Table 2 – Rotary power requirement parameters - part of the "Agricultural Machinery Management" document at http://ag.arizona.edu/crops/equipment/agmachinerymgt.html

	Parameter			Parameter			
Machine Type	a kW	b kW/m	c kWh/t	a hp	b hp/ft	c hph/ton	Range[1)] ±%
Baler, small rectangular	2.0	0	1.0[2)]	2.7	0	1.2[2)]	35
Baler, large rectangular bales	4.0	0	1.3	5.4	0	1.6	35
Baler, large round (var. chamber)	4.0	0	1.1	5.4	0	1.3	50
Baler, large round (fix. chamber)	2.5	0	1.8	3.4	0	2.2	50
Beet harvester[3)]	0	4.2	0	0	1.7	0	50
Beet topper	0	7.3	0	0	3.0	0	30
Combine, small grains	20.0	0	3.6[4)]	26.8	0	4.4[4)]	50
Combine, corn	35.0	0	1.6[4)]	46.9	0	2.0[4)]	30
Cotton picker	0	9.3	0	0	3.8	0	20
Cotton stripper	0	1.9	0	0	0.8	0	20
Feed mixer	0	0	2.3	0	0	2.8	50
Forage blower	0	0	0.9	0	0	1.1	20
Flail harvester, direct-cut	10.0	0	1.1	13.4	0	1.3	40
Forage harvester, corn silage	6.0	0	3.3[5)]	8.0	0	4.0[5)]	40
Forage harvester, wilted alfalfa	6.0	0	4.0[5)]	8.0	0	4.9[5)]	40
Forage harvester, direct-cut	6.0	0	5.7[5)]	8.0	0	6.9[5)]	40
Forage wagon	0	0	0.3	0	0	0.3	40
Grinder mixer	0	0	4.0	0	0	4.9	50
Manure spreader	0	0	0.2	0	0	0.3	50
Mower, cutterbar	0	1.2	0	0	0.5	0	25
Mower, disk	0	5.0	0	0	2.0	0	30
Mower, flail	0	10.0	0	0	4.1	0	40
Mower-conditioner, cutterbar	0	4.5	0	0	1.8	0	30
Mower-conditioner, disk	0	8.0	0	0	3.3	0	30
Potato harvester[3)]	0	10.7	0	0	4.4	0	30
Potato windrower	0	5.1	0	0	2.1	0	30
Rake, side delivery	0	0.4	0	0	0.2	0	50
Rake, rotary	0	2.0	0	0	0.8	0	50
Tedder	0	1.5	0	0	0.6	0	50
Tub grinder, straw	5.0	0	8.4	6.7	0	10.2	50
Tub grinder, alfalfa hay	5.0	0	3.8	6.7	0	4.6	50
Windrower/swather, small grain	0	1.3	0	0	0.5	0	40

[1)]Range in average power requirement due to differences in machine design, machine adjustment, and crop conditions.
[2)]Increase by 20% for straw.
[3)]Total power requirement must include a draft of 11.6 kN/m (±40%) for potato harvesters and 5.6 kN/m (±40%) for beet harvesters. A row spacing of 0.86 m for potatoes and 0.71 m for beets is assumed.
[4)]Based upon material-other-than-grain, MOG, throughput for small grains and grain throughput for corn. For a PTO driven machine, reduced parameter a by 10 kW.
[5)]Throughput is units of dry matter per hour with a 9 mm (0.35 in.) length of cut. At a specific throughput, a 50% reduction in the length of cut setting or the use of a recutter screen increases power 25%.