (1.5-2.4 tons) 4x4 ²	Unimog	8	\$ 60,243	\$ 481,947
Truck Utility/Cargo (2.5-5 tons) 4x4 ³	MB1017/Samil 50	108	\$ 58,377	\$ 6,304,737
Maintenance Truck, Medium 4x4 ⁴	MB1017/Samil 50	15	\$ 67,698	\$ 1,015,474
Maintenance Truck, Equipment	MB1017/Samil 50	15	\$ 30,866	\$ 476,216
Truck, Recovery 4x4	Samil 50	3	\$ 125,382	\$ 376,146
Canopies for 7 Ton Trucks (5m x 6m)		-		
Canopies for SWB LandRovers,		-		
Total				\$11,643,592
Support Equipment	Selection	Total RFQ	Unit Price	Total Price
Light cargo, single axle (5x8)	Average	30	\$ 1,895	\$ 56,850
Medium cargo, single axle (5x12)		18	\$ 3,567	\$ 64,206
Water trailer (2,000 to 7,000 litres)	TBA	48		
Fuel trailer (2,000 to 7,000 litres)	TBA	30		
20' Refrigerated Containers		-		
20' Normal Containers		-		
10,000L Static Water Tank		45	\$ 863	\$ 38,857
Total				\$159,913
Camp and Personnel	Selection	Total RFQ	Unit Price	Total Price
50 Man Tent		-		
30 Man Tent		-		
10x5 m Tents with Flooring		-		
3x3 m Tents with Flooring		-		
BPV's Level IV		-		
Total				
Grand Total				\$ 11,803,505

Notes:

1. It may be prudent, given the short time frame for delivery of the Toyotas to Rwanda, to allow for 50% second hand vehicles with full service record and this price reflects that. Calculation reflects 40 Second Hand and 35 New.
2. Based on 50:50 Split Unimog and MB1013
3. MB107/Samil 50 is 25:75 split on the 5 ton Cargo Trucks
4. 7:8 split on the Maintenance Truck, for indicative total price only.

Country: SENEGAL		Deployment	MAY/JUNE	
Force Protection Vehicles	Selection	Total RFQ	Unit Price	Total Price
APC Wheeled Ambulance	Casspir	-		
APC Wheeled Command Post	Casspir	-		
APC Wheeled Infantry	Casspir	-		
APC Wheeled Recovery	Casspir	-		
APC for Training	Casspir	-		
Total				
Support Vehicles Military Pattern	Selection	Total RFQ	Unit Price	Total Price
Ambulance	Unimog	5	\$ 53,820	\$269,100
Jeep 4x4 (HZJ79) ¹	HJ79	25	\$ 30,200	\$ 755,000
Truck Utility/Cargo (1.5-2.4 tons) 4x4	MB1013	2	\$55,903	\$111,806
Truck Utility/Cargo (2.5-5 tons) 4x4 ²	MB1017/Samil 50	36	\$ 57,552	\$ 2,071,886
Maintenance Truck, Medium 4x4	Samil 50	5	\$ 65,714	\$328,570
Maintenance Truck, Equipment	MB1017/Samil 50	5	\$ 30,866	\$ 154,329
Truck, Recovery 4x4	Samil 50	1	\$ 125,382	\$ 125,382
Canopies for 7 Ton Trucks (5m x 6m)		-		
Canopies for SWB LandRovers,		-		
Total				\$ 3,945,241
Support Equipment	Selection	Total RFQ	Unit Price	Total Price
Light cargo, single axle (5x8)	Average	10	\$ 1,895	\$ 10,895
Medium cargo, single axle (5x12)		6	\$ 3,567	\$ 10,701
Water trailer (2,000 to 7,000 litres)		20	TBC	
Fuel trailer (2,000 to 7,000 litres)		10	TBC	
20' Refrigerated Containers		-		
20' Normal Containers		-		
10,000L Static Water Tank		-		
Total				\$ 21,596
Camp and Personnel	Selection	Total RFQ	Unit Price	Total Price
50 Man Tent		-		
30 Man Tent		-		
10x5 m Tents with Flooring		-		
3x3 m Tents with Flooring		-		
BPV's Level IV		-		
Total				
Grand Total				\$ 3,966,837

Notes

1. Reflecting a 15:10 New to Second Hand Vehicles
2. Reflecting a 50:50 Split Mercedes 1017:Samil 50's

Country: GHANA		Deployment	AUTUMN	
Force Protection	Selection	Total RFQ	Unit Price	Total Price
APC Wheeled Ambulance	Casspir	4	\$ 190,972	\$763,889
APC Wheeled Command Post	Casspir	4	\$164,236	\$656,944
APC Wheeled Infantry	Casspir	16	\$ 147,036	\$ 2,352,571
APC Wheeled Recovery	Average of option	2	\$ 199,167	\$ 398,334
APC for Training	Casspir	4	\$ 147,036	\$ 588,143
Total				\$ 4,759,881
Support Vehicles Military Pattern	Selection	Total RFQ	Unit Price	Total Price
Ambulance	Unimog	5	\$ 53,820	\$ 269,100
Jeep 4x4 (HZJ79)	HJ79	25	\$ 33,000	\$ 825,000
Truck Utility/Cargo (1.5-2.4 tons) 4x4	MB1013	2	\$ 55,903	\$ 111,806
Truck Utility/Cargo (2.5-5 tons) 4x4 ¹	MB1017/Samil 50	36	\$ 57,552	\$2,071,886
Maintenance Truck, Medium 4x4	Samil 50	5	\$ 65,714	\$ 328,570
Maintenance Truck, Equipment	MB1017/Samil 50	5	\$ 30,866	\$ 154,329
Truck, Recovery 4x4	Samil 50	1	\$ 125,382	\$ 125,382
Canopies for 7 Ton Trucks (5m x 6m)		-		
Canopies for SWB LandRovers,		-		
Total				\$ 3,886,073
Support Equipment	Selection	Total RFQ	Unit Price	Total Price
Light cargo, single axle (5x8)	AVERAGE	10	\$ 1,895	\$ 10,895
Medium cargo, single axle (5x12)	AVERAGE	6	\$ 3,567	\$ 10,701
Water trailer (2,000 to 7,000 litres)		16		
Fuel trailer (2,000 to 7,000 litres)		10		
20' Refrigerated Containers		-		
20' Normal Containers		25	\$ 2,070	\$ 51,750
10,000L Static Water Tank		15	\$ 863	\$ 12,952
Total				\$ 86,298
Camp and Personnel	Selection	Total RFQ	Unit Price	Total Price
50 Man Tent		-		
30 Man Tent		-		
10x5 m Tents with Flooring		-		
3x3 m Tents with Flooring		-		
BPV's Level IV		-		
Total				
Grand Total				\$ 8,732,252

Notes

1. Reflecting a 50:50 Split Mercedes 1017:Samil 50's

Country: BURKINA FASSO		Deployment	AUTUMN	
Force Protection Vehicles	Selection	Total RFQ	Unit Price	Total Price
APC Wheeled Ambulance	Casspir	-		
APC Wheeled Command Post	Casspir	-		
APC Wheeled Infantry	Casspir	-		
APC Wheeled Recovery	Casspir	-		
APC for Training	Casspir	-		
Total				
Support Vehicles Military Pattern	Selection	Total RFQ	Unit Price	Total Price
Ambulance	Unimog	-		
Jeep 4x4 (HZJ79)	HJ79	-		
Truck Utility/Cargo (1.5-2.4 tons) 4x4	Unimog	-		
Truck Utility/Cargo (2.5-5 tons) 4x4	MB1017/Samil 50	-		
Maintenance Truck, Medium 4x4	Samil 50	-		
Truck, Recovery 4x4	Samil 50	-		
Canopies for 7 Ton Trucks (5m x 6m)		-		
Canopies for SWB LandRovers,		-		
Total				
Support Equipment	Selection	Total RFQ	Unit Price	Total Price
Light cargo, single axle (5x8)		-		
Medium cargo, single axle (5x12)		-		
Water trailer (2,000 to 7,000 litres)		-		
Fuel trailer (2,000 to 7,000 litres)		-		
20' Refrigerated Containers		-		
20' Normal Containers		-		
10,000L Static Water Tank		-		
Total				
Camp and Personnel	Selection	Total RFQ	Unit Price	Total Price
50 Man Tent ¹	ORT M50 125m ²	15	\$7,672	\$115,084
50 Man Tent ²	10x15 + 5x15	15	\$4,255	\$63,825
30 Man Tent		10	\$2,530	\$25,300
10x5 m Tents with Flooring		-		
3x3 m Tents with Flooring		-		
BPV's Level IV		800	\$591	\$562,268
Total with 50 tent option 1				\$702,652
Total with 50 tent option 2				\$651,393
Grand Total averaged				\$677,022

Notes:

1. Total Using the single 50 man option rather than the multiple smaller tents
2. The cheapest 50 man tent option

Country: MALAWI		Deployment	AUTUMN	
	Selection	Total RFQ	Unit Price	Total Price
APC Wheeled Ambulance	Casspir	3	\$190,972	\$ 572,917
APC Wheeled Command Post	Casspir	3	\$164,236	\$ 492,708
APC Wheeled Infantry	Casspir	4	\$ 147,036	\$ 588,143
APC Wheeled Recovery	AVERAGE	1	\$ 199,167	\$ 199,167
APC for Training	Casspir	4	\$ 147,036	\$ 588,143
Total				\$ 2,441,078
Support Vehicles Military Pattern	Selection	Total RFQ	Unit Price	Total Price
Ambulance	Unimog	5	\$ 53,820	\$ 269,100
Jeep 4x4 (HZJ79)	HJ79	41	\$ 33,000	\$ 1,353,000
Truck Utility/Cargo (1.5-2.4 tons) 4x4	Unimog			
Truck Utility/Cargo (2.5-5 tons) 4x4 ¹	MB1017/Samil 50			
Maintenance Truck, Medium 4x4	Samil 50	5	\$ 65,714	\$ 328,570
Maintenance Truck, Equipment	MB1017/Samil 50	5	\$ 30,866	\$ 154,329
Truck, Recovery 4x4	Samil 50	1	\$125,382	\$ 125,382
Canopies for 7 Ton Trucks (5m x 6m)		36	\$ 746	\$ 26,869
Canopies for SWB LandRovers,		29	\$ 551	\$ 15,975
Total				\$ 2,273,225
Support Equipment	Selection	Total RFQ	Unit Price	Total Price
Light cargo, single axle (5x8)	AVERAGE	10	\$ 1,895	\$ 10,895
Medium cargo, single axle (5x12)	AVERAGE	6	\$ 3,567	\$ 10,701
Water trailer (2,000 to 7,000 litres)	TBC	16	TBC	
Fuel trailer (2,000 to 7,000 litres)	TBC	10	TBC	
20' Refrigerated Containers		25	\$ 9,529	\$ 238,214
20' Normal Containers				
10,000L Static Water Tank				
Total				\$ 259,810
Camp and Personnel	Selection	Total RFQ	Unit Price	Total Price
50 Man Tent		-		
30 Man Tent		-		
10x5 m Tents with Flooring	ORT Samson 4	70	\$ 1,645	\$ 115,115
3x3 m Tents with Flooring	LC 3x3	50	\$ 569	\$ 96,485
BPV's Level IV		-		
Total				\$ 211,600
Grand Total				\$ 5,185,813

General Notes on the above prices:

- Where there are various options with which to fulfil a specific requirement we have by and large aimed at an average position.
- Prices for Samil 50's have been averaged between the three different production versions we have. As a result, the prices of the Samil 50 could come down considerably (see notes on Utility Vehicles Pricing under chart xyz), depending on how many and how quickly they are ordered as the "runners" are limited in stock.
- Similarly for trailers and tents it is not practical to calculate all possible permutations of choice. This will be done when the client has refined the selection based on the specification refinement and usage clarification.
- Where possible (especially with tents and trailers) we have tried to offer a range of price and quality.
- **All prices are subject to negotiation and further discussion and refinement of the client's required is not just welcomed but asked for**

Training

It is normal for us to offer training to the mechanics who will have to maintain the Armoured Vehicles. This is recommended for the long service life of the vehicle and to increase efficiency.

We would offer to train 2 mechanics from each country receiving APC's to be present during the entire 3 week build process of one vehicle, thus studying the complete process from the ground up. This offer will include board, lodging and training, but NOT flights to and from, nor "spending money".

We also recommend a similar programme for training drivers of the vehicles. Owing the large numbers that could be involved we would limit our contribution to 10 drivers, with any additional drivers be charged for at \$120 per day. Again return flights and spending money not included.

To follow on from this presentation we will be sending:

1. Data Sheets for any items listed but for which data sheets have not been prepared
2. Further and better details on trailers
3. Costing elements to the logistics package

This quotation is good for 30 days, is open to negotiation, and constitutes a preliminary offer

Spare Parts

As an integral part of the RFQ an offer of six months of spare parts was called for.

We are working on the detail of this, but it is extremely difficult to determine.

However, because the majority of our vehicle selections are based on Mercedes Benz parts we are presenting a list of the normal usage of spare parts in 12 months for a group of 10 Casspirs operating in theatre. The Casspir is based on the MB1517 chassis and drive train.

They will also serve as a guide to the usage of spare parts in the other MB trucks for which we are quoting (MB1017 in the main).

It is normal as a rule of thumb to allocate 15% of the price of the vehicles to the provision of spare parts for a 6 – 12 month period.

Freighting of Spare Parts will be calculated on 15% of value basis, but the freight invoices will be shown to the client and charged accordingly

Line N°	Description	Unit Cost	Recommended Stock	Stock Cost
1	Air Compressor Overhaul Kit	\$363.10	1	\$363.10
2	Air Con V Belts	\$65.78	5	\$328.90
3	Air Filter Outer	\$31.67	15	\$475.06
4	Air Filters Inner	\$20.16	15	\$302.42
5	Air Tank Assy (reservoir)	\$139.86	1	\$139.86
6	Alternator	\$415.58	1	\$415.58
7	Alternator Brush Kit (Regulator)	\$83.06	2	\$166.11
8	Alternator V Belts	\$11.74	5	\$58.70
9	Axle Assy Complete Front	\$12,216.29	1	\$12,216.29
10	Axle Assy Complete Rear	\$11,276.57	1	\$11,276.57
11	Batteries Dry Charged	\$167.44	10	\$1,674.36
12	Bearing (Frt C/Portion) (Pinion)	\$81.48	1	\$81.48
13	Bearing Anguler (G/Box Main Shaft)	\$61.96	1	\$61.96
14	Bearing Ball (T/Case Output Shaft)	\$17.93	1	\$17.93
15	Bearing Roller (Frt C/Portion) (Pinion)	\$55.75	1	\$55.75
16	Bearing Roller (Frt C/Portion) (Carrier)	\$228.06	1	\$228.06
17	Bearing Roller (Frt C/Portion) (Pinion)	\$70.63	1	\$70.63
18	Bearing Roller (G/Box Input Shaft)	\$200.20	1	\$200.20
19	Bearing Roller (G/Box Main Shaft)	\$52.41	1	\$52.41
20	Bearing Roller (Rr C/Portion) (Carrier)	\$85.34	1	\$85.34
21	Bearing Roller (Rr C/Portion) (Pinion)	\$116.29	1	\$116.29
22	Bearing Roller (Rr C/Portion) (Pinion)	\$129.55	1	\$129.55
23	Bearing Roller (T/Case Input Shaft)	\$44.64	1	\$44.64
24	Bearing Roller (T/Case Input Shaft)	\$57.56	1	\$57.56
25	Bearing Roller (T/Case Output Shaft)	\$60.80	1	\$60.80
26	Bearing Tapered (G/Box Counter Shaft)	\$22.17	1	\$22.17
27	Bonnet Cylinder (CPU1 80x250)	\$360.88	1	\$360.88
28	Brake Booster Servo	\$1,761.50	1	\$1,761.50
29	Brake Drums Front	\$187.33	2	\$374.67
30	Brake Drums Rear	\$187.57	2	\$375.14
31	Brake Master Cylinder	\$759.59	1	\$759.59
32	Brake Master Cylinder Kit	\$625.80	1	\$625.80
33	Brake Shoe Set front	\$399.02	2	\$798.03
34	Brake Shoe Set rear	\$442.36	2	\$884.71
35	Brake Shoe Springs Sets (Front)	\$63.07	1	\$63.07

Line N°	Description	Unit Cost	Recommended Stock	Stock Cost
36	Brake Shoe Springs Sets (Rear)	\$15.78	1	\$15.78
37	Cab Light Assy Interior	\$14.22	1	\$14.22
38	Cooling Fans	\$486.67	1	\$486.67
39	Crank Oil Seal Front (65x90x13)	\$8.81	1	\$8.81
40	Crank Oil Seal Rear Rope Seal	\$15.56	1	\$15.56
41	Diff Center Portion Front (Pinion Set only) 6-41	\$3,609.27	1	\$3,609.27
42	Diff Center Portion Rear (Pinion Set only) 7-48	\$2,296.70	1	\$2,296.70
43	Diff Pinion Oil Seal Rear (68x90x13)	\$10.22	1	\$10.22
44	Differential Pinion Oil Seal Front (52x72x10)	\$6.46	1	\$6.46
45	Disc Clutch (Clutch Pack)	\$317.47	2	\$634.93
46	Door Cylinder Rear (CPUI 63x160)	\$163.28	1	\$163.28
47	Door Switches Inside Rear	\$58.73	1	\$58.73
48	Door Switches Outside Rear	\$58.73	1	\$58.73
49	Engine Assy Complete	\$22,318.21	1	\$22,318.21
50	Engine Gasket Kit (Top + Bottom Set)	\$154.17	1	\$154.17
51	Engine Gasket Set (Bott)	\$101.02	2	\$202.04
52	Engine Gasket Set (Top)	\$68.13	2	\$136.26
53	Engine Mountings	\$110.42	2	\$220.83
54	Engine Sump Packing	\$20.56	2	\$41.11
55	Engine Tappet Cover Gaskets	\$13.68	5	\$68.42
56	Exhaust Brake Butterfly	\$582.62	1	\$582.62
57	Exhaust Brake Cylinder	\$307.75	1	\$307.75
58	Exhaust Manifold Gasket	\$4.49	1	\$4.49
59	Exhaust Pipe Front	\$133.09	1	\$133.09
60	Exhaust Silencer	\$368.71	1	\$368.71
61	Exhaust Tail Pipe	\$57.75	1	\$57.75
62	Flasher Unit Relay	\$16.45	1	\$16.45
63	Fly Wheel Bearing	\$9.66	1	\$9.66
64	Four Way Valves Brakes	\$304.10	1	\$304.10
65	Fuel filter Element	\$5.37	30	\$161.18
66	Fuel hand pump (Complete)	\$154.52	1	\$154.52
67	Fuel Lift Pump (Complete) Flag	\$46.14	1	\$46.14
68	Fuel Tank	\$507.30	1	\$507.30
69	Fuel Tank Filler Caps	\$21.59	3	\$64.76
70	Gasket Exhaust Flange	\$4.50	1	\$4.50
71	Gear Lever Knobs	\$21.14	1	\$21.14
72	Gearbox Complete	\$19,606.67	1	\$19,606.67
73	Gearbox Rear Oil Seal (58x75x12)	\$7.17	2	\$14.33
74	Gearbox Transfer Box Mountings	\$8.17	2	\$16.34
75	Head Gaskets	\$42.35	2	\$84.70
76	Head Light Assy	\$76.25	2	\$152.51
77	Head light globe 12v	\$3.45	10	\$34.49
78	Horn	\$18.43	2	\$36.87
79	Ignition Switch	\$91.62	2	\$183.24
80	Indicator globe 12v	\$0.82	10	\$8.22
81	Indicator Light Complete Front	\$11.27	2	\$22.53
82	Indicator Switch Steering Assembly	\$108.87	1	\$108.87
83	Injection Pump	\$8,731.12	2	\$17,462.24
84	Injector Pipe Set	\$83.87	2	\$167.74
85	Injectors	\$147.03	12	\$1,764.30
86	Low Air Pressure Switch	\$7.92	1	\$7.92
87	Master Switch or Battery Isolation Switch	\$80.87	1	\$80.87

Line N°	Description	Unit Cost	Recommended Stock	Stock Cost
88	Mirror Door	\$121.50	2	\$243.01
89	Oil Drain Plug	\$17.09	3	\$51.27
90	Oil Drain Plug Washers	\$1.82	3	\$5.46
91	Oil Filler Caps	\$12.75	3	\$38.26
92	Oil Filter	\$12.35	30	\$370.51
93	Power Steering Belts	\$12.86	3	\$38.57
94	Power Steering Filters	\$8.40	10	\$83.99
95	Power Steering Pump	\$650.21	1	\$650.21
96	Pressure Plate (Clutch Pack)	\$586.17	1	\$586.17
97	Prop Shaft - Gearbox to Transfer Case	\$702.44	1	\$702.44
98	Prop Shaft - Transfer Case to Front Diff	\$702.44	1	\$702.44
99	Prop Shaft - Transfer Case to Rear Diff	\$702.44	1	\$702.44
100	Prop Shaft Bolts HD M10x30 (Set)	\$1.33	4	\$5.31
101	Prop Shaft Nut HD M10 (Set)	\$1.13	4	\$4.51
102	Prop Shaft U.J. kits	\$158.49	1	\$158.49
103	Radiator Assy	\$892.73	1	\$892.73
104	Radiator Caps	\$8.14	2	\$16.28
105	Radiator Hoses Bottom	\$23.36	2	\$46.72
106	Radiator Hoses Top	\$10.71	2	\$21.41
107	Rear View Mirror	\$87.75	2	\$175.51
108	Release Bearing (Clutch Pack)	\$129.23	1	\$129.23
109	Sender Unit Oil Pressure	\$121.99	1	\$121.99
110	Sender Unit Water Temp	\$79.75	1	\$79.75
111	Shackle Pin Kit Front	\$17.69	2	\$35.37
112	Shackle Pin Kit Rear	\$22.06	2	\$44.13
113	Shock Absorbers front set	\$192.65	2	\$385.30
114	Shock Absorbers rear set	\$143.44	2	\$286.88
115	Speedometer Cable Sender unit	\$63.54	1	\$63.54
116	Spring Pack Center Bolt front	\$20.97	2	\$41.95
117	Spring Pack Center Bolt rear	\$13.52	2	\$27.04
118	Spring Pack U Bolts front	\$62.08	2	\$124.16
119	Spring Pack U Bolts rear	\$36.37	2	\$72.74
120	Spring Packs Front set	\$663.06	1	\$663.06
121	Spring Packs Rear set	\$742.00	1	\$742.00
122	Starter Motor Brushes	\$59.26	2	\$118.53
123	Starters	\$382.56	1	\$382.56
124	Stop light globe 12v	\$0.96	10	\$9.56
125	Switch (Illuminator)	\$91.32	1	\$91.32
126	Switch Push (Stator)	\$12.31	1	\$12.31
127	Switch Push (haz)	\$34.51	1	\$34.51
128	Switch Push Button	\$30.63	1	\$30.63
129	Switch Toggle	\$3.46	5	\$17.31
130	Tail Lights Complete LH RH	\$10.57	4	\$42.29
131	Thermostats	\$13.23	2	\$26.47
132	Trailer Brake Hoses w/couplings sets	\$53.33	2	\$106.66
133	Transfer Case / Box	\$12,794.04	1	\$12,794.04
134	Transfer Case Front Drive Oil Seal (65x85x10.5)	\$8.19	3	\$24.58
135	Transfer Case Input Oil Seal (65x85x10.5)	\$11.75	3	\$35.24
136	Transfer Case Rear Drive Oil Seal (65x85x10)	\$14.33	3	\$42.99
137	Turbo	\$1,057.18	2	\$2,114.36
138	Turbo Gasket (Manifold)	\$5.15	2	\$10.30
139	Turbo Gasket (L/Bow)	\$4.70	2	\$9.40

Line N°	Description	Unit Cost	Recommended Stock	Stock Cost
140	Unloader Valve	\$863.88	1	\$863.88
141	Water Pumps	\$295.35	2	\$590.70
142	Wheel Cylinders Front	\$203.74	1	\$203.74
143	Wheel Cylinders Rear	\$185.92	1	\$185.92
144	Wheel Hub Bearing front outer	\$74.58	2	\$149.17
145	Wheel Hub Bearings front inner	\$140.96	2	\$281.91
146	Wheel Hub Bearings rear	\$139.20	2	\$278.40
147	Wheel Hub Seal front outer (118x140x13)	\$21.14	2	\$42.29
148	Wheel Hub Seals front (55x72x10)	\$5.87	2	\$11.75
149	Wheel Hub Seals rear set (120x145x15)	\$55.91	2	\$111.81
150	Wheel Nuts Front	\$1.56	10	\$15.58
151	Wheel Nuts Rear	\$1.56	10	\$15.58
152	Wheel Studs Front	\$4.09	10	\$40.95
153	Wheel Studs Rear	\$4.42	10	\$44.21
154	Wheel Washers Front	\$0.42	10	\$4.23
155	Wheel Washers Rear	\$0.42	10	\$4.18
156	Wheels complete	\$2,537.23	6	\$15,223.37
157	Windshield Wiper Blade Sets	\$26.64	2	\$53.28
158	Windshield Wiper Blade Small	\$10.24	2	\$20.47
159	Wiper Arms L/H (small)	\$14.30	2	\$28.60
160	Wiper Arms R/H	\$14.43	2	\$28.86
161	Wiper Motor	\$370.28	1	\$370.28
	Total			\$150,506.52

This list would equate to \$15,000 per vehicle for 12 months or approximately 10% of the cost of the vehicle.

Freight Logistics

This section of the proposal will handle the freight logistics element and will be divided up as follows, but are by no means final nor exhaustive:

1. Breakdown of weights and dimensions of each item by product category. In order to keep the charts a manageable size only the item numbers previously used in the earlier charts will be used to refer to each item.
2. Breakdown of expected loads per country to show the expected size of the freight operation for each TCC.
3. Breakdown of total RFQ with all TCC allocations.

Force Protection Vehicles

Item N°	Item	Item Selection	FOB Point	Specs				
				Length (m)	Width (m)	Height (m)	Cube (m ³)	Wgt Kgs
1a	APC Ambulance	Casspir	RSA	6.90	2.45	2.85	48.18	9,480
1b	APC Ambulance	Mamba	RSA	5.88	2.30	2.27	30.70	4,980
2	APC Command	Casspir	RSA	6.90	2.45	2.85	48.18	9,480
3	APC Infantry	Casspir	RSA	6.90	2.45	2.85	48.18	9,480
4a	APC Recovery	Casspir	RSA	7.00	2.45	2.50	42.88	9,000
4b	APC Recovery	Samil 50	RSA	7.82	2.45	3.02	57.86	8,200
4c	APC Recovery	Samil 100	RSA	9.25	2.45	3.02	68.44	13,000
5	APC for Training	Casspir	RSA	6.90	2.45	2.85	48.18	9,480

Support Vehicles

Item N°	Item	Item Selection	FOB Point	Specs				
				Length (m)	Width (m)	Height (m)	Cube (m ³)	Wgt Kgs
6	Ambulance	Unimog	Germany	5.44	2.33	3.00	38.03	5,250
7	Jeep 4x4	Totyota HJ79	UAE	4.89	1.92	1.69	15.85	3,050
8	Cargo <2.5ton 4x4	Unimog Utility	Germany	5.44	2.33	2.62	33.21	5,250
9a	Cargo (5 tons) 4x4	MB 1017	Germany	7.19	2.47	3.28	58.25	6,800
9b	Cargo (5 tons) 4x4	Samil 50	RSA	7.82	2.45	3.02	57.86	6,340
10a	Maintenance 4x4	MB 1017	Germany	7.19	2.47	3.28	58.25	6,800
10b	Maintenance 4x4	Samil 50	Germany	7.82	2.45	3.02	57.86	6,340
10c	Workshop Content		RSA	Calculate freight value at 15% of FOB Cost				
11	Recovery 4x4	Samil 50	RSA	7.00	2.45	2.50	42.88	6,340
12	Canopies for 7 Ton		RSA	1.20	0.30	0.20	0.07	36
13	SWB Canopies		RSA	1.00	0.30	0.15	0.05	28

Support Equipment

Item N°	Item	Item Selection	FOB Point	Specs				
				Length (m)	Width (m)	Height (m)	Cube (m ³)	Wgt Kgs
14a	Light cargo, trailer	CL	RSA	3.20	1.30	1.40	5.82	235
14b	Light cargo, trailer	DW	RSA	3.20	1.30	1.40	5.82	235
14c	Light cargo, trailer	LF1500	RSA	3.20	1.30	1.40	5.82	235
15a	Medium trailer	CL	RSA	4.40	2.45	2.85	30.72	240
15b	Medium trailer	DW	RSA	4.40	2.45	2.85	30.72	240
15c	Medium trailer	LF4100	RSA	4.40	2.45	2.85	30.72	240
16a	Water trailer	LF2500	RSA	5.50	3.00	2.50	41.25	800
16b	Water trailer	LF5000	RSA	5.50	3.00	2.50	41.25	800
16c	Water trailer	DW	RSA	5.50	3.00	2.50	41.25	800
17a	Fuel trailer	LF2500	RSA	5.50	3.00	2.50	41.25	900
17b	Fuel trailer	LF5000	RSA	5.50	3.00	2.50	41.25	900
17c	Fuel trailer	DW	RSA	5.50	3.00	2.50	41.25	900
18	20' Refer	N/A	RSA	6.06	2.44	2.60	38.44	2,450
19	20' Containers	N/A	Kenya	6.06	2.44	2.60	38.44	2,450
20	10KL Water Tank	N/A	RSA	2.44	2.44	2.26	13.46	160

Camp and Personnel Equipment

Item N°	Item	Item Selection	FOB Point	Specs				
				Length (m)	Width (m)	Height (m)	Cube (m ³)	Wgt Kgs
21a	50 Man	LC	RSA	2.89	2.89	2.89	24.14	500.0
21b	50 Man	3, 10 x5m	RSA	8.40	2.40	2.40	48.38	540.0
21c	50 Man	10x5m & 15x5	RSA	4.46	2.46	2.46	26.99	400.0
22	30 Man Tent	LC 15x5m	RSA	1.66	1.66	1.66	4.57	220.0
23	10x5 m Tents	LC	RSA	2.80	0.80	0.80	1.79	180.0
24	3x3 m Tents	LC	RSA	1.00	0.40	0.50	0.20	39.0
25	BPV's Level IV ²	N/A	RSA	0.50	0.50	0.10	0.03	4.0

Table : Freight Distribution Figures 1

For: RWANDA

For Obvious reasons it is not practical to include all the weights and dimensions for all the different options for each country, as this would produce information overload. These tables must therefore only be used as a guide to amount, size and weight of freight as it pertains to each country.

Item N°	Item	Item Selection	FOB	Specs					RWANDA	Delivery	May/June
				L (m)	W (m)	H (m)	Vol (m ³)	Kgs	#	Cube	Kgs
Force Protection											
1	APC Ambulance	Casspir/Mamba	RSA	6.90	2.45	2.85	48.18	9,480	-	-	-
2	APC Command Post	Casspir	RSA	6.90	2.45	2.85	48.18	9,480	-	-	-
3	APC Infantry Carrier Armed	Casspir	RSA	6.90	2.45	2.85	48.18	9,480	-	-	-
4	APC Recovery	Casspir/Samil 50	RSA	7.00	2.45	2.50	42.88	9,000	-	-	-
5	APC for Training	Casspir	RSA	6.90	2.45	2.85	48.18	9,480	-	-	-
Support Vehicles								Category Total	171	4,551	83,970
6	Ambulance	Unimog	Germany	5.44	2.33	3	38.03	5,250.0	15	570.38	78,750
7	Jeep 4x4 (Toyota Landcruiser)	Toyota HJ79	UAE	4.885	1.92	1.69	15.85	3,050.0	75	1,188.81	228,750
8	Truck Cargo (1.5-2.4 tons) 4x4	Unimog Utility	Germany	5.44	2.33	2.62	33.21	5,250.0	8	265.67	42,000
9	Truck Cargo (2.5-5 tons) 4x4	MB 1017	Germany	7.19	2.47	3.28	58.25	6,800.0	108	6,291.05	734,400
10	Maintenance Truck 4x4	MB 1017	Germany	7.19	2.47	3.28	58.25	6,800.0	15	873.76	102,000
11	Truck, Recovery 4x4	Samil 50	RSA	7	2.45	2.5	42.88	6,340.0	3	128.63	19,020
12	Canopies for 7 Ton Trucks	To be advised	RSA	1.2	0.3	0.2	0.07	36.0	-	-	-
13	Canopies for Land Rovers,	To Be Advised	RSA	1	0.3	0.15	0.05	28.0	-	-	-
Support Equipment								Category Total	-	-	-
14	Light cargo, single axle (5x8)	N/A	RSA	3.2	1.3	1.4	5.82	235.0	30	174.72	7,050
15	Medium cargo, single axle (5x12)	N/A	RSA	4.4	2.45	2.85	30.72	240.0	18	553.01	4,320
16	Water trailer	N/A	RSA	5.5	3	2.5	41.25	800.0	48	1,980.00	38,400
17	Fuel trailer	N/A	RSA	5.5	3	2.5	41.25	900.0	30	1,237.50	27,000
18	20' Refrigerated Containers	N/A	RSA	6.06	2.44	2.6	38.44	2,450.0	-	-	-
19	20' Normal Containers	N/A	Kenya	6.06	2.44	2.6	38.44	2,450.0	-	-	-
20	10,000L Static Water Tank	N/A	RSA	2.44	2.44	2.26	13.46	160.0	45	605.48	7,200
Personnel Kit								Category Total	224	9,318	1,204,920
21	50 Man	N/A	RSA	2.89	2.89	2.89	24.14	500.0	-	-	-
22	30 Man Tent	N/A	RSA	1.66	1.66	1.66	4.57	220.0	-	-	-
23	10x5 m Tents with Flooring	N/A	RSA	2.8	0.8	0.8	1.79	180.0	-	-	-
24	3x3 m Tents with Flooring	N/A	RSA	1	0.4	0.5	0.20	39.0	-	-	-
25	BPV's Level IV	N/A	RSA	0.5	0.5	0.1	0.03	4.0	-	-	-
Category Total								395	13,869	1,288,890	
Grand Totals									395	13,869	1,288,890

Note: Weights and Dimensions are not given for Mobile Workshop Contents which will have their freight calculated at 15% of FOB price.

Table : Freight Distribution Figures 2

For: SENEGAL

Item N°	Item	Item Selection	FOB Point	Specs					SENEGAL	Delivery	June/July
				L (m)	W (m)	H (m)	Vol (m ³)	Kgs	#	Cube	Kgs
Force Protection											
1	APC Ambulance	Casspir/Mamba	RSA	6.90	2.45	2.85	48.18	9,480.0	-	-	-
2	APC Command Post	Casspir	RSA	6.90	2.45	2.85	48.18	9,480.0	-	-	-
3	APC Infantry Carrier Armed	Casspir	RSA	6.90	2.45	2.85	48.18	9,480.0	-	-	-
4	APC Recovery	Casspir/Samil 50	RSA	7.00	2.45	2.50	42.88	9,000.0	-	-	-
5	APC for Training	Casspir	RSA	6.90	2.45	2.85	48.18	9,480.0	-	-	-
Support Vehicles								Category Total	46	1,480	28,700
6	Ambulance	Unimog	Germany	5.44	2.33	3	38.03	5,250.0	5	190.13	26,250
7	Jeep 4x4 (Toyota Landcruiser)	Toyota HJ79	UAE	4.885	1.92	1.69	15.85	3,050.0	25	396.27	76,250
8	Truck Cargo (1.5-2.4 tons) 4x4	Unimog Utility	Germany	5.44	2.33	2.62	33.21	5,250.0	2	66.42	10,500
9	Truck Cargo (2.5-5 tons) 4x4	MB 1017	Germany	7.19	2.47	3.28	58.25	6,800.0	36	2,097.02	244,800
10	Maintenance Truck 4x4	MB 1017	Germany	7.19	2.47	3.28	58.25	6,800.0	5	291.25	34,000
11	Truck, Recovery 4x4	Samil 50	RSA	7	2.45	2.5	42.88	6,340.0	1	42.88	6,340
12	Canopies for 7 Ton Trucks	To be advised	RSA	1.2	0.3	0.2	0.07	36.0	-	-	-
13	Canopies for Land Rovers,	To Be Advised	RSA	1	0.3	0.15	0.05	28.0	-	-	-
Support Equipment								Category Total		-	-
14	Light cargo, single axle (5x8)	N/A	RSA	3.2	1.3	1.4	5.82	235.0	10	58.24	2,350
15	Medium cargo, single axle (5x12)	N/A	RSA	4.4	2.45	2.85	30.72	240.0	6	184.34	1,440
16	Water trailer	N/A	RSA	5.5	3	2.5	41.25	800.0	20	825.00	16,000
17	Fuel trailer	N/A	RSA	5.5	3	2.5	41.25	900.0	10	412.50	9,000
18	20' Refrigerated Containers	N/A	RSA	6.06	2.44	2.6	38.44	2,450.0	-	-	-
19	20' Normal Containers	N/A	Kenya	6.06	2.44	2.6	38.44	2,450.0	-	-	-
20	10,000L Static Water Tank	N/A	RSA	2.44	2.44	2.26	13.46	160.0	-	-	-
Camp and Personnel Kit								Category Total	74	3,084	398,140
21	50 Man	N/A	RSA	2.89	2.89	2.89	24.14	500.0	-	-	-
22	30 Man Tent	N/A	RSA	1.66	1.66	1.66	4.57	220.0	-	-	-
23	10x5 m Tents with Flooring	N/A	RSA	2.8	0.8	0.8	1.79	180.0	-	-	-
24	3x3 m Tents with Flooring	N/A	RSA	1	0.4	0.5	0.20	39.0	-	-	-
25	BPV's Level IV	N/A	RSA	0.5	0.5	0.1	0.03	4.0	-	-	-
Category Total									-	-	-
Grand Totals									120	4,564	426,930

Note: Weights and Dimensions are not given for Mobile Workshop Contents which will have their freight calculated at 15% of FOB price.

Table : Freight Distribution Figures 3

For: GHANA

Item N°	Item	Item Selection	FOB Point	Specs					Kgs	GHANA #	Delivery Cube	AUTUMN Kgs
				L (m)	W (m)	H (m)	Vol (m ³)	Kgs				
Force Protection												
1	APC Ambulance	Casspir/Mamba	RSA	6.90	2.45	2.85	48.18	9,480.0	4	192.72	37,920	
2	APC Command Post	Casspir	RSA	6.90	2.45	2.85	48.18	9,480.0	4	192.72	37,920	
3	APC Infantry Carrier Armed	Casspir	RSA	6.90	2.45	2.85	48.18	9,480.0	16	770.87	151,680	
4	APC Recovery	Casspir/Samil 50	RSA	7.00	2.45	2.50	42.88	9,000.0	2	85.75	18,000	
5	APC for Training	Casspir	RSA	6.90	2.45	2.85	48.18	9,480.0	4	192.72	37,920	
Support Vehicles								Category Total	46	82	2,478	
6	Ambulance	Unimog	Germany	5.44	2.33	3	38.03	5,250.0	5	190.13	26,250	
7	Jeep 4x4 (Toyota Landcruiser)	Toyota HJ79	UAE	4.885	1.92	1.69	15.85	3,050.0	25	396.27	76,250	
8	Truck Cargo (1.5-2.4 tons) 4x4	Unimog Utility	Germany	5.44	2.33	2.62	33.21	5,250.0	2	66.42	10,500	
9	Truck Cargo (2.5-5 tons) 4x4	MB 1017	Germany	7.19	2.47	3.28	58.25	6,800.0	36	2,097.02	244,800	
10	Maintenance Truck 4x4	MB 1017	Germany	7.19	2.47	3.28	58.25	6,800.0	5	291.25	34,000	
11	Truck, Recovery 4x4	Samil 50	RSA	7	2.45	2.5	42.88	6,340.0	1	42.88	6,340	
12	Canopies for 7 Ton Trucks	To be advised	RSA	1.2	0.3	0.2	0.07	36.0	-	-	-	
13	Canopies for Land Rovers,	To Be Advised	RSA	1	0.3	0.15	0.05	28.0	-	-	-	
Support Equipment								Category Total	30	1,435		
14	Light cargo, single axle (5x8)	N/A	RSA	3.2	1.3	1.4	5.82	235.0	10	58.24	2,350	
15	Medium cargo, single axle (5x12)	N/A	RSA	4.4	2.45	2.85	30.72	240.0	6	184.34	1,440	
16	Water trailer	N/A	RSA	5.5	3	2.5	41.25	800.0	16	660.00	12,800	
17	Fuel trailer	N/A	RSA	5.5	3	2.5	41.25	900.0	10	412.50	9,000	
18	20' Refrigerated Containers	N/A	RSA	6.06	2.44	2.6	38.44	2,450.0	-	-	-	
19	20' Normal Containers	N/A	Kenya	6.06	2.44	2.6	38.44	2,450.0	25	961.12	61,250	
20	10,000L Static Water Tank	N/A	RSA	2.44	2.44	2.26	13.46	160.0	15	201.83	2,400	
Camp and Personnel Kit								Category Total	74	74	3,084	
21	50 Man	N/A	RSA	2.89	2.89	2.89	24.14	500.0	-	-	-	
22	30 Man Tent	N/A	RSA	1.66	1.66	1.66	4.57	220.0	-	-	-	
23	10x5 m Tents with Flooring	N/A	RSA	2.8	0.8	0.8	1.79	180.0	-	-	-	
24	3x3 m Tents with Flooring	N/A	RSA	1	0.4	0.5	0.20	39.0	-	-	-	
25	BPV's Level IV	N/A	RSA	0.5	0.5	0.1	0.03	4.0	-	-	-	
Category Total								Category Total	186	6,997	770,820	
Grand Totals									186	6,997	770,820	

Note: Weights and Dimensions are not given for Mobile Workshop Contents which will have their freight calculated at 15% of FOB price.

Table : Freight Distribution Figures 4

For: BURKINA FASSO

Item N°	Item	Item Selection	FOB Point	Specs					BURKINA	Delivery	AUTUMN
				L (m)	W (m)	H (m)	Vol (m ³)	Kgs	#	Cube	Kgs
Force Protection											
1	APC Ambulance	Casspir/Mamba	RSA	6.90	2.45	2.85	48.18	9,480.0			
2	APC Command Post	Casspir	RSA	6.90	2.45	2.85	48.18	9,480.0	-	-	-
3	APC Infantry Carrier Armed	Casspir	RSA	6.90	2.45	2.85	48.18	9,480.0	-	-	-
4	APC Recovery	Casspir/Samil 50	RSA	7.00	2.45	2.50	42.88	9,000.0	-	-	-
5	APC for Training	Casspir	RSA	6.90	2.45	2.85	48.18	9,480.0	-	-	-
Support Vehicles								Category Total			
6	Ambulance	Unimog	Germany	5.44	2.33	3	38.03	5,250.0	-	-	-
7	Jeep 4x4 (Toyota Landcruiser)	Toyota HJ79	UAE	4.885	1.92	1.69	15.85	3,050.0	-	-	-
8	Truck Cargo (1.5-2.4 tons) 4x4	Unimog Utility	Germany	5.44	2.33	2.62	33.21	5,250.0	-	-	-
9	Truck Cargo (2.5-5 tons) 4x4	MB 1017	Germany	7.19	2.47	3.28	58.25	6,800.0	-	-	-
10	Maintenance Truck 4x4	MB 1017	Germany	7.19	2.47	3.28	58.25	6,800.0	-	-	-
11	Truck, Recovery 4x4	Samil 50	RSA	7	2.45	2.5	42.88	6,340.0	-	-	-
12	Canopies for 7 Ton Trucks	To be advised	RSA	1.2	0.3	0.2	0.07	36.0	-	-	-
13	Canopies for Land Rovers,	To Be Advised	RSA	1	0.3	0.15	0.05	28.0	-	-	-
Support Equipment								Category Total			
14	Light cargo, single axle (5x8)	N/A	RSA	3.2	1.3	1.4	5.82	235.0	-	-	-
15	Medium cargo, single axle (5x12)	N/A	RSA	4.4	2.45	2.85	30.72	240.0	-	-	-
16	Water trailer	N/A	RSA	5.5	3	2.5	41.25	800.0	-	-	-
17	Fuel trailer	N/A	RSA	5.5	3	2.5	41.25	900.0	-	-	-
18	20' Refrigerated Containers	N/A	RSA	6.06	2.44	2.6	38.44	2,450.0	-	-	-
19	20' Normal Containers	N/A	Kenya	6.06	2.44	2.6	38.44	2,450.0	-	-	-
20	10,000L Static Water Tank	N/A	RSA	2.44	2.44	2.26	13.46	160.0	-	-	-
Camp and Personnel Kit								Category Total			
21	50 Man	N/A	RSA	2.89	2.89	2.89	24.14	500.0	-	-	-
22	30 Man Tent	N/A	RSA	1.66	1.66	1.66	4.57	220.0	15	362.06	7,500
23	10x5 m Tents with Flooring	N/A	RSA	2.8	0.8	0.8	1.79	180.0	10	45.74	2,200
24	3x3 m Tents with Flooring	N/A	RSA	1	0.4	0.5	0.20	39.0	-	-	-
25	BPV's Level IV	N/A	RSA	0.5	0.5	0.1	0.03	4.0	800	20.00	3,200
Category Total								835	428.00	12,900	
Grand Totals									835	428.00	12,900

Table : Freight Distribution Figures 5

For: MALAWI

Item N°	Item	Item Selection	FOB Point	Specs					MALAWI	Delivery	AUTUMN
				L (m)	W (m)	H (m)	Vol (m ³)	Kgs	#	Cube	Kgs
Force Protection											
1	APC Ambulance	Casspir/Mamba	RSA	6.90	2.45	2.85	48.18	9,480.0	3	144.54	28,440.0
2	APC Command Post	Casspir	RSA	6.90	2.45	2.85	48.18	9,480.0	3	144.54	28,440.0
3	APC Infantry Carrier Armed	Casspir	RSA	6.90	2.45	2.85	48.18	9,480.0	4	192.72	37,920.0
4	APC Recovery	Casspir/Samil 50	RSA	7.00	2.45	2.50	42.88	9,000.0	1	42.88	9,000.0
5	APC for Training	Casspir	RSA	6.90	2.45	2.85	48.18	9,480.0	4	192.72	37,920.0
Support Vehicles								Category Total	67	2,276.19	86,840.00
6	Ambulance	Unimog	Germany	5.44	2.33	3	38.03	5,250.0	5	190.13	26,250.0
7	Jeep 4x4 (Toyota Landcruiser)	Toyota HJ79	UAE	4.885	1.92	1.69	15.85	3,050.0	41	649.88	125,050.0
8	Truck Cargo (1.5-2.4 tons) 4x4	Unimog Utility	Germany	5.44	2.33	2.62	33.21	5,250.0	-	-	-
9	Truck Cargo (2.5-5 tons) 4x4	MB 1017	Germany	7.19	2.47	3.28	58.25	6,800.0	-	-	-
10	Maintenance Truck 4x4	MB 1017	Germany	7.19	2.47	3.28	58.25	6,800.0	5	291.25	34,000.0
11	Truck, Recovery 4x4	Samil 50	RSA	7	2.45	2.5	42.88	6,340.0	1	42.88	6,340.0
12	Canopies for 7 Ton Trucks		RSA	1.2	0.3	0.2	0.07	36.0	36	2.59	1,296.0
13	Canopies for Land Rovers,		RSA	1	0.3	0.15	0.05	28.0	29	1.31	812.0
Support Equipment								Category Total	15	717.38	141,720.0
14	Light cargo, single axle (5x8)	N/A	RSA	3.2	1.3	1.4	5.82	235.0	10	58.24	2,350.0
15	Medium cargo, single axle (5x12)	N/A	RSA	4.4	2.45	2.85	30.72	240.0	6	184.34	1,440.0
16	Water trailer	N/A	RSA	5.5	3	2.5	41.25	800.0	16	660.00	12,800.0
17	Fuel trailer	N/A	RSA	5.5	3	2.5	41.25	900.0	10	412.50	9,000.0
18	20' Refrigerated Containers	N/A	RSA	6.06	2.44	2.6	38.44	2,450.0	25	961.12	61,250.0
19	20' Normal Containers	N/A	Kenya	6.06	2.44	2.6	38.44	2,450.0	-	-	-
20	10,000L Static Water Tank	N/A	RSA	2.44	2.44	2.26	13.46	160.0	-	-	-
Camp and Personnel Kit								Category Total	117	1,178.04	193,748.00
21	50 Man	N/A	RSA	2.89	2.89	2.89	24.14	500.0	-	-	-
22	30 Man Tent	N/A	RSA	1.66	1.66	1.66	4.57	220.0	-	-	-
23	10x5 m Tents with Flooring	N/A	RSA	2.8	0.8	0.8	1.79	180.0	70	125.44	12,600.0
24	3x3 m Tents with Flooring	N/A	RSA	1	0.4	0.5	0.20	39.0	50	10.00	1,950.0
25	BPV's Level IV	N/A	RSA	0.5	0.5	0.1	0.03	4.0	-	-	-
Category Total								120	135.44	14,550.00	
Grand Totals									319	4,307.06	436,858.0

Note: Weights and Dimensions are not given for Mobile Workshop Contents which will have their freight calculated at 15% of FOB price.

Table : Freight Distribution Summary

For: ALL COUNTRIES

Item N°	RWANDA			MAY			SENEGAL			JUNE			GHANA			SEPT			BURKINA			SEPT			MALAWI			SEPT		
	#	Cube	Kgs	#	Cube	Kgs	#	Cube	Kgs	#	Cube	Kgs	#	Cube	Kgs	#	Cube	Kgs	#	Cube	Kgs	#	Cube	Kgs	#	Cube	Kgs	#	Cube	Kgs
Force Protection																														
1	-	-	-	-	-	-	4	192.72	37,920	-	-	-	3	144.54	28,440	-	-	-	-	-	-	3	144.54	28,440	-	-	-	-	-	-
2	-	-	-	-	-	-	4	192.72	37,920	-	-	-	3	144.54	28,440	-	-	-	-	-	-	3	144.54	28,440	-	-	-	-	-	-
3	-	-	-	-	-	-	16	770.87	151,680	-	-	-	4	192.72	37,920	-	-	-	-	-	-	4	192.72	37,920	-	-	-	-	-	-
4	-	-	-	-	-	-	2	85.75	18,000	-	-	-	1	42.88	9,000	-	-	-	-	-	-	1	42.88	9,000	-	-	-	-	-	-
5	-	-	-	-	-	-	4	192.72	37,920	-	-	-	4	192.72	37,920	-	-	-	-	-	-	4	192.72	37,920	-	-	-	-	-	-
Total	-	-	-	-	-	-	30	1,434.77	283,440	-	-	-	15	717.38	141,720	-	-	-	-	-	-	15	717.38	141,720	-	-	-	-	-	-
Support Vehicles																														
13	15	570	78,750	5	190	26,250	5	190.13	26,250	-	-	-	5	190.13	26,250	-	-	-	-	-	-	5	190.13	26,250	-	-	-	-	-	-
14	75	1,189	228,750	25	396	76,250	25	396.27	76,250	-	-	-	41	649.88	125,050	-	-	-	-	-	-	41	649.88	125,050	-	-	-	-	-	-
15	8	266	42,000	2	66	10,500	2	66.42	10,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
16	108	6,291	734,400	36	2,097	244,800	36	2,097.02	244,800	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
17	15	874	102,000	5	291	34,000	5	291.25	34,000	-	-	-	5	291.25	34,000	-	-	-	-	-	-	5	291.25	34,000	-	-	-	-	-	-
18	3	129	19,020	1	43	6,340	1	42.88	6,340	-	-	-	1	42.88	6,340	-	-	-	-	-	-	1	42.88	6,340	-	-	-	-	-	-
19	-	-	-	-	-	-	-	-	-	-	-	-	36	2.59	1,296	-	-	-	-	-	-	36	2.59	1,296	-	-	-	-	-	-
20	-	-	-	-	-	-	-	-	-	-	-	-	29	1.31	812	-	-	-	-	-	-	29	1.31	812	-	-	-	-	-	-
Total	224	9,318	1,204,920	74	3,084	398,140	74	3,083.96	398,140	-	-	-	117	1,178.04	193,748	-	-	-	-	-	-	117	1,178.04	193,748	-	-	-	-	-	-
Support Equipment																														
6	30	175	7,050	10	58	2,350	10	58.24	2,350	-	-	-	10	58.24	2,350	-	-	-	-	-	-	10	58.24	2,350	-	-	-	-	-	-
7	18	553	4,320	6	184	1,440	6	184.34	1,440	-	-	-	6	184.34	1,440	-	-	-	-	-	-	6	184.34	1,440	-	-	-	-	-	-
8	48	1,980	38,400	20	825	16,000	16	660.00	12,800	-	-	-	16	660.00	12,800	-	-	-	-	-	-	16	660.00	12,800	-	-	-	-	-	-
9	30	1,238	27,000	10	413	9,000	10	412.50	9,000	-	-	-	10	412.50	9,000	-	-	-	-	-	-	10	412.50	9,000	-	-	-	-	-	-
10	-	-	-	-	-	-	-	-	-	-	-	-	25	961.12	61,250	-	-	-	-	-	-	25	961.12	61,250	-	-	-	-	-	-
11	-	-	-	-	-	-	25	961.12	61,250	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
12	45	605	7,200	-	-	-	15	201.83	2,400	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	171	4,551	83,970	46	1,480	28,790	82	2,478.02	89,240	-	-	-	67	2,276.19	86,840	-	-	-	-	-	-	67	2,276.19	86,840	-	-	-	-	-	-
Camp and Personnel Equipment																														
21	-	-	-	-	-	-	-	-	-	-	-	-	15	362.06	7,500	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
22	-	-	-	-	-	-	-	-	-	-	-	-	10	45.74	2,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
23	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	70	125.44	12,600	-	-	-	-	-	-
24	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	10.00	1,950	-	-	-	-	-	-
25	-	-	-	-	-	-	-	-	-	-	-	-	800	20.00	3,200	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Total	-	-	-	-	-	-	-	-	-	-	-	-	825	427.81	12,900	-	-	-	-	-	-	120	135.44	14,550	-	-	-	-	-	-
TOTAL	395	13,869	1,288,890	120	4,564	426,930	186	6,997	770,820	-	-	-	825	428	12,900	-	-	-	-	-	-	319	4,307	436,858	-	-	-	-	-	-

Note: Weights and Dimensions are not given for Mobile Workshop Contents which will have their freight calculated at 15% of FOB price.

Freight Principles and Assumptions:

Assumptions:

- Burkina Fasso and Ghana will be treated as one destination at the port of Accra
- Air Freight Quotation will be most critical for early deployment countries such as Rwanda and Senegal
- Surface Freight will be emphasised for the autumn deployment assuming sufficient lead time is given by the customer to enable this to happen.
- Road/surface freight will be offered for the vehicular aspect of the Rwandan Deployment, as the air freighting of some 224 vehicles will be extremely expensive. We will, however, offer an airfreight price per ten vehicles to cater for the need to deliver at least some vehicles within a shorter time-frame.

Miscellaneous Freight Items

For simple reasons it is not necessarily practical or possible to calculate the weights and dimensions of certain large number, small size items.

These items include principally:

- spare parts
- tools & workshop equipment
- any of the optional extras within the Force Protection section.

For the purposes of freight cost estimation we will calculate the value of the freight as being 15% of the FOB value of these items.

This figure will be adjusted up or down once the freight invoices have been calculated.

Caveat: It is EXTREMELY difficult to get accurate freight costs owing to a large number of variables, *inter alia*, changing price of fuel, security surcharges, availability, port congestion etc. On top of this it MUST be noted that until the customer's final selection of items is made and the dimensions thus known, **ALL freight prices are indicative only.**

Freight Quotations to follows in separate document

Appendix 1

Product and Vehicle Specifications



The Swiss Army Knife of Combat Vehicles

Armoured Personnel Carrier — Ambulance
Recovery Vehicle — Command Post — Mine Clearer
Utility Freight Carrier — Tanker

The Casspir Mk II Mine Protected Vehicle



The Casspir mine-protected vehicle (MPV) is one of the first to use the V-shaped monocoque hull and is undoubtedly one of the world leaders in its field with over 2,000 in service in several countries and an enviable record as a life preserver in mine incidents and as the ideal choice for force protection.

Originally developed for the rigorous conditions of Southern Africa where a very high mine threat was prevalent, Casspir is certified to protect its occupants against the effects of a triple TM-57 anti-tank mine blast (equivalent to 21 kg of TNT) under any wheel, or a double mine (14 kg of TNT) anywhere under the hull. Casspir offers a high degrees of field repairability after mine detonations that has been incorporated by some designers.

With its many configurations ranging from APC, to recovery vehicle, workshop, command vehicle, mine clearing and ambulance, to name but a few, and its unparalleled effectiveness in high mobility anti-guerrilla operations in its past, it truly is **“The Swiss Army Knife of combat vehicles”**

Casspir MPV's are currently in service in Iraq, Afghanistan, Sudan, India, and a variety of African countries on mine-clearing and security missions.

Proven in Service Reliability

Prove, highly effective landmine protection— protecting occupant and main components against the effects of landmine blasts of up to 12Kg under any wheel and 14Kg under the hull.

Add-on Protection— available against the effects of self-forming fragment mines (TMRP-6)

Mine detecting and mine-clearing ability— through its high compatibility with a number of detection and clearing systems

Ballistic Protection— against a variety of small arms fire and shrapnel up to B6+ level

Ease and economy of maintenance— though the use of proven, easy-to-maintain and commercially available components, compatible with Mamba, Unimog and Mercedes Benz systems

Long in-service life— through protection of main aggregates, recyclability of the hull and use of readily available spare parts.

Long-Range independence— the Casspir was designed to operate at the far end of extended supply lines. It “drives itself to work and back again”



Casspir Mk II Armoured Personnel Carrier

Engine

Type	ADE 366T Turbo-charged
Cylinders	6 cylinders in-line
Power	125kW @ 2800rpm
Torque	560 @ 1400rpm
Coolant	Water
Fuel	Diesel

Gearbox

Type	Mercedes Benz DB G3/60-5/7.5
Gears	5 forward, 1 reverse

Clutch

Clutch type	F & S GFX310K
Operation	Mechanical

Transfer Case

Type	Mercedes Benz VG 500-3W
High Range Ratio	1.05 : 1
Low Range Ratio	1.64 : 1

Axles

Front	Mercedes Benz AL 3/2.5
Ratio	6.83 : 1
Rear	Mercedes Benz HL 5/1S-10
Rear	6.86 : 1

Suspension

Type	Semi-elliptical leaf spring with hydraulic double- acting shock absorbers
------	---

Tyres

Size	14.00 x 20-18 ply multipurpose
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Crew

Capacity	14 (driver plus 13 passengers)
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Performance

Maximum speed	100km/h
Gradient ability	60%
Turning Circle	17 m

Dimensions and mass

Wheel base	4200 mm
Length	6900 mm
Height (roof)	2850 mm
Width	2450 mm
Mass (tare)	9480 kg
Mass (gross)	10,800 kg
Fuel tank	150 litres
Water tank	100 litres

Protection Level

Landmine blasts up to 21kg under any wheel or 14kg under the hull.

Add-on protection available against the effects of self-forming fragment mines (TMRP-6)

Ballistic protection against a variety of small arms fire and shrapnel.

Casspirs Awaiting rebuild in N4's yard



The finished product

After and IED attack in Iraq



A Casspir at work





Each Vehicle is given the following remanufacturing process

Unit

Engine is completely stripped
The head, block, crank, conrods and related parts are completely overhauled by ISO approved Engineering Company
The crank machined to a maximum of 0.030
After assembly the engine is dyno-tested

Fuel System

Fuel tank and related components are removed, cleaned and inspected for any defects
All perishable hoses and clamps replaced with new items
Injection pump and injectors are completely overhauled by ISO approved specialists
Tips are new and pump re-calibrated

Cooling System

New Radiator
New Hoses

Exhaust System

The entire exhaust system is replaced with new

Air Intake System

Filters replaced with new
Filter housing replaced with new

Transmission System

Clutch pack replaced with new
Gearbox stripped and all bearings and seals replaced
Transfer case stripped and sub standard components replaced with new

Propeller shafts stripped and balanced by prop-shaft professionals
New U-Joints

Suspension System

New u-bolt
New shackle pin and bushes
New shock absorbers
New centre pin
New Springs
Any other substandard components replaced with new

Axles and Hubs

Stripped and all bearings and seals replaced with new
Resetting of crown wheel & pinion

Braking System

Hoses replaced with new
Master and slave cylinder remanufactured
Brake boosters overhauled
Sub standard linkages replaced with new
New linings and drums skimmed and checked for any defects by Brake Specialists

Steering System

Hydraulic hoses replaced with new
Steering box tested, seals replaced and overhauled if necessary
Power steering pump, pressure tested and replaced if necessary
Set wheel alignment

Body

Sandblasted
Defective armour and welding replaced and redone
Red oxide primer
Automotive primer compatible with colour coating

Electrical System

New wiring loom
New sender units, lighting, lenses, globes and fuses
All instrumentation New
New speedometer cable
Alternator and starter overhauled
New batteries

Wheels & Tyres

New 1400 x 20 tyres
Rim stripped, sand blasted and substandard components replaced
Runflat inserts fitted to all wheels

Pneumatic System

Air tank: Pressure tested
All valves overhauled, checked and set
Flex hoses replaced with new
Flush system
System checked for leaks

Warranty

6 Months / 40 000km / 800 hours, whichever occurs first.
Warranty is against defective material on the following items:
Engine—Gearbox—Transfer case —
Axles— **Abuse, fair wear and tear excluded**

Optional Swivelling Gun Mount — the swivelling gun mount (seen below being demonstrated on a Land Rover) is an inexpensive add-on giving the gunner (sitting normally in the vehicle's passenger seat, the possibility to manipulate the roof mounted machine gun without exposing himself to enemy fire. Manufactured from high grade mild steel, the gun swivels in a mount set into the roof and is controlled by a series of inter-connecting levels (similar to handle bars) giving him upward, downward and rotating motion. The gun is aimed by means of

a sight mounted at eye level which is pre-sighted to align with the weapon. Vision is out the windows and windscreen of the vehicle. For an additional cost a swivelling seat can be included for ease of use.

For reloading the rear of the weapon is tilted back into the vehicle, the belt changed and action resumed. Thus only the gunner's hands become exposed to enemy fire. The "slot" in the swivelling roof plate is sufficient to make reloading easy but small enough to provide adequate protection to the gunner.





Operational Capabilities and Considerations

The Casspir Mk II

1. Mobility

Basic performance:

Engine

Type	ADE 366T Turbo-charged
Cylinders	6 cylinders in-line
Power	125kW @ 2800rpm
Torque	560 @ 1400rpm
Maximum speed	100km/h
Gradient ability	60%
Turning Circle	17 m
Range on Single Fuel Tank	1000km

2. Fire Power

The basic model Casspir MkII is fitted as standard with:

Firing Ports	12
Roof Hatches	1 or 2
Machine Guns	0

According to Customer Requirements the following can be added:

- Windscreen Fitted Machine-Gun port (forward facing)
- Roof Mounted swivelling and protected Machine Gun Mounts. Up to 2 in total. These mounts can be for 20mm or 30mm canon
- Grenade Launchers for smoke or 40mm grenade ammunition
- Roof Hatches for free firing

3. Protection

The Standard vehicle has the following ballistic and mine protection built in:

Landmine blasts	up to 21kg under any wheel or 14kg under the hull.
B6 Ballistic protection	against a variety of small arms fire and shrapnel.

Upgrades

Casspir are standard at B6 protection. Can be upgraded to B7+ with the addition of either 20 m2 of plates adding 628kg or 14m2, adding 440kgs, of weight.

Cannot have added EFP protection as it would weigh beyond the operational limits of the vehicles.

Add-on protection available against the effects of self-forming fragment mines (TMRP-6)

Ceramic Plates can also be added further to protect the axles against landmine blasts.

We have also developed a range of effective appliqué armour material which can be hung on the sides of vehicles to protect against different types of projectiles.

4. Capacity

The basic Casspir's personnel compartment is configured as follows:

Driver's cabin: Driver plus 1 passenger (or commander). Depending on the weapon configuration of the vehicle the passenger could operate either the windscreen mounted machine-gun or the roof mounted swivelling canon (from within his seat)

Rear Personnel Bin: six mine protected seats on either side of the vehicle, each fitted with four point safety belts. Each seat has its own "flap up" firing port and there is one 40mm ballistic window per pair of seats (three windows on each side).

Total Capacity: 14

5. Alternative Vehicle Configurations:

Vehicles are also available as:

- Ambulance
- Workshop
- Command Vehicle/Communication Centre
- Recovery Vehicle

6. Communications

The Casspir can be fitted with a range of radio and communication equipment depending on the need and use of the client.

We are currently recommending the following HF radio systems

High End:	Grintek Tactical Military Radios
Lower Level	Barrett Military Spec Commercial radios Q-Mac Military or Professional radios

9. Spare Parts and Serviceability

The Casspir forms part of what we might call the "Mercedes Benz Family" of vehicles. As such it takes standard Mercedes Benz Truck parts which are widely available through local Mercedes Benz dealers or from us.

We would of course recommend a supply contract of spare parts to be included with the initial purchase of the vehicles and can then arrange an ongoing supply of parts as needed.

10. Training

As part of any purchase programme we would also offer to provide training for 1 mechanic from the end user to oversee the entire build process in order that they be adequately equipped and trained to manage the maintenance of the vehicles.

We would also offer to train a group of drivers for the best management and optimal use of the vehicles.

All the above non-standard options and add-ons will be quoted as per requirements of the client in consultation with OSPREA Logistics



Renowned Benz build, reliability
& ease of maintenance
Load Carrier — Mobile Workshop
Tanker

Mercedes Benz 1017 5 ton 4x4 Utility Vehicle



The Mercedes-Benz 1017A 4x4 cargo truck is an extremely capable truck with easy handling characteristics. It is also simple to maintain, looks modern and is generally released in excellent condition, with average mileage of only 25,000 km.

Variants:

General Haulage Vehicle— The MB1017 will carry 5 tons over unsteady terrain and can be fitted with crane and hoist.

Ambulance— with a canvas or hard top the MB1017 can double as an ambulance

3,000L Tanker— equipped with either an Aluminium or mild steel tank the 1017 serves as an ideal mobile fuel or water station, with fully equipped flow metre, pumps and nozzles.

Tipper— Can be fitted with a tipping load bed for ease of aggregate unloading

Other variants — adapted to order

Available new or reconditioned out of Europe

Proven in Service Reliability

Ease and economy of maintenance—being a vehicle with international coverage and using standard MB commercial vehicle parts service is not a problem in almost any country in the world.

Long in-service life— rugged and reliable design the MB trucks in various models and types are good for over 1,000,000 km of road use

Meets all standards, recommendations and requirements for UN vehicle use in Africa, in terms of spare water capacity, chassis construction, ground clearance, centre of gravity and fuel and lubricant capacity.

Group Advantage — being a Mercedes Benz it uses the same parts as are used in the Casspir/Mamba/Uniscout family of APC's and also the smaller but no less ubiquitous Unimog. As such its running costs within such a groupage concept are considerably reduced across the fleet of mission vehicles.



MB 1017 4x4 Utility Vehicle

Engine

Type	Direct injection Diesel
Cylinders	6 in line
Cylinder bore x stroke	97 x 128 mm
Volumetric displacement	5675 ccm
Output	72 PS (127 kw) at 2800 r.p.m.
Torque	50 mkg at 1600 r.p.m.
Compression ratio	1:16,5
Fuel injection pump	Bosch
Valves	overhead, side camshaft
Crankshaft bearings	7
Cooling	water / pump
Lubrication	forced-feed lubrication
Battery	2 x 12 V 125 Ah
Generator	three-phase generator 35 A
Starter	24 V 4 PS

Power transmission:	all wheel drive, front steering
Clutch	single-plate dry clutch
Gears	6 forward, 1 reverse
Gear ratio reduction	8.42

Axles

Front axle:	suspension rigid semi-elleptic springs, stabilizer
Rear axle:	suspension rigid, semi-elleptic springs, stabilizer, addit. springs

General data

Wheelbase	3600 mm
Tread width front / rear	1950 / 1780 mm
Overall dimensions	7190 x 2470 x 3230 mm
Cargo area	5000 x 2380 mm
Loading height	1530 mm
Tyres	10 R 22,5 rear dual tires
Vehicle weight	6800 kg
Total weight (perm.)	12,200 kg
Useful load	5400 kg

Performance

Ground clearance	270 mm
Fording depth	500 mm
Turning circle	17.5 m
Top Speed	81kph
Consumption / 100 km	28 l

Internationally
renowned load
carrier



1017 fitted with
Mobile Lube-Unit

1017 with
3000L tank



The German Military Workhorse





Renowned for its applicability in African Conditions

Recovery Vehicle
Heavy Load Carrier
Tanker

Samil 100 6x6 Recovery Vehicle



These trucks were used by the **South African Military** over a number of years and have proven to be reliable under extreme all-terrain conditions. The trucks are ideally suited to African conditions, and are widely recognised as some of the best and most versatile heavy-duty all-terrain trucks on the market. SAMIL 100s have only recently become available to the private sector, and were immediately popular with mining groups and government institutions, NGO's, Aid Agencies and similar organisations.

The Samil 100 has an unparalleled reputation for its rugged durability and its ability to work hard and heavy in Africa's unforgiving terrain and climate.

Variants:

General Haulage Vehicle— The Samil 100 6x6 will carry over 12 tons of freight and can haul a further 12 tons over rough terrain.

Recovery Vehicle— ideally suited as a recovery vehicle for Casspir, Mambas and other APC's as it has the strength to lift and drag a vehicle which has lost all its wheels.

10,000L Tanker— equipped with either an Aluminium or

mild steel tank the Samil 100 serves as an ideal mobile fuel or water station, with fully equipped flow metre, pumps and nozzles.

Other variants built or adapted to order

Available either **remanned** or **reconditioned**

Proven in Service Reliability

Ballistic Protection— against a variety of small arms fire and shrapnel up to B6+ level around the cab and engine if required.

Ease and economy of maintenance—being a vehicle built in Africa for Africa availability of parts is never a problem.

Long in-service life— through protection of main aggregates, rugged and simple design of parts and ease of maintenance, the Samil has a long and productive service life.

Meets all standards, recommendations and requirements for UN vehicle use in Africa, in terms of spare water capacity, chassis construction, ground clearance, centre of gravity and fuel and lubricant capacity.

Exceptional fording ability— with its high air intake pipes Samil 50's have travelled distances with water around the shins of the driver.



Samil 100 6x6 Utility Vehicle

Engine

Description

Air cooled 4 stroke direct injected 90° V naturally aspirated diesel engine

Technical Data

Type	Deutz F10L413F
No. Of cylinders:	10
Displacement:	15,653 litres
Maximum Power:	235 kW @ 2500 rpm
Maximum Torque:	1020 Nm @ 1500 rpm

Gearbox

Type:	ZF S6-90 synchromesh gearbox
Gears:	6 forward and 1 reverse gear and PTO facility
First gear ratio:	9,01: 1
Top gear ratio:	1,00: 1
Reverse gear ratio:	8,30: 1

Transfer Box

Type:	ZFZ90
On road gear ratio:	1,128: 1
Off road ratio:	1,167: 1
Differential lock:	Yes

Axles

Front axle:	Driven, steerable, double reduction, 6.5 ton cast housing
Rear axles:	Two driven, double reduction 9,5 ton cast housing axles & differential locks
Differential ratio:	3,103: 1
Hub reduction ratio:	1, 85: 1
Total ratio:	5,74: 1

Vehicle Mass

Tare mass:	9,135 kg
Manufacturers GVM:	25,500 kg
Payload	16,365kg

Samil 100 6x6
16 tons of
Payload space



Samil 110 6x6
Recovery
Armoured
Cab & engine
compartment
Can also be soft
skin

Samil 100 6x6
Armoured
recovery



Samil 100 6x6 Being loaded with Comms Station



Protection Level of Armoured Model

Armouring is to Cab and Engine Compartment Only

Landmine blasts up to 21kg under any wheel or 14kg under the hull.

Add-on protection available against the effects of self-forming fragment mines (TMRP-6)

Ballistic protection against a variety of small arms fire and shrapnel.



Each Vehicle is given the following remanufacturing process

Unit

Engine is completely stripped
The head, block, crank, conrods and related parts are completely overhauled by ISO approved Engineering Company
The crank machined to a maximum of 0.030
After assembly the engine is dyno-tested

Fuel System

Fuel tank and related components are removed, cleaned and inspected for any defects
All perishable hoses and clamps replaced with new items
Injection pump and injectors are completely overhauled by ISO approved specialists
Tips are new and pump re-calibrated

Cooling System

New Radiator
New Hoses

Exhaust System

The entire exhaust system is replaced with new

Air Intake System

Filters replaced with new
Filter housing replaced with new

Transmission System

Clutch pack replaced with new
Gearbox stripped and all bearings and seals replaced
Transfer case stripped and sub standard components replaced with new

Propeller shafts stripped and balanced by prop-shaft professionals
New U-Joints

Suspension System

New u-bolt
New shackle pin and bushes
New shock absorbers
New centre pin
New Springs
Any other substandard components replaced with new

Axles and Hubs

Stripped and all bearings and seals replaced with new
Resetting of crown wheel & pinion

Braking System

Hoses replaced with new
Master and slave cylinder remanufactured
Brake boosters overhauled
Sub standard linkages replaced with new
New linings and drums skimmed and checked for any defects by Brake Specialists

Steering System

Hydraulic hoses replaced with new
Steering box tested, seals replaced and overhauled if necessary
Power steering pump, pressure tested and replaced if necessary
Set wheel alignment

Body

Sandblasted
Defective armour and welding replaced and redone
Red oxide primer
Automotive primer compatible with colour coating

Electrical System

New wiring loom
New sender units, lighting, lenses, globes and fuses
All instrumentation New
New speedometer cable
Alternator and starter overhauled
New batteries

Wheels & Tyres

New 1400 x 20 tyres
Rim stripped, sand blasted and substandard components replaced
Runflat inserts fitted to all wheels

Pneumatic System

Air tank: Pressure tested
All valves overhauled, checked and set
Flex hoses replaced with new
Flush system
System checked for leaks

Warranty

6 Months / 40 000km / 800 hours, whichever occurs first.
Warranty is against defective material on the following items:
Engine—Gearbox—Transfer case —
Axles— **Abuse, fair wear and tear excluded**

Samil 100 Chassis waiting for load bed



Samil 100 with knuckle crane





Renowned for its applicability in African Conditions

Recovery Vehicle
Heavy Load Carrier
Tanker

Samil 100 6x6 Utility Vehicle



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10,000L Tanker— equipped with either an Aluminium or

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Other variants built or adapted to order

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Ballistic Protection— against a variety of small arms fire and shrapnel up to B6+ level around the cab and engine if required.

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Long in-service life— through protection of main aggregates, rugged and simple design of parts and ease of maintenance, the Samil has a long and productive service life.

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Transfer Box

Type:	ZFZ90
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Off road ratio:	1,167: 1
Differential lock:	Yes

Axles

Front axle:	Driven, steerable, double reduction, 6.5 ton cast housing
Rear axles:	Two driven, double reduction 9,5 ton cast housing axles & differential locks
Differential ratio:	3,103: 1
Hub reduction ratio:	1, 85: 1
Total ratio:	5,74: 1

Vehicle Mass

Tare mass:	9,135 kg
Manufacturers GVM:	25,500 kg
Payload	16,365kg

Samil 100 6x6
16 tons of
Payload space



Samil 110 6x6
Recovery
Armoured
Cab & engine
compartment

Samil 100 6x6
10,000 Litre
tanker



Samil 100 6x6 Being loaded with Comms Station



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Filters replaced with new
Filter housing replaced with new

Transmission System

Clutch pack replaced with new
Gearbox stripped and all bearings and seals replaced
Transfer case stripped and sub standard components replaced with new

Propeller shafts stripped and balanced by prop-shaft professionals
New U-Joints

Suspension System

New u-bolt
New shackle pin and bushes
New shock absorbers
New centre pin
New Springs
Any other substandard components replaced with new

Axles and Hubs

Stripped and all bearings and seals replaced with new
Resetting of crown wheel & pinion

Braking System

Hoses replaced with new
Master and slave cylinder remanufactured
Brake boosters overhauled
Sub standard linkages replaced with new
New linings and drums skimmed and checked for any defects by Brake Specialists

Steering System

Hydraulic hoses replaced with new
Steering box tested, seals replaced and overhauled if necessary
Power steering pump, pressure tested and replaced if necessary
Set wheel alignment

Body

Sandblasted
Defective armour and welding replaced and redone
Red oxide primer
Automotive primer compatible with colour coating

Electrical System

New wiring loom
New sender units, lighting, lenses, globes and fuses
All instrumentation New
New speedometer cable
Alternator and starter overhauled
New batteries

Wheels & Tyres

New 1400 x 20 tyres
Rim stripped, sand blasted and substandard components replaced
Runflat inserts fitted to all wheels

Pneumatic System

Air tank: Pressure tested
All valves overhauled, checked and set
Flex hoses replaced with new
Flush system
System checked for leaks

Warranty

6 Months / 40 000km / 800 hours, whichever occurs first.
Warranty is against defective material on the following items:
Engine—Gearbox—Transfer case —
Axles— **Abuse, fair wear and tear excluded**





THE African Logistics vehicle

Recovery Vehicle
Heavy Load Carrier — Mobile Workshop
Tanker — Armoured or Soft Skin

Samil 50 4x4
8 ton Recovery Vehicle



These trucks were used by the South African Military over a number of years and have proven to be reliable under extreme all-terrain conditions. The trucks are ideally suited to African conditions, and are widely recognised as some of the best and most versatile heavy-duty all-terrain trucks on the market. SAMIL 50s have only recently become available to the private sector, and were immediately popular with mining groups and government institutions, NGO's, Aid Agencies and similar organisations.

The Samil 50 has an unparalleled reputation for its rugged durability and its ability to work hard and heavy in Africa's unforgiving terrain and climate.

Variants:

General Haulage Vehicle— The Samil 50 4x4 will carry over 8 tons of freight and can haul a further 5 tons over rough terrain.

Recovery Vehicle— ideally suited as a recovery vehicle for Casspir, Mambas and other APC's where the stricken vehicles still have two wheels or can be loaded onto "dolly trailer".

Mobile Lubrication Unit or Workshop— fitted with a specially built container the Samil can be equipped as a mobile workshop or lubrication service station, either armoured or soft skin

7,000L Tanker— equipped with either an Aluminium or mild steel tank the Samil 50 serves as an ideal mobile fuel or water station, with fully equipped flow metre, pumps and nozzles.

Other variants built or adapted to order
Available either **remanufactured** or **reconditioned**

Proven in Service Reliability

Ballistic Protection— against a variety of small arms fire and shrapnel up to B6+ level around the cab and engine if required.

Ease and economy of maintenance—being a vehicle built in Africa for Africa availability of parts is never a problem.

Long in-service life— through protection of main aggregates, rugged and simple design of parts and ease of maintenance, the Samil has a long and productive service life.

Meets all standards, recommendations and requirements for UN vehicle use in Africa, in terms of spare water capacity, chassis construction, ground clearance, centre of gravity and fuel and lubricant capacity.

Exceptional fording ability— with its high air intake pipes Samil 50's have travelled distances with water around the shins of the driver.



Samil 50 4x4 Utility Vehicle

Engine

Description

Air cooled 4 stroke direct injected 90° V naturally aspirated diesel engine

Technical Data

Type:	DeutzF6L4I3F
No. Of cylinders	6
Displacement	9,572 liters
Maximum Power:	141 kW @ 2500 rpm
Maximum Torque:	612 Nm @ 1500 rpm

Gearbox

Type:	ZF S6-65 synchromesh gearbox
Gears:	6 forward & 1 reverse gear with PTO facility.
First gear ratio:	9,00: 1
Top gear ratio:	1,00: 1
Reverse gear ratio:	8,45: 1

Transfer Box

Type:	ZFZ65
On road gear ratio:	0,939: 1
Off road ratio:	1,783: 1
Differential lock	Provided

Axles

Front axle:	Driven, steerable, 5,5 ton cast housing
Rear axles:	Driven double reduction 9,5 ton cast housing axles & differential lock
Differential ratio:	3,103: 1
Hub reduction ratio:	1,85: 1
Total ratio:	5,74: 1

Vehicle Mass

Tare mass:	6340 kg
Manufacturers GVM:	15,000 kg
Maximum Payload:	8660 kg

Protection Level of Armoured Model

Armouring is to Cab and Engine Compartment Only

Landmine blasts up to 21kg under any wheel or 14kg under the hull.

Add-on protection available against the effects of self-forming fragment mines (TMRP-6)

Ballistic protection against a variety of small arms fire and shrapnel.

Samil 50 4x4
8 tons of
Payload
Armoured Cab
& engine bay



Samil 50 4x4
Utility
Armoured
cab & engine
compartment

Recovery Vehicle



Recovery vehicle — Available armoured, as above





Each Remanufactured Vehicle is given the following remanufacturing process

Unit

Engine is completely stripped
The head, block, crank, conrods and related parts are completely overhauled by ISO approved Engineering Company
The crank machined to a maximum of 0.030
After assembly the engine is dyno-tested

Fuel System

Fuel tank and related components are removed, cleaned and inspected for any defects
All perishable hoses and clamps replaced with new items
Injection pump and injectors are completely overhauled by ISO approved specialists
Tips are new and pump re-calibrated

Cooling System

New Radiator
New Hoses

Exhaust System

The entire exhaust system is replaced with new

Air Intake System

Filters replaced with new
Filter housing replaced with new

Transmission System

Clutch pack replaced with new
Gearbox stripped and all bearings and seals replaced
Transfer case stripped and sub standard components replaced with new

Propeller shafts stripped and balanced by prop-shaft professionals
New U-Joints

Suspension System

New u-bolt
New shackle pin and bushes
New shock absorbers
New centre pin
New Springs
Any other substandard components replaced with new

Axles and Hubs

Stripped and all bearings and seals replaced with new
Resetting of crown wheel & pinion

Braking System

Hoses replaced with new
Master and slave cylinder remanufactured
Brake boosters overhauled
Sub standard linkages replaced with new
New linings and drums skimmed and checked for any defects by Brake Specialists

Steering System

Hydraulic hoses replaced with new
Steering box tested, seals replaced and overhauled if necessary
Power steering pump, pressure tested and replaced if necessary
Set wheel alignment

Body

Sandblasted
Defective armour and welding replaced and redone
Red oxide primer
Automotive primer compatible with colour coating

Electrical System

New wiring loom
New sender units, lighting, lenses, globes and fuses
All instrumentation New
New speedometer cable
Alternator and starter overhauled
New batteries

Wheels & Tyres

New 1400 x 20 tyres
Rim stripped, sand blasted and substandard components replaced
Runflat inserts fitted to all wheels

Pneumatic System

Air tank: Pressure tested
All valves overhauled, checked and set
Flex hoses replaced with new
Flush system
System checked for leaks

Warranty

6 Months / 40 000km / 800 hours, whichever occurs first.
Warranty is against defective material on the following items:
Engine—Gearbox—Transfer case —
Axles— **Abuse, fair wear and tear excluded**

We currently have a number of “runners” available which have only 3,500km on their clocks. These can be put into immediate service after we have given them new tyres, a service and respray.

A “runner” awaiting paint in N4’s workshop



Load Carrier with crane fitted





THE African Logistics vehicle

Recovery Vehicle
Heavy Load Carrier — Mobile Workshop
Tanker — Armoured or Soft Skin

Samil 50 4x4
8 ton Utility Vehicle



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Samil 50 4x4
8 tons of
Payload



Samil 50 4x4
Utility
Armoured
cab & engine
compartment

THE African
Workhorse



Recovery vehicle — Available armoured, as above



Protection Level of Armoured Model

Armouring is to Cab and Engine Compartment Only

Landmine blasts up to 21kg under any wheel or 14kg under the hull.

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Cooling System

New Radiator
New Hoses

Exhaust System

The entire exhaust system is replaced with new

Air Intake System

Filters replaced with new
Filter housing replaced with new

Transmission System

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Transfer case stripped and sub standard components replaced with new

Propeller shafts stripped and balanced by prop-shaft professionals
New U-Joints

Suspension System

New u-bolt
New shackle pin and bushes
New shock absorbers
New centre pin
New Springs
Any other substandard components replaced with new

Axles and Hubs

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Resetting of crown wheel & pinion

Braking System

Hoses replaced with new
Master and slave cylinder remanufactured
Brake boosters overhauled
Sub standard linkages replaced with new
New linings and drums skimmed and checked for any defects by Brake Specialists

Steering System

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Steering box tested, seals replaced and overhauled if necessary
Power steering pump, pressure tested and replaced if necessary
Set wheel alignment

Body

Sandblasted
Defective armour and welding replaced and redone
Red oxide primer
Automotive primer compatible with colour coating

Electrical System

New wiring loom
New sender units, lighting, lenses, globes and fuses
All instrumentation New
New speedometer cable
Alternator and starter overhauled
New batteries

Wheels & Tyres

New 1400 x 20 tyres
Rim stripped, sand blasted and substandard components replaced
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Pneumatic System

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A “runner” awaiting paint in N4’s workshop



Load Carrier with crane fitted





Samil 50 Workshop Description and Layout

General

This is a customised specification for a Mobile Workshop Unit, installed with various equipments to be mounted on MAN KAT 1 4x4 or MAN KAT 6x6

Body Approx. Overall dimensions:

Length - 4500mm (including generator compartment and rear platform)
Width - 2300mm (or to suit chassis)
Height - 2000mm

Subframe

OEM flat bed superstructure to serve as sub frame.
Body mounting according to the regulations. Body removable and with jack units for floor placement.

Flooring

Complete flooring made of steel plates 4mm thick.

Body framework

Side walls, roof and headboard constructed using MIL style multi purpose container system. The entire structure is rigidly fixed on to the floor with suitable goal post to bear body weight.

External Cladding (Sides, Roof, Front and Rear)

The external body surface including sides, roof, front and rear is covered by steel sheets (non-insulated panels). All joints are sealed off to make it leak proof. Roof external will be finished with gel coating.

Cab Roof Carrier

Installation of full size Cab Roof Carrier for Work Shop Container and Truck Roof to handle transportation of bulky parts, spare tires etc. Tarp to cover and tie downs.

Windows

Fixed glass windows installed one on each side of the body side wall. (if so desired)

Rear Door (swing out)

Rear door will have a door full height swing out system with center glass and ventilation flap.

Headboard

Construction similar to sides, adequately reinforced.

Electricals

- Side marker lamps
- Internal ceiling mounted fluorescent lamps

Accessories

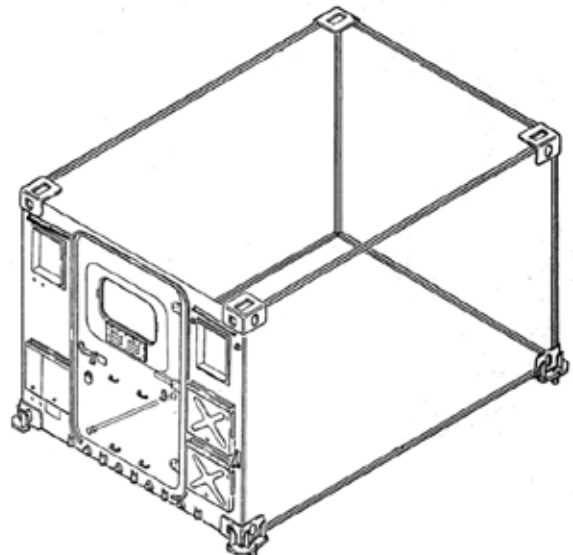
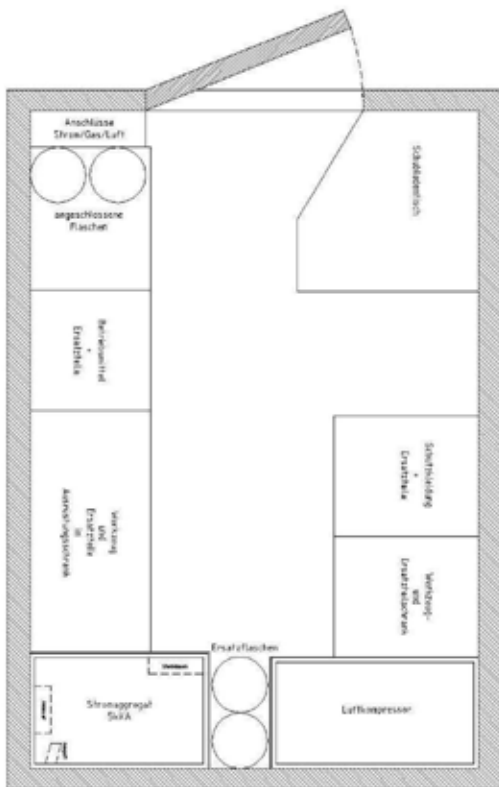
- Steel mudguards and rubber mud flaps for rear wheels
- Heavy duty rear bumper
- Reflective sign at rear
- Access steps at rear

Frame and Load Platform extension:

The frame and load platform will have to be extended by approx. 1.50 m to allow the crane arrangement to be mounted behind the OEM cab.

Crane System:

Installation of Power Take Off for hydraulic system, with hydraulic pump, PTO engage system from driver's cab, safety valves, hydraulic lines, hydraulic regulators, Valve controls, quick connectors and pressure monitor system located on RHS of vehicle.
Hydraulic crane unit with 9 m work height and 7.62 m horizontal outreach, 370 dg continuous rotation, capacity 3 tons.





Equipment List for Mobile Lube Unit

- Lubrication unit fitted in enclosed bin
- 1 Servicing reels and pumps: Engine oil.
 - Gear oil.
 - Grease.
 - Hydraulic fluid.
 - Tyre inflator and gauge.
 - 1 10KVA Generator (diesel).
 - 1 Compressor, 200L / 11bar.
 - 1 Gas welding equipment. (no cylinders)
 - 1 Toolbox:
 - 6-33 Ring flat spanners.
 - 6-22 ½ inch socket set.
 - 1 Heavy Duty socket set
 - 1 Heavy Duty torque wrench
 - 2 20 Ton bottle jacks
 - 2 Lead lights
 - 1 Creeper.
 - 1 Oil jug.
 - 1 Oil Funnel.

Samil 50 4x4 Mobile Workshop or Lube Unit

These lists apply to the Samil 50 fitted out either as a mobile lubrication unit or mobile work/repair vehicle.

The vehicle will have the standard Samil 50 chassis, with or without armoured engine compartment and cab, fitted with container box housing the specified equipment and work-stations.

Only best quality tools and equipment with a proven durable construction and long service life in harsh environments and hands will be used

Equipment List for Mobile Workshop

Tools, base equipment

- 1/2" Ratchet & Socket Set
- 1/4" Ratchet & Socket Set + Bits
- 3/4" Ratchet & Socket Set + Bits
- Toolbox:
- 6-33 Ring flat spanners.
 - 6-22 ½ inch socket set.
 - Combination Spanners 6 – 33
 - Special Spanners 6 – 33 (curved etc)
- Water Pump Pliers
- Combination Pliers
- Electrical Pliers
- English Tool Pliers
- Tip Pliers straight
- Tip Pliers 45 dg
- Nail Pliers
- Grip Pliers small
- Grip Pliers big
- Electrical Connector Pliers
- Electrical Connectors
- Set Screw Drivers Phillips & Flat
- Screw Driver, Electrical
- Open Wrench, set
- Double Closed Wrench, set (Ring)
- Double Open Wrench, set
- Valve feeler gauges
- Allen Wrench Set
- Hammer 300 g
- Hammer 500 g
- Hammer 1000 g
- Gasket Remover
- Universal Saw
- Metal Saw
- All in Screw Driver Kit
- Removal Tool for safety pins
- Chisel Set
- Set of files
- Set of puncher
- Steel Brush
- Test Light
- Thread Cutting Kit (up to M 16)
- Die Cutting Tools
- Working Light 220 V
- Working Light 24 V

- Rubber Hammer
- Vise Grip kit 750 mm
- Vise Grip kit 450 mm
- Box Cutter
- Measure Tape
- Caliper
- Side Cuttery
- Battery Drill
- HD Battery for battery drill
- Drill
- Drill Bit Set
- Cleaning Spray
- Impact Driver 1/2"
- Clutch puller kit
- Through Punch Aluminum 30mm X 250mm
- Grinder, small
- Grinder, big
- Vise
- Grease Pump
- Metal Cutter
- Bolt Cutter
- Wheel Nut Wrench
- Shovel
- Sledge Hammer
- Crow Bar
- Tire Mounting Tools
- Jump Cables 5 meters
- Combination Protective Eye Gear
- Helmet
- Work Gloves
- Hydraulic Ram Kit with extensions
- Oil Can

Additional Equipment (Cab Design II)

- Injector Testing and Removal Equipment
- Injector Holding and Adjustment Equipment
- Alternator Testing Tool
- Mass Tester for Alternator & Starter
- Power Steering test equipment
- Hydraulic Lifting Device (Recovery Kit)
- 2 x20 Ton bottle jacks

Lubrication unit as above

Cabinets:

- 1 x10KVA Generator (diesel).
- 1 x Compressor, 200L / 11bar.
- Cabinet with Drawers and Work area.
- Service Box
- Additional Stowing Compartments & Drawers
- Cabinets with Drawers Hydraulic Pump Kit 380V/50Hz
- Long Cabinet
- Earth Stick for Generator
- Arc Welder up to 3.5 mm thickness
- Acetylene welding hoses 15 m with quick connectors
- Acetylene welding gun in box
- Oxygen Bottle 45 L
- Acetylene Bottle 60 L
- Air Pressure Pistol
- Compressed Air Y Section with quick couplings
- Tire Filling Hose with Gauge 0-8bar
- Tire Pressure Hose 1 X 10m 1X 25m with quick couplings
- Extension Cord 20 m 380 Volts 16 Amp.
- Extension Cord 20 m 220 Volts 16 Amp.
- Extension Cord on Drum 50 m with surge protection 220 Volts
- Multi Purpose Connector 220 Volt (3 X)
- Bleeding Equipment for Brake- and Clutch Systems
- Funnel, small, middle, large
- Drum Pump with pistol and universal mounting gear
- Flexible funnel for 20 L Jerry Can
- 3x 20 L Jerry Can
- 2x 10 L Acid Can
- Mobile Work Bench
- Recovery Towing Equipment
- Towing Rope
- Towing Rod
- Towing Safety Light Equipment
- Towing Brake Hose
- Pulling Crane 3 tons
- Parts Cleaning Basin
- Colander for Parts Cleaning Basin



Renowned Benz built 4x4 Ambulance

Load Carrier — Mobile Workshop
Tanker

Unimog U435 4x4 Ambulance



The Unimog is classed as a high-mobility load carrier capable of traversing any terrain.

The design centres around the coil sprung suspension, making it an ideal forestry/off-road vehicle.

These ex-German military trucks are all in excellent condition. They are not equipped with rear linkage.

Variants:

General Haulage Vehicle— The Unimog will carry 2.5 tons over unsteady terrain.

Ambulance— with a canvas or hard top the Unimog makes an ideal 4 litter Ambulance fully equipped with medical equipment

2,500L Tanker— equipped with either an Aluminium or mild steel tank the Unimog serves as an ideal mobile fuel or water station, with fully equipped flow metre, pumps and nozzles.

Other variants — adapted to order

Available new or reconditioned out of Europe

Proven in Service Reliability

Ease and economy of maintenance—being a vehicle with international coverage and using standard MB commercial vehicle parts service is not a problem in almost any country in the world.

Long in-service life— rugged and reliable design the MB trucks in various models and types are good for over 1,000,000 km of road use

Meets all standards, recommendations and requirements for UN vehicle use in Africa, in terms of spare water capacity, chassis construction, ground clearance, centre of gravity and fuel and lubricant capacity.

Group Advantage — being a Mercedes Benz it uses the same parts as are used in the Casspir/Mamba/Uniscout family of APC's and also the MB1017 As such its running costs within such a groupage concept are considerably reduced across the fleet of mission vehicles.



Unimog U435 4x4 Ambulance

Engine

Type	Diesel 6 cylinder OM 352
Power rating	130 HP (96 kW) @ 2,800 rpm
Capacity	5,675 cc
Torque	36.3 mkg @ 1,800 rpm
Compression	1:17
Cooling	Water

Transmission

Type	4x4 rear wheel drive only option
Gearbox	Manual
Gears	8 forward + 4 reverse gears
Ratios	1st: 13.85, 2nd: 9.61 3rd: 6.35 4th: 4.38 5th: 3.17 6th: 2.2 7th: 1.57 8th: 1.00

Axles

Suspension	Elliptical leaf
Steering	Power steering
Brakes	Air, hydraulic double circuit disc on 4 wheels
Tyres	12.5 x R20 20 MPT / 11 x 20

Dimensions

Length	5,440 mm
Width	2,300 mm
Height	2,620 mm
Wheelbase	3,250 mm
Total weight	7,500 kg
Empty weight	5,250 kg
Payload	2,250 kg

Performance

Fuel tank capacity	150 l
Maximum speed	80 km/h
Driver side	LHD
Ground clearance	440 mm
Track	1,860 mm
Attack angle	46°

The Unimog
Ambulance



Ambulance
interior view

Ambulance
Interior view



A convoy of Unimog Ambulances





Unimog U435 4x4 Ambulance

Details of Ambulance Package

DRIVER'S CAB:

- 2 revolving lights (blue) on roof
- PA system
- 100 W siren
- Rear sliding window for communication with ambulance staff

All other to be standard U 435 Cab (Army)

AMBULANCE UNIT:

Exterior:

- Van body, steel type with insulation
- Double swing out rear door with ladder rear
- Side swing out door for paramedic with ladder
- 2x Water Jerry can holder
- 2x Fuel Jerry can holder
- Snowchain box
- Communication window on bulkhead
- Sliding side windows
- Rear door windows
- Dual roof ventilation hatches
- Exhaust fan
- 1 revolving light (blue) rear of the ambulance body
- Ambulance decals all around the vehicle including roof
- Van body design with wedged roof enabling C 130 airlift

- Fire Extinguisher

Interior:

- 4 stretcher slide units – top units can be folded up or removed within minutes in case not needed
- (entire stretcher system can be taken out easily)
- 4 head stabilizing cushions
- Medical cabinet, bulk head mounted
- Paramedic seat
- 2 fluorescent lights
- 4 ceiling mounted grab handles
- Separate heating unit
- Utility cargo nets – bulkhead installed
- Bulkhead mounted cargo tray for defibrillator
- Oxygen bottle brackets (2) (Oxygen bottles and masks not supplied)
- Safety belts for all patients and paramedic
- Vinyl floor
- Inside paint (white)

Exact fitted options may vary from unit to unit. Upon receipt of order, this will be confirmed.

We can include Oxygen Bottles at no extra charge and other medical equipment upon discussion



Renowned Benz built all-purpose "Gofer"

Load Carrier — Mobile Workshop
Tanker — Ambulance

Unimog 1300 4x4 Utility Vehicle



The Unimog is classed as a high-mobility load carrier capable of traversing any terrain.

The design centres around the coil sprung suspension, making it an ideal forestry/off-road vehicle.

These ex-German military trucks are all in excellent condition. They are not equipped with rear linkage.

Variants:

General Haulage Vehicle— The Unimog will carry 2.5 tons over unsteady terrain.

Ambulance— with a canvas or hard top the Unimog makes an ideal 4 litter Ambulance fully equipped with medical equipment

2,500L Tanker— equipped with either an Aluminium or mild steel tank the Unimog serves as an ideal mobile fuel or water station, with fully equipped flow metre, pumps and nozzles.

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Unimog U1300L 4x4 Utility Vehicle

Engine

Type	Diesel 6 cylinder OM 352
Power rating	130 HP (96 kW) @ 2,800 rpm
Capacity	5,675 cc
Torque	36.3 mkg @ 1,800 rpm
Compression	1:17
Cooling	Water

Transmission

Type	4x4 rear wheel drive only option
Gearbox	Manual
Gears	8 forward + 4 reverse gears
Ratios	1st: 13.85, 2nd: 9.61 3rd: 6.35 4th: 4.38 5th: 3.17 6th: 2.2 7th: 1.57 8th: 1.00

Axles

Suspension	Elliptical leaf
Steering	Power steering
Brakes	Air, hydraulic double circuit disc on 4 wheels
Tyres	12.5 x R20 20 MPT / 11 x 20

Dimensions

Length	5,440 mm
Width	2,300 mm
Height	2,620 mm
Wheelbase	3,250 mm
Total weight	7,500 kg
Empty weight	5,250 kg
Payload	2,250 kg

Performance

Fuel tank capacity	150 l
Maximum speed	80 km/h
Driver side	LHD
Ground clearance	440 mm
Track	1,860 mm
Attack angle	46°

Solid and reliable



Unimog Ambulance

World-leading 2.5 tons off-roader





Water & Diesel Trailers

2500L Water Trailer

Build Double axel trailer with brakes
Spare wheel
Dimensions 4000 x 2400 x 2000
Weight 700 Kg
Pump 2" Honda water pump
30m hose & Nozzle
Available without pump and with tap



2500L Diesel Trailer

Build Double axel trailer with brakes
Spare wheel
Dimensions 4000 x 2400 x 2000
Weight 700 Kg
Pump 12/24 volt electrical pump
Flow meter
Water separator
3m hose and nozzle
Available without pump and with tap



5000L Water Trailer

Build 6 ton axel slow speed
max 45 Km/h
Spare wheel
Dimensions 5500 x 3000 x 2500
Weight 800 Kg
Pump 2" Honda water pump
30m hose & Nozzle
Available without pump and with tap



5000L Diesel Trailer

Build 6 ton axel slow speed
max 45 Km/h
Spare wheel
Dimensions 5500 x 3000 x 2500
Weight 900 Kg
Pump 12/24 volt electrical pump
Flow meter
Water separator
3m hose and nozzle
Available without pump and with tap



2000L Trash Trailer

Build Twin 1,000L tanks
1 for Clean Water; 1 for storing of waste
Double axel trailer with brakes
Spare wheel
Dimensions 4000 x 2400 x 2000
Weight 700 Kg
Pump 2 High pressure water pump
High power vacuum pump
30m hose & Nozzle

