Guide to machinery costs

2014/15

agriculture,
forestry & fisheries

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20 YEARS OF FREEDOM

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Guide to machinery costs

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1. INTRODUCTION

This *Guide to machinery costs* was compiled to assist farmers, extension personnel and others involved in costing farm operations and machinery decision-making. These costs are updated annually and are based on available technical and financial data, in particular, prices published in *Agfacts.* Prices of agricultural machinery vary between firms and regions.

The performance of machines also varies under different working conditions. It is therefore important that the user interprets these costs intelligently for a particular region or set of circumstances.

It is important to note that many machines are no longer available on the market, while new machines have entered the market. The price of machinery that is no longer available is increased by an appropriate percentage based on the previous year's price, and this equipment may not be listed in the following years. An adjustment to the expected life of the equipment is made from time to time, based on the information received from researchers, manufacturers and users of equipment. Any information of this nature is welcome, together with any constructive criticism which can assist in improving this publication.

1.1 Notes on machinery costs

The costs of owning and operating machinery can be divided into two categories, namely fixed costs and variable costs.

Fixed costs are related to machinery ownership and occur regardless of whether the machinery is used or not. Fixed costs per hour of usage are inversely proportional to the amount of annual usage. Variable costs are directly related to the degree of utilisation of the machine and include factors such as repairs, maintenance costs, fuel and lubricants.

The division into fixed and variable costs is not always an absolute one. There is a valid argument for considering depreciation charges as being made up of two main components: one of which is determined by obsolescence and is a fixed cost, and the other which relates to "wear and tear" and is considerably influenced by the use of the machine. In this case, depreciation could be considered to be a variable cost.

The cost figures in this *Guide to machinery costs* are AVERAGE figures, excluding the current Value Added Tax at the month of updating. They are based on assumed life expectancies and annual usage, obtained from studies done in South Africa, Great Britain and the US. According to

Culpin (1959), it is unwise to assume a life expectancy beyond 15 years for any implement or machine. These figures are therefore suggested and serve as a guideline, where specific information is unavailable.

1.1.1 Depreciation

Depreciation is the reduction in value of a machine over the passage of time. There are various methods of calculating depreciation costs. The straight line method gives a constant annual charge for depreciation throughout the life of the machine, and this is the method used in the *Guide to machinery costs* to calculate the depreciation costs.

1.1.2 Interest

A charge for interest is included as a fixed cost because the money which is invested in machinery could have been invested in other productive enterprises or investments. The interest rate that is used in the *Guide to machinery costs* is the interest rate that can be obtained on a medium-term (5 years) investment.

The value of the machine decreases over time, as reflected by annual depreciation charges. Consequently, the amount of money invested in the machine decreases from the initial purchase price to the scrap value at the end of the machine's useful life. The interest charge takes this into account as it is based on the average investment during the life of the machine.

1.1.3 Insurance and licence

These costs are based on current charges imposed by various insurance companies and the government. In some instances, insurance and licence charges are assumed to be a percentage of the average investment of the machine.

1.1.4 Repairs and maintenance

These costs are difficult to estimate because they vary greatly depending on operating conditions, management, maintenance programmes, local costs, etc. It is generally agreed that repair costs will increase with age but are unlikely to increase proportionally. Repair costs will increase with age, but tend to level off as the machine becomes older (Kepner *et.al.,* 1978, page 36).

Accurate estimates of repair costs are not easily obtainable. However, work done by the Directorate of Agricultural Engineering has been used where appropriate (see Reference 4). Repair costs are quoted as a percentage of the purchase price of the machinery divided by the annual use. The percentages are kept constant over the life of the machine, thereby obtaining an average cost during the machine's useful life. There are disadvantages to this method, but for general reference purposes it is the most practical.

For further information on repairs and maintenance cost formulae, consult the reference list, with particular attention to references 1 and 6.

1.1.5 Fuel

Fuel consumption is also a contentious issue and can vary greatly from area to area, machine to machine, and even operator to operator. The figures used in the G*uide to machinery costs* are based on the results of surveys done in South Africa and the US. For further information consult references 1, 5 and 6.

There are three levels of power demand for tractors—light, medium and heavy—depending on the type of work being done. The fuel consumption is in litres per Kilowatt hour and varies for each level of power demand. There is also variation in the percentage of available kW that is used at each level. (See notes at the foot of each page).

A single level of power demand is used for self-propelled combine harvesters. The fuel consumption is in litres per kW-hour and varies with the engine power (kW).

In the case of LDVs and trucks, the fuel usage per 100 km is the average figures supplied by the dealerships and manufacturers' standards. Clearly, these consumption figures will vary from vehicle to vehicle, driver to driver and circumstances in general. The listed fuel usage figures are for information purposes only, and users of the G*uide to machinery costs* need to adjust the fuel costs if their consumption figures are noticeably different.

The prices of diesel, petrol and oil were those prevailing on the Highveld at the time of updating the G*uide to machinery costs*. Users may need to adjust the fuel costs if current prices are significantly different to those used in the G*uide to machinery costs*. (See notes at the foot of each page.)

1.2 Costs per hectare

The following remarks need to be kept in mind concerning the costs of using tractors and implements:

1. The driver/operator and labour costs are not included in the listed costs.
2. The costs of materials (e.g. baling twine, wire, seed, fertiliser, etc.) are not included in the listed costs.

1.2.1 Cost per unit of measure

Machinery costs included in this *Guide to machinery costs* are listed below, together with the unit of measure.

Tractors	R/hour	(R/hr)	The cost per hour is based on clock hours and not tractor hours.
Implements	R/hour	(R/hr)	
Self-propelled combine harvesters	R/hour	(R/hr)	
Trailers	R/hour	(R/hr)	

LDVs	Cents/kilometre	(c/km)
Trucks	Cents/kilometre	(c/km)
Electric motors	R/hour	(R/hr)

If the necessary conversion factors are available, these costs can be translated into the cost per hectare, per ton, etc.

1.2.2 Duration time per hectare and per kilometre

The duration time per hectare depends on the working width of an implement, the work speed and the effectiveness of the machinery being used to carry out an activity. The following formula can be used to calculate the duration time per hectare:

$$\text{Duration per hectare } \left(\frac{\text{hr}}{\text{ha}}\right) = \frac{10\,000}{[\text{work width (m)} \times \left[\text{work speed } \left(\frac{\text{Km}}{\text{hr}}\right) \times 1\,000\right] \times \text{effectiveness (\%)}]}$$

To calculate a Rand per hectare value, information is required on the time requirement of the machine per hectare. Some rough guidelines of these figures are listed in the “Field Capacities” section at the end of this publication. Take note that this figure will largely depend on the shape of the field, speed of the machine, area, *etc*.

In the case of vehicles, and the cane and timber equipment, the duration time is given by the following formula:

$$\text{Duration per kilometer } \left(\frac{\text{hr}}{\text{Km}}\right) = \frac{1}{\left[\text{average speed } \left(\frac{\text{Km}}{\text{hr}}\right)\right]}$$

In other words, the duration time per kilometre is the inverse of the average speed.

1.2.3 Cost per hectare

To determine costs per hectare from the data in the G*uide to machinery costs*, the following formula can be used:

Costs per hectare (R/ha) = **Cost per hour** (R/hr) x **Duration time per hectare** (hr/ha)

In other words, the duration (time) of the activity (*e.g.* ploughing, spraying, fertilising) is multiplied by the cost per hour.

The cost per hour will be that of the tractor, plus the cost of any implement used with the tractor to perform the activity (e.g. tractor and plough, tractor and boom sprayer and tractor plus trailed combine harvester). The cost of a self-propelled combine harvester will replace the cost of the tractor when appropriate.

The costs per ton (unit of yield) can be determined by using the following formula:

Costs per ton (R/ton) = **Cost per hectare** (R/ha) ÷ **Tons per hectare** (ton/ha)

Costs per ton (R/ton) = **Cost per hectare** (R/ha) x **Hectare per ton** (ha/ton)

The following tables give some indication of how the information in the G*uide to machinery costs* can be used to determine the costs of using equipment to perform a range of farming activities. Fixed costs are the total of depreciation, licence, insurance and interest. Variable costs consist of repairs and maintenance, fuel and oil, and tyres. No labour costs are included in these examples.

The cost per hour is based on clock hours and not tractor meter hours. The costs in the following tables are taken from the *Guide to machinery costs 2014/15.*

TABLE 1: Tractor and implement

a) Activity duration times

Activity	Tractor			Implement				Duration
	Power (kW)	Drive (2W/4W)	Power demand (L/M/H)	Description	Working width (m) (A)	Working speed (km/hr) (B)	Effectiveness (%) (C)	(hr/ha) (= 10 000 ÷ (A x B x 1 000 x C/100))
Plough	98	4W	H	3-furrow disc plough	2,6	2,6	85	1,74
Plant	63	4W	M	3-row (1,5 m) maize planter	1,5	3,0	85	2,61
Fertilise	63	4W	M	4 000 ℓ double-disc fertiliser spreader	3,2	3,2	85	1,15
Spray	63	4W	L	12 m boom sprayer	12	6,0	85	0,16

b) Activity costs per hour and per hectare

The duration times are those in the previous table. The tractor and implement costs are taken from the G*uide to machinery costs 2014/15*. The fixed costs include the interest costs. "H" refers to a heavy (high) power demand, "M" refers to a medium power demand, and "L" refers to a light power demand (see 1.1.5).

Activity	Duration time (hr/ha) (A)	Tractor		Tractor costs			Implement	Implement costs			Total costs	
		kW 2/4W	Power demand (L/M/H)	Fixed (R/hr)	Variable (R/hr)	Total (R/hr) (B)	Description	Fixed (R/hr)	Variable (R/hr)	Total (R/hr) (C)	Per hour (D = B + C)	Per ha (D x A)
Plough	1,74	98 4W	H	80,60	303,00	383,60	3-furrow disc plough	15,90	11,60	27,50	411,10	767,51
Plant	2,61	63 4W	M	55,30	176,80	232,10	3-row (1,5 m) mt. maize planter	224,80	119,50	344,30	576,40	1 504,40
Fertilise	1,15	63 4W	M	55,30	176,80	232,10	4 000 ℓ double-disc FERT spreader	580,60	377,50	958,10	1 190,20	1 368,73
Spray	0,16	63 4W	L	55,30	161,50	216,80	12 m (1 000 ℓ) boom sprayer	110,60	36,70	147,30	364,10	58,26

This information indicates that it costs R411,10/hour to plough using a 98 kW (4-wheel) drive tractor, which is pulling a 3-furrow disc plough, assuming that ploughing is a *heavy operation*. It indicates that it costs R1 504,40 to plant one hectare using a 63 kW (4-wheel) drive tractor, which is pulling a 3-row (1,5 m) mounted planter, assuming that planting is a *medium operation*, and that it takes 2,61 hours to plant one hectare. No costs are included for labour, or seed and other materials.

TABLE 2: Self-propelled combine harvester—maize

a) Activity duration time

Activity	Combine details					Duration
	Engine size (kW)	Description/head size and row size	Working width (m) (A)	Working speed (km/hr) (B)	Effectiveness (%) (C)	(hr/ha) (= 10 000 ÷ (A x B x 1 000 x C/100))
Harvest	278	8-row 0,9 snapper maize combine	7,2	5,0	90	0,309
Harvest	313	12-row 0,9 snapper maize combine	10,8	6,0	90	0,171

b) Activity costs per hour and per hectare

The duration times show that it takes less time to harvest one hectare if a harvester with a higher kW rating and bigger head (row size) is used.

Harvesting, in this example, is regarded as a heavy power demand operation.

Interest costs are included in the fixed costs, but no costs for labour are included in these calculations.

Activity	Duration (hr/ha) (A)	Engine size (kW)	Engine costs			Description/head size and row size	Head costs			Total costs	
			Fixed (R/hr)	Variable (R/hr)	Total (R/hr) (B)		Fixed (R/hr)	Variable (R/hr)	Total (R/hr) (C)	Per hour (D = B + C)	Per ha (D x A)
Harvest	0,309	278	1 205,50	978,20	2 183,70	8-row 0,9 m snapper head	264,90	62,80	327,70	2 511,40	776,02
Harvest	0,171	353	1 610,40	1 260,90	2 871,30	12-row 0,9 m snapper head	500,20	118,50	618,70	3 490,00	596,80

TABLE 3: Self-propelled combine harvester—wheat

a) Activity duration time

Activity	Combine details					Duration
	Engine size (kW)	Description/head size and row size	Working width (m) (A)	Working speed (km/hr) (B)	Effectiveness (%) (C)	(hr/ha) (= 10 000 ÷ (A x B x 1 000 x C/100))
Harvest	146	6,0 m wheat combine	6,0	5,0	90	0,370
Harvest	216	9,1 m wheat combine	9,1	5,0	90	0,244

b) Activity costs per hour and per hectare

Activity	Duration (hr/ha) (A)	Engine size (kW)	Engine costs			Description/head	Head costs			Total costs	
			Fixed (R/hr)	Variable (R/hr)	Total (R/hr) (B)		Fixed (R/hr)	Variable (R/hr)	Total (R/hr) (C)	Per hour (D = B + C)	Per ha (D x A)
Harvest	0,370	177	1 151,40	713,70	1 865,10	6,0 m wheat combine	246,50	58,40	304,90	2 170,00	802,90
Harvest	0,244	218	983,20	776,00	1 759,20	9,1 m wheat combine	241,60	57,20	298,80	2 058,00	502,15

The reason that the bigger harvester has a lower total fixed cost is because its price is considerable lower than that of the smaller harvester.

TABLE 4: Truck

a) Activity duration time

Activity	Truck details		Average speed		Duration	
	Description	Capacity (ton) (A)	km/hr (B)	hr/km (C = 1 ÷ B)	km/hr.ton (D = B ÷ A)	hr/km.ton (E = C ÷ A)
Transport 8 t grain	8,0 t single-differential truck	8,0	80,0	0,0125	10,00	0,0016

b) Activity costs per kilometre, per hour and per ton

Activity	Truck description	Truck costs		Total costs			
		Fixed (R/km)	Variable (R/km)	R/km (F)	R/hr (G = F x B)	R/km.ton (H = F ÷ A)	R/hr.ton (I = F x D)
Transport 8 t grain	8,0 t Single-differential truck	2,31	6,69	9,00	720,00	1,13	90,00

c) Example: Truck activity costs

Example: Assume that a maize farmer achieved a yield of 8t/ha on two hectares. He needs to transport 16 t of grain. He is using an 8,0 t single-differential truck, with an average speed of 80 km/hr, which means that two trips will have to be done. The total distance travelled for both return trips is 50 km. Using the tables above, as a guideline, the following costs can be derived:

Activity	Tonnage transported (tons)	Total distance travelled 2 loads (km)	Truck 8 t single-diff.	Truck cost (fixed + variable)	Average speed		Duration		Total costs			
	(A)	(B)	ton (C)	R/km (D)	km/hr (E)	hr/km (F = 1 ÷ E)	km/hr. ton (G = E ÷ C)	hr/km.ton (H = F ÷ C)	R/km (D)	R/hr (I = D x E	R/km.ton (J = D ÷ C)	R/hr.ton (K = I ÷ C)
Transport 8 t grain	16,0	50,0	8	9,15	80,0	0,0125	10,00	0,00156	9,15	732,00	1,14	91,50

The total distance travelled	=	50 km	(B)
The total cost per kilometre (R/km)	=	R 9,15	(D)
The total cost of the return trip	=	R457,50	(L= B x D)
Tonnage transported	=	16 tons	(A)
Cost per ton	=	R 28,60	(M = L ÷ A)
The 16 t maize grain yield was from	=	2 ha	
	=	8 t/ha	(N)
Cost per hectare	=	R 228,80	(M x N)

TABLE 5: Tractor and trailer

a) Activity duration time

Activity	Tractor			Trailer		Average speed		Duration	
	Power (kW)	Drive (2W/4W)	Power demand (L/M/H)	Description	Capacity (ton) (A)	km/hr (B)	hr/km (C = 1 ÷ B)	km/hr.ton (D = B ÷ A)	hr/km.ton (E = C ÷ A)
Transport grain	98	4W	H	10 t 4-wheel trailer with dropsides	10,0	10,00	0,10	1,00	0,01

b) Activity costs per hour, per kilometre, and per ton

Activity	Tractor	Tractor costs			Trailer	Trailer costs			Total costs			
	kW; 2/4 W; L/M/H	Fixed (R/hr)	Var. (R/hr)	Total (R/hr) (F)	Description	Fixed (R/hr)	Vari. (R/hr)	Total (R/hr) (G)	R/hr (H = F + G)	R/km (I = H x C)	R/hr.ton (J = H ÷ A)	R/km.ton (K = I ÷ A)
Transport	98 4W; H	80,60	303,00	383,60	10 t 4-wheel trailer with dropsides	29,70	14,70	44,40	428,00	42,80	42,80	4,028

c) Example: Tractor and trailer activity costs

Example: Assume that a maize farmer has to transport 10 tons of maize from the field to the silo. He is using a 98 kW (4-wheel) drive tractor and a 10 t 4-wheel trailer (with drop sides), with an average speed of 20 km/hr, which means that only one trip will have to be done. The total distance travelled from the field to the silo 10 km. Using the tables above, as a guideline, the following costs can be derived.

Activity	Tonnage transported (tons) (A)	Total distance travelled (km) (B)	Tractor 98 4W; H	4 W Trailer 10 ton (D = 10)	Average speed		Duration		Total costs			
			Total cost R/hr (C)	Total cost R/hr (E)	km/hr (F)	hr/km (G = 1 ÷ F)	km/hr.ton (H = F ÷ D)	hr/km.ton (I = G ÷ D)	R/hr (J = C + E)	R/km (K = J x G)	R/hr.ton (L = J ÷ D)	R/km.ton (M = K ÷ D)
Transport 10 t grain	10,0	10,0	383,60	44,40	20,0	0,05	2,00	0,005	428,00	21,40	42,880	2,14

The total distance travelled	=	10 km	(B)
The total cost per kilometre (R/km)	=	R 21,40	(K)
The total cost of the trip	=	R 214,00	(N = B x K)
Tonnage transported (Yield)	=	10 tons	(A)
Cost per ton (R/t)	=	R 21,40	(O = N ÷ A)
The 10 t maize grain yield was from		2 ha	
	=	5 t/ha	(P)
Cost per hectare	=	R107,00	(O x P)

Other combinations of tractors, vehicles and equipment can be determined using the illustrations above.

It must be noted that the preceding examples do not include the costs of drivers and assistants. The cost of twine is not included in the case of hay making and baling operations.

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The guide has been updated this year by Mr P.A. Lubbe, (Department of Agriculture, Forestry and Fisheries), and Ms C.G. Archer, (KwaZulu-Natal Department of Agriculture and Rural Development).

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1.4 Disclaimer

Although all possible precautions were taken to ensure the correctness of this *Guide to machinery costs* (Guide), the Subdirectorate: Economic Research (national Department Agriculture, Forestry and Fisheries); Directorate: Statistics and Economic Analysis and the Subdirectorate: Agricultural Economics (KwaZulu-Natal Department of Agriculture and Rural Development); and the Directorate: Farmer Development Support—herein referred to as the authors—do not accept responsibility for any incorrect information herein.

Users of the Guide must take into account that some equipment prices were taken from the latest *AGFACTS* publication and they are not actual market prices. Other prices were obtained from dealerships which were prepared to give the authors their prices. These prices will vary between dealerships and regions, and could be affected by the buyer's ability to get equipment at lower prices. The equipment costs are used to calculate most of the fixed costs (Depreciation, Interest and Insurance), as well as the repair and maintenance costs. The Interest rate was that which was applicable when this Guide was compiled. Clearly, this rate will vary over time, and also depend on the buyer's credit rating. Similarly, diesel prices will vary over time, and also depend upon the source, since the diesel price is not fixed like the petrol price. Other costs which can vary are insurance, licences, oil and tyres. If prices change dramatically, or the user's prices are very different to those in the Guide, the user can adjust the costs using the information in the notes at the bottom of the tables. Guidance can be sought from the authors, or from the regional agricultural economists in the various provincial departments.

The authors accept no responsibility for the manner in which readers use the information in the Guide. Neither can they be held accountable if users change the information in the Guide, unless this is done with the consent and knowledge of the authors.

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2. TWO-WHEEL DRIVE TRACTORS

2.1 Low power demand

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
18	79 500	7 950	43 725	5,96	0,77	4,15	10,88	6,73	7,95	34,88	42,83	53,71	49,55	2,52
26	157 813	15 781	86 797	11,84	1,52	8,25	21,60	13,35	15,78	50,38	66,16	87,76	79,51	3,64
28	152 300	15 230	83 765	11,42	1,47	7,96	20,85	12,89	15,23	54,25	69,48	90,33	82,37	3,92
30	164 400	16 440	90 420	12,33	1,58	8,59	22,50	13,91	16,44	58,13	74,57	97,07	88,48	4,20
33	128 500	12 850	70 675	9,64	1,24	6,71	17,59	10,87	12,85	63,94	76,79	94,38	87,67	4,62
34	202 928	20 293	111 610	15,22	1,95	10,60	27,78	17,17	20,29	65,88	86,17	113,95	103,34	4,76
35	183 417	18 342	100 879	13,76	1,77	9,58	25,11	15,52	18,34	67,82	86,16	111,26	101,68	4,90
37	169 600	16 960	93 280	12,72	1,63	8,86	23,21	14,35	16,96	71,69	88,65	111,87	103,00	5,18
38	227 210	22 721	124 966	17,04	2,19	11,87	31,10	19,23	22,72	73,63	96,35	127,45	115,58	5,32
40	241 777	24 178	132 977	18,13	2,33	12,63	33,09	20,46	24,18	77,50	101,68	134,77	122,14	5,60
41	209 300	20 930	115 115	15,70	2,01	10,94	28,65	17,71	20,93	79,44	100,37	129,02	118,08	5,74
44	172 367	17 237	94 802	12,93	1,66	9,01	23,59	14,59	17,24	85,25	102,49	126,08	117,08	6,16
45	232 042	23 204	127 623	17,40	2,23	12,12	31,76	19,64	23,20	87,19	110,40	142,16	130,03	6,30
46	255 476	25 548	140 512	19,16	2,46	13,35	34,97	21,62	25,55	89,13	114,68	149,65	136,30	6,44

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

2. TWO-WHEEL DRIVE TRACTORS (*cont*.)

2.1 Low power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
50	407 604	40 760	224 182	30,57	3,92	21,30	55,79	34,49	40,76	96,88	137,64	193,43	172,13	7,00
53	283 481	28 348	155 914	21,26	2,73	14,81	38,80	23,99	28,35	102,69	131,04	169,84	155,03	7,42
54	421 875	42 188	232 031	31,64	4,06	22,04	57,74	35,70	42,19	104,63	146,82	204,56	182,52	7,56
55	318 564	31 856	175 210	23,89	3,07	16,64	43,60	26,96	31,86	106,57	138,42	182,03	165,38	7,70
57	558 425	55 843	307 134	41,88	5,37	29,18	76,43	47,26	55,84	110,44	166,29	242,72	213,54	7,98
59	450 000	45 000	247 500	33,75	4,33	23,51	61,59	38,08	45,00	114,32	159,32	220,91	197,40	8,26
60	394 362	39 436	216 899	29,58	3,80	20,61	53,98	33,37	39,44	116,26	155,69	209,67	189,07	8,40
61	337 843	33 784	185 813	25,34	3,25	17,65	46,24	28,59	33,78	118,19	151,98	198,22	180,57	8,54
63	376 200	37 620	206 910	28,22	3,62	19,66	51,49	31,84	37,62	122,07	159,69	211,18	191,52	8,82
64	334 950	33 495	184 223	25,12	3,22	17,50	45,85	28,35	33,50	124,01	157,50	203,35	185,85	8,96
65	429 684	42 968	236 326	32,23	4,14	22,45	58,81	36,36	42,97	125,94	168,91	227,73	205,27	9,10
66	654 063	65 406	359 734	49,05	6,30	34,17	89,52	55,35	65,41	127,88	193,29	282,81	248,64	9,24
67	512 500	51 250	281 875	38,44	4,93	26,78	70,15	43,37	51,25	129,82	181,07	251,22	224,44	9,38
68	418 750	41 875	230 313	31,41	4,03	21,88	57,32	35,44	41,88	131,76	173,63	230,95	209,07	9,52
73	638 527	63 853	351 190	47,89	6,15	33,36	87,40	54,04	63,85	141,44	205,30	292,70	259,33	10,22
74	492 232	49 223	270 728	36,92	4,74	25,72	67,37	41,66	49,22	143,38	192,61	259,98	234,26	10,36
83	702 875	70 288	386 581	52,72	6,77	36,73	96,21	59,48	70,29	160,82	231,11	327,31	290,59	11,62

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

2. TWO-WHEEL DRIVE TRACTORS (*cont*.)

2.2 Medium power demand

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
18	79 500	7 950	43 725	5,96	0,77	4,15	10,88	6,73	7,95	39,24	47,19	58,07	53,91	2,84
26	157 813	15 781	86 797	11,84	1,52	8,25	21,60	13,35	15,78	56,67	72,46	94,06	85,81	4,10
28	152 300	15 230	83 765	11,42	1,47	7,96	20,85	12,89	15,23	61,03	76,26	97,11	89,15	4,41
30	164 400	16 440	90 420	12,33	1,58	8,59	22,50	13,91	16,44	65,39	81,83	104,34	95,75	4,73
33	128 500	12 850	70 675	9,64	1,24	6,71	17,59	10,87	12,85	71,93	84,78	102,37	95,66	5,20
34	202 928	20 293	111 610	15,22	1,95	10,60	27,78	17,17	20,29	74,11	94,41	122,18	111,58	5,36
35	183 417	18 342	100 879	13,76	1,77	9,58	25,11	15,52	18,34	76,29	94,63	119,74	110,16	5,51
37	169 600	16 960	93 280	12,72	1,63	8,86	23,21	14,35	16,96	80,65	97,61	120,83	111,97	5,83
38	227 210	22 721	124 966	17,04	2,19	11,87	31,10	19,23	22,72	82,83	105,55	136,65	124,78	5,99
40	241 777	24 178	132 977	18,13	2,33	12,63	33,09	20,46	24,18	87,19	111,37	144,46	131,83	6,30
41	209 300	20 930	115 115	15,70	2,01	10,94	28,65	17,71	20,93	89,37	110,30	138,95	128,01	6,46
44	172 367	17 237	94 802	12,93	1,66	9,01	23,59	14,59	17,24	95,91	113,15	136,74	127,73	6,93
45	232 042	23 204	127 623	17,40	2,23	12,12	31,76	19,64	23,20	98,09	121,30	153,06	140,93	7,09
46	255 476	25 548	140 512	19,16	2,46	13,35	34,97	21,62	25,55	100,27	125,82	160,79	147,44	7,25

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

2. TWO-WHEEL DRIVE TRACTORS (*cont*.)

2.2 Medium power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
50	407 604	40 760	224 182	30,57	3,92	21,30	55,79	34,49	40,76	108,99	149,75	205,54	184,24	7,88
53	283 481	28 348	155 914	21,26	2,73	14,81	38,80	23,99	28,35	115,53	143,88	182,68	167,87	8,35
54	421 875	42 188	232 031	31,64	4,06	22,04	57,74	35,70	42,19	117,71	159,90	217,64	195,60	8,51
55	318 564	31 856	175 210	23,89	3,07	16,64	43,60	26,96	31,86	119,89	151,75	195,35	178,70	8,66
57	558 425	55 843	307 134	41,88	5,37	29,18	76,43	47,26	55,84	124,25	180,09	256,53	227,35	8,98
59	450 000	45 000	247 500	33,75	4,33	23,51	61,59	38,08	45,00	128,61	173,61	235,20	211,69	9,29
60	394 362	39 436	216 899	29,58	3,80	20,61	53,98	33,37	39,44	130,79	170,22	224,20	203,60	9,45
61	337 843	33 784	185 813	25,34	3,25	17,65	46,24	28,59	33,78	132,97	166,75	212,99	195,34	9,61
63	376 200	37 620	206 910	28,22	3,62	19,66	51,49	31,84	37,62	137,33	174,95	226,44	206,78	9,92
64	334 950	33 495	184 223	25,12	3,22	17,50	45,85	28,35	33,50	139,51	173,00	218,85	201,35	10,08
65	429 684	42 968	236 326	32,23	4,14	22,45	58,81	36,36	42,97	141,69	184,66	243,47	221,02	10,24
66	654 063	65 406	359 734	49,05	6,30	34,17	89,52	55,35	65,41	143,87	209,27	298,80	264,62	10,40
67	512 500	51 250	281 875	38,44	4,93	26,78	70,15	43,37	51,25	146,05	197,30	267,45	240,67	10,55
68	418 750	41 875	230 313	31,41	4,03	21,88	57,32	35,44	41,88	148,23	190,10	247,42	225,54	10,71
73	638 527	63 853	351 190	47,89	6,15	33,36	87,40	54,04	63,85	159,13	222,98	310,38	277,01	11,50
74	492 232	49 223	270 728	36,92	4,74	25,72	67,37	41,66	49,22	161,31	210,53	277,90	252,18	11,66
83	702 875	70 288	386 581	52,72	6,77	36,73	96,21	59,48	70,29	180,92	251,21	347,42	310,69	13,07

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

2. TWO-WHEEL DRIVE TRACTORS (*cont*.)

2.3 High power demand

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
18	79 500	7 950	43 725	5,96	0,77	4,15	10,88	6,73	7,95	44,84	52,79	63,67	59,52	3,24
26	157 813	15 781	86 797	11,84	1,52	8,25	21,60	13,35	15,78	64,77	80,55	102,15	93,91	4,68
28	152 300	15 230	83 765	11,42	1,47	7,96	20,85	12,89	15,23	69,75	84,98	105,83	97,87	5,04
30	164 400	16 440	90 420	12,33	1,58	8,59	22,50	13,91	16,44	74,74	91,18	113,68	105,09	5,40
33	128 500	12 850	70 675	9,64	1,24	6,71	17,59	10,87	12,85	82,21	95,06	112,65	105,93	5,94
34	202 928	20 293	111 610	15,22	1,95	10,60	27,78	17,17	20,29	84,70	104,99	132,77	122,17	6,12
35	183 417	18 342	100 879	13,76	1,77	9,58	25,11	15,52	18,34	87,19	105,53	130,64	121,06	6,30
37	169 600	16 960	93 280	12,72	1,63	8,86	23,21	14,35	16,96	92,17	109,13	132,35	123,49	6,66
38	227 210	22 721	124 966	17,04	2,19	11,87	31,10	19,23	22,72	94,67	117,39	148,49	136,61	6,84
40	241 777	24 178	132 977	18,13	2,33	12,63	33,09	20,46	24,18	99,65	123,83	156,92	144,29	7,20
41	209 300	20 930	115 115	15,70	2,01	10,94	28,65	17,71	20,93	102,14	123,07	151,72	140,78	7,38
44	172 367	17 237	94 802	12,93	1,66	9,01	23,59	14,59	17,24	109,61	126,85	150,44	141,44	7,92
45	232 042	23 204	127 623	17,40	2,23	12,12	31,76	19,64	23,20	112,10	135,31	167,07	154,94	8,10
46	255 476	25 548	140 512	19,16	2,46	13,35	34,97	21,62	25,55	114,60	140,14	175,11	161,76	8,28

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

2. TWO-WHEEL DRIVE TRACTORS (*cont*.)

2.3 High power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
50	407 604	40 760	224 182	30,57	3,92	21,30	55,79	34,49	40,76	124,56	165,32	221,11	199,81	9,00
53	283 481	28 348	155 914	21,26	2,73	14,81	38,80	23,99	28,35	132,03	160,38	199,18	184,37	9,54
54	421 875	42 188	232 031	31,64	4,06	22,04	57,74	35,70	42,19	134,52	176,71	234,46	212,41	9,72
55	318 564	31 856	175 210	23,89	3,07	16,64	43,60	26,96	31,86	137,02	168,87	212,48	195,83	9,90
57	558 425	55 843	307 134	41,88	5,37	29,18	76,43	47,26	55,84	142,00	197,84	274,28	245,10	10,26
59	450 000	45 000	247 500	33,75	4,33	23,51	61,59	38,08	45,00	146,98	191,98	253,57	230,06	10,62
60	394 362	39 436	216 899	29,58	3,80	20,61	53,98	33,37	39,44	149,47	188,91	242,89	222,28	10,80
61	337 843	33 784	185 813	25,34	3,25	17,65	46,24	28,59	33,78	151,96	185,75	231,99	214,34	10,98
63	376 200	37 620	206 910	28,22	3,62	19,66	51,49	31,84	37,62	156,95	194,57	246,06	226,40	11,34
64	334 950	33 495	184 223	25,12	3,22	17,50	45,85	28,35	33,50	159,44	192,93	238,78	221,28	11,52
65	429 684	42 968	236 326	32,23	4,14	22,45	58,81	36,36	42,97	161,93	204,90	263,71	241,26	11,70
66	654 063	65 406	359 734	49,05	6,30	34,17	89,52	55,35	65,41	164,42	229,83	319,35	285,18	11,88
67	512 500	51 250	281 875	38,44	4,93	26,78	70,15	43,37	51,25	166,91	218,16	288,31	261,53	12,06
68	418 750	41 875	230 313	31,41	4,03	21,88	57,32	35,44	41,88	169,40	211,28	268,59	246,71	12,24
73	638 527	63 853	351 190	47,89	6,15	33,36	87,40	54,04	63,85	181,86	245,71	333,11	299,75	13,14
74	492 232	49 223	270 728	36,92	4,74	25,72	67,37	41,66	49,22	184,35	233,57	300,95	275,23	13,32
83	702 875	70 288	386 581	52,72	6,77	36,73	96,21	59,48	70,29	206,77	277,06	373,26	336,54	14,94

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS

3.1 Low power demand

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
12	120 625	12 063	66 344	9,05	1,16	6,30	16,51	10,21	12,06	23,25	35,31	51,82	45,52	1,68
16	183 438	18 344	100 891	13,76	1,77	9,58	25,11	15,52	18,34	31,00	49,35	74,45	64,87	2,24
18	83 000	8 300	45 650	6,23	0,80	4,34	11,36	7,02	8,30	34,88	43,18	54,54	50,20	2,52
21	171 456	17 146	94 301	12,86	1,65	8,96	23,47	14,51	17,15	40,69	57,84	81,30	72,34	2,94
23	188 587	18 859	103 723	14,14	1,82	9,85	25,81	15,96	18,86	44,56	63,42	89,24	79,38	3,22
26	222 875	22 288	122 581	16,72	2,15	11,65	30,51	18,86	22,29	50,38	72,67	103,17	91,53	3,64
29	223 813	22 381	123 097	16,79	2,15	11,69	30,63	18,94	22,38	56,19	78,57	109,21	97,51	4,06
31	264 142	26 414	145 278	19,81	2,54	13,80	36,15	22,35	26,41	60,07	86,48	122,63	108,83	4,34
33	154 500	15 450	84 975	11,59	1,49	8,07	21,15	13,07	15,45	63,94	79,39	100,54	92,47	4,62
35	210 000	21 000	115 500	15,75	2,02	10,97	28,74	17,77	21,00	67,82	88,82	117,56	106,59	4,90
37	289 582	28 958	159 270	21,72	2,79	15,13	39,64	24,51	28,96	71,69	100,65	140,29	125,16	5,18
38	346 441	34 644	190 543	25,98	3,33	18,10	47,42	29,32	34,64	73,63	108,27	155,69	137,59	5,32
40	295 000	29 500	162 250	22,13	2,84	15,41	40,38	24,96	29,50	77,50	107,00	147,38	131,97	5,60
41	222 500	22 250	122 375	16,69	2,14	11,63	30,45	18,83	22,25	79,44	101,69	132,15	120,52	5,74
44	188 500	18 850	103 675	14,14	1,81	9,85	25,80	15,95	18,85	85,25	104,10	129,91	120,06	6,16
45	276 903	27 690	152 297	20,77	2,67	14,47	37,90	23,43	27,69	87,19	114,88	152,78	138,32	6,30
46	284 781	28 478	156 630	21,36	2,74	14,88	38,98	24,10	28,48	89,13	117,61	156,59	141,71	6,44
50	275 200	27 520	151 360	20,64	2,65	14,38	37,67	23,29	27,52	96,88	124,40	162,07	147,69	7,00
52	281 326	28 133	154 729	21,10	2,71	14,70	38,51	23,81	28,13	100,76	128,89	167,39	152,70	7,28
53	379 202	37 920	208 561	28,44	3,65	19,81	51,90	32,09	37,92	102,69	140,61	192,52	172,70	7,42

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.1 Low power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
54	468 668	46 867	257 767	35,15	4,51	24,49	64,15	39,66	46,87	104,63	151,50	215,65	191,16	7,56
55	300 874	30 087	165 481	22,57	2,90	15,72	41,18	25,46	30,09	106,57	136,66	177,84	162,12	7,70
56	409 100	40 910	225 005	30,68	3,94	21,38	56,00	34,62	40,91	108,51	149,42	205,41	184,04	7,84
57	363 195	36 320	199 757	27,24	3,50	18,98	49,71	30,74	36,32	110,44	146,76	196,48	177,50	7,98
58	280 167	28 017	154 092	21,01	2,70	14,64	38,35	23,71	28,02	112,38	140,40	178,75	164,11	8,12
59	403 982	40 398	222 190	30,30	3,89	21,11	55,30	34,19	40,40	114,32	154,72	210,01	188,90	8,26
60	339 600	33 960	186 780	25,47	3,27	17,74	46,48	28,74	33,96	116,26	150,22	196,70	178,95	8,40
61	403 981	40 398	222 190	30,30	3,89	21,11	55,29	34,19	40,40	118,19	158,59	213,89	192,78	8,54
63	394 650	39 465	217 058	29,60	3,80	20,62	54,02	33,40	39,47	122,07	161,53	215,55	194,93	8,82
64	505 740	50 574	278 157	37,93	4,87	26,42	69,22	42,80	50,57	124,01	174,58	243,80	217,38	8,96
65	462 126	46 213	254 169	34,66	4,45	24,15	63,25	39,11	46,21	125,94	172,16	235,41	211,26	9,10
66	615 893	61 589	338 741	46,19	5,93	32,18	84,30	52,12	61,59	127,88	189,47	273,77	241,59	9,24
67	494 633	49 463	272 048	37,10	4,76	25,84	67,70	41,86	49,46	129,82	179,28	246,99	221,14	9,38
68	562 083	56 208	309 146	42,16	5,41	29,37	76,94	47,57	56,21	131,76	187,97	264,90	235,53	9,52
70	849 585	84 959	467 272	63,72	8,18	44,39	116,29	71,90	84,96	135,63	220,59	336,88	292,49	9,80
71	521 340	52 134	286 737	39,10	5,02	27,24	71,36	44,12	52,13	137,57	189,70	261,06	233,82	9,94
72	642 840	64 284	353 562	48,21	6,19	33,59	87,99	54,40	64,28	139,51	203,79	291,78	258,19	10,08
73	481 358	48 136	264 747	36,10	4,63	25,15	65,89	40,73	48,14	141,44	189,58	255,47	230,32	10,22
74	743 167	74 317	408 742	55,74	7,15	38,83	101,72	62,89	74,32	143,38	217,70	319,42	280,59	10,36
75	609 350	60 935	335 143	45,70	5,86	31,84	83,40	51,57	60,94	145,32	206,26	289,66	257,82	10,50
76	741 437	74 144	407 790	55,61	7,14	38,74	101,48	62,74	74,14	147,26	221,40	322,89	284,15	10,64
78	845 422	84 542	464 982	63,41	8,14	44,17	115,72	71,54	84,54	151,13	235,68	351,39	307,22	10,92

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.1 Low power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
80	666 681	66 668	366 675	50,00	6,42	34,83	91,25	56,42	66,67	155,01	221,68	312,93	278,09	11,20
81	897 386	89 739	493 562	67,30	8,64	46,89	122,83	75,94	89,74	156,95	246,68	369,51	322,63	11,34
82	631 168	63 117	347 142	47,34	6,07	32,98	86,39	53,41	63,12	158,88	222,00	308,39	275,41	11,48
83	619 392	61 939	340 666	46,45	5,96	32,36	84,78	52,42	61,94	160,82	222,76	307,54	275,18	11,62
85	950 619	95 062	522 840	71,30	9,15	49,67	130,12	80,45	95,06	164,70	259,76	389,87	340,20	11,90
86	815 625	81 563	448 594	61,17	7,85	42,62	111,64	69,02	81,56	166,63	248,20	359,83	317,22	12,04
88	764 073	76 407	420 240	57,31	7,35	39,92	104,58	64,66	76,41	170,51	246,92	351,50	311,58	12,32
89	563 086	56 309	309 697	42,23	5,42	29,42	77,07	47,65	56,31	172,45	228,76	305,83	276,41	12,46
91	832 972	83 297	458 135	62,47	8,02	43,52	114,01	70,49	83,30	176,32	259,62	373,63	330,11	12,74
92	877 451	87 745	482 598	65,81	8,45	45,85	120,10	74,25	87,75	178,26	266,00	386,11	340,26	12,88
93	708 763	70 876	389 819	53,16	6,82	37,03	97,01	59,98	70,88	180,20	251,07	348,08	311,05	13,02
96	862 500	86 250	474 375	64,69	8,30	45,07	118,05	72,99	86,25	186,01	272,26	390,31	345,25	13,44
97	690 414	69 041	379 728	51,78	6,65	36,07	94,50	58,43	69,04	187,95	256,99	351,49	315,41	13,58
98	588 800	58 880	323 840	44,16	5,67	30,76	80,59	49,83	58,88	189,88	248,76	329,36	298,59	13,72
102	1 182 936	118 294	650 615	88,72	11,39	61,81	161,91	100,11	118,29	197,64	315,93	477,84	416,03	14,28
103	981 500	98 150	539 825	73,61	9,45	51,28	134,34	83,06	98,15	199,57	297,72	432,07	380,78	14,42
104	1 015 060	101 506	558 283	76,13	9,77	53,04	138,94	85,90	101,51	201,51	303,02	441,95	388,92	14,56

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.1 Low power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
106	1 211 448	121 145	666 296	90,86	11,66	63,30	165,82	102,52	121,14	205,39	326,53	492,35	429,05	14,84
108	1 316 356	131 636	723 996	98,73	12,67	68,78	180,18	111,40	131,64	209,26	340,90	521,07	452,29	15,12
109	1 066 654	106 665	586 660	80,00	10,27	55,73	146,00	90,27	106,67	211,20	317,86	463,86	408,13	15,26
110	940 987	94 099	517 543	70,57	9,06	49,17	128,80	79,63	94,10	213,14	307,23	436,03	386,87	15,40
111	787 252	78 725	432 989	59,04	7,58	41,13	107,76	66,62	78,73	215,07	293,80	401,55	360,42	15,54
114	1 559 375	155 938	857 656	116,95	15,01	81,48	213,44	131,96	155,94	220,89	376,82	590,26	508,79	15,96
115	1 433 100	143 310	788 205	107,48	13,79	74,88	196,16	121,28	143,31	222,82	366,13	562,29	487,41	16,10
116	704 000	70 400	387 200	52,80	6,78	36,78	96,36	59,58	70,40	224,76	295,16	391,52	354,74	16,24
117	1 104 440	110 444	607 442	82,83	10,63	57,71	151,17	93,46	110,44	226,70	337,14	488,31	430,61	16,38
119	1 936 512	193 651	1 065 082	145,24	18,64	101,18	265,06	163,88	193,65	230,57	424,23	689,29	588,10	16,66
120	1 374 352	137 435	755 894	103,08	13,23	71,81	188,11	116,30	137,44	232,51	369,95	558,06	486,25	16,80
121	1 514 548	151 455	833 001	113,59	14,58	79,14	207,30	128,17	151,45	234,45	385,90	593,21	514,07	16,94
123	933 717	93 372	513 544	70,03	8,99	48,79	127,80	79,02	93,37	238,32	331,70	459,50	410,71	17,22
124	1 432 813	143 281	788 047	107,46	13,79	74,86	196,12	121,25	143,28	240,26	383,54	579,66	504,80	17,36
125	1 088 600	108 860	598 730	81,64	10,48	56,88	149,00	92,12	108,86	242,20	351,06	500,06	443,18	17,50
132	1 186 180	118 618	652 399	88,96	11,42	61,98	162,36	100,38	118,62	255,76	374,38	536,74	474,76	18,48
134	1 632 338	163 234	897 786	122,43	15,71	85,29	223,43	138,14	163,23	259,64	422,87	646,30	561,01	18,76
142	2 136 673	213 667	1 175 170	160,25	20,57	111,64	292,46	180,82	213,67	275,14	488,81	781,26	669,62	19,88
143	1 650 000	165 000	907 500	123,75	15,88	86,21	225,84	139,63	165,00	277,08	442,08	667,92	581,71	20,02
145	1 266 300	126 630	696 465	94,97	12,19	66,16	173,32	107,16	126,63	280,95	407,58	580,91	514,74	20,30
148	1 792 051	179 205	985 628	134,40	17,25	93,63	245,29	151,65	179,21	286,76	465,97	711,26	617,62	20,72
155	1 617 783	161 778	889 781	121,33	15,57	84,53	221,43	136,90	161,78	300,33	462,11	683,54	599,01	21,70
157	1 525 100	152 510	838 805	114,38	14,68	79,69	208,75	129,06	152,51	304,20	456,71	665,46	585,77	21,98

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.1 Low power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
162	1 475 340	147 534	811 437	110,65	14,20	77,09	201,94	124,85	147,53	313,89	461,43	663,36	586,28	22,68
168	1 967 000	196 700	1 081 850	147,53	18,93	102,78	269,23	166,46	196,70	325,52	522,22	791,45	688,67	23,52
169	2 486 891	248 689	1 367 790	186,52	23,94	129,94	340,39	210,45	248,69	327,45	576,14	916,54	786,60	23,66
170	1 069 200	106 920	588 060	80,19	10,29	55,87	146,35	90,48	106,92	329,39	436,31	582,66	526,79	23,80
173	2 729 375	272 938	1 501 156	204,70	26,27	142,61	373,58	230,97	272,94	335,20	608,14	981,73	839,12	24,22
184	1 854 267	185 427	1 019 847	139,07	17,85	96,89	253,80	156,92	185,43	356,52	541,95	795,75	698,86	25,76
189	2 822 500	282 250	1 552 375	211,69	27,17	147,48	386,33	238,85	282,25	366,21	648,46	1 034,79	887,31	26,46
191	2 217 379	221 738	1 219 558	166,30	21,34	115,86	303,50	187,65	221,74	370,08	591,82	895,32	779,47	26,74
193	1 738 832	173 883	956 358	130,41	16,74	90,85	238,00	147,15	173,88	373,96	547,84	785,84	694,99	27,02
206	3 276 368	327 637	1 802 002	245,73	31,54	171,19	448,45	277,26	327,64	399,15	726,78	1 175,24	1 004,05	28,84
208	2 408 624	240 862	1 324 743	180,65	23,18	125,85	329,68	203,83	240,86	403,02	643,88	973,56	847,71	29,12
209	2 305 000	230 500	1 267 750	172,88	22,19	120,44	315,50	195,06	230,50	404,96	635,46	950,96	830,52	29,26
211	3 028 750	302 875	1 665 813	227,16	29,15	158,25	414,56	256,31	302,88	408,83	711,71	1 126,27	968,02	29,54
213	2 498 389	249 839	1 374 114	187,38	24,05	130,54	341,97	211,43	249,84	412,71	662,55	1 004,51	873,97	29,82
216	2 558 600	255 860	1 407 230	191,90	24,63	133,69	350,21	216,52	255,86	418,52	674,38	1 024,59	890,90	30,24
219	2 488 061	248 806	1 368 434	186,60	23,95	130,00	340,55	210,55	248,81	424,33	673,14	1 013,69	883,69	30,66
226	3 135 212	313 521	1 724 366	235,14	30,18	163,81	429,13	265,32	313,52	437,90	751,42	1 180,55	1 016,74	31,64
228	3 389 207	338 921	1 864 064	254,19	32,62	177,09	463,90	286,81	338,92	441,77	780,69	1 244,59	1 067,51	31,92
229	2 406 250	240 625	1 323 438	180,47	23,16	125,73	329,36	203,63	240,63	443,71	684,34	1 013,69	887,96	32,06
235	2 668 200	266 820	1 467 510	200,12	25,68	139,41	365,21	225,80	266,82	455,34	722,16	1 087,37	947,95	32,90
244	3 019 696	301 970	1 660 833	226,48	29,06	157,78	413,32	255,54	301,97	472,77	774,74	1 188,06	1 030,29	34,16
250	2 402 927	240 293	1 321 610	180,22	23,13	125,55	328,90	203,35	240,29	484,40	724,69	1 053,59	928,04	35,00
254	3 141 500	314 150	1 727 825	235,61	30,24	164,14	429,99	265,85	314,15	492,15	806,30	1 236,29	1 072,15	35,56

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.1 Low power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
260	1 544 400	154 440	849 420	115,83	14,86	80,69	211,39	130,69	154,44	503,78	658,22	869,61	788,91	36,40
261	3 734 020	373 402	2 053 711	280,05	35,94	195,10	511,09	315,99	373,40	505,71	879,12	1 390,21	1 195,11	36,54
272	3 765 004	376 500	2 070 752	282,38	36,24	196,72	515,33	318,61	376,50	527,03	903,53	1 418,86	1 222,14	38,08
292	3 905 834	390 583	2 148 209	292,94	37,59	204,08	534,61	330,53	390,58	565,78	956,36	1 490,97	1 286,89	40,88
298	3 333 750	333 375	1 833 563	250,03	32,09	174,19	456,31	282,12	333,38	577,40	910,78	1 367,09	1 192,90	41,72
300	4 283 600	428 360	2 355 980	321,27	41,23	223,82	586,32	362,50	428,36	581,28	1 009,64	1 595,96	1 372,14	42,00
317	1 620 000	162 000	891 000	121,50	15,59	84,65	221,74	137,09	162,00	614,22	776,22	997,96	913,31	44,38
321	3 850 000	385 000	2 117 500	288,75	37,06	201,16	526,97	325,81	385,00	621,97	1 006,97	1 533,94	1 332,78	44,94
327	3 604 765	360 476	1 982 620	270,36	34,70	188,35	493,40	305,05	360,48	633,60	994,07	1 487,47	1 299,12	45,78
336	4 534 375	453 438	2 493 906	340,08	43,64	236,92	620,64	383,72	453,44	651,03	1 104,47	1 725,11	1 488,19	47,04
343	4 089 000	408 900	2 248 950	306,68	39,36	213,65	559,68	346,03	408,90	664,60	1 073,50	1 633,18	1 419,53	48,02
363	3 858 029	385 803	2 121 916	289,35	37,13	201,58	528,07	326,49	385,80	703,35	1 089,15	1 617,22	1 415,64	50,82
373	4 672 550	467 255	2 569 903	350,44	44,97	244,14	639,56	395,41	467,26	722,72	1 189,98	1 829,54	1 585,39	52,22
380	3 570 733	357 073	1 963 903	267,80	34,37	186,57	488,74	302,17	357,07	736,29	1 093,36	1 582,11	1 395,53	53,20
399	4 002 944	400 294	2 201 619	300,22	38,53	209,15	547,90	338,75	400,29	773,10	1 173,40	1 721,30	1 512,15	55,86
410	2 138 600	213 860	1 176 230	160,40	20,58	111,74	292,72	180,98	213,86	794,42	1 008,28	1 301,00	1 189,26	57,40
411	4 838 050	483 805	2 660 928	362,85	46,57	252,79	662,21	409,42	483,81	796,35	1 280,16	1 942,37	1 689,58	57,54
447	5 690 000	569 000	3 129 500	426,75	54,77	297,30	778,82	481,52	569,00	866,11	1 435,11	2 213,93	1 916,62	62,58
448	5 018 600	501 860	2 760 230	376,40	48,30	262,22	686,92	424,70	501,86	868,04	1 369,90	2 056,83	1 794,60	62,72

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.2 Medium power demand

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
12	120 625	12 063	66 344	9,05	1,16	6,30	16,51	10,21	12,06	26,16	38,22	54,73	48,43	1,89
16	183 438	18 344	100 891	13,76	1,77	9,58	25,11	15,52	18,34	34,88	53,22	78,33	68,74	2,52
18	83 000	8 300	45 650	6,23	0,80	4,34	11,36	7,02	8,30	39,24	47,54	58,90	54,56	2,84
21	171 456	17 146	94 301	12,86	1,65	8,96	23,47	14,51	17,15	45,78	62,92	86,39	77,43	3,31
23	188 587	18 859	103 723	14,14	1,82	9,85	25,81	15,96	18,86	50,14	68,99	94,81	84,95	3,62
26	222 875	22 288	122 581	16,72	2,15	11,65	30,51	18,86	22,29	56,67	78,96	109,47	97,82	4,10
29	223 813	22 381	123 097	16,79	2,15	11,69	30,63	18,94	22,38	63,21	85,60	116,23	104,54	4,57
31	264 142	26 414	145 278	19,81	2,54	13,80	36,15	22,35	26,41	67,57	93,99	130,14	116,34	4,88
33	154 500	15 450	84 975	11,59	1,49	8,07	21,15	13,07	15,45	71,93	87,38	108,53	100,46	5,20
35	210 000	21 000	115 500	15,75	2,02	10,97	28,74	17,77	21,00	76,29	97,29	126,04	115,06	5,51
37	289 582	28 958	159 270	21,72	2,79	15,13	39,64	24,51	28,96	80,65	109,61	149,25	134,12	5,83
38	346 441	34 644	190 543	25,98	3,33	18,10	47,42	29,32	34,64	82,83	117,48	164,90	146,79	5,99
40	295 000	29 500	162 250	22,13	2,84	15,41	40,38	24,96	29,50	87,19	116,69	157,07	141,66	6,30
41	222 500	22 250	122 375	16,69	2,14	11,63	30,45	18,83	22,25	89,37	111,62	142,08	130,45	6,46
44	188 500	18 850	103 675	14,14	1,81	9,85	25,80	15,95	18,85	95,91	114,76	140,56	130,71	6,93
45	276 903	27 690	152 297	20,77	2,67	14,47	37,90	23,43	27,69	98,09	125,78	163,68	149,21	7,09
46	284 781	28 478	156 630	21,36	2,74	14,88	38,98	24,10	28,48	100,27	128,75	167,73	152,85	7,25
50	275 200	27 520	151 360	20,64	2,65	14,38	37,67	23,29	27,52	108,99	136,51	174,18	159,80	7,88
52	281 326	28 133	154 729	21,10	2,71	14,70	38,51	23,81	28,13	113,35	141,48	179,99	165,29	8,19
53	379 202	37 920	208 561	28,44	3,65	19,81	51,90	32,09	37,92	115,53	153,45	205,35	185,54	8,35

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.2 Medium power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
54	468 668	46 867	257 767	35,15	4,51	24,49	64,15	39,66	46,87	117,71	164,58	228,72	204,24	8,51
55	300 874	30 087	165 481	22,57	2,90	15,72	41,18	25,46	30,09	119,89	149,98	191,16	175,44	8,66
56	409 100	40 910	225 005	30,68	3,94	21,38	56,00	34,62	40,91	122,07	162,98	218,97	197,60	8,82
57	363 195	36 320	199 757	27,24	3,50	18,98	49,71	30,74	36,32	124,25	160,57	210,28	191,30	8,98
58	280 167	28 017	154 092	21,01	2,70	14,64	38,35	23,71	28,02	126,43	154,45	192,79	178,15	9,14
59	403 982	40 398	222 190	30,30	3,89	21,11	55,30	34,19	40,40	128,61	169,01	224,30	203,19	9,29
60	339 600	33 960	186 780	25,47	3,27	17,74	46,48	28,74	33,96	130,79	164,75	211,23	193,49	9,45
61	403 981	40 398	222 190	30,30	3,89	21,11	55,29	34,19	40,40	132,97	173,37	228,66	207,55	9,61
63	394 650	39 465	217 058	29,60	3,80	20,62	54,02	33,40	39,47	137,33	176,79	230,81	210,19	9,92
64	505 740	50 574	278 157	37,93	4,87	26,42	69,22	42,80	50,57	139,51	190,08	259,30	232,88	10,08
65	462 126	46 213	254 169	34,66	4,45	24,15	63,25	39,11	46,21	141,69	187,90	251,15	227,01	10,24
66	615 893	61 589	338 741	46,19	5,93	32,18	84,30	52,12	61,59	143,87	205,46	289,76	257,58	10,40
67	494 633	49 463	272 048	37,10	4,76	25,84	67,70	41,86	49,46	146,05	195,51	263,21	237,37	10,55
68	562 083	56 208	309 146	42,16	5,41	29,37	76,94	47,57	56,21	148,23	204,43	281,37	252,00	10,71
70	849 585	84 959	467 272	63,72	8,18	44,39	116,29	71,90	84,96	152,59	237,54	353,83	309,44	11,03
71	521 340	52 134	286 737	39,10	5,02	27,24	71,36	44,12	52,13	154,77	206,90	278,26	251,02	11,18
72	642 840	64 284	353 562	48,21	6,19	33,59	87,99	54,40	64,28	156,95	221,23	309,22	275,63	11,34
73	481 358	48 136	264 747	36,10	4,63	25,15	65,89	40,73	48,14	159,13	207,26	273,15	248,00	11,50
74	743 167	74 317	408 742	55,74	7,15	38,83	101,72	62,89	74,32	161,31	235,62	337,34	298,51	11,66
75	609 350	60 935	335 143	45,70	5,86	31,84	83,40	51,57	60,94	163,49	224,42	307,82	275,99	11,81
76	741 437	74 144	407 790	55,61	7,14	38,74	101,48	62,74	74,14	165,66	239,81	341,29	302,55	11,97
78	845 422	84 542	464 982	63,41	8,14	44,17	115,72	71,54	84,54	170,02	254,57	370,28	326,11	12,29

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.2 Medium power demand (*cont*.)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
80	666 681	66 668	366 675	50,00	6,42	34,83	91,25	56,42	66,67	174,38	241,05	332,30	297,47	12,60
81	897 386	89 739	493 562	67,30	8,64	46,89	122,83	75,94	89,74	176,56	266,30	389,13	342,24	12,76
82	631 168	63 117	347 142	47,34	6,07	32,98	86,39	53,41	63,12	178,74	241,86	328,25	295,27	12,92
83	619 392	61 939	340 666	46,45	5,96	32,36	84,78	52,42	61,94	180,92	242,86	327,64	295,28	13,07
85	950 619	95 062	522 840	71,30	9,15	49,67	130,12	80,45	95,06	185,28	280,34	410,46	360,79	13,39
86	815 625	81 563	448 594	61,17	7,85	42,62	111,64	69,02	81,56	187,46	269,03	380,66	338,05	13,55
88	764 073	76 407	420 240	57,31	7,35	39,92	104,58	64,66	76,41	191,82	268,23	372,81	332,89	13,86
89	563 086	56 309	309 697	42,23	5,42	29,42	77,07	47,65	56,31	194,00	250,31	327,38	297,96	14,02
91	832 972	83 297	458 135	62,47	8,02	43,52	114,01	70,49	83,30	198,36	281,66	395,67	352,15	14,33
92	877 451	87 745	482 598	65,81	8,45	45,85	120,10	74,25	87,75	200,54	288,29	408,39	362,54	14,49
93	708 763	70 876	389 819	53,16	6,82	37,03	97,01	59,98	70,88	202,72	273,60	370,61	333,58	14,65
96	862 500	86 250	474 375	64,69	8,30	45,07	118,05	72,99	86,25	209,26	295,51	413,57	368,50	15,12
97	690 414	69 041	379 728	51,78	6,65	36,07	94,50	58,43	69,04	211,44	280,48	374,98	338,91	15,28
98	588 800	58 880	323 840	44,16	5,67	30,76	80,59	49,83	58,88	213,62	272,50	353,09	322,33	15,44
102	1 182 936	118 294	650 615	88,72	11,39	61,81	161,91	100,11	118,29	222,34	340,63	502,55	440,74	16,07
103	981 500	98 150	539 825	73,61	9,45	51,28	134,34	83,06	98,15	224,52	322,67	457,01	405,73	16,22
104	1 015 060	101 506	558 283	76,13	9,77	53,04	138,94	85,90	101,51	226,70	328,21	467,14	414,10	16,38

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.2 Medium power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
106	1 211 448	121 145	666 296	90,86	11,66	63,30	165,82	102,52	121,14	231,06	352,20	518,02	454,72	16,70
108	1 316 356	131 636	723 996	98,73	12,67	68,78	180,18	111,40	131,64	235,42	367,05	547,23	478,45	17,01
109	1 066 654	106 665	586 660	80,00	10,27	55,73	146,00	90,27	106,67	237,60	344,26	490,26	434,53	17,17
110	940 987	94 099	517 543	70,57	9,06	49,17	128,80	79,63	94,10	239,78	333,88	462,67	413,51	17,33
111	787 252	78 725	432 989	59,04	7,58	41,13	107,76	66,62	78,73	241,96	320,68	428,44	387,30	17,48
114	1 559 375	155 938	857 656	116,95	15,01	81,48	213,44	131,96	155,94	248,50	404,43	617,87	536,40	17,96
115	1 433 100	143 310	788 205	107,48	13,79	74,88	196,16	121,28	143,31	250,68	393,99	590,14	515,26	18,11
116	704 000	70 400	387 200	52,80	6,78	36,78	96,36	59,58	70,40	252,86	323,26	419,62	382,83	18,27
117	1 104 440	110 444	607 442	82,83	10,63	57,71	151,17	93,46	110,44	255,04	365,48	516,65	458,94	18,43
119	1 936 512	193 651	1 065 082	145,24	18,64	101,18	265,06	163,88	193,65	259,40	453,05	718,11	616,92	18,74
120	1 374 352	137 435	755 894	103,08	13,23	71,81	188,11	116,30	137,44	261,58	399,01	587,13	515,32	18,90
121	1 514 548	151 455	833 001	113,59	14,58	79,14	207,30	128,17	151,45	263,76	415,21	622,51	543,38	19,06
123	933 717	93 372	513 544	70,03	8,99	48,79	127,80	79,02	93,37	268,12	361,49	489,29	440,50	19,37
124	1 432 813	143 281	788 047	107,46	13,79	74,86	196,12	121,25	143,28	270,30	413,58	609,69	534,83	19,53
125	1 088 600	108 860	598 730	81,64	10,48	56,88	149,00	92,12	108,86	272,48	381,33	530,34	473,46	19,69
132	1 186 180	118 618	652 399	88,96	11,42	61,98	162,36	100,38	118,62	287,73	406,35	568,71	506,73	20,79
134	1 632 338	163 234	897 786	122,43	15,71	85,29	223,43	138,14	163,23	292,09	455,33	678,75	593,46	21,11
142	2 136 673	213 667	1 175 170	160,25	20,57	111,64	292,46	180,82	213,67	309,53	523,20	815,66	704,01	22,37
143	1 650 000	165 000	907 500	123,75	15,88	86,21	225,84	139,63	165,00	311,71	476,71	702,56	616,34	22,52
145	1 266 300	126 630	696 465	94,97	12,19	66,16	173,32	107,16	126,63	316,07	442,70	616,03	549,86	22,84
148	1 792 051	179 205	985 628	134,40	17,25	93,63	245,29	151,65	179,21	322,61	501,82	747,10	653,47	23,31
155	1 617 783	161 778	889 781	121,33	15,57	84,53	221,43	136,90	161,78	337,87	499,65	721,08	636,55	24,41
157	1 525 100	152 510	838 805	114,38	14,68	79,69	208,75	129,06	152,51	342,23	494,74	703,49	623,80	24,73

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.2 Medium power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
162	1 475 340	147 534	811 437	110,65	14,20	77,09	201,94	124,85	147,53	353,13	500,66	702,60	625,51	25,52
168	1 967 000	196 700	1 081 850	147,53	18,93	102,78	269,23	166,46	196,70	366,21	562,91	832,14	729,36	26,46
169	2 486 891	248 689	1 367 790	186,52	23,94	129,94	340,39	210,45	248,69	368,39	617,08	957,47	827,53	26,62
170	1 069 200	106 920	588 060	80,19	10,29	55,87	146,35	90,48	106,92	370,57	477,49	623,83	567,97	26,78
173	2 729 375	272 938	1 501 156	204,70	26,27	142,61	373,58	230,97	272,94	377,11	650,04	1 023,63	881,02	27,25
184	1 854 267	185 427	1 019 847	139,07	17,85	96,89	253,80	156,92	185,43	401,08	586,51	840,31	743,43	28,98
189	2 822 500	282 250	1 552 375	211,69	27,17	147,48	386,33	238,85	282,25	411,98	694,23	1 080,56	933,09	29,77
191	2 217 379	221 738	1 219 558	166,30	21,34	115,86	303,50	187,65	221,74	416,34	638,08	941,58	825,73	30,08
193	1 738 832	173 883	956 358	130,41	16,74	90,85	238,00	147,15	173,88	420,70	594,58	832,59	741,73	30,40
206	3 276 368	327 637	1 802 002	245,73	31,54	171,19	448,45	277,26	327,64	449,04	776,68	1 225,13	1 053,94	32,45
208	2 408 624	240 862	1 324 743	180,65	23,18	125,85	329,68	203,83	240,86	453,40	694,26	1 023,94	898,09	32,76
209	2 305 000	230 500	1 267 750	172,88	22,19	120,44	315,50	195,06	230,50	455,58	686,08	1 001,58	881,14	32,92
211	3 028 750	302 875	1 665 813	227,16	29,15	158,25	414,56	256,31	302,88	459,94	762,81	1 177,37	1 019,12	33,23
213	2 498 389	249 839	1 374 114	187,38	24,05	130,54	341,97	211,43	249,84	464,30	714,14	1 056,10	925,56	33,55
216	2 558 600	255 860	1 407 230	191,90	24,63	133,69	350,21	216,52	255,86	470,84	726,70	1 076,91	943,22	34,02
219	2 488 061	248 806	1 368 434	186,60	23,95	130,00	340,55	210,55	248,81	477,38	726,18	1 066,74	936,73	34,49
226	3 135 212	313 521	1 724 366	235,14	30,18	163,81	429,13	265,32	313,52	492,63	806,16	1 235,29	1 071,47	35,60
228	3 389 207	338 921	1 864 064	254,19	32,62	177,09	463,90	286,81	338,92	496,99	835,92	1 299,81	1 122,73	35,91
229	2 406 250	240 625	1 323 438	180,47	23,16	125,73	329,36	203,63	240,63	499,17	739,80	1 069,15	943,43	36,07
235	2 668 200	266 820	1 467 510	200,12	25,68	139,41	365,21	225,80	266,82	512,25	779,07	1 144,28	1 004,87	37,01
244	3 019 696	301 970	1 660 833	226,48	29,06	157,78	413,32	255,54	301,97	531,87	833,84	1 247,16	1 089,38	38,43
250	2 402 927	240 293	1 321 610	180,22	23,13	125,55	328,90	203,35	240,29	544,95	785,24	1 114,14	988,59	39,38
254	3 141 500	314 150	1 727 825	235,61	30,24	164,14	429,99	265,85	314,15	553,67	867,82	1 297,81	1 133,67	40,01

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.2 Medium power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
260	1 544 400	154 440	849 420	115,83	14,86	80,69	211,39	130,69	154,44	566,75	721,19	932,58	851,88	40,95
261	3 734 020	373 402	2 053 711	280,05	35,94	195,10	511,09	315,99	373,40	568,93	942,33	1 453,42	1 258,32	41,11
272	3 765 004	376 500	2 070 752	282,38	36,24	196,72	515,33	318,61	376,50	592,91	969,41	1 484,74	1 288,02	42,84
292	3 905 834	390 583	2 148 209	292,94	37,59	204,08	534,61	330,53	390,58	636,50	1 027,09	1 561,70	1 357,62	45,99
298	3 333 750	333 375	1 833 563	250,03	32,09	174,19	456,31	282,12	333,38	649,58	982,96	1 439,26	1 265,07	46,94
300	4 283 600	428 360	2 355 980	321,27	41,23	223,82	586,32	362,50	428,36	653,94	1 082,30	1 668,62	1 444,80	47,25
317	1 620 000	162 000	891 000	121,50	15,59	84,65	221,74	137,09	162,00	691,00	853,00	1 074,73	990,09	49,93
321	3 850 000	385 000	2 117 500	288,75	37,06	201,16	526,97	325,81	385,00	699,72	1 084,72	1 611,68	1 410,52	50,56
327	3 604 765	360 476	1 982 620	270,36	34,70	188,35	493,40	305,05	360,48	712,79	1 073,27	1 566,67	1 378,32	51,50
336	4 534 375	453 438	2 493 906	340,08	43,64	236,92	620,64	383,72	453,44	732,41	1 185,85	1 806,49	1 569,57	52,92
343	4 089 000	408 900	2 248 950	306,68	39,36	213,65	559,68	346,03	408,90	747,67	1 156,57	1 716,25	1 502,60	54,02
363	3 858 029	385 803	2 121 916	289,35	37,13	201,58	528,07	326,49	385,80	791,27	1 177,07	1 705,14	1 503,56	57,17
373	4 672 550	467 255	2 569 903	350,44	44,97	244,14	639,56	395,41	467,26	813,07	1 280,32	1 919,88	1 675,73	58,75
380	3 570 733	357 073	1 963 903	267,80	34,37	186,57	488,74	302,17	357,07	828,32	1 185,40	1 674,14	1 487,57	59,85
399	4 002 944	400 294	2 201 619	300,22	38,53	209,15	547,90	338,75	400,29	869,74	1 270,03	1 817,94	1 608,78	62,84
410	2 138 600	213 860	1 176 230	160,40	20,58	111,74	292,72	180,98	213,86	893,72	1 107,58	1 400,30	1 288,56	64,58
411	4 838 050	483 805	2 660 928	362,85	46,57	252,79	662,21	409,42	483,81	895,90	1 379,70	2 041,91	1 789,12	64,73
447	5 690 000	569 000	3 129 500	426,75	54,77	297,30	778,82	481,52	569,00	974,37	1 543,37	2 322,19	2 024,89	70,40
448	5 018 600	501 860	2 760 230	376,40	48,30	262,22	686,92	424,70	501,86	976,55	1 478,41	2 165,33	1 903,11	70,56

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.3 High power demand

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
12	120 625	12 063	66 344	9,05	1,16	6,30	16,51	10,21	12,06	29,89	41,96	58,47	52,16	2,16
16	183 438	18 344	100 891	13,76	1,77	9,58	25,11	15,52	18,34	39,86	58,20	83,31	73,73	2,88
18	83 000	8 300	45 650	6,23	0,80	4,34	11,36	7,02	8,30	44,84	53,14	64,50	60,17	3,24
21	171 456	17 146	94 301	12,86	1,65	8,96	23,47	14,51	17,15	52,32	69,46	92,93	83,97	3,78
23	188 587	18 859	103 723	14,14	1,82	9,85	25,81	15,96	18,86	57,30	76,16	101,97	92,12	4,14
26	222 875	22 288	122 581	16,72	2,15	11,65	30,51	18,86	22,29	64,77	87,06	117,56	105,92	4,68
29	223 813	22 381	123 097	16,79	2,15	11,69	30,63	18,94	22,38	72,24	94,63	125,26	113,57	5,22
31	264 142	26 414	145 278	19,81	2,54	13,80	36,15	22,35	26,41	77,23	103,64	139,80	125,99	5,58
33	154 500	15 450	84 975	11,59	1,49	8,07	21,15	13,07	15,45	82,21	97,66	118,81	110,73	5,94
35	210 000	21 000	115 500	15,75	2,02	10,97	28,74	17,77	21,00	87,19	108,19	136,94	125,96	6,30
37	289 582	28 958	159 270	21,72	2,79	15,13	39,64	24,51	28,96	92,17	121,13	160,77	145,64	6,66
38	346 441	34 644	190 543	25,98	3,33	18,10	47,42	29,32	34,64	94,67	129,31	176,73	158,63	6,84
40	295 000	29 500	162 250	22,13	2,84	15,41	40,38	24,96	29,50	99,65	129,15	169,53	154,11	7,20
41	222 500	22 250	122 375	16,69	2,14	11,63	30,45	18,83	22,25	102,14	124,39	154,84	143,22	7,38
44	188 500	18 850	103 675	14,14	1,81	9,85	25,80	15,95	18,85	109,61	128,46	154,26	144,41	7,92
45	276 903	27 690	152 297	20,77	2,67	14,47	37,90	23,43	27,69	112,10	139,79	177,70	163,23	8,10
46	284 781	28 478	156 630	21,36	2,74	14,88	38,98	24,10	28,48	114,60	143,07	182,05	167,17	8,28
50	275 200	27 520	151 360	20,64	2,65	14,38	37,67	23,29	27,52	124,56	152,08	189,75	175,37	9,00
52	281 326	28 133	154 729	21,10	2,71	14,70	38,51	23,81	28,13	129,54	157,68	196,18	181,48	9,36
53	379 202	37 920	208 561	28,44	3,65	19,81	51,90	32,09	37,92	132,03	169,95	221,86	202,04	9,54

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.3 High power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
54	468 668	46 867	257 767	35,15	4,51	24,49	64,15	39,66	46,87	134,52	181,39	245,54	221,05	9,72
55	300 874	30 087	165 481	22,57	2,90	15,72	41,18	25,46	30,09	137,02	167,10	208,29	192,56	9,90
56	409 100	40 910	225 005	30,68	3,94	21,38	56,00	34,62	40,91	139,51	180,42	236,41	215,04	10,08
57	363 195	36 320	199 757	27,24	3,50	18,98	49,71	30,74	36,32	142,00	178,32	228,03	209,05	10,26
58	280 167	28 017	154 092	21,01	2,70	14,64	38,35	23,71	28,02	144,49	172,51	210,85	196,22	10,44
59	403 982	40 398	222 190	30,30	3,89	21,11	55,30	34,19	40,40	146,98	187,38	242,67	221,57	10,62
60	339 600	33 960	186 780	25,47	3,27	17,74	46,48	28,74	33,96	149,47	183,43	229,91	212,17	10,80
61	403 981	40 398	222 190	30,30	3,89	21,11	55,29	34,19	40,40	151,96	192,36	247,66	226,55	10,98
63	394 650	39 465	217 058	29,60	3,80	20,62	54,02	33,40	39,47	156,95	196,41	250,43	229,81	11,34
64	505 740	50 574	278 157	37,93	4,87	26,42	69,22	42,80	50,57	159,44	210,01	279,23	252,81	11,52
65	462 126	46 213	254 169	34,66	4,45	24,15	63,25	39,11	46,21	161,93	208,14	271,39	247,25	11,70
66	615 893	61 589	338 741	46,19	5,93	32,18	84,30	52,12	61,59	164,42	226,01	310,31	278,13	11,88
67	494 633	49 463	272 048	37,10	4,76	25,84	67,70	41,86	49,46	166,91	216,37	284,08	258,23	12,06
68	562 083	56 208	309 146	42,16	5,41	29,37	76,94	47,57	56,21	169,40	225,61	302,55	273,18	12,24
70	849 585	84 959	467 272	63,72	8,18	44,39	116,29	71,90	84,96	174,38	259,34	375,63	331,24	12,60
71	521 340	52 134	286 737	39,10	5,02	27,24	71,36	44,12	52,13	176,88	229,01	300,37	273,13	12,78
72	642 840	64 284	353 562	48,21	6,19	33,59	87,99	54,40	64,28	179,37	243,65	331,64	298,05	12,96
73	481 358	48 136	264 747	36,10	4,63	25,15	65,89	40,73	48,14	181,86	229,99	295,88	270,73	13,14
74	743 167	74 317	408 742	55,74	7,15	38,83	101,72	62,89	74,32	184,35	258,67	360,39	321,56	13,32
75	609 350	60 935	335 143	45,70	5,86	31,84	83,40	51,57	60,94	186,84	247,78	331,18	299,34	13,50
76	741 437	74 144	407 790	55,61	7,14	38,74	101,48	62,74	74,14	189,33	263,47	364,96	326,22	13,68
78	845 422	84 542	464 982	63,41	8,14	44,17	115,72	71,54	84,54	194,31	278,86	394,57	350,40	14,04

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.3 High power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
80	666 681	66 668	366 675	50,00	6,42	34,83	91,25	56,42	66,67	199,30	265,96	357,22	322,38	14,40
81	897 386	89 739	493 562	67,30	8,64	46,89	122,83	75,94	89,74	201,79	291,53	414,36	367,47	14,58
82	631 168	63 117	347 142	47,34	6,07	32,98	86,39	53,41	63,12	204,28	267,40	353,79	320,81	14,76
83	619 392	61 939	340 666	46,45	5,96	32,36	84,78	52,42	61,94	206,77	268,71	353,49	321,12	14,94
85	950 619	95 062	522 840	71,30	9,15	49,67	130,12	80,45	95,06	211,75	306,81	436,93	387,26	15,30
86	815 625	81 563	448 594	61,17	7,85	42,62	111,64	69,02	81,56	214,24	295,81	407,44	364,83	15,48
88	764 073	76 407	420 240	57,31	7,35	39,92	104,58	64,66	76,41	219,23	295,63	400,22	360,29	15,84
89	563 086	56 309	309 697	42,23	5,42	29,42	77,07	47,65	56,31	221,72	278,03	355,10	325,68	16,02
91	832 972	83 297	458 135	62,47	8,02	43,52	114,01	70,49	83,30	226,70	310,00	424,01	380,49	16,38
92	877 451	87 745	482 598	65,81	8,45	45,85	120,10	74,25	87,75	229,19	316,94	437,04	391,19	16,56
93	708 763	70 876	389 819	53,16	6,82	37,03	97,01	59,98	70,88	231,68	302,56	399,57	362,54	16,74
96	862 500	86 250	474 375	64,69	8,30	45,07	118,05	72,99	86,25	239,16	325,41	443,46	398,39	17,28
97	690 414	69 041	379 728	51,78	6,65	36,07	94,50	58,43	69,04	241,65	310,69	405,19	369,11	17,46
98	588 800	58 880	323 840	44,16	5,67	30,76	80,59	49,83	58,88	244,14	303,02	383,61	352,84	17,64
102	1 182 936	118 294	650 615	88,72	11,39	61,81	161,91	100,11	118,29	254,10	372,40	534,31	472,50	18,36
103	981 500	98 150	539 825	73,61	9,45	51,28	134,34	83,06	98,15	256,59	354,74	489,09	437,80	18,54
104	1 015 060	101 506	558 283	76,13	9,77	53,04	138,94	85,90	101,51	259,08	360,59	499,53	446,49	18,72

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.3 High power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
106	1 211 448	121 145	666 296	90,86	11,66	63,30	165,82	102,52	121,14	264,07	385,21	551,03	487,73	19,08
108	1 316 356	131 636	723 996	98,73	12,67	68,78	180,18	111,40	131,64	269,05	400,69	580,86	512,08	19,44
109	1 066 654	106 665	586 660	80,00	10,27	55,73	146,00	90,27	106,67	271,54	378,21	524,20	468,47	19,62
110	940 987	94 099	517 543	70,57	9,06	49,17	128,80	79,63	94,10	274,03	368,13	496,93	447,76	19,80
111	787 252	78 725	432 989	59,04	7,58	41,13	107,76	66,62	78,73	276,52	355,25	463,00	421,87	19,98
114	1 559 375	155 938	857 656	116,95	15,01	81,48	213,44	131,96	155,94	284,00	439,93	653,37	571,90	20,52
115	1 433 100	143 310	788 205	107,48	13,79	74,88	196,16	121,28	143,31	286,49	429,80	625,95	551,07	20,70
116	704 000	70 400	387 200	52,80	6,78	36,78	96,36	59,58	70,40	288,98	359,38	455,74	418,96	20,88
117	1 104 440	110 444	607 442	82,83	10,63	57,71	151,17	93,46	110,44	291,47	401,91	553,08	495,38	21,06
119	1 936 512	193 651	1 065 082	145,24	18,64	101,18	265,06	163,88	193,65	296,45	490,10	755,16	653,98	21,42
120	1 374 352	137 435	755 894	103,08	13,23	71,81	188,11	116,30	137,44	298,94	436,38	624,49	552,68	21,60
121	1 514 548	151 455	833 001	113,59	14,58	79,14	207,30	128,17	151,45	301,44	452,89	660,19	581,06	21,78
123	933 717	93 372	513 544	70,03	8,99	48,79	127,80	79,02	93,37	306,42	399,79	527,59	478,81	22,14
124	1 432 813	143 281	788 047	107,46	13,79	74,86	196,12	121,25	143,28	308,91	452,19	648,31	573,44	22,32
125	1 088 600	108 860	598 730	81,64	10,48	56,88	149,00	92,12	108,86	311,40	420,26	569,26	512,38	22,50
132	1 186 180	118 618	652 399	88,96	11,42	61,98	162,36	100,38	118,62	328,84	447,46	609,81	547,84	23,76
134	1 632 338	163 234	897 786	122,43	15,71	85,29	223,43	138,14	163,23	333,82	497,05	720,48	635,19	24,12
142	2 136 673	213 667	1 175 170	160,25	20,57	111,64	292,46	180,82	213,67	353,75	567,42	859,87	748,23	25,56
143	1 650 000	165 000	907 500	123,75	15,88	86,21	225,84	139,63	165,00	356,24	521,24	747,09	660,87	25,74
145	1 266 300	126 630	696 465	94,97	12,19	66,16	173,32	107,16	126,63	361,22	487,85	661,18	595,01	26,10
148	1 792 051	179 205	985 628	134,40	17,25	93,63	245,29	151,65	179,21	368,70	547,90	793,19	699,56	26,64
155	1 617 783	161 778	889 781	121,33	15,57	84,53	221,43	136,90	161,78	386,14	547,91	769,35	684,82	27,90
157	1 525 100	152 510	838 805	114,38	14,68	79,69	208,75	129,06	152,51	391,12	543,63	752,38	672,69	28,26

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.3 High power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
162	1 475 340	147 534	811 437	110,65	14,20	77,09	201,94	124,85	147,53	403,57	551,11	753,05	675,96	29,16
168	1 967 000	196 700	1 081 850	147,53	18,93	102,78	269,23	166,46	196,70	418,52	615,22	884,45	781,68	30,24
169	2 486 891	248 689	1 367 790	186,52	23,94	129,94	340,39	210,45	248,69	421,01	669,70	1 010,10	880,16	30,42
170	1 069 200	106 920	588 060	80,19	10,29	55,87	146,35	90,48	106,92	423,50	530,42	676,77	620,91	30,60
173	2 729 375	272 938	1 501 156	204,70	26,27	142,61	373,58	230,97	272,94	430,98	703,92	1 077,50	934,89	31,14
184	1 854 267	185 427	1 019 847	139,07	17,85	96,89	253,80	156,92	185,43	458,38	643,81	897,61	800,72	33,12
189	2 822 500	282 250	1 552 375	211,69	27,17	147,48	386,33	238,85	282,25	470,84	753,09	1 139,42	991,94	34,02
191	2 217 379	221 738	1 219 558	166,30	21,34	115,86	303,50	187,65	221,74	475,82	697,56	1 001,06	885,20	34,38
193	1 738 832	173 883	956 358	130,41	16,74	90,85	238,00	147,15	173,88	480,80	654,68	892,69	801,83	34,74
206	3 276 368	327 637	1 802 002	245,73	31,54	171,19	448,45	277,26	327,64	513,19	840,82	1 289,28	1 118,09	37,08
208	2 408 624	240 862	1 324 743	180,65	23,18	125,85	329,68	203,83	240,86	518,17	759,03	1 088,71	962,86	37,44
209	2 305 000	230 500	1 267 750	172,88	22,19	120,44	315,50	195,06	230,50	520,66	751,16	1 066,66	946,22	37,62
211	3 028 750	302 875	1 665 813	227,16	29,15	158,25	414,56	256,31	302,88	525,64	828,52	1 243,08	1 084,83	37,98
213	2 498 389	249 839	1 374 114	187,38	24,05	130,54	341,97	211,43	249,84	530,63	780,46	1 122,43	991,89	38,34
216	2 558 600	255 860	1 407 230	191,90	24,63	133,69	350,21	216,52	255,86	538,10	793,96	1 144,17	1 010,48	38,88
219	2 488 061	248 806	1 368 434	186,60	23,95	130,00	340,55	210,55	248,81	545,57	794,38	1 134,93	1 004,93	39,42
226	3 135 212	313 521	1 724 366	235,14	30,18	163,81	429,13	265,32	313,52	563,01	876,53	1 305,66	1 141,85	40,68
228	3 389 207	338 921	1 864 064	254,19	32,62	177,09	463,90	286,81	338,92	567,99	906,91	1 370,81	1 193,73	41,04
229	2 406 250	240 625	1 323 438	180,47	23,16	125,73	329,36	203,63	240,63	570,48	811,11	1 140,47	1 014,74	41,22
235	2 668 200	266 820	1 467 510	200,12	25,68	139,41	365,21	225,80	266,82	585,43	852,25	1 217,46	1 078,05	42,30
244	3 019 696	301 970	1 660 833	226,48	29,06	157,78	413,32	255,54	301,97	607,85	909,82	1 323,14	1 165,36	43,92
250	2 402 927	240 293	1 321 610	180,22	23,13	125,55	328,90	203,35	240,29	622,80	863,09	1 191,99	1 066,44	45,00
254	3 141 500	314 150	1 727 825	235,61	30,24	164,14	429,99	265,85	314,15	632,76	946,91	1 376,91	1 212,76	45,72

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

3. FOUR-WHEEL DRIVE TRACTORS (*cont*.)

3.3 High power demand (*cont* .)

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
260	1 544 400	154 440	849 420	115,83	14,86	80,69	211,39	130,69	154,44	647,71	802,15	1 013,54	932,85	46,80
261	3 734 020	373 402	2 053 711	280,05	35,94	195,10	511,09	315,99	373,40	650,20	1 023,61	1 534,70	1 339,60	46,98
272	3 765 004	376 500	2 070 752	282,38	36,24	196,72	515,33	318,61	376,50	677,61	1 054,11	1 569,44	1 372,72	48,96
292	3 905 834	390 583	2 148 209	292,94	37,59	204,08	534,61	330,53	390,58	727,43	1 118,01	1 652,62	1 448,55	52,56
298	3 333 750	333 375	1 833 563	250,03	32,09	174,19	456,31	282,12	333,38	742,38	1 075,75	1 532,06	1 357,87	53,64
300	4 283 600	428 360	2 355 980	321,27	41,23	223,82	586,32	362,50	428,36	747,36	1 175,72	1 762,04	1 538,22	54,00
317	1 620 000	162 000	891 000	121,50	15,59	84,65	221,74	137,09	162,00	789,71	951,71	1 173,45	1 088,80	57,06
321	3 850 000	385 000	2 117 500	288,75	37,06	201,16	526,97	325,81	385,00	799,68	1 184,68	1 711,64	1 510,48	57,78
327	3 604 765	360 476	1 982 620	270,36	34,70	188,35	493,40	305,05	360,48	814,62	1 175,10	1 668,50	1 480,15	58,86
336	4 534 375	453 438	2 493 906	340,08	43,64	236,92	620,64	383,72	453,44	837,04	1 290,48	1 911,12	1 674,20	60,48
343	4 089 000	408 900	2 248 950	306,68	39,36	213,65	559,68	346,03	408,90	854,48	1 263,38	1 823,06	1 609,41	61,74
363	3 858 029	385 803	2 121 916	289,35	37,13	201,58	528,07	326,49	385,80	904,31	1 290,11	1 818,18	1 616,59	65,34
373	4 672 550	467 255	2 569 903	350,44	44,97	244,14	639,56	395,41	467,26	929,22	1 396,47	2 036,03	1 791,89	67,14
380	3 570 733	357 073	1 963 903	267,80	34,37	186,57	488,74	302,17	357,07	946,66	1 303,73	1 792,47	1 605,90	68,40
399	4 002 944	400 294	2 201 619	300,22	38,53	209,15	547,90	338,75	400,29	993,99	1 394,28	1 942,19	1 733,03	71,82
410	2 138 600	213 860	1 176 230	160,40	20,58	111,74	292,72	180,98	213,86	1 021,39	1 235,25	1 527,97	1 416,23	73,80
411	4 838 050	483 805	2 660 928	362,85	46,57	252,79	662,21	409,42	483,81	1 023,88	1 507,69	2 169,90	1 917,11	73,98
447	5 690 000	569 000	3 129 500	426,75	54,77	297,30	778,82	481,52	569,00	1 113,57	1 682,57	2 461,39	2 164,08	80,46
448	5 018 600	501 860	2 760 230	376,40	48,30	262,22	686,92	424,70	501,86	1 116,06	1 617,92	2 304,84	2 042,62	80,64

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

4. TWO-WHEEL DRIVE ORCHARD TRACTORS

4.1 Low power demand

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
43	275 200	27 520	151 360	20,64	2,65	14,38	37,67	23,29	27,52	83,32	110,84	148,50	134,13	6,02
48	311 680	31 168	171 424	23,38	3,00	16,29	42,66	26,38	31,17	93,00	124,17	166,83	150,55	6,72
51	410 625	41 063	225 844	30,80	3,95	21,46	56,20	34,75	41,06	98,82	139,88	196,08	174,63	7,14
53	421 875	42 188	232 031	31,64	4,06	22,04	57,74	35,70	42,19	102,69	144,88	202,62	180,58	7,42
57	558 425	55 843	307 134	41,88	5,37	29,18	76,43	47,26	55,84	110,44	166,29	242,72	213,54	7,98
59	445 000	44 500	244 750	33,38	4,28	23,25	60,91	37,66	44,50	114,32	158,82	219,73	196,48	8,26
60	279 533	27 953	153 743	20,97	2,69	14,61	38,26	23,66	27,95	116,26	144,21	182,47	167,86	8,40
61	423 762	42 376	233 069	31,78	4,08	22,14	58,00	35,86	42,38	118,19	160,57	218,57	196,43	8,54
65	654 063	65 406	359 734	49,05	6,30	34,17	89,52	55,35	65,41	125,94	191,35	280,88	246,70	9,10

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

4. TWO-WHEEL DRIVE ORCHARD TRACTORS (*cont*.)

4.2 Medium power demand

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
43	275 200	27 520	151 360	20,64	2,65	14,38	37,67	23,29	27,52	93,73	121,25	158,92	144,54	6,77
48	311 680	31 168	171 424	23,38	3,00	16,29	42,66	26,38	31,17	104,63	135,80	178,46	162,17	7,56
51	410 625	41 063	225 844	30,80	3,95	21,46	56,20	34,75	41,06	111,17	152,23	208,44	186,98	8,03
53	421 875	42 188	232 031	31,64	4,06	22,04	57,74	35,70	42,19	115,53	157,72	215,46	193,42	8,35
57	558 425	55 843	307 134	41,88	5,37	29,18	76,43	47,26	55,84	124,25	180,09	256,53	227,35	8,98
59	445 000	44 500	244 750	33,38	4,28	23,25	60,91	37,66	44,50	128,61	173,11	234,02	210,77	9,29
60	279 533	27 953	153 743	20,97	2,69	14,61	38,26	23,66	27,95	130,79	158,74	197,00	182,40	9,45
61	423 762	42 376	233 069	31,78	4,08	22,14	58,00	35,86	42,38	132,97	175,34	233,35	211,20	9,61
65	654 063	65 406	359 734	49,05	6,30	34,17	89,52	55,35	65,41	141,69	207,09	296,62	262,44	10,24

4.3 High power demand

43	275 200	27 520	151 360	20,64	2,65	14,38	37,67	23,29	27,52	107,12	134,64	172,31	157,93	7,74
48	311 680	31 168	171 424	23,38	3,00	16,29	42,66	26,38	31,17	119,58	150,75	193,41	177,12	8,64
51	410 625	41 063	225 844	30,80	3,95	21,46	56,20	34,75	41,06	127,05	168,11	224,32	202,86	9,18
53	421 875	42 188	232 031	31,64	4,06	22,04	57,74	35,70	42,19	132,03	174,22	231,97	209,92	9,54
57	558 425	55 843	307 134	41,88	5,37	29,18	76,43	47,26	55,84	142,00	197,84	274,28	245,10	10,26
59	445 000	44 500	244 750	33,38	4,28	23,25	60,91	37,66	44,50	146,98	191,48	252,39	229,14	10,62
60	279 533	27 953	153 743	20,97	2,69	14,61	38,26	23,66	27,95	149,47	177,43	215,69	201,08	10,80
61	423 762	42 376	233 069	31,78	4,08	22,14	58,00	35,86	42,38	151,96	194,34	252,34	230,20	10,98
65	654 063	65 406	359 734	49,05	6,30	34,17	89,52	55,35	65,41	161,93	227,33	316,86	282,68	11,70

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

5. FOUR-WHEEL DRIVE ORCHARD TRACTORS

5.1 Low power demand

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
37	255 000	25 500	140 250	19,13	2,45	13,32	34,90	21,58	25,50	71,69	97,19	132,09	118,77	5,18
44	392 536	39 254	215 895	29,44	3,78	20,51	53,73	33,22	39,25	85,25	124,51	178,24	157,73	6,16
48	445 620	44 562	245 091	33,42	4,29	23,28	60,99	37,71	44,56	93,00	137,57	198,56	175,28	6,72
51	443 750	44 375	244 063	33,28	4,27	23,19	60,74	37,55	44,38	98,82	143,19	203,93	180,74	7,14
52	512 500	51 250	281 875	38,44	4,93	26,78	70,15	43,37	51,25	100,76	152,01	222,15	195,38	7,28
53	430 188	43 019	236 603	32,26	4,14	22,48	58,88	36,40	43,02	102,69	145,71	204,59	182,12	7,42
57	524 950	52 495	288 723	39,37	5,05	27,43	71,85	44,42	52,50	110,44	162,94	234,79	207,36	7,98
59	491 250	49 125	270 188	36,84	4,73	25,67	67,24	41,57	49,13	114,32	163,44	230,68	205,02	8,26
60	511 740	51 174	281 457	38,38	4,93	26,74	70,04	43,31	51,17	116,26	167,43	237,47	210,74	8,40
61	480 675	48 068	264 371	36,05	4,63	25,12	65,79	40,68	48,07	118,19	166,26	232,05	206,94	8,54
63	524 402	52 440	288 421	39,33	5,05	27,40	71,78	44,38	52,44	122,07	174,51	246,29	218,89	8,82
64	443 563	44 356	243 959	33,27	4,27	23,18	60,71	37,54	44,36	124,01	168,36	229,08	205,90	8,96
65	684 375	68 438	376 406	51,33	6,59	35,76	93,67	57,92	68,44	125,94	194,38	288,06	252,30	9,10
68	504 000	50 400	277 200	37,80	4,85	26,33	68,99	42,65	50,40	131,76	182,16	251,14	224,81	9,52

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

5. FOUR-WHEEL DRIVE ORCHARD TRACTORS (*cont*.)

5.2 Medium power demand

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
37	255 000	25 500	140 250	19,13	2,45	13,32	34,90	21,58	25,50	80,65	106,15	141,06	127,73	5,83
44	392 536	39 254	215 895	29,44	3,78	20,51	53,73	33,22	39,25	95,91	135,16	188,89	168,38	6,93
48	445 620	44 562	245 091	33,42	4,29	23,28	60,99	37,71	44,56	104,63	149,19	210,19	186,90	7,56
51	443 750	44 375	244 063	33,28	4,27	23,19	60,74	37,55	44,38	111,17	155,54	216,28	193,10	8,03
52	512 500	51 250	281 875	38,44	4,93	26,78	70,15	43,37	51,25	113,35	164,60	234,75	207,97	8,19
53	430 188	43 019	236 603	32,26	4,14	22,48	58,88	36,40	43,02	115,53	158,55	217,43	194,95	8,35
57	524 950	52 495	288 723	39,37	5,05	27,43	71,85	44,42	52,50	124,25	176,74	248,60	221,17	8,98
59	491 250	49 125	270 188	36,84	4,73	25,67	67,24	41,57	49,13	128,61	177,73	244,97	219,31	9,29
60	511 740	51 174	281 457	38,38	4,93	26,74	70,04	43,31	51,17	130,79	181,96	252,01	225,27	9,45
61	480 675	48 068	264 371	36,05	4,63	25,12	65,79	40,68	48,07	132,97	181,04	246,83	221,71	9,61
63	524 402	52 440	288 421	39,33	5,05	27,40	71,78	44,38	52,44	137,33	189,77	261,55	234,15	9,92
64	443 563	44 356	243 959	33,27	4,27	23,18	60,71	37,54	44,36	139,51	183,86	244,58	221,40	10,08
65	684 375	68 438	376 406	51,33	6,59	35,76	93,67	57,92	68,44	141,69	210,12	303,80	268,04	10,24
68	504 000	50 400	277 200	37,80	4,85	26,33	68,99	42,65	50,40	148,23	198,63	267,61	241,28	10,71

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour

5. FOUR-WHEEL DRIVE ORCHARD TRACTORS (*cont.*)

5.3 High power demand

Tractor power (kW)	Purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Licence and insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)	Fuel usage (ℓ/hr)
37	255 000	25 500	140 250	19,13	2,45	13,32	34,90	21,58	25,50	92,17	117,67	152,58	139,25	6,66
44	392 536	39 254	215 895	29,44	3,78	20,51	53,73	33,22	39,25	109,61	148,87	202,59	182,08	7,92
48	445 620	44 562	245 091	33,42	4,29	23,28	60,99	37,71	44,56	119,58	164,14	225,13	201,85	8,64
51	443 750	44 375	244 063	33,28	4,27	23,19	60,74	37,55	44,38	127,05	171,43	232,16	208,98	9,18
52	512 500	51 250	281 875	38,44	4,93	26,78	70,15	43,37	51,25	129,54	180,79	250,94	224,16	9,36
53	430 188	43 019	236 603	32,26	4,14	22,48	58,88	36,40	43,02	132,03	175,05	233,93	211,46	9,54
57	524 950	52 495	288 723	39,37	5,05	27,43	71,85	44,42	52,50	142,00	194,49	266,35	238,92	10,26
59	491 250	49 125	270 188	36,84	4,73	25,67	67,24	41,57	49,13	146,98	196,11	263,35	237,68	10,62
60	511 740	51 174	281 457	38,38	4,93	26,74	70,04	43,31	51,17	149,47	200,65	270,69	243,95	10,80
61	480 675	48 068	264 371	36,05	4,63	25,12	65,79	40,68	48,07	151,96	200,03	265,82	240,71	10,98
63	524 402	52 440	288 421	39,33	5,05	27,40	71,78	44,38	52,44	156,95	209,39	281,16	253,76	11,34
64	443 563	44 356	243 959	33,27	4,27	23,18	60,71	37,54	44,36	159,44	203,79	264,51	241,33	11,52
65	684 375	68 438	376 406	51,33	6,59	35,76	93,67	57,92	68,44	161,93	230,37	324,04	288,28	11,70
68	504 000	50 400	277 200	37,80	4,85	26,33	68,99	42,65	50,40	169,40	219,80	288,79	262,45	12,24

Notes

1 Life period 12 000 hours
2 Average annual usage 1 000 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Insurance and licence cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,50% of average investment/hours per annum
8 Repairs and maintenance cost per hour 120% of purchase price/life period in hours
9 Fuel price R13,84 per litre (as at May 2014)
10 Fuel consumption 35% of Kilowatts used
11 Litres used per kilowatt hour 0,40 litre/Kw hour
12 Where two prices are listed for tractors with the same kW rating, the higher price is for a tractor with a cab

6. TILLAGE EQUIPMENT

6.1 Rippers

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
6.1.1 Medium duty—straight shank															
1 Shank—straight shank	6 325	3 000	300	633	3 479	1,90	0,17	1,10	3,17	2,07	40,00	0,84	0,84	4,02	2,91
3 Shank—straight shank	15 500	3 000	300	1 550	8 525	4,65	0,43	2,70	7,78	5,08	40,00	2,07	2,07	9,84	7,14
5 Shank—straight shank	25 450	3 000	300	2 545	13 998	7,64	0,70	4,43	12,77	8,33	40,00	3,39	3,39	16,16	11,73
7 Shank—straight shank	33 750	3 000	300	3 375	18 563	10,13	0,93	5,88	16,93	11,05	40,00	4,50	4,50	21,43	15,55
1 Shank—curved shank	10 250	3 000	300	1 025	5 638	3,08	0,28	1,79	5,14	3,36	40,00	1,37	1,37	6,51	4,72
3 Shank—curved shank	21 150	3 000	300	2 115	11 633	6,35	0,58	3,68	10,61	6,93	40,00	2,82	2,82	13,43	9,75
5 Shank—curved shank	30 600	3 000	300	3 060	16 830	9,18	0,84	5,33	15,35	10,02	40,00	4,08	4,08	19,43	14,10
7 Shank—curved shank	36 850	3 000	300	3 685	20 268	11,06	1,01	6,42	18,49	12,07	40,00	4,91	4,91	23,40	16,98
6.1.2 Medium duty—1 050 mm hanger, V frame															
1 Straight tine	11 450	3 000	300	1 145	6 298	3,44	0,31	1,99	5,74	3,75	40,00	1,53	1,53	7,27	5,28
2 Straight tine	22 200	3 000	300	2 220	12 210	6,66	0,61	3,87	11,14	7,27	40,00	2,96	2,96	14,10	10,23
3 Straight tine	27 300	3 000	300	2 730	15 015	8,19	0,75	4,75	13,70	8,94	40,00	3,64	3,64	17,34	12,58
1 Curved tine	16 750	3 000	300	1 675	9 213	5,03	0,46	2,92	8,40	5,49	40,00	2,23	2,23	10,64	7,72
3 Curved tine	30 550	3 000	300	3 055	16 803	9,17	0,84	5,32	15,33	10,01	40,00	4,07	4,07	19,40	14,08
5 Curved tine	37 000	3 000	300	3 700	20 350	11,10	1,02	6,44	18,56	12,12	40,00	4,93	4,93	23,50	17,05
6.1.3 Sugar cane ripper—720 mm hanger with cutting blades															
2 Tine ripper	55 100	3 000	300	5 510	30 305	16,53	1,52	9,60	27,64	18,05	40,00	7,35	7,35	34,99	25,39
2 Tine ripper with 900 ℓ fertiliser pan	79 250	3 000	300	7 925	43 588	23,78	2,18	13,80	39,76	25,95	40,00	10,57	10,57	50,32	36,52
6.1.4 Heavy duty															
3 Shank	76 152	3 000	300	7 615	41 884	22,85	2,09	13,26	38,20	24,94	40,00	10,15	10,15	48,36	35,09
5 Shank	73 265	3 000	300	7 327	40 296	21,98	2,01	12,76	36,75	23,99	40,00	9,77	9,77	46,52	33,76
7 Shank	99 284	3 000	300	9 928	54 606	29,79	2,73	17,29	49,81	32,52	40,00	13,24	13,24	63,05	45,75
9 Shank	169 553	3 000	300	16 955	93 254	50,87	4,66	29,53	85,06	55,53	40,00	22,61	22,61	107,67	78,14
11 Shank	156 871	3 000	300	15 687	86 279	47,06	4,31	27,32	78,70	51,38	40,00	20,92	20,92	99,61	72,29
6.1.5 Auto reset—leaf-spring type															
5 Tine – 2,0m	83 775	3 000	300	8 378	46 076	25,13	2,30	14,59	42,03	27,44	40,00	11,17	11,17	53,20	38,61
7 Tine – 2,5m	111 950	3 000	300	11 195	61 573	33,59	3,08	19,50	56,16	36,66	40,00	14,93	14,93	71,09	51,59
9 Tine – 3,0m	144 000	3 000	300	14 400	79 200	43,20	3,96	25,08	72,24	47,16	40,00	19,20	19,20	91,44	66,36

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

6. TILLAGE EQUIPMENT (*cont.*)

6.2 Ploughs

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
6.2.1 Mounted mouldboard ploughs—shear-bolt protection															
2 furrow	12 300	2 500	250	1 230	6 765	4,43	0,41	2,57	7,40	4,83	110,00	5,41	5,41	12,82	10,25
3 furrow 14"	16 925	2 500	250	1 693	9 309	6,09	0,56	3,54	10,19	6,65	110,00	7,45	7,45	17,64	14,10
3 furrow 16"	23 525	2 500	250	2 353	12 939	8,47	0,78	4,92	14,16	9,25	110,00	10,35	10,35	24,51	19,60
3 furrow 18"	32 750	2 500	250	3 275	18 013	11,79	1,08	6,84	19,72	12,87	110,00	14,41	14,41	34,13	27,28
Single furrow extension	9 550	2 500	250	955	5 253	3,44	0,32	2,00	5,75	3,75	110,00	4,20	4,20	9,95	7,96
2 furrow extension with wheel	20 200	2 500	250	2 020	11 110	7,27	0,67	4,22	12,16	7,94	110,00	8,89	8,89	21,05	16,83
6.2.2 Mounted reversible mouldboard ploughs—hydraulic beam															
2 furrow	63 550	2 500	250	6 355	34 953	22,88	2,10	13,28	38,26	24,98	110,00	27,96	27,96	66,22	52,94
3 furrow	81 400	2 500	250	8 140	44 770	29,30	2,69	17,01	49,00	31,99	110,00	35,82	35,82	84,82	67,81
6.2.3 Mouldboard ploughs with hydraulic, spring or other plough protection															
6.2.3.1 MOUNTED, SEMI-MOUNTED OR TRAILED															
3 furrow	32 750	2 500	250	3 275	18 013	11,79	1,08	6,84	19,72	12,87	110,00	14,41	14,41	34,13	27,28
4 furrow	35 000	2 500	250	3 500	19 250	12,60	1,16	7,32	21,07	13,76	110,00	15,40	15,40	36,47	29,16
5 furrow	43 900	2 500	250	4 390	24 145	15,80	1,45	9,18	26,43	17,25	110,00	19,32	19,32	45,74	36,57
6 furrow	93 000	2 500	250	9 300	51 150	33,48	3,07	19,44	55,99	36,55	110,00	40,92	40,92	96,91	77,47
7 furrow	112 100	2 500	250	11 210	61 655	40,36	3,70	23,43	67,48	44,06	110,00	49,32	49,32	116,81	93,38
8 furrow	123 050	2 500	250	12 305	67 678	44,30	4,06	25,72	74,08	48,36	110,00	54,14	54,14	128,22	102,50
6.2.4 Disc ploughs															
2 furrow	19 500	2 500	250	1 950	10 725	7,02	0,64	4,08	11,74	7,66	110,00	8,58	8,58	20,32	16,24
3 furrow	26 425	2 500	250	2 643	14 534	9,51	0,87	5,52	15,91	10,39	110,00	11,63	11,63	27,53	22,01
4 furrow	33 700	2 500	250	3 370	18 535	12,13	1,11	7,04	20,29	13,24	110,00	14,83	14,83	35,12	28,07
5 furrow	43 900	2 500	250	4 390	24 145	15,80	1,45	9,18	26,43	17,25	110,00	19,32	19,32	45,74	36,57

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

6. TILLAGE EQUIPMENT (*cont*.)

6.2 Ploughs (*cont*.)

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
6.2.5 Chisel ploughs—spring-tine															
5 Shank	20 500	2 500	250	2 050	11 275	7,38	0,68	4,28	12,34	8,06	50,00	4,10	4,10	16,44	12,16
7 Shank	25 000	2 500	250	2 500	13 750	9,00	0,83	5,23	15,05	9,83	50,00	5,00	5,00	20,05	14,83
6.2.6 Bulldog ploughs															
6.2.6.1 MEDIUM DUTY—RUBBER RESET MECHANISM															
7 Tine 1,8m – 2,4m	46 950	2 500	250	4 695	25 823	16,90	1,55	9,81	28,26	18,45	50,00	9,39	9,39	37,65	27,84
9 Tine 2,4m – 3,2m	60 350	2 500	250	6 035	33 193	21,73	1,99	12,61	36,33	23,72	50,00	12,07	12,07	48,40	35,79
11 Tine 3,0m – 4,0m	73 750	2 500	250	7 375	40 563	26,55	2,43	15,41	44,40	28,98	50,00	14,75	14,75	59,15	43,73
13 Tine 3,6m – 4,8m	87 100	2 500	250	8 710	47 905	31,36	2,87	18,20	52,43	34,23	50,00	17,42	17,42	69,85	51,65
6.2.6.2 HEAVY DUTY—RUBBER RESET MECHANISM															
9 Tine 2,4m – 3,2m	68 400	2 500	250	6 840	37 620	24,62	2,26	14,30	41,18	26,88	50,00	13,68	13,68	54,86	40,56
11 Tine 3,0m – 4,0m	83 600	2 500	250	8 360	45 980	30,10	2,76	17,47	50,33	32,85	50,00	16,72	16,72	67,05	49,57
13 Tine 3,6m – 4,8m	99 800	2 500	250	9 980	54 890	35,93	3,29	20,86	60,08	39,22	50,00	19,96	19,96	80,04	59,18
15 Tine 4,2m – 5,6m	113 800	2 500	250	11 380	62 590	40,97	3,76	23,78	68,51	44,72	50,00	22,76	22,76	91,27	67,48
19 Tine 5,4m – 7,2m	145 100	2 500	250	14 510	79 805	52,24	4,79	30,33	87,35	57,02	50,00	29,02	29,02	116,37	86,04

6.3 Disc harrows

6.3.1 Offset disc light															
1,1 m 10 x 20" disc	13 650	2 500	250	1 365	7 508	4,91	0,45	2,85	8,22	5,36	60,00	3,28	3,28	11,49	8,64
1,35 m 12 x 20" disc	15 700	2 500	250	1 570	8 635	5,65	0,52	3,28	9,45	6,17	60,00	3,77	3,77	13,22	9,94
1,6 m 14 x 20" disc	18 900	2 500	250	1 890	10 395	6,80	0,62	3,95	11,38	7,43	60,00	4,54	4,54	15,91	11,96
1,85 m 16 x 20" disc	22 200	2 500	250	2 220	12 210	7,99	0,73	4,64	13,36	8,72	60,00	5,33	5,33	18,69	14,05
6.3.2 Offset with heavy duty bearings—medium duty															
1,1 m cutting width 10 x 22"	14 900	2 500	250	1 490	8 195	5,36	0,49	3,11	8,97	5,86	60,00	3,58	3,58	12,55	9,43
1,35 m cutting width 12 x 22"	18 175	2 500	250	1 818	9 996	6,54	0,60	3,80	10,94	7,14	60,00	4,36	4,36	15,30	11,50
1,60 m cutting width 14 x 22"	20 800	2 500	250	2 080	11 440	7,49	0,69	4,35	12,52	8,17	60,00	4,99	4,99	17,51	13,17
1,85 m cutting width 16 x 22"	24 475	2 500	250	2 448	13 461	8,81	0,81	5,12	14,73	9,62	60,00	5,87	5,87	20,61	15,49
2,10 m cutting width 18 x 22"	28 675	2 500	250	2 868	15 771	10,32	0,95	5,99	17,26	11,27	60,00	6,88	6,88	24,14	18,15
1,35 m cutting width 12 x 22" – 485 kg	24 600	2 500	250	2 460	13 530	8,86	0,81	5,14	14,81	9,67	60,00	5,90	5,90	20,71	15,57
1,60 m cutting width 14 x 22" – 520 kg	28 800	2 500	250	2 880	15 840	10,37	0,95	6,02	17,34	11,32	60,00	6,91	6,91	24,25	18,23
1,85 m cutting width 16 x 22" – 535 kg	32 900	2 500	250	3 290	18 095	11,84	1,09	6,88	19,81	12,93	60,00	7,90	7,90	27,70	20,83
2,09 m cutting width 18 x 22" – 580 kg	36 950	2 500	250	3 695	20 323	13,30	1,22	7,72	22,24	14,52	60,00	8,87	8,87	31,11	23,39
2,32 m cutting width 20 x 22" – 770 kg	42 450	2 500	250	4 245	23 348	15,28	1,40	8,87	25,55	16,68	60,00	10,19	10,19	35,74	26,87
2,75 m cutting width 24 x 22" – 920 kg	49 200	2 500	250	4 920	27 060	17,71	1,62	10,28	29,62	19,34	60,00	11,81	11,81	41,43	31,14
6.3.3 Miggie hydraulic offset—medium duty															
2,09 m cutting width 18 x 26" disc	54 000	2 500	250	5 400	29 700	19,44	1,78	11,29	32,51	21,22	60,00	12,96	12,96	45,47	34,18
2,75 m cutting width 24 x 26" disc	58 700	2 500	250	5 870	32 285	21,13	1,94	12,27	35,34	23,07	60,00	14,09	14,09	49,43	37,16

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

6. TILLAGE EQUIPMENT (*cont.*)

6.3 Disc harrows (*cont .*)

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
6.3.4 Hydraulic offset 24" (85 kg/disc)—heavy duty															
2,09 m cutting width 18 x 24" disc	107 300	2 500	250	10 730	59 015	38,63	3,54	22,43	64,59	42,17	60,00	25,75	25,75	90,35	67,92
2,32 m cutting width 20 x 24" disc	116 200	2 500	250	11 620	63 910	41,83	3,83	24,29	69,95	45,67	60,00	27,89	27,89	97,84	73,55
2,75 m cutting width 14 x 24" disc	123 200	2 500	250	12 320	67 760	44,35	4,07	25,75	74,17	48,42	60,00	29,57	29,57	103,73	77,99
3,00 m cutting width 26 x 24" disc	115 100	2 500	250	11 510	63 305	41,44	3,80	24,06	69,29	45,23	60,00	27,62	27,62	96,91	72,86
3,20 m cutting width 28 x 24" disc	159 375	2 500	250	15 938	87 656	57,38	5,26	33,31	95,94	62,63	60,00	38,25	38,25	134,19	100,88
3,50 m cutting width 30 x 24" disc	147 800	2 500	250	14 780	81 290	53,21	4,88	30,89	88,98	58,09	60,00	35,47	35,47	124,45	93,56
3.80 m cutting width 34 x 24" disc	161 025	2 500	250	16 103	88 564	57,97	5,31	33,65	96,94	63,28	60,00	38,65	38,65	135,58	101,93
6.3.5 Hydraulic offset 24" (95 kg/disc)—heavy duty															
2,35 m cutting width 18 x 26" disc	114 075	2 500	250	11 408	62 741	41,07	3,76	23,84	68,67	44,83	60,00	27,38	27,38	96,05	72,21
2,60 m cutting width 20 x 26" disc	123 875	2 500	250	12 388	68 131	44,60	4,09	25,89	74,57	48,68	60,00	29,73	29,73	104,30	78,41
3,10 m cutting width 24 x 26" disc	131 525	2 500	250	13 153	72 339	47,35	4,34	27,49	79,18	51,69	60,00	31,57	31,57	110,74	83,26
3,40 m cutting width 26 x 26" disc	134 600	2 500	250	13 460	74 030	48,46	4,44	28,13	81,03	52,90	60,00	32,30	32,30	113,33	85,20
3,65 m cutting width 28 x 26" disc	160 375	2 500	250	16 038	88 206	57,74	5,29	33,52	96,55	63,03	60,00	38,49	38,49	135,04	101,52
3,90 m cutting width 30 x 26" disc	171 750	2 500	250	17 175	94 463	61,83	5,67	35,90	103,39	67,50	60,00	41,22	41,22	144,61	108,72
4,45 m cutting width 34 x 26" disc	204 500	2 500	250	20 450	112 475	73,62	6,75	42,74	123,11	80,37	60,00	49,08	49,08	172,19	129,45
6.3.6 Hydraulic offset 26" (125 kg/disc)—extra heavy duty—T-REX range															
5,70 m cutting width 40 x 26"	276 450	2 500	250	27 645	152 048	99,52	9,12	57,78	166,42	108,64	60,00	66,35	66,35	232,77	174,99
6,00 m cutting width 42 x 26"	249 400	2 500	250	24 940	137 170	89,78	8,23	52,12	150,14	98,01	60,00	59,86	59,86	209,99	157,87
6,30 m cutting width 44 x 26"	293 450	2 500	250	29 345	161 398	105,64	9,68	61,33	176,66	115,33	60,00	70,43	70,43	247,08	185,75
6.3.7 Hydraulic offset for orchards and vineyards															
1,60 m cutting width 14 x 22" disc	56 150	2 500	250	5 615	30 883	20,21	1,85	11,74	33,80	22,07	60,00	13,48	13,48	47,28	35,54
1,85 m cutting width 16 x 22" disc	58 100	2 500	250	5 810	31 955	20,92	1,92	12,14	34,98	22,83	60,00	13,94	13,94	48,92	36,78
2,09 m cutting width 18 x 22" disc	63 100	2 500	250	6 310	34 705	22,72	2,08	13,19	37,99	24,80	60,00	15,14	15,14	53,13	39,94
6.3.8 Trailed offset with wheels															
1,8 m width	110 935	2 500	250	11 093	61 014	39,94	3,66	23,19	66,78	43,60	60,00	26,62	26,62	93,41	70,22
2,3 m width	160 098	2 500	250	16 010	88 054	57,64	5,28	33,46	96,38	62,92	60,00	38,42	38,42	134,80	101,34
2,75 m width	172 707	2 500	250	17 271	94 989	62,17	5,70	36,10	103,97	67,87	60,00	41,45	41,45	145,42	109,32
3,05 m width	206 331	2 500	250	20 633	113 482	74,28	6,81	43,12	124,21	81,09	60,00	49,52	49,52	173,73	130,61
3,67 m width	337 645	2 500	250	33 764	185 705	121,55	11,14	70,57	203,26	132,69	60,00	81,03	81,03	284,30	213,73
4,27 m width	223 192	2 500	250	22 319	122 756	80,35	7,37	46,65	134,36	87,71	60,00	53,57	53,57	187,93	141,28
4,88 m width	189 519	2 500	250	18 952	104 236	68,23	6,25	39,61	114,09	74,48	60,00	45,48	45,48	159,58	119,97
5,49 m width	199 326	2 500	250	19 933	109 629	71,76	6,58	41,66	119,99	78,34	60,00	47,84	47,84	167,83	126,17
6,08 m width	204 930	2 500	250	20 493	112 712	73,77	6,76	42,83	123,37	80,54	60,00	49,18	49,18	172,55	129,72

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

6. TILLAGE EQUIPMENT (*cont*.)

6.3 Disc harrows (*cont* .)

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
6.3.9 Trailed offset with wheels—oil bath															
2,75 m width	421 069	2 500	250	42 107	231 588	151,58	13,90	88,00	253,48	165,48	60,00	101,06	101,06	354,54	266,54
3,05 m width	456 221	2 500	250	45 622	250 922	164,24	15,06	95,35	274,65	179,30	60,00	109,49	109,49	384,14	288,79
3,67 m width	257 884	2 500	250	25 788	141 836	92,84	8,51	53,90	155,25	101,35	60,00	61,89	61,89	217,14	163,24
4,27 m width	296 942	2 500	250	29 694	163 318	106,90	9,80	62,06	178,76	116,70	60,00	71,27	71,27	250,03	187,96
4,88 m width	736 934	2 500	250	73 693	405 314	265,30	24,32	154,02	443,63	289,62	60,00	176,86	176,86	620,50	466,48
5,49 m width	411 725	2 500	250	41 172	226 449	148,22	13,59	86,05	247,86	161,81	60,00	98,81	98,81	346,67	260,62
6,08 m width	835 132	2 500	250	83 513	459 323	300,65	27,56	174,54	502,75	328,21	60,00	200,43	200,43	703,18	528,64
6.3.10 Tandem discs															
2,1 m cutting width – 16 x 20" disc	26 650	2 500	250	2 665	14 658	9,59	0,88	5,57	16,04	10,47	60,00	6,40	6,40	22,44	16,87
2,4 m cutting width – 20 x 20" disc	31 000	2 500	250	3 100	17 050	11,16	1,02	6,48	18,66	12,18	60,00	7,44	7,44	26,10	19,62
2,7 m cutting width – 24 x 20" disc	34 200	2 500	250	3 420	18 810	12,31	1,13	7,15	20,59	13,44	60,00	8,21	8,21	28,80	21,65
3,3 m cutting width – 28 x 20" disc	38 400	2 500	250	3 840	21 120	13,82	1,27	8,03	23,12	15,09	60,00	9,22	9,22	32,33	24,31
2,1 m 16 discs	27 893	2 500	250	2 789	15 341	10,04	0,92	5,83	16,79	10,96	60,00	6,69	6,69	23,49	17,66
2,4 m 20 discs	32 478	2 500	250	3 248	17 863	11,69	1,07	6,79	19,55	12,76	60,00	7,79	7,79	27,35	20,56
2,7 m 24 discs	35 790	2 500	250	3 579	19 684	12,88	1,18	7,48	21,55	14,07	60,00	8,59	8,59	30,13	22,65
3,3 m 28 discs	40 183	2 500	250	4 018	22 101	14,47	1,33	8,40	24,19	15,79	60,00	9,64	9,64	33,83	25,44
6.3.11 Half tandem discs															
1,35 m cutting width – 6 x 20" disc	10 800	2 500	250	1 080	5 940	3,89	0,36	2,26	6,50	4,24	60,00	2,59	2,59	9,09	6,84
2,10 m cutting width – 8 x 20" disc	14 750	2 500	250	1 475	8 113	5,31	0,49	3,08	8,88	5,80	60,00	3,54	3,54	12,42	9,34
2,40 m cutting width – 10 x 20" disc	18 400	2 500	250	1 840	10 120	6,62	0,61	3,85	11,08	7,23	60,00	4,42	4,42	15,49	11,65
6.3.12 Oneway tandem discs															
1,52 m cutting width – 6 x 26" disc	21 950	2 500	250	2 195	12 073	7,90	0,72	4,59	13,21	8,63	60,00	5,27	5,27	18,48	13,89
1,83 m cutting width – 7 x 26" disc	26 000	2 500	250	2 600	14 300	9,36	0,86	5,43	15,65	10,22	60,00	6,24	6,24	21,89	16,46
2,44 m cutting width – 9 x 26" disc	29 600	2 500	250	2 960	16 280	10,66	0,98	6,19	17,82	11,63	60,00	7,10	7,10	24,92	18,74
6.3.13 Semimounted and trailed one-way															
2,3 m 10 discs	42 285	2 500	250	4 229	23 257	15,22	1,40	8,84	25,46	16,62	60,00	10,15	10,15	35,60	26,77
2,7 m 12 discs	45 724	2 500	250	4 572	25 148	16,46	1,51	9,56	27,53	17,97	60,00	10,97	10,97	38,50	28,94
3,2 m 14 discs	47 762	2 500	250	4 776	26 269	17,19	1,58	9,98	28,75	18,77	60,00	11,46	11,46	40,22	30,23

6.4 Rotary harrows

6.4.1 Medium duty															
0,97 m	75 800	2 500	250	7 580	41 690	27,29	2,50	15,84	45,63	29,79	100,00	30,32	30,32	75,95	60,11
1,27 m	83 000	2 500	250	8 300	45 650	29,88	2,74	17,35	49,97	32,62	100,00	33,20	33,20	83,17	65,82
1,52 m	86 200	2 500	250	8 620	47 410	31,03	2,84	18,02	51,89	33,88	100,00	34,48	34,48	86,37	68,36
1,88 m	89 700	2 500	250	8 970	49 335	32,29	2,96	18,75	54,00	35,25	100,00	35,88	35,88	89,88	71,13
6.4.2 Heavy duty															
1,52 m	117 800	2 500	250	11 780	64790	42,41	3,89	24,62	70,92	46,30	100,00	47,12	47,12	118,04	93,42
1,80 m	123 100	2 500	250	12 310	67705	44,32	4,06	25,73	74,11	48,38	100,00	49,24	49,24	123,35	97,62
2,05 m	143 400	2 500	250	14 340	78870	51,62	4,73	29,97	86,33	56,36	100,00	57,36	57,36	143,69	113,72
2,30 m	149 300	2 500	250	14 930	82115	53,75	4,93	31,20	89,88	58,67	100,00	59,72	59,72	149,60	118,39

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

6. TILLAGE EQUIPMENT (*cont.*)

6.5 Power harrows

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
1,5 m	140 100	2 500	250	14 010	77 055	50,44	4,62	29,28	84,34	55,06	40,00	22,42	22,42	106,76	77,48

6.6 Ridgers

6.6.1 Disc ridgers															
1 row	15 102	2 000	150	1 510	8 306	6,80	0,83	5,26	12,89	7,63	75,00	5,66	5,66	18,55	13,29
2 row	28 809	2 000	150	2 881	15 845	12,96	1,58	10,04	24,58	14,55	75,00	10,80	10,80	35,39	25,35
3 row	39 847	2 000	150	3 985	21 916	17,93	2,19	13,88	34,00	20,12	75,00	14,94	14,94	48,95	35,07
4 disc row ridger with roller	43 950	2 000	150	4 395	24 173	19,78	2,42	15,31	37,50	22,19	75,00	16,48	16,48	53,99	38,68
6.6.2 Disc ridger conversion—single row 24" with:															
Grader blade and roller	28 350	2 000	150	2 835	15 593	12,76	1,56	9,88	24,19	14,32	75,00	10,63	10,63	34,82	24,95
Grader blade	26 900	2 000	150	2 690	14 795	12,11	1,48	9,37	22,95	13,58	75,00	10,09	10,09	33,04	23,67
Fertiliser unit	26 950	2 000	150	2 695	14 823	12,13	1,48	9,39	23,00	13,61	75,00	10,11	10,11	33,10	23,72
Veggi lifter	17 300	2 000	150	1 730	9 515	7,79	0,95	6,03	14,76	8,74	75,00	6,49	6,49	21,25	15,22
Ripper/ridger combination	22 850	2 000	150	2 285	12 568	10,28	1,26	7,96	19,50	11,54	75,00	8,57	8,57	28,07	20,11
Ridger/ripper combination with fertiliser bin	32 650	2 000	150	3 265	17 958	14,69	1,80	11,37	27,86	16,49	75,00	12,24	12,24	40,11	28,73
6.6.3 Shear ridgers															
1 row	11 550	2 000	150	1 155	6 353	5,20	0,64	4,02	9,86	5,83	75,00	4,33	4,33	14,19	10,16
2 row	14 750	2 000	150	1 475	8 113	6,64	0,81	5,14	12,59	7,45	75,00	5,53	5,53	18,12	12,98
3 row	17 300	2 000	150	1 730	9 515	7,79	0,95	6,03	14,76	8,74	75,00	6,49	6,49	21,25	15,22

6.7 Rotovators

1,3 m	75 527	2 500	250	7 553	41 540	27,19	2,49	15,79	45,47	29,68	100,00	30,21	30,21	75,68	59,89
1,5 m	78 329	2 500	250	7 833	43 081	28,20	2,58	16,37	47,15	30,78	100,00	31,33	31,33	78,49	62,12
1,8 m	81 132	2 500	250	8 113	44 622	29,21	2,68	16,96	48,84	31,88	100,00	32,45	32,45	81,29	64,34
2,0 m	84 316	2 500	250	8 432	46 374	30,35	2,78	17,62	50,76	33,14	100,00	33,73	33,73	84,48	66,86

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
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4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

7. TINE IMPLEMENTS

7.1 Tillers

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
7.1.1 S-shank tiller with roller															
2,0 m – 20 tine	22 650	2 500	250	2 265	12 458	8,15	0,75	4,73	13,64	8,90	100,00	9,06	9,06	22,70	17,96
2,5 m – 25 tine	26 650	2 500	250	2 665	14 658	9,59	0,88	5,57	16,04	10,47	100,00	10,66	10,66	26,70	21,13
3,0 m – 31 tine	28 350	2 500	250	2 835	15 593	10,21	0,94	5,93	17,07	11,14	100,00	11,34	11,34	28,41	22,48
3,4 m – 34 tine	37 650	2 500	250	3 765	20 708	13,55	1,24	7,87	22,67	14,80	100,00	15,06	15,06	37,73	29,86
4,0 m – 41 tine	40 900	2 500	250	4 090	22 495	14,72	1,35	8,55	24,62	16,07	100,00	16,36	16,36	40,98	32,43
7.1.2 S–shank tiller with without roller—hydraulic with depth control wheels															
6,0 m – 61 tine	60 650	2 500	250	6 065	33 358	21,83	2,00	12,68	36,51	23,84	100,00	24,26	24,26	60,77	48,10
8,0 m – 81 tine	79 600	2 500	250	7 960	43 780	28,66	2,63	16,64	47,92	31,28	100,00	31,84	31,84	79,76	63,12
7.1.3 C–shank tiller with rollers/crumblers with mounting frame															
2,0 m – 7 tine	25 000	2 500	250	2 500	13 750	9,00	0,83	5,23	15,05	9,83	100,00	10,00	10,00	25,05	19,83
2,5 m – 9 tine	28 750	2 500	250	2 875	15 813	10,35	0,95	6,01	17,31	11,30	100,00	11,50	11,50	28,81	22,80
7.1.4 C–shank tiller without roller															
1,7 m – 5 tine	13 600	2 500	250	1 360	7 480	4,90	0,45	2,84	8,19	5,34	100,00	5,44	5,44	13,63	10,78
2,0 m – 7 tine	14 750	2 500	250	1 475	8 113	5,31	0,49	3,08	8,88	5,80	100,00	5,90	5,90	14,78	11,70
2,5 m – 9 tine	17 300	2 500	250	1 730	9 515	6,23	0,57	3,62	10,41	6,80	100,00	6,92	6,92	17,33	13,72
7.1.5 C–shank tiller without roller, springloaded and double beam															
1,7 m – 5 tine	18 250	2 500	250	1 825	10 038	6,57	0,60	3,81	10,99	7,17	100,00	7,30	7,30	18,29	14,47
2,0 m – 7 tine	22 100	2 500	250	2 210	12 155	7,96	0,73	4,62	13,30	8,69	100,00	8,84	8,84	22,14	17,53
2,5 m – 9 tine	28 750	2 500	250	2 875	15 813	10,35	0,95	6,01	17,31	11,30	100,00	11,50	11,50	28,81	22,80
7.1.6 C–shank tiller without depth control wheels and triple beam															
3,0 m – 11 tine	38 850	2 500	250	3 885	21 368	13,99	1,28	8,12	23,39	15,27	100,00	15,54	15,54	38,93	30,81
3,5 m – 13 tine	42 650	2 500	250	4 265	23 458	15,35	1,41	8,91	25,68	16,76	100,00	17,06	17,06	42,74	33,82
7.1.7 C–shank tiller with depth control wheels and triple beam															
4,5 m – 19 tine	84 750	2 500	250	8 475	46 613	30,51	2,80	17,71	51,02	33,31	100,00	33,90	33,90	84,92	67,21
5,0 m – 21 tine	93 750	2 500	250	9 375	51 563	33,75	3,09	19,59	56,44	36,84	100,00	37,50	37,50	93,94	74,34
7.1.8 Vibro–flex tiller—double beam															
2,0 m – 7 tine	25 100	2 500	250	2 510	13 805	9,04	0,83	5,25	15,11	9,86	100,00	10,04	10,04	25,15	19,90
2,5 m – 9 tine	32 400	2 500	250	3 240	17 820	11,66	1,07	6,77	19,50	12,73	100,00	12,96	12,96	32,46	25,69
7.1.9 Vibro–flex tiller—triple beam without depth control wheels															
2,5 m – 9 tine	34 850	2 500	250	3 485	19 168	12,55	1,15	7,28	20,98	13,70	100,00	13,94	13,94	34,92	27,64
3,5 m – 13 tine	49 750	2 500	250	4 975	27 363	17,91	1,64	10,40	29,95	19,55	100,00	19,90	19,90	49,85	39,45
3,5 m – 15 tine	53 550	2 500	250	5 355	29 453	19,28	1,77	11,19	32,24	21,05	100,00	21,42	21,42	53,66	42,47
7.1.10 Vibro–flex tiller—triple beam with depth control wheels															
2,5 m – 9 tine	47 550	2 500	250	4 755	26 153	17,12	1,57	9,94	28,63	18,69	100,00	19,02	19,02	47,65	37,71
3,5 m – 13 tine	62 450	2 500	250	6 245	34 348	22,48	2,06	13,05	37,59	24,54	100,00	24,98	24,98	62,57	49,52
3,5 m – 15 tine	66 250	2 500	250	6 625	36 438	23,85	2,19	13,85	39,88	26,04	100,00	26,50	26,50	66,38	52,54
7.1.11 Vibro–flex tiller—triple beam with depth control wheels—hydraulic															
6,5 m – 25 tine	163 050	2 500	250	16 305	89 678	58,70	5,38	34,08	98,16	64,08	100,00	65,22	65,22	163,38	129,30
3,0 m – 35 tine	216 600	2 500	250	21 660	119 130	77,98	7,15	45,27	130,39	85,12	100,00	86,64	86,64	217,03	171,76

Notes

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5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

7. TINE IMPLEMENTS (*cont*.)

7.1 Tillers (*cont* .)

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
7.1.12 Otma tiller															
2,0 m – 7 tine	11 850	2 500	250	1 185	6 518	4,27	0,39	2,48	7,13	4,66	100,00	4,74	4,74	11,87	9,40
2,5 m – 9 tine	15 150	2 500	250	1 515	8 333	5,45	0,50	3,17	9,12	5,95	100,00	6,06	6,06	15,18	12,01
3,0 m – 13 tine	22 150	2 500	250	2 215	12 183	7,97	0,73	4,63	13,33	8,70	100,00	8,86	8,86	22,19	17,56
7.1.13 Light duty curved tine tiller—Vetsak type															
1,7 m – 5 tine	13 500	2 500	250	1 350	7 425	4,86	0,45	2,82	8,13	5,31	100,00	5,40	5,40	13,53	10,71
2,0 m – 7 tine	18 900	2 500	250	1 890	10 395	6,80	0,62	3,95	11,38	7,43	100,00	7,56	7,56	18,94	14,99
2,5 m – 9 tine	24 250	2 500	250	2 425	13 338	8,73	0,80	5,07	14,60	9,53	100,00	9,70	9,70	24,30	19,23
3,0 m – 11 tine	30 250	2 500	250	3 025	16 638	10,89	1,00	6,32	18,21	11,89	100,00	12,10	12,10	30,31	23,99

7.2 Cultivators

7.2.1 Row-crop cultivator															
2 row (0,9 m)	32 153	2 500	250	3 215	17 684	11,58	1,06	6,72	19,36	12,64	100,00	12,86	12,86	32,22	25,50
4 row (0,9 m)	51 066	2 500	250	5 107	28 086	18,38	1,69	10,67	30,74	20,07	100,00	20,43	20,43	51,17	40,50
6 row (0,9 m)	80 558	2 500	250	8 056	44 307	29,00	2,66	16,84	48,50	31,66	100,00	32,22	32,22	80,72	63,88
8 row (0,9 m)	100 102	2 500	250	10 010	55 056	36,04	3,30	20,92	60,26	39,34	100,00	40,04	40,04	100,30	79,38
8 row folding unit	158 159	2 500	250	15 816	86 988	56,94	5,22	33,06	95,21	62,16	100,00	63,26	63,26	158,48	125,42
7.2.2 Field cultivators—shank tillers															
1,7 m – 5 tines (C shank)	17 232	2 500	250	1 723	9 478	6,20	0,57	3,60	10,37	6,77	100,00	6,89	6,89	17,27	13,66
2,0 m – 7 tines (C shank)	23 626	2 500	250	2 363	12 994	8,51	0,78	4,94	14,22	9,28	100,00	9,45	9,45	23,67	18,74
2,5 m – 9 tines (C shank)	27 511	2 500	250	2 751	15 131	9,90	0,91	5,75	16,56	10,81	100,00	11,00	11,00	27,57	21,82
3,0 m – 31 tines (C shank)	36 087	2 500	250	3 609	19 848	12,99	1,19	7,54	21,72	14,18	100,00	14,43	14,43	36,16	28,62
3,4 m – 34 tines (C shank)	47 622	2 500	250	4 762	26 192	17,14	1,57	9,95	28,67	18,72	100,00	19,05	19,05	47,72	37,76
4,0 m – 41 tines (C shank)	42 730	2 500	250	4 273	23 502	15,38	1,41	8,93	25,72	16,79	100,00	17,09	17,09	42,82	33,89
7.2.3 Field cultivators—vibro tillers															
5 tines (double beam)	19 105	2 500	250	1 910	10 508	6,88	0,63	3,99	11,50	7,51	100,00	7,64	7,64	19,14	15,15
2,0 m – 7 tines (double beam)	23 117	2 500	250	2 312	12 715	8,32	0,76	4,83	13,92	9,09	100,00	9,25	9,25	23,16	18,33
2,5 m – 9 tines (double beam)	35 280	2 500	250	3 528	19 404	12,70	1,16	7,37	21,24	13,87	100,00	14,11	14,11	35,35	27,98
2,5 m – 9 tines (triple beam)	36 491	2 500	250	3 649	20 070	13,14	1,20	7,63	21,97	14,34	100,00	14,60	14,60	36,56	28,94
3,5 m – 13 tines (triple beam)	52 157	2 500	250	5 216	28 686	18,78	1,72	10,90	31,40	20,50	100,00	20,86	20,86	52,26	41,36
3,5 m – 15 tines (triple beam)	56 168	2 500	250	5 617	30 892	20,22	1,85	11,74	33,81	22,07	100,00	22,47	22,47	56,28	44,54
6,0 m – 25 tines (triple beam)	155 023	2 500	250	15 502	85 262	55,81	5,12	32,40	93,32	60,92	100,00	62,01	62,01	155,33	122,93

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

8. PLANTING EQUIPMENT

8.1 Single-kernel planters

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
8.1.1 Mounted															
2 row (0,9 m) mech	45 004	1 500	150	4 500	24 752	27,00	2,48	15,68	45,15	29,48	80,00	24,00	24,00	69,16	53,48
2 row (0,75/0,90m) mech/hydr	138 340	1 500	150	13 834	76 087	83,00	7,61	48,19	138,80	90,61	80,00	73,78	73,78	212,58	164,39
2 row (0,9 m) air/mech	103 774	1 500	150	10 377	57 076	62,26	5,71	36,15	104,12	67,97	80,00	55,35	55,35	159,47	123,32
3 row (0,45/0,9m) mech/mech	147 090	1 500	150	14 709	80 900	88,25	8,09	51,24	147,58	96,34	80,00	78,45	78,45	226,03	174,79
3 row (0,75/0,9m) mech/mech	76 947	1 500	150	7 695	42 321	46,17	4,23	26,80	77,20	50,40	80,00	41,04	41,04	118,24	91,44
3 row (0,9 m) mech	59 842	1 500	150	5 984	32 913	35,91	3,29	20,84	60,04	39,20	80,00	31,92	31,92	91,96	71,11
3 row (1,50 m) mech	57 800	1 500	150	5 780	31 790	34,68	3,18	20,13	57,99	37,86	80,00	30,83	30,83	88,82	68,69
3 row (1,5 m) air/hydro	224 085	1 500	150	22 409	123 247	134,45	12,32	78,06	224,83	146,78	80,00	119,51	119,51	344,34	266,29
3 row (2,30 m) mech	57 800	1 500	150	5 780	31 790	34,68	3,18	20,13	57,99	37,86	80,00	30,83	30,83	88,82	68,69
3 row (2,30 m) mech/mech	147 450	1 500	150	14 745	81 098	88,47	8,11	51,36	147,94	96,58	80,00	78,64	78,64	226,58	175,22
4 row (0,45/0,9m) mech/mech	188 860	1 500	150	18 886	103 873	113,32	10,39	65,79	189,49	123,70	80,00	100,73	100,73	290,21	224,43
4 row (0,75/0,9m) mech/mech	98 632	1 500	150	9 863	54 248	59,18	5,42	34,36	98,96	64,60	80,00	52,60	52,60	151,56	117,21
4 row (0,9m) mech/mech	106 399	1 500	150	10 640	58 519	63,84	5,85	37,06	106,75	69,69	80,00	56,75	56,75	163,50	126,44
4 row (0,9 m) mech	70 200	1 500	150	7 020	38 610	42,12	3,86	24,45	70,43	45,98	80,00	37,44	37,44	107,87	83,42
4 row (0,9 m) air/hydro	195 631	1 500	150	19 563	107 597	117,38	10,76	68,14	196,28	128,14	80,00	104,34	104,34	300,62	232,47
4 row (0,9 m) air/mech	164 301	1 500	150	16 430	90 366	98,58	9,04	57,23	164,85	107,62	80,00	87,63	87,63	252,48	195,24
4 row (0,75/0,9m) air/hydro	250 835	1 500	150	25 084	137 959	150,50	13,80	87,37	251,67	164,30	80,00	133,78	133,78	385,45	298,08
6 row (0,7 m) mech/mech	178 238	1 500	150	17 824	98 031	106,94	9,80	62,09	178,83	116,75	80,00	95,06	95,06	273,89	211,81
6 row (0,7 m) air/mech	223 312	1 500	150	22 331	122 822	133,99	12,28	77,79	224,06	146,27	80,00	119,10	119,10	343,16	265,37
6 row (0,9 m) air/hydro	223 713	1 500	150	22 371	123 042	134,23	12,30	77,93	224,46	146,53	80,00	119,31	119,31	343,77	265,85
6 row (0,75/0,9m) air/hydro	339 775	1 500	150	33 978	186 876	203,87	18,69	118,35	340,91	222,55	80,00	181,21	181,21	522,12	403,77
8 row (0,20 m) air	197 440	1 500	150	19 744	108 592	118,46	10,86	68,77	198,10	129,32	80,00	105,30	105,30	303,40	234,62
8 row (0,9 m) air/hydro	376 727	1 500	150	37 673	207 200	226,04	20,72	131,23	377,98	246,76	80,00	200,92	200,92	578,90	447,68
8 row (0,75/0,9m) air/hydro	461 285	1 500	150	46 129	253 707	276,77	25,37	160,68	462,82	302,14	80,00	246,02	246,02	708,84	548,16

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

8. PLANTING EQUIPMENT (*cont*.)

8.1 Single-kernel planters (*cont* .)

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
8.1.2 Trailed															
3 row (1,5 m) mech/mech	199 150	1 500	150	19 915	109 533	119,49	10,95	69,37	199,81	130,44	80,00	106,21	106,21	306,03	236,66
3 row (1,5 m) mech/hydro	219 165	1 500	150	21 917	120 541	131,50	12,05	76,34	219,90	143,55	80,00	116,89	116,89	336,78	260,44
3 row (1,5 m) air/hydro	286 880	1 500	150	28 688	157 784	172,13	15,78	99,93	287,84	187,91	80,00	153,00	153,00	440,84	340,91
3 row no-till (1,5 m) air/hydro	338 196	1 500	150	33 820	186 008	202,92	18,60	117,80	339,32	221,52	80,00	180,37	180,37	519,69	401,89
3 row (2,3 m) mech/mech	206 000	1 500	150	20 600	113 300	123,60	11,33	71,76	206,69	134,93	80,00	109,87	109,87	316,55	244,80
3 row (2,3 m) mech/hydro	270 953	1 500	150	27 095	149 024	162,57	14,90	94,38	271,86	177,47	80,00	144,51	144,51	416,36	321,98
3 row (2,3 m) air/hydro	327 895	1 500	150	32 790	180 342	196,74	18,03	114,22	328,99	214,77	80,00	174,88	174,88	503,87	389,65
3 row no-till (2,3 m) air/hydro	338 195	1 500	150	33 820	186 007	202,92	18,60	117,80	339,32	221,52	80,00	180,37	180,37	519,69	401,89
4 row (0,9 m) mech/hydro no till	112 000	1 500	150	11 200	61 600	67,20	6,16	39,01	112,37	73,36	80,00	59,73	59,73	172,11	133,09
4 row (0,75/0,9 m) mech/mech	321 600	1 500	150	32 160	176 880	192,96	17,69	112,02	322,67	210,65	80,00	171,52	171,52	494,19	382,17
4 row (0,9 m) mech/mech	221 100	1 500	150	22 110	121 605	132,66	12,16	77,02	221,84	144,82	80,00	117,92	117,92	339,76	262,74
4 row (0,9 m) mech/hydro	232 006	1 500	150	23 201	127 603	139,20	12,76	80,82	232,78	151,96	80,00	123,74	123,74	356,52	275,70
4 row (0,9 m) air/hydro	343 479	1 500	150	34 348	188 913	206,09	18,89	119,65	344,62	224,98	80,00	183,19	183,19	527,81	408,17
4 row no-till (0,9 m) air/hydro	396 500	1 500	150	39 650	218 075	237,90	21,81	138,11	397,82	259,71	80,00	211,47	211,47	609,29	471,17
4 row (0,75/0,9 m) air/hydro	385 848	1 500	150	38 585	212 216	231,51	21,22	134,40	387,13	252,73	80,00	205,79	205,79	592,92	458,52
4 row (0,9 m) air/mech	206 561	1 500	150	20 656	113 609	123,94	11,36	71,95	207,25	135,30	80,00	110,17	110,17	317,42	245,46
5 row (1,5 m) mech/hydro	399 051	1 500	150	39 905	219 478	239,43	21,95	139,00	400,38	261,38	80,00	212,83	212,83	613,21	474,21
5 row (1,5 m) air/hydro	446 929	1 500	150	44 693	245 811	268,16	24,58	155,68	448,42	292,74	80,00	238,36	238,36	686,78	531,10
5 row no-till (1,5 m) air/hydro	465 665	1 500	150	46 567	256 116	279,40	25,61	162,21	467,22	305,01	80,00	248,35	248,35	715,57	553,37
5 row (1,50 m) air/mech	298 579	1 500	150	29 858	164 218	179,15	16,42	104,01	299,57	195,57	80,00	159,24	159,24	458,82	354,81
6 row (0,75 m) air/hydr	515 345	1 500	150	51 535	283 440	309,21	28,34	179,51	517,06	337,55	80,00	274,85	274,85	791,91	612,40
6 row (0,75 m) air/mech	292 971	1 500	150	29 297	161 134	175,78	16,11	102,05	293,95	191,90	80,00	156,25	156,25	450,20	348,15
6 row (0,9 m) mech/hydro	368 037	1 500	150	36 804	202 420	220,82	20,24	128,20	369,26	241,06	80,00	196,29	196,29	565,55	437,35
6 row (0,9 m) air/hydro	460 093	1 500	150	46 009	253 051	276,06	25,31	160,27	461,63	301,36	80,00	245,38	245,38	707,01	546,74
6 row no-till (0,9 m) air/hydro	615 250	1 500	150	61 525	338 388	369,15	33,84	214,31	617,30	402,99	80,00	328,13	328,13	945,43	731,12
6 row (0,75/0,9 m) air/hydro	465 770	1 500	150	46 577	256 174	279,46	25,62	162,24	467,32	305,08	80,00	248,41	248,41	715,73	553,49
6 row (0,90 m) air/mech	299 100	1 500	150	29 910	164 505	179,46	16,45	104,19	300,10	195,91	80,00	159,52	159,52	459,62	355,43
8 row (0,75 m) mech/hydr	452 215	1 500	150	45 222	248 718	271,33	24,87	157,52	453,72	296,20	80,00	241,18	241,18	694,90	537,38
8 row (0,75 m) air/hydr	506 417	1 500	150	50 642	278 529	303,85	27,85	176,40	508,11	331,70	80,00	270,09	270,09	778,19	601,79
8 row (0,75 m) air/mech	361 382	1 500	150	36 138	198 760	216,83	19,88	125,88	362,59	236,71	80,00	192,74	192,74	555,32	429,44
8 row (0,9 m) mech/hydro	466 830	1 500	150	46 683	256 757	280,10	25,68	162,61	468,39	305,77	80,00	248,98	248,98	717,36	554,75
8 row (0,9 m) air/hydro	670 995	1 500	150	67 100	369 047	402,60	36,90	233,73	673,23	439,50	80,00	357,86	357,86	1 031,10	797,37
8 row (0,75/0,9 m) air/hydro	645 813	1 500	150	64 581	355 197	387,49	35,52	224,96	647,97	423,01	80,00	344,43	344,43	992,40	767,44
8 row (0,9 m) air/mech	361 547	1 500	150	36 155	198 851	216,93	19,89	125,94	362,75	236,81	80,00	192,83	192,83	555,58	429,64
8 row no-till (0,9 m) air/hydro	873 000	1 500	150	87 300	480 150	523,80	48,02	304,10	875,91	571,82	80,00	465,60	465,60	1 341,51	1 037,42
12 row (0,75 m) air/hydro	742 600	1 500	150	74 260	408 430	445,56	40,84	258,67	745,08	486,40	80,00	396,05	396,05	1 141,13	882,46
12 row (0,9 m) air/hydro	1 406 925	1 500	150	140 693	773 809	844,16	77,38	490,08	1 411,61	921,54	80,00	750,36	750,36	2 161,97	1 671,90

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

8. PLANTING EQUIPMENT (*cont.*)

8.2 Seed drills

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
8.2.1 Mounted															
4 rows x 370 mm	104 500	1 500	150	10 450	57 475	62,70	5,75	36,40	104,85	68,45	80,00	55,73	55,73	160,58	124,18
7 rows x 370 mm	162 000	1 500	150	16 200	89 100	97,20	8,91	56,43	162,54	106,11	80,00	86,40	86,40	248,94	192,51
9 rows x 370 mm	202 000	1 500	150	20 200	111 100	121,20	11,11	70,36	202,67	132,31	80,00	107,73	107,73	310,41	240,04
12 rows x 370 mm	269 250	1 500	150	26 925	148 088	161,55	14,81	93,79	270,15	176,36	80,00	143,60	143,60	413,75	319,96
21 rows x 140 mm	85 603	1 500	150	8 560	47 082	51,36	4,71	29,82	85,89	56,07	80,00	45,65	45,65	131,54	101,72
33 rows x 120 mm	160 000	1 500	150	16 000	88 000	96,00	8,80	55,73	160,53	104,80	80,00	85,33	85,33	245,87	190,13
8.2.2 Trailed—conventional															
4 rows x 900 mm	152 874	1 500	150	15 287	84 081	91,72	8,41	53,25	153,38	100,13	80,00	81,53	81,53	234,92	181,67
6 rows x 900 mm	382 311	1 500	150	38 231	210 271	229,39	21,03	133,17	383,59	250,41	80,00	203,90	203,90	587,48	454,31
8 rows x 450 mm	359 767	1 500	150	35 977	197 872	215,86	19,79	125,32	360,97	235,65	80,00	191,88	191,88	552,84	427,52
9 rows x 450 mm	373 665	1 500	150	37 367	205 516	224,20	20,55	130,16	374,91	244,75	80,00	199,29	199,29	574,20	444,04
12 rows x 450 mm	462 896	1 500	150	46 290	254 593	277,74	25,46	161,24	464,44	303,20	80,00	246,88	246,88	711,32	550,07
13 rows x 170 mm	440 650	1 500	150	44 065	242 358	264,39	24,24	153,49	442,12	288,63	80,00	235,01	235,01	677,13	523,64
14 rows x 300 mm	303 394	1 500	150	30 339	166 867	182,04	16,69	105,68	304,41	198,72	80,00	161,81	161,81	466,22	360,53
15 rows x 300 mm	801 800	1 500	150	80 180	440 990	481,08	44,10	279,29	804,47	525,18	80,00	427,63	427,63	1 232,10	952,81
17 rows x 170 mm	640 265	1 500	150	64 027	352 146	384,16	35,21	223,03	642,40	419,37	80,00	341,47	341,47	983,87	760,85
17 rows x 250 mm	322 507	1 500	150	32 251	177 379	193,50	17,74	112,34	323,58	211,24	80,00	172,00	172,00	495,59	383,25
17 rows x 300 mm	855 600	1 500	150	85 560	470 580	513,36	47,06	298,03	858,45	560,42	80,00	456,32	456,32	1 314,77	1 016,74
19 rows x 170 mm	767 130	1 500	150	76 713	421 922	460,28	42,19	267,22	769,69	502,47	80,00	409,14	409,14	1 178,82	911,61
19 rows x 300 mm	884 100	1 500	150	88 410	486 255	530,46	48,63	307,96	887,05	579,09	80,00	471,52	471,52	1 358,57	1 050,61
21 rows x 200 mm	337 412	1 500	150	33 741	185 577	202,45	18,56	117,53	338,54	221,00	80,00	179,95	179,95	518,49	400,96
21 rows x 170 mm	705 810	1 500	150	70 581	388 196	423,49	38,82	245,86	708,16	462,31	80,00	376,43	376,43	1 084,59	838,74
21 rows x 300 mm	1 006 500	1 500	150	100 650	553 575	603,90	55,36	350,60	1 009,86	659,26	80,00	536,80	536,80	1 546,66	1 196,06
22 rows x 180 mm	378 840	1 500	150	37 884	208 362	227,30	20,84	131,96	380,10	248,14	80,00	202,05	202,05	582,15	450,19
23 rows x 170 mm	925 700	1 500	150	92 570	509 135	555,42	50,91	322,45	928,79	606,33	80,00	493,71	493,71	1 422,49	1 100,04
23 rows x 300 mm	1 093 200	1 500	150	109 320	601 260	655,92	60,13	380,80	1 096,84	716,05	80,00	583,04	583,04	1 679,88	1 299,09
24 rows x 170 mm	355 430	1 500	150	35 543	195 487	213,26	19,55	123,81	356,61	232,81	80,00	189,56	189,56	546,18	422,37
25 rows x 300 mm	1 170 700	1 500	150	117 070	643 885	702,42	64,39	407,79	1 174,60	766,81	80,00	624,37	624,37	1 798,98	1 391,18
27 rows x 170 mm	1 029 430	1 500	150	102 943	566 187	617,66	56,62	358,58	1 032,86	674,28	80,00	549,03	549,03	1 581,89	1 223,31
27 rows x 300 mm	1 240 200	1 500	150	124 020	682 110	744,12	68,21	432,00	1 244,33	812,33	80,00	661,44	661,44	1 905,77	1 473,77
29 rows x 300 mm	1 301 000	1 500	150	130 100	715 550	780,60	71,56	453,18	1 305,34	852,16	80,00	693,87	693,87	1 999,20	1 546,02
31 rows x 300 mm	1 369 500	1 500	150	136 950	753 225	821,70	75,32	477,04	1 374,07	897,02	80,00	730,40	730,40	2 104,47	1 627,42
33 rows x 300 mm	1 451 400	1 500	150	145 140	798 270	870,84	79,83	505,57	1 456,24	950,67	80,00	774,08	774,08	2 230,32	1 724,75
35 rows x 300 mm	1 519 200	1 500	150	151 920	835 560	911,52	83,56	529,19	1 524,26	995,08	80,00	810,24	810,24	2 334,50	1 805,32
37 rows x 300 mm	1 591 400	1 500	150	159 140	875 270	954,84	87,53	554,34	1 596,70	1 042,37	80,00	848,75	848,75	2 445,45	1 891,11

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

8. PLANTING EQUIPMENT (*cont*.)

8.2 Seed drills (*cont* .)

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
8.2.3 Trailed—no till															
8 rows x 700 mm	778 046	1 500	150	77 805	427 925	466,83	42,79	271,02	780,64	509,62	80,00	414,96	414,96	1 195,60	924,58
8 rows x 400–900 mm	876 575	1 500	150	87 658	482 116	525,95	48,21	305,34	879,50	574,16	80,00	467,51	467,51	1 347,00	1 041,66
13 rows x 175 mm	113 256	1 500	150	11 326	62 291	67,95	6,23	39,45	113,63	74,18	80,00	60,40	60,40	174,04	134,59
13 rows x 450 mm	951 943	1 500	150	95 194	523 569	571,17	52,36	331,59	955,12	623,52	80,00	507,70	507,70	1 462,82	1 131,23
13 rows x 500 mm	984 535	1 500	150	98 454	541 494	590,72	54,15	342,95	987,82	644,87	80,00	525,09	525,09	1 512,90	1 169,96
15 rows x 175 mm	176 725	1 500	150	17 673	97 199	106,04	9,72	61,56	177,31	115,75	80,00	94,25	94,25	271,57	210,01
15 rows x 450 mm	1 091 988	1 500	150	109 199	600 593	655,19	60,06	380,38	1 095,63	715,25	80,00	582,39	582,39	1 678,02	1 297,65
16 rows x 190 mm	440 759	1 500	150	44 076	242 417	264,46	24,24	153,53	442,23	288,70	80,00	235,07	235,07	677,30	523,77
24 rows x 190 mm	530 967	1 500	150	53 097	292 032	318,58	29,20	184,95	532,74	347,78	80,00	283,18	283,18	815,92	630,97
32 rows x 190 mm	791 058	1 500	150	79 106	435 082	474,63	43,51	275,55	793,69	518,14	80,00	421,90	421,90	1 215,59	940,04
8.3 Wheat planters															
4 row	107 650	1 500	150	10 765	59 208	64,59	5,92	37,50	108,01	70,51	80,00	57,41	57,41	165,42	127,92
7 row	166 850	1 500	150	16 685	91 768	100,11	9,18	58,12	167,41	109,29	80,00	88,99	88,99	256,39	198,27
9 row	208 050	1 500	150	20 805	114 428	124,83	11,44	72,47	208,74	136,27	80,00	110,96	110,96	319,70	247,23
12 row	277 350	1 500	150	27 735	152 543	166,41	15,25	96,61	278,27	181,66	80,00	147,92	147,92	426,19	329,58
8.4 Potato planters															
2 row	55 600	1 500	150	5 560	30 580	33,36	3,06	19,37	55,79	36,42	80,00	29,65	29,65	85,44	66,07
8.5 Vegetable transplanters															
2 row	112 506	1 500	150	11 251	61 878	67,50	6,19	39,19	112,88	73,69	80,00	60,00	60,00	172,88	133,69
3 row	144 286	1 500	150	14 429	79 357	86,57	7,94	50,26	144,77	94,51	80,00	76,95	76,95	221,72	171,46
4 row	176 067	1 500	150	17 607	96 837	105,64	9,68	61,33	176,65	115,32	80,00	93,90	93,90	270,56	209,23
8.5.1 Mounted air mounted single-kernel maize planter															
4 row vegetable (0,2 m)	121 860	1 500	150	12 186	67 023	73,12	6,70	42,45	122,27	79,82	80,00	64,99	64,99	187,26	144,81
6 row vegetable (0,2 m)	116 250	1 500	150	11 625	63 938	69,75	6,39	40,49	116,64	76,14	80,00	62,00	62,00	178,64	138,14
8.6 Fine-seed seeders															
3 m	131 925	1 500	150	13 192	72 559	79,15	7,26	45,95	132,36	86,41	80,00	70,36	70,36	202,72	156,77
4 m	583 836	1 500	150	58 384	321 110	350,30	32,11	203,37	585,78	382,41	80,00	311,38	311,38	897,16	693,79
8.7 Land rollers															
2 m	24 009	1 500	150	2 401	13 205	14,41	1,32	8,36	24,09	15,73	80,00	12,80	12,80	36,89	28,53

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

9. PLANT NUTRITION AND PEST CONTROL EQUIPMENT

9.1 Fertiliser spreaders

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
9.1.1 Mounted															
Single disc (250 ℓ)	5 568	1 200	150	557	3 062	4,18	0,31	1,94	6,42	4,48	90,00	4,18	4,18	10,60	8,66
Single disc (300 ℓ)	5 786	1 200	150	579	3 182	4,34	0,32	2,02	6,67	4,66	90,00	4,34	4,34	11,01	9,00
Single disc (350 ℓ)	6 963	1 200	150	696	3 830	5,22	0,38	2,43	8,03	5,61	90,00	5,22	5,22	13,25	10,83
Single disc (400 ℓ)	18 449	1 200	150	1 845	10 147	13,84	1,01	6,43	21,28	14,85	90,00	13,84	13,84	35,11	28,69
Pendulum (400 ℓ)	38 888	1 200	150	3 889	21 388	29,17	2,14	13,55	44,85	31,30	90,00	29,17	29,17	74,02	60,47
Single disc (500 ℓ)	7 535	1 200	150	754	4 144	5,65	0,41	2,62	8,69	6,07	90,00	5,65	5,65	14,34	11,72
Single disc (600 ℓ)	11 461	1 200	150	1 146	6 304	8,60	0,63	3,99	13,22	9,23	90,00	8,60	8,60	21,81	17,82
Double disc (500 ℓ)	75 650	1 200	150	7 565	41 608	56,74	4,16	26,35	87,25	60,90	90,00	56,74	56,74	143,99	117,64
Double disc (600 ℓ)	43 110	1 200	150	4 311	23 711	32,33	2,37	15,02	49,72	34,70	90,00	32,33	32,33	82,05	67,04
Pendulum (600 ℓ)	42 931	1 200	150	4 293	23 612	32,20	2,36	14,95	49,51	34,56	90,00	32,20	32,20	81,71	66,76
Double disc (700 ℓ)	70 646	1 200	150	7 065	38 855	52,98	3,89	24,61	81,48	56,87	90,00	52,98	52,98	134,46	109,85
Double disc (800 ℓ)	393 326	1 200	150	39 333	216 329	294,99	21,63	137,01	453,64	316,63	90,00	294,99	294,99	748,63	611,62
Double disc (850 ℓ)	79 600	1 200	150	7 960	43 780	59,70	4,38	27,73	91,81	64,08	90,00	59,70	59,70	151,51	123,78
Double disc (900 ℓ)	75 900	1 200	150	7 590	41 745	56,93	4,17	26,44	87,54	61,10	90,00	56,93	56,93	144,46	118,02
Double disc (1 000 ℓ)	45 867	1 200	150	4 587	25 227	34,40	2,52	15,98	52,90	36,92	90,00	34,40	34,40	87,30	71,32
Double disc (1 100 ℓ)	112 876	1 200	150	11 288	62 082	84,66	6,21	39,32	130,18	90,87	90,00	84,66	84,66	214,84	175,52
Double disc (1 200 ℓ)	52 502	1 200	150	5 250	28 876	39,38	2,89	18,29	60,55	42,26	90,00	39,38	39,38	99,93	81,64
Double disc (1 300 ℓ)	75 000	1 200	150	7 500	41 250	56,25	4,13	26,13	86,50	60,38	90,00	56,25	56,25	142,75	116,63
Double disc (1 400 ℓ)	84 182	1 200	150	8 418	46 300	63,14	4,63	29,32	97,09	67,77	90,00	63,14	63,14	160,23	130,90
Double disc (1 500 ℓ)	160 267	1 200	150	16 027	88 147	120,20	8,81	55,83	184,84	129,01	90,00	120,20	120,20	305,04	249,22
Double disc (1 600 ℓ)	55 438	1 200	150	5 544	30 491	41,58	3,05	19,31	63,94	44,63	90,00	41,58	41,58	105,52	86,21
Double disc (1 800 ℓ)	147 600	1 200	150	14 760	81 180	110,70	8,12	51,41	170,23	118,82	90,00	110,70	110,70	280,93	229,52
Double disc (1 875 ℓ)	257 121	1 200	150	25 712	141 417	192,84	14,14	89,56	296,55	206,98	90,00	192,84	192,84	489,39	399,82
Double disc (1 900 ℓ)	196 560	1 200	150	19 656	108 108	147,42	10,81	68,47	226,70	158,23	90,00	147,42	147,42	374,12	305,65
Double disc (2 000 ℓ)	106 281	1 200	150	10 628	58 455	79,71	5,85	37,02	122,58	85,56	90,00	79,71	79,71	202,29	165,27
Double disc (2 400 ℓ)	197 650	1 200	150	19 765	108 708	148,24	10,87	68,85	227,96	159,11	90,00	148,24	148,24	376,19	307,35
Double disc (2 500 ℓ)	152 735	1 200	150	15 274	84 004	114,55	8,40	53,20	176,15	122,95	90,00	114,55	114,55	290,71	237,50
Double disc (3 000 ℓ)	242 803	1 200	150	24 280	133 542	182,10	13,35	84,58	280,03	195,46	90,00	182,10	182,10	462,14	377,56
Double disc (3 200 ℓ)	226 820	1 200	150	22 682	124 751	170,12	12,48	79,01	261,60	182,59	90,00	170,12	170,12	431,71	352,71
Double disc (4 000 ℓ)	503 370	1 200	150	50 337	276 854	377,53	27,69	175,34	580,55	405,21	90,00	377,53	377,53	958,08	782,74
Double disc (4 200 ℓ)	447 700	1 200	150	44 770	246 235	335,78	24,62	155,95	516,35	360,40	90,00	335,78	335,78	852,12	696,17
Double disc (4 500 ℓ)	490 000	1 200	150	49 000	269 500	367,50	26,95	170,68	565,13	394,45	90,00	367,50	367,50	932,63	761,95
Double disc (5 000 ℓ)	617 500	1 200	150	61 750	339 625	463,13	33,96	215,10	712,18	497,09	90,00	463,13	463,13	1 175,31	960,21

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

9. PLANT NUTRITION AND PEST CONTROL EQUIPMENT (*cont*.)

9.1 Fertiliser spreaders (*cont* .)

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
9.1.2 Trailed															
Double disc (1 600 ℓ)	95 475	1 200	150	9 548	52 511	71,61	5,25	33,26	110,11	76,86	90,00	71,61	71,61	181,72	148,46
Double disc (1 900 ℓ)	172 675	1 200	150	17 268	94 971	129,51	9,50	60,15	199,15	139,00	90,00	129,51	129,51	328,66	268,51
Double disc (2 900 ℓ)	173 450	1 200	150	17 345	95 398	130,09	9,54	60,42	200,05	139,63	90,00	130,09	130,09	330,13	269,71
Double disc (3 100 ℓ)	113 990	1 200	150	11 399	62 695	85,49	6,27	39,71	131,47	91,76	90,00	85,49	85,49	216,96	177,25
Double disc (3 500 ℓ)	296 097	1 200	150	29 610	162 853	222,07	16,29	103,14	341,50	238,36	90,00	222,07	222,07	563,57	460,43
Double disc (3 800 ℓ)	210 700	1 200	150	21 070	115 885	158,03	11,59	73,39	243,01	169,61	90,00	158,03	158,03	401,03	327,64
Double disc (4 100 ℓ)	147 302	1 200	150	14 730	81 016	110,48	8,10	51,31	169,89	118,58	90,00	110,48	110,48	280,36	229,05
Double disc (4 500 ℓ)	234 700	1 200	150	23 470	129 085	176,03	12,91	81,75	270,69	188,93	90,00	176,03	176,03	446,71	364,96
Double disc (5 500 ℓ)	298 001	1 200	150	29 800	163 901	223,50	16,39	103,80	343,69	239,89	90,00	223,50	223,50	567,20	463,39
Double disc (5 700 ℓ)	245 100	1 200	150	24 510	134 805	183,83	13,48	85,38	282,68	197,31	90,00	183,83	183,83	466,51	381,13
Double disc (6 400 ℓ)	251 600	1 200	150	25 160	138 380	188,70	13,84	87,64	290,18	202,54	90,00	188,70	188,70	478,88	391,24
Double disc (7 500 ℓ)	173 572	1 200	150	17 357	95 465	130,18	9,55	60,46	200,19	139,73	90,00	130,18	130,18	330,37	269,90
Double disc (7 700 ℓ)	301 200	1 200	150	30 120	165 660	225,90	16,57	104,92	347,38	242,47	90,00	225,90	225,90	573,28	468,37
Double disc (8 500 ℓ)	351 343	1 200	150	35 134	193 239	263,51	19,32	122,38	405,22	282,83	90,00	263,51	263,51	668,72	546,34
Double disc (8 950 ℓ)	323 000	1 200	150	32 300	177 650	242,25	17,77	112,51	372,53	260,02	90,00	242,25	242,25	614,78	502,27
Double disc (9 100 ℓ)	398 100	1 200	150	39 810	218 955	298,58	21,90	138,67	459,14	320,47	90,00	298,58	298,58	757,72	619,05
Double disc (9 900 ℓ)	435 300	1 200	150	43 530	239 415	326,48	23,94	151,63	502,05	350,42	90,00	326,48	326,48	828,52	676,89
Double disc (10 000 ℓ)	385 635	1 200	150	38 564	212 099	289,23	21,21	134,33	444,77	310,44	90,00	289,23	289,23	733,99	599,66
Double disc (11 550 ℓ)	473 500	1 200	150	47 350	260 425	355,13	26,04	164,94	546,10	381,17	90,00	355,13	355,13	901,23	736,29
Double disc (12 000 ℓ)	411 036	1 200	150	41 104	226 070	308,28	22,61	143,18	474,06	330,88	90,00	308,28	308,28	782,34	639,16
Double disc (13 700 ℓ)	616 300	1 200	150	61 630	338 965	462,23	33,90	214,68	710,80	496,12	90,00	462,23	462,23	1 173,02	958,35

9.2 Manure spreaders

3,0 cu.m.	90 047	1 200	150	9 005	49 526	67,54	4,95	31,37	103,85	72,49	30,00	22,51	22,51	126,37	95,00
4,2 cu.m.	110 043	1 200	150	11 004	60 524	82,53	6,05	38,33	126,92	88,58	30,00	27,51	27,51	154,43	116,10

9.3 Lime spreaders

Trailed 3 ton	180 540	1 200	150	18 054	99 297	135,41	9,93	62,89	208,22	145,33	90,00	135,41	135,41	343,63	280,74
Trailed 5 ton	184 590	1 200	150	18 459	101 525	138,44	10,15	64,30	212,89	148,59	90,00	138,44	138,44	351,34	287,04

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

9. PLANT NUTRITION AND PEST CONTROL EQUIPMENT (*cont.*)

9.4 Mist blowers

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
9.4.1 Mounted with PTO drive															
300 ℓ general	110 910	1 500	150	11 091	61 001	66,55	6,10	38,63	111,28	72,65	50,00	36,97	36,97	148,25	109,62
400 ℓ general	65 618	1 500	150	6 562	36 090	39,37	3,61	22,86	65,84	42,98	50,00	21,87	21,87	87,71	64,85
500 ℓ	50 183	1 500	150	5 018	27 601	30,11	2,76	17,48	50,35	32,87	50,00	16,73	16,73	67,08	49,60
600 ℓ general	105 857	1 500	150	10 586	58 221	63,51	5,82	36,87	106,21	69,34	50,00	35,29	35,29	141,50	104,62
800 ℓ	43 284	1 500	150	4 328	23 806	25,97	2,38	15,08	43,43	28,35	50,00	14,43	14,43	57,86	42,78
1 000 ℓ	94 111	1 500	150	9 411	51 761	56,47	5,18	32,78	94,42	61,64	50,00	31,37	31,37	125,80	93,01
1 600 ℓ	102 175	1 500	150	10 218	56 196	61,31	5,62	35,59	102,52	66,92	50,00	34,06	34,06	136,57	100,98
2 000 ℓ	104 760	1 500	150	10 476	57 618	62,86	5,76	36,49	105,11	68,62	50,00	34,92	34,92	140,03	103,54
9.4.2 Trailed with PTO drive															
1 000 ℓ general	145 862	1 500	150	14 586	80 224	87,52	8,02	50,81	146,35	95,54	50,00	48,62	48,62	194,97	144,16
1 500 ℓ general	170 267	1 500	150	17 027	93 647	102,16	9,36	59,31	170,83	111,52	50,00	56,76	56,76	227,59	168,28
2 000 ℓ general	179 778	1 500	150	17 978	98 878	107,87	9,89	62,62	180,38	117,75	50,00	59,93	59,93	240,30	177,68
4 000 ℓ	217 956	1 500	150	21 796	119 876	130,77	11,99	75,92	218,68	142,76	50,00	72,65	72,65	291,33	215,41

9.5 Boom sprayers

9.5.1 Mounted															
9.5.1.1 Max 400 ℓ tank capacity															
6 m – 10 m boom	29 358	1 500	150	2 936	16 147	17,61	1,61	10,23	29,46	19,23	50,00	9,79	9,79	39,24	29,02
9.5.1.2 Max 600 ℓ tank capacity															
8 m – 12 m boom	37 195	1 500	150	3 720	20 457	22,32	2,05	12,96	37,32	24,36	50,00	12,40	12,40	49,72	36,76
9.5.1.3 Max 800 ℓ tank capacity															
10 m boom	26 266	1 500	150	2 627	14 446	15,76	1,44	9,15	26,35	17,20	50,00	8,76	8,76	35,11	25,96
12 m boom	95 895	1 500	150	9 590	52 742	57,54	5,27	33,40	96,21	62,81	50,00	31,97	31,97	128,18	94,78
9.5.1.4 Max 1 000 ℓ tank capacity															
10 m boom	25 675	1 500	150	2 568	14 121	15,41	1,41	8,94	25,76	16,82	50,00	8,56	8,56	34,32	25,38
12 m boom	110 190	1 500	150	11 019	60 605	66,11	6,06	38,38	110,56	72,17	50,00	36,73	36,73	147,29	108,90
15 m boom	131 000	1 500	150	13 100	72 050	78,60	7,21	45,63	131,44	85,81	50,00	43,67	43,67	175,10	129,47
9.5.2 Trailed															
9.5.2.1 Max 2 000 ℓ tank capacity															
12 m boom	45 715	1 500	150	4 572	25 143	27,43	2,51	15,92	45,87	29,94	50,00	15,24	15,24	61,11	45,18
14 m boom	72 362	1 500	150	7 236	39 799	43,42	3,98	25,21	72,60	47,40	50,00	24,12	24,12	96,72	71,52
18 m boom	372 500	1 500	150	37 250	204 875	223,50	20,49	129,75	373,74	243,99	50,00	124,17	124,17	497,91	368,15
9.5.2.2 Max 2 400 ℓ tank capacity															
18 m boom	310 770	1 500	150	31 077	170 924	186,46	17,09	108,25	311,81	203,55	50,00	103,59	103,59	415,40	307,14
9.5.2.3 Max 2 800 ℓ tank capacity															
24 m boom	445 000	1 500	150	44 500	244 750	267,00	24,48	155,01	446,48	291,48	50,00	148,33	148,33	594,82	439,81
9.5.2.4 Max 3 000 ℓ tank capacity															
24 m boom	660 000	1 500	150	66 000	363 000	396,00	36,30	229,90	662,20	432,30	50,00	220,00	220,00	882,20	652,30
9.5.2.5 Max 5 000 ℓ tank capacity															
36 m boom	1 560 000	1 500	150	156 000	858 000	936,00	85,80	543,40	1 565,20	1 021,80	50,00	520,00	520,00	2 085,20	1 541,80
38 m boom	1 670 000	1 500	150	167 000	918 500	1 002,00	91,85	581,72	1 675,57	1 093,85	50,00	556,67	556,67	2 232,23	1 650,52

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

10. HAY AND SILAGE MACHINERY

10.1 Mowers

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
10.1.1 Disc and drum															
10.1.1.1 MOUNTED															
1,5 m drum	56 000	2 000	150	5 600	30 800	25,20	3,08	19,51	47,79	28,28	80,00	22,40	22,40	70,19	50,68
1,6 m disc	82 623	2 000	150	8 262	45 443	37,18	4,54	28,78	70,50	41,72	80,00	33,05	33,05	103,55	74,77
1,65 m disc	53 686	2 000	150	5 369	29 527	24,16	2,95	18,70	45,81	27,11	80,00	21,47	21,47	67,29	48,59
1,95 m disc	32 086	2 000	150	3 209	17 647	14,44	1,76	11,18	27,38	16,20	80,00	12,83	12,83	40,21	29,04
2,0 m disc	97 044	2 000	150	9 704	53 374	43,67	5,34	33,80	82,81	49,01	80,00	38,82	38,82	121,63	87,82
2,05 m disc	96 000	2 000	150	9 600	52 800	43,20	5,28	33,44	81,92	48,48	80,00	38,40	38,40	120,32	86,88
2,10 m disc	149 869	2 000	150	14 987	82 428	67,44	8,24	52,20	127,89	75,68	80,00	59,95	59,95	187,84	135,63
2,15 m disc	82 173	2 000	150	8 217	45 195	36,98	4,52	28,62	70,12	41,50	80,00	32,87	32,87	102,99	74,37
2,2 m drum	75 000	2 000	150	7 500	41 250	33,75	4,13	26,13	64,00	37,88	80,00	30,00	30,00	94,00	67,88
2,4 m disc	103 230	2 000	150	10 323	56 777	46,45	5,68	35,96	88,09	52,13	80,00	41,29	41,29	129,38	93,42
2,55 m disc	111 000	2 000	150	11 100	61 050	49,95	6,11	38,67	94,72	56,06	80,00	44,40	44,40	139,12	100,46
2,6 m disc	154 363	2 000	150	15 436	84 900	69,46	8,49	53,77	131,72	77,95	80,00	61,75	61,75	193,47	139,70
2,8 m disc	140 000	2 000	150	14 000	77 000	63,00	7,70	48,77	119,47	70,70	80,00	56,00	56,00	175,47	126,70
2,85 m disc	169 547	2 000	150	16 955	93 251	76,30	9,33	59,06	144,68	85,62	80,00	67,82	67,82	212,50	153,44
3,0 m drum	126 000	2 000	150	12 600	69 300	56,70	6,93	43,89	107,52	63,63	80,00	50,40	50,40	157,92	114,03
3,0 m disc	183 719	2 000	150	18 372	101 045	82,67	10,10	64,00	156,77	92,78	80,00	73,49	73,49	230,26	166,27
3,1 m disc	273 850	2 000	150	27 385	150 618	123,23	15,06	95,39	233,69	138,29	80,00	109,54	109,54	343,23	247,83
3,2 m disc	180 770	2 000	150	18 077	99 424	81,35	9,94	62,97	154,26	91,29	80,00	72,31	72,31	226,57	163,60
3,4 m disc	212 738	2 000	150	21 274	117 006	95,73	11,70	74,10	181,54	107,43	80,00	85,10	85,10	266,63	192,53
3,5 m disc	302 605	2 000	150	30 261	166 433	136,17	16,64	105,41	258,22	152,82	80,00	121,04	121,04	379,26	273,86
4,0 m disc	415 690	2 000	150	41 569	228 630	187,06	22,86	144,80	354,72	209,92	80,00	166,28	166,28	521,00	376,20
8,1 m disc	555 441	2 000	150	55 544	305 493	249,95	30,55	193,48	473,98	280,50	80,00	222,18	222,18	696,15	502,67
10.1.1.2 TRAILED															
2,4 m disc/roll	103 230	2 000	150	10 323	56 777	46,45	5,68	35,96	88,09	52,13	80,00	41,29	41,29	129,38	93,42
2,5 m disc/roll	111 000	2 000	150	11 100	61 050	49,95	6,11	38,67	94,72	56,06	80,00	44,40	44,40	139,12	100,46
2,8 m disc/roll	140 000	2 000	150	14 000	77 000	63,00	7,70	48,77	119,47	70,70	80,00	56,00	56,00	175,47	126,70
3,0 m disc/roll	183 719	2 000	150	18 372	101 045	82,67	10,10	64,00	156,77	92,78	80,00	73,49	73,49	230,26	166,27
3,2 m disc/roll	180 770	2 000	150	18 077	99 424	81,35	9,94	62,97	154,26	91,29	80,00	72,31	72,31	226,57	163,60
3,5 m disc/roll	302 605	2 000	150	30 261	166 433	136,17	16,64	105,41	258,22	152,82	80,00	121,04	121,04	379,26	273,86
4,0 m disc/roll	415 690	2 000	150	41 569	228 630	187,06	22,86	144,80	354,72	209,92	80,00	166,28	166,28	521,00	376,20
8,1 m disc/roll	555 441	2 000	150	55 544	305 493	249,95	30,55	193,48	473,98	280,50	80,00	222,18	222,18	696,15	502,67

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

10. HAY AND SILAGE MACHINERY (*cont.*)

10.2 Mower conditioners

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
10.2.1 Mounted															
2,6–2,8 m	179 740	2 000	150	17 974	98 857	80,88	9,89	62,61	153,38	90,77	60,00	53,92	53,92	207,30	144,69
10.2.2 Trailed															
3,0 m	487 460	2 000	150	48 746	268 103	219,36	26,81	169,80	415,97	246,17	60,00	146,24	146,24	562,20	392,41
3,5 m	528 770	2 000	150	52 877	290 824	237,95	29,08	184,19	451,22	267,03	60,00	158,63	158,63	609,85	425,66
4,0 m	662 670	2 000	150	66 267	364 469	298,20	36,45	230,83	565,48	334,65	60,00	198,80	198,80	764,28	533,45

10.3 Slashers

10.3.1 Heavy duty															
1,2 m 4 blades	31 459	2 000	150	3 146	17 303	14,16	1,73	10,96	26,85	15,89	80,00	12,58	12,58	39,43	28,47
1,5 m 2 blades	35 407	2 000	150	3 541	19 474	15,93	1,95	12,33	30,21	17,88	80,00	14,16	14,16	44,38	32,04
1,5 m 4 blades	27 074	2 000	150	2 707	14 891	12,18	1,49	9,43	23,10	13,67	80,00	10,83	10,83	33,93	24,50
1,8 m 2 blades	38 464	2 000	150	3 846	21 155	17,31	2,12	13,40	32,82	19,42	80,00	15,39	15,39	48,21	34,81
1,8 m 4 blades	35 298	2 000	150	3 530	19 414	15,88	1,94	12,30	30,12	17,83	80,00	14,12	14,12	44,24	31,94
10.3.2 Extra heavy duty															
1,5 m 2 blades	42 795	2 000	150	4 279	23 537	19,26	2,35	14,91	36,52	21,61	80,00	17,12	17,12	53,64	38,73
1,5 m 4 blades	44 705	2 000	150	4 471	24 588	20,12	2,46	15,57	38,15	22,58	80,00	17,88	17,88	56,03	40,46
1,8 m 2 blades	43 941	2 000	150	4 394	24 168	19,77	2,42	15,31	37,50	22,19	80,00	17,58	17,58	55,07	39,77
1,8 m 4 blades	45 724	2 000	150	4 572	25 148	20,58	2,51	15,93	39,02	23,09	80,00	18,29	18,29	57,31	41,38
2,0 m 2 blades	46 233	2 000	150	4 623	25 428	20,81	2,54	16,10	39,45	23,35	80,00	18,49	18,49	57,95	41,84
2,0 m 4 blades	48 017	2 000	150	4 802	26 409	21,61	2,64	16,73	40,97	24,25	80,00	19,21	19,21	60,18	43,46

10.4 Haymakers

1,2 m 4 blades 345 kg	27 511	2 000	150	2 751	15 131	12,38	1,51	9,58	23,48	13,89	80,00	11,00	11,00	34,48	24,90
1,5 m 2 blades 513 kg	44 578	2 000	150	4 458	24 518	20,06	2,45	15,53	38,04	22,51	80,00	17,83	17,83	55,87	40,34
1,5 m 2 blades 557 kg	45 342	2 000	150	4 534	24 938	20,40	2,49	15,79	38,69	22,90	80,00	18,14	18,14	56,83	41,03
1,8 m 2 blades 553 kg	46 361	2 000	150	4 636	25 498	20,86	2,55	16,15	39,56	23,41	80,00	18,54	18,54	58,11	41,96
1,8 m 2 blades 610 kg	47 762	2 000	150	4 776	26 269	21,49	2,63	16,64	40,76	24,12	80,00	19,10	19,10	59,86	43,22
2,0 m 2 blades 656 kg	48 908	2 000	150	4 891	26 899	22,01	2,69	17,04	41,73	24,70	80,00	19,56	19,56	61,30	44,26
3,5 m 4 blades 1 298 kg	148 762	2 000	150	14 876	81 819	66,94	8,18	51,82	126,94	75,12	80,00	59,50	59,50	186,45	134,63

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

10. HAY AND SILAGE MACHINERY (*cont.*)

10.5 Hay rakes and tedders

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
10.5.1 Finger wheel rakes															
4 wheel – 2,3 m	10 362	2 000	200	1 036	5 699	4,66	0,43	2,71	7,80	5,09	120,00	6,22	6,22	14,01	11,31
4 wheel – 2,6 m	13 057	2 000	200	1 306	7 181	5,88	0,54	3,41	9,83	6,41	120,00	7,83	7,83	17,66	14,25
5 wheel – 2,8 m	13 058	2 000	200	1 306	7 182	5,88	0,54	3,41	9,83	6,41	120,00	7,83	7,83	17,66	14,25
5 wheel – 3,5 m	17 832	2 000	200	1 783	9 808	8,02	0,74	4,66	13,42	8,76	120,00	10,70	10,70	24,12	19,46
6 wheel – 3,5 m	14 625	2 000	200	1 463	8 044	6,58	0,60	3,82	11,01	7,18	120,00	8,78	8,78	19,78	15,96
8 wheel – 5,4 m	35 550	2 000	200	3 555	19 553	16,00	1,47	9,29	26,75	17,46	120,00	21,33	21,33	48,08	38,79
8 wheel – 6,1 m	80 000	2 000	200	8 000	44 000	36,00	3,30	20,90	60,20	39,30	120,00	48,00	48,00	108,20	87,30
9 wheel – 5,4 m	39 360	2 000	200	3 936	21 648	17,71	1,62	10,28	29,62	19,34	120,00	23,62	23,62	53,23	42,95
9 wheel – 5,5 m	66 563	2 000	200	6 656	36 610	29,95	2,75	17,39	50,09	32,70	120,00	39,94	39,94	90,03	72,64
10 wheel – 5,4 m	39 688	2 000	200	3 969	21 828	17,86	1,64	10,37	29,87	19,50	120,00	23,81	23,81	53,68	43,31
10 wheel – 6,5 m	96 007	2 000	200	9 601	52 804	43,20	3,96	25,08	72,25	47,16	120,00	57,60	57,60	129,85	104,77
10 wheel – 6,6 m	78 235	2 000	200	7 824	43 029	35,21	3,23	20,44	58,87	38,43	120,00	46,94	46,94	105,81	85,37
10 wheel – 6,7 m	42 520	2 000	200	4 252	23 386	19,13	1,75	11,11	32,00	20,89	120,00	25,51	25,51	57,51	46,40
11 wheel – 6,7 m	46 340	2 000	200	4 634	25 487	20,85	1,91	12,11	34,87	22,76	120,00	27,80	27,80	62,67	50,57
12 wheel – 7,4 m	258 980	2 000	200	25 898	142 439	116,54	10,68	67,66	194,88	127,22	120,00	155,39	155,39	350,27	282,61
12 wheel – 7,6 m	75 192	2 000	200	7 519	41 356	33,84	3,10	19,64	56,58	36,94	120,00	45,12	45,12	101,70	82,05
12 wheel – 7,7 m	95 000	2 000	200	9 500	52 250	42,75	3,92	24,82	71,49	46,67	120,00	57,00	57,00	128,49	103,67
12 wheel – 7,8 m	54 935	2 000	200	5 494	30 214	24,72	2,27	14,35	41,34	26,99	120,00	32,96	32,96	74,30	59,95
14 wheel – 8,7 m	225 000	2 000	200	22 500	123 750	101,25	9,28	58,78	169,31	110,53	120,00	135,00	135,00	304,31	245,53
16 wheel – 10,0 m	422 750	2 000	200	42 275	232 513	190,24	17,44	110,44	318,12	207,68	120,00	253,65	253,65	571,77	461,33
10.5.2 PTO-powdered rakes															
10.5.2.1 UNIVERSAL TYPE															
3,0 m	77 175	2 000	200	7 718	42 446	34,73	3,18	20,16	58,07	37,91	120,00	46,31	46,31	104,38	84,22
3,2 m	77 780	2 000	200	7 778	42 779	35,00	3,21	20,32	58,53	38,21	120,00	46,67	46,67	105,20	84,88
4,1 m	127 920	2 000	200	12 792	70 356	57,56	5,28	33,42	96,26	62,84	120,00	76,75	76,75	173,01	139,59
4,2 m	90 000	2 000	200	9 000	49 500	40,50	3,71	23,51	67,73	44,21	120,00	54,00	54,00	121,73	98,21
4,5 m	124 620	2 000	200	12 462	68 541	56,08	5,14	32,56	93,78	61,22	120,00	74,77	74,77	168,55	135,99
4,8 m	118 000	2 000	200	11 800	64 900	53,10	4,87	30,83	88,80	57,97	120,00	70,80	70,80	159,60	128,77
5,2 m	186 006	2 000	200	18 601	102 303	83,70	7,67	48,59	139,97	91,38	120,00	111,60	111,60	251,57	202,98
6,0 m	153 000	2 000	200	15 300	84 150	68,85	6,31	39,97	115,13	75,16	120,00	91,80	91,80	206,93	166,96
7,1 m	278 332	2 000	200	27 833	153 083	125,25	11,48	72,71	209,44	136,73	120,00	167,00	167,00	376,44	303,73
7,6 m	416 750	2 000	200	41 675	229 213	187,54	17,19	108,88	313,60	204,73	120,00	250,05	250,05	563,65	454,78

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

10. HAY AND SILAGE MACHINERY (*cont.*)

10.6 Hay balers

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
10.6.1 Square balers															
10.6.1.1 SMALL SQUARE BALERS															
Class 3 (360 x 460 cm)	254 893	2 000	200	25 489	140 191	114,70	10,51	66,59	191,81	125,22	60,00	76,47	76,47	268,27	201,68
Class 3 (360 x 480 cm)	378 000	2 000	200	37 800	207 900	170,10	15,59	98,75	284,45	185,69	60,00	113,40	113,40	397,85	299,09
Class 4 (360 x 460 cm)	276 979	2 000	200	27 698	152 338	124,64	11,43	72,36	208,43	136,07	60,00	83,09	83,09	291,52	219,16
Class 4 (360 x 490 cm)	445 000	2 000	200	44 500	244 750	200,25	18,36	116,26	334,86	218,61	60,00	133,50	133,50	468,36	352,11
10.6.1.2 BIG SQUARE BALERS															
1 200 x 700 cm	2 245 100	2 000	200	224 510	1 234 805	1 010,30	92,61	586,53	1 689,44	1 102,91	120,00	1 347,06	1 347,06	3 036,50	2 449,97
1 200 x 900 cm	2 618 087	2 000	200	261 809	1 439 948	1 178,14	108,00	683,98	1 970,11	1 286,14	120,00	1 570,85	1 570,85	3 540,96	2 856,99
10.6.2 Round balers															
Compact (0,7 m)	69 000	2 000	200	6 900	37 950	31,05	2,85	18,03	51,92	33,90	60,00	20,70	20,70	72,62	54,60
Small (1,2 m)	448 928	2 000	200	44 893	246 910	202,02	18,52	117,28	337,82	220,54	60,00	134,68	134,68	472,50	355,21
Small (wide intake)	448 291	2 000	200	44 829	246 560	201,73	18,49	117,12	337,34	220,22	60,00	134,49	134,49	471,83	354,71
Medium (1,5 m)	494 948	2 000	200	49 495	272 221	222,73	20,42	129,31	372,45	243,14	60,00	148,48	148,48	520,93	391,63
Medium (wide intake)	415 120	2 000	200	41 512	228 316	186,80	17,12	108,45	312,38	203,93	60,00	124,54	124,54	436,91	328,46
Medium (1,6 m)	428 895	2 000	200	42 890	235 892	193,00	17,69	112,05	322,74	210,69	60,00	13,18	13,18	335,92	223,87

10.7 Bale handling equipment

10.7.1 Round bales															
Bale fork loader 2,2 m lift – 500 kg	5 731	2 500	250	573	3 152	2,06	0,19	1,20	3,45	2,25	40,00	0,92	0,92	4,37	3,17
Bale fork loader 2,7 m lift – 500 kg	13 246	2 500	250	1 325	7 285	4,77	0,44	2,77	7,97	5,21	40,00	2,12	2,12	10,09	7,33
Uniloader with spike – 750 kg	42 030	2 500	250	4 203	23 117	15,13	1,39	8,78	25,30	16,52	40,00	6,72	6,72	32,03	23,24
Uniloader with spike – 1 000 kg	61 390	2 500	250	6 139	33 764	22,10	2,03	12,83	36,96	24,13	40,00	9,82	9,82	46,78	33,95
Uniloader spike, swivel hook, cruciform –1 000 kg	56 295	2 500	250	5 630	30 962	20,27	1,86	11,77	33,89	22,12	40,00	9,01	9,01	42,90	31,13
10.7.2 Bale wrappers															
Trailed round bale wrapper	211 291	2 500	250	21 129	116 210	76,06	6,97	44,16	127,20	83,04	40,00	33,81	33,81	161,00	116,84
10.7.3 Bale shredders															
Round bales	43 922	2 500	250	4 392	24 157	15,81	1,45	9,18	26,44	17,26	40,00	7,03	7,03	33,47	24,29

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

11. HARVESTING EQUIPMENT

11.1 Trailed combines

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
One-row auger	229 500	3 000	300	22 950	126 225	68,85	6,31	39,97	115,13	75,16	45,00	34,43	34,43	149,56	109,59
Two-row auger type (0,9 m)	344 746	3 000	300	34 475	189 610	103,42	9,48	60,04	172,95	112,90	45,00	51,71	51,71	224,66	164,62
Two-row auger type (1,5 m)	472 800	3 000	300	47 280	260 040	141,84	13,00	82,35	237,19	154,84	45,00	70,92	70,92	308,11	225,76
Two-row auger type (2,3 m)	476 450	3 000	300	47 645	262 048	142,94	13,10	82,98	239,02	156,04	45,00	71,47	71,47	310,49	227,50
Three-row auger type (0,9 m)	494 850	3 000	300	49 485	272 168	148,46	13,61	86,19	248,25	162,06	45,00	74,23	74,23	322,48	236,29
Three-row auger type (1,5 m)	511 650	3 000	300	51 165	281 408	153,50	14,07	89,11	256,68	167,57	45,00	76,75	76,75	333,43	244,31
Four-row auger type (0,9 m)	523 550	3 000	300	52 355	287 953	157,07	14,40	91,18	262,65	171,46	45,00	78,53	78,53	341,18	250,00

11.2 Forage harvesters

11.2.1 Precision chop															
11.2.1.1 MOUNTED															
1 row	128 450	2 000	200	12 845	70 648	57,80	5,30	33,56	96,66	63,10	80,00	51,38	51,38	148,04	114,48
2 row	261 740	2 000	200	26 174	143 957	117,78	10,80	68,38	196,96	128,58	80,00	104,70	104,70	301,66	233,28
4 row	603 990	2 000	200	60 399	332 195	271,80	24,91	157,79	454,50	296,71	80,00	241,60	241,60	696,10	538,31
11.2.1.2 TRAILED															
2 row	510 354	2 000	200	51 035	280 695	229,66	21,05	133,33	384,04	250,71	80,00	204,14	204,14	588,18	454,85
3 row	713 658	2 000	200	71 366	392 512	321,15	29,44	186,44	537,03	350,58	80,00	285,46	285,46	822,49	636,05
1,7 m	568 743	2 000	200	56 874	312 809	255,93	23,46	148,58	427,98	279,39	80,00	227,50	227,50	655,48	506,89
1,8 m	414 992	2 000	200	41 499	228 245	186,75	17,12	108,42	312,28	203,86	80,00	166,00	166,00	478,28	369,86
2,1 m	545 850	2 000	200	54 585	300 218	245,63	22,52	142,60	410,75	268,15	80,00	218,34	218,34	629,09	486,49
2,2 m	597 713	2 000	200	59 771	328 742	268,97	24,66	156,15	449,78	293,63	80,00	239,09	239,09	688,86	532,71
2,7 m	656 536	2 000	200	65 654	361 095	295,44	27,08	171,52	494,04	322,52	80,00	262,61	262,61	756,66	585,14
11.2.2 Flail type															
Double chop (1,6 m)	91 113	2 000	200	9 111	50 112	41,00	3,76	23,80	68,56	44,76	80,00	36,45	36,45	105,01	81,20
Double chop (1,8 m)	134 314	2 000	200	13 431	73 873	60,44	5,54	35,09	101,07	65,98	80,00	53,73	53,73	154,80	119,71

11.3 Threshers

Thresher	59 333	2 000	200	5 933	32 633	26,70	2,45	15,50	44,65	29,15	50,00	14,83	14,83	59,48	43,98
With petrol motor	89 231	2 000	200	8 923	49 077	40,15	3,68	23,31	67,15	43,83	50,00	22,31	22,31	89,45	66,14

11.4 Potato lifters

1,5 m	130 129	2 000	200	13 013	71 571	58,56	5,37	34,00	97,92	63,93	60,00	39,04	39,04	136,96	102,96
1,8 m	136 435	2 000	200	13 643	75 039	61,40	5,63	35,64	102,67	67,02	60,00	40,93	40,93	143,60	107,95

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

12. FEED-PROCESSING EQUIPMENT

12.1 Hammermills

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
12.1.1 Electric and PTO driven—electric motor excluded															
Small (PTO)	26 022	3 000	300	2 602	14 312	7,81	0,72	4,53	13,05	8,52	50,00	4,34	4,34	17,39	12,86
Medium (PTO)	44 906	3 000	300	4 491	24 698	13,47	1,23	7,82	22,53	14,71	50,00	7,48	7,48	30,01	22,19
Large (PTO)	66 616	3 000	300	6 662	36 639	19,98	1,83	11,60	33,42	21,82	50,00	11,10	11,10	44,52	32,92
12.1.2 Trailed with intake mechanisms															
Trailed	78 072	3 000	300	7 807	42 940	23,42	2,15	13,60	39,17	25,57	50,00	13,01	13,01	52,18	38,58

12.2 Feed mixers

12.2.1 Wagon mixers															
7 cubic m (incl. scale)	380 810	6 000	600	38 081	209 446	57,12	5,24	33,16	95,52	62,36	60,00	38,08	38,08	133,60	100,44
13 cubic m (incl. scale)	596 590	6 000	600	59 659	328 125	89,49	8,20	51,95	149,64	97,69	60,00	59,66	59,66	209,30	157,35
15 cubic m (incl. scale)	550 000	6 000	600	55 000	302 500	82,50	7,56	47,90	137,96	90,06	60,00	55,00	55,00	192,96	145,06
17 cubic m (incl. scale)	605 000	6 000	600	60 500	332 750	90,75	8,32	52,69	151,75	99,07	60,00	60,50	60,50	212,25	159,57
20 cubic m (incl. scale)	759 530	6 000	600	75 953	417 742	113,93	10,44	66,14	190,52	124,37	60,00	75,95	75,95	266,47	200,33
12.2.2 Vertical mixers															
8 cubic m	534 613	6 000	600	53 461	294 037	80,19	7,35	46,56	134,10	87,54	60,00	53,46	53,46	187,56	141,00
10 cubic m	567 963	6 000	600	56 796	312 380	85,19	7,81	49,46	142,46	93,00	60,00	56,80	56,80	199,26	149,80
12 cubic m	598 600	6 000	600	59 860	329 230	89,79	8,23	52,13	150,15	98,02	60,00	59,86	59,86	210,01	157,88

12.3 Rollermills—motor included

Single set of rollers – 3000 kg maize meal/hour	168 599	8 000	800	16 860	92 729	18,97	1,74	11,01	31,72	20,71	50,00	10,54	10,54	42,26	31,24
Double set of rollers – 500 kg maize meal/hour	248 737	8 000	800	24 874	136 805	27,98	2,57	16,25	46,79	30,55	50,00	15,55	15,55	62,34	46,09
Double set of rollers wheat and maize mill – 400 kg maize meal/hour, 3 machines	1 143 701	8 000	800	114 370	629 036	128,67	11,79	74,70	215,16	140,46	50,00	71,48	71,48	286,64	211,94

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

13. EARTH-MOVING EQUIPMENT

13.1 Front-end loaders

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
Front end loader	98 000	2 500	250	9 800	53 900	35,28	3,23	20,48	59,00	38,51	30,00	11,76	11,76	70,76	50,27
Extra heavy duty	120 000	2 500	250	12 000	66 000	43,20	3,96	25,08	72,24	47,16	30,00	14,40	14,40	86,64	61,56

13.2 Rear-mounted graders

2,0 m	36 208	2 500	250	3 621	19 914	13,03	1,19	7,57	21,80	14,23	30,00	4,34	4,34	26,14	18,57
2,5 m	40 885	2 500	250	4 089	22 487	14,72	1,35	8,55	24,61	16,07	30,00	4,91	4,91	29,52	20,97

13.3 Dam scoops

0,75 cubic meters	22 650	2 500	250	2 265	12 458	8,15	0,75	4,73	13,64	8,90	30,00	2,72	2,72	16,35	11,62
1,5 cubic meters	29 450	2 500	250	2 945	16 198	10,60	0,97	6,16	17,73	11,57	30,00	3,53	3,53	21,26	15,11

13.4 Rear-mounted post diggers

Unit with 230 mm auger	28 770	2 500	250	2 877	15 824	10,36	0,95	6,01	17,32	11,31	30,00	3,45	3,45	20,77	14,76
Unit with 300 mm auger	29 873	2 500	250	2 987	16 430	10,75	0,99	6,24	17,98	11,74	30,00	3,58	3,58	21,57	15,32
Unit with 450 mm auger	31 670	2 500	250	3 167	17 419	11,40	1,05	6,62	19,07	12,45	30,00	3,80	3,80	22,87	16,25

Notes

1) Life hours—as per table
2) Average use per annum hours/annum—as per table
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour % of purchase price/life period in hours—as per table

14. CANE AND TIMBER EQUIPMENT

14.1 Cane loaders

Implements	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs & maintenance as a % of new price	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
46 Kw	57 300	14 325	35 813	3,58	0,27	1,70	5,55	3,85	60,00	2,87	99,21	10,30	112,37	117,92	116,22

14.2 Timber loaders

46 Kw	112 500	28 125	70 313	7,03	0,53	3,34	10,90	7,56	60,00	5,63	96,88	10,30	112,81	123,70	120,36

Notes

1) Life period 12 000 hours
2) Average use per annum 2 000 hours/annum
3) Salvage value 25%
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Insurance cost per hour 1,5%
7) Interest cost per hour 9,5%
8) Repairs and maintenance cost per hour %
9) Diesel price = R13,84
10) Fuel consumption: 46 KW 7,00
11) Oil price = R33,22
12) Oil consumption = 1,0%
13) Tyre cost per hour = (purchase price of new tyre set * no. tyre sets)/loader life period in hours)
14) Sets of tyres during life period 6

15. SELF-PROPELLED MAIZE COMBINE HARVESTERS

15.1 Maize engines

Maize engine size (kW)	Average purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance and licence costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl interest (R/hr)	Fuel usage (ℓ/hr)
124	1 293 662	129 366	711 514	291,07	41,50	225,31	557,89	332,58	129,37	308,91	438,28	996,17	770,85	22,32
177	2 024 000	202 400	1 113 200	455,40	64,94	352,51	872,85	520,34	202,40	440,94	643,34	1 516,19	1 163,68	31,86
278	2 856 089	285 609	1 570 849	642,62	91,63	497,44	1 231,69	734,25	285,61	692,55	978,16	2 209,85	1 712,42	50,04
353	3 815 437	381 544	2 098 490	858,47	122,41	664,52	1 645,41	980,89	381,54	879,39	1 260,94	2 906,34	2 241,82	63,54
360	3 780 417	378 042	2 079 229	850,59	121,29	658,42	1 630,30	971,88	378,04	896,83	1 274,87	2 905,18	2 246,76	64,80
390	3 689 906	368 991	2 029 448	830,23	118,38	642,66	1 591,27	948,61	368,99	971,57	1 340,56	2 931,83	2 289,17	70,20
405	3 991 210	399 121	2 195 166	898,02	128,05	695,14	1 721,21	1 026,07	399,12	1 008,94	1 408,06	3 129,27	2 434,13	72,90

Notes

1 Life 4 000 hours
2 Average use per annum 300 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Licence and insurance cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,5% of average investment/hours per annum
8 Repairs and maintenance cost per hour 40% of purchase price/life period in hours
9 Fuel price R13,84 per litre 9 (as at May 2014)
10 Fuel consumption 60% of kilowatts used
11 Litres used per kilowatt hour 0,30 litre/Kw hour

15. SELF-PROPELLED MAIZE COMBINE HARVESTERS (*cont*.)

15.2 Maize heads

Maize head size and row size	Average purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance and licence costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl interest (R/hr)
3 row 1,5 m snapper	329 213	32 921	181 067	74,07	10,56	57,34	141,97	84,64	32,92	32,92	174,89	117,56
3 row 2,1 m snapper	228 600	22 860	125 730	51,44	7,33	39,81	98,58	58,77	22,86	22,86	121,44	81,63
3 row 2,3 m snapper	490 000	49 000	269 500	110,25	15,72	85,34	211,31	125,97	49,00	49,00	260,31	174,97
4 row 0,75 m snapper	304 000	30 400	167 200	68,40	9,75	52,95	131,10	78,15	30,40	30,40	161,50	108,55
4 row 0,9 m snapper	303 333	30 333	166 833	68,25	9,73	52,83	130,81	77,98	30,33	30,33	161,15	108,32
4 row 1,5 m snapper	312 350	31 235	171 793	70,28	10,02	54,40	134,70	80,30	31,24	31,24	165,94	111,53
4 row 2,1 m snapper	302 000	30 200	166 100	67,95	9,69	52,60	130,24	77,64	30,20	30,20	160,44	107,84
5 row 0,75 m snapper	354 400	35 440	194 920	79,74	11,37	61,72	152,84	91,11	35,44	35,44	188,28	126,55
5 row 1,5 m snapper	469 725	46 973	258 349	105,69	15,07	81,81	202,57	120,76	46,97	46,97	249,54	167,73
5 row 2,1 m snapper	372 000	37 200	204 600	83,70	11,94	64,79	160,43	95,64	37,20	37,20	197,63	132,84
6 row 0,75 m snapper	503 167	50 317	276 742	113,21	16,14	87,63	216,99	129,36	50,32	50,32	267,31	179,67
6 row 0,9 m snapper	419 984	41 998	230 991	94,50	13,47	73,15	181,12	107,97	42,00	42,00	223,12	149,97
8 row 0,75 m snapper	731 555	73 155	402 355	164,60	23,47	127,41	315,48	188,07	73,16	73,16	388,64	261,23
8 row 0,9 m snapper	627 730	62 773	345 251	141,24	20,14	109,33	270,71	161,38	62,77	62,77	333,48	224,15
12 row 0,75 m snapper	1 030 724	103 072	566 898	231,91	33,07	179,52	444,50	264,98	103,07	103,07	547,57	368,05
12 row 0,9 m snapper	1 185 144	118 514	651 829	266,66	38,02	206,41	511,09	304,68	118,51	118,51	629,61	423,20
16 row 0,75 m snapper	1 431 245	143 125	787 185	322,03	45,92	249,28	617,22	367,95	143,12	143,12	760,35	511,07

Notes

1 Life 4 000 hours
2 Average use per annum 300 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Licence and insurance cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,5% of average investment/hours per annum
8 Repairs and maintenance cost per hour 40% of purchase price/life period in hours

15. SELF-PROPELLED MAIZE COMBINE HARVESTERS (*cont*.)

15.3 Maize engines and heads

The cost of an engine and a suitable head are calculated by selecting the relevant Engine Costs (15.1) and adding the relevant Head Costs (15.2).
For example, sum the Depreciation cost of the Engine with the Depreciation cost of the Head. There are other examples in the Introduction (Table 2).

Maize engine size (kW)	Maize head size and row size	Average purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance and licence costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl interest (R/hr)
124	+	1 293 662	129 366	711 514	291,07	41,50	225,31	557,89	332,58	129,37	308,91	438,28	996,17	770,85
	3 row 1,5 m snapper	329 213	32 921	181 067	74,07	10,56	57,34	141,97	84,64	32,92		32,92	174,89	117,56
TOTAL		1 622 875	162 287	892 581	365,15	52,07	282,65	699,86	417,21	162,29	308,91	471,20	1 171,06	888,41
278	+	2 856 089	285 609	1 570 849	642,62	91,63	497,44	1 231,69	734,25	285,61	692,55	978,16	2 209,85	1 712,42
	5 row 2,1 m snapper	372 000	37 200	204 600	83,70	11,94	64,79	160,43	95,64	37,20		37,20	197,63	132,84
TOTAL		3 228 089	322 809	1 775 449	726,32	103,57	562,23	1 392,11	829,89	322,81	692,55	1 015,36	2 407,48	1 845,25
390	+	3 689 906	368 991	2 029 448	830,23	118,38	642,66	1 591,27	948,61	368,99	971,57	1 340,56	2 931,83	2 289,17
	12 row 0,75 m snapper	1 030 724	103 072	566 898	231,91	33,07	179,52	444,50	264,98	103,07		103,07	547,57	368,05
TOTAL		4 720 630	472 063	2 596 346	1 062,14	151,45	822,18	2 035,77	1 213,60	472,06	971,57	1 443,63	3 479,40	2 657,23

16. SELF-PROPELLED WHEAT COMBINE HARVESTERS

16.1 Wheat engines

Wheat engine size (kW)	Average purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance and licence costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl interest (R/hr)	Fuel usage (ℓ/hr)
124	1 293 662	129 366	711 514	291,07	41,50	225,31	557,89	332,58	129,37	308,91	438,28	996,17	770,85	22,32
177	2 727 942	272 794	1 500 368	613,79	87,52	475,12	1 176,42	701,31	272,79	440,94	713,74	1 890,16	1 415,05	31,86
190	3 202 000	320 200	1 761 100	720,45	102,73	557,68	1 380,86	823,18	320,20	473,33	793,53	2 174,39	1 616,71	34,20
198	3 223 000	322 300	1 772 650	725,18	103,40	561,34	1 389,92	828,58	322,30	493,26	815,56	2 205,48	1 644,14	35,64
218	2 329 399	232 940	1 281 169	524,11	74,73	405,70	1 004,55	598,85	232,94	543,08	776,02	1 780,57	1 374,87	39,24
234	3 320 000	332 000	1 826 000	747,00	106,52	578,23	1 431,75	853,52	332,00	582,94	914,94	2 346,69	1 768,46	42,12
239	3 234 862	323 486	1 779 174	727,84	103,79	563,41	1 395,03	831,63	323,49	595,40	918,88	2 313,92	1 750,51	43,02
252	3 064 463	306 446	1 685 455	689,50	98,32	533,73	1 321,55	787,82	306,45	627,78	934,23	2 255,78	1 722,05	45,36
261	3 259 100	325 910	1 792 505	733,30	104,56	567,63	1 405,49	837,86	325,91	650,20	976,11	2 381,60	1 813,97	46,98
276	3 260 000	326 000	1 793 000	733,50	104,59	567,78	1 405,88	838,09	326,00	687,57	1 013,57	2 419,45	1 851,66	49,68
278	3 328 847	332 885	1 830 866	748,99	106,80	579,77	1 435,57	855,79	332,88	692,55	1 025,44	2 461,00	1 881,23	50,04
284	4 219 600	421 960	2 320 780	949,41	135,38	734,91	1 819,70	1 084,79	421,96	707,50	1 129,46	2 949,16	2 214,25	51,12
286	4 251 875	425 188	2 338 531	956,67	136,41	740,53	1 833,62	1 093,09	425,19	712,48	1 137,67	2 971,29	2 230,76	51,48
325	4 095 428	409 543	2 252 485	921,47	131,39	713,29	1 766,15	1 052,87	409,54	809,64	1 219,18	2 985,34	2 272,05	58,50
336	4 445 500	444 550	2 445 025	1 000,24	142,63	774,26	1 917,12	1 142,86	444,55	837,04	1 281,59	3 198,72	2 424,46	60,48
343	3 478 000	347 800	1 912 900	782,55	111,59	605,75	1 499,89	894,14	347,80	854,48	1 202,28	2 702,17	2 096,42	61,74
353	4 446 992	444 699	2 445 846	1 000,57	142,67	774,52	1 917,77	1 143,25	444,70	879,39	1 324,09	3 241,86	2 467,34	63,54
360	5 346 250	534 625	2 940 438	1 202,91	171,53	931,14	2 305,57	1 374,43	534,63	896,83	1 431,46	3 737,03	2 805,89	64,80
373	4 172 200	417 220	2 294 710	938,75	133,86	726,66	1 799,26	1 072,60	417,22	929,22	1 346,44	3 145,70	2 419,04	67,14
375	4 718 870	471 887	2 595 379	1 061,75	151,40	821,87	2 035,01	1 213,14	471,89	934,20	1 406,09	3 441,10	2 619,23	67,50
390	5 579 322	557 932	3 068 627	1 255,35	179,00	971,73	2 406,08	1 434,35	557,93	971,57	1 529,50	3 935,58	2 963,85	70,20
405	5 490 019	549 002	3 019 510	1 235,25	176,14	956,18	2 367,57	1 411,39	549,00	1 008,94	1 557,94	3 925,51	2 969,33	72,90

Notes

1 Life 4 000 hours
2 Average use per annum 300 hours per annum
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6 Licence and insurance cost per hour 1,75% of average investment/hours per annum
7 Interest cost per hour 9,5% of average investment/hours per annum
8 Repairs and maintenance cost per hour 40% of purchase price/life period in hours
9 Fuel price R13,84 per litre 9 (as at May 2014)
10 Fuel consumption 60% of kilowatts used
11 Litres used per kilowatt hour 0,30 litre/Kw hour

16. SELF-PROPELLED WHEAT COMBINE HARVESTERS (*cont*.)

16.2 Wheat heads

Wheat head size (m)	Average purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance and licence costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs and maintenance costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl interest (R/hr)
4,3 m	482 543	48 254	265 399	108,57	15,48	84,04	208,10	124,05	48,25	48,25	256,35	172,31
4,6 m	388 628	38 863	213 745	87,44	12,47	67,69	167,60	99,91	38,86	38,86	206,46	138,77
5,2 m	211 900	21 190	116 545	47,68	6,80	36,91	91,38	54,48	21,19	21,19	112,57	75,67
5,8 m	158 600	15 860	87 230	35,69	5,09	27,62	68,40	40,77	15,86	15,86	84,26	56,63
6,0 m	584 027	58 403	321 215	131,41	18,74	101,72	251,86	150,14	58,40	58,40	310,26	208,55
6,1 m	320 100	32 010	176 055	72,02	10,27	55,75	138,04	82,29	32,01	32,01	170,05	114,30
6,6 m	458 280	45 828	252 054	103,11	14,70	79,82	197,63	117,82	45,83	45,83	243,46	163,64
6,7 m	385 331	38 533	211 932	86,70	12,36	67,11	166,17	99,06	38,53	38,53	204,71	137,60
7,5 m	624 976	62 498	343 737	140,62	20,05	108,85	269,52	160,67	62,50	62,50	332,02	223,17
7,6 m	502 314	50 231	276 272	113,02	16,12	87,49	216,62	129,14	50,23	50,23	266,85	179,37
9,0 m	749 398	74 940	412 169	168,61	24,04	130,52	323,18	192,66	74,94	74,94	398,12	267,60
9,1 m	572 397	57 240	314 818	128,79	18,36	99,69	246,85	147,15	57,24	57,24	304,09	204,39
10,7 m	820 838	82 084	451 461	184,69	26,34	142,96	353,99	211,02	82,08	82,08	436,07	293,11
12,0 m	933 077	93 308	513 192	209,94	29,94	162,51	402,39	239,88	93,31	93,31	495,70	333,19
12,2 m	1 077 643	107 764	592 704	242,47	34,57	187,69	464,73	277,04	107,76	107,76	572,50	384,81

Notes

1) Life 4 000 hours
2) Average use per annum 300 hours per annum
3) Salvage value 10% of purchase price
4) Average investment = (purchase price + salvage value)/2
5) Depreciation cost per hour = (purchase price - salvage value)/life period in hours
6) Licence and insurance cost per hour 1,75% of average investment/hours per annum
7) Interest cost per hour 9,5% of average investment/hours per annum
8) Repairs and maintenance cost per hour 40% of purchase price/life period in hours

16. SELF-PROPELLED WHEAT COMBINE HARVESTERS (*cont*.)

16.3 Wheat engines and heads

The cost of an engine and a suitable head are calculated by selecting the relevant Engine Costs (16.1) and adding the relevant Head Costs (16.2).
For example, sum the Depreciation cost of the Engine with the Depreciation cost of the Head. There are other examples in the Introduction (Table 2).

Wheat engine size (kW)		Wheat row size (m)	Average purchase price (R)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance licence costs (R/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl interest (R/hr)	Repairs and maintenance costs (R/hr)	Fuel costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl interest (R/hr)
190	+		3 202 000	320 200	1 761 100	720,45	102,73	557,68	1 380,86	823,18	320,20	473,33	793,53	2 174,39	1 616,71
		4,3 m	482 543	48 254	265 399	108,57	15,48	84,04	208,10	124,05	48,25		48,25	256,35	172,31
TOTAL			3 684 543	368 454	2 026 499	829	118	642	1 589	947	368,45	473,33	841,78	2 430,74	1 789
284	+		4 219 600	421 960	2 320 780	949,41	135,38	734,91	1 819,70	1 084,79	421,96	707,50	1 129,46	2 949,16	2 214,25
		6,6 m	458 280	45 828	252 054	103,11	14,70	79,82	197,63	117,82	45,83		45,83	243,46	163,64
TOTAL			4 677 880	467 788	2 572 834	1 053	150	815	2 017	1 203	467,79	707,50	1 175,29	3 192,62	2 378
405	+		5 490 019	549 002	3 019 510	1 235,25	176,14	956,18	2 367,57	1 411,39	549,00	1 008,94	1 557,94	3 925,51	2 969,33
		12,0 m	933 077	93 308	513 192	209,94	29,94	162,51	402,39	239,88	93,31		93,31	495,70	333,19
TOTAL			6 423 096	642 310	3 532 703	1 445	206	1 119	2 770	1 651	642,31	1 008,94	1 651,25	4 421,21	3 303

17. NORMAL TRAILERS

17.1 Two-wheeled trailers

Trailers	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (c/hr)	Licence costs (c/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Tyre costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
17.1.1 Trailers with brakes for tractors																
3 ton	63 710	10 000	500	3 186	33 448	6,05	100,34	42,40	6,36	13,83	7,48	2,55	1,31	3,86	17,69	11,34
5 ton	67 735	10 000	500	3 387	35 561	6,43	106,68	42,40	6,76	14,68	7,93	2,71	1,41	4,12	18,80	12,05
6 ton	114 425	10 000	500	5 721	60 073	10,87	180,22	42,40	11,41	24,51	13,10	4,58	2,82	7,40	31,91	20,49
8 ton	116 955	10 000	500	5 848	61 401	11,11	184,20	42,40	11,67	25,04	13,38	4,68	2,82	7,50	32,54	20,87
17.1.2 Trailers for trucks																
3 ton	55 488	10 000	500	2 774	29 131	5,27	87,39	42,40	5,53	12,10	6,57	2,22	1,31	3,53	15,63	10,10
5 ton	60 375	10 000	500	3 019	31 697	5,74	95,09	42,40	6,02	13,13	7,11	2,42	1,41	3,83	16,96	10,94
6 ton	102 983	10 000	500	5 149	54 066	9,78	162,20	42,40	10,27	22,10	11,83	4,12	2,82	6,94	29,04	18,77
8 ton	110 803	10 000	500	5 540	58 171	10,53	174,51	42,40	11,05	23,75	12,70	4,43	2,82	7,25	31,00	19,95

17.2 Tip trailers—low speed

3 ton - two-wheel	82 168	10 000	500	4 108	43 138	7,81	129,41	42,40	8,20	17,72	9,52	3,29	1,31	4,59	22,31	14,12
5 ton - two-wheel	92 575	10 000	500	4 629	48 602	8,79	145,81	42,40	9,23	19,91	10,68	3,70	2,82	6,52	26,43	17,20
8 ton - four-wheel	152 030	10 000	500	7 602	79 816	14,44	239,45	42,40	15,16	32,43	17,26	6,08	2,82	8,90	41,33	26,16

Notes
1 Life period of trailer 10 000 hours
2 Average use per annum 500 hours
3 Salvage value 5% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/trailer life period in hours
6 Insurance cost per hour 1,5% of average investment/hours per annum
7 Actual licence cost per hour = actual cost/hours per annum R212,00/hours per annum
8 Interest cost per hour 9,5% of average investment hours per annum
9 Repairs and maintenance cost per hour 40% of purchase price/trailer life period in hours
10 Tyre cost per hour = ((purchase price of new tyre set * no. tyre sets)/trailer life period in hours)
11 Tyre life 45 000 kilometres
12 Sets of tyres during trailer life period 3 sets

17. NORMAL TRAILERS (*cont*.)

17.3 Four-wheeled trailers

Trailers	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (c/hr)	Licence costs (c/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Tyre costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
2 ton	44 275	10 000	500	2 214	23 244	4,21	69,73	42,40	4,42	9,74	5,33	1,77	2,46	4,23	13,98	9,56
3 ton	58 190	10 000	500	2 910	30 550	5,53	91,65	42,40	5,80	12,67	6,87	2,33	2,46	4,79	17,46	11,66
6 ton—flatbed	102 983	10 000	500	5 149	54 066	9,78	162,20	42,40	10,27	22,10	11,83	4,12	2,62	6,74	28,84	18,56
6 ton—dropsides	114 425	10 000	500	5 721	60 073	10,87	180,22	42,40	11,41	24,51	13,10	4,58	2,62	7,19	31,70	20,29
8 ton—flatbed	110 803	10 000	500	5 540	58 171	10,53	174,51	42,40	11,05	23,75	12,70	4,43	2,82	7,25	31,00	19,95
8 ton—dropsides	116 955	10 000	500	5 848	61 401	11,11	184,20	42,40	11,67	25,04	13,38	4,68	5,64	10,32	35,36	23,69
10 ton—flatbed	119 773	10 000	500	5 989	62 881	11,38	188,64	42,40	11,95	25,64	13,69	4,79	9,12	13,91	39,55	27,60
10 ton—dropsides	139 150	10 000	500	6 958	73 054	13,22	219,16	42,40	13,88	29,72	15,83	5,57	9,12	14,69	44,40	30,52
15 ton—dropsides	204 010	10 000	500	10 201	107 105	19,38	321,32	42,40	20,35	43,37	23,02	8,16	9,12	17,28	60,65	40,30
Silage feedout wagon—18 cu.m.	286 902	10 000	500	14 345	150 624	27,26	451,87	42,40	28,62	60,82	32,20	11,48	9,12	20,60	81,41	52,79
Silage feedout wagon—30 cu.m.	321 057	10 000	500	16 053	168 555	30,50	505,66	42,40	32,03	68,01	35,98	12,84	9,12	21,96	89,97	57,94

17.4 Drawn fire-fighting water carts without pumps and plumbing

1 000 ℓ	65 514	10 000	500	3 276	34 395	6,22	103,19	42,40	6,54	14,21	7,68	2,62	1,09	3,71	17,92	11,39
2 000 ℓ	95 987	10 000	500	4 799	50 393	9,12	151,18	42,40	9,57	20,63	11,05	3,84	1,23	5,07	25,70	16,13
3 000 ℓ	129 507	10 000	500	6 475	67 991	12,30	203,97	42,40	12,92	27,69	14,77	5,18	1,32	6,50	34,19	21,27
5 000 ℓ	175 214	10 000	500	8 761	91 987	16,65	275,96	42,40	17,48	37,31	19,83	7,01	4,56	11,57	48,88	31,40

Notes 1 Life period of trailer 10 000 hours
2 Average use per annum 500 hours
3 Salvage value 5% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per hour = (purchase price - salvage value)/trailer life period in hours
6 Insurance cost per hour 1,5% of average investment/hours per annum
7 Actual licence cost per hour = actual cost/hours per annum R212,00/hours per annum
8 Interest cost per hour 9,5% of average investment hours per annum
9 Repairs and maintenance cost per hour 40% of purchase price/trailer life period in hours
10 Tyre cost per hour = ((purchase price of new tyre set * no. tyre sets)/trailer life period in hours)
11 Tyre life 45 000 kilometres
12 Sets of tyres during trailer life period 3 sets

18. CANE AND TIMBER TRAILERS

18.1 Cane trailers

Cane and timber trailers	Purchase price (R)	Life period (hr)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depreciation costs (R/hr)	Insurance costs (c/hr)	Licence costs (c/hr)	Interest costs (R/hr)	Total fixed costs (R/hr)	Total fixed costs excl. interest (R/hr)	Repairs and maintenance costs (R/hr)	Tyre costs (R/hr)	Total variable costs (R/hr)	Total costs (R/hr)	Total costs excl. interest (R/hr)
18.1.1 Trailers with brakes for tractors																
6 ton single box	118 549	12 000	1 000	29 637	74 093	7,41	111,14	31,00	7,04	15,87	8,83	296,37	253,33	5,50	21,37	14,33
10 ton double box	250 825	12 000	1 000	62 706	156 766	15,68	235,15	31,00	14,89	33,23	18,34	627,06	506,67	11,34	44,57	29,68
15 ton spiller bar	377 129	12 000	1 000	94 282	235 706	23,57	353,56	31,00	22,39	49,81	27,42	942,82	1 017,60	19,60	69,41	47,02
Single stack side loading	104 030	12 000	1 000	26 008	65 019	6,50	97,53	31,00	6,18	13,96	7,79	260,08	253,33	5,13	19,10	12,92
Single stack rear loading	108 727	12 000	1 000	27 182	67 954	6,80	101,93	31,00	6,46	14,58	8,12	271,82	253,33	5,25	19,83	13,38
Double stack rear loading	213 469	12 000	1 000	53 367	133 418	13,34	200,13	31,00	12,67	28,33	15,65	533,67	506,67	10,40	38,73	26,06
18.1.2 Trailers for trucks																
18 ton tandem axle	429 000	560 000	70 000	107 250	268 125	0,57	5,75	0,44	0,36	1,00	0,64	22,98	31,79	0,55	1,55	1,18
24 ton tri-axle	460 000	560 000	70 000	115 000	287 500	0,62	6,16	0,44	0,39	1,07	0,68	24,64	45,92	0,71	1,78	1,39
38 ton interlink	560 000	560 000	70 000	140 000	350 000	0,75	7,50	0,44	0,48	1,30	0,83	30,00	63,58	0,94	2,24	1,77
40 ton rigid four-axle	550 000	560 000	70 000	137 500	343 750	0,74	7,37	0,44	0,47	1,28	0,81	29,46	60,05	0,90	2,18	1,71

18.2 Timber trailers

18.2.1 Trailers with brakes for tractors																
18.2.1.1 TIP DECK																
15 ton flat deck	384 244	12 000	1 000	96 061	240 153	24,02	360,23	31,00	22,81	50,74	27,93	960,61	608,13	15,69	66,43	43,61
15 ton pulpwood	370 013	12 000	1 000	92 503	231 258	23,13	346,89	31,00	21,97	48,87	26,90	925,03	608,13	15,33	64,21	42,24
18.2.1.2 NON-TIP DECK																
15 ton flat deck	483 863	12 000	1 000	120 966	302 414	30,24	453,62	31,00	28,73	63,82	35,09	1 209,66	596,53	18,06	81,88	53,15
15 ton sawlog bank-type	498 094	12 000	1 000	124 524	311 309	31,13	466,96	31,00	29,57	65,68	36,11	1 245,24	596,53	18,42	84,10	54,53
18.2.2 Trailers for trucks																
18 ton tandem axle	299 000	560 000	70 000	74 750	186 875	0,40	4,00	0,44	0,25	0,70	0,44	16,02	31,79	0,48	1,18	0,92
24 ton tri-axle	330 000	560 000	70 000	82 500	206 250	0,44	4,42	0,44	0,28	0,77	0,49	17,68	45,92	0,64	1,41	1,13
38 ton interlink	498 000	560 000	70 000	124 500	311 250	0,67	6,67	0,44	0,42	1,16	0,74	26,68	63,58	0,90	2,06	1,64
40 ton rigid four-axle	691 000	560 000	70 000	172 750	431 875	0,93	9,25	0,44	0,59	1,61	1,02	37,02	60,05	0,97	2,58	1,99

Notes 1 Life period of tractor trailer 12 000 kilometres
Life period of truck trailer 560 000 kilometres
2 Average use per annum of tractor trailer 1 000 kilometres
Average use per annum of truck trailer 70 000 kilometres
3 Salvage value 25% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per kilometre = (purchase price - salvage value)/trailer life period in kilometres
6 Insurance cost per kilometre 1,5% of average investment/hours kilometres per annum
7 Actual licence cost per kilometres = actual cost/kilometres per annum R312.000/kilometres per annum
8 Interest cost per kilometre 9,5% of average investment kilometres per annum
9 Repairs and maintenance cost per kilometre 40% of purchase price/trailer life period in kilometres
10 Tyre cost per kilometres = ((purchase price of new tyre set * no. tyre sets)/trailer life period in kilometres)
11 Tyre life 45 000 kilometres
12 Sets of tyres during trailer life period 4 sets

19. TWO-WHEEL DRIVE LDVs

19.1 Petrol single cab

LDV size (t)		Engine capacity (cc)	Purchase price (R)	Fuel usage (ℓ per 100 km)	Average invest-ment (R)	Depre-ciation costs (c/km)	Insurance costs (c/km)	Licence costs (c/km)	Interest costs (c/km)	Total fixed costs (R/km)	Total fixed costs excl. interest (R/km)	Repairs and maintenance costs (c/km)	Fuel costs (c/km)	Oil costs (c/km)	Tyres costs (c/km)	Contin-gency factor costs (c/km)	Total variable costs (R/km)	Total costs (R/km)	Total costs excl. interest (R/km)
0,5	T	<1 400	218 900	7,90	120 395	123,13	41,54	1,43	57,19	2,23	1,66	68,41	108,07	2,62	6,58	18,57	2,04	4,28	3,70
1,0	T	2 000 LWB	196 813	10,60	108 247	110,71	37,35	2,12	51,42	2,02	1,50	61,50	145,01	3,52	7,45	21,75	2,39	4,41	3,89
1,0	T	<= 2 500 LWB	177 180	11,00	97 449	99,66	33,62	2,12	46,29	1,82	1,35	55,37	150,48	3,65	7,45	21,70	2,39	4,20	3,74
1,0	T	<= 3 000 LWB	251 842	14,00	138 513	141,66	47,79	2,12	65,79	2,57	1,92	78,70	191,52	4,65	7,45	28,23	3,11	5,68	5,02

19.2 Diesel single cab

1,0	T	<= 2 500 SWB	170 702	8,00	93 886	96,02	32,39	2,12	44,60	1,75	1,31	53,34	110,72	2,66	7,45	17,42	1,92	3,67	3,22
1,0	T	<= 2 500 LWB	212 081	8,00	116 644	119,30	40,24	2,12	55,41	2,17	1,62	66,28	110,72	2,66	7,45	18,71	2,06	4,23	3,67
1,0	T	<= 3 000 LWB	252 339	8,00	138 786	141,94	47,88	2,12	65,92	2,58	1,92	78,86	110,72	2,66	7,45	19,97	2,20	4,78	4,12

19.3 Petrol extended cab

1,0	T	<= 3 000	245 000	14,00	134 750	137,81	46,49	2,49	64,01	2,51	1,87	76,56	191,52	4,65	10,96	28,37	3,12	5,63	4,99

19.4 Diesel extended cab

1,0	T	<= 2 500	264 284	8,00	145 356	148,66	50,15	2,49	69,04	2,70	2,01	82,59	110,72	2,66	10,96	20,69	2,28	4,98	4,29
1,0	T	<= 3 000	329 358	9,50	181 147	185,26	62,50	2,49	86,04	3,36	2,50	102,92	131,48	3,16	10,96	24,85	2,73	6,10	5,24

19.5 Petrol double cab

1,0	T	<= 2 500	271 204	14,00	149 162	152,55	51,46	3,02	70,85	2,78	2,07	84,75	191,52	4,65	10,96	29,19	3,21	5,99	5,28
1,0	T	<= 3 000	256 974	14,00	141 335	144,55	48,76	3,02	67,13	2,63	1,96	80,30	191,52	4,65	10,96	28,74	3,16	5,80	5,13
1,0	T	<= 4 000	302 938	14,50	166 616	170,40	57,48	3,02	79,14	3,10	2,31	94,67	198,36	4,82	10,96	30,88	3,40	6,50	5,71

19.6 Diesel double cab

1,0	T	<= 2 400	321 345	14,00	176 740	180,76	60,98	3,02	83,95	3,29	2,45	100,42	193,76	4,65	10,96	30,98	3,41	6,69	5,86
1,0	T	<= 3 000	329 586	14,00	181 272	185,39	62,54	3,02	86,10	3,37	2,51	103,00	193,76	4,65	10,96	31,24	3,44	6,81	5,95
1,0	T	>= 3 000	361 849	14,00	199 017	203,54	68,66	3,02	94,53	3,70	2,75	113,08	193,76	4,65	10,96	32,24	3,55	7,24	6,30

SWB short-wheel base
LWB long-wheel base

Notes
1 Life period 160 000 kilometres
2 Annual use/annum 20 000 kilometres
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per kilometre = (purchase price - salvage value)/life period in kilometers
6 Insurance cost per kilometre 6,9% of average investment kilometres per annum
7 Actual licence cost per kilometre = actual cost per annum/kilometres per annum
8 Interest cost per kilometre 9,5% of average investment/kilometres per annum
9 Repairs and maintenance cost per kilometre 50% of purchase price/life period in kilometers
10 The price of diesel 1 384,00 cents/litre
The price of petrol (95 octane) 1 368,00 cents/litre
Price of oil 3 322,00 cents/litre 6 976,20 Rand/210 litres
11 Oil consumption 1% of fuel consumption
12 Tyre cost per kilometre = (purchase price of new tyre * no. tyres)/tyre life in kilometres [no. tyres = no. wheels]
14 Assumption: A set of tyres lasts 50 000 kilometres
15 Contingency factor 10% of the variable costs; i.e. repairs + fuel + oil + tyres

20. FOUR-WHEEL DRIVE LDVs

20.1 Petrol single cab

LDV size (t)	Engine capacity (cc)	Purchase price (R)	Fuel usage (ℓ per 100 km)	Average invest-ment (R)	Depre-ciation costs (c/km)	Insurance costs (c/km)	Licence costs (c/km)	Interest costs (c/km)	Total fixed costs (R/km)	Total fixed costs excl. interest (R/km)	Repairs and maintenance costs (c/km)	Fuel costs (c/km)	Oil costs (c/km)	Tyres costs (c/km)	Contin-gency factor costs (c/km)	Total variable costs (R/km)	Total costs (R/km)	Total costs excl. interest (R/km)
0,5 T	<= 2 500	213 683	7,90	117 525	120,20	40,55	2,20	55,82	2,19	1,63	66,78	108,07	2,62	6,58	18,41	2,02	4,21	3,65

20.2 Diesel single cab

1,0 T	<= 2 500	293 654	8,00	161 509	165,18	55,72	2,20	76,72	3,00	2,23	91,77	110,72	2,66	7,45	21,26	2,34	5,34	4,57
1,0 T	<= 3 000	357 942	8,00	196 868	201,34	67,92	2,20	93,51	3,65	2,71	111,86	110,72	2,66	7,45	23,27	2,56	6,21	5,27

20.3 Diesel extended cab

1,0 T	<= 2 500	337 105	8,00	185 408	189,62	63,97	2,49	88,07	3,44	2,56	105,35	110,72	2,66	10,96	22,97	2,53	5,97	5,09
1,0 T	<= 3 000	366 228	9,50	201 425	206,00	69,49	2,49	95,68	3,74	2,78	114,45	131,48	3,16	10,96	26,00	2,86	6,60	5,64
1,0 T	>= 3 000	350 153	9,50	192 584	196,96	66,44	2,49	91,48	3,57	2,66	109,42	131,48	3,16	10,96	25,50	2,81	6,38	5,46

20.4 Petrol double cab

1,0 T	<= 2 500	337 572	14,00	185 665	189,88	64,05	3,02	88,19	3,45	2,57	105,49	191,52	4,65	10,96	31,26	3,44	6,89	6,01
1,0 T	<= 3 000	450 789	14,00	247 934	253,57	85,54	3,02	117,77	4,60	3,42	140,87	191,52	4,65	10,96	34,80	3,83	8,43	7,25

20.5 Diesel double cab

1,0 T	<= 2 500	304 678	14,00	167 573	171,38	57,81	3,02	79,60	3,12	2,32	95,21	193,76	4,65	10,96	30,46	3,35	6,47	5,67
1,0 T	>= 3 000	393 665	14,00	216 516	221,44	74,70	3,02	102,85	4,02	2,99	123,02	193,76	4,65	10,96	33,24	3,66	7,68	6,65

Notes
1 Life period 160 000 kilometres
2 Annual use/annum 20 000 kilometres
3 Salvage value 10% of purchase price
4 Average investment = (purchase price + salvage value)/2
5 Depreciation cost per kilometre = (purchase price - salvage value)/life period in kilometers
6 Insurance cost per kilometre 6,9% of average investment kilometres per annum
7 Actual licence cost per kilometre = actual cost per annum/kilometres per annum
8 Interest cost per kilometre 9,5% of average investment/kilometres per annum
9 Repairs and maintenance cost per kilometre 50% of purchase price/life period in kilometers
10 The price of diesel 1 384,00 cents/litre
The price of petrol (95 octane) 1 368,00 cents/litre
Price of oil 3 322,00 cents/litre 6 976,20 Rand/210 litres
11 Oil consumption 1% of fuel consumption
12 Tyre cost per kilometre = (purchase price of new tyre * no. tyres)/tyre life in kilometres [no. tyres = no. wheels]
14 Assumption: A set of tyres lasts 50 000 kilometres
15 Contingency factor 10% of the variable costs; i.e. repairs + fuel + oil + tyres

21. TRUCKS

21.1 Single differential—with drop sides

Truck size and description	Purchase price (R)	Fuel usage (ℓ per 100 km)	Average investment (R)	Depre-ciation costs (c/km)	Insurance costs (c/km)	Licence costs (c/km)	Interest costs (c/km)	Total fixed costs (R/km)	Total fixed costs excl. interest (R/km)	Repairs and maintenance costs (c/km)	Fuel costs (c/km)	Oil costs (c/km)	Tyres costs (c/km)	Contin-gency factor costs (c/km)	Total variable costs (R/km)	Total costs (R/km)	Total costs excl. interest (R/km)
3,0 ton	285 466	15,00	157 006	85,64	11,21	4,40	42,62	1,44	1,01	47,58	207,60	7,47	67,13	32,98	3,63	5,07	4,64
4,0 ton	307 842	15,00	169 313	92,35	12,09	6,29	45,96	1,57	1,11	51,31	207,60	7,47	67,13	33,35	3,67	5,24	4,78
6,0 ton	459 038	25,00	252 471	137,71	15,78	6,88	59,96	2,20	1,60	91,81	346,00	16,61	67,13	52,15	5,74	7,94	7,34
7,0 ton	832 442	28,00	457 843	249,73	19,08	5,15	72,49	3,46	2,74	166,49	387,52	18,60	69,10	64,17	7,06	10,52	9,80
8,0 ton	525 871	30,00	289 229	157,76	12,05	6,05	45,79	2,22	1,76	105,17	415,20	19,93	90,08	63,04	6,93	9,15	8,69

21.2 Double differential—with drop sides

14,0 ton	875 433	40,00	481 488	262,63	17,20	8,97	65,34	3,54	2,89	175,09	553,60	26,58	127,63	88,29	9,71	13,25	12,60

21.3 Double differential—horse only

22,0 ton	1 006 095	46,00	553 352	129,36	19,76	8,97	75,10	2,33	1,58	68,99	636,64	30,56	115,62	85,18	9,37	11,70	10,95
25,0 ton	916 595	48,00	504 127	117,85	18,00	8,97	68,42	2,13	1,45	62,85	664,32	31,89	167,01	92,61	10,19	12,32	11,64
29,0 ton	1 061 095	50,00	583 602	136,43	20,84	8,97	79,20	2,45	1,66	72,76	692,00	33,22	231,24	102,92	11,32	13,78	12,98

Notes

Life period
300 000 kilometers 21.1 Single differential—with dropsides
300 000 kilometers 21.1 Double differential—with dropsides
700 000 kilometers 21.1 Double differential—horse

Annual use/annum
35 000 kilometres per annum. 21.1 Single differential—with dropsides, 3t and 4t
40 000 kilometres per annum. 21.1 Single differential—with dropsides, 6t
60 000 kilometres per annum. 21.1 Single differential—with dropsides, 7t and 8t
70 000 kilometres per annum. 21.2 Double differential—with dropsides
70 000 kilometres per annum. 21.2 Double differential—horse only

Salvage value 10% of purchase price
Average investment = (purchase price + salvage value)/2
Depreciation cost per kilometre = (purchase price - salvage value)/life period in kilometers
Insurance cost per kilometre 2,5% of average investment/kilometres per annum
Actual licence cost per kilometre = actual cost per annum/kilometres per annum
Interest cost per kilometre 9,5% of average investment/kilometres per annum
Repairs and maintenance cost per kilometre
50% of purchase price/life period in kilometers for 3–5 ton trucks
60% of purchase price/life period in kilometers for 6–14 ton trucks
48% of purchase price/life period in kilometers for mechanical horses with interlinks
The price of diesel 13,84 Rand/litre
Price of oil 3 322 cents/litre 6 976,20 Rand/210 litres
Oil consumption 1,5% of fuel consumption for the 3–5 ton trucks
Oil consumption 2% of fuel consumption for other trucks
Tyre cost per kilometre = (purchase price of new tyre * no. tyres)/tyre life in kilometres [no. tyres = no. wheels
Assumption: A set of tyres lasts 45 000 kilometres
Contingency factor 10% of the variable costs; i.e. repairs + fuel + oil + tyres

22. TRUCKS WITH TRAILERS

22.1 Single differential with semi-trailer

Truck and trailer size and description	Purchase price (truck and trailer) (R)	Fuel usage (ℓ per 100 km)	Average investment (R)	Depre-ciation costs (c/km)	Insurance costs (c/km)	Licence costs (c/km)	Interest costs (c/km)	Total fixed costs (R/km)	Total fixed costs excl. interest (R/km)	Repairs and maintenance costs (c/km)	Fuel costs (c/km)	Oil costs (c/km)	Tyres costs (c/km)	Contin-gency factor costs (c/km)	Total variable costs (R/km)	Total costs (R/km)	Total costs excl. interest (R/km)
18,0 ton	1 538 963	45,00	846 429	197,87	30,23	8,97	114,87	3,52	2,37	105,53	622,80	29,90	127,63	88,59	9,74	13,26	12,12

22.2 6 x 4 truck with timber trailer

18 ton semi-trailer	2 002 405	45,00	1 101 323	257,45	39,33	10,69	149,47	4,57	3,07	137,31	622,80	29,90	115,62	90,56	9,96	14,53	13,04
24 ton semi-trailer	2 127 438	47,00	1 170 091	273,53	41,79	10,69	158,80	4,85	3,26	145,88	650,48	31,23	167,01	99,46	10,94	15,79	14,20
38 ton interlink	2 334 675	52,00	1 284 071	300,17	45,86	10,69	174,27	5,31	3,57	160,09	719,68	34,55	231,24	114,56	12,60	17,91	16,17

22.3 6 x 4 truck with sugar cane single-spiller trailer

18 ton semi-trailer	2 038 130	52,00	1 120 972	262,05	40,03	10,69	152,13	4,65	3,13	139,76	719,68	34,55	115,62	100,96	11,11	15,75	14,23
24 ton semi-trailer	2 214 463	52,00	1 217 955	284,72	43,50	10,69	165,29	5,04	3,39	151,85	719,68	34,55	167,01	107,31	11,80	16,85	15,19
38 ton interlink	2 478 033	52,00	1 362 918	318,60	48,68	10,69	184,97	5,63	3,78	169,92	719,68	34,55	231,24	115,54	12,71	18,34	16,49

Notes

Life period
- 300 000 kilometers 21.1 Single differential—with dropsides
- 300 000 kilometers 21.1 Double differential—with dropsides
- 700 000 kilometers 21.1 Double differential—horse

Annual use/annum
- 35 000 kilometres per annum. 21.1 Single differential—with dropsides, 3t and 4t
- 40 000 kilometres per annum. 21.1 Single differential—with dropsides, 6t
- 60 000 kilometres per annum. 21.1 Single differential—with dropsides, 7t and 8t
- 70 000 kilometres per annum. 21.2 Double differential—with dropsides
- 70 000 kilometres per annum. 21.2 Double differential—horse only

Salvage value 10% of purchase price

Average investment = (purchase price + salvage value)/2

Depreciation cost per kilometre = (purchase price - salvage value)/life period in kilometers

Insurance cost per kilometre 2,5% of average investment/kilometres per annum

Actual licence cost per kilometre = actual cost per annum/kilometres per annum

Interest cost per kilometre 9,5% of average investment/kilometres per annum

Repairs and maintenance cost per kilometre
- 50% of purchase price/life period in kilometers for 3–5 ton trucks
- 60% of purchase price/life period in kilometers for 6–14 ton trucks
- 48% of purchase price/life period in kilometers for mechanical horses with interlinks

The price of diesel 13,84 Rand/litre

Price of oil 3 322 cents/litre 6 976,20 Rand/210 litres

Oil consumption 1,5% of fuel consumption for the 3–5 ton trucks

Oil consumption 2% of fuel consumption for other trucks

Tyre cost per kilometre = (purchase price of new tyre * no. tyres)/tyre life in kilometres [no. tyres = no. wheels]

Assumption: A set of tyres lasts 45 000 kilometres

Contingency factor 10% of the variable costs; i.e. repairs + fuel + oil + tyres

23. ELECTRIC MOTORS

23.1 1,1 kW to 3,0 kW—1 000 rpm 6-pole high efficiency

Size (kW)	KVA required	Purchase price (R)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depre-ciation (c/hr)	Interest (c/hr)	Total fixed costs (c/hr)	Total fixed costs excl. interest (c/hr)	Repairs and maintenance costs (c/hr)	WTD average electricty cost (c/hr)	WTD total variable costs (c/hr)	WTD AVG total cost (R/hr)	WTD AVG total cost excl. interest (R/hr)
1,1	1,29	3 602	250	360	1 981	16,21	67,36	83,57	16,21	1,80	138,38	140,18	2,24	1,56
1,1	1,29	3 602	500	360	1 981	16,21	33,68	49,89	16,21	1,80	138,38	140,18	1,90	1,56
1,1	1,29	3 602	1 500	360	1 981	16,21	11,23	27,44	16,21	1,80	138,38	140,18	1,68	1,56
1,1	1,29	3 602	2 500	360	1 981	16,21	6,74	22,94	16,21	1,80	138,38	140,18	1,63	1,56
1,5	1,76	4 267	250	427	2 347	19,20	79,79	98,99	19,20	2,13	188,70	190,83	2,90	2,10
1,5	1,76	4 267	500	427	2 347	19,20	39,90	59,10	19,20	2,13	188,70	190,83	2,50	2,10
1,5	1,76	4 267	1 500	427	2 347	19,20	13,30	32,50	19,20	2,13	188,70	190,83	2,23	2,10
1,5	1,76	4 267	2 500	427	2 347	19,20	7,98	27,18	19,20	2,13	188,70	190,83	2,18	2,10
2,2	2,59	5 262	250	526	2 894	23,68	98,40	122,08	23,68	2,63	276,76	279,39	4,01	3,03
2,2	2,59	5 262	500	526	2 894	23,68	49,20	72,88	23,68	2,63	276,76	279,39	3,52	3,03
2,2	2,59	5 262	1 500	526	2 894	23,68	16,40	40,08	23,68	2,63	276,76	279,39	3,19	3,03
2,2	2,59	5 262	2 500	526	2 894	23,68	9,84	33,52	23,68	2,63	276,76	279,39	3,13	3,03
3,0	3,53	6 088	250	609	3 348	27,40	113,85	141,24	27,40	3,04	377,40	380,44	5,22	4,08
3,0	3,53	6 088	500	609	3 348	27,40	56,92	84,32	27,40	3,04	377,40	380,44	4,65	4,08
3,0	3,53	6 088	1 500	609	3 348	27,40	18,97	46,37	27,40	3,04	377,40	380,44	4,27	4,08
3,0	3,53	6 088	2 500	609	3 348	27,40	11,38	38,78	27,40	3,04	377,40	380,44	4,19	4,08

Notes

1 Average life 20 000 hours
2 Salvage value 10% of purchase price
3 Average investment = (purchase price + salvage value)/2
4 Depreciation cost per hour = (purchase price - salvage value)/Life period in hours (in cents/hour)
5 Interest cost per hour 8,5% of average investment/hours per annum (in cents/hour)
6 Repairs and maintenance cost per hour 10% of purchase price/life period in hours (in cents/hour)
7 KVA needed (power factor) 85% of kW size
8 Weighted average for land rates 1,48 R/kW hour
9 Cost = size (kW) x KVA needed x weighted average (in Rand/hour)
10 Transformer size for landrate 1: 25 KVA
Transformer size for landrate 2: 50 KVA
Transformer size for landrate 3: 100 KVA
11 As the required KVA approaches the allotted landrate transformer size, the user is compelled to use a higher capacity transformer
12 Note these costs are only guidelines and each new electrical installation will need its own evaluation
13 Each new connection must be evaluated against the current use of the transformer to be used

23. ELECTRIC MOTORS (*cont.*)

23.2 4,0kW to 15,0 kW—1 000 rpm 6-pole high efficiency

Size (kW)	KVA required	Purchase price (R)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depre-ciation (c/hr)	Interest (c/hr)	Total fixed costs (c/hr)	Total fixed costs excl. interest (c/hr)	Repairs and maintenance costs (c/hr)	WTD average electricty cost (c/hr)	WTD total variable costs (c/hr)	WTD AVG total cost (R/hr)	WTD AVG total cost excl. interest (R/hr)
4,0	4,71	7 202	250	720	3 961	32,41	134,68	167,09	32,41	3,60	503,20	506,80	6,74	5,39
4,0	4,71	7 202	500	720	3 961	32,41	67,34	99,75	32,41	3,60	503,20	506,80	6,07	5,39
4,0	4,71	7 202	1 500	720	3 961	32,41	22,45	54,86	32,41	3,60	503,20	506,80	5,62	5,39
4,0	4,71	7 202	2 500	720	3 961	32,41	13,47	45,88	32,41	3,60	503,20	506,80	5,53	5,39
5,5	6,47	9 430	250	943	5 187	42,44	176,34	218,78	42,44	4,72	6,92	6,97	9,15	7,39
5,5	6,47	9 430	500	943	5 187	42,44	88,17	130,61	42,44	4,72	6,92	6,97	8,27	7,39
5,5	6,47	9 430	1 500	943	5 187	42,44	29,39	71,83	42,44	4,72	6,92	6,97	7,68	7,39
5,5	6,47	9 430	2 500	943	5 187	42,44	17,63	60,07	42,44	4,72	6,92	6,97	7,57	7,39
7,5	8,82	11 128	250	1 113	6 120	50,08	208,09	258,17	50,08	5,56	9,44	9,49	12,07	9,99
7,5	8,82	11 128	500	1 113	6 120	50,08	104,05	154,12	50,08	5,56	9,44	9,49	11,03	9,99
7,5	8,82	11 128	1 500	1 113	6 120	50,08	34,68	84,76	50,08	5,56	9,44	9,49	10,34	9,99
7,5	8,82	11 128	2 500	1 113	6 120	50,08	20,81	70,89	50,08	5,56	9,44	9,49	10,20	9,99
11,0	12,94	17 553	250	1 755	9 654	78,99	328,24	407,23	78,99	8,78	13,84	13,93	18,00	14,72
11,0	12,94	17 553	500	1 755	9 654	78,99	164,12	243,11	78,99	8,78	13,84	13,93	16,36	14,72
11,0	12,94	17 553	1 500	1 755	9 654	78,99	54,71	133,70	78,99	8,78	13,84	13,93	15,26	14,72
11,0	12,94	17 553	2 500	1 755	9 654	78,99	32,82	111,81	78,99	8,78	13,84	13,93	15,04	14,72
15,0	17,65	21 056	250	2 106	11 581	94,75	393,75	488,50	94,75	10,53	18,87	18,98	23,86	19,92
15,0	17,65	21 056	500	2 106	11 581	94,75	196,87	291,63	94,75	10,53	18,87	18,98	21,89	19,92
15,0	17,65	21 056	1 500	2 106	11 581	94,75	65,62	160,38	94,75	10,53	18,87	18,98	20,58	19,92
15,0	17,65	21 056	2 500	2 106	11 581	94,75	39,37	134,13	94,75	10,53	18,87	18,98	20,32	19,92

Notes

1 Average life 20 000 hours
2 Salvage value 10% of purchase price
3 Average investment = (purchase price + salvage value)/2
4 Depreciation cost per hour = (purchase price - salvage value)/Life period in hours (in cents/hour)
5 Interest cost per hour 8,5% of average investment/hours per annum (in cents/hour)
6 Repairs and maintenance cost per hour 10% of purchase price/life period in hours (in cents/hour)
7 KVA needed (power factor) 85% of kW size
8 Weighted average for land rates 1,48 R/kW hour
9 Cost = size (kW) x KVA needed x weighted average (in Rand/hour)
10 Transformer size for landrate 1: 25 KVA
Transformer size for landrate 2: 50 KVA
Transformer size for landrate 3: 100 KVA
11 As the required KVA approaches the allotted landrate transformer size, the user is compelled to use a higher capacity transformer
12 Note these costs are only guidelines and each new electrical installation will need its own evaluation
13 Each new connection must be evaluated against the current use of the transformer to be used

23. ELECTRIC MOTORS (*cont*.)

23.3 18,5 kW to 45,0 kW—1 000 rpm 6-pole high efficiency

Size (kW)	KVA required	Purchase price (R)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depre-ciation (c/hr)	Interest (c/hr)	Total fixed costs (c/hr)	Total fixed costs excl. interest (c/hr)	Repairs and maintenance costs (c/hr)	WTD average electricty cost (c/hr)	WTD total variable costs (c/hr)	WTD AVG total cost (R/hr)	WTD AVG total cost excl. interest (R/hr)
18,5	21,76	26 092	250	2 609	14 351	117,41	487,92	605,33	117,41	13,05	23,27	23,40	29,46	24,58
18,5	21,76	26 092	500	2 609	14 351	117,41	243,96	361,37	117,41	13,05	23,27	23,40	27,02	24,58
18,5	21,76	26 092	1 500	2 609	14 351	117,41	81,32	198,73	117,41	13,05	23,27	23,40	25,39	24,58
18,5	21,76	26 092	2 500	2 609	14 351	117,41	48,79	166,21	117,41	13,05	23,27	23,40	25,07	24,58
22,0	25,88	29 064	250	2 906	15 985	1,31	5,43	6,74	1,31	14,53	27,68	27,82	34,56	29,13
22,0	25,88	29 064	500	2 906	15 985	1,31	2,72	4,03	1,31	14,53	27,68	27,82	31,85	29,13
22,0	25,88	29 064	1 500	2 906	15 985	1,31	0,91	2,21	1,31	14,53	27,68	27,82	30,04	29,13
22,0	25,88	29 064	2 500	2 906	15 985	1,31	0,54	1,85	1,31	14,53	27,68	27,82	29,67	29,13
30,0	35,29	37 703	250	3 770	20 737	1,70	7,05	8,75	1,70	18,85	37,74	37,93	46,68	39,63
30,0	35,29	37 703	500	3 770	20 737	1,70	3,53	5,22	1,70	18,85	37,74	37,93	43,15	39,63
30,0	35,29	37 703	1 500	3 770	20 737	1,70	1,18	2,87	1,70	18,85	37,74	37,93	40,80	39,63
30,0	35,29	37 703	2 500	3 770	20 737	1,70	0,71	2,40	1,70	18,85	37,74	37,93	40,33	39,63
37,0	43,53	48 552	250	4 855	26 704	2,18	9,08	11,26	2,18	24,28	46,55	46,79	58,05	48,97
37,0	43,53	48 552	500	4 855	26 704	2,18	4,54	6,72	2,18	24,28	46,55	46,79	53,51	48,97
37,0	43,53	48 552	1 500	4 855	26 704	2,18	1,51	3,70	2,18	24,28	46,55	46,79	50,49	48,97
37,0	43,53	48 552	2 500	4 855	26 704	2,18	0,91	3,09	2,18	24,28	46,55	46,79	49,88	48,97
45,0	52,94	54 981	250	5 498	30 240	2,47	10,28	12,76	2,47	27,49	56,61	56,88	69,64	59,36
45,0	52,94	54 981	500	5 498	30 240	2,47	5,14	7,61	2,47	27,49	56,61	56,88	64,50	59,36
45,0	52,94	54 981	1 500	5 498	30 240	2,47	1,71	4,19	2,47	27,49	56,61	56,88	61,07	59,36
45,0	52,94	54 981	2 500	5 498	30 240	2,47	1,03	3,50	2,47	27,49	56,61	56,88	60,39	59,36

Notes

1 Average life 20 000 hours
2 Salvage value 10% of purchase price
3 Average investment = (purchase price + salvage value)/2
4 Depreciation cost per hour = (purchase price - salvage value)/Life period in hours (in cents/hour)
5 Interest cost per hour 8,5% of average investment/hours per annum (in cents/hour)
6 Repairs and maintenance cost per hour 10% of purchase price/life period in hours (in cents/hour)
7 KVA needed (power factor) 85% of kW size
8 Weighted average for land rates 1,48 R/kW hour
9 Cost = size (kW) x KVA needed x weighted average (in Rand/hour)
10 Transformer size for landrate 1: 25 KVA
Transformer size for landrate 2: 50 KVA
Transformer size for landrate 3: 100 KVA
11 As the required KVA approaches the allotted landrate transformer size, the user is compelled to use a higher capacity transformer
12 Note these costs are only guidelines and each new electrical installation will need its own evaluation
13 Each new connection must be evaluated against the current use of the transformer to be used

23. ELECTRIC MOTORS (*cont*.)

23.4 55,0 to 110,0 kW—1 000 rpm 6-pole high efficiency

Size (kW)	KVA required	Purchase price (R)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depre-ciation (c/hr)	Interest (c/hr)	Total fixed costs (c/hr)	Total fixed costs excl. interest (c/hr)	Repairs and maintenance costs (c/hr)	WTD average electricty cost (c/hr)	WTD total variable costs (c/hr)	WTD AVG total cost (R/hr)	WTD AVG total cost excl. interest (R/hr)
55,0	64,71	70 762	250	7 076	38 919	3,18	13,23	16,42	3,18	35,38	69,19	69,54	85,96	72,73
55,0	64,71	70 762	500	7 076	38 919	3,18	6,62	9,80	3,18	35,38	69,19	69,54	79,34	72,73
55,0	64,71	70 762	1 500	7 076	38 919	3,18	2,21	5,39	3,18	35,38	69,19	69,54	74,93	72,73
55,0	64,71	70 762	2 500	7 076	38 919	3,18	1,32	4,51	3,18	35,38	69,19	69,54	74,05	72,73
75,0	88,24	84 526	250	8 453	46 489	3,80	15,81	19,61	3,80	42,26	94,35	94,77	114,38	98,58
75,0	88,24	84 526	500	8 453	46 489	3,80	7,90	11,71	3,80	42,26	94,35	94,77	106,48	98,58
75,0	88,24	84 526	1 500	8 453	46 489	3,80	2,63	6,44	3,80	42,26	94,35	94,77	101,21	98,58
75,0	88,24	84 526	2 500	8 453	46 489	3,80	1,58	5,38	3,80	42,26	94,35	94,77	100,16	98,58
90,0	105,88	97 339	250	9 734	53 536	4,38	18,20	22,58	4,38	48,67	113,22	113,71	136,29	118,09
90,0	105,88	97 339	500	9 734	53 536	4,38	9,10	13,48	4,38	48,67	113,22	113,71	127,19	118,09
90,0	105,88	97 339	1 500	9 734	53 536	4,38	3,03	7,41	4,38	48,67	113,22	113,71	121,12	118,09
90,0	105,88	97 339	2 500	9 734	53 536	4,38	1,82	6,20	4,38	48,67	113,22	113,71	119,91	118,09
110,0	129,41	120 019	250	12 002	66 010	5,40	22,44	27,84	5,40	60,01	138,38	138,98	166,82	144,38
110,0	129,41	120 019	500	12 002	66 010	5,40	11,22	16,62	5,40	60,01	138,38	138,98	155,60	144,38
110,0	129,41	120 019	1 500	12 002	66 010	5,40	3,74	9,14	5,40	60,01	138,38	138,98	148,12	144,38
110,0	129,41	120 019	2 500	12 002	66 010	5,40	2,24	7,65	5,40	60,01	138,38	138,98	146,63	144,38

Notes

1 Average life 20 000 hours
2 Salvage value 10% of purchase price
3 Average investment = (purchase price + salvage value)/2
4 Depreciation cost per hour = (purchase price - salvage value)/Life period in hours (in cents/hour)
5 Interest cost per hour 8,5% of average investment/hours per annum (in cents/hour)
6 Repairs and maintenance cost per hour 10% of purchase price/life period in hours (in cents/hour)
7 KVA needed (power factor) 85% of kW size
8 Weighted average for land rates 1,48 R/kW hour
9 Cost = size (kW) x KVA needed x weighted average (in Rand/hour)
10 Transformer size for landrate 1: 25 KVA
Transformer size for landrate 2: 50 KVA
Transformer size for landrate 3: 100 KVA
11 As the required KVA approaches the allotted landrate transformer size, the user is compelled to use a higher capacity transformer
12 Note these costs are only guidelines and each new electrical installation will need its own evaluation
13 Each new connection must be evaluated against the current use of the transformer to be used

23. ELECTRIC MOTORS (*cont*.)

23.5 132,0 to 200,0 kW—1 000 rpm 6-pole high efficiency

Size (kW)	KVA required	Purchase price (R)	Average use per annum (hr)	Salvage value (R)	Average investment (R)	Depre-ciation (c/hr)	Interest (c/hr)	Total fixed costs (c/hr)	Total fixed costs excl. interest (c/hr)	Repairs and maintenance costs (c/hr)	WTD average electricty cost (c/hr)	WTD total variable costs (c/hr)	WTD AVG total cost (R/hr)	WTD AVG total cost excl. interest (R/hr)
132,0	155,29	151 021	250	15 102	83 062	6,80	28,24	35,04	6,80	75,51	166,06	166,81	201,85	173,61
132,0	155,29	151 021	500	15 102	83 062	6,80	14,12	20,92	6,80	75,51	166,06	166,81	187,73	173,61
132,0	155,29	151 021	1 500	15 102	83 062	6,80	4,71	11,50	6,80	75,51	166,06	166,81	178,31	173,61
132,0	155,29	151 021	2 500	15 102	83 062	6,80	2,82	9,62	6,80	75,51	166,06	166,81	176,43	173,61
160,0	188,24	169 400	250	16 940	93 170	7,62	31,68	39,30	7,62	84,70	201,28	202,13	241,43	209,75
160,0	188,24	169 400	500	16 940	93 170	7,62	15,84	23,46	7,62	84,70	201,28	202,13	225,59	209,75
160,0	188,24	169 400	1 500	16 940	93 170	7,62	5,28	12,90	7,62	84,70	201,28	202,13	215,03	209,75
160,0	188,24	169 400	2 500	16 940	93 170	7,62	3,17	10,79	7,62	84,70	201,28	202,13	212,92	209,75
185,0	217,65	194 206	250	19 421	106 813	8,74	36,32	45,06	8,74	97,10	232,73	233,70	278,76	242,44
185,0	217,65	194 206	500	19 421	106 813	8,74	18,16	26,90	8,74	97,10	232,73	233,70	260,60	242,44
185,0	217,65	194 206	1 500	19 421	106 813	8,74	6,05	14,79	8,74	97,10	232,73	233,70	248,49	242,44
185,0	217,65	194 206	2 500	19 421	106 813	8,74	3,63	12,37	8,74	97,10	232,73	233,70	246,07	242,44
200,0	235,29	198 019	250	19 802	108 910	8,91	37,03	45,94	8,91	99,01	251,60	252,59	298,53	261,50
200,0	235,29	198 019	500	19 802	108 910	8,91	18,51	27,43	8,91	99,01	251,60	252,59	280,02	261,50
200,0	235,29	198 019	1 500	19 802	108 910	8,91	6,17	15,08	8,91	99,01	251,60	252,59	267,67	261,50
200,0	235,29	198 019	2 500	19 802	108 910	8,91	3,70	12,61	8,91	99,01	251,60	252,59	265,20	261,50

Notes

1 Average life 20 000 hours
2 Salvage value 10% of purchase price
3 Average investment = (purchase price + salvage value)/2
4 Depreciation cost per hour = (purchase price - salvage value)/Life period in hours (in cents/hour)
5 Interest cost per hour 8,5% of average investment/hours per annum (in cents/hour)
6 Repairs and maintenance cost per hour 10% of purchase price/life period in hours (in cents/hour)
7 KVA needed (power factor) 85% of kW size
8 Weighted average for land rates 1,48 R/kW hour
9 Cost = size (kW) x KVA needed x weighted average (in Rand/hour)
10 Transformer size for landrate 1: 25 KVA
Transformer size for landrate 2: 50 KVA
Transformer size for landrate 3: 100 KVA
11 As the required KVA approaches the allotted landrate transformer size, the user is compelled to use a higher capacity transformer
12 Note these costs are only guidelines and each new electrical installation will need its own evaluation
13 Each new connection must be evaluated against the current use of the transformer to be used

24. FIELD CAPACITIES OF AGRICULTURAL MACHINERY—EXPLANATION

The field capacity in ha/10-hour day = Speed in km/h x working width in m x *N*.

Where *N* = Field Efficiency, which is measured as a decimal. The field efficiency factor allows for time spent on turning on the headlands, refuelling the tractor, filling seed and fertiliser bins on a planter, etc. In the table of field capacities in the next section, average field efficiencies for the different operations are given. In practice, this figure might differ from the actual values, depending on how efficiently the operations are carried out.

Example 1

A single-tine subsoiler is used at a speed of 5 km/hr and at a spacing of 2 m. From field observations it is determined that 17% of the time is spent on turning at the headlands and refuelling the tractor. Determine the field capacity.

Working speed	=	5 km/hr
Working width	=	2 m
Field efficiency	=	100 – 17 = 83%, i.e. 0,83 as a decimal
Field capacity	=	5 x 2 x 0,83
	=	8,3 ha/10-hour day

In the table of field capacities, the column “kW REQUIRED”, gives an indication of the actual power required to carry out the operation at specified field capacity. It should be kept in mind that a naturally aspirated engine working under Highveld conditions can only deliver approximately 80% of its rated power as measured at sea level. A turbo charged engine is assumed not to lose any power with an increase in altitude. Therefore, if the table indicates that 40 kW is required, a tractor with an advertised rated power of 40/0,8 = 50 kW has to be used. If the tractor is fitted with a turbo charger, a 40 kW turbo-charged tractor would suffice.

At some places in the table of field capacities a recommended tractor size is specified. This is for certain operations where the physical size of the tractor, and not the power of the tractor determines the field capacity for the operation. An example of such an operation is the use of a high speed planter where a smaller tractor is unstable at high speeds although sufficient power is available. The lifting capacity of a three-point hitch may also be a limiting factor in certain operations.

The data in the table of field capacities can be adjusted to suit the specific requirements by interpolation between the work rates for the machines. If for instance, a 55 kW tractor is available and the work rate for ploughing in a sandy soil has to be determined, it can be done as follows:

Available kW at Highveld altitude

= 0,8 x 55
= 44 kW

From the table it can be seen that 48 kW is required to plough 10 ha per day.

The field capacity of a 44 kW tractor will be:

Field capacity (ha/10-hour day)	=	(10 ha/day x 44 kW) ÷ 48 kW
	=	9,2 ha/day

In the table of field capacities, provision has been made for three soil types, namely sandy, sandy-loam and clay-loam. This classification is very broad and the work rates have to be modified for operating (ploughing, discing, planting, etc.) in the specific soil, and comparing these rates with the listed field capacities. The tabulated figures can then be adjusted for the specific soil type.

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25. FIELD CAPACITIES—TABLES

	Implement	kW required			Speed (km/h)	ha/day	Tractor size
25.1	**Field cultivator**	Sand	Firm soil	Loose soil			
	75 mm depth and *N* = 83%						
	Width 1,6 m		24	28	8,0	10,0	30–35
	3,0 m		36	43	8,0	20,0	45–54
	3,0 m		45	54	9,2	23,0	56–68
	3,7 m		48	57	9,0	28,0	60–71
	4,5 m		55	64	10,0	38,0	68–80
	6,0 m		70	80	10,0	50,0	88–100
	7,5 m		90	100	10,0	62,0	113–125
	9,0 m		117	120	10,0	75,0	146–150
25.2	**Light disc harrow**	Sand	Firm soil	Loose soil			
	65 mm depth and *N* = 83%						
	Width 1,6 m		24	28	8,0	10,0	30–35
	3,0 m		36	43	8,0	20,0	45–54
	3,0 m		45	54	9,2	23,0	56–68
	3,7 m		48	57	9,0	28,0	60–71
	4,5 m		55	64	10,0	38,0	68–80
	6,0 m		70	80	10,0	50,0	88–100
	7,5 m		90	100	10,0	62,0	113–125
	9,0 m		117	120	10,0	75,0	146–150
25.3	**Heavy disc (offset or one-way)**	Sand	Firm soil	Loose soil			
	150 mm depth and *N* = 83%						
	Width 3,0 m		70	85	8,0	20,0	88–106
	3,8 m		85	110	8,0	25,0	106–138
	4,6 m		105	130	8,0	31,0	131–163
	5,5 m		120	160	9,3	36,0	150–200
	6,5 m		150	–	11,3	43,0	188–250

25. FIELD CAPACITIES—TABLES (*cont*.)

	Implement	kW required			Speed (km/h)	ha/day	Tractor size
25.4	**Chisel plough**	Sand	Firm soil	Loose soil			
	200 mm depth, 300 mm, spacing and *N* = 83%						
	Width 2,2 m	38	48	60	5,5	10,0	48–75
	3,0 m	47	60	74	5,5	14,0	59–92
	3,4 m	60	71	108	7,0	20,0	75–135
	4,0 m	70	82	125	7,0	23,0	88–156
	4,5 m	86	105	150	7,6	29,0	108–188
	4,9 m	93	120	170	7,6	31,0	116–212
	5,4 m	108	140	198	8,0	36,0	135–248
	6,1 m	150	194	274	9,8	50,0	188–343
25.5	**Ripper plough**						
	380 mm depth, 500 mm, spacing and *N* = 83%						
	2-t = 1,0 m	40	45	60	6,5	5,5	50–75
	3-t = 1,5 m	48	60	78	7,0	9,0	60–98
	5-t = 2,5 m	60	75	100	6,8	14,0	75–125
	7-t = 3,5 m	70	100	120	6,8	20,0	88–150
	9-t = 4,5 m	100	130	170	7,2	28,0	125–212
	11-t = 5,5 m	120	150	195	4,0	33,0	150–244

25. FIELD CAPACITIES—TABLES (*cont*.)

	Implement	kW required			Speed (km/h)	ha/day	Tractor size
25.6	**Mouldboard plough**	Sand	Firm soil	Loose soil			
	250 mm depth and *N* = 83%						
	2 x 508 mm = 1,02 m	24	–	–	5,0	4,5	30
	3 x 508 mm = 1,52 m	40	–	–	5,8	7,5	50
	4 x 508 mm = 2,03 m	48	–	–	5,9	10,0	60
	5 x 508 mm = 2,54 m	60	–	–	6,1	13,0	75
	5 x 508 mm = 2,54 m	72	–	–	7,3	15,5	90
	6 x 508 mm = 3,05 m	100	–	–	8,1	21,0	125
	8 x 406 mm = 3,25 m	113	–	–	8,2	22,5	141
	8 x 457 mm = 3,66 m	138	–	–	8,8	27,0	173
	3 x 406 mm = 1,22 m	–	40	–	5,0	5,0	50
	4 x 406 mm = 1,63 m	–	48	–	5,0	7,0	60
	5 x 406 mm = 2,03 m	–	60	–	5,5	9,0	90
	5 x 406 mm = 2,03 m	–	72	–	7,0	12,0	125
	6 x 406 mm = 2,44 m	–	100	–	7,9	16,0	150
	7 x 406 mm = 2,85 m	–	120	–	8,0	19,0	175
	8 x 406 mm = 3,25 m	–	140	–	8,2	22,0	200
	8 x 457 mm = 3,66 m	–	160	–	8,2	25,0	50
	3 x 406 mm = 1,22 m	–	–	40	3,3	3,5	60
	4 x 406 mm = 1,63 m	–	–	48	3,6	5,0	90
	5 x 406 mm = 2,03 m	–	–	63	4,2	7,0	79
	5 x 406 mm = 2,03 m	–	–	73	5,6	9,5	91
	6 x 406 mm = 2,44 m	–	–	100	6,6	13,5	125
	7 x 406 mm = 2,85 m	–	–	143	7,8	18,5	179
	8 x 406 mm = 3,25 m	–	–	163	7,9	21,0	204
	8 x 457 mm = 3,66 m	–	–	200	6,6	26,0	250

25. FIELD CAPACITIES—TABLES (*cont*.)

	Implement	kW required			Speed (km/h)	ha/day	Tractor size
25.7	**Heavy spike-tooth harrow**	Sandy loam					
	150 mm depth and *N* = 83%						
	5-section = 5,5 m	30			8,7	40,0	38
	8-section = 7,3 m	45			9,0	55,0	56
	12-section = 11,0 m	65			9,3	85,0	81
	16-section = 14,6 m	95			9,9	120,0	120
25.8	**Spreader (lime or fertiliser)**	Sandy loam					
	***N* = 60%**						
	Width 3 m	15			8,0	14,0	30
	4 m	18			8,0	19,0	30
	6 m	24			8,0	29,0	40
	8 m	27			8,0	38,0	50
	10 m	34			8,0	48,0	75
	12 m	42			8,0	58,0	75
	14 m	47			8,0	67,0	90
	16 m	54			8,0	77,0	110
	18 m	60			8,0	86,0	130
25.9	**Maize planter**	Sand	Firm soil	Loose soil			
	Full fertiliser and *N* = 60%						
	2 x 0,91 m = 1,82 m (mounted)	21	20	19	8,0	9,0	35
	2 x 0,91 m = 1,82 m (mounted)	25	23	22	12,0	13,0	35
	4 x 0,91 m = 3,64 m (mounted)	25	23	22	6,0	13,0	40
	4 x 0,91 m = 3,64 m (mounted)	33	40	29	8,0	18,0	40
	4 x 0,91 m = 3,64 m (mounted)	43	39	37	10,0	22,0	50
	4 x 0,91 m = 3,64 m (trailed)	50	46	44	12,0	26,0	55
	6 x 0,91 m = 5,46 m (mounted)	38	34	33	6,0	20,0	50
	6 x 0,91 m = 5,46 m (trailed)	50	46	44	8,0	26,0	60
	6 x 0,91 m = 5,46 m (trailed)	60	56	54	10,0	33,0	70
	6 x 0,91 m = 5,46 m (trailed)	74	68	65	12,0	39,0	75

25. FIELD CAPACITIES—TABLES (*cont*.)

	Implement	kW required			Speed (km/h)	ha/day	Tractor size
25.9	**Maize planter** *(cont.)*	Sand	Firm soil	Loose soil			
	Full fertiliser and *N* = 60%						
	8 x 0,91 m = 7,28 m (trailed)	49	45	43	6,0	26,0	70
	8 x 0,91 m = 7,28 m (trailed)	66	60	58	8,0	35,0	80
	8 x 0,91 m = 7,28 m (trailed)	83	76	73	10,0	44,0	90
	8 x 0,91 m = 7,28 m (trailed)	98	90	86	12,0	52,0	100
	12 x 0,91 m = 10,92 m (trailed)	75	68	65	6,0	39,0	90
	12 x 0,91 m = 10,92 m (trailed)	98	90	86	8,0	52,0	100
	12 x 0,91 m = 10,92 m (trailed)	120	110	105	10,0	65,0	120
	12 x 0,91 m = 10,92 m (trailed)	142	130	125	12,0	78,0	150
	2 x 2,29 m = 4,58 m (mounted)	18	17	16	6,0	16,5	40
	2 x 2,29 m = 4,58 m (mounted)	24	22	21	8,0	22,0	50
	2 x 2,29 m = 4,58m (mounted)	29	27	26	10,0	27,0	55
	2 x 2,29 m = 4,58 m (mounted)	36	33	32	12,0	33,0	55
	3 x 2,29 m = 5,87 m (mounted)	27	25	24	6,0	25,0	55
	3 x 2,29 m = 5,87 m (trailed)	36	33	32	8,0	33,0	60
	3 x 2,29 m = 5,87 m (trailed)	46	42	40	10,0	41,0	70
	3 x 2,29 m = 5,87 m (trailed)	55	50	48	12,0	49,0	75
	4 x 2,29 m = 9,16 m (trailed)	36	33	32	6,0	33,0	90
	4 x 2,29 m = 9,16 m (trailed)	49	45	43	8,0	44,0	90
	4 x 2,29 m = 9,16 m (trailed)	60	55	53	10,0	55,0	100
	4 x 2,29 m = 9,16 m (trailed)	74	68	65	12,0	66,0	110
	Starter fertiliser and *N* = 70%						
	2 x 0,91 m = 1,82 m (mounted)	21	20	19	6,0	8,0	35
	2 x 0,91 m = 1,82 m (mounted)	25	23	22	12,0	15,0	35
	4 x 0,91 m = 3,64 m (mounted)	22	21	20	6,0	15,0	35
	4 x 0,91 m = 3,64 m (mounted)	25	24	23	8,0	20,0	35
	4 x 0,91 m = 3,64 m (mounted)	27	26	25	10,0	25,0	45
	4 x 0,91 m = 3,64 m (trailed)	33	31	30	12,0	30,0	50

25. FIELD CAPACITIES—TABLES (*cont*.)

	Implement	kW required			Speed (km/h)	ha/day	Tractor size
25.9	**Maize planter** *(cont.)*	Sand	Firm soil	Loose soil			
	Starter fertiliser and N = 70%						
	6 x 0,91 m = 5,46 m (mounted)	26	25	24	6,0	23,0	45
	6 x 0,91 m = 5,46 m (trailed)	33	31	30	8,0	30,0	55
	6 x 0,91 m = 5,46 m (trailed)	42	40	38	10,0	38,0	60
	6 x 0,91 m = 5,46 m (trailed)	50	48	46	12,0	46,0	70
	8 x 0,91 m = 7,28 m (trailed)	35	34	32	6,0	31,0	65
	8 x 0,91 m = 7,28 m (trailed)	44	42	40	8,0	41,0	70
	8 x 0,91 m = 7,28 m (trailed)	55	53	50	10,0	51,0	80
	8 x 0,91 m = 7,28 m (trailed)	66	64	60	12,0	61,0	90
	12 x 0,91 m = 10,92 m (trailed)	51	48	46	6,0	46,0	80
	12 x 0,91 m = 10,92 m (trailed)	68	65	62	8,0	61,0	90
	12 x 0,91 m = 10,92 m (trailed)	83	80	76	10,0	76,0	100
	12 x 0,91 m = 10,92 m (trailed)	100	98	92	12,0	92,0	110
	2 x 2,29 m = 4,58 m (mounted)	15	15	14	6,0	19,0	35
	2 x 2,29 m = 4,58 m (mounted)	21	20	19	8,0	25,0	45
	2 x 2,29 m = 4,58 m (mounted)	25	24	23	10,0	32,0	55
	2 x 2,29 m = 4,58 m (mounted)	30	28	27	12,0	38,0	55
	3 x 2,29 m = 5,87 m (mounted)	24	23	22	6,0	29,0	50
	3 x 2,29 m = 5,87 m (trailed)	30	28	27	8,0	38,0	55
	3 x 2,29 m = 5,87 m (trailed)	37	36	34	10,0	48,0	60
	3 x 2,29 m = 5,87 m (trailed)	44	42	40	12,0	58,0	70
	4 x 2,29 m = 9,16 m (trailed)	30	28	27	6,0	38,0	80
	4 x 2,29 m = 9,16 m (trailed)	40	38	36	8,0	51,0	80
	4 x 2,29 m = 9,16 m (trailed)	50	48	45	10,0	64,0	90
	4 x 2,29 m = 9,16 m (trailed)	59	58	54	12,0	77,0	100

25. FIELD CAPACITIES—TABLES (*cont*.)

	Implement	kW required	Speed (km/h)	ha/day	Tractor size
25.10	**Wheat drill**	Firm soil			
	350 mm rows and *N* = 60%				
	7-row = 2,45 m	15	7,0	10,0	40
	9-row = 3,15 m	20	7,0	13,0	45
	14-row = 4,90 m	39	9,0	26,0	70
	18-row = 6,30 m	51	9,0	34,0	80
	21-row = 7,35 m	60	9,0	40,0	90
	27-row = 9,45 m	76	9,0	51,0	100
25.11	**Cultivator**	Firm soil			
	***N* = 83%**				
	4 x 0,91 m = 3,64 m	17	4,0	12,0	25
	4 x 0,91 m = 3,64 m	26	6,0	18,0	35
	4 x 0,91 m = 3,64 m	34	8,0	24,0	50
	4 x 0,91 m = 3,64 m	43	10,0	30,0	55
	6 x 0,91 m = 5,45 m	26	4,0	18,0	40
	6 x 0,91 m = 5,45 m	39	6,0	27,0	50
	6 x 0,91 m = 5,45 m	52	8,0	36,0	65
	6 x 0,91 m = 5,45 m	65	10,0	45,0	80
	8 x 0,91 m = 7,28 m	34	4,0	24,0	60
	8 x 0,91 m = 7,28 m	52	6,0	36,0	70
	8 x 0,91 m = 7,28 m	69	8,0	48,0	85
	8 x 0,91 m = 7,28 m	86	10,0	60,0	100
	2 x 2,29 m = 4,58 m	22	4,0	15,0	35
	2 x 2,29 m = 4,58 m	33	6,0	23,0	50
	2 x 2,29 m = 4,58 m	43	8,0	30,0	60
	2 x 2,29 m = 4,58 m	54	10,0	38,0	70
	3 x 2,29 m = 6,87 m	33	4,0	23,0	50
	3 x 2,29 m = 6,87 m	49	6,0	34,0	60
	3 x 2,29 m = 6,87 m	65	8,0	45,0	80
	3 x 2,29 m = 6,87 m	82	10,0	57,0	100

25. FIELD CAPACITIES—TABLES (*cont*.)

	Implement	kW required			Speed (km/h)	ha/day	Tractor size
25.11	**Cultivator** *(cont.)*		Firm soil				
	***N* = 83%**						
	4 x 2,29 m = 9,16 m		43		4,0	30,0	80
	4 x 2,29 m = 9,16 m		65		6,0	45,0	100
	4 x 2,29 m = 9,16 m		88		8,0	61,0	110
	4 x 2,29 m = 9,16 m		109		10,0	76,0	120

	Implement	kW	ha/day at a yield of				
			2 t/ha	3 t/ha	4 t/ha	5 t/ha	6 t/ha
25.12	**Trailed combine for maize**						
	With unloading wagon and *N* = 80%						
	1-row	38	12	8	6	5	4
	2 x 0,91 m	42	14	10	7	6	5
	Without unloading wagon and *N* = 65%						
	1-row	38	10	7	5	4	3
	2 x 0,91 m	42	12	8	6	5	4
25.13	**Self-propelled combine for maize**						
	With unloading wagon and *N* = 80%						
	4 x 0,91 m = 3,64 m	38	24	16	12	10	8
	4 x 0,91 m = 3,64 m	48	38	26	19	15	13
	6 x 0,91 m = 5,46 m	68	58	38	29	23	19
	6 x 0,91 m = 5,46 m	95	80	54	40	32	26
	2 x 2,29 m = 4,58 m	38	24	16	12	–	–
	2 x 2,29 m = 4,58 m	48	38	26	19	–	–
	3 x 2,29 m = 6,87 m	68	58	38	29	–	–
	3 x 2,29 m = 6,87 m	95	80	54	40	–	–

25. FIELD CAPACITIES—TABLES (*cont*.)

	Implement	kW	ha/day at a yield of				
			2 t/ha	3 t/ha	4 t/ha	5 t/ha	6 t/ha
25.13	**Self-propelled combine for maize** *(cont.)*						
	Without unloading wagon and *N* = 65%						
	4 x 0,91 m = 3,64 m	38	20	13	10	8	7
	4 x 0,91 m = 3,64 m	48	31	21	16	12	10
	6 x 0,91 m = 5,46 m	68	47	31	23	19	16
	6 x 0,91 m = 5,46 m	95	65	44	33	26	21
	2 x 2,29 m = 4,58 m	38	20	13	10	–	–
	2 x 2,29 m = 4,58 m	48	31	21	16	–	–
	3 x 2,29 m = 6,87 m	68	47	31	23	–	–
	3 x 2,29 m = 6,87 m	95	65	44	33	–	–
25.14	**Self-propelled combine for wheat**						
	With unloading wagon and *N* = 80%						
	2,70 m	38		34	17	11	9
	3,66 m	48		48	24	16	12
	4,57 m	68		77	38	26	19
	6,71 m	95		115	58	38	29
	Without unloading wagon and *N* = 65%						
	2,70 m	38		27	14	9	7
	3,66 m	48		39	20	13	10
	4,57 m	68		62	31	21	16
	6,71 m	95		94	47	31	25

25. FIELD CAPACITIES—TABLES (*cont*.)

	Implement	kW required	Speed (km/h)	ha/day	Tractor size
25.15	**Boom sprayer**				
	***N* = 60%**				
	Band 4 x 0,91 m	15	6,0	13,0	30
	6 x 0,91 m	15	6,0	30,0	30
	8 x 0,91 m	15	6,0	26,0	30
	2 x 2,29 m	15	6,0	16,5	30
	3 x 2,29 m	15	6,0	25,0	30
	4 x 2,29 m	20	6,0	33,0	40
	6 m boom	20	6,0	22,0	40
	8 m boom	25	6,0	29,0	50
	12 m boom	25	6,0	43,0	50
25.16	**Cutter-bar mower**				
	***N* = 80%**				
	1,8 m knife	10		9,0	35
25.17	**Disc mower**				
	***N* = 80%**				
	1,6 m	30		10,0	38
	1,8 m	30		12,0	38
	2,0 m	35		13,0	44
	2,4 m	46		15,0	58
	2,8 m	46		18,0	58

25. FIELD CAPACITIES—TABLES (*cont*.)

	Implement	kW required						Speed (km/h)	ha/day	Tractor size
25.18	**Pick-up baler**									
	Hay and *N* = 50%		35	25	1	7	13	10	8	7
25.19	**Round baler**									
	Hay and *N* = 50%									
	Small	45	56	30	2	0	15	12	10	8
	Medium	48	60	40	2	7	20	16	13	11
	Large	52	65	45	3	0	23	18	15	13
25.20	**Hay rake**			**Brittle crops (ha/day)**				**Other crops (ha/day)**		
	***N* = 80%**									
	2,0 m	16	35	11				15		
	2,4 m	18	35	13				18		
	3,0 m	20	35	17				23		
	6,0 m	26	35	33				46		

25.21	**Transport**	
	No measurements have been made of the required power	
	For a tractor and trailer the following can be used to calculate approximate fuel consumption	
	Terrain	**Fuel consumption/litre per ton-kilometer**
	Flat	0,05
	Undulating	0,10
	Hilly	0,15