



GUIDE TO HEADER COSTS

Example header : JD 9660STS, Case IH 6088

New price:	\$359,467	Yearly work:	500 hrs/yr	
Trade-in price:	50% of new = \$179,734	Age at trade-in:	2000 hrs =	4.00 years
Interest rate:	10%	Average value:	\$269,600	

Tractor Overhead Costs		per year cost	per hour cost
Depreciation = (\$359467-\$179734)/4 yrs =		\$44,933	\$44,933 /500hrs/yr= \$89.87
Interest = ((\$359467+\$179734)/2)*10% =		\$26,960	\$26,960 /500hrs/yr= \$53.92
Insurance = ((\$10/\$1000)*(\$359467+\$179734)/2) =		\$2,696	\$2,696 /500hrs/yr= \$5.39
		\$74,589	Tractor Overhead Costs: \$149.18/hr
Tractor Variable Costs		Variable Costs Summary	
Item	No.	Cost	Use
Diesel fuel		\$0.96/L	36 L/hr
Engine oil		\$6.20/L	23L/200hrs
Transmission oil		\$6.00/L	17L/450hrs
Hydraulic oil		\$5.30/L	40L/450hrs
Hydrostatic oil		\$5.30/L	40L/450hrs
Final drive oil		\$5.30/L	10L/450hrs
Coolant		\$5.00/L	12L/450hrs
Air filter-inner	1	\$62/filter	1000 hrs/filter
Air filter-outer	1	\$152/filter	1000 hrs/filter
Fuel filter	2	\$65/filter	500 hrs/filter
Hydraulic oil filter	1	\$70/filter	500 hrs/filter
Oil filter	1	\$30/filter	500 hrs/filter
Water filter	1	\$39/filter	500 hrs/filter
Tyres - 800 - 65R32	2	\$4,050/tyre	3000 hrs/tyre
Tyres - 16.9 x 24	2	\$1,200/tyre	2000 hrs/tyre
Tubes - large	2	\$210/tube	6000 hrs/tube
Tubes - small	2	\$85/tube	4000 hrs/tube
Batteries	2	\$285/battery	1000hrs/battery
Repairs		2% tractor price/yr	
			FUEL: \$34.54/hr
			OIL: \$2.00/hr
			COOLANT: \$0.13/hr
			FILTERS: \$0.75/hr
			TYRES: \$3.90/hr
			TUBES: \$0.11/hr
			BATTERIES: \$0.57/hr
			REPAIRS: \$14.38/hr
			Header Variable Costs: \$56.39/hr
			TOTAL Header Costs per hour: \$205.57/hr
			(Based on 500 hours work per year)

SENSITIVITY TABLE FOR TOTAL HEADER COSTS PER HOUR

Yearly hours work:	Age at Trade-in (yrs); Value at Trade-in (% of new price)				
	1 years	2 years	3 years	4 years	5 years
	70%	62%	56%	50%	45%
400	\$410.02	\$307.21	\$265.30	\$242.86	\$226.91
450	\$370.72	\$279.34	\$242.09	\$222.14	\$207.97
500	\$339.29	\$257.05	\$223.52	\$205.57	\$192.81
550	\$313.57	\$238.80	\$208.33	\$192.01	\$180.41

SENSITIVITY TABLE FOR TOTAL HEADER COSTS PER HECTARE

Yearly hours work:	Age at Trade-in (yrs); Value at Trade-in (% of new price)				
	1 years	2 years	3 years	4 years	5 years
	70%	62%	56%	50%	45%
400	\$70	\$53	\$46	\$42	\$39
450	\$64	\$48	\$42	\$38	\$36
500	\$58	\$44	\$38	\$35	\$33
550	\$54	\$41	\$36	\$33	\$31

NOTE: 9m front travelling at 8km/hr @ 80% efficiency = 5.82 ha per hour

PRODUCT TRADE NAMES

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GUIDE TO TRACTOR AND IMPLEMENT COSTS

57 KW PTO (78 HP) AND 70 KW ENGINE (95 HP)

Example tractor : Case JX1090U, JD 6230

New price:	\$81,881	Yearly work:	1000 hrs/yr
Trade-in price:	45% of new = \$36,846	Age at trade-in:	5000 hrs = 5.00 years
Interest rate:	10%		

Tractor Overhead Costs		per year cost	per hour cost
Depreciation = $(\$81881 - \$36846.45) / 5 \text{ yrs} =$		\$9,007	\$9,007 / 1000hrs/yr = \$9.01
Interest = $(\$81881 + \$36846.45) / 2 * 10\% =$		\$5,936	\$5,936 / 1000hrs/yr = \$5.94
Insurance = $(\$10 / \$1000) * (\$81881 + \$36846.45) / 2 =$		\$594	\$594 / 1000hrs/yr = \$0.59
			Tractor Overhead Costs: \$15.54/hr
Tractor Variable Costs			Variable Costs Summary
Item	No.	Cost	Use
Diesel fuel		\$0.96/L	15 L/hr
Engine oil		\$6.40/L	10L/250hrs
Transmission oil		\$6.00/L	100L/1000hrs
Air filter - inner	1	\$83/filter	1500 hrs/filter
Air filter - outer	1	\$40/filter	1500 hrs/filter
Rear cab filter	2	\$34/filter	1500 hrs/filter
Fuel filter	1	\$36/filter	500 hrs/filter
Hydraulic oil filter	1	\$46/filter	750 hrs/filter
Oil filter	1	\$14/filter	250 hrs/filter
Transmission oil filter	1	\$124/filter	750 hrs/filter
Tyres - large 480-70R34	2	\$2,275/tyre	3500 hrs/tyre
Tyres - small 440-70R24	2	\$1,150/tyre	3500 hrs/tyre
Tubes - large	2	\$0/tube	6000 hrs/tube
Tubes - small	2	\$0/tube	6000 hrs/tube
Batteries	2	\$438/battery	3 yrs/battery
Repairs		2% tractor price/yr	
			FUELS: \$14.39/hr
			OIL: \$0.86/hr
			FILTERS: \$0.48/hr
			TYRES: \$1.96/hr
			TUBES: \$0.00/hr
			BATTERIES: \$0.29/hr
			REPAIRS: \$1.64/hr
			Tractor Variable Costs: \$19.62/hr
			TOTAL Tractor Costs per hour: \$35.16/hr
(Based on 800 hours work per year)			

Example Implements:	(a) New price	(b) Trade-in	(c) Work hours/yr	(d) Trade-in age
Offset disc: 2.7m width: 8km/ha: 1.728ha/hr	\$22,000	\$7,700	200	9 years
Scarifier: 3.7m width: 8km/ha: 2.368ha/hr	\$17,000	\$5,950	250	9 years
Combine + small seed box: 4.3m width: 10km/ha: 3.44ha/hr	\$35,000	\$12,250	150	9 years
Spray unit: 12.2m width: 10km/ha: 10.37ha/hr	\$25,000	\$8,750	150	9 years
Super spreader: 10m width: 15km/ha: 10.5ha/hr	\$2,000	\$700	50	4 years
Harrows: 12.2m width: 12km/ha: 12.444ha/hr	\$5,000	\$1,750	150	9 years
Grader: 3m width: 5km/ha: 1.275ha/hr	\$5,000	\$1,750	50	9 years
Banker: 2m width: 5km/ha: 0.85ha/hr	\$8,000	\$2,800	50	9 years
Disc mower-conditioner: 3m width: 10km/ha: 2.4ha/hr	\$38,000	\$13,300	200	9 years
Rake: 3m width: 10km/ha: 2.4ha/hr	\$10,000	\$3,500	200	9 years
	\$45,000	\$15,750	150	9 years

Implement	Overhead Costs		Variable costs (g)Repair \$/yr 5%	Variable cost/hour g/c	Yearly Cost (h) e+f+g	Hourly Cost h/c
	(e)Depreciation (a-b)/d	(f) Interest ((a+b)/2)*10%				
Offset disc	\$1,589	\$1,485	\$1,100	\$5.50	\$4,174	\$20.87
Scarifier	\$1,228	\$1,148	\$850	\$3.40	\$3,225	\$12.90
Combine + small seed box	\$2,528	\$2,363	\$1,750	\$11.67	\$6,640	\$44.27
Spray unit	\$1,806	\$1,688	\$1,250	\$8.33	\$4,743	\$31.62
Super spreader	\$325	\$135	\$100	\$2.00	\$560	\$11.20
Harrows	\$361	\$338	\$250	\$1.67	\$949	\$6.32
Grader	\$361	\$338	\$250	\$5.00	\$949	\$18.97
Banker	\$578	\$540	\$400	\$8.00	\$1,518	\$30.36
Disc mower-conditioner	\$2,744	\$2,565	\$1,900	\$9.50	\$7,209	\$36.05
Rake	\$722	\$675	\$500	\$2.50	\$1,897	\$9.49
Hay baler + hydraulic pickup	\$3,250	\$3,038	\$2,250	\$15.00	\$8,538	\$56.92

Tractor and Implement Combinations

Variable Costs used in budgets
(based on hours/yr work as above)

	\$/hr	Speed
Tractor + Offset disc	\$25.12	0.58 hrs/ha
Tractor + Scarifier	\$23.02	0.42 hrs/ha
Tractor + Combine + small seed box	\$31.29	0.29 hrs/ha
Tractor + Spray unit	\$27.95	0.10 hrs/ha
Tractor + Super spreader	\$21.62	0.10 hrs/ha
Tractor + Harrows	\$21.29	0.08 hrs/ha
Tractor + Grader	\$24.62	0.78 hrs/ha
Tractor + Banker	\$27.62	1.18 hrs/ha
Tractor + Disc mower-conditioner	\$29.12	0.42 hrs/ha
Tractor + Rake	\$22.12	0.42 hrs/ha
Tractor + Hay baler + hydraulic pickup	\$34.62	0.42 hrs/ha

12

57 KW PTO (78 HP) AND 70 KW ENGINE (95 HP)

Machine	Width (m)	Speed	Efficiency	ha/hrs	hrs/ha
Offset disc	2.7	8 km/hr	80%	1.73	0.58
Scarifier	3.7	8 km/hr	80%	2.37	0.42
Combine + small seed box	4.3	10 km/hr	80%	3.44	0.29
Spray unit	12.2	10 km/hr	85%	10.37	0.10
Super spreader	10	15 km/hr	70%	10.50	0.10
Harrows	12.2	12 km/hr	85%	12.44	0.08
Grader	3	5 km/hr	85%	1.28	0.78
Banker	2	5 km/hr	85%	0.85	1.18
Disc mower-conditioner	3	10 km/hr	80%	2.40	0.42
Rake	3	10 km/hr	80%	2.40	0.42
Hay baler + hydraulic pickup	3	10 km/hr	80%	2.40	0.42

PRODUCT TRADE NAMES

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GUIDE TO TRACTOR AND IMPLEMENT COSTS

135 KW PTO (181 HP) AND 166 KW ENGINE (225 HP)

Example tractor : John Deere 8225R, Case IH Puma 210

New price: \$202,674
 Trade-in price: 45% of new = \$91,203
 Interest rate: 10%

Yearly work: 1000 hrs/yr
 Age at trade-in: 5000 hrs = 5.00 years

<u>Tractor Overhead Costs</u>		<u>per year cost</u>	<u>per hour cost</u>
Depreciation = $(\$202674 - \$91203.3) / 5 \text{ yrs} =$		\$22,294	\$22,294 / 1000hrs/yr = \$22.29
Interest = $((\$202674 + \$91203.3) / 2) * 10\% =$		\$14,694	\$14,694 / 1000hrs/yr = \$14.69
Insurance = $((\$10 / \$1000) * (\$202674 + \$91203.3) / 2) =$		\$1,469	\$1,469 / 1000hrs/yr = \$1.47
			Tractor Overhead Costs: \$38.46/hr
<u>Tractor Variable Costs</u>		<u>Use</u>	<u>Variable Costs Summary</u>
<u>Item</u>	<u>No.</u>	<u>Cost</u>	
Diesel fuel		\$0.96/L	FUEL: \$34.54/hr
Engine oil		\$6.20/L	
Transmission oil		\$6.00/L	OIL: \$1.38/hr
Air filter - inner	1	\$96/filter	
Air filter - outer	1	\$149/filter	
Fuel filter	1	\$173/filter	
Hydraulic/Trans oil filter	2	\$72/filter	
Oil filter	1	\$30/filter	FILTERS: \$1.15/hr
Tyres- large 20.8*42	4	\$2,450/tyre	TYRES: \$4.73/hr
Tyres- small 16.9 * 28	2	\$1,095/tyre	BATTERIES: \$0.40/hr
Batteries	2	\$594/battery	REPAIRS: \$4.05/hr
Repairs		2% tractor price/yr	Tractor Variable Costs: \$46.25/hr
			TOTAL Tractor Costs per hour: \$84.71/hr
(Based on 1000 hours work per year)			

Example Implements:

	<u>(a)New price</u>	<u>(b)Trade-in</u>	<u>(c)Work</u>	<u>(d)Trade-in</u>
			hours/yr	age
Chisel plough: 7m width: 8km/ha: 4.48ha/hr	\$55,000	\$19,250	200	9 years
Offset disc plough: 4.5m width: 8km/ha: 2.88ha/hr	\$39,000	\$13,650	250	9 years
Cultivator: 7.3m width: 10km/ha: 5.84ha/hr	\$50,000	\$17,500	250	9 years
Conventional air seeder+harrows: 8.5m width: 10km/ha: 5.95ha/hr	\$82,000	\$28,700	150	9 years
Min-till air seeder+harrows: 7.3m width: 10km/ha: 5.11ha/hr	\$99,000	\$34,650	150	9 years
Spray unit: 18.2m width: 12km/ha: 18.564ha/hr	\$19,000	\$6,650	150	9 years
Chaser bin: m width: km/ha: ha/hr	\$30,000	\$10,500	150	9 years
Rice roller: 6m width: 10km/ha: 5.1ha/hr	\$7,000	\$2,450	100	9 years
Combine (rice): 5.1m width: 10km/ha: 3.57ha/hr	\$35,000	\$12,250	150	9 years
Bed reneator: 8m width: 6km/ha: 3.84ha/hr	\$34,000	\$11,900	150	9 years

Implement	Overhead Costs		Variable costs (g)Repair \$/yr 5%	Variable cost/hour g/c	Yearly Cost (h) e+f+g	Hourly Cost h/c
	(e)Depreciation (a-b)/d	(f) Interest ((a+b)/2)*10%				
Chisel plough	\$3,972	\$3,713	\$2,750	\$13.75	\$10,435	\$52.17
Offset disc plough	\$2,817	\$2,633	\$1,950	\$7.80	\$7,399	\$29.60
Cultivator	\$3,611	\$3,375	\$2,500	\$10.00	\$9,486	\$37.94
Conventional air seeder+harrow	\$5,922	\$5,535	\$4,100	\$27.33	\$15,557	\$103.71
Min-till air seeder+harrow	\$7,150	\$6,683	\$4,950	\$33.00	\$18,783	\$125.22
Spray unit	\$1,372	\$1,283	\$950	\$6.33	\$3,605	\$24.03
Chaser bin	\$2,167	\$2,025	\$1,500	\$10.00	\$5,692	\$37.94
Rice roller	\$506	\$473	\$350	\$3.50	\$1,328	\$13.28
Combine (rice)	\$2,528	\$2,363	\$1,750	\$11.67	\$6,640	\$44.27
Bed reneator	\$2,456	\$2,295	\$1,700	\$11.33	\$6,451	\$43.00

Tractor and Implement Combinations

Variable Costs used in budgets
(based on hours/yr work as above)

	\$/hr	Speed
Tractor + Chisel plough	\$60.00/hr	0.22 hrs/ha
Tractor + Offset disc plough	\$54.05/hr	0.35 hrs/ha
Tractor + Cultivator	\$56.25/hr	0.17 hrs/ha
Tractor + Conventional air seeder+harrow	\$73.59/hr	0.17 hrs/ha
Tractor + Min-till air seeder+harrow	\$79.25/hr	0.20 hrs/ha
Tractor + Spray unit	\$52.59/hr	0.05 hrs/ha
Tractor + Chaser bin	\$56.25/hr	0.00 hrs/ha
Tractor + Rice roller	\$49.75/hr	0.20 hrs/ha
Tractor + Combine (rice)	\$57.92/hr	0.28 hrs/ha
Tractor + Bed reneator	\$57.59/hr	0.26 hrs/ha

130-140 KW PTO (173-180 HP) AND 150-160 KW ENGINE (205-215 HP)

Machine	Width (m)	Speed	Efficiency	ha/hrs	hrs/ha
Chisel plough	7.00	8 km/hr	80%	4.48	0.22
Offset disc plough	4.50	8 km/hr	80%	2.88	0.35
Cultivator	7.30	10 km/hr	80%	5.84	0.17
Conventional air seeder+harrow	8.50	10 km/hr	70%	5.95	0.17
Min-till air seeder+harrow	7.30	10 km/hr	70%	5.11	0.20
Spray unit	18.20	12 km/hr	85%	18.56	0.05
Chaser bin					
Rice roller	6.00	10 km/hr	85%	5.10	0.20
Combine (rice)	5.10	10 km/hr	70%	3.57	0.28
Bed reneator	8.00	6 km/hr	80%	3.84	0.26

PRODUCT TRADE NAMES

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GUIDE TO TRACTOR AND IMPLEMENT COSTS

180 KW PTO (242 HP) AND 217 KW ENGINE (295 HP)

Example tractor : John Deere 8295R, Case IH Magnum 305 Linkage

New price: \$241,124
 Trade-in price: 45% of new = \$108,506
 Interest rate: 10%

Yearly work: 1000 hrs/yr
 Age at trade-in: 5000 hrs = 5.00 years

Tractor Overhead Costs		per year cost	per hour cost
Depreciation = $(\$241124 - \$108505.8) / 5 \text{ yrs} =$		\$26,524	\$26,524 / 1000hrs/yr = \$26.52
Interest = $((\$241124 + \$108505.8) / 2) * 10\% =$		\$17,481	\$17,481 / 1000hrs/yr = \$17.48
Insurance = $(\$10 / \$1000) * (\$241124 + \$108505.8) / 2 =$		\$1,748	\$1,748 / 1000hrs/yr = \$1.75
			Tractor Overhead Costs: \$45.75/hr
Tractor Variable Costs			Variable Costs Summary
Item	No.	Cost	Use
Diesel fuel		\$0.96/L	43 L/hr
Engine oil		\$6.20/L	21L/200hrs
Transmission oil		\$6.00/L	122L/1000hrs
Air filter - inner	1	\$148/filter	800 hrs/filter
Air filter - outer	1	\$96/filter	400 hrs/filter
Fuel filter	1	\$173/filter	500 hrs/filter
Hydraulic oil filter	2	\$73/filter	750 hrs/filter
Oil filter	1	\$30/filter	250 hrs/filter
Water filter	1	\$33/filter	250 hrs/filter
Tyres- large 18.4 * 46R	4	\$2,290/tyre	3000 hrs/tyre
Tyres- small 16.9 * 28R	2	\$1,095/tyre	1500 hrs/tyre
Batteries	2	\$312/battery	3 yrs/battery
Repairs		2% tractor price/yr	
			FUEL: \$41.26/hr
			OIL: \$1.38/hr
			FILTERS: \$1.22/hr
			TYRES: \$4.51/hr
			BATTERIES: \$0.21/hr
			REPAIRS: \$4.82/hr
			Tractor Variable Costs: \$53.41/hr
			TOTAL Tractor Costs per hour: \$99.16/hr
			(Based on 1000 hours work per year)

Example Implements:

	(a)New price	(b)Trade-in	(c)Work hours/yr	(d)Trade-in age
Chisel plough: 11.3m width: 8km/ha: 7.232ha/hr	\$70,000	\$24,500	200	9 years
Cultivator: 12.2m width: 8km/ha: 7.808ha/hr	\$67,500	\$23,625	400	9 years
Conventional Air seeder: 13.7m width: 10km/ha: 9.59ha/hr	\$125,000	\$43,750	200	9 years
Min-till Air seeder+harrows: 12.2m width: 10km/ha: 8.54ha/hr	\$152,000	\$53,200	200	9 years
Spray unit: 24m width: 18km/ha: 36.72ha/hr	\$38,000	\$13,300	250	9 years
Cultivator: 8m width: 12km/ha: 8.64ha/hr	\$29,000	\$10,150	100	9 years
Mulcher with root cutters: 4m width: 15km/ha: 5.1ha/hr	\$54,000	\$18,900	100	3 years
Interrow cultivator: 8m width: 9km/ha: 6.48ha/hr	\$35,000	\$12,250	150	9 years
Middle busting rig: 8m width: 6km/ha: 4.32ha/hr	\$30,000	\$10,500	150	9 years
Planter: 8m width: 10km/ha: 7.2ha/hr	\$59,000	\$20,650	150	3 years
Shielded spray rig: 8m width: 15km/ha: 10.8ha/hr	\$11,000	\$3,850	100	5 years

Implement	Overhead Costs		Variable costs (g)Repair \$/yr 5%	Variable cost/hour g/c	Yearly Cost (h) e+f+g	Hourly Cost h/c
	(e)Depreciation (a-b)/d	(f) Interest ((a+b)/2)*10%				
Chisel plough	\$5,056	\$4,725	\$3,500	\$17.50	\$13,281	\$66.40
Cultivator	\$4,875	\$4,556	\$3,375	\$8.44	\$12,806	\$32.02
Conventional Air seeder	\$9,028	\$8,438	\$6,250	\$31.25	\$23,715	\$118.58
Min-till Air seeder+harrows	\$10,978	\$10,260	\$7,600	\$38.00	\$28,838	\$144.19
Spray unit	\$2,744	\$2,565	\$1,900	\$7.60	\$7,209	\$28.84
Cultivator	\$2,094	\$1,958	\$1,450	\$14.50	\$5,502	\$55.02
Mulcher with root cutters	\$11,700	\$3,645	\$2,700	\$27.00	\$18,045	\$180.45
Interrow cultivator	\$2,528	\$2,363	\$1,750	\$11.67	\$6,640	\$44.27
Middle busting rig	\$2,167	\$2,025	\$1,500	\$10.00	\$5,692	\$37.94
Planter	\$12,783	\$3,983	\$2,950	\$19.67	\$19,716	\$131.44
Shielded spray rig	\$1,430	\$743	\$550	\$5.50	\$2,723	\$27.23

Tractor and Implement Combinations

Variable Costs used in budgets
(based on hours/yr work as above)

	\$/hr	Speed
Tractor + Chisel plough	\$70.91/hr	0.14 hrs/ha
Tractor + Cultivator	\$61.84/hr	0.13 hrs/ha
Tractor + Conventional Air seeder	\$84.66/hr	0.10 hrs/ha
Tractor + Min-till Air seeder+harrows	\$91.41/hr	0.12 hrs/ha
Tractor + Spray unit	\$61.01/hr	0.03 hrs/ha
Tractor + Cultivator	\$67.91/hr	0.12 hrs/ha
Tractor + Mulcher with root cutters	\$80.41/hr	0.20 hrs/ha
Tractor + Interrow cultivator	\$65.07/hr	0.15 hrs/ha
Tractor + Middle busting rig	\$63.41/hr	0.23 hrs/ha
Tractor + Planter	\$73.07/hr	0.14 hrs/ha
Tractor + Shielded spray rig	\$58.91/hr	0.09 hrs/ha

165-170 KW PTO (225-230 HP) AND 194-200 KW ENGINE (260-268 HP)

Machine	Width (m)	Speed	Efficiency	ha/hrs	hrs/ha
Chisel plough	11.30	8 km/hr	80%	7.23	0.14
Cultivator	12.20	8 km/hr	80%	7.81	0.13
Conventional Air seeder	13.70	10 km/hr	70%	9.59	0.10
Min-till Air seeder+harrows	12.20	10 km/hr	70%	8.54	0.12
Spray unit	24.00	18 km/hr	85%	36.72	0.03
Cultivator	8.00	12 km/hr	90%	8.64	0.12
Mulcher with root cutters	4.00	15 km/hr	85%	5.10	0.20
Interrow cultivator	8.00	9 km/hr	90%	6.48	0.15
Middle busting rig	8.00	6 km/hr	90%	4.32	0.23
Planter	8.00	10 km/hr	90%	7.20	0.14
Shielded spray rig	8.00	15 km/hr	90%	10.80	0.09

PRODUCT TRADE NAMES

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GUIDE TO TRACTOR AND IMPLEMENT COSTS

196 KW PTO (263 HP) AND 242 KW ENGINE (325 HP), powershift

Example tractor : JD 9230 (4WD) Case IH Magnum 305 Linkage

New price:	\$256,840	Yearly work:	1000 hrs/yr
Trade-in price:	45% of new = \$115,578	Age at trade-in:	5000 hrs = 5.00 years
Interest rate:	10%	Average value:	\$186,210

Tractor Overhead Costs		per year cost	per hour cost
Depreciation = (\$256840-\$115578)/5 yrs =		\$28,252	\$28,252 /1000hrs/yr= \$28.25
Interest = ((\$256840+\$115578)/2)*10% =		\$18,621	\$18,621 /1000hrs/yr= \$18.62
Insurance = ((\$10/\$1000)*(\$256840+\$115578)/2) =		\$1,862	\$1,862 /1000hrs/yr= \$1.86
			Tractor Overhead Costs: \$48.74/hr
Tractor Variable Costs			
Item	No.	Cost	Use
Diesel fuel		\$0.96/L	48 L/hr
Engine oil		\$6.20/L	42L/250hrs
Transmission oil		\$6.00/L	122L/1200hrs
Air filter-inner	1	\$78/filter	1000 hrs/filter
Air filter-outer	1	\$121/filter	1000 hrs/filter
Fuel filter	1	\$77/filter	250 hrs/filter
Hydraulic oil filter	2	\$107/filter	250 hrs/filter
Oil filter	1	\$79/filter	250 hrs/filter
Cab filters	1	\$35/filter	1000 hrs/filter
Water filter	1	\$54/filter	250 hrs/filter
Tyres - 620 -70R42	8	\$3,300/tyre	3500 hrs/tyre
Tyres - small	0	\$0/tyre	3500 hrs/tyre
Batteries	1	\$312/battery	2000hrs/battery
Repairs		2% tractor price/yr	
			FUEL: \$46.06/hr
			OIL: \$1.64/hr
			FILTERS: \$1.93/hr
			TYRES: \$7.54/hr
			BATTERIES: \$0.16/hr
			REPAIRS: \$5.14/hr
			Tractor Variable Costs: \$62.47/hr
			TOTAL Tractor Costs per hour: \$111.20/hr
			(Based on 1000 hours work per year)

Example Implements:	(a)New price	(b)Trade-in	(c)Work hours/yr	(d)Trade-in age	Average value
Offset disc: 10.2m width: 8km/ha: 6.528ha/hr	\$50,000	\$17,500	250	9 years	\$33,750
Chisel plough: 11.3m width: 8km/ha: 7.232ha/h	\$79,000	\$27,650	200	9 years	\$53,330
Cultivator: 12.2m width: 10km/ha: 9.76ha/hr	\$67,500	\$23,625	400	9 years	\$45,560
Air seeder: 12.2m width: 10km/ha: 8.54ha/hr	\$152,000	\$53,200	200	4 years	\$102,600
Spray unit: 24m width: 15km/ha: 30.6ha/hr	\$50,000	\$17,500	250	9 years	\$33,750
					\$268,990

Implement	Overhead Costs		Variable costs (g)Repair \$/yr 5%	Variable cost/hour g/c	(h)Total cost/year e+f+g	Total cost/hour h/c
	(e)Depreciation (a-b)/d	(f) Interest ((a+b)/2)*10%				
Offset disc	\$3,611	\$3,375	\$2,500	\$10.00	\$9,486	\$37.94
Chisel plough	\$5,706	\$5,333	\$3,950	\$19.75	\$14,988	\$74.94
Cultivator	\$4,875	\$4,556	\$3,375	\$8.44	\$12,806	\$32.02
Air seeder	\$24,700	\$10,260	\$7,600	\$38.00	\$42,560	\$212.80
Spray unit	\$3,611	\$3,375	\$2,500	\$10.00	\$9,486	\$37.94

Tractor and Implement Combinations

Variable Costs used in budgets

(based on hours/yr work as above)

	\$/hr	Speed
Tractor + Offset disc:	\$72.47/hr	0.15 hrs/ha
Tractor + Chisel plough:	\$82.22/hr	0.14 hrs/ha
Tractor + Cultivator:	\$70.90/hr	0.10 hrs/ha
Tractor + Air seeder:	\$100.47/hr	0.12 hrs/ha
Tractor + Spray unit:	\$72.47/hr	0.03 hrs/ha

196 KW PTO (263 HP) AND 242 KW ENGINE (325 HP), powershift

Machine	Width (m)	Speed	Efficiency	ha/hrs	hrs/ha
Offset disc	10.2	8 km/hr	80%	6.53	0.15
Chisel plough	11.3	8 km/hr	80%	7.23	0.14
Cultivator	12.2	10 km/hr	80%	9.76	0.10
Air seeder	12.2	10 km/hr	70%	8.54	0.12
Spray unit	24	15 km/hr	85%	30.60	0.03

PRODUCT TRADE NAMES

The product trade names in this publication are supplied on the understanding that no preference between equivalent products is intended and that the inclusion of a product does not imply endorsement by NSW Trade & Investment over any other equivalent product from another manufacturer.