Changes in Small Engine Horsepower Ratings

The manufacturers of small engines have adjusted the horsepower that they state their engines make. All of the major manufacturers have now adopted using at least the SAE J1940 Standard 2012 Revision, to rate the horsepower output of their engines. The SAE International J1940 Standard was revised in October 2012 to provide a single method for determining small engine power and torque. This also allows us to accurately compare the power and torque of various engines.

The J1940 Standard utilizes SAE J1995 Standard to determine Gross horsepower and SAE J1349 to determine the net horsepower. The necessity of establishing both gross and net horsepower is due to the engine manufacturers supplying engines to various Original Equipment Manufacturers (OEMs) for end installation. It is common for the OEMs to install their own unique air intake, exhaust, and other accessories to the engine. This is combined with variety in engine speed settings and configurations have created a need for a more consistent method of testing the engine produced by the manufacturer.

The horsepower numbers for most manufacturers have changed, as they have gone to the more accurate method of rating the horsepower of their engines. The performance and output of the engines are unchanged, only the ratings have changed. Some manufacturers have introduced new model numbers, while some have only changed the labels on the engines. Due to this change in rated and stated engine horsepower, we have created this document to allow you to compare the new J1940 rating with the ratings that were previously stated by the manufacturers.

For more information regarding the changes and stated horsepower ratings, please visit the respective engine manufacturer websites.

NOTE:

Kawasaki Critical Power ratings utilize the SAE J2723 Standard for certifying output. This is the same way that automotive manufacturers certify horsepower. SAE J2723 uses either SAE J1995 Standard for gross horsepower or SAE J1349 for net horsepower. This is comparable to the other manufacturers' stated horsepower, but is more consistent and accurate in final applications.

Briggs and Stratton designates the gross output of engines it produces, whether it is by torque or horsepower, but also utilizes SAE J1940 Standard, in accordance with SAE J1995 for gross ratings.

GX Series			
Model	Previous Rating	SAE J1940 Rating	Torque
GX25	1.1	1	0.74
GX35	1.6	1.3	1.2
GXH50	2.5	2.1	2
GX100	3	2.8	4.2
GX120	4	3.5	5.4
GX160	5.5	4.8	7.6
GXV160	5.5	4.3	7.1
GX200	6.5	5.5	9.1
GX240	8	7.9	13.5
GX270	9	8.5	14.1
GX340	11	10.7	19.5
GX390	13	11.7	19.5
GXV340	11	8.9	15.9
GXV390	13	10.2	17.8
GX630	20.3	20.8	35.6
GXV630	20.3	20.8	35.6
GX660	21	21.5	35.6
GXV660	21	21.5	35.6
GX690	22.3	22.1	35.6
GXV690	22.3	22.1	35.6

GC Series			
Model	Previous Rating	SAE J1940 Rating	Torque
GC160	5	4.6	6.9
GC190	6	5.2	8.3
GCV160	5.5	4.4	6.9
GCV190	6.5	5.1	8.3

GS Series			
Model	Previous Rating	SAE J1940 Rating	Torque
GS190	6.5	5.2	8.3
GSV190	6.5	5.1	8.3

Kawasaki Engines

FR Series			
Model	Previous Rating	SAE J1940 Rating	Torque
FR541V	18	15	31.7
FR600V	20	18	32.4
FR651V	22	21.5	39.3
FR691V	24	23	39.5
FR730V	26	24	39.7

FS Series			
Model	Previous Rating	SAE J1940 Rating	Torque
FS481V	16	14.5	30.9
FS541V	18	15	31
FS600V	20	18.5	32.5
FS651V	22	22	39.4
FS691V	24	23	39.9
FS730V	26	24	40

FX Series			
Model	Previous Rating	SAE J1940 Rating	Torque
FX481V	16	15.5	31.4
FX541V	18	16.5	32.1
FX600V	20	19	32.5
FX651V	22	20.5	39
FX691V	24	22	39.4
FX730V	26	23.5	39.9
FX751V	27	24.5	44.4
FX801V	29	25.5	44.6
FX850V	31	27	44.6
FX921V	34	31	54.3
FX1000V	37	35	56
FX921V-DFI	34	35	56.4
FX1000V-DFI	37	37	55.4

FD Series			
Model	Previous Rating	SAE J1940 Rating	Torque
FD750D	27	25	41
FD791D	29	26	40.5

Command Horizontal Series			
Model	Previous Rating	SAE J1940 Rating	Torque
CH620	18	19	35
CH18/CH621	See CH620	19	32.2
CH640	20	20.5	35.7
CH20/CH641	See CH640	20.5	32.7
CH680	23	22.5	36.8
CH682	See CH680	22.5	38.9
CH730	25	23.5	38.4
CH732	See CH730	23.5	40.4
CH740	27	25	39.2
CH742	See CH740	25	41.2
CH750	30	27	41.2
CH752	See CH750	27	42.2
CH940	34	32.5	53.5
CH960	36	Discontinued	N/A
CH980	38	35	54.5
CH1000	40	37	55.3

Command Vertical Series			
Model	Previous Rating	SAE J1940 Rating	Torque
CV620	18	19	34
CV621/CV18	See CV620	19	31.4
CV640	20	20.5	34.7
CV641/CV20	See CV640	20.5	33.3
CV680/CV23	23	See CV682	35.8
CV682	See CV680	22.5	39
CV730	25	See CV732	36.9
CV732	See CV730	23.5	40.3
CV740	27	25	39.2
CV742	See CV740	25	40.8
CV750	30	27	40.3
CV752	See CV750	27	41.2
CV940	34	32.5	53.6
CV960	36	Discontinued	N/A
CV980	38	35	54.6
CV1000	40	37	56.3

Courage Single Series			
Model	Previous Rating	SAE J1940 Rating	Torque
SV470 (Discontinued)	15	See SV471	N/A
SV471	See SV470	15	27
SV480 (Discontinued)	16	N/A	N/A
SV530	17	17	31.5
SV540 (Discontinued)	18	See SV541	N/A
SV541	See SV541	18	32.1
SV590 (Discontinued)	19	See SV591	N/A
SV591	See SV590	19	33
SV600 (Discontinued)	20	See SV601	N/A
SV601	See SV600	20	34
SV610 (Discontinued)	21	N/A	N/A
SV620 (Discontinued)	22	N/A	N/A

Courage Twin Series		
Model	Previous Rating	7000 Series Equivalent
SV710 (Discontinued)	20	See KT715
SV715 (Discontinued)	22	See KT725
SV720 (Discontinued)	23	See KT730
SV725 (Discontinued)	24	See KT735
SV730 (Discontinued)	25	See KT740
SV735 (Discontinued)	26	See KT745
SV740 (Discontinued)	27	N/A
SV810 (Discontinued)	20	See KT715
SV820 (Discontinued)	23	See KT730
SV830 (Discontinued)	25	See KT740
SV840 (Discontinued)	27	N/A

7000 Series		
Model	SAE J1940 Rating	Torque
KT715	20	40.3
KT725	22	40.4
KT730	23	40.5
KT735	24	40.5
KT740	25	41.3
KT745	26	42.4

Kohler Engines

Confidant Series		
Model	SAE J1940 Rating	Torque
ZT710	19	40
ZT720	21	40.7
ZT730	23	42.1
ZT740	25	42.4

Aegis Liquid Cooled Series			
Model	Previous Rating	SAE J1940 Rating	Torque
LH640	24	Discontinued	N/A
LH690	26	24	42.9
LH755	28	Discontinued	N/A
LH775	31	30	44.6

Disclosure

All statements contained herein are made in good-faith, and are made independently of any entity other than Small Engine Warehouse. Every effort was made to ensure the accuracy of the statements contained within this document. This document is intended to be used by customers of Small Engine Warehouse to understand the changes in engine labeling and ratings.

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