

Component Life Projection

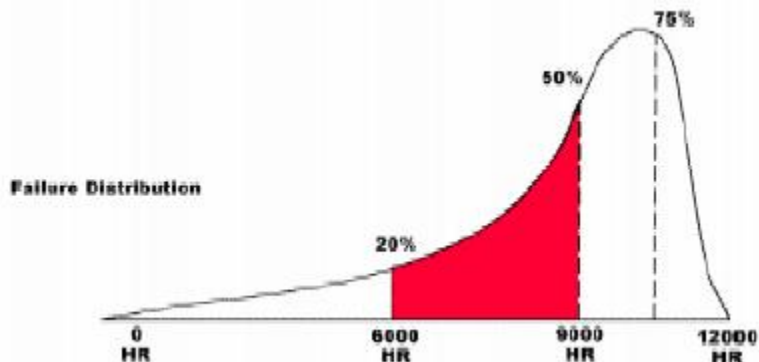
We have defined the service life of major machine components by a range of values. Because of variability in manufacturing and application, not all components fail at the same time. Duty cycle, working environment, and maintenance practice will play major roles in when a component fails.

For these reasons, service life is given as a range of hour levels. This is intended to assist you and your customer in defining the risk of incurring a major failure which will down his machine.

Our marketplace identifies useful life as the hour level when a significant number of components fail. Our customers' definition of an "8000 hour engine" correlates to a given population where every engine has accumulated 8000 hours of operation and 20% of those had a major failure prior to 8000 hours. This is the basis for the low end of the service life range.

The upper end is that hour level at which 50% of the components have failed, also known as mean life. Beyond this point you are more likely than not to experience a major failure. Even more significant is that the remaining 50% of the components will fail in a very compressed time frame as compared to the first 50% failures as the components achieve wear and fatigue limits.

It is important to recognize that the rate of failure increases at a constant rate with the increase in operating hours until a component reaches the wear-out threshold. This is demonstrated in the chart below. When the wear-out threshold or design life of the component is achieved, failure rate is significantly increased. In this example, after 6000 hours, 20% of the components have failed. After an additional 3000 hours another 30% of the population has failed and after another 3000 hours the remaining 50% of the population has failed.

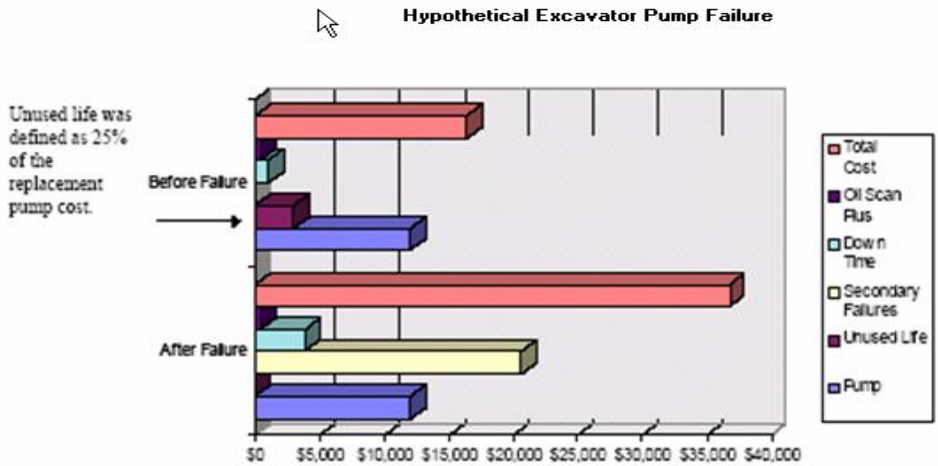


If machine up-time is absolutely essential to an operation, the 20% value is the time for action. If the duty cycle is severe and maintenance practices are not what they should be, the 20% value is the time for action. What action? Perhaps component exchange with Deere **Reman/Select** or having an

exchange component close at hand in the event of failure.

On the other hand, if machine up-time is not so critical and good maintenance practices are in place, the 50% hour level can be the time for those action plans. The bottom line is that major failures are to be avoided for any number of reasons. Unexpected downtime is costly to the customer's operation. The cost of repair after failure is often greater than the cost of component replacement when completed before failure. Secondary parts damage and system clean up quickly add to the cost of a major component failure. In addition, remanufactured component core value is greatly diminished after a failure. It makes good business sense to fix before fail at the hour level that represents an acceptable risk for your customer.

For customers who are concerned with the remaining useful life in a component after reaching the wear-out threshold, we suggest you compare the remaining value of the component against the total cost of a downtime repair. The value of your repair before failure will save the customer 50% over the cost of failure as shown in the attached example.



You have an excellent tool to refine these component life projections to the specific customer application. Sell your customers on the value of Oil Scan Plus. This tool will initially establish a baseline trend for each specific machine, so when deterioration begins, it is recognized as being abnormal. That will trigger a confirming sampling analysis or other failure monitoring, long before your customers machine has failed. Used in this fashion, Oil Scan Plus is a very effective predictive maintenance tool.

Component Life Projection and Repair Cost Data sheets

The attached data sheets provide you with the service life range and repair costs (in U.S. Dollars) of major components on all current and previous model products for all Industrial product families. The repair cost ranges is based on major failures and is stated in retail prices.

Excavator

<u>Model</u> <u>Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High</u> <u>Cost</u>	<u>Ave.</u> <u>Cost</u>	<u>Model</u> <u>Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High</u> <u>Cost</u>	<u>Ave.</u> <u>Cost</u>
17Z					27Z				
Engine	9000	14000	\$6,500	\$6,000	Engine	5500	7910	\$7,548	\$4,554
Hyd Pump	8000	12500	\$1,343	\$1,000	Hyd Pump	16000	25000	\$4,000	\$2,500
Propel Motor	9000	14000	\$3,000	\$2,000	Propel Motor	16000	25000	\$3,500	\$2,500
Swing Motor	9000	14000	\$4,500	\$3,500	Swing Motor	16000	25000	\$5,000	\$4,000
27C					27D				
Engine	6000	9000	\$6,433	\$6,000	Engine	6000	9000	\$7,548	\$4,554
Hyd Pump	12500	19500	\$4,000	\$2,500	Hyd Pump	12500	19500	\$4,000	\$2,500
Propel Motor	12500	19500	\$3,500	\$2,500	Propel Motor	12500	19500	\$3,500	\$2,500
Swing Motor	12500	19500	\$5,000	\$4,000	Swing Motor	12500	19500	\$5,000	\$4,000
35Z					35C				
Engine	11500	18500	\$6,894	\$6,183	Engine	9000	14500	\$5,321	\$3,772
Hyd Pump	8000	12500	\$5,117	\$2,417	Hyd Pump	7000	11000	\$5,069	\$2,122
Propel Motor	11500	18000	\$3,626	\$2,065	Propel Motor	5500	9000	\$4,113	\$2,297
Swing Motor	16000	25000	\$5,281	\$4,500	Swing Motor	7000	10500	\$5,281	\$3,822
35D					50Z				
Engine	10000	17000	\$8,242	\$3,696	Engine	9000	14500	\$3,950	\$3,558
Hyd Pump	9500	17000	\$3,106	\$2,758	Hyd Pump	7000	11000	\$3,648	\$2,351
Propel Motor	11000	17500	\$4,972	\$3,912	Propel Motor	10000	16000	\$4,500	\$2,500
Swing Motor	15000	24000	\$5,281	\$4,500	Swing Motor	10000	16000	\$5,500	\$4,000
50C					50D				
Engine	8000	12500	\$6,015	\$2,344	Engine	9500	15000	\$7,555	\$7,897
Hyd Pump	8500	13500	\$3,568	\$2,462	Hyd Pump	9000	14000	\$1,430	\$1,568
Propel Motor	14500	22500	\$4,500	\$2,500	Propel Motor	13500	21000		\$4,500
Swing Motor	14500	22500	\$5,500	\$4,000	Swing Motor	13500	21000		\$5,500
80C					120C				
Engine	14000	22000	\$2,855	\$2,500	Engine	11500	18000	\$9,046	\$4,288
Hyd Pump	16000	25000	\$7,852	\$3,000	Hyd Pump	10000	15500	\$11,364	\$7,676
Propel Motor	10000	15500	\$5,000	\$3,000	Propel Motor	14500	22500	\$5,500	\$3,500
Swing Motor	10000	15500	\$6,000	\$4,500	Swing Motor	15000	25000	\$6,000	\$4,500
135C					160C				
Engine	9500	15000	\$2,855	\$2,500	Engine	10000	16000	\$17,024	\$8,359
Hyd Pump	7500	12000	\$7,852	\$3,000	Hyd Pump	11000	17000	\$11,463	\$9,091
Propel Motor	9500	15000	\$5,000	\$3,000	Propel Motor	13500	21000	\$5,500	\$3,500
Swing Motor	9500	15000	\$6,000	\$4,500	Swing Motor	13500	21000	\$6,000	\$4,500
200C					2054				
Engine	11000	17000	\$8,786	\$3,737	Engine	11000	17000	\$11,177	\$2,712
Hyd Pump	16000	25000	\$13,116	\$9,831	Hyd Pump	10000	16000	\$23,334	\$11,416
Propel Motor	13000	20500	\$6,607	\$6,454	Propel Motor	11000	17000	\$7,878	\$5,722
Swing Motor	16000	25000	\$7,000	\$5,000	Swing Motor	10000	16000	\$7,000	\$5,000
225C					230C				
Engine	10000	16000	\$10,500	\$3,000	Engine	10000	16000	\$10,720	\$2,474
Hyd Pump	10000	16000	\$14,000	\$11,000	Hyd Pump	13500	21000	\$13,465	\$10,900
Propel Motor	10000	16000	\$12,000	\$5,000	Propel Motor	10000	16000	\$11,420	\$4,759
Swing Motor	10000	16000	\$9,000	\$6,000	Swing Motor	15000	23500	\$8,000	\$5,500

Excavator cont'd

270C					2554				
Engine	10000	16000	\$11,686	\$3,424	Engine	10000	15500	\$10,000	\$3,500
Hyd Pump	11500	17500	\$24,607	\$15,101	Hyd Pump	12500	19500	\$12,000	\$5,000
Propel Motor	9500	14500	\$12,000	\$7,312	Propel Motor	12500	19500	\$12,000	\$7,500
Swing Motor	16000	25000	\$10,000	\$6,500	Swing Motor	12500	19500	\$10,000	\$6,500
330C/370C					3554				
Engine	7500	11500	\$20,281	\$8,419	Engine	7500	11500	\$15,000	\$8,500
Hyd Pump	12500	19500	\$11,042	\$4,372	Hyd Pump	12500	19500	\$12,000	\$5,000
Propel Motor	9000	14000	\$22,699	\$8,311	Propel Motor	5500	9000	\$15,000	\$7,000
Swing Motor	16000	25000	\$12,000	\$8,000	Swing Motor	6500	10500	\$12,000	\$8,000
450C					600C				
Engine	8500	13500	\$24,368	\$11,422	Engine	8000	12500	\$25,000	\$12,000
Hyd Pump	7500	11500	\$45,425	\$17,219	Hyd Pump	8000	12500	\$40,000	\$20,000
Propel Motor	8000	12500	\$20,815	\$9,192	Propel Motor	8000	12500	\$25,000	\$10,000
Swing Motor	16000	25000	\$12,000	\$8,000	Swing Motor	8000	12500	\$15,000	\$10,000
800C									
Engine	16000	25000	\$18,826	\$10,326					
Hyd Pump	9500	15000	\$40,000	\$20,000					
Propel Motor	9000	14500	\$25,000	\$10,000					
Swing Motor	9000	14500	\$15,000	\$10,000					

Crawlers

<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>	<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>
450H					450J				
Engine	13000	20000	\$8,745	\$4,055	Engine	13000	20000	\$8,745	\$4,055
Final Drive	7500	12000	\$11,302	\$3,555	Final Drive	8000	12500	\$11,302	\$3,555
HST Motor	15000	23500	\$6,024	\$3,281	HST Motor	16000	24500	\$6,024	\$3,281
HST Pump	16000	25000	\$17,866	\$7,004	HST Pump	16000	25000	\$17,866	\$7,004
550H					550J				
Engine	13000	20500	\$7,643	\$3,750	Engine	9500	15500	\$7,643	\$3,750
Final Drive	16000	25000	\$10,160	\$4,715	Final Drive	16000	25000	\$5,255	\$2,687
HST Motor	15000	23500	\$16,000	\$4,000	HST Motor	16000	24000	\$16,000	\$4,000
HST Pump	16000	25000	\$23,698	\$7,931	HST Pump	16000	25000	\$23,698	\$7,931
605C					650J				
Engine	9500	15500	\$7,643	\$3,750	Engine	9000	13500	\$12,061	\$4,327
Final Drive	16000	25000	\$5,255	\$2,687	Final Drive	11000	17500	\$7,772	\$3,383
HST Motor	16000	24000	\$16,000	\$4,000	HST Motor	12000	19000	\$18,506	\$4,843
HST Pump	16000	25000	\$23,698	\$7,931	HST Pump	15000	23500	\$16,505	\$6,917
650H					700H				
Engine	8500	13000	\$12,061	\$4,327	Engine	11500	17500	\$11,452	\$4,036
Final Drive	11000	17500	\$7,772	\$3,383	Final Drive	7500	12000	\$22,844	\$7,709
HST Motor	15000	23500	\$18,506	\$4,843	HST Motor	15000	23500	\$5,718	\$5,055
HST Pump	16000	25000	\$16,505	\$6,917	HST Pump	15000	23000	\$16,677	\$10,131
655C					755C				
Engine	14500	22500	\$15,758	\$4,500	Engine	14500	23000	\$10,000	\$4,000
Final Drive	8000	11000	\$1,505	\$3,500	Final Drive	14500	23000	\$16,000	\$8,000
HST Motor	7500	11500	\$24,685	\$13,735	HST Motor	6000	7500	\$26,729	\$21,599
HST Pump	16000	25000	\$16,500	\$7,000	HST Pump	4500	7000	\$16,329	\$10,643
700J					950C				
Engine	11500	17500	\$11,452	\$4,036	Engine	12000	18000	\$16,000	\$9,000
Final Drive	9500	15000	\$22,844	\$7,709	Final Drive	9000	14000	\$20,000	\$10,000
HST Motor	15000	23500	\$5,718	\$5,055	HST Motor	10000	16000	\$37,088	\$28,928
HST Pump	15000	23000	\$16,677	\$10,131	HST Pump	10000	16000	\$20,000	\$10,000
750C II					750J				
Engine	9000	14000	\$9,663	\$3,582	Engine	9000	14000	\$9,663	\$3,582
Final Drive	13000	20000	\$16,756	\$7,788	Final Drive	13000	20000	\$16,756	\$7,788
HST Motor	15000	23500	\$15,225	\$8,321	HST Motor	15000	23500	\$15,225	\$8,321
HST Pump	15000	16000	\$27,622	\$8,676	HST Pump	15000	16000	\$27,622	\$8,676
850C II					850J				
Engine	12000	18500	\$15,360	\$8,485	Engine	12000	18500	\$15,360	\$8,485
Final Drive	9500	15000	\$19,405	\$8,484	Final Drive	9500	15000	\$19,405	\$8,484
HST Motor	14500	23000	\$13,342	\$6,372	HST Motor	14500	23000	\$13,342	\$6,372
HST Pump	9500	15000	\$30,678	\$10,894	HST Pump	9500	15000	\$30,678	\$10,894

Crawler cont'd

950C					950J				
Engine	10000	19500	\$16,000	\$9,000	Engine	10000	19500		\$16,000
Final Drive	9000	14000	\$20,000	\$10,000	Final Drive	9000	14000		\$20,000
HST Motor	8000	14000	\$37,088	\$28,928	HST Motor	8000	14000	\$20,494	\$37,088
HST Pump	10000	16000	\$18,000	\$11,000	HST Pump	10000	16000		\$18,000
1050C									
Engine	8000	12000	\$14,303	\$5,548					
Final Drive	9000	14000	\$18,000	\$9,000					
HST Motor	9000	14000	\$21,017	\$15,000					
HST Pump	11500	18500	\$26,508	\$19,899					

Skidders

<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>	<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>
540G/360DC					548G/360DG				
Axle	7500	12000	\$9,707	\$2,334	Axle	6000	9500	\$6,934	\$2,663
Engine	10500	16000	\$21,904	\$5,317	Engine	9000	13500	\$10,682	\$4,700
Tier II Eng.	9500	15000	\$21,904	\$5,317	Tier II Eng.	7500	11500	\$10,682	\$4,700
Transmission	13000	20000	\$13,000	\$6,000	Transmission	10500	16000	\$13,987	\$6,197
WTW Trans	7500	12000	\$13,000	\$6,000	WTW Trans	8000	12500	\$8,802	\$2,965
640G/460DC					648G/460DG				
Axle	6500	10500	\$3,130	\$1,230	Axle sweda	7000	11500	\$7,785	\$2,435
Engine	6500	10500	\$8,317	\$3,115	Axle	6500	10000	\$20,729	\$3,101
Tier II Eng.	8000	12500	\$8,317	\$3,115	Tier II Eng.	7000	11000	\$16,368	\$5,517
Transmission	9000	14000	\$13,574	\$5,683	Eng. w/ TC	8000	12000	\$16,368	\$5,517
WTW Trans	6500	10500	\$5,783	\$3,345	Eng. w/o TC	6500	10000	\$16,368	\$5,517
					Transmission	7000	10500	\$29,505	\$10,112
					Trans w/ TC	10500	16500	\$29,505	\$10,112
					Trans w/o TC	6500	10000	\$29,505	\$10,112
748G/560DG					848G/660DG				
Axle sweda	5000	8000	\$20,797	\$4,635	Axle	5000	8000	\$36,092	\$8,799
Axle	4500	7500	\$20,797	\$3,236	Engine	8500	13000	\$14,116	\$8,958
Engine	8000	12500	\$22,188	\$6,810	Transmission	5500	8000	\$34,054	\$16,233
Transmission	8000	12500	\$20,093	\$9,829					

* sweda axles have very similar results to regular axles. When comparing these data, it should be pointed out that the sweda axles are going into our most aggressive environments i.e. big tires, chains, and swamps etc.

Loader Backhoes

<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>	<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>
210LE					310G				
Axle	8000	12500	\$5,686	\$2,009	Axle	8000	12500	\$6,934	\$2,861
Engine	10000	16000	\$6,515	\$2,652	Engine	8000	12500	\$12,124	\$3,145
Transmission	11000	17000	\$3,497	\$2,821	Transmission	9000	14000	\$5,496	\$1,771
310SG					410G				
Axle	9000	14000	\$7,218	\$3,101	Axle	5000	8000	\$5,277	\$3,315
Engine	9500	15000	\$7,643	\$2,208	Engine	11000	17000	\$7,359	\$2,733
Transmission	9500	14500	\$7,612	\$2,456	Transmission	7500	11500	\$9,638	\$3,675
710D					710G				
Axle	3500	5000	\$16,533	\$5,635	Axle	4000	5500	\$16,533	\$5,635
Engine	11000	17500	\$9,608	\$3,385	Engine	11000	17500	\$9,608	\$3,385
Transmission	8000	12500	\$5,045	\$3,041	Transmission	8500	12500	\$5,045	\$3,041
710J									
Axle	5000	8000	\$18,366	\$6,442					
Engine	10000	15500	\$8,184	\$3,259					
Transmission	6000	9000	\$17,313	\$7,254					

Skid Steer Loaders

<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>	<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>
240					317				
Engine	7000	10500	\$7,500	\$3,932	Engine	7000	10500	\$7,500	\$3,932
HST Motor	7500	11500	\$1,442	\$6,712	HST Motor	8000	12000	\$1,442	\$6,712
HST Pumps	6500	10000	\$4,857	\$1,233	HST Pumps	7000	10000	\$4,857	\$1,233
250					320				
Engine	9000	14000	\$8,812	\$3,646	Engine	9000	14000	\$8,812	\$3,646
HST Motor	7000	10500	\$7,861	\$1,361	HST Motor	7500	11000	\$7,861	\$1,361
HST Pumps	6000	9000	\$6,843	\$1,284	HST Pumps	6500	9500	\$6,843	\$1,284
260					325				
Engine	9500	15000	\$7,321	\$4,118	Engine	9500	15000	\$7,321	\$4,118
HST Motor	6500	10000	\$6,971	\$2,980	HST Motor	7000	10500	\$6,971	\$2,980
HST Pumps	4000	6000	\$6,960	\$1,903	HST Pumps	4500	6500	\$6,960	\$1,903
270					328				
Engine	9000	14500	\$7,688	\$4,913	Engine	9000	14500	\$7,688	\$4,913
HST Motor	5500	8000	\$8,748	\$3,238	HST Motor	6000	8500	\$8,748	\$3,238
HST Pumps	4000	7000	\$13,225	\$2,056	HST Pumps	4500	7500	\$13,225	\$2,056
280					332				
Engine	6500	10500	\$7,830	\$3,650	Engine	6500	10500	\$7,830	\$3,650
HST Motor	4500	7500	\$10,258	\$3,651	HST Motor	5000	8000	\$10,258	\$3,651
HST Pumps	3500	6500	\$11,129	\$2,222	HST Pumps	4000	7000	\$11,129	\$2,222

Wheel Feller Buncher

<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>	<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>
643H/740					843H/840				
Axle	10500	16500	\$3,765	\$1,885	Axle	6000	9500	\$7,583	\$3,019
Engine	7500	11500	\$6,441	\$3,825	Engine	8000	12500	\$14,504	\$5,371
HST Motor	5500	9000	\$10,436	\$6,035	HST Motor	7000	10500	\$40,802	\$8,108
HST Pump	7500	11500	\$10,805	\$10,663	HST Pump	10500	16000	\$12,002	\$7,972
Transmission	8500	13500	\$13,116	\$3,640	Transmission	6000	9500	\$12,514	\$4,874

Four Wheel Drive Loaders

<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>	<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>
304H					324H				
Axle	5000	8000	\$10,087	\$5,068	Axle	5000	7000	\$6,347	\$3,099
Engine	7000	11000	\$11,595	\$4,694	Engine	7000	10500	\$8,000	\$4,500
HST Motor	16000	25000	\$5,000	\$3,000	HST Motor	5500	8500	\$6,742	\$4,500
HST Pump	16000	25000	\$5,000	\$3,500	HST Pump	9000	14000	\$5,000	\$3,500
344H					444J				
Axle	6500	10000	\$23,935	\$8,277	Axle	10500	16000	\$14,979	\$3,095
Engine	10000	16000	\$9,732	\$6,123	Engine	11000	17000	\$7,558	\$2,934
HST Motor	16000	25000	\$5,000	\$3,000	Transmission	14000	22000	\$21,474	\$15,501
HST Pump	13500	21000	\$6,000	\$4,000					
444H/TC44H					544J				
Axle	10500	16000	\$14,979	\$3,095	Axle	12000	18500	\$12,072	\$2,623
Engine	11000	17000	\$7,558	\$2,934	Engine	14000	22000	\$12,647	\$3,668
Transmission	14000	22000	\$21,474	\$15,501	Transmission	14000	22500	\$16,941	\$5,446
544H/TC54H					624J				
Axle	12000	18500	\$12,072	\$2,623	Axle	8000	12000	\$18,192	\$3,591
Engine	14000	22000	\$12,647	\$3,668	Engine	10500	16500	\$11,553	\$2,839
Transmission	14000	22500	\$16,941	\$5,446	Transmission	12500	19500	\$26,156	\$7,909
624H/TC62H					644J				
Axle	7500	11500	\$18,192	\$3,591	Axle	7000	11000	\$22,740	\$4,582
Engine	10500	16500	\$11,553	\$2,839	Engine	9500	14500	\$12,085	\$5,341
Transmission	12500	19500	\$26,156	\$7,909	Transmission	15500	24500	\$22,344	\$8,696
644H					744J				
Axle	6500	10500	\$22,740	\$4,582	Axle	8500	13500	\$28,562	\$4,349
Engine	9000	14000	\$12,085	\$5,341	Engine	8500	13500	\$22,483	\$10,549
Transmission	15500	24500	\$22,344	\$8,696	Transmission	15500	24500	\$43,533	\$18,075
724J					844J				
Axle	6500	10500	\$13,772	\$4,363	Axle	9500	20000	\$31,290	
Engine	10500	16500	\$12,000	\$6,000	Engine	9500	20000	\$15,309	\$11,872
Transmission	10500	16500	\$20,000	\$10,000	Transmission	9500	20000		
744H					824J				
Axle	8000	12000	\$39,910	\$6,015	Axle	8000	12500	\$6,361	\$2,829
Engine	7500	11500	\$25,165	\$9,425	Engine	8000	12500	\$19,899	\$11,872
Transmission	10000	16000	\$39,627	\$14,620	Transmission	16000	25000	\$39,627	\$14,620

Graders

<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>	<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>
670C II					670D				
Engine	11500	18000	\$11,063	\$4,260	Engine	11500	18000	\$11,063	\$4,260
Tandem Axle	10500	16000	\$8,957	\$2,397	Tandem Axle	11000	16500	\$8,957	\$2,397
Transmission	15500	24500	\$14,910	\$8,109	Transmission	14000	21500	\$14,910	\$8,109
Transmission	14000	21500	\$27,528	\$9,029	672D				
672C II					672D				
Engine	8500	13000	\$10,443	\$5,487	Engine	9000	13500	\$10,443	\$5,487
HFWD Motor	12000	19000	\$18,000	\$9,000	HFWD Motor	12000	19000	\$18,000	\$9,000
HFWD Pump	14500	22500	\$13,000	\$7,000	HFWD Pump	14500	22500	\$13,000	\$7,000
Tandem Axle	12000	17000	\$10,794	\$3,582	Tandem Axle	12000	17000	\$10,794	\$3,582
Transmission	11000	17000			Transmission	12500	19500	\$17,936	\$10,865
Transmission	12500	19500	\$17,936	\$10,865	770D				
770C II					770D				
Engine	16000	25000	\$15,624	\$5,816	Engine	16000	25000	\$15,624	\$5,816
Engine	14500	22500	\$15,624	\$5,816	Tandem Axle	10000	15500	\$14,526	\$2,518
Tandem Axle	10000	15500	\$14,526	\$2,518	Transmission	10000	15000	\$19,264	\$8,913
Transmission	8000	12500	\$14,766	\$8,896	772D				
Transmission	10000	15000	\$19,264	\$8,913	772D				
772C II					772D				
Engine	9000	14500	\$14,857	\$4,682	Engine	9500	15000	\$14,857	\$4,682
Engine	9500	15000	\$14,857	\$4,682	HFWD Motor	14000	22000	\$20,919	\$9,729
HFWD Motor	14000	22000	\$20,919	\$9,729	HFWD Pump	13000	20500	\$13,300	\$7,454
HFWD Pump	13000	20500	\$13,300	\$7,454	Tandem Axle	10000	15500	\$13,433	\$2,719
Tandem Axle	10000	15500	\$13,433	\$2,719	Transmission	10000	16000	\$24,062	\$8,414
Transmission	7000	10500	\$24,062	\$8,414	872D				
Transmission	10000	16000	\$24,062	\$9,119	872D				
870D					872D				
Engine	16000	25000	\$15,000	\$5,000	Engine	9500	15000	\$15,000	\$5,000
Tandem Axle	10000	15500	\$13,500	\$3,000	HFWD Motor	14000	22000	\$20,000	\$10,000
Transmission	10000	15000	\$25,000	\$9,000	HFWD Pump	13000	20500	\$14,000	\$7,500
					Tandem Axle	10000	15500	\$13,500	\$3,000
					Transmission	10000	16000	\$25,000	\$9,000

Articulated Dump Trucks

<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>	<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>
250D/300D					350D/400D				
Axle	8000	12000	\$12,136	\$6,655	Axle	9000	13000	\$32,452	\$8,450
Drop Box	9000	16500	\$6,330	\$3,166	Drop Box	6000	11000	\$32,836	\$12,095
Engine	16000	27000	\$33,175	\$13,053	Engine	9000	19500	\$34,253	\$10,862
Transmission	7500	15500	\$31,968	\$12,576	Transmission	7000	12500	\$35,456	\$13,386

Forwarders

<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>	<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>
810D					1010D				
Engine	13000	20500	\$11,537	\$5,000	Engine	17000	26500	\$11,000	\$5,000
HST Pump	16000	25000	\$9,000	\$5,000	HST Pump	9000	14000	\$9,000	\$5,000
HST Motor	4500	7500	\$4,580	\$2,902	HST Motor	16000	25000	\$5,000	\$3,000
Hyd Pump	16000	25000	\$5,000	\$3,000	Hyd Pump	7000	11000	\$22,271	\$10,989
1110D					1410D				
Engine	12000	18500	\$17,243	\$9,436	Engine	16000	25000	\$15,000	\$10,000
HST Pump	10000	15000	\$9,959	\$4,940	HST Pump	7500	12000	\$12,874	\$7,227
HST Motor	10000	15500	\$4,097	\$3,747	HST Motor	8500	13500	\$3,963	\$3,635
Hyd Pump	16000	25000	\$5,500	\$4,000	Hyd Pump	10000	15500	\$5,087	\$4,315
1710D									
Engine	16000	25000	\$16,000	\$10,000					
HST Pump	6500	10000	\$7,179	\$4,992					
HST Motor	5500	9000	\$10,108	\$5,840					
Hyd Pump	13500	21000	\$5,000	\$4,000					

Wheeled Harvesters

<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>	<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>
0770D					1070D				
Engine	8500	13500	\$7,500	\$3,500	Engine	17500	27500	\$8,000	\$4,000
Hyd Pump	8500	13500	\$15,000	\$3,000	Hyd Pump	9000	12500	\$15,000	\$6,000
HST Pump	8500	13500	\$10,000	\$6,000	HST Pump	16000	25000	\$10,000	\$6,000
HST Motor	8500	13500	\$11,000	\$6,500	HST Motor	16000	25000	\$11,000	\$6,500
1270D					1470D				
Engine	16000	25000	\$8,000	\$3,500	Engine	14000	22000	\$8,000	\$3,500
Hyd Pump	9500	15000	\$9,153	\$6,421	Hyd Pump	11500	18000	\$10,000	\$6,000
HST Pump	16000	25000	\$10,000	\$6,000	HST Pump	7500	11500	\$10,000	\$6,000
HST Motor	16000	25000	\$11,000	\$6,500	HST Motor	14000	22000	\$11,000	\$6,500

Log Loaders

<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>	<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>
330B/0335					437C				
Engine	8000	12500	\$7,762	\$3,284	Engine	11500	17500	\$7,093	\$4,441
Hyd Pump	7500	11500	\$14,777	\$2,936	Hyd Pump	8000	12500	\$6,188	\$2,421
Swing Motor	4000	6500	\$4,227	\$1,610	Swing Motor	5500	8500	\$4,111	\$1,586
430B/0435					530B/0535				
Engine	11500	17500	\$7,093	\$4,441	Engine	8000	12500	\$4,746	\$5,885
Hyd Pump	7500	12000	\$6,188	\$2,421	Hyd Pump	6000	9000	\$336	\$6,684
Swing Motor	5000	8000	\$4,111	\$1,586	Swing Motor	5500	8500	\$414	\$2,469

Track Feller Bunchers

<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>	<u>Model Component</u>	<u>Lower</u>	<u>Upper</u>	<u>High Cost</u>	<u>Ave. Cost</u>
608/753G					850F/853G				
Engine	16000	25000	\$6,038	\$3,500	Engine	13000	20500	\$4,905	\$2,500
Hyd Pump	7500	11500	\$32,664	\$9,756	Hyd Pump	5000	7500	\$22,689	\$8,347
Swing Motor	10000	15500	\$5,000	\$3,000	Swing Motor	16000	25000	\$5,000	\$3,000
Propel Motor	3500	5000	\$10,326	\$3,234	Propel Motor	8000	12500	\$9,000	\$3,500
900F/903G					950F/953G				
Engine	13000	20500	\$4,905	\$2,500	Engine	13000	20500	\$4,905	\$2,500
Hyd Pump	3500	5000	\$30,000	\$15,000	Hyd Pump	6500	10000	\$33,444	\$14,780
Swing Motor	6500	9500	\$5,000	\$3,000	Swing Motor	5500	8500	\$4,953	\$1,820
Propel Motor	7500	11500	\$12,000	\$7,000	Propel Motor	13000	20000	\$13,224	\$6,000